

GX-Force Unit Test Specification

Document No.GX-Force_SW005

Approval	Review	Preparation
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Date 2021/7/30	Date 2021/7/30	Date 2021/6/4

No.	Date	Version	Revised content	Remarks
Ex.	20XX/XX/X	RevX.X	Create New	
1	2021/6/4	Rev1.0	Create New	
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Unit Test Specification

Test details and method

- Perform white-box testing of program unit.
- Implementation: Use the C++ test development support tool.
- Desired coverage: C1 Level *Branch coverage: Execute all branches in the code at least once.
- Schedule: 2021/6/7 to 2021/7/7

Modules targeted for unit test

File name	Function name	Last updated unit version	Owner	Last test date	Test owner	Judgment date	Judgment owner	Result	Remarks
ad_24bit.c	Ad24bit_Ad_Ave_Op	req[13-6-2-6]	Ikarashi		Taki		Ikarashi		
ad_24bit.c	Ad24bit_bit24AD_Conversion	req[13-6-2-7]	Ikarashi		Taki		Ikarashi		
ad_24bit.c	Ad24bit_Get_NC_Count	req[13-6-1-4]	Ikarashi		Taki		Ikarashi		
ad_24bit.c	Ad24bit_Int_Ad_Start	req[13-6-1-5]	Ikarashi		Taki		Ikarashi		
ad_24bit.c	Ad24bit_Int_AdC	req[13-6-2-8]	Ikarashi		Taki		Ikarashi		
ad_24bit.c	Ad24bit_Nc_Ad_CalcAverage	req[13-6-2-14]	Ikarashi		Taki		Ikarashi		
ad_24bit.c	Ad24bit_Set_AD	req[13-6-2-9]	Ikarashi		Taki		Ikarashi		
ad_24bit.c	Ad24bit_Set_InitRAM	req[13-6-1-8]	Ikarashi		Taki		Ikarashi		
ad_24bit.c	m_bit24AD_Acquisition	req[13-6-2-10]	Ikarashi		Taki		Ikarashi		
ad_24bit.c	m_bit24AD_Channel_Check	req[13-6-2-11]	Ikarashi		Taki		Ikarashi		
ad_24bit.c	m_bit24AD_Chk_ChangePGA	req[13-6-1-6]	Ikarashi		Taki		Ikarashi		
ad_24bit.c	m_bit24AD_Chk_minus	req[13-6-2-12]	Ikarashi		Taki		Ikarashi		
ad_24bit.c	m_bit24AD_Set_PGAREgister	req[13-6-1-7]	Ikarashi		Taki		Ikarashi		
ad_24bit.c	m_bit24AD_To_buffer	req[13-6-2-13]	Ikarashi		Taki		Ikarashi		
ec_sensor.c	ECSENSOR_Calc_AD_Main	req[3-2-6-7]	Ikarashi		Taki		Ikarashi		
ec_sensor.c	ECSENSOR_Fixed_PGA1_Flg	req[3-2-6-11]	Ikarashi		Taki		Ikarashi		
ec_sensor.c	ECSENSOR_Get_Chk_Status	req[3-2-6-1]	Ikarashi		Taki		Ikarashi		
ec_sensor.c	ECSENSOR_Get_Difference_AD	req[3-2-6-2]	Ikarashi		Taki		Ikarashi		
ec_sensor.c	ECSENSOR_Interval_Connect_Chk	req[3-2-6-3]	Ikarashi		Taki		Ikarashi		
ec_sensor.c	ECSENSOR_Not_Use_Flg	req[3-2-6-4]	Ikarashi		Taki		Ikarashi		
ec_sensor.c	ECSENSOR_Set_AD_Connect_Chk	req[3-2-6-5]	Ikarashi		Taki		Ikarashi		
ec_sensor.c	ECSENSOR_Set_InitRAM	req[3-2-6-10]	Ikarashi		Taki		Ikarashi		
ec_sensor.c	ECSENSOR_Start_ConnectChk	req[3-2-6-6]	Ikarashi		Taki		Ikarashi		
ec_sensor.c	m_Set_AD_Buf_Clr	req[3-2-6-8]	Ikarashi		Taki		Ikarashi		
ec_sensor.c	m_Set_EcChk_Port	req[3-2-6-9]	Ikarashi		Taki		Ikarashi		
interval_timer.c	IntervalTimer_Flag_Acquisition_250msec	req[13-4-1-2]	Ikarashi		Taki		Ikarashi		
interval_timer.c	IntervalTimer_Flag_Set_250msec	req[13-4-1-3]	Ikarashi		Taki		Ikarashi		
interval_timer.c	IntervalTimer_Int_Timer_Op	req[13-4-1-4]	Ikarashi		Taki		Ikarashi		
interval_timer.c	IntervalTimer_Set_InitRAM	req[13-4-1-5]	Ikarashi		Taki		Ikarashi		
lvd.c	LVD_Cyclic_250msecProcess_isFault	req[13-13-1-10]	Ikarashi		Taki		Ikarashi		
lvd.c	LVD_Set_InitRAM	req[13-13-1-9]	Ikarashi		Taki		Ikarashi		
main.c (SENSOR)	Main_250msecCyclic_24hCheckCount	req[13-3-2-7]	Ikarashi		Taki		Ikarashi		
main.c (SENSOR)	Main_Get_FailStatus	req[3-2-4-4]	Ikarashi		Taki		Ikarashi		
main.c (SENSOR)	Main_Get_Gas_Setting	req[5-8-2-2]	Ikarashi		Taki		Ikarashi		
main.c (SENSOR)	Main_Process	req[13-4-2-9]	Ikarashi		Taki		Ikarashi		
main.c (SENSOR)	Main_Set_Gas_Setting	req[5-8-2-3]	Ikarashi		Taki		Ikarashi		
nc_sensor.c	M_Set_Element_Port	req[1-1-7-1]	Ikarashi		Taki		Ikarashi		
nc_sensor.c	NcSensor_Element_Count	req[1-1-6-1]	Ikarashi		Taki		Ikarashi		
nc_sensor.c	NcSensor_Get_Long_Energy	req[11-2-2-5]	Ikarashi		Taki		Ikarashi		
nc_sensor.c	NcSensor_Get_Protection	req[1-1-6-2]	Ikarashi		Taki		Ikarashi		
nc_sensor.c	NcSensor_Reading_Element_Flg	req[1-1-6-3]	Ikarashi		Taki		Ikarashi		
nc_sensor.c	NcSensor_Set_InitRAM	req[13-11-1-1]	Ikarashi		Taki		Ikarashi		
nc_sensor.c	NcSensor_Set_Long_Energy	req[11-2-2-6]	Ikarashi		Taki		Ikarashi		
nc_sensor.c	NcSensor_Set_Protection	req[1-1-6-4]	Ikarashi		Taki		Ikarashi		
nc_sensor.c	m_Set_NcProtectionFlg	req[1-1-7-2]	Ikarashi		Taki		Ikarashi		
nc_sensor.c	NcSensor_Set_ProtectionPermissionFlg	req[1-1-6-5]	Ikarashi		Taki		Ikarashi		
nc_sensor.c	NcSensor_Set_Warmup	req[1-1-1-9]	Ikarashi		Taki		Ikarashi		
ram_chk.c	f_Check_CopyRam	req[13-3-2-13]	Ikarashi		Taki		Ikarashi		
ram_chk.c	f_Check_MainRam	req[13-3-2-15]	Ikarashi		Taki		Ikarashi		
ram_chk.c	f_Cyclic_CheckProcess	req[13-3-2-10]	Ikarashi		Taki		Ikarashi		
ram_chk.c	f_Cyclic_CheckProcessMainPhase	req[13-3-2-12]	Ikarashi		Taki		Ikarashi		
ram_chk.c	f_Cyclic_CheckProcessSubPhase	req[13-3-2-11]	Ikarashi		Taki		Ikarashi		
ram_chk.c	f_Init_MainRam	req[13-3-2-14]	Ikarashi		Taki		Ikarashi		
ram_chk.c	FuncRamChk_Cyclic_250msecProcess	req[13-3-2-9]	Ikarashi		Taki		Ikarashi		
ram_chk.c	FuncRamChk_Start_Check	req[13-3-2-8]	Ikarashi		Taki		Ikarashi		
ram_chk.c	FuncRamChk_Start_InitRamChk	req[3-2-1-26]	Ikarashi		Taki		Ikarashi		
rom_chk.c	m_rom_sum_calc	req[3-2-1-27]	Ikarashi		Taki		Ikarashi		
rom_chk.c	ROMCHK_Get_SUM_NUM	req[3-2-1-28]	Ikarashi		Taki		Ikarashi		
rom_chk.c	ROMCHK_Get_SUMChkflg	req[3-2-1-29]	Ikarashi		Taki		Ikarashi		
rom_chk.c	ROMCHK_Process	req[3-2-1-30]	Ikarashi		Taki		Ikarashi		
rom_chk.c	ROMCHK_Set_SUMChkflg_Start	req[3-2-1-31]	Ikarashi		Taki		Ikarashi		
tool.c (SENSOR)	Tool_Asc_Hex	req[13-11-1-19]	Ikarashi		Taki		Ikarashi		
tool.c (SENSOR)	Tool_Bin_Asc	req[13-11-1-20]	Ikarashi		Taki		Ikarashi		
tool.c (SENSOR)	Tool_Comp_Pnt	req[13-11-1-21]	Ikarashi		Taki		Ikarashi		
tool.c (SENSOR)	Tool_Copy_Pnt	req[13-11-1-22]	Ikarashi		Taki		Ikarashi		
tool.c (SENSOR)	Tool_Hex_Asc	req[13-11-1-27]	Ikarashi		Taki		Ikarashi		
uart_sau_command.c	m_SAU_Code_DU	req[13-7-3-27]	Ikarashi		Taki		Ikarashi		
uart_sau_command.c	m_SAU_Code_DUR	req[13-7-2-35]	Ikarashi		Taki		Ikarashi		
uart_sau_command.c	m_SAU_Code_DUW	req[13-7-2-36]	Ikarashi		Taki		Ikarashi		
uart_sau_command.c	m_SAU_Code_HA	req[13-7-3-28]	Ikarashi		Taki		Ikarashi		
uart_sau_command.c	m_SAU_Code_HAR	req[13-7-2-37]	Ikarashi		Taki		Ikarashi		
uart_sau_command.c	m_SAU_Code_HAW	req[13-7-2-38]	Ikarashi		Taki		Ikarashi		
uart_sau_command.c	m_SAU_Code_RC	req[13-7-3-29]	Ikarashi		Taki		Ikarashi		
uart_sau_command.c	m_SAU_Code_RCR	req[13-7-2-39]	Ikarashi		Taki		Ikarashi		
uart_sau_command.c	m_SAU_Code_VP	req[13-7-3-30]	Ikarashi		Taki		Ikarashi		

uart_sau_command.c	m_SAU_Code_VPR	req[13-7-2-40]	Ikarashi		Taki		Ikarashi		
uart_sau_command.c	m_SAU_Code_VS	req[13-7-3-31]	Ikarashi		Taki		Ikarashi		
uart_sau_command.c	m_SAU_Code_VSC	req[13-7-2-41]	Ikarashi		Taki		Ikarashi		
uart_sau_command.c	m_SAU_Code_VSR	req[13-7-2-42]	Ikarashi		Taki		Ikarashi		
uart_sau_command.c	m_SAU_Code_VSW	req[13-7-2-43]	Ikarashi		Taki		Ikarashi		
uart_sau_command.c	UartSAUCommand_Command_Op	req[13-7-2-44]	Ikarashi		Taki		Ikarashi		
uart_sau_command.c	UartSAUCommand_Get_Cmd_NUM	req[13-7-2-45]	Ikarashi		Taki		Ikarashi		
uart_sau_command.c	UartSAUCommand_Get_Cmdnd_Data	req[13-7-2-46]	Ikarashi		Taki		Ikarashi		
uart_sau_command.c	UartSAUCommand_Get_Cmdnd_Pointer	req[13-7-2-47]	Ikarashi		Taki		Ikarashi		
uart_sau_main.c	m_Comand_Chk	req[13-7-3-32]	Ikarashi		Taki		Ikarashi		
uart_sau_main.c	m_Comu_Op_Sub	req[13-7-2-48]	Ikarashi		Taki		Ikarashi		
uart_sau_main.c	m_Rxd_Sum_Chk	req[13-7-3-37]	Ikarashi		Taki		Ikarashi		
uart_sau_main.c	m_Txd_Busy	req[13-7-2-49]	Ikarashi		Taki		Ikarashi		
uart_sau_main.c	m_Txd_Start	req[13-7-2-50]	Ikarashi		Taki		Ikarashi		
uart_sau_main.c	m_Txd_Sum_Calc	req[13-7-2-51]	Ikarashi		Taki		Ikarashi		
uart_sau_main.c	UARTSAUMAIN_Comu_Op	req[13-7-3-33]	Ikarashi		Taki		Ikarashi		
uart_sau_main.c	UartSAUMain_Err_Op	req[13-7-2-52]	Ikarashi		Taki		Ikarashi		
uart_sau_main.c	UARTSAUMAIN_Get_Rxd_Data	req[13-7-3-34]	Ikarashi		Taki		Ikarashi		
uart_sau_main.c	UartSAUMain_Head_Set	req[13-7-2-53]	Ikarashi		Taki		Ikarashi		
uart_sau_main.c	UartSAUMain_Rxd_Buf_Pointre	req[13-7-3-35]	Ikarashi		Taki		Ikarashi		
uart_sau_main.c	UARTSAUMAIN_Set_initRAM	req[13-11-1-35]	Ikarashi		Taki		Ikarashi		
uart_sau_main.c	UARTSAUMAIN_Set_Rxd_Next_Buf	req[13-7-3-36]	Ikarashi		Taki		Ikarashi		
uart_sau_main.c	UartSAUMain_tx_nbyte	req[13-7-2-54]	Ikarashi		Taki		Ikarashi		
uart_sau_main.c	UartSAUMain_Txd_Buf_Pointre	req[13-7-2-55]	Ikarashi		Taki		Ikarashi		
r_cg_camp.c	R_CAMP0_Start	req[13-6-1-20]	Ikarashi		Taki		Ikarashi		
r_cg_camp.c	R_CAMP1_Start	req[13-6-1-21]	Ikarashi		Taki		Ikarashi		
r_cg_camp.c	R_CAMP_Create	req[13-6-1-19]	Ikarashi		Taki		Ikarashi		
r_cg_cgc.c	R_CGC_Create	req[13-12-1-2]	Ikarashi		Taki		Ikarashi		
r_cg_cgc_user.c	R_CGC_Get_ResetSource	req[13-12-1-3]	Ikarashi		Taki		Ikarashi		
r_cg_it.c	R_IT_Create	req[13-4-1-24]	Ikarashi		Taki		Ikarashi		
r_cg_it.c	R_IT_Start	req[13-4-1-25]	Ikarashi		Taki		Ikarashi		
r_cg_it.c	R_IT_Stop	req[13-4-1-26]	Ikarashi		Taki		Ikarashi		
r_cg_it_user.c	r_it_interrupt	req[13-4-1-27]	Ikarashi		Taki		Ikarashi		
r_cg_iv.c	R_LVI_Create	req[13-13-1-7]	Ikarashi		Taki		Ikarashi		
r_cg_iv_user.c	r_iv_interrupt	req[13-13-1-8]	Ikarashi		Taki		Ikarashi		
r_cg_main.c	main(SENSOR)	req[1-3-12-1-7]	Ikarashi		Taki		Ikarashi		
r_cg_main.c	R_MAIN_UserInit	req[1-3-12-1-9]	Ikarashi		Taki		Ikarashi		
r_cg_pga_dsad.c	R_PGA_DSAD_CAMP_OffsetTrimming	req[13-6-1-9]	Ikarashi		Taki		Ikarashi		
r_cg_pga_dsad.c	R_PGA_DSAD_Create	req[13-6-1-10]	Ikarashi		Taki		Ikarashi		
r_cg_pga_dsad.c	R_PGA_DSAD_Get_AverageResult	req[13-6-1-11]	Ikarashi		Taki		Ikarashi		
r_cg_pga_dsad.c	R_PGA_DSAD_Get_Result	req[13-6-1-12]	Ikarashi		Taki		Ikarashi		
r_cg_pga_dsad.c	R_PGA_DSAD_Start	req[13-6-1-13]	Ikarashi		Taki		Ikarashi		
r_cg_pga_dsad.c	R_PGA_DSAD_Stop	req[13-6-1-14]	Ikarashi		Taki		Ikarashi		
r_cg_pga_dsad_user.c	r_pga_dsad_interrupt_conversion	req[13-6-1-15]	Ikarashi		Taki		Ikarashi		
r_cg_port.c	R_PORT_Create	req[13-1-1-3]	Ikarashi		Taki		Ikarashi		
r_cg_sau.c	R_SAU0_Create	req[13-7-1-1]	Ikarashi		Taki		Ikarashi		
r_cg_sau.c	R_UART0_Create	req[13-7-1-2]	Ikarashi		Taki		Ikarashi		
r_cg_sau.c	R_UART0_Receive	req[13-7-3-1]	Ikarashi		Taki		Ikarashi		
r_cg_sau.c	R_UART0_Send	req[13-7-2-1]	Ikarashi		Taki		Ikarashi		
r_cg_sau.c	R_UART0_Start	req[13-7-1-3]	Ikarashi		Taki		Ikarashi		
r_cg_sau.c	R_UART0_Stop	req[13-7-1-4]	Ikarashi		Taki		Ikarashi		
r_cg_sau_user.c	r_uart0_callback_error	req[13-7-2-2]	Ikarashi		Taki		Ikarashi		
r_cg_sau_user.c	r_uart0_callback_receiveend	req[13-7-3-2]	Ikarashi		Taki		Ikarashi		
r_cg_sau_user.c	r_uart0_callback_sendend	req[13-7-2-3]	Ikarashi		Taki		Ikarashi		
r_cg_sau_user.c	r_uart0_interrupt_error	req[13-7-2-4]	Ikarashi		Taki		Ikarashi		
r_cg_sau_user.c	r_uart0_interrupt_receive	req[13-7-3-4]	Ikarashi		Taki		Ikarashi		
r_cg_sau_user.c	r_uart0_interrupt_send	req[13-7-2-5]	Ikarashi		Taki		Ikarashi		
r_cg_sau_user.c	r_uart0_callback_softwareoverrun	req[13-7-3-3]	Ikarashi		Taki		Ikarashi		
r_cg_systeminit.c	hwinit	req[13-12-1-11]	Ikarashi		Taki		Ikarashi		
r_cg_systeminit.c	R_Systeminit	req[13-12-1-12]	Ikarashi		Taki		Ikarashi		
r_cg_wdt.c	R_WDT_Create	req[13-10-1-1]	Ikarashi		Taki		Ikarashi		
r_cg_wdt.c	R_WDT_Restart	req[13-10-2-1]	Ikarashi		Taki		Ikarashi		
r_cg_wdt_user.c	r_wdt_interrupt	req[13-10-1-2]	Ikarashi		Taki		Ikarashi		
ad_12bit.c	Ad12BIT_Init_Setting	req[13-6-1-1]	Ikarashi		Taki		Ikarashi		
ad_12bit.c	Ad12bit_Ad_Ave_Op	req[13-6-2-1]	Ikarashi		Taki		Ikarashi		
ad_12bit.c	Ad12bit_Calc_Voltage	req[13-6-2-3]	Ikarashi		Taki		Ikarashi		
ad_12bit.c	Ad12bit_Check_InitialProcessFlag	req[13-6-2-4]	Ikarashi		Taki		Ikarashi		
ad_12bit.c	Ad12bit_Get_Ad_Data	req[13-6-2-2]	Ikarashi		Taki		Ikarashi		
ad_12bit.c	Ad12bit_Int_Ad_Start	req[13-6-1-2]	Ikarashi		Taki		Ikarashi		
ad_12bit.c	Ad12bit_Int_Adc	req[13-6-1-3]	Ikarashi		Taki		Ikarashi		
ad_12bit.c	m_bit12AD_To_Average_Buffer	req[13-6-2-5]	Ikarashi		Taki		Ikarashi		
alarm_event.c	AlarmEvent_Judg_AlarmEvent	req[2-1-5-2]	Ikarashi		Taki		Ikarashi		
alarm_event.c	AlarmEvent_Set_AlarmReset	req[2-1-4-2]	Ikarashi		Taki		Ikarashi		
alarm_event.c	AlarmEvent_Set_InitAlarmFlg	req[2-1-4-1]	Ikarashi		Taki		Ikarashi		
alarm_event.c	m_Check_GasAlarm	req[2-1-5-3]	Ikarashi		Taki		Ikarashi		
alarm_event.c	m_Set_GasAlarmFlg	req[2-1-5-4]	Ikarashi		Taki		Ikarashi		
Battery.c	Battery_Chk_Battery	req[10-4-3-1]	Ikarashi		Taki		Ikarashi		
Battery.c	Battery_Get_BatteryAD	req[10-4-1-1]	Ikarashi		Taki		Ikarashi		
Battery.c	Battery_Get_ComBatteryAD	req[10-4-1-2]	Ikarashi		Taki		Ikarashi		
Battery.c	Battery_Get_ComBatteryIcOnAD	req[10-4-3-2]	Ikarashi		Taki		Ikarashi		
Battery.c	Battery_Get_PowerOffFlg	req[6-11-2-1]	Ikarashi		Taki		Ikarashi		
Battery.c	Battery_Set_BatteryMark	req[10-4-4-1]	Ikarashi		Taki		Ikarashi		
Battery.c	f_Check_LowTempMoveFlag	req[10-4-3-3]	Ikarashi		Taki		Ikarashi		
Battery.c	m_Calc_BatteryAD	req[10-4-1-3]	Ikarashi		Taki		Ikarashi		

buzzer.c	BUZZER_Chk_TestFlg	req[4-2-1-1]	Ikarashi		Taki		Ikarashi		
buzzer.c	BUZZER_Get_BuzzerOnOff	req[14-8-1-1]	Ikarashi		Taki		Ikarashi		
buzzer.c	BUZZER_Get_MotorOnOff	req[14-9-1-1]	Ikarashi		Taki		Ikarashi		
buzzer.c	BUZZER_Hz_Set_Op	req[14-8-3-1]	Ikarashi		Taki		Ikarashi		
buzzer.c	BUZZER_Init_Set	req[14-8-1-2]	Ikarashi		Taki		Ikarashi		
buzzer.c	BUZZER_Interrupt_A_CompareMatch	req[13-5-1-1]	Ikarashi		Taki		Ikarashi		
buzzer.c	BUZZER_Main_Loop_Op	req[14-8-3-2]	Ikarashi		Taki		Ikarashi		
buzzer.c	BUZZER_Set_AlarmSilence	req[2-6-1-1]	Ikarashi		Taki		Ikarashi		
buzzer.c	BUZZER_Set_Boot_Flg	req[14-8-3-3]	Ikarashi		Taki		Ikarashi		
buzzer.c	BUZZER_Set_FailBuzzer	req[3-1-5-1]	Ikarashi		Taki		Ikarashi		
buzzer.c	BUZZER_Set_PowerOFF	req[14-8-1-3]	Ikarashi		Taki		Ikarashi		
buzzer.c	BUZZER_Set_TestBuzzer	req[4-2-1-2]	Ikarashi		Taki		Ikarashi		
buzzer.c	BUZZER_Short_Command	req[14-8-3-4]	Ikarashi		Taki		Ikarashi		
buzzer.c	BUZZER_Test_Command	req[4-2-1-3]	Ikarashi		Taki		Ikarashi		
buzzer.c	f_Cyclic_250msecProcess	req[14-8-5-1]	Ikarashi		Taki		Ikarashi		
buzzer.c	m_Check_AlarmCondition	req[2-1-5-1]	Ikarashi		Taki		Ikarashi		
buzzer.c	m_Io_Buzzer_Set	req[14-8-1-5]	Ikarashi		Taki		Ikarashi		
buzzer.c	m_Io_Led_Set	req[14-6-1-1]	Ikarashi		Taki		Ikarashi		
buzzer.c	m_Io_Vibration_Set	req[14-9-1-2]	Ikarashi		Taki		Ikarashi		
buzzer.c	m_cyc_exec	req[14-8-3-5]	Ikarashi		Taki		Ikarashi		
buzzer.c	m_get_param	req[14-8-3-6]	Ikarashi		Taki		Ikarashi		
buzzer.c	m_init_get_param	req[14-8-1-4]	Ikarashi		Taki		Ikarashi		
buzzer.c	m_judge_request	req[14-8-3-7]	Ikarashi		Taki		Ikarashi		
ComCommand.c	ComCommand_Init_Process	req[7-1-1-1]	Ikarashi		Taki		Ikarashi		
ComCommand.c	ComCommand_Check_UsbComNonPartner	req[7-1-1-6]	Ikarashi		Taki		Ikarashi		
ComCommand.c	ComCommand_Chk_ReceiveSumFault	req[7-1-1-7]	Ikarashi		Taki		Ikarashi		
ComCommand.c	ComCommand_Error_ReceiveData	req[7-1-1-6]	Ikarashi		Taki		Ikarashi		
ComCommand.c	ComCommand_Get_DeviceStatus	req[7-1-1-10]	Ikarashi		Taki		Ikarashi		
ComCommand.c	ComCommand_Get_DeviceTransmitEnable	req[7-1-1-11]	Ikarashi		Taki		Ikarashi		
ComCommand.c	ComCommand_Get_ReceiveData	req[7-1-1-5]	Ikarashi		Taki		Ikarashi		
ComCommand.c	ComCommand_Get_UsbComPartner	req[7-1-1-8]	Ikarashi		Taki		Ikarashi		
ComCommand.c	ComCommand_Process_AnalysisData	req[7-1-1-4]	Ikarashi		Taki		Ikarashi		
ComCommand.c	ComCommand_Start_Device	req[7-1-1-2]	Ikarashi		Taki		Ikarashi		
ComCommand.c	ComCommand_Stop_Device	req[7-1-1-3]	Ikarashi		Taki		Ikarashi		
ComCommand.c	f_Set_SendData	req[7-1-1-12]	Ikarashi		Taki		Ikarashi		
ComCommand.c	f_Sum_Calc	req[7-1-1-13]	Ikarashi		Taki		Ikarashi		
DA12bit.c	DA12bit_Init_Setting	req[13-14-1-5]	Ikarashi		Taki		Ikarashi		
DA12bit.c	DA12bit_Set_OutputNum	req[13-14-1-6]	Ikarashi		Taki		Ikarashi		
DA12bit.c	DA12bit_Start_Output	req[13-14-1-6]	Ikarashi		Taki		Ikarashi		
DA12bit.c	DA12bit_Stop_Output	req[13-14-1-7]	Ikarashi		Taki		Ikarashi		
DA12bit.c	f_Calc_RegisterNum	req[13-14-1-9]	Ikarashi		Taki		Ikarashi		
DA12bitSelfCheck.c	DA12bitSelfCheck_Init_Setting	req[13-14-1-10]	Ikarashi		Taki		Ikarashi		
DA12bitSelfCheck.c	DA12bitSelfCheck_Set_CheckStart	req[13-14-1-11]	Ikarashi		Taki		Ikarashi		
DA12bitSelfCheck.c	DA12bitSelfCheck_Set_CheckWaitTimer	req[13-14-1-12]	Ikarashi		Taki		Ikarashi		
data_flash.c	DataFlash_flash_write	req[14-2-2-1]	Ikarashi		Taki		Ikarashi		
data_flash.c	Flash_10msec_interrupt	req[14-2-1-1]	Ikarashi		Taki		Ikarashi		
data_flash.c	flash_Block_Erase	req[14-2-2-2]	Ikarashi		Taki		Ikarashi		
data_flash.c	flash_read	req[14-2-1-2]	Ikarashi		Taki		Ikarashi		
data_flash.c	flash_status_read	req[14-2-1-3]	Ikarashi		Taki		Ikarashi		
data_flash.c	m_Chg_Address_LNG_CHR	req[14-2-2-3]	Ikarashi		Taki		Ikarashi		
data_flash.c	m_flash_write_enable	req[14-2-2-4]	Ikarashi		Taki		Ikarashi		
data_fram.c	DataFram_AlarmReset_Load	req[11-9-1-2]	Ikarashi		Taki		Ikarashi		
data_fram.c	DataFram_AlarmReset_Write	req[11-9-2-3]	Ikarashi		Taki		Ikarashi		
data_fram.c	DataFram_FRAM_Diag	req[14-1-3-1]	Ikarashi		Taki		Ikarashi		
data_fram.c	DataFram_FRAM_Factory_load	req[6-10-2-1]	Ikarashi		Taki		Ikarashi		
data_fram.c	DataFram_Get_AlarmResetAddress	req[14-1-1-1]	Ikarashi		Taki		Ikarashi		
data_fram.c	DataFram_Get_ChkDataAddress	req[14-1-1-2]	Ikarashi		Taki		Ikarashi		
data_fram.c	DataFram_Get_DataLoggerAddress	req[14-1-1-8]	Ikarashi		Taki		Ikarashi		
data_fram.c	DataFram_Get_Dumplload	req[14-1-1-3]	Ikarashi		Taki		Ikarashi		
data_fram.c	DataFram_Get_FramDataAddress	req[14-1-1-4]	Ikarashi		Taki		Ikarashi		
data_fram.c	DataFram_Get_LunchBreakAddress	req[14-1-1-5]	Ikarashi		Taki		Ikarashi		
data_fram.c	DataFram_Get_StIDAddress	req[14-1-1-6]	Ikarashi		Taki		Ikarashi		
data_fram.c	DataFram_Get_UserIDAddress	req[14-1-1-7]	Ikarashi		Taki		Ikarashi		
data_fram.c	DataFram_LunchBreak_Load	req[6-4-4-1]	Ikarashi		Taki		Ikarashi		
data_fram.c	DataFram_LunchBreak_Write	req[6-4-2-2]	Ikarashi		Taki		Ikarashi		
data_fram.c	DataFram_write_factory_fram	req[6-10-1-1]	Ikarashi		Taki		Ikarashi		
data_fram.c	FRAM_Get_DefaultAnsFlg	req[6-6-1-1]	Ikarashi		Taki		Ikarashi		
data_fram.c	FRAM_Get_DefaultEndFlg	req[6-6-1-2]	Ikarashi		Taki		Ikarashi		
data_fram.c	FRAM_Get_flg	req[14-1-2-1]	Ikarashi		Taki		Ikarashi		
data_fram.c	FRAM_ID_load	req[14-1-1-9]	Ikarashi		Taki		Ikarashi		
data_fram.c	FRAM_id_write_op	req[14-1-2-2]	Ikarashi		Taki		Ikarashi		
data_fram.c	FRAM_Init_DataAddress	req[14-1-1-10]	Ikarashi		Taki		Ikarashi		
data_fram.c	FRAM_load	req[14-1-2-3]	Ikarashi		Taki		Ikarashi		
data_fram.c	FRAM_Set_ChkData_Default	req[6-6-1-3]	Ikarashi		Taki		Ikarashi		
data_fram.c	FRAM_Set_Default	req[6-6-1-4]	Ikarashi		Taki		Ikarashi		
data_fram.c	FRAM_Set_DefaultStartFlg	req[6-6-1-5]	Ikarashi		Taki		Ikarashi		
data_fram.c	FRAM_Set_FailFlg	req[3-2-1-1]	Ikarashi		Taki		Ikarashi		
data_fram.c	FRAM_Set_flg	req[14-1-2-4]	Ikarashi		Taki		Ikarashi		
data_fram.c	FRAM_Set_ID_Default	req[6-6-2-1]	Ikarashi		Taki		Ikarashi		
data_fram.c	FRAM_Set_MainDefault	req[6-6-1-6]	Ikarashi		Taki		Ikarashi		
data_fram.c	FRAM_write_op	req[14-2-2-5]	Ikarashi		Taki		Ikarashi		
data_fram.c	m_fram_alarm_reset_sum_calc	req[11-9-2-1]	Ikarashi		Taki		Ikarashi		
data_fram.c	m_FRAM_AlarmReset_Save	req[11-9-2-2]	Ikarashi		Taki		Ikarashi		
data_fram.c	m_FRAM_AlarmReset_Side_Load	req[11-9-1-1]	Ikarashi		Taki		Ikarashi		
data_fram.c	m_fram_factory_save	req[14-1-2-5]	Ikarashi		Taki		Ikarashi		

data_fram.c	m_FRAM_Factory_Side_Load	req[14-1-1-11]	Ikarashi	Taki	Ikarashi
data_fram.c	m_fram_factory_sum_calc	req[14-1-3-2]	Ikarashi	Taki	Ikarashi
data_fram.c	m_fram_id_save	req[14-1-2-6]	Ikarashi	Taki	Ikarashi
data_fram.c	m_fram_id_save_all	req[14-1-2-7]	Ikarashi	Taki	Ikarashi
data_fram.c	m_FRAM_LunchBreak_Save	req[6-4-2-1]	Ikarashi	Taki	Ikarashi
data_fram.c	m_FRAM_LunchBreak_Side_Load	req[14-1-1-12]	Ikarashi	Taki	Ikarashi
data_fram.c	m_fram_lunchbreak_sum_calc	req[14-1-3-3]	Ikarashi	Taki	Ikarashi
data_fram.c	m_fram_read	req[14-1-1-13]	Ikarashi	Taki	Ikarashi
data_fram.c	m_fram_save	req[14-1-2-8]	Ikarashi	Taki	Ikarashi
data_fram.c	m_FRAM_Side_Load	req[14-1-2-9]	Ikarashi	Taki	Ikarashi
data_fram.c	m_fram_sum_calc	req[14-1-3-4]	Ikarashi	Taki	Ikarashi
data_fram.c	m_fram_write	req[14-1-2-10]	Ikarashi	Taki	Ikarashi
data_fram.c	m_write_and_check_fram	req[14-1-2-11]	Ikarashi	Taki	Ikarashi
data_fram.c	m_write_id_data_fram	req[14-1-2-12]	Ikarashi	Taki	Ikarashi
data_fram.c	m_write_setting_fram	req[14-1-2-13]	Ikarashi	Taki	Ikarashi
data_fram_factory.c	DataFramFactory_Alarmpoint_load	req[6-10-2-2]	Ikarashi	Taki	Ikarashi
data_fram_factory.c	DataFramFactory_All_load	req[6-10-2-3]	Ikarashi	Taki	Ikarashi
data_fram_factory.c	DataFramFactory_Chk_AlarmReset_load	req[6-10-2-4]	Ikarashi	Taki	Ikarashi
data_fram_factory.c	DataFramFactory_Chk_AlarmResetOnOffFlg	req[11-9-1-3]	Ikarashi	Taki	Ikarashi
data_fram_factory.c	DataFramFactory_write_op	req[6-10-1-2]	Ikarashi	Taki	Ikarashi
data_logger.c	DataLogger_air_adjustment	req[5-1-1-1]	Ikarashi	Taki	Ikarashi
data_logger.c	DataLogger_bump	req[8-1-6-1]	Ikarashi	Taki	Ikarashi
data_logger.c	DataLogger_calibration	req[8-1-6-2]	Ikarashi	Taki	Ikarashi
data_logger.c	DataLogger_clear	req[8-2-2-1]	Ikarashi	Taki	Ikarashi
data_logger.c	DataLogger_clearPower	req[8-2-1-1]	Ikarashi	Taki	Ikarashi
data_logger.c	DataLogger_confirm	req[8-1-2-6]	Ikarashi	Taki	Ikarashi
data_logger.c	DataLogger_default	req[6-6-2-2]	Ikarashi	Taki	Ikarashi
data_logger.c	DataLogger_init_EepAddress	req[8-2-1-2]	Ikarashi	Taki	Ikarashi
data_logger.c	DataLogger_peak_clear	req[1-8-1-1]	Ikarashi	Taki	Ikarashi
data_logger.c	DataLogger_power_off	req[8-1-1-1]	Ikarashi	Taki	Ikarashi
data_logger.c	DataLogger_power_on	req[8-1-1-2]	Ikarashi	Taki	Ikarashi
data_logger.c	DataLogger_Set_Default	req[8-1-1-3]	Ikarashi	Taki	Ikarashi
data_logger.c	DataLogger_setting_check	req[8-1-7-1]	Ikarashi	Taki	Ikarashi
data_logger.c	DataLogger_snap	req[8-1-8-13]	Ikarashi	Taki	Ikarashi
data_logger.c	DataLogger_snap_end_data	req[8-1-8-15]	Ikarashi	Taki	Ikarashi
data_logger.c	DataLogger_snap_read	req[8-1-8-14]	Ikarashi	Taki	Ikarashi
data_logger.c	DataLogger_start	req[8-1-2-7]	Ikarashi	Taki	Ikarashi
data_logger.c	DataLogger_stop	req[8-1-2-8]	Ikarashi	Taki	Ikarashi
data_logger.c	DataLogger_write_test	req[8-1-9-1]	Ikarashi	Taki	Ikarashi
data_logger.c	m_comp_pnt	req[8-1-2-1]	Ikarashi	Taki	Ikarashi
data_logger.c	m_copy_nbyte	req[8-1-2-9]	Ikarashi	Taki	Ikarashi
data_logger.c	m_flash_sector_erase	req[8-1-2-2]	Ikarashi	Taki	Ikarashi
data_logger.c	m_flash_status	req[8-1-2-3]	Ikarashi	Taki	Ikarashi
data_logger.c	m_initialize	req[6-6-2-3]	Ikarashi	Taki	Ikarashi
data_logger.c	m_isLeapYear	req[8-1-2-4]	Ikarashi	Taki	Ikarashi
data_logger.c	m_lg_alarm	req[8-1-4-1]	Ikarashi	Taki	Ikarashi
data_logger.c	m_lg_alarm_event	req[8-1-4-2]	Ikarashi	Taki	Ikarashi
data_logger.c	m_lg_alarm_event_check	req[8-1-4-3]	Ikarashi	Taki	Ikarashi
data_logger.c	m_lg_alarm_event_data	req[8-1-4-4]	Ikarashi	Taki	Ikarashi
data_logger.c	m_lg_alarm_event_fit	req[8-1-4-5]	Ikarashi	Taki	Ikarashi
data_logger.c	m_lg_alarm_event_write	req[8-1-4-6]	Ikarashi	Taki	Ikarashi
data_logger.c	m_lg_alarm_head	req[8-1-4-7]	Ikarashi	Taki	Ikarashi
data_logger.c	m_lg_alarm_head_write	req[8-1-4-8]	Ikarashi	Taki	Ikarashi
data_logger.c	m_lg_alarm_trend_a_check	req[8-1-4-9]	Ikarashi	Taki	Ikarashi
data_logger.c	m_lg_alarm_trend_b_check	req[8-1-4-10]	Ikarashi	Taki	Ikarashi
data_logger.c	m_lg_alarm_trend_c_check	req[8-1-4-11]	Ikarashi	Taki	Ikarashi
data_logger.c	m_lg_alarm_trend_copy	req[8-1-4-12]	Ikarashi	Taki	Ikarashi
data_logger.c	m_lg_alarm_trend_data	req[8-1-4-13]	Ikarashi	Taki	Ikarashi
data_logger.c	m_lg_alarm_trend_pad_write	req[8-1-4-14]	Ikarashi	Taki	Ikarashi
data_logger.c	m_lg_alarm_trend_write	req[8-1-4-15]	Ikarashi	Taki	Ikarashi
data_logger.c	m_lg_bump_data	req[8-1-6-3]	Ikarashi	Taki	Ikarashi
data_logger.c	m_lg_calibration_data	req[8-1-6-4]	Ikarashi	Taki	Ikarashi
data_logger.c	m_lg_calibration_fit	req[8-1-6-5]	Ikarashi	Taki	Ikarashi
data_logger.c	m_lg_calibration_write	req[8-1-6-6]	Ikarashi	Taki	Ikarashi
data_logger.c	m_lg_change_header	req[8-1-2-10]	Ikarashi	Taki	Ikarashi
data_logger.c	m_lg_chmap	req[13-1-1-1]	Ikarashi	Taki	Ikarashi
data_logger.c	m_lg_clear_alarm_work	req[8-2-1-3]	Ikarashi	Taki	Ikarashi
data_logger.c	m_lg_clear_wait	req[8-1-2-43]	Ikarashi	Taki	Ikarashi
data_logger.c	m_lg_concentration	req[8-1-2-11]	Ikarashi	Taki	Ikarashi
data_logger.c	m_lg_fatal	req[8-1-1-4]	Ikarashi	Taki	Ikarashi
data_logger.c	m_lg_flash_write	req[8-1-2-12]	Ikarashi	Taki	Ikarashi
data_logger.c	m_lg_full	req[8-4-1-1]	Ikarashi	Taki	Ikarashi
data_logger.c	m_lg_full_check	req[8-1-2-13]	Ikarashi	Taki	Ikarashi
data_logger.c	m_lg_gas	req[8-1-2-14]	Ikarashi	Taki	Ikarashi
data_logger.c	m_lg_gas_invalid	req[8-1-2-15]	Ikarashi	Taki	Ikarashi
data_logger.c	m_lg_gas_off	req[8-1-2-16]	Ikarashi	Taki	Ikarashi
data_logger.c	m_lg_gas_result	req[8-1-2-5]	Ikarashi	Taki	Ikarashi
data_logger.c	m_lg_get_snap_write_pnt	req[8-1-8-18]	Ikarashi	Taki	Ikarashi
data_logger.c	m_lg_header	req[8-1-2-17]	Ikarashi	Taki	Ikarashi
data_logger.c	m_lg_header_data	req[8-1-2-18]	Ikarashi	Taki	Ikarashi
data_logger.c	m_lg_header_plus	req[8-1-2-44]	Ikarashi	Taki	Ikarashi
data_logger.c	m_lg_interval_check	req[8-1-2-19]	Ikarashi	Taki	Ikarashi
data_logger.c	m_lg_interval_event	req[8-1-2-20]	Ikarashi	Taki	Ikarashi
data_logger.c	m_lg_interval_event_check	req[8-7-1-1]	Ikarashi	Taki	Ikarashi
data_logger.c	m_lg_interval_event_data	req[8-1-2-21]	Ikarashi	Taki	Ikarashi

data_logger.c	m_lg_interval_next	req[8-1-2-22]	Ikarashi		Taki		Ikarashi		
data_logger.c	m_lg_interval_pad_write	req[8-1-2-23]	Ikarashi		Taki		Ikarashi		
data_logger.c	m_lg_interval_trend	req[8-1-2-24]	Ikarashi		Taki		Ikarashi		
data_logger.c	m_lg_interval_trend_data	req[8-1-2-25]	Ikarashi		Taki		Ikarashi		
data_logger.c	m_lg_interval_trend_temp	req[8-1-2-26]	Ikarashi		Taki		Ikarashi		
data_logger.c	m_lg_interval_write	req[8-1-2-27]	Ikarashi		Taki		Ikarashi		
data_logger.c	m_lg_now_time	req[8-1-2-28]	Ikarashi		Taki		Ikarashi		
data_logger.c	m_lg_power_event_data	req[8-1-1-5]	Ikarashi		Taki		Ikarashi		
data_logger.c	m_lg_power_event_fit	req[8-1-1-6]	Ikarashi		Taki		Ikarashi		
data_logger.c	m_lg_power_event_write	req[8-1-1-7]	Ikarashi		Taki		Ikarashi		
data_logger.c	m_lg_ppm2code	req[8-1-2-29]	Ikarashi		Taki		Ikarashi		
data_logger.c	m_lg_remain	req[8-4-1-2]	Ikarashi		Taki		Ikarashi		
data_logger.c	m_lg_round	req[8-1-2-30]	Ikarashi		Taki		Ikarashi		
data_logger.c	m_lg_set_error	req[8-1-2-31]	Ikarashi		Taki		Ikarashi		
data_logger.c	m_lg_setting_data	req[8-1-7-2]	Ikarashi		Taki		Ikarashi		
data_logger.c	m_lg_setting_fit	req[8-1-2-32]	Ikarashi		Taki		Ikarashi		
data_logger.c	m_lg_setting_memory	req[8-1-7-3]	Ikarashi		Taki		Ikarashi		
data_logger.c	m_lg_setting_write	req[8-1-7-4]	Ikarashi		Taki		Ikarashi		
data_logger.c	m_lg_snap_data	req[8-1-8-16]	Ikarashi		Taki		Ikarashi		
data_logger.c	m_lg_snap_write	req[8-1-8-17]	Ikarashi		Taki		Ikarashi		
data_logger.c	m_lg_stop_interval	req[8-1-2-33]	Ikarashi		Taki		Ikarashi		
data_logger.c	m_lg_trailer	req[8-1-2-34]	Ikarashi		Taki		Ikarashi		
data_logger.c	m_lg_trailer_data	req[8-1-2-35]	Ikarashi		Taki		Ikarashi		
data_logger.c	m_lg_trend_check	req[8-1-2-36]	Ikarashi		Taki		Ikarashi		
data_logger.c	m_lg_trend_keep_going	req[8-1-4-16]	Ikarashi		Taki		Ikarashi		
data_logger.c	m_lg_trouble_event	req[8-1-5-1]	Ikarashi		Taki		Ikarashi		
data_logger.c	m_lg_trouble_event_check	req[8-1-5-2]	Ikarashi		Taki		Ikarashi		
data_logger.c	m_lg_trouble_event_data	req[8-1-5-3]	Ikarashi		Taki		Ikarashi		
data_logger.c	m_lg_trouble_event_fit	req[8-1-5-4]	Ikarashi		Taki		Ikarashi		
data_logger.c	m_lg_trouble_event_write	req[8-1-5-5]	Ikarashi		Taki		Ikarashi		
data_logger.c	m_lg_unset_error	req[8-1-2-37]	Ikarashi		Taki		Ikarashi		
data_logger.c	m_lg_wait	req[8-4-1-3]	Ikarashi		Taki		Ikarashi		
data_logger.c	m_ul2uc	req[8-1-2-38]	Ikarashi		Taki		Ikarashi		
data_logger.c	m_lg_day	req[8-1-2-39]	Ikarashi		Taki		Ikarashi		
data_logger.c	m_lg_DiffTime	req[8-1-2-40]	Ikarashi		Taki		Ikarashi		
data_logger.c	m_lg_info_write	req[8-1-1-8]	Ikarashi		Taki		Ikarashi		
data_logger.c	m_lg_time	req[8-1-2-41]	Ikarashi		Taki		Ikarashi		
data_logger.c	m_lg_time_value	req[8-1-2-42]	Ikarashi		Taki		Ikarashi		
data_struct_const.c	Data_Detector_Init_EepAddress	req[13-3-1-1]	Ikarashi		Taki		Ikarashi		
data_struct_const.c	Data_Detector_Set_DataAddress	req[13-3-1-2]	Ikarashi		Taki		Ikarashi		
data_struct_const.c	Data_Detector_Set_Default	req[6-6-1-9]	Ikarashi		Taki		Ikarashi		
data_struct_const.c	DataStructConst_def_DensData	req[13-11-1-2]	Ikarashi		Taki		Ikarashi		
data_struct_const.c	DataStructConst_DefaultSsid	req[6-6-1-7]	Ikarashi		Taki		Ikarashi		
data_struct_const.c	DataStructConst_DefaultUserId	req[6-6-1-8]	Ikarashi		Taki		Ikarashi		
data_struct_const.c	DataStructConst_Set_DensDataAddress	req[13-3-1-3]	Ikarashi		Taki		Ikarashi		
data_struct_const.c	DataStructConst_Set_FramGasSpec	req[13-3-1-4]	Ikarashi		Taki		Ikarashi		
data_struct_const.c	DataStructConst_Set_GasSpec	req[13-3-1-5]	Ikarashi		Taki		Ikarashi		
data_struct_const.c	DataStructConst_Set_NCGasSpec	req[11-5-2-1]	Ikarashi		Taki		Ikarashi		
data_struct_const.c	DataStructConst_Set_StatusDataAddress	req[13-3-1-6]	Ikarashi		Taki		Ikarashi		
data_struct_const.c	GasCalc_Get_Alarm1hON	req[5-8-1-1]	Ikarashi		Taki		Ikarashi		
data_struct_const.c	GasCalc_Get_AlarmTwaON	req[13-11-1-3]	Ikarashi		Taki		Ikarashi		
data_struct_const.c	GasCalc_Get_CombGasON	req[5-8-1-2]	Ikarashi		Taki		Ikarashi		
data_struct_const.c	GasCalc_Get_Gas_Comb	req[5-8-2-1]	Ikarashi		Taki		Ikarashi		
data_struct_const.c	GasCalc_Get_GasData_Add	req[13-3-1-7]	Ikarashi		Taki		Ikarashi		
data_struct_const.c	GasCalc_Get_H2MeasurementFlag	req[13-11-1-39]	Ikarashi		Taki		Ikarashi		
data_struct_const.c	GasCalc_Get_IDispON	req[6-5-1-1]	Ikarashi		Taki		Ikarashi		
data_struct_const.c	GasCalc_Get_ToxicGasON	req[5-8-1-3]	Ikarashi		Taki		Ikarashi		
data_struct_const.c	GasTableData_Init_EepAddress	req[13-3-1-8]	Ikarashi		Taki		Ikarashi		
data_struct_const.c	GasTableData_Set_Default	req[6-6-1-10]	Ikarashi		Taki		Ikarashi		
flow_alarm_setting_display.c	FlowAlarmSettingDisplay_chk_AlarmSettingEndNum	req[2-2-1-1]	Ikarashi		Taki		Ikarashi		
flow_alarm_setting_display.c	FlowAlarmSettingDisplay_chk_AlarmSettingResetNum	req[2-2-1-2]	Ikarashi		Taki		Ikarashi		
flow_alarm_setting_display.c	FlowAlarmSettingDisplay_Disp_AlarmPointChange	req[2-2-1-3]	Ikarashi		Taki		Ikarashi		
flow_alarm_setting_display.c	FlowAlarmSettingDisplay_Disp_AlarmSettingMenu	req[2-2-1-4]	Ikarashi		Taki		Ikarashi		
flow_alarm_setting_display.c	FlowAlarmSettingDisplay_Disp1_FactoryDefault	req[11-9-1-4]	Ikarashi		Taki		Ikarashi		
flow_alarm_setting_display.c	FlowAlarmSettingDisplay_Disp2_FactoryDefault	req[11-9-1-5]	Ikarashi		Taki		Ikarashi		
flow_alarm_setting_display.c	FlowAlarmSettingDisplay_End_AlarmPointChange	req[2-2-1-5]	Ikarashi		Taki		Ikarashi		
flow_alarm_setting_display.c	FlowAlarmSettingDisplay_Init_AlarmPointChange	req[2-2-1-6]	Ikarashi		Taki		Ikarashi		
flow_alarm_setting_display.c	FlowAlarmSettingDisplay_Init_AlarmSettingMenu	req[2-2-1-7]	Ikarashi		Taki		Ikarashi		
flow_alarm_setting_display.c	FlowAlarmSettingDisplay_Select_AlarmPointChange	req[2-2-1-8]	Ikarashi		Taki		Ikarashi		
flow_alarm_setting_display.c	FlowAlarmSettingDisplay_Select_AlarmSettingMenu	req[2-2-1-9]	Ikarashi		Taki		Ikarashi		
flow_alarm_setting_display.c	FlowAlarmSettingDisplay_Select_PointTypeChange	req[2-2-1-10]	Ikarashi		Taki		Ikarashi		
flow_alarm_setting_display.c	FlowAlarmSettingDisplay_Set_FactoryDefault	req[11-9-1-6]	Ikarashi		Taki		Ikarashi		
flow_beep_display.c	FlowBeepDisplay_Disp_BeepSelect	req[6-3-2-1]	Ikarashi		Taki		Ikarashi		
flow_beep_display.c	FlowBeepDisplay_Disp_BeepTime	req[6-3-2-2]	Ikarashi		Taki		Ikarashi		
flow_beep_display.c	FlowBeepDisplay_End_BeepSelect	req[6-3-2-3]	Ikarashi		Taki		Ikarashi		
flow_beep_display.c	FlowBeepDisplay_End_BeepTime	req[6-3-2-4]	Ikarashi		Taki		Ikarashi		
flow_beep_display.c	FlowBeepDisplay_Init_BeepMenu	req[6-3-2-5]	Ikarashi		Taki		Ikarashi		
flow_beep_display.c	FlowBeepDisplay_Init_BeepSelect	req[6-3-2-6]	Ikarashi		Taki		Ikarashi		
flow_beep_display.c	FlowBeepDisplay_Init_BeepTime	req[6-3-2-7]	Ikarashi		Taki		Ikarashi		
flow_beep_display.c	FlowBeepDisplay_Select_BeepMenu	req[6-3-2-8]	Ikarashi		Taki		Ikarashi		
flow_beep_display.c	FlowBeepDisplay_Select_BeepSelect	req[6-3-2-9]	Ikarashi		Taki		Ikarashi		
flow_beep_display.c	FlowBeepDisplay_Select_BeepTime	req[6-3-2-10]	Ikarashi		Taki		Ikarashi		
flow_beep_display.c	FlowBeepDisplay_Set_BeepMenu	req[6-3-2-11]	Ikarashi		Taki		Ikarashi		
flow_bump_limit_display.c	FlowBumpLimitDisplay_Disp_BumpExprd	req[5-6-2-1]	Ikarashi		Taki		Ikarashi		
flow_bump_limit_display.c	FlowBumpLimitDisplay_Disp_BumpInterval	req[5-6-6-1]	Ikarashi		Taki		Ikarashi		

flow_bump_limit_display.c	FlowBumpLimitDisplay_Disp_BumpReminder	req[5-6-5-1]	Ikarashi		Taki		Ikarashi	
flow_bump_limit_display.c	FlowBumpLimitDisplay_End_BumpExprd	req[5-6-2-2]	Ikarashi		Taki		Ikarashi	
flow_bump_limit_display.c	FlowBumpLimitDisplay_End_BumpInterval	req[5-6-6-2]	Ikarashi		Taki		Ikarashi	
flow_bump_limit_display.c	FlowBumpLimitDisplay_End_BumpReminder	req[5-6-5-2]	Ikarashi		Taki		Ikarashi	
flow_bump_limit_display.c	FlowBumpLimitDisplay_Init_BumpExprd	req[5-6-2-3]	Ikarashi		Taki		Ikarashi	
flow_bump_limit_display.c	FlowBumpLimitDisplay_Init_BumpInterval	req[5-6-6-3]	Ikarashi		Taki		Ikarashi	
flow_bump_limit_display.c	FlowBumpLimitDisplay_Init_BumpLimitMenu	req[5-6-2-4]	Ikarashi		Taki		Ikarashi	
flow_bump_limit_display.c	FlowBumpLimitDisplay_Init_BumpReminder	req[5-6-5-3]	Ikarashi		Taki		Ikarashi	
flow_bump_limit_display.c	FlowBumpLimitDisplay_Select_BumpExprd	req[5-6-2-5]	Ikarashi		Taki		Ikarashi	
flow_bump_limit_display.c	FlowBumpLimitDisplay_Select_BumpInterval	req[5-6-6-4]	Ikarashi		Taki		Ikarashi	
flow_bump_limit_display.c	FlowBumpLimitDisplay_Select_BumpLimitMenu	req[5-6-2-6]	Ikarashi		Taki		Ikarashi	
flow_bump_limit_display.c	FlowBumpLimitDisplay_Select_BumpReminder	req[5-6-5-4]	Ikarashi		Taki		Ikarashi	
flow_bump_limit_display.c	FlowBumpLimitDisplay_Set_BumpLimitMenu	req[5-6-2-7]	Ikarashi		Taki		Ikarashi	
flow_bump_parameter_display.c	FlowBumpParameterDisplay_Disp_BumpCalOnOff	req[4-1-3-1]	Ikarashi		Taki		Ikarashi	
flow_bump_parameter_display.c	FlowBumpParameterDisplay_Disp_BumpCalTime	req[4-1-4-1]	Ikarashi		Taki		Ikarashi	
flow_bump_parameter_display.c	FlowBumpParameterDisplay_Disp_BumpLimit	req[4-1-4-2]	Ikarashi		Taki		Ikarashi	
flow_bump_parameter_display.c	FlowBumpParameterDisplay_Disp_BumpTime	req[4-1-4-3]	Ikarashi		Taki		Ikarashi	
flow_bump_parameter_display.c	FlowBumpParameterDisplay_End_BumpCalOnOff	req[4-1-3-2]	Ikarashi		Taki		Ikarashi	
flow_bump_parameter_display.c	FlowBumpParameterDisplay_End_BumpCalTime	req[4-1-4-4]	Ikarashi		Taki		Ikarashi	
flow_bump_parameter_display.c	FlowBumpParameterDisplay_End_BumpLimit	req[4-1-4-5]	Ikarashi		Taki		Ikarashi	
flow_bump_parameter_display.c	FlowBumpParameterDisplay_End_BumpTime	req[4-1-4-6]	Ikarashi		Taki		Ikarashi	
flow_bump_parameter_display.c	FlowBumpParameterDisplay_Init_BumpCalOnOff	req[4-1-3-3]	Ikarashi		Taki		Ikarashi	
flow_bump_parameter_display.c	FlowBumpParameterDisplay_Init_BumpCalTime	req[4-1-4-7]	Ikarashi		Taki		Ikarashi	
flow_bump_parameter_display.c	FlowBumpParameterDisplay_Init_BumpLimit	req[4-1-4-8]	Ikarashi		Taki		Ikarashi	
flow_bump_parameter_display.c	FlowBumpParameterDisplay_Init_BumpParameterMenu	req[4-1-4-9]	Ikarashi		Taki		Ikarashi	
flow_bump_parameter_display.c	FlowBumpParameterDisplay_Init_BumpTime	req[4-1-4-10]	Ikarashi		Taki		Ikarashi	
flow_bump_parameter_display.c	FlowBumpParameterDisplay_Select_BumpCalOnOff	req[4-1-3-4]	Ikarashi		Taki		Ikarashi	
flow_bump_parameter_display.c	FlowBumpParameterDisplay_Select_BumpCalTime	req[4-1-4-11]	Ikarashi		Taki		Ikarashi	
flow_bump_parameter_display.c	FlowBumpParameterDisplay_Select_BumpLimit	req[4-1-4-12]	Ikarashi		Taki		Ikarashi	
flow_bump_parameter_display.c	FlowBumpParameterDisplay_Select_BumpParameterMenu	req[4-1-4-13]	Ikarashi		Taki		Ikarashi	
flow_bump_parameter_display.c	FlowBumpParameterDisplay_Select_BumpTime	req[4-1-4-14]	Ikarashi		Taki		Ikarashi	
flow_bump_parameter_display.c	FlowBumpParameterDisplay_Set_BumpParameterMenu	req[4-1-4-15]	Ikarashi		Taki		Ikarashi	
flow_bump_test_display.c	FlowBumpTestDisplay_10msec_interrupt	req[13-4-1-1]	Ikarashi		Taki		Ikarashi	
flow_bump_test_display.c	FlowBumpTestDisplay_Chk_BumpAlarm	req[4-1-1-4]	Ikarashi		Taki		Ikarashi	
flow_bump_test_display.c	FlowBumpTestDisplay_Chk_BumpCalNecessity	req[4-1-2-3]	Ikarashi		Taki		Ikarashi	
flow_bump_test_display.c	FlowBumpTestDisplay_Chk_BumpCalOnOff	req[4-1-2-4]	Ikarashi		Taki		Ikarashi	
flow_bump_test_display.c	FlowBumpTestDisplay_Chk_BumpCalStartInitial	req[4-1-2-11]	Ikarashi		Taki		Ikarashi	
flow_bump_test_display.c	FlowBumpTestDisplay_Chk_BumpCalTimeEnd	req[4-1-2-5]	Ikarashi		Taki		Ikarashi	
flow_bump_test_display.c	FlowBumpTestDisplay_Chk_BumpGasSelect	req[4-1-1-5]	Ikarashi		Taki		Ikarashi	
flow_bump_test_display.c	FlowBumpTestDisplay_Chk_BumpSuccess	req[4-1-2-10]	Ikarashi		Taki		Ikarashi	
flow_bump_test_display.c	FlowBumpTestDisplay_Chk_BumpTestResult	req[4-1-1-6]	Ikarashi		Taki		Ikarashi	
flow_bump_test_display.c	FlowBumpTestDisplay_Chk_BumpTestTimeEnd	req[4-1-1-7]	Ikarashi		Taki		Ikarashi	
flow_bump_test_display.c	FlowBumpTestDisplay_Chk_HCModeWarmFlg	req[4-1-2-1]	Ikarashi		Taki		Ikarashi	
flow_bump_test_display.c	FlowBumpTestDisplay_Com_BumpTest	req[4-1-2-2]	Ikarashi		Taki		Ikarashi	
flow_bump_test_display.c	FlowBumpTestDisplay_Disp_BumpGasSelect	req[4-1-1-8]	Ikarashi		Taki		Ikarashi	
flow_bump_test_display.c	FlowBumpTestDisplay_Disp_BumpResult	req[4-1-1-9]	Ikarashi		Taki		Ikarashi	
flow_bump_test_display.c	FlowBumpTestDisplay_Disp_BumpTest	req[4-1-1-10]	Ikarashi		Taki		Ikarashi	
flow_bump_test_display.c	FlowBumpTestDisplay_Disp_SetBumpCal	req[4-1-2-6]	Ikarashi		Taki		Ikarashi	
flow_bump_test_display.c	FlowBumpTestDisplay_Execution_BumpCal	req[4-1-2-7]	Ikarashi		Taki		Ikarashi	
flow_bump_test_display.c	FlowBumpTestDisplay_Get_BumpCalTime	req[4-1-2-8]	Ikarashi		Taki		Ikarashi	
flow_bump_test_display.c	FlowBumpTestDisplay_Get_BumpGasSelect	req[4-1-1-11]	Ikarashi		Taki		Ikarashi	
flow_bump_test_display.c	FlowBumpTestDisplay_Get_BumpResultDnst	req[4-1-1-1]	Ikarashi		Taki		Ikarashi	
flow_bump_test_display.c	FlowBumpTestDisplay_Get_BumpSDMSSelear	req[4-1-1-2]	Ikarashi		Taki		Ikarashi	
flow_bump_test_display.c	FlowBumpTestDisplay_Get_BumpTestTime	req[4-1-1-12]	Ikarashi		Taki		Ikarashi	
flow_bump_test_display.c	FlowBumpTestDisplay_Init_BumpTest	req[4-1-1-13]	Ikarashi		Taki		Ikarashi	
flow_bump_test_display.c	FlowBumpTestDisplay_SelectUp_BumpGasSelect	req[4-1-1-15]	Ikarashi		Taki		Ikarashi	
flow_bump_test_display.c	FlowBumpTestDisplay_Select_BumpGasSelect	req[4-1-1-14]	Ikarashi		Taki		Ikarashi	
flow_bump_test_display.c	FlowBumpTestDisplay_Select_BumpResult	req[4-1-1-16]	Ikarashi		Taki		Ikarashi	
flow_bump_test_display.c	FlowBumpTestDisplay_Set_BumpCalData	req[4-1-2-9]	Ikarashi		Taki		Ikarashi	
flow_bump_test_display.c	FlowBumpTestDisplay_Set_BumpErrorOff	req[4-1-5-1]	Ikarashi		Taki		Ikarashi	
flow_bump_test_display.c	FlowBumpTestDisplay_Set_BumpSDMSSelear	req[4-1-1-3]	Ikarashi		Taki		Ikarashi	
flow_bump_test_display.c	m_Chk_BumpPermission	req[4-1-1-17]	Ikarashi		Taki		Ikarashi	
flow_bump_test_display.c	m_Judg_BumpTest	req[4-1-1-18]	Ikarashi		Taki		Ikarashi	
flow_bump_test_display.c	m_Set_BumpResult	req[4-1-1-19]	Ikarashi		Taki		Ikarashi	
flow_cal_limit_display.c	FlowCalLimitDisplay_Disp_CalExprd	req[5-5-1-1]	Ikarashi		Taki		Ikarashi	
flow_cal_limit_display.c	FlowCalLimitDisplay_Disp_CalInterval	req[5-5-6-1]	Ikarashi		Taki		Ikarashi	
flow_cal_limit_display.c	FlowCalLimitDisplay_Disp_CalReminder	req[5-5-5-1]	Ikarashi		Taki		Ikarashi	
flow_cal_limit_display.c	FlowCalLimitDisplay_End_CalExprd	req[5-5-1-2]	Ikarashi		Taki		Ikarashi	
flow_cal_limit_display.c	FlowCalLimitDisplay_End_CalInterval	req[5-5-6-2]	Ikarashi		Taki		Ikarashi	
flow_cal_limit_display.c	FlowCalLimitDisplay_End_CalReminder	req[5-5-5-2]	Ikarashi		Taki		Ikarashi	
flow_cal_limit_display.c	FlowCalLimitDisplay_Init_CalExprd	req[5-5-1-3]	Ikarashi		Taki		Ikarashi	
flow_cal_limit_display.c	FlowCalLimitDisplay_Init_CalInterval	req[5-5-6-3]	Ikarashi		Taki		Ikarashi	
flow_cal_limit_display.c	FlowCalLimitDisplay_Init_CalLimitMenu	req[5-5-1-4]	Ikarashi		Taki		Ikarashi	
flow_cal_limit_display.c	FlowCalLimitDisplay_Init_CalReminder	req[5-5-5-3]	Ikarashi		Taki		Ikarashi	
flow_cal_limit_display.c	FlowCalLimitDisplay_Select_CalExprd	req[5-5-1-5]	Ikarashi		Taki		Ikarashi	
flow_cal_limit_display.c	FlowCalLimitDisplay_Select_CalInterval	req[5-5-6-4]	Ikarashi		Taki		Ikarashi	
flow_cal_limit_display.c	FlowCalLimitDisplay_Select_CalLimitMenu	req[5-5-1-6]	Ikarashi		Taki		Ikarashi	
flow_cal_limit_display.c	FlowCalLimitDisplay_Select_CalReminder	req[5-5-5-4]	Ikarashi		Taki		Ikarashi	
flow_cal_limit_display.c	FlowCalLimitDisplay_Set_CalLimitMenu	req[5-5-1-7]	Ikarashi		Taki		Ikarashi	
flow_com_display.c	FlowComDisplay_Disp_SDMMode	req[9-7-2-1]	Ikarashi		Taki		Ikarashi	
flow_com_display.c	FlowComDisplay_Set_ComConnect	req[9-7-1-1]	Ikarashi		Taki		Ikarashi	
flow_disp_display.c	FlowDispDisplay_Disp_AlarmPointData	req[10-2-5-1]	Ikarashi		Taki		Ikarashi	
flow_disp_display.c	FlowDispDisplay_Disp_BumpData	req[11-8-1-1]	Ikarashi		Taki		Ikarashi	
flow_disp_display.c	FlowDispDisplay_Disp_CalData	req[11-7-1-1]	Ikarashi		Taki		Ikarashi	
flow_disp_display.c	FlowDispDisplay_Disp_HCGasSetting	req[11-5-2-3]	Ikarashi		Taki		Ikarashi	

flow_disp_display.c	FlowDispDisplay_Displ_HCLongSetting	req[11-2-2-1]	Ikarashi		Taki		Ikarashi		
flow_disp_display.c	FlowDispDisplay_Displ_PeakClearHold	req[1-8-1-2]	Ikarashi		Taki		Ikarashi		
flow_disp_display.c	FlowDispDisplay_Displ_PeakClearRelease	req[1-8-1-3]	Ikarashi		Taki		Ikarashi		
flow_disp_display.c	FlowDispDisplay_Displ_PumpOff	req[14-12-1-11]	Ikarashi		Taki		Ikarashi		
flow_disp_display.c	FlowDispDisplay_Displ_SnapData	req[8-1-8-2]	Ikarashi		Taki		Ikarashi		
flow_disp_display.c	FlowDispDisplay_Displ_StationIdSelect	req[6-5-2-1]	Ikarashi		Taki		Ikarashi		
flow_disp_display.c	FlowDispDisplay_Displ_UserIdSelect	req[6-5-3-1]	Ikarashi		Taki		Ikarashi		
flow_disp_display.c	FlowDispDisplay_End_HCGasSetting	req[11-5-2-4]	Ikarashi		Taki		Ikarashi		
flow_disp_display.c	FlowDispDisplay_End_HCLongSetting	req[11-2-2-2]	Ikarashi		Taki		Ikarashi		
flow_disp_display.c	FlowDispDisplay_End_PumpOff	req[14-12-1-10]	Ikarashi		Taki		Ikarashi		
flow_disp_display.c	FlowDispDisplay_End_StationIdSelect	req[6-5-2-2]	Ikarashi		Taki		Ikarashi		
flow_disp_display.c	FlowDispDisplay_End_UserIdSelect	req[6-5-3-2]	Ikarashi		Taki		Ikarashi		
flow_disp_display.c	FlowDispDisplay_Get_LightOnPermission	req[14-7-1-9]	Ikarashi		Taki		Ikarashi		
flow_disp_display.c	FlowDispDisplay_Init_AlarmPointData	req[10-2-5-2]	Ikarashi		Taki		Ikarashi		
flow_disp_display.c	FlowDispDisplay_Init_BumpData	req[11-8-1-2]	Ikarashi		Taki		Ikarashi		
flow_disp_display.c	FlowDispDisplay_Init_CalData	req[11-7-1-2]	Ikarashi		Taki		Ikarashi		
flow_disp_display.c	FlowDispDisplay_Init_DisplMenu	req[9-2-1-1]	Ikarashi		Taki		Ikarashi		
flow_disp_display.c	FlowDispDisplay_Init_HCGasSetting	req[11-5-2-5]	Ikarashi		Taki		Ikarashi		
flow_disp_display.c	FlowDispDisplay_Init_HCLongSetting	req[11-2-2-3]	Ikarashi		Taki		Ikarashi		
flow_disp_display.c	FlowDispDisplay_Init_PumpOff	req[14-12-1-9]	Ikarashi		Taki		Ikarashi		
flow_disp_display.c	FlowDispDisplay_Init_SnapData	req[8-1-8-1]	Ikarashi		Taki		Ikarashi		
flow_disp_display.c	FlowDispDisplay_Init_StationIdSelect	req[6-5-2-3]	Ikarashi		Taki		Ikarashi		
flow_disp_display.c	FlowDispDisplay_Init_UserIdSelect	req[6-5-3-3]	Ikarashi		Taki		Ikarashi		
flow_disp_display.c	FlowDispDisplay_Select_AlarmPointData	req[10-2-5-3]	Ikarashi		Taki		Ikarashi		
flow_disp_display.c	FlowDispDisplay_Select_BumpData	req[11-8-1-3]	Ikarashi		Taki		Ikarashi		
flow_disp_display.c	FlowDispDisplay_Select_CalData	req[11-7-1-3]	Ikarashi		Taki		Ikarashi		
flow_disp_display.c	FlowDispDisplay_Select_DisplMenu	req[9-2-1-2]	Ikarashi		Taki		Ikarashi		
flow_disp_display.c	FlowDispDisplay_Select_HCGasSetting	req[11-5-2-6]	Ikarashi		Taki		Ikarashi		
flow_disp_display.c	FlowDispDisplay_Select_HCLongSetting	req[11-2-2-4]	Ikarashi		Taki		Ikarashi		
flow_disp_display.c	FlowDispDisplay_Select_SnapDetail	req[8-1-8-3]	Ikarashi		Taki		Ikarashi		
flow_disp_display.c	FlowDispDisplay_Select_SnapRecData	req[8-1-8-4]	Ikarashi		Taki		Ikarashi		
flow_disp_display.c	FlowDispDisplay_Select_SnapUpDownMode	req[8-1-8-5]	Ikarashi		Taki		Ikarashi		
flow_disp_display.c	FlowDispDisplay_Select_StationIdSelect	req[6-5-2-4]	Ikarashi		Taki		Ikarashi		
flow_disp_display.c	FlowDispDisplay_Select_UserIdSelect	req[6-5-3-4]	Ikarashi		Taki		Ikarashi		
flow_disp_display.c	FlowDispDisplay_Set_AlarmPointData	req[4-2-1-4]	Ikarashi		Taki		Ikarashi		
flow_disp_display.c	FlowDispDisplay_Set_DisplMenu	req[9-2-1-3]	Ikarashi		Taki		Ikarashi		
flow_disp_display.c	FlowDispDisplay_Set_LightOnOffSetting	req[14-7-1-8]	Ikarashi		Taki		Ikarashi		
flow_disp_display.c	m_Chk_DisplHCGasSel	req[11-5-2-2]	Ikarashi		Taki		Ikarashi		
flow_disp_display.c	m_Chk_DisplMenuItem	req[9-2-1-4]	Ikarashi		Taki		Ikarashi		
flow_disp_display.c	m_Displ_1h	req[1-15-1-1]	Ikarashi		Taki		Ikarashi		
flow_disp_display.c	m_Displ_Light	req[14-7-1-10]	Ikarashi		Taki		Ikarashi		
flow_disp_display.c	m_Displ_Peak	req[1-7-1-1]	Ikarashi		Taki		Ikarashi		
flow_disp_display.c	m_Displ_SnapConcentration	req[8-1-8-7]	Ikarashi		Taki		Ikarashi		
flow_disp_display.c	m_Displ_SnapDateTime	req[8-1-8-6]	Ikarashi		Taki		Ikarashi		
flow_disp_display.c	m_Displ_SnapNoData	req[8-1-8-8]	Ikarashi		Taki		Ikarashi		
flow_disp_display.c	m_Displ_Stel	req[1-11-1-1]	Ikarashi		Taki		Ikarashi		
flow_disp_display.c	m_Displ_Twa	req[1-13-1-1]	Ikarashi		Taki		Ikarashi		
flow_disp_display.c	m_Select_CalBumpData	req[11-7-1-4]	Ikarashi		Taki		Ikarashi		
flow_fact_display.c	FlowFactDisplay_Chk_GasCombChannelSelect2chH2Num	req[5-8-1-4]	Ikarashi		Taki		Ikarashi		
flow_fact_display.c	FlowFactDisplay_Chk_GasCombChannelSelectEndNum	req[5-8-1-5]	Ikarashi		Taki		Ikarashi		
flow_fact_display.c	FlowFactDisplay_Chk_RomSumDisp	req[10-5-3-1]	Ikarashi		Taki		Ikarashi		
flow_fact_display.c	FlowFactDisplay_Displ_GasCombChannelSelect	req[5-8-1-6]	Ikarashi		Taki		Ikarashi		
flow_fact_display.c	FlowFactDisplay_Displ_GasCombGasSelect	req[5-8-1-7]	Ikarashi		Taki		Ikarashi		
flow_fact_display.c	FlowFactDisplay_Displ_RomSumDisp	req[10-5-2-1]	Ikarashi		Taki		Ikarashi		
flow_fact_display.c	FlowFactDisplay_Displ_RunningFactoryDefault	req[6-10-1-3]	Ikarashi		Taki		Ikarashi		
flow_fact_display.c	FlowFactDisplay_Displ1_FactoryDefault	req[6-10-1-4]	Ikarashi		Taki		Ikarashi		
flow_fact_display.c	FlowFactDisplay_Displ2_FactoryDefault	req[6-10-1-5]	Ikarashi		Taki		Ikarashi		
flow_fact_display.c	FlowFactDisplay_End_FlowAdjSetting	req[14-13-1-37]	Ikarashi		Taki		Ikarashi		
flow_fact_display.c	FlowFactDisplay_End_FlowAdjSettingAndCheck	req[14-13-1-38]	Ikarashi		Taki		Ikarashi		
flow_fact_display.c	FlowFactDisplay_End_FlowCheck	req[14-13-1-42]	Ikarashi		Taki		Ikarashi		
flow_fact_display.c	FlowFactDisplay_End_GasCombGasSelect	req[5-8-1-8]	Ikarashi		Taki		Ikarashi		
flow_fact_display.c	FlowFactDisplay_Displ_FlowAdjSetting	req[14-13-1-39]	Ikarashi		Taki		Ikarashi		
flow_fact_display.c	FlowFactDisplay_Displ_FlowCheck	req[14-13-1-43]	Ikarashi		Taki		Ikarashi		
flow_fact_display.c	FlowFactDisplay_Init_ADDisp	req[10-7-1-1]	Ikarashi		Taki		Ikarashi		
flow_fact_display.c	FlowFactDisplay_Init_FactMenu	req[9-6-1-1]	Ikarashi		Taki		Ikarashi		
flow_fact_display.c	FlowFactDisplay_Init_FlowAdjSetting	req[14-13-1-36]	Ikarashi		Taki		Ikarashi		
flow_fact_display.c	FlowFactDisplay_Init_FlowCheck	req[14-13-1-41]	Ikarashi		Taki		Ikarashi		
flow_fact_display.c	FlowFactDisplay_Init_GasCombChannelSelect	req[5-8-3-1]	Ikarashi		Taki		Ikarashi		
flow_fact_display.c	FlowFactDisplay_Init_GasCombGasSelect	req[5-8-3-2]	Ikarashi		Taki		Ikarashi		
flow_fact_display.c	FlowFactDisplay_Init_RomSumDisp	req[10-5-1-1]	Ikarashi		Taki		Ikarashi		
flow_fact_display.c	FlowFactDisplay_Select_ABDispNum	req[10-7-1-2]	Ikarashi		Taki		Ikarashi		
flow_fact_display.c	FlowFactDisplay_Select_FactMenu	req[9-6-1-2]	Ikarashi		Taki		Ikarashi		
flow_fact_display.c	FlowFactDisplay_Select_FlowAdjSetting	req[14-13-1-40]	Ikarashi		Taki		Ikarashi		
flow_fact_display.c	FlowFactDisplay_Select_GasCombChannelSelect	req[5-8-3-3]	Ikarashi		Taki		Ikarashi		
flow_fact_display.c	FlowFactDisplay_Select_GasCombGasSelect	req[5-8-3-4]	Ikarashi		Taki		Ikarashi		
flow_fact_display.c	FlowFactDisplay_Set_ADDisp	req[10-7-1-3]	Ikarashi		Taki		Ikarashi		
flow_fact_display.c	FlowFactDisplay_Set_FactMenu	req[9-6-1-3]	Ikarashi		Taki		Ikarashi		
flow_fact_display.c	FlowFactDisplay_Set_FactoryDefault	req[6-10-1-6]	Ikarashi		Taki		Ikarashi		
flow_fact_display.c	FlowGasCalDisplay_Displ_DefaultConfirmation	req[6-6-1-11]	Ikarashi		Taki		Ikarashi		
flow_fact_display.c	FlowGasCalDisplay_Displ_DefaultING	req[6-6-1-12]	Ikarashi		Taki		Ikarashi		
flow_fact_display.c	FlowGasCalDisplay_Displ_DefaultOK	req[6-6-1-13]	Ikarashi		Taki		Ikarashi		
flow_fact_display.c	FlowGasCalDisplay_Displ_SetDefault	req[6-6-1-14]	Ikarashi		Taki		Ikarashi		
flow_gas_cal_display.c	FlowGasCalDisplay_Chk_AutoCalMenuGasOn	req[5-4-1-2]	Ikarashi		Taki		Ikarashi		
flow_gas_cal_display.c	FlowGasCalDisplay_Chk_AutoCalMenuZIPC	req[5-4-1-4]	Ikarashi		Taki		Ikarashi		
flow_gas_cal_display.c	FlowGasCalDisplay_Chk_AutoCalSelectMenu	req[5-4-1-3]	Ikarashi		Taki		Ikarashi		

flow_gascaI_display.c	FlowGasCaIDisplay_Chk_HCModeWarmFlg	req[11-5-2-7]	Ikarashi		Taki		Ikarashi		
flow_gascaI_display.c	FlowGasCaIDisplay_Disp_AirCaIDenst	req[5-1-1-2]	Ikarashi		Taki		Ikarashi		
flow_gascaI_display.c	FlowGasCaIDisplay_Disp_AirCaIPass	req[5-1-1-3]	Ikarashi		Taki		Ikarashi		
flow_gascaI_display.c	FlowGasCaIDisplay_Disp_AirFail	req[5-1-2-1]	Ikarashi		Taki		Ikarashi		
flow_gascaI_display.c	FlowGasCaIDisplay_Disp_AirHold	req[5-1-1-4]	Ikarashi		Taki		Ikarashi		
flow_gascaI_display.c	FlowGasCaIDisplay_Disp_AirRelease	req[5-1-1-5]	Ikarashi		Taki		Ikarashi		
flow_gascaI_display.c	FlowGasCaIDisplay_Disp_AutoCal_ChgDenst	req[5-4-2-1]	Ikarashi		Taki		Ikarashi		
flow_gascaI_display.c	FlowGasCaIDisplay_Disp_AutoCal_SelectGas	req[5-4-2-2]	Ikarashi		Taki		Ikarashi		
flow_gascaI_display.c	FlowGasCaIDisplay_Disp_AutoCalBlinkDenst	req[5-4-1-5]	Ikarashi		Taki		Ikarashi		
flow_gascaI_display.c	FlowGasCaIDisplay_Disp_AutoCalDenst	req[5-4-1-6]	Ikarashi		Taki		Ikarashi		
flow_gascaI_display.c	FlowGasCaIDisplay_Disp_AutoCalPass	req[5-4-1-7]	Ikarashi		Taki		Ikarashi		
flow_gascaI_display.c	FlowGasCaIDisplay_Disp_AutoCalRunning	req[5-4-1-8]	Ikarashi		Taki		Ikarashi		
flow_gascaI_display.c	FlowGasCaIDisplay_Disp_EndAutoCalDenst	req[5-4-1-9]	Ikarashi		Taki		Ikarashi		
flow_gascaI_display.c	FlowGasCaIDisplay_Disp_FailAutoCal	req[5-4-4-1]	Ikarashi		Taki		Ikarashi		
flow_gascaI_display.c	FlowGasCaIDisplay_Disp_GroupSelectGas	req[5-4-3-2]	Ikarashi		Taki		Ikarashi		
flow_gascaI_display.c	FlowGasCaIDisplay_Disp_GroupSelectGroup	req[5-4-3-3]	Ikarashi		Taki		Ikarashi		
flow_gascaI_display.c	FlowGasCaIDisplay_Disp_HCModeWarmFlg	req[11-5-1-1]	Ikarashi		Taki		Ikarashi		
flow_gascaI_display.c	FlowGasCaIDisplay_Disp_SpanMargin	req[11-3-2-1]	Ikarashi		Taki		Ikarashi		
flow_gascaI_display.c	FlowGasCaIDisplay_End_AutoCal_ChgDenst	req[5-4-2-3]	Ikarashi		Taki		Ikarashi		
flow_gascaI_display.c	FlowGasCaIDisplay_End_GroupSelectGroup	req[5-4-3-4]	Ikarashi		Taki		Ikarashi		
flow_gascaI_display.c	FlowGasCaIDisplay_Execution_AutoCal	req[5-4-1-10]	Ikarashi		Taki		Ikarashi		
flow_gascaI_display.c	FlowGasCaIDisplay_Get_SpanMarginOnOff	req[11-3-3-1]	Ikarashi		Taki		Ikarashi		
flow_gascaI_display.c	FlowGasCaIDisplay_Init_AutoCal_ChgDenst	req[5-4-2-4]	Ikarashi		Taki		Ikarashi		
flow_gascaI_display.c	FlowGasCaIDisplay_Init_AutoCal_SelectGas	req[5-4-2-5]	Ikarashi		Taki		Ikarashi		
flow_gascaI_display.c	FlowGasCaIDisplay_Init_AutoCalBlinkDenst	req[5-4-1-1]	Ikarashi		Taki		Ikarashi		
flow_gascaI_display.c	FlowGasCaIDisplay_Init_AutoCalMenu	req[5-4-1-11]	Ikarashi		Taki		Ikarashi		
flow_gascaI_display.c	FlowGasCaIDisplay_Init_GasCaIMenu	req[9-3-1-1]	Ikarashi		Taki		Ikarashi		
flow_gascaI_display.c	FlowGasCaIDisplay_Init_GroupSelectGas	req[5-4-3-5]	Ikarashi		Taki		Ikarashi		
flow_gascaI_display.c	FlowGasCaIDisplay_Init_GroupSelectGroup	req[5-4-3-6]	Ikarashi		Taki		Ikarashi		
flow_gascaI_display.c	FlowGasCaIDisplay_Init_LimitGasCaIMenu	req[9-3-1-2]	Ikarashi		Taki		Ikarashi		
flow_gascaI_display.c	FlowGasCaIDisplay_SelectUp_AutoCalMenu	req[5-4-1-13]	Ikarashi		Taki		Ikarashi		
flow_gascaI_display.c	FlowGasCaIDisplay_Select_AutoCal_ChgDenst	req[5-4-2-6]	Ikarashi		Taki		Ikarashi		
flow_gascaI_display.c	FlowGasCaIDisplay_Select_AutoCal_SelectGas	req[5-4-2-7]	Ikarashi		Taki		Ikarashi		
flow_gascaI_display.c	FlowGasCaIDisplay_Select_AutoCalMenu	req[5-4-1-12]	Ikarashi		Taki		Ikarashi		
flow_gascaI_display.c	FlowGasCaIDisplay_Select_GasCaIMenu	req[9-3-1-3]	Ikarashi		Taki		Ikarashi		
flow_gascaI_display.c	FlowGasCaIDisplay_Select_GroupSelectGas	req[5-4-3-7]	Ikarashi		Taki		Ikarashi		
flow_gascaI_display.c	FlowGasCaIDisplay_Select_GroupSelectGroup	req[5-4-3-8]	Ikarashi		Taki		Ikarashi		
flow_gascaI_display.c	FlowGasCaIDisplay_Set_GasCaIMenu	req[9-3-1-4]	Ikarashi		Taki		Ikarashi		
flow_gascaI_display.c	m_Chk_AutoCalGasOn	req[5-4-3-1]	Ikarashi		Taki		Ikarashi		
flow_gascaI_display.c	m_Chk_GasCaIMenuItem	req[9-3-1-5]	Ikarashi		Taki		Ikarashi		
flow_gasset_display.c	FlowGasSelDisplay_Disp_ChangeLELValue	req[11-6-2-1]	Ikarashi		Taki		Ikarashi		
flow_gasset_display.c	FlowGasSelDisplay_Disp_MarginDispOnOff	req[11-3-3-2]	Ikarashi		Taki		Ikarashi		
flow_gasset_display.c	FlowGasSelDisplay_Disp_ResetAlarmPoint	req[11-9-2-4]	Ikarashi		Taki		Ikarashi		
flow_gasset_display.c	FlowGasSelDisplay_Disp_StealthMotorOnOff	req[11-4-2-1]	Ikarashi		Taki		Ikarashi		
flow_gasset_display.c	FlowGasSelDisplay_Disp_StealthOnOff	req[11-4-2-2]	Ikarashi		Taki		Ikarashi		
flow_gasset_display.c	FlowGasSelDisplay_End_ChangeLELValue	req[11-6-2-2]	Ikarashi		Taki		Ikarashi		
flow_gasset_display.c	FlowGasSelDisplay_End_MarginDispOnOff	req[11-3-3-3]	Ikarashi		Taki		Ikarashi		
flow_gasset_display.c	FlowGasSelDisplay_End_ResetAlarmPoint	req[11-9-2-5]	Ikarashi		Taki		Ikarashi		
flow_gasset_display.c	FlowGasSelDisplay_End_StealthOnOff	req[11-4-2-3]	Ikarashi		Taki		Ikarashi		
flow_gasset_display.c	FlowGasSelDisplay_Init_ChangeLELValue	req[11-6-2-3]	Ikarashi		Taki		Ikarashi		
flow_gasset_display.c	FlowGasSelDisplay_Init_GasSelMenu	req[9-5-1-1]	Ikarashi		Taki		Ikarashi		
flow_gasset_display.c	FlowGasSelDisplay_Init_MarginDispOnOff	req[11-3-3-4]	Ikarashi		Taki		Ikarashi		
flow_gasset_display.c	FlowGasSelDisplay_Init_StealthMotorOnOff	req[11-4-2-4]	Ikarashi		Taki		Ikarashi		
flow_gasset_display.c	FlowGasSelDisplay_Init_StealthOnOff	req[11-4-2-5]	Ikarashi		Taki		Ikarashi		
flow_gasset_display.c	FlowGasSelDisplay_Select_ChangeLELValue	req[11-6-2-4]	Ikarashi		Taki		Ikarashi		
flow_gasset_display.c	FlowGasSelDisplay_Select_GasSelMenu	req[9-5-1-2]	Ikarashi		Taki		Ikarashi		
flow_gasset_display.c	FlowGasSelDisplay_Select_MarginDispOnOff	req[11-3-3-5]	Ikarashi		Taki		Ikarashi		
flow_gasset_display.c	FlowGasSelDisplay_Select_StealthMotorOnOff	req[11-4-2-6]	Ikarashi		Taki		Ikarashi		
flow_gasset_display.c	FlowGasSelDisplay_Select_StealthOnOff	req[11-4-2-7]	Ikarashi		Taki		Ikarashi		
flow_gasset_display.c	FlowGasSelDisplay_Set_GasSelMenu	req[9-5-1-3]	Ikarashi		Taki		Ikarashi		
flow_initial_display.c	FlowInitialDisplay_Calc_InitDispTime	req[9-8-1-1]	Ikarashi		Taki		Ikarashi		
flow_initial_display.c	FlowInitialDisplay_Chk_HCModeHCFIg	req[11-5-2-8]	Ikarashi		Taki		Ikarashi		
flow_initial_display.c	FlowInitialDisplay_Disp_BumpLimitEffe	req[5-6-4-1]	Ikarashi		Taki		Ikarashi		
flow_initial_display.c	FlowInitialDisplay_Disp_BumpLimitOk	req[5-6-4-2]	Ikarashi		Taki		Ikarashi		
flow_initial_display.c	FlowInitialDisplay_Disp_BumpLimitOper	req[5-6-4-3]	Ikarashi		Taki		Ikarashi		
flow_initial_display.c	FlowInitialDisplay_Disp_BumpLimitRequ	req[5-6-4-4]	Ikarashi		Taki		Ikarashi		
flow_initial_display.c	FlowInitialDisplay_Disp_CalLimitEffe	req[5-5-4-1]	Ikarashi		Taki		Ikarashi		
flow_initial_display.c	FlowInitialDisplay_Disp_CalLimitOk	req[5-5-4-2]	Ikarashi		Taki		Ikarashi		
flow_initial_display.c	FlowInitialDisplay_Disp_CalLimitOper	req[5-5-4-3]	Ikarashi		Taki		Ikarashi		
flow_initial_display.c	FlowInitialDisplay_Disp_CalLimitRequ	req[5-5-4-4]	Ikarashi		Taki		Ikarashi		
flow_initial_display.c	FlowInitialDisplay_Disp_MainteNoticeEffe	req[5-7-4-1]	Ikarashi		Taki		Ikarashi		
flow_initial_display.c	FlowInitialDisplay_Disp_MainteNoticeOk	req[5-7-4-2]	Ikarashi		Taki		Ikarashi		
flow_initial_display.c	FlowInitialDisplay_Disp_MainteNoticeOper	req[5-7-4-3]	Ikarashi		Taki		Ikarashi		
flow_initial_display.c	FlowInitialDisplay_Disp_MainteNoticeRequ	req[5-7-4-4]	Ikarashi		Taki		Ikarashi		
flow_initial_display.c	FlowInitialDisplay_Disp_PleaseWait	req[6-11-2-2]	Ikarashi		Taki		Ikarashi		
flow_initial_display.c	FlowInitialDisplay_Disp_ResumeConfirmation	req[6-4-3-1]	Ikarashi		Taki		Ikarashi		
flow_initial_display.c	FlowInitialDisplay_Disp_ResumeFail	req[6-4-3-2]	Ikarashi		Taki		Ikarashi		
flow_initial_display.c	FlowInitialDisplay_Disp_ResumeOFF	req[6-4-3-3]	Ikarashi		Taki		Ikarashi		
flow_initial_display.c	FlowInitialDisplay_Disp_ResumeON	req[6-4-3-4]	Ikarashi		Taki		Ikarashi		
flow_initial_display.c	FlowInitialDisplay_DispSet_1stAlarm	req[10-2-4-1]	Ikarashi		Taki		Ikarashi		
flow_initial_display.c	FlowInitialDisplay_DispSet_1stAlarm	req[10-2-4-2]	Ikarashi		Taki		Ikarashi		
flow_initial_display.c	FlowInitialDisplay_DispSet_2ndAlarm	req[10-2-4-3]	Ikarashi		Taki		Ikarashi		
flow_initial_display.c	FlowInitialDisplay_DispSet_3rdAlarm	req[10-2-4-4]	Ikarashi		Taki		Ikarashi		
flow_initial_display.c	FlowInitialDisplay_DispSet_AutoZeroConfirm	req[5-3-1-1]	Ikarashi		Taki		Ikarashi		
flow_initial_display.c	FlowInitialDisplay_DispSet_Battery	req[10-4-2-1]	Ikarashi		Taki		Ikarashi		

flow_initial_display.c	FlowInitialDisplay_DispSet_DateAndTime	req[10-3-1-1]	Ikarashi		Taki		Ikarashi	
flow_initial_display.c	FlowInitialDisplay_DispSet_FS	req[10-2-2-1]	Ikarashi		Taki		Ikarashi	
flow_initial_display.c	FlowInitialDisplay_DispSet_GasName	req[10-2-1-1]	Ikarashi		Taki		Ikarashi	
flow_initial_display.c	FlowInitialDisplay_DispSet_SensorIn#Fail	req[3-1-2-1]	Ikarashi		Taki		Ikarashi	
flow_initial_display.c	FlowInitialDisplay_DispSet_StationId	req[10-6-1-1]	Ikarashi		Taki		Ikarashi	
flow_initial_display.c	FlowInitialDisplay_DispSet_STELAlarm	req[10-2-4-5]	Ikarashi		Taki		Ikarashi	
flow_initial_display.c	FlowInitialDisplay_DispSet_TWAAlarm	req[10-2-4-6]	Ikarashi		Taki		Ikarashi	
flow_initial_display.c	FlowInitialDisplay_DispSet_UserId	req[10-6-2-1]	Ikarashi		Taki		Ikarashi	
flow_initial_display.c	FlowInitialDisplay_Get_InitDispTime	req[9-8-1-2]	Ikarashi		Taki		Ikarashi	
flow_initial_display.c	FlowInitialDisplay_Set_AlloffDisp	req[6-11-2-3]	Ikarashi		Taki		Ikarashi	
flow_initial_display.c	FlowInitialDisplay_Set_AlloffDisp	req[9-8-1-3]	Ikarashi		Taki		Ikarashi	
flow_initial_display.c	FlowInitialDisplay_Set_HCModeHCHftgGasName	req[11-5-2-9]	Ikarashi		Taki		Ikarashi	
flow_main.c	FlowMain_Disp_FailDisp	req[3-1-2-2]	Ikarashi		Taki		Ikarashi	
flow_main.c	FlowMain_Get_ModeStatus	req[9-9-1-1]	Ikarashi		Taki		Ikarashi	
flow_main.c	FlowMain_Set_ModeStatus	req[9-9-1-2]	Ikarashi		Taki		Ikarashi	
flow_main.c	FlowMain_Select_MenuNum	req[9-9-1-3]	Ikarashi		Taki		Ikarashi	
flow_mainte_display.c	FlowMainteDisplay_Chk_ChangeSensorDateEndNum	req[12-2-1-1]	Ikarashi		Taki		Ikarashi	
flow_mainte_display.c	FlowMainteDisplay_DigitDown_MaintePassSelect	req[6-8-4-1]	Ikarashi		Taki		Ikarashi	
flow_mainte_display.c	FlowMainteDisplay_DigitUp_MaintePassSelect	req[6-8-4-2]	Ikarashi		Taki		Ikarashi	
flow_mainte_display.c	FlowMainteDisplay_Disp_AlarmPatternOnOff	req[2-3-1-1]	Ikarashi		Taki		Ikarashi	
flow_mainte_display.c	FlowMainteDisplay_Disp_AlarmSilenceOnOff	req[2-6-1-4]	Ikarashi		Taki		Ikarashi	
flow_mainte_display.c	FlowMainteDisplay_Disp_AutoZeroOnOff	req[5-3-2-1]	Ikarashi		Taki		Ikarashi	
flow_mainte_display.c	FlowMainteDisplay_Disp_ChangeSenDateSet	req[12-2-1-2]	Ikarashi		Taki		Ikarashi	
flow_mainte_display.c	FlowMainteDisplay_Disp_ChangeSensorDate	req[12-2-1-3]	Ikarashi		Taki		Ikarashi	
flow_mainte_display.c	FlowMainteDisplay_Disp_DemandZeroOnOff	req[5-2-2-1]	Ikarashi		Taki		Ikarashi	
flow_mainte_display.c	FlowMainteDisplay_Disp_DispPumpOff	req[14-12-1-14]	Ikarashi		Taki		Ikarashi	
flow_mainte_display.c	FlowMainteDisplay_Disp_DispSuppressOnOff	req[5-8-5-1]	Ikarashi		Taki		Ikarashi	
flow_mainte_display.c	FlowMainteDisplay_Disp_DispZeroFlwrOnOff	req[5-8-4-1]	Ikarashi		Taki		Ikarashi	
flow_mainte_display.c	FlowMainteDisplay_Disp_GasTest	req[12-1-1-1]	Ikarashi		Taki		Ikarashi	
flow_mainte_display.c	FlowMainteDisplay_Disp_IdDispOnOff	req[6-5-1-2]	Ikarashi		Taki		Ikarashi	
flow_mainte_display.c	FlowMainteDisplay_Disp_MaintePassOnOff	req[6-8-4-3]	Ikarashi		Taki		Ikarashi	
flow_mainte_display.c	FlowMainteDisplay_Disp_MaintePassSelect	req[6-8-4-4]	Ikarashi		Taki		Ikarashi	
flow_mainte_display.c	FlowMainteDisplay_Disp_RunningFactoryDefault	req[6-10-2-5]	Ikarashi		Taki		Ikarashi	
flow_mainte_display.c	FlowMainteDisplay_Disp1_FactoryDefault	req[6-10-2-6]	Ikarashi		Taki		Ikarashi	
flow_mainte_display.c	FlowMainteDisplay_Disp2_FactoryDefault	req[6-10-2-7]	Ikarashi		Taki		Ikarashi	
flow_mainte_display.c	FlowMainteDisplay_End_AlarmPatternOnOff	req[2-3-1-2]	Ikarashi		Taki		Ikarashi	
flow_mainte_display.c	FlowMainteDisplay_End_AutoZeroOnOff	req[5-3-2-2]	Ikarashi		Taki		Ikarashi	
flow_mainte_display.c	FlowMainteDisplay_End_ChangeSenDateSet	req[12-2-2-1]	Ikarashi		Taki		Ikarashi	
flow_mainte_display.c	FlowMainteDisplay_End_DemandZeroOnOff	req[5-2-2-2]	Ikarashi		Taki		Ikarashi	
flow_mainte_display.c	FlowMainteDisplay_End_DispPumpOff	req[14-12-1-13]	Ikarashi		Taki		Ikarashi	
flow_mainte_display.c	FlowMainteDisplay_End_DispSuppressOnOff	req[5-8-5-2]	Ikarashi		Taki		Ikarashi	
flow_mainte_display.c	FlowMainteDisplay_End_DispZeroFlwrOnOff	req[5-8-4-2]	Ikarashi		Taki		Ikarashi	
flow_mainte_display.c	FlowMainteDisplay_End_IdDispOnOff	req[6-5-1-3]	Ikarashi		Taki		Ikarashi	
flow_mainte_display.c	FlowMainteDisplay_End_MaintePassOnOff	req[6-8-4-5]	Ikarashi		Taki		Ikarashi	
flow_mainte_display.c	FlowMainteDisplay_End_MaintePassSelect	req[6-8-4-6]	Ikarashi		Taki		Ikarashi	
flow_mainte_display.c	FlowMainteDisplay_Init_AlarmPatternOnOff	req[2-3-1-3]	Ikarashi		Taki		Ikarashi	
flow_mainte_display.c	FlowMainteDisplay_Init_AlarmSilenceOnOff	req[2-6-1-2]	Ikarashi		Taki		Ikarashi	
flow_mainte_display.c	FlowMainteDisplay_Init_AutoZeroOnOff	req[5-3-2-3]	Ikarashi		Taki		Ikarashi	
flow_mainte_display.c	FlowMainteDisplay_Init_ChangeSensorDate	req[12-2-2-2]	Ikarashi		Taki		Ikarashi	
flow_mainte_display.c	FlowMainteDisplay_Init_DemandZeroOnOff	req[5-2-2-3]	Ikarashi		Taki		Ikarashi	
flow_mainte_display.c	FlowMainteDisplay_Init_DispPumpOff	req[14-12-1-12]	Ikarashi		Taki		Ikarashi	
flow_mainte_display.c	FlowMainteDisplay_Init_DispSuppressOnOff	req[5-8-5-3]	Ikarashi		Taki		Ikarashi	
flow_mainte_display.c	FlowMainteDisplay_Init_DispZeroFlwrOnOff	req[5-8-4-3]	Ikarashi		Taki		Ikarashi	
flow_mainte_display.c	FlowMainteDisplay_Init_IdDispOnOff	req[6-5-1-4]	Ikarashi		Taki		Ikarashi	
flow_mainte_display.c	FlowMainteDisplay_Init_MainteMenu	req[9-4-1-1]	Ikarashi		Taki		Ikarashi	
flow_mainte_display.c	FlowMainteDisplay_Init_MaintePassOnOff	req[6-8-4-7]	Ikarashi		Taki		Ikarashi	
flow_mainte_display.c	FlowMainteDisplay_Init_MaintePassSelect	req[6-8-4-8]	Ikarashi		Taki		Ikarashi	
flow_mainte_display.c	FlowMainteDisplay_Select_AlarmPatternOnOff	req[2-3-1-4]	Ikarashi		Taki		Ikarashi	
flow_mainte_display.c	FlowMainteDisplay_Select_AlarmSilenceOnOff	req[2-6-1-5]	Ikarashi		Taki		Ikarashi	
flow_mainte_display.c	FlowMainteDisplay_Select_AutoZeroOnOff	req[5-3-2-4]	Ikarashi		Taki		Ikarashi	
flow_mainte_display.c	FlowMainteDisplay_Select_ChangeSensorDate	req[12-2-2-3]	Ikarashi		Taki		Ikarashi	
flow_mainte_display.c	FlowMainteDisplay_Select_DemandZeroOnOff	req[5-2-2-4]	Ikarashi		Taki		Ikarashi	
flow_mainte_display.c	FlowMainteDisplay_Select_DispPumpOff	req[14-12-1-15]	Ikarashi		Taki		Ikarashi	
flow_mainte_display.c	FlowMainteDisplay_Select_DispSuppressOnOff	req[5-8-5-4]	Ikarashi		Taki		Ikarashi	
flow_mainte_display.c	FlowMainteDisplay_Select_DispZeroFlwrOnOff	req[5-8-4-4]	Ikarashi		Taki		Ikarashi	
flow_mainte_display.c	FlowMainteDisplay_Select_IdDispOnOff	req[6-5-1-5]	Ikarashi		Taki		Ikarashi	
flow_mainte_display.c	FlowMainteDisplay_Select_MainteMenu	req[9-4-1-2]	Ikarashi		Taki		Ikarashi	
flow_mainte_display.c	FlowMainteDisplay_Select_MaintePassOnOff	req[6-8-4-9]	Ikarashi		Taki		Ikarashi	
flow_mainte_display.c	FlowMainteDisplay_Select_MaintePassSelect	req[6-8-4-10]	Ikarashi		Taki		Ikarashi	
flow_mainte_display.c	FlowMainteDisplay_Set_FactoryDefault	req[6-10-2-8]	Ikarashi		Taki		Ikarashi	
flow_mainte_display.c	FlowMainteDisplay_Set_MainteMenu	req[9-4-1-3]	Ikarashi		Taki		Ikarashi	
flow_mainte_display.c	m_Chk_MainteMenuItem	req[9-4-1-4]	Ikarashi		Taki		Ikarashi	
flow_mainte_notice_display.c	FlowMainteNoticeDisplay_Disp_CalExprd	req[5-7-2-1]	Ikarashi		Taki		Ikarashi	
flow_mainte_notice_display.c	FlowMainteNoticeDisplay_Disp_MainteNoticeDay	req[5-7-6-1]	Ikarashi		Taki		Ikarashi	
flow_mainte_notice_display.c	FlowMainteNoticeDisplay_Disp_MainteNoticeMenu	req[5-7-2-2]	Ikarashi		Taki		Ikarashi	
flow_mainte_notice_display.c	FlowMainteNoticeDisplay_Disp_MainteNoticeOnOff	req[5-7-5-1]	Ikarashi		Taki		Ikarashi	
flow_mainte_notice_display.c	FlowMainteNoticeDisplay_Disp_MainteNoticeReset	req[5-7-6-2]	Ikarashi		Taki		Ikarashi	
flow_mainte_notice_display.c	FlowMainteNoticeDisplay_End_CalExprd	req[5-7-2-3]	Ikarashi		Taki		Ikarashi	
flow_mainte_notice_display.c	FlowMainteNoticeDisplay_End_MainteNoticeDay	req[5-7-6-3]	Ikarashi		Taki		Ikarashi	
flow_mainte_notice_display.c	FlowMainteNoticeDisplay_End_MainteNoticeOnOff	req[5-7-5-2]	Ikarashi		Taki		Ikarashi	
flow_mainte_notice_display.c	FlowMainteNoticeDisplay_End_MainteNoticeReset	req[5-7-6-4]	Ikarashi		Taki		Ikarashi	
flow_mainte_notice_display.c	FlowMainteNoticeDisplay_Init_CalExprd	req[5-7-2-4]	Ikarashi		Taki		Ikarashi	
flow_mainte_notice_display.c	FlowMainteNoticeDisplay_Init_MainteNoticeDay	req[5-7-6-5]	Ikarashi		Taki		Ikarashi	
flow_mainte_notice_display.c	FlowMainteNoticeDisplay_Init_MainteNoticeMenu	req[5-7-2-5]	Ikarashi		Taki		Ikarashi	
flow_mainte_notice_display.c	FlowMainteNoticeDisplay_Init_MainteNoticeOnOff	req[5-7-5-3]	Ikarashi		Taki		Ikarashi	

flow_mainte_notice_display.c	FlowMainteNoticeDisplay_Select_CalExprd	req[5-7-2-6]	Ikarashi		Taki		Ikarashi	
flow_mainte_notice_display.c	FlowMainteNoticeDisplay_Select_MainteNoticeDay	req[5-7-6-6]	Ikarashi		Taki		Ikarashi	
flow_mainte_notice_display.c	FlowMainteNoticeDisplay_Select_MainteNoticeMenu	req[5-7-2-7]	Ikarashi		Taki		Ikarashi	
flow_mainte_notice_display.c	FlowMainteNoticeDisplay_Select_MainteNoticeOnOff	req[5-7-5-4]	Ikarashi		Taki		Ikarashi	
flow_meas_display.c	FlowMeasDisplay_Set_MeasDisp	req[9-1-2-1]	Ikarashi		Taki		Ikarashi	
flow_pass_display.c	FlowPassDisplay_Chg_PassNum	req[6-8-1-1]	Ikarashi		Taki		Ikarashi	
flow_pass_display.c	FlowPassDisplay_Chg_UpDown	req[6-8-1-2]	Ikarashi		Taki		Ikarashi	
flow_pass_display.c	FlowPassDisplay_Chk_End	req[6-8-1-3]	Ikarashi		Taki		Ikarashi	
flow_pass_display.c	FlowPassDisplay_Chk_Pass	req[6-8-1-4]	Ikarashi		Taki		Ikarashi	
flow_pass_display.c	FlowPassDisplay_Disp_PassErr	req[6-8-1-5]	Ikarashi		Taki		Ikarashi	
flow_pass_display.c	FlowPassDisplay_Get_PassType	req[6-8-1-6]	Ikarashi		Taki		Ikarashi	
flow_pass_display.c	FlowPassDisplay_Get_Return	req[6-8-1-7]	Ikarashi		Taki		Ikarashi	
flow_pass_display.c	FlowPassDisplay_Input_Pass	req[6-8-1-8]	Ikarashi		Taki		Ikarashi	
flow_pass_display.c	FlowPassDisplay_Set_Enter	req[6-8-1-9]	Ikarashi		Taki		Ikarashi	
flow_pass_display.c	FlowPassDisplay_Set_PassInit	req[6-8-1-10]	Ikarashi		Taki		Ikarashi	
flow_procex_display.c	FlowProcesDisplay_Set_TurnOff	req[6-11-2-5]	Ikarashi		Taki		Ikarashi	
flow_procex_display.c	FlowProcesDisplay_Set_UpData	req[7-1-2-1]	Ikarashi		Taki		Ikarashi	
flow_procex_display.c	FlowProcesDisplay_10msec_Interrupt	req[6-11-2-11]	Ikarashi		Taki		Ikarashi	
flow_procex_display.c	FlowProcesDisplay_Chk_PurgeTimeEnd	req[6-11-2-10]	Ikarashi		Taki		Ikarashi	
flow_procex_display.c	FlowProcesDisplay_Get_PumpOffFlag	req[14-12-1-1-7]	Ikarashi		Taki		Ikarashi	
flow_procex_display.c	FlowProcesDisplay_Get_PurgeFlag	req[6-11-2-8]	Ikarashi		Taki		Ikarashi	
flow_procex_display.c	FlowProcesDisplay_Init_Process	req[6-11-2-4]	Ikarashi		Taki		Ikarashi	
flow_procex_display.c	FlowProcesDisplay_Set_PumpOffFlag	req[14-12-1-1-6]	Ikarashi		Taki		Ikarashi	
flow_procex_display.c	FlowProcesDisplay_Set_Purge	req[6-11-2-6]	Ikarashi		Taki		Ikarashi	
flow_procex_display.c	FlowProcesDisplay_Set_PurgeFlag	req[6-11-2-7]	Ikarashi		Taki		Ikarashi	
flow_procex_display.c	FlowProcesDisplay_Set_PurgeTime	req[6-11-2-9]	Ikarashi		Taki		Ikarashi	
flow_snaplog_display.c	FlowSnaplogDisplay_Disp_SnapDisp	req[8-1-8-10]	Ikarashi		Taki		Ikarashi	
flow_snaplog_display.c	FlowSnaplogDisplay_Set_SnapLog	req[8-1-8-11]	Ikarashi		Taki		Ikarashi	
flow_snaplog_display.c	FlowSnaplogDisplay_Disp_SnapSaved	req[8-1-8-12]	Ikarashi		Taki		Ikarashi	
flow_user_display.c	FlowUserDisplay_Chk_UserPassOnOff	req[6-8-2-1]	Ikarashi		Taki		Ikarashi	
flow_user_display.c	FlowUserDisplay_Chk_ZeroSuppressEsc	req[5-8-5-5]	Ikarashi		Taki		Ikarashi	
flow_user_display.c	FlowUserDisplay_DigitDown_UserPassSelect	req[6-8-2-2]	Ikarashi		Taki		Ikarashi	
flow_user_display.c	FlowUserDisplay_DigitUp_UserPassSelect	req[6-8-2-3]	Ikarashi		Taki		Ikarashi	
flow_user_display.c	FlowUserDisplay_Disp_BackLightTime	req[6-1-2-1]	Ikarashi		Taki		Ikarashi	
flow_user_display.c	FlowUserDisplay_Disp_DispmodeSettingItemDisplay	req[6-7-1-1]	Ikarashi		Taki		Ikarashi	
flow_user_display.c	FlowUserDisplay_Disp_KeyTone	req[6-2-2-1]	Ikarashi		Taki		Ikarashi	
flow_user_display.c	FlowUserDisplay_Disp_LunchBreak	req[6-4-1-1]	Ikarashi		Taki		Ikarashi	
flow_user_display.c	FlowUserDisplay_Disp_UserPassOnOff	req[6-8-2-4]	Ikarashi		Taki		Ikarashi	
flow_user_display.c	FlowUserDisplay_Disp_UserPassSelect	req[6-8-2-5]	Ikarashi		Taki		Ikarashi	
flow_user_display.c	FlowUserDisplay_Disp_ZeroFollowerGas	req[5-8-4-5]	Ikarashi		Taki		Ikarashi	
flow_user_display.c	FlowUserDisplay_Disp_ZeroFollowerSet	req[5-8-4-6]	Ikarashi		Taki		Ikarashi	
flow_user_display.c	FlowUserDisplay_Disp_ZeroSuppressGas	req[5-8-5-6]	Ikarashi		Taki		Ikarashi	
flow_user_display.c	FlowUserDisplay_Disp_ZeroSuppressSet	req[5-8-5-7]	Ikarashi		Taki		Ikarashi	
flow_user_display.c	FlowUserDisplay_End_BackLightTime	req[6-1-2-2]	Ikarashi		Taki		Ikarashi	
flow_user_display.c	FlowUserDisplay_End_DateSetting	req[10-3-4-1]	Ikarashi		Taki		Ikarashi	
flow_user_display.c	FlowUserDisplay_End_DispmodeSettingItemDisplay	req[6-7-1-2]	Ikarashi		Taki		Ikarashi	
flow_user_display.c	FlowUserDisplay_End_KeyTone	req[6-2-2-2]	Ikarashi		Taki		Ikarashi	
flow_user_display.c	FlowUserDisplay_End_LunchBreak	req[6-4-1-2]	Ikarashi		Taki		Ikarashi	
flow_user_display.c	FlowUserDisplay_End_UserPassOnOff	req[6-8-2-6]	Ikarashi		Taki		Ikarashi	
flow_user_display.c	FlowUserDisplay_End_UserPassSelect	req[6-8-2-7]	Ikarashi		Taki		Ikarashi	
flow_user_display.c	FlowUserDisplay_End_ZeroFollowerSet	req[5-8-4-11]	Ikarashi		Taki		Ikarashi	
flow_user_display.c	FlowUserDisplay_End_ZeroSuppressSet	req[5-8-5-12]	Ikarashi		Taki		Ikarashi	
flow_user_display.c	FlowUserDisplay_Init_BackLightTime	req[6-1-2-3]	Ikarashi		Taki		Ikarashi	
flow_user_display.c	FlowUserDisplay_Init_BumpLimitUserMenu	req[9-3-1-8]	Ikarashi		Taki		Ikarashi	
flow_user_display.c	FlowUserDisplay_Init_CalLimitUserMenu	req[9-3-1-7]	Ikarashi		Taki		Ikarashi	
flow_user_display.c	FlowUserDisplay_Init_DateSetting	req[10-3-4-2]	Ikarashi		Taki		Ikarashi	
flow_user_display.c	FlowUserDisplay_Init_DispmodeSettingItemDisplay	req[6-7-1-3]	Ikarashi		Taki		Ikarashi	
flow_user_display.c	FlowUserDisplay_Init_KeyTone	req[6-2-2-3]	Ikarashi		Taki		Ikarashi	
flow_user_display.c	FlowUserDisplay_Init_LunchBreak	req[6-4-1-3]	Ikarashi		Taki		Ikarashi	
flow_user_display.c	FlowUserDisplay_Init_UserMenu	req[9-3-1-6]	Ikarashi		Taki		Ikarashi	
flow_user_display.c	FlowUserDisplay_Init_UserPassOnOff	req[6-8-2-8]	Ikarashi		Taki		Ikarashi	
flow_user_display.c	FlowUserDisplay_Init_UserPassSelect	req[6-8-2-9]	Ikarashi		Taki		Ikarashi	
flow_user_display.c	FlowUserDisplay_Init_ZeroFollowerGas	req[5-8-4-7]	Ikarashi		Taki		Ikarashi	
flow_user_display.c	FlowUserDisplay_Init_ZeroFollowerSet	req[5-8-4-8]	Ikarashi		Taki		Ikarashi	
flow_user_display.c	FlowUserDisplay_Init_ZeroSuppressGas	req[5-8-5-8]	Ikarashi		Taki		Ikarashi	
flow_user_display.c	FlowUserDisplay_Init_ZeroSuppressSet	req[5-8-5-9]	Ikarashi		Taki		Ikarashi	
flow_user_display.c	FlowUserDisplay_Select_BackLightTime	req[6-1-2-4]	Ikarashi		Taki		Ikarashi	
flow_user_display.c	FlowUserDisplay_Select_DateSettingItem	req[10-3-4-3]	Ikarashi		Taki		Ikarashi	
flow_user_display.c	FlowUserDisplay_Select_DateSettingNum	req[10-3-4-4]	Ikarashi		Taki		Ikarashi	
flow_user_display.c	FlowUserDisplay_Select_DispmodeSettingItemDisplay	req[6-7-1-4]	Ikarashi		Taki		Ikarashi	
flow_user_display.c	FlowUserDisplay_Select_KeyTone	req[6-2-2-4]	Ikarashi		Taki		Ikarashi	
flow_user_display.c	FlowUserDisplay_Select_LunchBreak	req[6-4-1-4]	Ikarashi		Taki		Ikarashi	
flow_user_display.c	FlowUserDisplay_Select_UserMenu	req[9-3-1-9]	Ikarashi		Taki		Ikarashi	
flow_user_display.c	FlowUserDisplay_Select_UserPassOnOff	req[6-8-2-10]	Ikarashi		Taki		Ikarashi	
flow_user_display.c	FlowUserDisplay_Select_UserPassSelect	req[6-8-2-11]	Ikarashi		Taki		Ikarashi	
flow_user_display.c	FlowUserDisplay_Select_ZeroFollowerGas	req[5-8-4-9]	Ikarashi		Taki		Ikarashi	
flow_user_display.c	FlowUserDisplay_Select_ZeroFollowerSet	req[5-8-4-10]	Ikarashi		Taki		Ikarashi	
flow_user_display.c	FlowUserDisplay_Select_ZeroSuppressGas	req[5-8-5-10]	Ikarashi		Taki		Ikarashi	
flow_user_display.c	FlowUserDisplay_Select_ZeroSuppressSet	req[5-8-5-11]	Ikarashi		Taki		Ikarashi	
flow_user_display.c	FlowUserDisplay_Set_DateSetting	req[10-3-4-5]	Ikarashi		Taki		Ikarashi	
flow_user_display.c	FlowUserDisplay_Set_EndDisp	req[9-3-1-10]	Ikarashi		Taki		Ikarashi	
flow_user_display.c	FlowUserDisplay_Set_UserMenu	req[9-3-1-11]	Ikarashi		Taki		Ikarashi	
flow_user_display.c	m_Chk_UserMenuitem	req[9-3-1-12]	Ikarashi		Taki		Ikarashi	
func_bump_limit.c	FuncBumpLimit_Chk_BumpLimitDay	req[5-6-3-1]	Ikarashi		Taki		Ikarashi	
func_bump_limit.c	FuncBumpLimit_Chk_BumpLimitExpired	req[5-6-3-2]	Ikarashi		Taki		Ikarashi	

func_bump_limit.c	FuncBumpLimit_Get_BumpLimitExpiredBehavior	req[5-6-3-3]	Ikarashi		Taki		Ikarashi	
func_bump_limit.c	FuncBumpLimit_Get_BumpLimitOnOff	req[5-6-1-1]	Ikarashi		Taki		Ikarashi	
func_bump_limit.c	FuncBumpLimit_Get_ChkBumpLimitExpired	req[5-6-3-4]	Ikarashi		Taki		Ikarashi	
func_bump_limit.c	FuncBumpLimit_Set_BumpEndDenst	req[5-6-6-5]	Ikarashi		Taki		Ikarashi	
func_bump_limit.c	FuncBumpLimit_Set_BumpCalFlagSuccess	req[5-6-3-5]	Ikarashi		Taki		Ikarashi	
func_bump_limit.c	m_Chk_BumpLimitFlag	req[5-6-3-6]	Ikarashi		Taki		Ikarashi	
func_cal_limit.c	FuncCalLimit_Calc_Cal_BumpLimitDay	req[5-5-3-1]	Ikarashi		Taki		Ikarashi	
func_cal_limit.c	FuncCalLimit_Chk_CalLimitDay	req[5-5-3-2]	Ikarashi		Taki		Ikarashi	
func_cal_limit.c	FuncCalLimit_Chk_CalLimitExpired	req[5-5-3-3]	Ikarashi		Taki		Ikarashi	
func_cal_limit.c	FuncCalLimit_Get_CalLimitExpiredBehavior	req[5-5-3-4]	Ikarashi		Taki		Ikarashi	
func_cal_limit.c	FuncCalLimit_Get_CalLimitOnOff	req[5-5-1-8]	Ikarashi		Taki		Ikarashi	
func_cal_limit.c	FuncCalLimit_Get_ChkCalLimitExpired	req[5-5-3-5]	Ikarashi		Taki		Ikarashi	
func_cal_limit.c	FuncCalLimit_Set_CalEndDenst	req[5-5-6-5]	Ikarashi		Taki		Ikarashi	
func_cal_limit.c	FuncCalLimit_Set_CalStartDenst	req[5-5-6-6]	Ikarashi		Taki		Ikarashi	
func_chk_main.c	FuncChkMain_Chk_ConfirmEffectiveValue	req[3-2-1-2]	Ikarashi		Taki		Ikarashi	
func_chk_main.c	FuncChkMain_Chk_SensorTrouble	req[3-2-5-1]	Ikarashi		Taki		Ikarashi	
func_chk_main.c	FuncChkMain_Chk_ThermistorTrouble	req[3-2-4-1]	Ikarashi		Taki		Ikarashi	
func_chk_main.c	FuncChkMain_Int_1Sec	req[3-2-1-3]	Ikarashi		Taki		Ikarashi	
func_chk_main.c	FuncChkMain_Set_BakUpBattFailFlg	req[3-2-2-1]	Ikarashi		Taki		Ikarashi	
func_chk_main.c	FuncChkMain_Set_BattFailFlg	req[3-2-7-1]	Ikarashi		Taki		Ikarashi	
func_chk_main.c	FuncChkMain_Set_ChkStart	req[3-2-1-4]	Ikarashi		Taki		Ikarashi	
func_chk_main.c	FuncChkMain_Set_CircuitVoltageFailFlg	req[3-2-3-1]	Ikarashi		Taki		Ikarashi	
func_chk_main.c	FuncChkMain_Set_ClockFailFlg	req[3-2-2-2]	Ikarashi		Taki		Ikarashi	
func_chk_main.c	FuncChkMain_Set_FlowFailFlg	req[3-2-9-1]	Ikarashi		Taki		Ikarashi	
func_chk_main.c	FuncChkMain_Set_FramFailFlg	req[3-2-1-5]	Ikarashi		Taki		Ikarashi	
func_chk_main.c	FuncChkMain_Set_PumpFailFlg	req[3-2-10-1]	Ikarashi		Taki		Ikarashi	
func_chk_main.c	FuncChkMain_Set_RamFailFlg	req[3-2-1-6]	Ikarashi		Taki		Ikarashi	
func_chk_main.c	FuncChkMain_Set_SensorCalFlg	req[3-2-5-2]	Ikarashi		Taki		Ikarashi	
func_chk_main.c	FuncChkMain_Set_SensorSubstrateFailFlg	req[3-2-4-2]	Ikarashi		Taki		Ikarashi	
func_chk_main.c	FuncChkMain_Set_SensorTroubleFlg	req[3-2-5-3]	Ikarashi		Taki		Ikarashi	
func_chk_main.c	FuncChkMain_Set_ThermistorFailFlg	req[3-2-4-3]	Ikarashi		Taki		Ikarashi	
func_chk_main.c	m_Chk_Range1stAlarm	req[3-2-1-7]	Ikarashi		Taki		Ikarashi	
func_chk_main.c	m_Chk_Range2ndAlarm	req[3-2-1-8]	Ikarashi		Taki		Ikarashi	
func_chk_main.c	m_Chk_Range3rdAlarm	req[3-2-1-9]	Ikarashi		Taki		Ikarashi	
func_chk_main.c	m_Chk_RangeAlarm	req[3-2-1-10]	Ikarashi		Taki		Ikarashi	
func_chk_main.c	m_Chk_RangeCalc	req[3-2-1-11]	Ikarashi		Taki		Ikarashi	
func_chk_main.c	m_Chk_RangeDigitCalc	req[3-2-1-12]	Ikarashi		Taki		Ikarashi	
func_chk_main.c	m_Chk_RangeFloat	req[3-2-1-13]	Ikarashi		Taki		Ikarashi	
func_chk_main.c	m_Chk_RangeFSCalc	req[3-2-1-14]	Ikarashi		Taki		Ikarashi	
func_chk_main.c	m_Chk_RangeNum	req[3-2-1-15]	Ikarashi		Taki		Ikarashi	
func_chk_main.c	m_Chk_RangeSpanCalc	req[3-2-1-16]	Ikarashi		Taki		Ikarashi	
func_chk_main.c	m_Chk_RangeStelAlarm	req[3-2-1-17]	Ikarashi		Taki		Ikarashi	
func_chk_main.c	m_Chk_RangeTwaAlarm	req[3-2-1-18]	Ikarashi		Taki		Ikarashi	
func_chk_main.c	m_Chk_RangeZeroCalc	req[3-2-1-19]	Ikarashi		Taki		Ikarashi	
func_chk_main.c	m_Set_FailCode	req[8-3-1-1]	Ikarashi		Taki		Ikarashi	
func_confirmation_beep.c	FuncConfirmationBeep_1sec_interrupt	req[6-3-1-1]	Ikarashi		Taki		Ikarashi	
func_confirmation_beep.c	FuncConfirmationBeep_Clr_ActiveFlg	req[6-3-2-12]	Ikarashi		Taki		Ikarashi	
func_confirmation_beep.c	FuncConfirmationBeep_Update_AlarmActiveFlg	req[6-3-1-4]	Ikarashi		Taki		Ikarashi	
func_confirmation_beep.c	FuncConfirmationBeep_Update_BumpCalActiveFlg	req[6-3-1-5]	Ikarashi		Taki		Ikarashi	
func_confirmation_beep.c	FuncConfirmationBeep_Update_DownloadActiveFlg	req[6-3-1-6]	Ikarashi		Taki		Ikarashi	
func_confirmation_beep.c	FuncConfirmationBeep_Update_LimitActiveFlg	req[6-3-1-3]	Ikarashi		Taki		Ikarashi	
func_confirmation_beep.c	m_Set_BeepEvent	req[6-3-1-2]	Ikarashi		Taki		Ikarashi	
func_confirmation_beep.c	m_Set_NoActiveFlg	req[6-3-1-7]	Ikarashi		Taki		Ikarashi	
func_ec_sensor.c	ECSENSOR_Calc_AD_Main	req[3-2-6-7]	Ikarashi		Taki		Ikarashi	
func_ec_sensor_chk.c	FuncECSensorChk_10msec_interrupt	req[3-2-6-13]	Ikarashi		Taki		Ikarashi	
func_ec_sensor_chk.c	FuncECSensorChk_1sec_interrupt	req[3-2-6-14]	Ikarashi		Taki		Ikarashi	
func_ec_sensor_chk.c	FuncECSensorChk_Set_StartChk	req[3-2-6-15]	Ikarashi		Taki		Ikarashi	
func_ec_sensor_chk.c	m_Chk_AD	req[3-2-6-16]	Ikarashi		Taki		Ikarashi	
func_ec_sensor_chk.c	m_Set_ECSensorChk	req[3-2-6-17]	Ikarashi		Taki		Ikarashi	
func_ec_sensor_chk.c	m_Set_Err	req[3-2-6-18]	Ikarashi		Taki		Ikarashi	
func_ec_sensor_chk.c	m_Set_StartInitialChk	req[3-2-6-12]	Ikarashi		Taki		Ikarashi	
func_lunch_break.c	FuncLunchBreak_Get_LunchBreakFramData	req[6-4-4-2]	Ikarashi		Taki		Ikarashi	
func_lunch_break.c	FuncLunchBreak_Get_LunchBreakOnOff	req[6-4-1-5]	Ikarashi		Taki		Ikarashi	
func_lunch_break.c	FuncLunchBreak_Get_StatusFlg	req[6-4-4-3]	Ikarashi		Taki		Ikarashi	
func_lunch_break.c	FuncLunchBreak_Set_LunchBreakData	req[6-4-4-4]	Ikarashi		Taki		Ikarashi	
func_lunch_break.c	FuncLunchBreak_Set_LunchBreakFramData	req[6-4-2-3]	Ikarashi		Taki		Ikarashi	
func_lunch_break.c	FuncLunchBreak_Set_OnOffFlg	req[6-4-3-5]	Ikarashi		Taki		Ikarashi	
func_mainte_notice.c	FuncMainteNotice_Chk_MainteLimitDay	req[5-7-3-1]	Ikarashi		Taki		Ikarashi	
func_mainte_notice.c	FuncMainteNotice_Chk_MainteNoticeLimitExpired	req[5-7-3-4]	Ikarashi		Taki		Ikarashi	
func_mainte_notice.c	FuncMainteNotice_Get_MainteLimitExpiredBehavior	req[5-7-3-2]	Ikarashi		Taki		Ikarashi	
func_mainte_notice.c	FuncMainteNotice_Get_MainteNoticeLimitExpired	req[5-7-3-5]	Ikarashi		Taki		Ikarashi	
func_mainte_notice.c	FuncMainteNotice_Get_MainteNoticeOnOff	req[5-7-1-1]	Ikarashi		Taki		Ikarashi	
func_mainte_notice.c	FuncMainteNotice_Set_MainteNoticeReset	req[5-7-6-7]	Ikarashi		Taki		Ikarashi	
func_mainte_notice.c	FuncMainteNotice_Set_MainteNoticeStart	req[5-7-6-8]	Ikarashi		Taki		Ikarashi	
func_mainte_notice.c	FuncMainteNotice_Set_MainteNoticeUpDate	req[5-7-6-9]	Ikarashi		Taki		Ikarashi	
func_mainte_notice.c	m_Calc_MainteLimitDay	req[5-7-3-3]	Ikarashi		Taki		Ikarashi	
func_margin_chk.c	FuncMarginChk_Calc_SpanMargine	req[11-3-1-1]	Ikarashi		Taki		Ikarashi	
func_o2_warm_up.c	O2WarmUp_Func_main	req[14-16-1-6]	Ikarashi		Taki		Ikarashi	
func_o2_warm_up.c	O2WarmUp_Get_AD_data	req[14-16-1-5]	Ikarashi		Taki		Ikarashi	
func_o2_warm_up.c	O2WarmUp_Get_WarmFlg	req[14-16-1-3]	Ikarashi		Taki		Ikarashi	
func_o2_warm_up.c	O2WarmUp_interval_10msec	req[14-16-1-7]	Ikarashi		Taki		Ikarashi	
func_o2_warm_up.c	O2WarmUp_Set_AD	req[14-16-1-4]	Ikarashi		Taki		Ikarashi	
func_o2_warm_up.c	O2WarmUp_Set_Init	req[14-16-1-2]	Ikarashi		Taki		Ikarashi	
func_o2_warm_up.c	O2WarmUp_Set_InitRAM	req[14-16-1-1]	Ikarashi		Taki		Ikarashi	
func_o2_warm_up.c	m_O2WarmUp_Port_Term	req[14-16-1-8]	Ikarashi		Taki		Ikarashi	

func_ram_chk.c	f_Check_CopyRam	req[13-3-2-6]	Ikarashi		Taki		Ikarashi		
func_ram_chk.c	f_Check_MainRam	req[13-3-2-5]	Ikarashi		Taki		Ikarashi		
func_ram_chk.c	f_Cyclic_CheckProcess	req[13-3-2-3]	Ikarashi		Taki		Ikarashi		
func_ram_chk.c	f_Init_MainRam	req[13-3-2-4]	Ikarashi		Taki		Ikarashi		
func_ram_chk.c	FuncRamChk_Cyclic_100msecProcess	req[13-3-2-2]	Ikarashi		Taki		Ikarashi		
func_ram_chk.c	FuncRamChk_Set_RamFailFlg	req[3-2-1-20]	Ikarashi		Taki		Ikarashi		
func_ram_chk.c	FuncRamChk_Start_Check	req[13-3-2-1]	Ikarashi		Taki		Ikarashi		
func_ram_chk.c	FuncRamChk_Start_InitRamChk	req[3-2-1-21]	Ikarashi		Taki		Ikarashi		
func_rom_chk.c	FuncRomChk_Chk_EndRomChk	req[3-2-1-22]	Ikarashi		Taki		Ikarashi		
func_rom_chk.c	FuncRomChk_Get_SumNum	req[13-2-1-1]	Ikarashi		Taki		Ikarashi		
func_rom_chk.c	FuncRomChk_process_RomChk	req[3-2-1-23]	Ikarashi		Taki		Ikarashi		
func_rom_chk.c	FuncRomChk_Start_InitRomChk	req[3-2-1-24]	Ikarashi		Taki		Ikarashi		
func_rom_chk.c	FuncRomChk_Start_RomChk	req[3-2-1-25]	Ikarashi		Taki		Ikarashi		
func_rom_chk.c	m_Calc_RomSum	req[13-2-1-2]	Ikarashi		Taki		Ikarashi		
func_sdm.c	FuncSDM_Get_CombData	req[9-7-2-2]	Ikarashi		Taki		Ikarashi		
func_sdm.c	FuncSDM_Get_ExCommandFlg	req[9-7-2-3]	Ikarashi		Taki		Ikarashi		
func_sdm.c	FuncSDM_Set_DispData	req[9-7-2-4]	Ikarashi		Taki		Ikarashi		
func_sdm.c	FuncSDM_Set_ExCommandData	req[9-7-2-5]	Ikarashi		Taki		Ikarashi		
func_sdm.c	FuncSDM_Set_ExCommandFlg	req[9-7-2-6]	Ikarashi		Taki		Ikarashi		
func_sdm.c	m_DispatchMainData	req[9-7-2-7]	Ikarashi		Taki		Ikarashi		
func_sdm.c	m_DispatchMeasData	req[9-7-2-8]	Ikarashi		Taki		Ikarashi		
func_temp_warning.c	FuncTempWarning_10msec_interrupt	req[11-1-2-5]	Ikarashi		Taki		Ikarashi		
func_temp_warning.c	FuncTempWarning_Chk_OutOfRange	req[11-1-2-4]	Ikarashi		Taki		Ikarashi		
func_temp_warning.c	FuncTempWarning_Get_TempBuzzerFlg	req[11-1-2-3]	Ikarashi		Taki		Ikarashi		
func_temp_warning.c	FuncTempWarning_Get_OutOfRangeFlg	req[11-1-2-2]	Ikarashi		Taki		Ikarashi		
func_temp_warning.c	FuncTempWarning_Reset_OutOfRangeBuzzer	req[11-1-2-1]	Ikarashi		Taki		Ikarashi		
gas_calc.c	GasCalc_10msec_interrupt	req[1-1-1-1]	Ikarashi		Taki		Ikarashi		
gas_calc.c	GasCalc_Calc_Gas_Concentration	req[1-1-1-2]	Ikarashi		Taki		Ikarashi		
gas_calc.c	GasCalc_Clear_GasFailFlg	req[3-1-5-2]	Ikarashi		Taki		Ikarashi		
gas_calc.c	GasCalc_Clear_HCPeak	req[1-6-1-1]	Ikarashi		Taki		Ikarashi		
gas_calc.c	GasCalc_Clear_Peak	req[1-6-1-2]	Ikarashi		Taki		Ikarashi		
gas_calc.c	f_Shift_TwaBuf	req[1-9-1-2]	Ikarashi		Taki		Ikarashi		
gas_calc.c	m_alarm1h_op	req[1-14-1-1]	Ikarashi		Taki		Ikarashi		
gas_calc.c	m_Calc_AverageStelTwa	req[1-9-1-1]	Ikarashi		Taki		Ikarashi		
gas_calc.c	m_Calc_Denst	req[1-1-1-3]	Ikarashi		Taki		Ikarashi		
gas_calc.c	m_Calc_DispatchDenstData	req[1-1-4-1]	Ikarashi		Taki		Ikarashi		
gas_calc.c	m_Calc_Peak	req[1-6-1-3]	Ikarashi		Taki		Ikarashi		
gas_calc.c	m_stel_op	req[1-10-1-1]	Ikarashi		Taki		Ikarashi		
gas_calc.c	m_twa_op	req[1-12-1-1]	Ikarashi		Taki		Ikarashi		
gas_calc_ec.c	GasCalcEC_Back_Linearize_Denst	req[1-3-2-1]	Ikarashi		Taki		Ikarashi		
gas_calc_ec.c	GasCalcEC_Calc_Tracking	req[1-4-1-2]	Ikarashi		Taki		Ikarashi		
gas_calc_ec.c	GasCalcEC_Get_ECChkStartFlg	req[3-2-6-19]	Ikarashi		Taki		Ikarashi		
gas_calc_ec.c	GasCalcEC_Linearize_Denst	req[3-1-1-1]	Ikarashi		Taki		Ikarashi		
gas_calc_ec.c	GasCalcEC_Reset_Tracking	req[1-4-1-3]	Ikarashi		Taki		Ikarashi		
gas_calc_ec.c	GasCalcEC_Set_ECChkStartFlg	req[3-2-6-20]	Ikarashi		Taki		Ikarashi		
gas_calc_ec.c	m_Get_PlusTrackingDenst	req[1-4-1-5]	Ikarashi		Taki		Ikarashi		
gas_calc_ec.c	m_Get_PlusTrackingFlg	req[1-4-1-4]	Ikarashi		Taki		Ikarashi		
gas_calc_ec_denst.c	GasCalcECDenst_AirCal_Denst	req[5-1-1-6]	Ikarashi		Taki		Ikarashi		
gas_calc_ec_denst.c	GasCalcECDenst_AutoCal_Denst	req[5-4-1-14]	Ikarashi		Taki		Ikarashi		
gas_calc_ec_denst.c	GasCalcECDenst_Calc_Denst	req[1-2-1-1]	Ikarashi		Taki		Ikarashi		
gas_calc_ec_denst.c	GasCalcECDenst_Set_SpanMargine	req[11-3-1-2]	Ikarashi		Taki		Ikarashi		
gas_calc_ec_denst.c	m_Calc_EC_SpanTempComp	req[1-2-2-1]	Ikarashi		Taki		Ikarashi		
gas_calc_ec_denst.c	m_Calc_EC_ZeroTempComp	req[1-2-2-2]	Ikarashi		Taki		Ikarashi		
gas_calc_ec_denst.c	m_Get_SensorAD	req[1-2-1-2]	Ikarashi		Taki		Ikarashi		
gas_calc_ec_denst.c	m_Get_SpanAD	req[1-2-1-3]	Ikarashi		Taki		Ikarashi		
gas_calc_ec_denst.c	m_Get_SuppressNum	req[1-5-1-1]	Ikarashi		Taki		Ikarashi		
gas_calc_ec_denst.c	m_Get_ExportControlsNum	req[1-5-1-2]	Ikarashi		Taki		Ikarashi		
gas_calc_ec_h2_cancel_co.c	GasCalcECH2CancelCO_Calc_Denst	req[1-2-1-4]	Ikarashi		Taki		Ikarashi		
gas_calc_ec_h2_cancel_co.c	GasCalcECH2CancelCO_Set_AirCal	req[5-1-1-7]	Ikarashi		Taki		Ikarashi		
gas_calc_ec_h2_cancel_co.c	GasCalcECH2CancelCO_Set_AutoCal	req[5-4-1-15]	Ikarashi		Taki		Ikarashi		
gas_calc_ec_h2_cancel_co.c	GasCalcECH2CancelCO_Set_SpanMargine	req[11-3-1-3]	Ikarashi		Taki		Ikarashi		
gas_calc_ec_h2_cancel_co.c	m_Calc_InverseMatrix	req[1-2-1-5]	Ikarashi		Taki		Ikarashi		
gas_calc_ec_h2_cancel_co.c	m_Calc_TempComp	req[1-2-2-3]	Ikarashi		Taki		Ikarashi		
gas_calc_ec_h2_cancel_co.c	m_Chk_PresenceOfInverseMatrix	req[1-2-1-6]	Ikarashi		Taki		Ikarashi		
gas_calc_ec_h2_cancel_co.c	m_Correction_DenstValComp	req[1-2-1-7]	Ikarashi		Taki		Ikarashi		
gas_calc_ec_h2_cancel_co.c	m_Correction_ZeroComp	req[1-2-2-4]	Ikarashi		Taki		Ikarashi		
gas_calc_ec_h2_cancel_co.c	m_Get_AveAD	req[13-6-2-16]	Ikarashi		Taki		Ikarashi		
gas_calc_ec_h2_cancel_co.c	m_Linearise_H2CancelCO	req[1-3-1-2]	Ikarashi		Taki		Ikarashi		
gas_calc_ec_o2.c	GasCalcECO2_10msec_interrupt	req[1-2-5-1]	Ikarashi		Taki		Ikarashi		
gas_calc_ec_o2.c	GasCalcECO2_AirCal_O2Denst	req[5-1-1-8]	Ikarashi		Taki		Ikarashi		
gas_calc_ec_o2.c	GasCalcECO2_AutoCal_O2Denst	req[5-4-1-16]	Ikarashi		Taki		Ikarashi		
gas_calc_ec_o2.c	GasCalcECO2_Calc_O2Denst	req[1-2-1-8]	Ikarashi		Taki		Ikarashi		
gas_calc_ec_o2.c	GasCalcECO2_Set_SpanMargine	req[11-3-1-4]	Ikarashi		Taki		Ikarashi		
gas_calc_ec_o2.c	m_Calc_O2TempComp	req[1-2-2-5]	Ikarashi		Taki		Ikarashi		
gas_calc_ec_o2.c	m_Chk_PressureDenst	req[1-2-5-2]	Ikarashi		Taki		Ikarashi		
gas_calc_ec_o2.c	m_ForcedStop_Pressure	req[1-2-5-3]	Ikarashi		Taki		Ikarashi		
gas_calc_ec_o2.c	m_Peak_Pressure	req[1-2-5-4]	Ikarashi		Taki		Ikarashi		
gas_calc_ec_o2.c	m_Start_Pressure	req[1-2-5-5]	Ikarashi		Taki		Ikarashi		
gas_calc_ec_o2.c	m_Stop_Pressure	req[1-2-5-6]	Ikarashi		Taki		Ikarashi		
gas_calc_nc.c	GasCalcNC_10msec_interrupt	req[1-1-1-4]	Ikarashi		Taki		Ikarashi		
gas_calc_nc.c	GasCalcNC_AirCal_HCDenst	req[5-1-1-9]	Ikarashi		Taki		Ikarashi		
gas_calc_nc.c	GasCalcNC_AutoCal_HCDenst	req[5-4-1-17]	Ikarashi		Taki		Ikarashi		
gas_calc_nc.c	GasCalcNC_Calc_NCDenst	req[1-1-1-5]	Ikarashi		Taki		Ikarashi		
gas_calc_nc.c	GasCalcNC_Chk_OffNoPower	req[14-15-1-1]	Ikarashi		Taki		Ikarashi		
gas_calc_nc.c	GasCalcNC_Chk_SensorFail	req[3-2-5-5]	Ikarashi		Taki		Ikarashi		

gas_calc_nc.c	GasCalcNC_Get_LongEnergyFlg	req[11-2-1-1]	Ikarashi		Taki		Ikarashi		
gas_calc_nc.c	GasCalcNC_Get_NCPProtectionCount	req[1-1-7-3]	Ikarashi		Taki		Ikarashi		
gas_calc_nc.c	GasCalcNC_Get_NCPProtectionFlg	req[1-1-7-4]	Ikarashi		Taki		Ikarashi		
gas_calc_nc.c	GasCalcNC_Get_NCWarmupFlg	req[1-1-1-8]	Ikarashi		Taki		Ikarashi		
gas_calc_nc.c	GasCalcNC_Set_NCPProtectionFlgOff	req[1-1-7-5]	Ikarashi		Taki		Ikarashi		
gas_calc_nc.c	GasCalcNC_Set_SpanMargine	req[11-3-1-5]	Ikarashi		Taki		Ikarashi		
gas_calc_nc.c	GasCalcNC_Start_ChkFlg	req[3-2-5-4]	Ikarashi		Taki		Ikarashi		
gas_calc_nc.c	m_Calc_NC_DiffMode	req[1-4-1-1]	Ikarashi		Taki		Ikarashi		
gas_calc_nc.c	m_Calc_AbsoluteHumidity	req[1-1-3-1]	Ikarashi		Taki		Ikarashi		
gas_calc_nc.c	m_Calc_NC_OutPutMode	req[1-1-1-6]	Ikarashi		Taki		Ikarashi		
gas_calc_nc.c	m_Change_LinearRaiseBackOp	req[1-3-2-2]	Ikarashi		Taki		Ikarashi		
gas_calc_nc.c	m_Change_LinearRaiseOp	req[1-3-1-3]	Ikarashi		Taki		Ikarashi		
gas_calc_nc.c	m_Get_NC_100msTempComp	req[1-1-2-3]	Ikarashi		Taki		Ikarashi		
gas_calc_nc.c	m_Get_NC_SpanHumComp	req[1-1-3-3]	Ikarashi		Taki		Ikarashi		
gas_calc_nc.c	m_Get_NC_SpanTempComp	req[1-1-2-1]	Ikarashi		Taki		Ikarashi		
gas_calc_nc.c	m_Get_NC_ZeroHumComp	req[1-1-3-2]	Ikarashi		Taki		Ikarashi		
gas_calc_nc.c	m_Get_NC_ZeroTempComp	req[1-1-2-2]	Ikarashi		Taki		Ikarashi		
gas_calc_nc.c	m_Set_NC_Denst	req[1-1-1-7]	Ikarashi		Taki		Ikarashi		
gas_calc_nc.c	m_Set_NC_OffMode	req[1-1-7-6]	Ikarashi		Taki		Ikarashi		
gas_calc_tbl.c	GasCalcTbl_Get_RomNum	req[10-5-1-2]	Ikarashi		Taki		Ikarashi		
gas_calc_tbl.c	GasCalcTbl_Get_SumNum	req[10-5-2-2]	Ikarashi		Taki		Ikarashi		
gas_func_air.c	GasFuncAir_Calc_1sec_AirCal	req[5-1-1-11]	Ikarashi		Taki		Ikarashi		
gas_func_air.c	GasFuncAir_Calc_Get_AirCalFlg	req[5-1-1-12]	Ikarashi		Taki		Ikarashi		
gas_func_air.c	GasFuncAir_Calc_Set_AirCalFlg	req[5-1-1-13]	Ikarashi		Taki		Ikarashi		
gas_func_air.c	GasFuncAir_Disp_Get_AirCalFlg	req[5-1-1-14]	Ikarashi		Taki		Ikarashi		
gas_func_air.c	GasFuncAir_Disp_Set_AirCalFlg	req[5-1-1-15]	Ikarashi		Taki		Ikarashi		
gas_func_air.c	GasFuncAir_Set_AirCalErrorOff	req[5-1-1-10]	Ikarashi		Taki		Ikarashi		
gas_func_autocal.c	GasFuncAutoCal_Calc_1sec_AutoCal	req[5-4-1-24]	Ikarashi		Taki		Ikarashi		
gas_func_autocal.c	GasFuncAutoCal_Calc_Get_AutoCalFlg	req[5-4-1-25]	Ikarashi		Taki		Ikarashi		
gas_func_autocal.c	GasFuncAutoCal_Calc_Set_AutoCalFlg	req[5-4-1-26]	Ikarashi		Taki		Ikarashi		
gas_func_autocal.c	GasFuncAutoCal_Calc_Set_BumpCalFlg	req[4-1-2-12]	Ikarashi		Taki		Ikarashi		
gas_func_autocal.c	GasFuncAutoCal_Calc_Set_ComAutoCalFlg	req[5-4-1-18]	Ikarashi		Taki		Ikarashi		
gas_func_autocal.c	GasFuncAutoCal_Get_AutoCalGroup	req[5-4-1-19]	Ikarashi		Taki		Ikarashi		
gas_func_autocal.c	GasFuncAutoCal_Get_AutoCalSDMSelear	req[5-4-1-20]	Ikarashi		Taki		Ikarashi		
gas_func_autocal.c	GasFuncAutoCal_Set_AutoCalErrorOff	req[5-4-1-21]	Ikarashi		Taki		Ikarashi		
gas_func_autocal.c	GasFuncAutoCal_Set_AutoCalGroup	req[5-4-1-22]	Ikarashi		Taki		Ikarashi		
gas_func_autocal.c	GasFuncAutoCal_Set_AutoCalSDMSelear	req[5-4-1-23]	Ikarashi		Taki		Ikarashi		
gas_func_autocal.c	GasFuncAutoCal_Set_ComAutoCalDenst	req[5-4-2-8]	Ikarashi		Taki		Ikarashi		
gas_func_autocal.c	m_Set_AutoCalDenst	req[5-4-2-9]	Ikarashi		Taki		Ikarashi		
interval_timer.c	IntervalTimer_Flag_Acquisition_100msec	req[13-4-1-6]	Ikarashi		Taki		Ikarashi		
interval_timer.c	IntervalTimer_Flag_Acquisition_250msec	req[13-4-1-7]	Ikarashi		Taki		Ikarashi		
interval_timer.c	IntervalTimer_Flag_Set_100msec	req[13-4-1-8]	Ikarashi		Taki		Ikarashi		
interval_timer.c	IntervalTimer_Flag_Set_250msec	req[13-4-1-9]	Ikarashi		Taki		Ikarashi		
interval_timer.c	IntervalTimer_Int_CMT_Start	req[13-4-1-10]	Ikarashi		Taki		Ikarashi		
interval_timer.c	IntervalTimer_Int_CMT_Stop	req[13-4-1-11]	Ikarashi		Taki		Ikarashi		
interval_timer.c	IntervalTimer_Int_Timer_CMT0_Op	req[13-4-1-12]	Ikarashi		Taki		Ikarashi		
key_event.c	KeyEvent_Chk_DisPowerOff	req[13-4-1-13]	Ikarashi		Taki		Ikarashi		
key_event.c	KeyEvent_Chk_KeyPowerOff	req[13-4-1-14]	Ikarashi		Taki		Ikarashi		
key_event.c	KeyEvent_Get_ForcedPowerOff	req[6-11-2-12]	Ikarashi		Taki		Ikarashi		
key_event.c	KeyEvent_Get_KeyEvent	req[14-10-2-1]	Ikarashi		Taki		Ikarashi		
key_event.c	KeyEvent_Get_KeyPort	req[14-10-1-1]	Ikarashi		Taki		Ikarashi		
key_event.c	KeyEvent_Get_KeyPowerOff	req[6-11-2-15]	Ikarashi		Taki		Ikarashi		
key_event.c	KeyEvent_Get_ReleaseKeyFlg	req[14-10-2-1]	Ikarashi		Taki		Ikarashi		
key_event.c	KeyEvent_Get_TimeNum	req[14-10-2-3]	Ikarashi		Taki		Ikarashi		
key_event.c	KeyEvent_Make_Event	req[14-10-2-4]	Ikarashi		Taki		Ikarashi		
key_event.c	KeyEvent_no_op_time_set	req[14-10-2-5]	Ikarashi		Taki		Ikarashi		
key_event.c	KeyEvent_Reset_KeyTime	req[6-11-2-16]	Ikarashi		Taki		Ikarashi		
key_event.c	KeyEvent_Scan_KeyPort	req[14-10-1-2]	Ikarashi		Taki		Ikarashi		
key_event.c	KeyEvent_Set_ForcedPowerOff	req[6-11-2-17]	Ikarashi		Taki		Ikarashi		
key_event.c	KeyEvent_time_set	req[14-10-2-6]	Ikarashi		Taki		Ikarashi		
key_event.c	m_Get_Keylo	req[14-10-1-3]	Ikarashi		Taki		Ikarashi		
key_event.c	m_key_set	req[14-10-2-7]	Ikarashi		Taki		Ikarashi		
lcd_main.c	LCDMAIN_10msec_interrupt	req[14-5-1-7]	Ikarashi		Taki		Ikarashi		
lcd_main.c	LCDMAIN_Clr_DispData	req[6-1-1-4]	Ikarashi		Taki		Ikarashi		
lcd_main.c	LCDMAIN_Set_BackLight	req[6-1-1-5]	Ikarashi		Taki		Ikarashi		
lcd_main.c	LCDMAIN_Set_BackLightTimer	req[6-1-1-3]	Ikarashi		Taki		Ikarashi		
lcd_main.c	LCDMAIN_Set_BatticonDisp	req[14-5-2-23]	Ikarashi		Taki		Ikarashi		
lcd_main.c	LCDMAIN_Set_BumpChkiconDisp	req[14-5-2-28]	Ikarashi		Taki		Ikarashi		
lcd_main.c	LCDMAIN_Set_Com_Discon_count	req[6-1-1-1]	Ikarashi		Taki		Ikarashi		
lcd_main.c	LCDMAIN_set_data	req[14-5-2-22]	Ikarashi		Taki		Ikarashi		
lcd_main.c	LCDMAIN_Set_HarticonDisp	req[14-5-2-24]	Ikarashi		Taki		Ikarashi		
lcd_main.c	LCDMAIN_Set_PumpIconDisp	req[14-5-2-29]	Ikarashi		Taki		Ikarashi		
lcd_main.c	LCDMAIN_Set_LongIconDisp	req[14-5-2-27]	Ikarashi		Taki		Ikarashi		
lcd_main.c	LCDMAIN_Set_ModelIconDisp	req[14-5-2-26]	Ikarashi		Taki		Ikarashi		
lcd_main.c	LCDMAIN_Set_OffBackLight	req[6-1-1-2]	Ikarashi		Taki		Ikarashi		
lcd_main.c	LCDMAIN_Set_OnSdmBackLight	req[6-1-1-6]	Ikarashi		Taki		Ikarashi		
lcd_main.c	LCDMAIN_Set_TimeIconDisp	req[14-5-2-25]	Ikarashi		Taki		Ikarashi		
lcd_main.c	LCDMAIN_start	req[14-5-1-5]	Ikarashi		Taki		Ikarashi		
lcd_main.c	LCDMAIN_stop	req[14-5-1-6]	Ikarashi		Taki		Ikarashi		
lcd_normal_drv.c	LCDNORMAL_all_display_ram	req[14-5-2-1]	Ikarashi		Taki		Ikarashi		
lcd_normal_drv.c	LCDNORMAL_clr_display_ram	req[14-5-2-2]	Ikarashi		Taki		Ikarashi		
lcd_normal_drv.c	LCDNORMAL_int_10msec	req[14-5-1-4]	Ikarashi		Taki		Ikarashi		
lcd_normal_drv.c	LCDNORMAL_Set_BackLight	req[14-6-1-2]	Ikarashi		Taki		Ikarashi		
lcd_normal_drv.c	LCDNORMAL_set_data	req[14-5-2-3]	Ikarashi		Taki		Ikarashi		
lcd_normal_drv.c	LCDNORMAL_Set_DispDataUpDATA	req[14-5-2-4]	Ikarashi		Taki		Ikarashi		

lcd_normal_drv.c	LCDNORMAL_Set_Display_point	req[14-5-1-1]	Ikarashi		Taki		Ikarashi		
lcd_normal_drv.c	LCDNORMAL_start	req[14-5-1-2]	Ikarashi		Taki		Ikarashi		
lcd_normal_drv.c	LCDNORMAL_stop	req[14-5-1-3]	Ikarashi		Taki		Ikarashi		
lcd_normal_drv.c	m_write_normal_disp_data	req[14-5-2-5]	Ikarashi		Taki		Ikarashi		
lcd_normal_font.c	LCDNormalFont_seq_conv7	req[14-5-2-7]	Ikarashi		Taki		Ikarashi		
lcd_normal_font.c	LCDNormalFont_seq_conv14	req[14-5-2-6]	Ikarashi		Taki		Ikarashi		
lcd_normal_show.c	LCDNormalShow_Set_7segGasNameDisp	req[14-5-2-8]	Ikarashi		Taki		Ikarashi		
lcd_normal_show.c	LCDNormalShow_Set_AlarmCommentDisp	req[14-5-2-9]	Ikarashi		Taki		Ikarashi		
lcd_normal_show.c	LCDNormalShow_Set_BattIconDisp	req[14-5-2-10]	Ikarashi		Taki		Ikarashi		
lcd_normal_show.c	LCDNormalShow_Set_BumpChkIconDisp	req[14-5-2-20]	Ikarashi		Taki		Ikarashi		
lcd_normal_show.c	LCDNormalShow_Set_CharacterDisp	req[14-5-2-11]	Ikarashi		Taki		Ikarashi		
lcd_normal_show.c	LCDNormalShow_Set_DensIDisp	req[14-5-2-12]	Ikarashi		Taki		Ikarashi		
lcd_normal_show.c	LCDNormalShow_Set_GasNameDisp	req[14-5-2-13]	Ikarashi		Taki		Ikarashi		
lcd_normal_show.c	LCDNormalShow_Set_HartIconDisp	req[14-5-2-14]	Ikarashi		Taki		Ikarashi		
lcd_normal_show.c	LCDNormalShow_Set_LongIconDisp	req[14-5-2-15]	Ikarashi		Taki		Ikarashi		
lcd_normal_show.c	LCDNormalShow_Set_MeasurementDisp	req[14-5-2-16]	Ikarashi		Taki		Ikarashi		
lcd_normal_show.c	LCDNormalShow_Set_ModelIconDisp	req[14-5-2-17]	Ikarashi		Taki		Ikarashi		
lcd_normal_show.c	LCDNormalShow_Set_NoALARMIConDisp	req[14-5-2-18]	Ikarashi		Taki		Ikarashi		
lcd_normal_show.c	LCDNormalShow_Set_TimelconDisp	req[14-5-2-19]	Ikarashi		Taki		Ikarashi		
lcd_normal_show.c	LCDNormalShow_Set_PumpIconDisp	req[14-5-2-21]	Ikarashi		Taki		Ikarashi		
led.c	LED_Control_Led_Port	req[14-6-1-3]	Ikarashi		Taki		Ikarashi		
led.c	LED_10msec_Interrupt	req[14-7-1-5]	Ikarashi		Taki		Ikarashi		
led.c	LED_Get_LightOnOffStatus	req[14-7-1-2]	Ikarashi		Taki		Ikarashi		
led.c	LED_Set_InitRAM	req[14-7-1-1]	Ikarashi		Taki		Ikarashi		
led.c	LED_Set_LightOff	req[14-7-1-6]	Ikarashi		Taki		Ikarashi		
led.c	LED_Set_LightOnTime	req[14-7-1-4]	Ikarashi		Taki		Ikarashi		
led.c	LED_Test_Command	req[14-7-1-3]	Ikarashi		Taki		Ikarashi		
led.c	m_Set_LedLightPort	req[14-7-1-7]	Ikarashi		Taki		Ikarashi		
logger_GXForce.c	LoggerGXForce_Chk_1secLoggerRun	req[8-1-2-50]	Ikarashi		Taki		Ikarashi		
logger_GXForce.c	LoggerGXForce_Chk_LoggerDataClear	req[8-2-1-4]	Ikarashi		Taki		Ikarashi		
logger_GXForce.c	LoggerGXForce_Chk_LoggerPowerClear	req[8-1-1-9]	Ikarashi		Taki		Ikarashi		
logger_GXForce.c	LoggerGXForce_Clear_LoggerDataClear	req[8-2-1-5]	Ikarashi		Taki		Ikarashi		
logger_GXForce.c	LoggerGXForce_Clear_LoggerPowerClear	req[8-1-1-10]	Ikarashi		Taki		Ikarashi		
logger_GXForce.c	LoggerGXForce_Clear_PeakClear	req[8-1-2-45]	Ikarashi		Taki		Ikarashi		
logger_GXForce.c	LoggerGXForce_Get_FastBumpDensit	req[8-1-6-11]	Ikarashi		Taki		Ikarashi		
logger_GXForce.c	LoggerGXForce_Get_LoggerRun	req[8-1-2-61]	Ikarashi		Taki		Ikarashi		
logger_GXForce.c	LoggerGXForce_Init_Logger	req[8-2-1-6]	Ikarashi		Taki		Ikarashi		
logger_GXForce.c	LoggerGXForce_Periodic_1secConflim	req[8-1-2-46]	Ikarashi		Taki		Ikarashi		
logger_GXForce.c	LoggerGXForce_Set_AirEvent	req[8-1-6-7]	Ikarashi		Taki		Ikarashi		
logger_GXForce.c	LoggerGXForce_Set_BUMPEvent	req[8-1-6-8]	Ikarashi		Taki		Ikarashi		
logger_GXForce.c	LoggerGXForce_Set_FastBumpDensit	req[8-1-6-10]	Ikarashi		Taki		Ikarashi		
logger_GXForce.c	LoggerGXForce_Set_LoggerDefault	req[6-6-1-15]	Ikarashi		Taki		Ikarashi		
logger_GXForce.c	LoggerGXForce_Set_LunchFlg	req[8-1-2-47]	Ikarashi		Taki		Ikarashi		
logger_GXForce.c	LoggerGXForce_Set_PowerOff	req[8-1-1-11]	Ikarashi		Taki		Ikarashi		
logger_GXForce.c	LoggerGXForce_Set_PowerOn	req[8-1-1-12]	Ikarashi		Taki		Ikarashi		
logger_GXForce.c	LoggerGXForce_Set_SettingCheck	req[8-1-7-5]	Ikarashi		Taki		Ikarashi		
logger_GXForce.c	LoggerGXForce_Set_SpanEvent	req[8-1-6-9]	Ikarashi		Taki		Ikarashi		
logger_GXForce.c	LoggerGXForce_Set_SnapShot	req[8-1-8-19]	Ikarashi		Taki		Ikarashi		
logger_GXForce.c	LoggerGXForce_Set_StartLoggerInterval	req[8-1-2-48]	Ikarashi		Taki		Ikarashi		
logger_GXForce.c	LoggerGXForce_Set_StopLoggerInterval	req[8-1-2-49]	Ikarashi		Taki		Ikarashi		
logger_GXForce.c	LoggerGXForce_Set_TestData	req[8-1-9-2]	Ikarashi		Taki		Ikarashi		
logger_GXForce.c	LoggerGXForce_Start_LoggerDataClear	req[8-2-1-7]	Ikarashi		Taki		Ikarashi		
logger_GXForce.c	LoggerGXForce_Start_LoggerPowerClear	req[8-1-1-13]	Ikarashi		Taki		Ikarashi		
lvd.c	Lvd_Cyclic_250msecProcess	req[13-13-1-6]	Ikarashi		Taki		Ikarashi		
lvd.c	Lvd_Init_Setting	req[13-13-1-4]	Ikarashi		Taki		Ikarashi		
lvd.c	Lvd_Stop_Setting	req[13-13-1-5]	Ikarashi		Taki		Ikarashi		
main.c (MAIN)	m_Every_1000msec_Task_A	req[13-4-2-2]	Ikarashi		Taki		Ikarashi		
main.c (MAIN)	m_Every_1000msec_Task_B	req[13-4-2-3]	Ikarashi		Taki		Ikarashi		
main.c (MAIN)	m_Every_1000msec_Task_C	req[13-4-2-4]	Ikarashi		Taki		Ikarashi		
main.c (MAIN)	m_Every_1000msec_Task_D	req[13-4-2-5]	Ikarashi		Taki		Ikarashi		
main.c (MAIN)	m_Every_250msec_TaskA	req[13-4-2-6]	Ikarashi		Taki		Ikarashi		
main.c (MAIN)	m_Every_250msec_TaskB	req[13-4-2-7]	Ikarashi		Taki		Ikarashi		
main.c (MAIN)	m_Every_Time_Task	req[13-4-2-8]	Ikarashi		Taki		Ikarashi		
main.c (MAIN)	MAIN_Get_PowerOffFlg	req[6-11-2-21]	Ikarashi		Taki		Ikarashi		
main.c (MAIN)	MAIN_Get_RomNum	req[13-2-1-3]	Ikarashi		Taki		Ikarashi		
main.c (MAIN)	MAIN_Get_SumNum	req[13-2-1-4]	Ikarashi		Taki		Ikarashi		
main.c (MAIN)	Main_Process	req[13-4-2-1]	Ikarashi		Taki		Ikarashi		
main.c (MAIN)	MAIN_Set_ForcedPowerOffFlg	req[6-11-2-20]	Ikarashi		Taki		Ikarashi		
main.c (MAIN)	Main_Set_Power_OFF	req[6-11-2-18]	Ikarashi		Taki		Ikarashi		
main.c (MAIN)	Main_Set_Power_ON	req[6-11-1-1]	Ikarashi		Taki		Ikarashi		
main.c (MAIN)	MAIN_Set_PowerOffFlg	req[6-11-2-19]	Ikarashi		Taki		Ikarashi		
main.c (MAIN)	MAIN_Set_UpdateFlg	req[7-1-2-2]	Ikarashi		Taki		Ikarashi		
main.c (MAIN)	MAIN_Get_UpdateModeFlg	req[7-1-2-4]	Ikarashi		Taki		Ikarashi		
main.c (MAIN)	MAIN_Set_UpdateModeFlg	req[7-1-2-3]	Ikarashi		Taki		Ikarashi		
Port.c	Port_Get_UsbPort_isOn	req[13-1-1-5]	Ikarashi		Taki		Ikarashi		
Port.c	Port_Init_Setting	req[13-1-1-4]	Ikarashi		Taki		Ikarashi		
Pressure.c	Pressure_Change_Device0OutPut	req[14-13-1-33]	Ikarashi		Taki		Ikarashi		
Pressure.c	Pressure_Get_FlowValue	req[14-13-1-34]	Ikarashi		Taki		Ikarashi		
Pressure.c	Pressure_Init_Process	req[14-13-1-30]	Ikarashi		Taki		Ikarashi		
Pressure.c	Pressure_Start_Device	req[14-13-1-31]	Ikarashi		Taki		Ikarashi		
Pressure.c	Pressure_Stop_Device	req[14-13-1-32]	Ikarashi		Taki		Ikarashi		
Pressure.c	f_Check_DacOutPutPer	req[14-13-1-35]	Ikarashi		Taki		Ikarashi		
pump.c	Pump_Control_PumpMove	req[14-12-1-2]	Ikarashi		Taki		Ikarashi		

pump.c	Pump_Get_Phase_IsNormalOrEnd	req[14-12-1-3]	Ikarashi		Taki		Ikarashi	
pump.c	Pump_Init_Process	req[14-12-1-1]	Ikarashi		Taki		Ikarashi	
pump.c	f_Drive_Set	req[14-12-1-8]	Ikarashi		Taki		Ikarashi	
pump.c	f_LoHi_Set	req[14-12-1-7]	Ikarashi		Taki		Ikarashi	
pump.c	f_Phase_PumpMove	req[14-12-1-4]	Ikarashi		Taki		Ikarashi	
pump.c	f_Power_Set	req[14-12-1-6]	Ikarashi		Taki		Ikarashi	
pump.c	f_Set_PumpOperation	req[14-12-1-5]	Ikarashi		Taki		Ikarashi	
PumpFlow.c	PumpFlow_Check_FlowTest	req[14-13-1-22]	Ikarashi		Taki		Ikarashi	
PumpFlow.c	PumpFlow_Check_PumpTest	req[14-13-1-21]	Ikarashi		Taki		Ikarashi	
PumpFlow.c	PumpFlow_Check_PurgeActive	req[14-13-1-17]	Ikarashi		Taki		Ikarashi	
PumpFlow.c	PumpFlow_Control_DriveMode	req[14-13-1-16]	Ikarashi		Taki		Ikarashi	
PumpFlow.c	PumpFlow_Cyclic_250msec	req[14-13-1-15]	Ikarashi		Taki		Ikarashi	
PumpFlow.c	PumpFlow_Default_Device	req[14-13-1-4]	Ikarashi		Taki		Ikarashi	
PumpFlow.c	PumpFlow_Get_BoostCheck_IsRetry	req[14-13-1-18]	Ikarashi		Taki		Ikarashi	
PumpFlow.c	PumpFlow_Get_DropOutPut	req[14-13-1-8]	Ikarashi		Taki		Ikarashi	
PumpFlow.c	PumpFlow_Get_FlowOutPut	req[14-13-1-9]	Ikarashi		Taki		Ikarashi	
PumpFlow.c	PumpFlow_Get_LoHiFlag_IsHi	req[14-13-1-12]	Ikarashi		Taki		Ikarashi	
PumpFlow.c	PumpFlow_Get_MotionFlag_IsMove	req[14-13-1-14]	Ikarashi		Taki		Ikarashi	
PumpFlow.c	PumpFlow_Get_PumpFailPressValue	req[14-13-1-20]	Ikarashi		Taki		Ikarashi	
PumpFlow.c	PumpFlow_Get_PumpOffPressValue	req[14-13-1-19]	Ikarashi		Taki		Ikarashi	
PumpFlow.c	PumpFlow_Get_SettingData	req[14-13-1-5]	Ikarashi		Taki		Ikarashi	
PumpFlow.c	PumpFlow_Init_Process	req[14-13-1-1]	Ikarashi		Taki		Ikarashi	
PumpFlow.c	PumpFlow_Set_FlowOutPut	req[14-13-1-10]	Ikarashi		Taki		Ikarashi	
PumpFlow.c	PumpFlow_Set_LoHiRequest_IsHi	req[14-13-1-11]	Ikarashi		Taki		Ikarashi	
PumpFlow.c	PumpFlow_Set_MotionRequest_IsMove	req[14-13-1-13]	Ikarashi		Taki		Ikarashi	
PumpFlow.c	PumpFlow_Set_SettingData	req[14-13-1-6]	Ikarashi		Taki		Ikarashi	
PumpFlow.c	PumpFlow_Set_SettingDefaultData	req[14-13-1-7]	Ikarashi		Taki		Ikarashi	
PumpFlow.c	PumpFlow_Start_Device	req[14-13-1-2]	Ikarashi		Taki		Ikarashi	
PumpFlow.c	PumpFlow_Stop_Device	req[14-13-1-3]	Ikarashi		Taki		Ikarashi	
PumpFlow.c	f_Check_FlowFail	req[14-13-1-25]	Ikarashi		Taki		Ikarashi	
PumpFlow.c	f_Check_FlowFailInPsSensor	req[14-13-1-26]	Ikarashi		Taki		Ikarashi	
PumpFlow.c	f_Check_PumpFail	req[14-13-1-24]	Ikarashi		Taki		Ikarashi	
PumpFlow.c	f_Check_PurgeLimitCheck_IsNeed	req[14-13-1-29]	Ikarashi		Taki		Ikarashi	
PumpFlow.c	f_Get_OffFlowValue	req[14-13-1-23]	Ikarashi		Taki		Ikarashi	
PumpFlow.c	f_Set_FlowFail	req[14-13-1-28]	Ikarashi		Taki		Ikarashi	
PumpFlow.c	f_Set_PumpFail	req[14-13-1-27]	Ikarashi		Taki		Ikarashi	
r_cg_cgc.c	R_CGC_Create	req[13-12-1-1]	Ikarashi		Taki		Ikarashi	
r_cg_cmt.c	R_CMT0_Create	req[13-4-1-13]	Ikarashi		Taki		Ikarashi	
r_cg_cmt.c	R_CMT0_Start	req[13-4-1-14]	Ikarashi		Taki		Ikarashi	
r_cg_cmt.c	R_CMT0_Stop	req[13-4-1-15]	Ikarashi		Taki		Ikarashi	
r_cg_cmt_user.c	r_cmt_cmt0_interrupt	req[13-4-1-16]	Ikarashi		Taki		Ikarashi	
r_cg_hardware_setup.c	HardwareSetup	req[13-12-1-4]	Ikarashi		Taki		Ikarashi	
r_cg_hardware_setup.c	R_Systeminit	req[13-12-1-5]	Ikarashi		Taki		Ikarashi	
r_cg_intrpg.c	r_access_exception	req[13-4-1-17]	Ikarashi		Taki		Ikarashi	
r_cg_intrpg.c	r_brk_exception	req[13-4-1-18]	Ikarashi		Taki		Ikarashi	
r_cg_intrpg.c	r_floatingpoint_exception	req[13-4-1-19]	Ikarashi		Taki		Ikarashi	
r_cg_intrpg.c	r_nmi_exception	req[13-4-1-20]	Ikarashi		Taki		Ikarashi	
r_cg_intrpg.c	r_privileged_exception	req[13-4-1-21]	Ikarashi		Taki		Ikarashi	
r_cg_intrpg.c	r_reserved_exception	req[13-4-1-22]	Ikarashi		Taki		Ikarashi	
r_cg_intrpg.c	r_undefined_exception	req[13-4-1-23]	Ikarashi		Taki		Ikarashi	
r_cg_lvd.c	R_LVD1_Create	req[13-13-1-1]	Ikarashi		Taki		Ikarashi	
r_cg_lvd.c	R_LVD1_Start	req[13-13-1-2]	Ikarashi		Taki		Ikarashi	
r_cg_lvd.c	R_LVD1_Stop	req[13-13-1-3]	Ikarashi		Taki		Ikarashi	
r_cg_main.c	main(MAIN)	req[13-12-1-6]	Ikarashi		Taki		Ikarashi	
r_cg_main.c	R_MAIN_Userinit	req[13-12-1-8]	Ikarashi		Taki		Ikarashi	
r_cg_mtu2.c	R_MTU2_C2_Start	req[13-5-1-2]	Ikarashi		Taki		Ikarashi	
r_cg_mtu2.c	R_MTU2_C2_Stop	req[13-5-1-3]	Ikarashi		Taki		Ikarashi	
r_cg_mtu2.c	R_MTU2_Create	req[13-5-1-4]	Ikarashi		Taki		Ikarashi	
r_cg_mtu2_user.c	r_mtu2_tgia2_interrupt	req[13-5-1-5]	Ikarashi		Taki		Ikarashi	
r_cg_port.c	R_PORT_Create	req[13-1-1-2]	Ikarashi		Taki		Ikarashi	
r_cg_r12da.c	R_R12DA_Create	req[13-14-1-1]	Ikarashi		Taki		Ikarashi	
r_cg_r12da.c	R_R12DA0_Set_ConversionValue	req[13-14-1-4]	Ikarashi		Taki		Ikarashi	
r_cg_r12da.c	R_R12DA0_Start	req[13-14-1-2]	Ikarashi		Taki		Ikarashi	
r_cg_r12da.c	R_R12DA0_Stop	req[13-14-1-3]	Ikarashi		Taki		Ikarashi	
r_cg_resetprg.c	PowerON_Reset_PC	req[13-12-1-10]	Ikarashi		Taki		Ikarashi	
r_cg_rspl.c	R_RSPIO_Create	req[13-8-1-1]	Ikarashi		Taki		Ikarashi	
r_cg_rspl.c	R_RSPIO_Send_Receive	req[13-8-2-1]	Ikarashi		Taki		Ikarashi	
r_cg_rspl.c	R_RSPIO_Send_Receive_Copy	req[13-8-2-2]	Ikarashi		Taki		Ikarashi	
r_cg_rspl.c	R_RSPIO_Start	req[13-8-1-2]	Ikarashi		Taki		Ikarashi	
r_cg_rspl.c	R_RSPIO_Stop	req[13-8-1-3]	Ikarashi		Taki		Ikarashi	
r_cg_rspl_user.c	r_rspl0_callback_error	req[13-8-2-3]	Ikarashi		Taki		Ikarashi	
r_cg_rspl_user.c	r_rspl0_callback_receiveend	req[13-8-2-4]	Ikarashi		Taki		Ikarashi	
r_cg_rspl_user.c	r_rspl0_callback_transmitend	req[13-8-2-5]	Ikarashi		Taki		Ikarashi	
r_cg_rspl_user.c	r_rspl0_error_interrupt	req[13-8-2-6]	Ikarashi		Taki		Ikarashi	
r_cg_rspl_user.c	r_rspl0_idle_interrupt	req[13-8-2-7]	Ikarashi		Taki		Ikarashi	
r_cg_rspl_user.c	r_rspl0_receive_interrupt	req[13-8-2-8]	Ikarashi		Taki		Ikarashi	
r_cg_rspl_user.c	r_rspl0_transmit_interrupt	req[13-8-2-9]	Ikarashi		Taki		Ikarashi	
r_cg_s12ad.c	R_S12AD_Create	req[13-6-1-16]	Ikarashi		Taki		Ikarashi	
r_cg_s12ad.c	R_S12AD_Get_ValueResult	req[13-6-2-18]	Ikarashi		Taki		Ikarashi	
r_cg_s12ad.c	R_S12AD_Start	req[13-6-1-17]	Ikarashi		Taki		Ikarashi	
r_cg_s12ad.c	R_S12AD_Stop	req[13-6-1-18]	Ikarashi		Taki		Ikarashi	
r_cg_s12ad_user.c	r_s12ad_interrupt	req[13-6-2-17]	Ikarashi		Taki		Ikarashi	
r_cg_sci.c	R_SCI5_Create	req[13-7-1-5]	Ikarashi		Taki		Ikarashi	
r_cg_sci.c	R_SCI5_Serial_Receive	req[13-7-3-5]	Ikarashi		Taki		Ikarashi	
r_cg_sci.c	R_SCI5_Serial_Send	req[13-7-2-6]	Ikarashi		Taki		Ikarashi	

r_cg_sci.c	R_SCI5_Start	req[13-7-1-6]	Ikarashi		Taki		Ikarashi		
r_cg_sci.c	R_SCI5_Stop	req[13-7-1-7]	Ikarashi		Taki		Ikarashi		
r_cg_sci.c	R_SCI6_Create	req[13-9-1-1]	Ikarashi		Taki		Ikarashi		
r_cg_sci.c	R_SCI6_IIC_Master_Receive	req[13-9-3-1]	Ikarashi		Taki		Ikarashi		
r_cg_sci.c	R_SCI6_IIC_Master_Send	req[13-9-2-1]	Ikarashi		Taki		Ikarashi		
r_cg_sci.c	R_SCI6_IIC_StartCondition	req[13-9-2-2]	Ikarashi		Taki		Ikarashi		
r_cg_sci.c	R_SCI6_IIC_StopCondition	req[13-9-2-3]	Ikarashi		Taki		Ikarashi		
r_cg_sci.c	R_SCI6_Start	req[13-9-1-2]	Ikarashi		Taki		Ikarashi		
r_cg_sci.c	R_SCI6_Stop	req[13-9-1-3]	Ikarashi		Taki		Ikarashi		
r_cg_sci.c	R_SCI9_Create	req[13-7-1-8]	Ikarashi		Taki		Ikarashi		
r_cg_sci.c	R_SCI9_Serial_Receive	req[13-7-3-6]	Ikarashi		Taki		Ikarashi		
r_cg_sci.c	R_SCI9_Serial_Send	req[13-7-2-7]	Ikarashi		Taki		Ikarashi		
r_cg_sci.c	R_SCI9_Start	req[13-7-1-9]	Ikarashi		Taki		Ikarashi		
r_cg_sci.c	R_SCI9_Stop	req[13-7-1-10]	Ikarashi		Taki		Ikarashi		
r_cg_sci_user.c	r_sci5_callback_receiveend	req[13-7-3-7]	Ikarashi		Taki		Ikarashi		
r_cg_sci_user.c	r_sci5_callback_receiveerror	req[13-7-3-8]	Ikarashi		Taki		Ikarashi		
r_cg_sci_user.c	r_sci5_callback_transmitend	req[13-7-2-8]	Ikarashi		Taki		Ikarashi		
r_cg_sci_user.c	r_sci5_receive_interrupt	req[13-7-3-9]	Ikarashi		Taki		Ikarashi		
r_cg_sci_user.c	r_sci5_receiveerror_interrupt	req[13-7-3-10]	Ikarashi		Taki		Ikarashi		
r_cg_sci_user.c	r_sci5_transmit_interrupt	req[13-7-2-9]	Ikarashi		Taki		Ikarashi		
r_cg_sci_user.c	r_sci5_transmitend_interrupt	req[13-7-2-10]	Ikarashi		Taki		Ikarashi		
r_cg_sci_user.c	r_sci6_callback_receiveend	req[13-9-3-2]	Ikarashi		Taki		Ikarashi		
r_cg_sci_user.c	r_sci6_callback_transmitend	req[13-9-2-4]	Ikarashi		Taki		Ikarashi		
r_cg_sci_user.c	r_sci6_receive_interrupt	req[13-9-3-3]	Ikarashi		Taki		Ikarashi		
r_cg_sci_user.c	r_sci6_transmit_interrupt	req[13-9-2-5]	Ikarashi		Taki		Ikarashi		
r_cg_sci_user.c	r_sci6_transmitend_interrupt	req[13-9-2-6]	Ikarashi		Taki		Ikarashi		
r_cg_sci_user.c	r_sci9_callback_receiveend	req[13-7-3-11]	Ikarashi		Taki		Ikarashi		
r_cg_sci_user.c	r_sci9_callback_receiveerror	req[13-7-3-12]	Ikarashi		Taki		Ikarashi		
r_cg_sci_user.c	r_sci9_callback_transmitend	req[13-7-2-11]	Ikarashi		Taki		Ikarashi		
r_cg_sci_user.c	r_sci9_receive_interrupt	req[13-7-3-13]	Ikarashi		Taki		Ikarashi		
r_cg_sci_user.c	r_sci9_receiveerror_interrupt	req[13-7-3-14]	Ikarashi		Taki		Ikarashi		
r_cg_sci_user.c	r_sci9_transmit_interrupt	req[13-7-2-12]	Ikarashi		Taki		Ikarashi		
r_cg_sci_user.c	r_sci9_transmitend_interrupt	req[13-7-2-13]	Ikarashi		Taki		Ikarashi		
r_cg_wdt.c	R_WDT_Restart	req[13-10-2-2]	Ikarashi		Taki		Ikarashi		
r_spl.c	m_Wait_Spl_Send_Time	req[13-8-2-10]	Ikarashi		Taki		Ikarashi		
r_spl.c	RSPI_count_down	req[13-8-1-4]	Ikarashi		Taki		Ikarashi		
r_spl.c	RSPI_Int_Start	req[13-8-1-5]	Ikarashi		Taki		Ikarashi		
r_spl.c	RSPI_Int_Stop	req[13-8-1-6]	Ikarashi		Taki		Ikarashi		
r_spl.c	RSPI_Send_Receive	req[13-8-3-1]	Ikarashi		Taki		Ikarashi		
r_spl.c	RSPI_write_chk_off	req[13-8-1-7]	Ikarashi		Taki		Ikarashi		
ref_volt.c	RefVolt_Cyclic_250msec	req[3-2-3-2]	Ikarashi		Taki		Ikarashi		
ref_volt.c	RefVolt_Init_HcvCheckDisableFlg	req[3-2-3-3]	Ikarashi		Taki		Ikarashi		
ref_volt.c	RefVolt_Set_HcvCheckDisableFlg	req[3-2-3-4]	Ikarashi		Taki		Ikarashi		
ref_volt.c	f_Set_RefVoltFail	req[3-2-3-6]	Ikarashi		Taki		Ikarashi		
ref_volt.c	f_Check_RefVoltFail	req[3-2-3-5]	Ikarashi		Taki		Ikarashi		
rl78l1e_control.c	RL78l1EControl_10msec_interrupt	req[13-7-1-11]	Ikarashi		Taki		Ikarashi		
rl78l1e_control.c	RL78l1EControl_Calc_H2CancelCOAdAverage	req[14-16-1-9]	Ikarashi		Taki		Ikarashi		
rl78l1e_control.c	RL78l1EControl_Calc_H2CancelCOAdSUB	req[14-16-1-10]	Ikarashi		Taki		Ikarashi		
rl78l1e_control.c	RL78l1EControl_Calc_Temp	req[14-11-1-1]	Ikarashi		Taki		Ikarashi		
rl78l1e_control.c	RL78l1EControl_Chk_TempError	req[3-2-4-5]	Ikarashi		Taki		Ikarashi		
rl78l1e_control.c	RL78l1EControl_Command_250_Loop	req[13-7-2-14]	Ikarashi		Taki		Ikarashi		
rl78l1e_control.c	RL78l1EControl_Command_Control	req[13-7-3-15]	Ikarashi		Taki		Ikarashi		
rl78l1e_control.c	RL78l1EControl_Command_ReSet	req[13-7-1-12]	Ikarashi		Taki		Ikarashi		
rl78l1e_control.c	RL78l1EControl_Get_Data_point	req[14-3-1-1]	Ikarashi		Taki		Ikarashi		
rl78l1e_control.c	RL78l1EControl_Get_MainData_point	req[14-3-1-2]	Ikarashi		Taki		Ikarashi		
rl78l1e_control.c	RL78l1EControl_Set_Control_Status	req[13-7-3-16]	Ikarashi		Taki		Ikarashi		
rl78l1e_control.c	RL78l1EControl_Set_Gas_Status	req[5-8-2-4]	Ikarashi		Taki		Ikarashi		
rl78l1e_control.c	RL78l1EControl_Set_ROM_NUM	req[13-2-1-6]	Ikarashi		Taki		Ikarashi		
rl78l1e_control.c	RL78l1EControl_Set_ROM_SUM	req[13-2-1-7]	Ikarashi		Taki		Ikarashi		
rl78l1e_control.c	RL78l1EControl_Set_ROM_VER	req[13-2-1-8]	Ikarashi		Taki		Ikarashi		
rl78l1e_control.c	RL78l1EControl_Start_ChkFlg	req[3-2-4-6]	Ikarashi		Taki		Ikarashi		
rl78l1e_sum_chk.c	RL78l1ESumChk_10msec_interrupt	req[13-2-1-9]	Ikarashi		Taki		Ikarashi		
rl78l1e_sum_chk.c	RL78l1ESumChk_Chk_4Count	req[13-2-1-10]	Ikarashi		Taki		Ikarashi		
rl78l1e_sum_chk.c	RL78l1ESumChk_Get_PhaseFlg	req[13-2-1-11]	Ikarashi		Taki		Ikarashi		
rl78l1e_sum_chk.c	RL78l1ESumChk_Set_PhaseEnd	req[13-2-1-12]	Ikarashi		Taki		Ikarashi		
rl78l1e_sum_chk.c	RL78l1ESumChk_Set_PhaseOFF	req[13-2-1-13]	Ikarashi		Taki		Ikarashi		
rl78l1e_sum_chk.c	RL78l1ESumChk_Set_PhaseWait	req[13-2-1-14]	Ikarashi		Taki		Ikarashi		
rl78l1e_sum_chk.c	RL78l1ESumChk_Set_Start	req[13-2-1-15]	Ikarashi		Taki		Ikarashi		
rtc.c	m_data_check	req[3-2-2-3]	Ikarashi		Taki		Ikarashi		
rtc.c	m_Get_Oscillation_Stop	req[14-3-1-3]	Ikarashi		Taki		Ikarashi		
rtc.c	m_Get_RegisterData	req[14-3-1-4]	Ikarashi		Taki		Ikarashi		
rtc.c	m_Read_DateAndTime	req[14-3-3-1]	Ikarashi		Taki		Ikarashi		
rtc.c	m_Rtc_Writ_VerifyCheck	req[14-3-2-1]	Ikarashi		Taki		Ikarashi		
rtc.c	m_Set_RegisterData	req[14-3-1-5]	Ikarashi		Taki		Ikarashi		
rtc.c	m_Writ_CircuitSetting	req[14-3-1-6]	Ikarashi		Taki		Ikarashi		
rtc.c	m_Writ_DateAndTime	req[14-3-2-2]	Ikarashi		Taki		Ikarashi		
rtc.c	RTC_DateAndTime_Config	req[14-3-2-3]	Ikarashi		Taki		Ikarashi		
rtc.c	RTC_DateAndTime_Set_OnOffFlg	req[14-3-1-7]	Ikarashi		Taki		Ikarashi		
rtc.c	RTC_Get_Data	req[14-3-3-2]	Ikarashi		Taki		Ikarashi		
rtc.c	RTC_Read_DateAndTime	req[14-3-3-3]	Ikarashi		Taki		Ikarashi		
rtc.c	RTC_Start_Up	req[14-3-1-8]	Ikarashi		Taki		Ikarashi		
rtc_time.c	m_Chg_Time	req[14-3-2-4]	Ikarashi		Taki		Ikarashi		
rtc_time.c	m_Chg_Time_Value	req[14-3-2-5]	Ikarashi		Taki		Ikarashi		
rtc_time.c	RTCTime_Chg_Day	req[14-3-2-6]	Ikarashi		Taki		Ikarashi		
rtc_time.c	RTCTime_Chk_Day	req[14-3-2-7]	Ikarashi		Taki		Ikarashi		

rtc_time.c	RTCTime_Chk_LeapYear	req[3-2-2-4]	Ikarashi		Taki		Ikarashi		
rtc_time.c	RTCTime_Chk_Time_Error	req[3-2-2-5]	Ikarashi		Taki		Ikarashi		
sci5_uart.c	SCI5UartMain_Comu_Op	req[7-1-1-120]	Ikarashi		Taki		Ikarashi		
sci5_uart.c	UartSci5_Get_Rxd_Data	req[13-7-3-38]	Ikarashi		Taki		Ikarashi		
sci5_uart.c	UartSci5_Get_TransmitEnable	req[13-7-2-56]	Ikarashi		Taki		Ikarashi		
sci5_uart.c	UartSci5_Init_Setting	req[13-7-1-15]	Ikarashi		Taki		Ikarashi		
sci5_uart.c	m_Txd_Busy	req[13-7-2-59]	Ikarashi		Taki		Ikarashi		
sci5_uart.c	UartSci5_Int_Sci5_Start	req[13-7-1-18]	Ikarashi		Taki		Ikarashi		
sci5_uart.c	UartSci5_Start_Driver	req[13-7-1-16]	Ikarashi		Taki		Ikarashi		
sci5_uart.c	UartSci5_Int_Sci5_Stop	req[13-7-1-19]	Ikarashi		Taki		Ikarashi		
sci5_uart.c	UartSci5_Interrupt_Sci5Error	req[13-7-3-39]	Ikarashi		Taki		Ikarashi		
sci5_uart.c	UartSci5_Interrupt_Sci5SendEnd	req[13-7-2-58]	Ikarashi		Taki		Ikarashi		
sci5_uart.c	UartSci5_Set_Rxd_Next_Buf	req[13-7-1-17]	Ikarashi		Taki		Ikarashi		
sci5_uart.c	UartSci5_Send_Data	req[13-7-2-57]	Ikarashi		Taki		Ikarashi		
sci6_lic.c	m_set_send_receive_delay	req[13-9-3-4]	Ikarashi		Taki		Ikarashi		
sci6_lic.c	m_set_send_receive_flg	req[13-9-3-5]	Ikarashi		Taki		Ikarashi		
sci6_lic.c	m_set_send_receive_init_flg	req[13-9-3-6]	Ikarashi		Taki		Ikarashi		
sci6_lic.c	SCI6LIC_count_delay_time	req[13-9-3-7]	Ikarashi		Taki		Ikarashi		
sci6_lic.c	SCI6LIC_Int_Sci6_Receive	req[13-9-3-8]	Ikarashi		Taki		Ikarashi		
sci6_lic.c	SCI6LIC_Int_Sci6_Send	req[13-9-2-7]	Ikarashi		Taki		Ikarashi		
sci6_lic.c	SCI6LIC_Int_Sci6_Send_Init_LCD	req[13-9-2-8]	Ikarashi		Taki		Ikarashi		
sci6_lic.c	SCI6LIC_Int_Sci6_Send_LCD	req[13-9-2-9]	Ikarashi		Taki		Ikarashi		
sci6_lic.c	SCI6LIC_Int_Sci6_Start	req[13-9-1-4]	Ikarashi		Taki		Ikarashi		
sci6_lic.c	SCI6LIC_Int_Sci6_Stop	req[13-9-1-5]	Ikarashi		Taki		Ikarashi		
sci6_lic.c	SCI6LIC_set_send_receive_end_flg	req[13-9-2-10]	Ikarashi		Taki		Ikarashi		
sci9_uart_command.c	m_SCI9_Code_DU	req[13-7-3-17]	Ikarashi		Taki		Ikarashi		
sci9_uart_command.c	m_SCI9_Code_HA	req[13-7-3-18]	Ikarashi		Taki		Ikarashi		
sci9_uart_command.c	m_SCI9_Code_RC	req[13-7-3-19]	Ikarashi		Taki		Ikarashi		
sci9_uart_command.c	m_SCI9_Code_VP	req[13-7-3-20]	Ikarashi		Taki		Ikarashi		
sci9_uart_command.c	m_SCI9_Code_VS	req[13-7-3-21]	Ikarashi		Taki		Ikarashi		
sci9_uart_command.c	m_Set_Start_Command	req[13-7-2-15]	Ikarashi		Taki		Ikarashi		
sci9_uart_command.c	SCI9UartCommand_Command_Op	req[13-7-2-16]	Ikarashi		Taki		Ikarashi		
sci9_uart_command.c	SCI9UartCommand_Get_Cmd_NUM	req[13-7-2-17]	Ikarashi		Taki		Ikarashi		
sci9_uart_command.c	SCI9UartCommand_Get_Cmdnd_Data	req[13-7-2-18]	Ikarashi		Taki		Ikarashi		
sci9_uart_command.c	SCI9UartCommand_Get_Cmdnd_Pointer	req[13-7-2-19]	Ikarashi		Taki		Ikarashi		
sci9_uart_command.c	SCI9UartCommand_Send_DUW	req[13-7-2-20]	Ikarashi		Taki		Ikarashi		
sci9_uart_command.c	SCI9UartCommand_Send_HAW	req[13-7-2-21]	Ikarashi		Taki		Ikarashi		
sci9_uart_command.c	SCI9UartCommand_Send_RCR	req[13-7-2-22]	Ikarashi		Taki		Ikarashi		
sci9_uart_command.c	SCI9UartCommand_Send_VPR	req[13-7-2-23]	Ikarashi		Taki		Ikarashi		
sci9_uart_command.c	SCI9UartCommand_Send_VSC	req[13-7-2-24]	Ikarashi		Taki		Ikarashi		
sci9_uart_command.c	SCI9UartCommand_Send_VSR	req[13-7-2-25]	Ikarashi		Taki		Ikarashi		
sci9_uart_command.c	SCI9UartCommand_Send_VSW	req[13-7-2-26]	Ikarashi		Taki		Ikarashi		
sci9_uart_main.c	m_Command_Chk	req[13-7-3-22]	Ikarashi		Taki		Ikarashi		
sci9_uart_main.c	m_Comu_Op_Sub	req[13-7-2-27]	Ikarashi		Taki		Ikarashi		
sci9_uart_main.c	m_Rxd_Sum_Chk	req[13-7-3-27]	Ikarashi		Taki		Ikarashi		
sci9_uart_main.c	m_Txd_Busy	req[13-7-2-28]	Ikarashi		Taki		Ikarashi		
sci9_uart_main.c	m_Txd_Start	req[13-7-2-29]	Ikarashi		Taki		Ikarashi		
sci9_uart_main.c	m_Txd_Sum_Calc	req[13-7-2-30]	Ikarashi		Taki		Ikarashi		
sci9_uart_main.c	SCI9UartMain_Comu_Op	req[13-7-3-24]	Ikarashi		Taki		Ikarashi		
sci9_uart_main.c	SCI9UartMain_Err_Op	req[13-7-3-31]	Ikarashi		Taki		Ikarashi		
sci9_uart_main.c	SCI9UartMain_Get_Rxd_Data	req[13-7-3-25]	Ikarashi		Taki		Ikarashi		
sci9_uart_main.c	SCI9UartMain_Head_Set	req[13-7-2-32]	Ikarashi		Taki		Ikarashi		
sci9_uart_main.c	SCI9UartMain_Int_Sci9_Start	req[13-7-1-13]	Ikarashi		Taki		Ikarashi		
sci9_uart_main.c	SCI9UartMain_Int_Sci9_Stop	req[13-7-1-14]	Ikarashi		Taki		Ikarashi		
sci9_uart_main.c	SCI9UartMain_Set_Rxd_Next_Buf	req[13-7-3-26]	Ikarashi		Taki		Ikarashi		
sci9_uart_main.c	SCI9UartMain_tx_nbyte	req[13-7-2-33]	Ikarashi		Taki		Ikarashi		
sci9_uart_main.c	SCI9UartMain_Txd_Buf_Pointre	req[13-7-2-34]	Ikarashi		Taki		Ikarashi		
self_sub_RL78FProg.c	m_cmdBaudRateSet	req[7-1-2-75]	Ikarashi		Taki		Ikarashi		
self_sub_RL78FProg.c	m_cmdBlockBlankCheck	req[7-1-2-76]	Ikarashi		Taki		Ikarashi		
self_sub_RL78FProg.c	m_cmdBlockErase	req[7-1-2-77]	Ikarashi		Taki		Ikarashi		
self_sub_RL78FProg.c	m_cmdChecksum	req[7-1-2-78]	Ikarashi		Taki		Ikarashi		
self_sub_RL78FProg.c	m_cmdProgramming_step1	req[7-1-2-79]	Ikarashi		Taki		Ikarashi		
self_sub_RL78FProg.c	m_cmdProgramming_step2	req[7-1-2-80]	Ikarashi		Taki		Ikarashi		
self_sub_RL78FProg.c	m_cmdProgramming_step3	req[7-1-2-81]	Ikarashi		Taki		Ikarashi		
self_sub_RL78FProg.c	m_cmdReset	req[7-1-2-82]	Ikarashi		Taki		Ikarashi		
self_sub_RL78FProg.c	m_csum_ui16	req[7-1-2-83]	Ikarashi		Taki		Ikarashi		
self_sub_RL78FProg.c	m_csum_ui8	req[7-1-2-84]	Ikarashi		Taki		Ikarashi		
self_sub_RL78FProg.c	m_eraseUntilLastBlock	req[7-1-2-85]	Ikarashi		Taki		Ikarashi		
self_sub_RL78FProg.c	m_isRxACK	req[7-1-2-86]	Ikarashi		Taki		Ikarashi		
self_sub_RL78FProg.c	m_reqRx	req[7-1-2-87]	Ikarashi		Taki		Ikarashi		
self_sub_RL78FProg.c	m_reqRx_DataFram	req[7-1-2-88]	Ikarashi		Taki		Ikarashi		
self_sub_RL78FProg.c	m_reqTx	req[7-1-2-89]	Ikarashi		Taki		Ikarashi		
self_sub_RL78FProg.c	m_reqTx_CmdFrame	req[7-1-2-90]	Ikarashi		Taki		Ikarashi		
self_sub_RL78FProg.c	m_reqTx_DataFrame	req[7-1-2-91]	Ikarashi		Taki		Ikarashi		
self_sub_RL78FProg.c	m_restartComDrv	req[7-1-2-92]	Ikarashi		Taki		Ikarashi		
self_sub_RL78FProg.c	m_sendComMethodData	req[7-1-2-93]	Ikarashi		Taki		Ikarashi		
self_sub_RL78FProg.c	m_updateWaitTime	req[7-1-2-94]	Ikarashi		Taki		Ikarashi		
self_sub_RL78FProg.c	m_wait	req[7-1-2-95]	Ikarashi		Taki		Ikarashi		
self_sub_RL78FProg.c	m_waitForRxComplete	req[7-1-2-96]	Ikarashi		Taki		Ikarashi		
self_sub_RL78FProg.c	RL78FProg_execTargetPowerOff	req[7-1-2-97]	Ikarashi		Taki		Ikarashi		
self_sub_RL78FProg.c	RL78FProg_rewriteBlock	req[7-1-2-98]	Ikarashi		Taki		Ikarashi		
self_sub_RL78FProg.c	RL78FProg_setStartBlock	req[7-1-2-99]	Ikarashi		Taki		Ikarashi		
self_sub_RL78FProg.c	RL78FProg_startRewritingProg	req[7-1-2-100]	Ikarashi		Taki		Ikarashi		
self_sub_prog.c	SelfSubProg_Get_10msecChgFlg	req[7-1-2-69]	Ikarashi		Taki		Ikarashi		
self_sub_prog.c	SelfSubProg_Get_ModeOnFlg	req[7-1-2-74]	Ikarashi		Taki		Ikarashi		

self_sub_prog.c	SelfSubProg_Int_10msec	req[7-1-2-70]	Ikarashi		Taki		Ikarashi		
self_sub_prog.c	SelfSubProg_Main_RewriteProcessing	req[7-1-2-71]	Ikarashi		Taki		Ikarashi		
self_sub_prog.c	SelfSubProg_Set_ModeOnFlg	req[7-1-2-73]	Ikarashi		Taki		Ikarashi		
self_sub_prog.c	SelfSubProg_Set_RewriteStart	req[7-1-2-72]	Ikarashi		Taki		Ikarashi		
tool.c (MAIN)	Tool_Asc_BinL	req[13-11-1-17]	Ikarashi		Taki		Ikarashi		
tool.c (MAIN)	Tool_Asc_Dec	req[13-11-1-18]	Ikarashi		Taki		Ikarashi		
tool.c (MAIN)	Tool_Asc_Hex	req[7-1-2-30]	Ikarashi		Taki		Ikarashi		
tool.c (MAIN)	Tool_Bin_Asc	req[13-11-1-11]	Ikarashi		Taki		Ikarashi		
tool.c (MAIN)	Tool_CHR_Chg_OnOff	req[13-11-1-12]	Ikarashi		Taki		Ikarashi		
tool.c (MAIN)	Tool_Comp_Pnt	req[13-11-1-13]	Ikarashi		Taki		Ikarashi		
tool.c (MAIN)	Tool_Copy_Pnt	req[13-11-1-14]	Ikarashi		Taki		Ikarashi		
tool.c (MAIN)	Tool_Copy_Reverse_Pnt	req[13-11-1-23]	Ikarashi		Taki		Ikarashi		
tool.c (MAIN)	Tool_Copy_SHORT_CHR	req[13-11-1-24]	Ikarashi		Taki		Ikarashi		
tool.c (MAIN)	Tool_Copy_SHORT_Pnt	req[13-11-1-25]	Ikarashi		Taki		Ikarashi		
tool.c (MAIN)	Tool_Disg_OnOff_Menu	req[13-11-1-15]	Ikarashi		Taki		Ikarashi		
tool.c (MAIN)	Tool_Dump_Hex_Asc	req[13-11-1-26]	Ikarashi		Taki		Ikarashi		
tool.c (MAIN)	Tool_Hex_Asc	req[7-1-2-29]	Ikarashi		Taki		Ikarashi		
tool.c (MAIN)	Tool_Hex_ShortAsc	req[13-11-1-28]	Ikarashi		Taki		Ikarashi		
tool.c (MAIN)	Tool_OneCount	req[13-11-1-29]	Ikarashi		Taki		Ikarashi		
tool.c (MAIN)	Tool_set_Dec_ChrcAscii	req[13-11-1-30]	Ikarashi		Taki		Ikarashi		
tool.c (MAIN)	Tool_set_Dec_ChrcSymbolAscii	req[13-11-1-31]	Ikarashi		Taki		Ikarashi		
tool.c (MAIN)	Tool_set_Dec_DenstAscii	req[13-11-1-32]	Ikarashi		Taki		Ikarashi		
tool.c (MAIN)	Tool_set_Dec_DenstShortAscii	req[13-11-1-33]	Ikarashi		Taki		Ikarashi		
tool.c (MAIN)	Tool_set_Dec_ShortAscii	req[13-11-1-34]	Ikarashi		Taki		Ikarashi		
usb_com.c	USBCom_Cmd_Proc	req[7-1-1-14]	Ikarashi		Taki		Ikarashi		
usb_com.c	m_AscilDenst_proc	req[13-11-1-4]	Ikarashi		Taki		Ikarashi		
usb_com.c	m_Calc_PCSum	req[7-1-1-15]	Ikarashi		Taki		Ikarashi		
usb_com.c	m_Chk_AscilOnOffDec	req[13-11-1-5]	Ikarashi		Taki		Ikarashi		
usb_com.c	m_Chk_DecOnOffAscii	req[13-11-1-6]	Ikarashi		Taki		Ikarashi		
usb_com.c	m_Cmp_SUM	req[7-1-1-17]	Ikarashi		Taki		Ikarashi		
usb_com.c	m_DenstAscii_proc	req[13-11-1-7]	Ikarashi		Taki		Ikarashi		
usb_com.c	m_Get_UnitPnt	req[13-11-1-8]	Ikarashi		Taki		Ikarashi		
usb_com.c	m_cmd_90_proc	req[7-1-1-107]	Ikarashi		Taki		Ikarashi		
usb_com.c	m_cmd_93_proc	req[7-1-1-104]	Ikarashi		Taki		Ikarashi		
usb_com.c	m_cmd_94_proc	req[7-1-1-105]	Ikarashi		Taki		Ikarashi		
usb_com.c	m_cmd_A7_proc	req[7-1-1-21]	Ikarashi		Taki		Ikarashi		
usb_com.c	m_cmd_AF_proc	req[7-1-1-52]	Ikarashi		Taki		Ikarashi		
usb_com.c	m_cmd_AJ_proc	req[7-1-1-96]	Ikarashi		Taki		Ikarashi		
usb_com.c	m_cmd_AM_proc	req[7-1-1-51]	Ikarashi		Taki		Ikarashi		
usb_com.c	m_cmd_AP_proc	req[7-1-1-50]	Ikarashi		Taki		Ikarashi		
usb_com.c	m_cmd_B0_proc	req[7-1-1-53]	Ikarashi		Taki		Ikarashi		
usb_com.c	m_cmd_B7_proc	req[7-1-1-24]	Ikarashi		Taki		Ikarashi		
usb_com.c	m_cmd_B8_proc	req[7-1-1-23]	Ikarashi		Taki		Ikarashi		
usb_com.c	m_cmd_B9_proc	req[7-1-1-22]	Ikarashi		Taki		Ikarashi		
usb_com.c	m_cmd_BJ_proc	req[7-1-1-62]	Ikarashi		Taki		Ikarashi		
usb_com.c	m_cmd_BK_proc	req[7-1-1-61]	Ikarashi		Taki		Ikarashi		
usb_com.c	m_cmd_BL_proc	req[7-1-1-63]	Ikarashi		Taki		Ikarashi		
usb_com.c	m_cmd_BO_proc	req[7-1-1-30]	Ikarashi		Taki		Ikarashi		
usb_com.c	m_cmd_BP_proc	req[7-1-1-108]	Ikarashi		Taki		Ikarashi		
usb_com.c	m_cmd_BS_proc	req[7-1-1-40]	Ikarashi		Taki		Ikarashi		
usb_com.c	m_cmd_BU_proc	req[7-1-1-65]	Ikarashi		Taki		Ikarashi		
usb_com.c	m_cmd_CP_proc	req[7-1-1-110]	Ikarashi		Taki		Ikarashi		
usb_com.c	m_cmd_D2_proc	req[7-1-1-99]	Ikarashi		Taki		Ikarashi		
usb_com.c	m_cmd_D3_proc	req[7-1-1-100]	Ikarashi		Taki		Ikarashi		
usb_com.c	m_cmd_DH_proc	req[7-1-1-111]	Ikarashi		Taki		Ikarashi		
usb_com.c	m_cmd_DP_proc	req[7-1-1-113]	Ikarashi		Taki		Ikarashi		
usb_com.c	m_cmd_DW_proc	req[7-1-1-88]	Ikarashi		Taki		Ikarashi		
usb_com.c	m_cmd_EF_proc	req[7-1-1-89]	Ikarashi		Taki		Ikarashi		
usb_com.c	m_cmd_EP_proc	req[7-1-1-90]	Ikarashi		Taki		Ikarashi		
usb_com.c	m_cmd_EX_proc	req[7-1-1-101]	Ikarashi		Taki		Ikarashi		
usb_com.c	m_cmd_FB_proc	req[7-1-1-95]	Ikarashi		Taki		Ikarashi		
usb_com.c	m_cmd_G0_proc	req[7-1-1-94]	Ikarashi		Taki		Ikarashi		
usb_com.c	m_cmd_GJ_proc	req[7-1-1-18]	Ikarashi		Taki		Ikarashi		
usb_com.c	m_cmd_GT_proc	req[7-1-1-45]	Ikarashi		Taki		Ikarashi		
usb_com.c	m_cmd_GY_proc	req[7-1-1-46]	Ikarashi		Taki		Ikarashi		
usb_com.c	m_cmd_H1_proc	req[7-1-1-29]	Ikarashi		Taki		Ikarashi		
usb_com.c	m_cmd_H3_proc	req[7-1-1-31]	Ikarashi		Taki		Ikarashi		
usb_com.c	m_cmd_HA_proc	req[7-1-1-114]	Ikarashi		Taki		Ikarashi		
usb_com.c	m_cmd_HC_proc	req[7-1-1-80]	Ikarashi		Taki		Ikarashi		
usb_com.c	m_cmd_HF_proc	req[7-1-1-109]	Ikarashi		Taki		Ikarashi		
usb_com.c	m_cmd_HN_proc	req[7-1-1-37]	Ikarashi		Taki		Ikarashi		
usb_com.c	m_cmd_IN_proc	req[7-1-1-36]	Ikarashi		Taki		Ikarashi		
usb_com.c	m_cmd_JZ_proc	req[7-1-1-68]	Ikarashi		Taki		Ikarashi		
usb_com.c	m_cmd_KW_proc	req[7-1-1-118]	Ikarashi		Taki		Ikarashi		
usb_com.c	m_cmd_LB_proc	req[7-1-1-97]	Ikarashi		Taki		Ikarashi		
usb_com.c	m_cmd_LI_proc	req[7-1-1-19]	Ikarashi		Taki		Ikarashi		
usb_com.c	m_cmd_LJ_proc	req[7-1-1-47]	Ikarashi		Taki		Ikarashi		
usb_com.c	m_cmd_LK_proc	req[7-1-1-48]	Ikarashi		Taki		Ikarashi		
usb_com.c	m_cmd_LP_proc	req[7-1-1-20]	Ikarashi		Taki		Ikarashi		
usb_com.c	m_cmd_LQ_proc	req[7-1-1-27]	Ikarashi		Taki		Ikarashi		
usb_com.c	m_cmd_MO_proc	req[7-1-1-75]	Ikarashi		Taki		Ikarashi		
usb_com.c	m_cmd_MP_proc	req[7-1-1-76]	Ikarashi		Taki		Ikarashi		
usb_com.c	m_cmd_MR_proc	req[7-1-1-64]	Ikarashi		Taki		Ikarashi		
usb_com.c	m_cmd_MX_proc	req[7-1-1-55]	Ikarashi		Taki		Ikarashi		
usb_com.c	m_cmd_MY_proc	req[7-1-1-56]	Ikarashi		Taki		Ikarashi		

usb_com.c	m_cmd_MZ_proc	req[7-1-1-57]	Ikarashi		Taki		Ikarashi		
usb_com.c	m_cmd_OI_proc	req[7-1-1-72]	Ikarashi		Taki		Ikarashi		
usb_com.c	m_cmd_PG_proc	req[7-1-1-77]	Ikarashi		Taki		Ikarashi		
usb_com.c	m_cmd_PN_proc	req[7-1-1-49]	Ikarashi		Taki		Ikarashi		
usb_com.c	m_cmd_PS_proc	req[7-1-1-32]	Ikarashi		Taki		Ikarashi		
usb_com.c	m_cmd_RA_proc	req[7-1-1-116]	Ikarashi		Taki		Ikarashi		
usb_com.c	m_cmd_RC_proc	req[7-1-1-115]	Ikarashi		Taki		Ikarashi		
usb_com.c	m_cmd_RL_proc	req[7-1-1-119]	Ikarashi		Taki		Ikarashi		
usb_com.c	m_cmd_RM_proc	req[7-1-1-117]	Ikarashi		Taki		Ikarashi		
usb_com.c	m_cmd_RO_proc	req[7-1-1-98]	Ikarashi		Taki		Ikarashi		
usb_com.c	m_cmd_ResponsTerm	req[7-1-1-16]	Ikarashi		Taki		Ikarashi		
usb_com.c	m_cmd_S2_proc	req[7-1-1-34]	Ikarashi		Taki		Ikarashi		
usb_com.c	m_cmd_S4_proc	req[7-1-1-26]	Ikarashi		Taki		Ikarashi		
usb_com.c	m_cmd_SA_proc	req[7-1-1-25]	Ikarashi		Taki		Ikarashi		
usb_com.c	m_cmd_SC_proc	req[7-1-1-58]	Ikarashi		Taki		Ikarashi		
usb_com.c	m_cmd_SD_proc	req[7-1-1-59]	Ikarashi		Taki		Ikarashi		
usb_com.c	m_cmd_SG_proc	req[7-1-1-71]	Ikarashi		Taki		Ikarashi		
usb_com.c	m_cmd_SJ_proc	req[7-1-1-70]	Ikarashi		Taki		Ikarashi		
usb_com.c	m_cmd_SM_proc	req[7-1-1-60]	Ikarashi		Taki		Ikarashi		
usb_com.c	m_cmd_SO_proc	req[7-1-1-28]	Ikarashi		Taki		Ikarashi		
usb_com.c	m_cmd_SZ_proc	req[7-1-1-33]	Ikarashi		Taki		Ikarashi		
usb_com.c	m_cmd_UB_proc	req[7-1-1-69]	Ikarashi		Taki		Ikarashi		
usb_com.c	m_cmd_UJ_proc	req[7-1-1-41]	Ikarashi		Taki		Ikarashi		
usb_com.c	m_cmd_US_proc	req[7-1-1-43]	Ikarashi		Taki		Ikarashi		
usb_com.c	m_cmd_UX_proc	req[7-1-1-87]	Ikarashi		Taki		Ikarashi		
usb_com.c	m_cmd_UZ_proc	req[7-1-1-44]	Ikarashi		Taki		Ikarashi		
usb_com.c	m_cmd_VL_proc	req[7-1-1-83]	Ikarashi		Taki		Ikarashi		
usb_com.c	m_cmd_VP_proc	req[7-1-1-81]	Ikarashi		Taki		Ikarashi		
usb_com.c	m_cmd_VQ_proc	req[7-1-1-82]	Ikarashi		Taki		Ikarashi		
usb_com.c	m_cmd_VS_proc	req[7-1-1-84]	Ikarashi		Taki		Ikarashi		
usb_com.c	m_cmd_VT_proc	req[7-1-1-85]	Ikarashi		Taki		Ikarashi		
usb_com.c	m_cmd_VV_proc	req[7-1-1-86]	Ikarashi		Taki		Ikarashi		
usb_com.c	m_cmd_W0_proc	req[7-1-1-106]	Ikarashi		Taki		Ikarashi		
usb_com.c	m_cmd_W8_proc	req[7-1-1-103]	Ikarashi		Taki		Ikarashi		
usb_com.c	m_cmd_W9_proc	req[7-1-1-35]	Ikarashi		Taki		Ikarashi		
usb_com.c	m_cmd_WU_proc	req[7-1-1-102]	Ikarashi		Taki		Ikarashi		
usb_com.c	m_cmd_X8_proc	req[7-1-1-73]	Ikarashi		Taki		Ikarashi		
usb_com.c	m_cmd_XA_proc	req[7-1-1-74]	Ikarashi		Taki		Ikarashi		
usb_com.c	m_cmd_XB_proc	req[7-1-1-54]	Ikarashi		Taki		Ikarashi		
usb_com.c	m_cmd_XC_proc	req[7-1-1-92]	Ikarashi		Taki		Ikarashi		
usb_com.c	m_cmd_XH_proc	req[7-1-1-91]	Ikarashi		Taki		Ikarashi		
usb_com.c	m_cmd_XI_proc	req[7-1-1-66]	Ikarashi		Taki		Ikarashi		
usb_com.c	m_cmd_XL_proc	req[7-1-1-67]	Ikarashi		Taki		Ikarashi		
usb_com.c	m_cmd_XP_proc	req[7-1-1-78]	Ikarashi		Taki		Ikarashi		
usb_com.c	m_cmd_XS_proc	req[7-1-1-39]	Ikarashi		Taki		Ikarashi		
usb_com.c	m_cmd_XT_proc	req[7-1-1-42]	Ikarashi		Taki		Ikarashi		
usb_com.c	m_cmd_XW_proc	req[7-1-1-79]	Ikarashi		Taki		Ikarashi		
usb_com.c	m_cmd_XY_proc	req[7-1-1-93]	Ikarashi		Taki		Ikarashi		
usb_com.c	m_cmd_XZ_proc	req[7-1-1-38]	Ikarashi		Taki		Ikarashi		
usb_com.c	str_set_uw_hex	req[13-11-1-9]	Ikarashi		Taki		Ikarashi		
vibration.c	VIBRATION_Control_VIB_Port	req[14-9-1-3]	Ikarashi		Taki		Ikarashi		
zipc_num_set.c	m_Get_SensorFailFlg	req[3-2-5-6]	Ikarashi		Taki		Ikarashi		
zipc_num_set.c	ZIPCNumSet_Chk_AirFall	req[5-1-2-2]	Ikarashi		Taki		Ikarashi		
zipc_num_set.c	ZIPCNumSet_Chk_AutoCal_EscNum	req[5-4-2-10]	Ikarashi		Taki		Ikarashi		
zipc_num_set.c	ZIPCNumSet_Chk_DemandZero_onoff	req[5-2-2-5]	Ikarashi		Taki		Ikarashi		
zipc_num_set.c	ZIPCNumSet_Chk_SensorAllInitFailFlg	req[3-2-5-7]	Ikarashi		Taki		Ikarashi		
zipc_num_set.c	ZIPCNumSet_Chk_SpanCalFail	req[5-4-4-2]	Ikarashi		Taki		Ikarashi		
zipc_num_set.c	ZIPCNumSet_Get_AlarmFlg	req[2-1-5-6]	Ikarashi		Taki		Ikarashi		
zipc_num_set.c	ZIPCNumSet_Get_AlarmManDownFlg	req[2-1-5-5]	Ikarashi		Taki		Ikarashi		
zipc_num_set.c	ZIPCNumSet_Get_AlarmPattern	req[2-3-1-5]	Ikarashi		Taki		Ikarashi		
zipc_num_set.c	ZIPCNumSet_Get_AutoZeroFlg	req[5-3-1-2]	Ikarashi		Taki		Ikarashi		
zipc_num_set.c	ZIPCNumSet_Get_DispFlicker2	req[13-11-1-41]	Ikarashi		Taki		Ikarashi		
zipc_num_set.c	ZIPCNumSet_Get_DispFlicker3	req[13-11-1-42]	Ikarashi		Taki		Ikarashi		
zipc_num_set.c	ZIPCNumSet_Get_DispFlicker4	req[13-11-1-43]	Ikarashi		Taki		Ikarashi		
zipc_num_set.c	ZIPCNumSet_Get_FailFlg	req[3-2-1-32]	Ikarashi		Taki		Ikarashi		
zipc_num_set.c	ZIPCNumSet_Get_GasTestFlg	req[4-2-1-5]	Ikarashi		Taki		Ikarashi		
zipc_num_set.c	ZIPCNumSet_Get_NotManDownFlg	req[2-1-5-7]	Ikarashi		Taki		Ikarashi		
zipc_num_set.c	ZIPCNumSet_Get_SensorInitFailFlg	req[3-2-5-8]	Ikarashi		Taki		Ikarashi		
zipc_num_set.c	ZIPCNumSet_Get_ZipcModeNum	req[9-9-1-4]	Ikarashi		Taki		Ikarashi		
zipc_num_set.c	ZIPCNumSet_Get_ZipcNumAddress	req[13-11-1-36]	Ikarashi		Taki		Ikarashi		
zipc_num_set.c	ZIPCNumSet_Int_1sec	req[13-11-1-40]	Ikarashi		Taki		Ikarashi		
zipc_num_set.c	ZIPCNumSet_mainte_pass_onoff	req[6-8-3-1]	Ikarashi		Taki		Ikarashi		
zipc_num_set.c	ZIPCNumSet_pass_protect_onoff	req[6-9-1-1]	Ikarashi		Taki		Ikarashi		
zipc_num_set.c	ZIPCNumSet_Reset_InitPossibleResetFailFlg	req[3-1-5-3]	Ikarashi		Taki		Ikarashi		
zipc_num_set.c	ZIPCNumSet_Reset_PossibleResetFailFlg	req[3-1-5-4]	Ikarashi		Taki		Ikarashi		
zipc_num_set.c	ZIPCNumSet_Select_ZipcNumUpDown	req[13-11-1-37]	Ikarashi		Taki		Ikarashi		
zipc_num_set.c	ZIPCNumSet_Set_GasTestFlg	req[4-2-1-6]	Ikarashi		Taki		Ikarashi		
zipc_num_set.c	ZIPCNumSet_user_pass_onoff	req[6-8-2-12]	Ikarashi		Taki		Ikarashi		

Unit Test Specification

Project name	GX-Force
File name	ad_24bit.c

Ad24bit_Ad_Ave_Op

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	4
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3	case4
Root	for(luc_i=0; luc_i<2; luc_i++)	○	○	○	○
	for(luc_j=0; luc_j<M_EC_AVERAGE_NUMBER; luc_j++)	○	○	○	○
	if(++ucs_m_ad_ec_count[luc_i] >= 3U)	-	○	-	○
	else	○	-	○	-
	for(luc_i=0; luc_i<M_TEMP_AVERAGE_NUMBER; luc_i++)	○	○	○	○
	if(ucs_m_nc_migrationflg == M_ON)	○	○	-	○
	if(++ucs_m_nc_update_count > 9U)	○	○	-	-
	else	○	○	-	○
	else	-	-	○	○
	Symbol				
Input	ucs_m_nc_migrationflg	0,1	1	0	1
	dbb_m_ec_ad_value[0][0]	0	0	0	0
	ucs_m_ad_ec_count[0]	0~4	1	2	0
	ucs_m_ad_ec_count[1]	0~2	1	2	0
	dbb_m_nc_ad_ave[0][0]	0	0	0	0
	dbb_m_nc_ad_ave[1][0]	0	0	0	0
	dbb_m_nc_ad_ave[2][0]	0	0	0	0
	dbb_m_nc_ad_ave[3][0]	0	0	0	0
	dbb_m_nc_ad_ave[4][0]	0	0	0	0
	dbb_m_nc_ad_ave[5][0]	0	0	0	0
	ucs_m_nc_update_count	0,10	9	10	0
	dbb_m_temp_ad_value[0]	0	0	0	0
	Ad24bit_bit24AD_Conversion	0	0	0	0
Output	ucs_m_nc_migrationflg	0	0	0	0
	dbb_m_ad_ec_buf[0][0]	0	0	0	0
	ucs_m_ad_ec_count[0]	0~2	2	0	1
	ucs_m_ad_ec_count[1]	0~2	2	0	1
	fts_m_nc_data[0]	0	0	0	0
	fts_m_nc_data[1]	0	0	0	0
	fts_m_nc_data[2]	0	0	0	0
	fts_m_nc_data[3]	0	0	0	0
	fts_m_nc_data[4]	0	0	0	0
	fts_m_nc_data[5]	0	0	0	0
	ucs_m_nc_update_count	0,1	0	0	1
	fts_m_ec_data[0]	0	0	0	0
	fts_m_temp_data	0	0	0	0
Judgment					

Ad24bit_bit24AD_Conversion

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3
Root	None	-	-	-
	Symbol	Range		
Input	pdb_data	-8388608~8388608	-8388608	8388607
Output	fl_ad	-800~800	-800	799,9999
Judgment				

Ad24bit_Get_NC_Count

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1
Root	None	-
	Symbol	Range
Input	None	-
Output	ucs_m_nc_update_count	1
Judgment		

Ad24bit_Int_Ad_Start

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	2
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2
Root	if(DSADST == 0)	○	-
	else	-	○
	Symbol	Range	
Input	DSADST	0,1	0
Output	None	-	-
Judgment			

Ad24bit_Int_Adc

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3
Root	!(luc_ch <= 0x04)	○	○	-
	!(ECSENSOR_Not_Use_Flg(luc_ch) == M_OFF)	○	-	-
	else	-	○	-
	else	-	-	○
Input	Symbol	Range		
	m_bit24AD_Channel_Check	3,4	3	4
	m_bit24AD_Acquisition	0	0	0
	m_bit24AD_Chk_minus	0	0	0
	ECSENSOR_Not_Use_Flg	0,1	0	1
Output	None	-	-	-
Judgment				

Ad24bit_Nc_Ad_CalcAverage

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	4
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3	case4
Root	for(luc_i=0U; luc_i<M_NC_AVERAGE_NUMBER; luc_i++)	○	○	○	○
	for(luc_i=0U; luc_i<M_NC_AVERAGE_NUMBER; luc_i++)	○	○	○	○
	!(ldb_ad_nc_min > dbs_m_nc_ad_backup[puc_element_flg][luc_i])	-	-	-	○
	else	○	○	○	-
	if(puc_element_flg >= 5U) && (ucs_m_nc_migrationflg == M_OFF)	○	-	-	-
	else	-	○	○	○
Input	Symbol	Range			
	puc_element_flg	0-5	5	5	4
	Ad24bit_bit24AD_Conversion()	0	0	0	0
	dbs_m_nc_ad_ave[0]	1	1	1	1
	dbs_m_nc_ad_backup[0]	1	1	1	1
	dbs_m_nc_ad_backup[0][0]	0	0	0	0
	dbs_m_nc_ad_backup[0][1]	0	0	0	0
	dbs_m_nc_ad_backup[0][2]	0	0	0	0
	dbs_m_nc_ad_backup[0][3]	0	0	0	0
	dbs_m_nc_ad_backup[0][4]	0	0	0	0
	dbs_m_nc_ad_value[0]	0	0	0	0
	ucs_m_nc_migrationflg	0,1	0	1	1
Output	ucs_m_nc_migrationflg	0,1	1	0	0
Judgment					

Ad24bit_Set_AD

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	5
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3	case4	case5
Root	switch(puc_ch)	○	○	○	○	○
	case 0	○	-	-	-	-
	case 1	-	○	-	-	-
	case 2	-	-	○	-	-
	case 3	-	-	-	○	-
	default	-	-	-	-	○
Input	Symbol	Range				
	puc_ch	0-4	0	1	2	3
	fts_m_nc_data[puc_timing]	0	0	0	0	0
	fts_m_ec_data[0]	0	0	0	0	0
	fts_m_ec_data[1]	0	0	0	0	0
	fts_m_temp_data	0	0	0	0	0
Output	fts_data	0	0	0	0	0
Judgment						

Ad24bit_Set_InitRAM

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1
Root	for(luc_i=0; luc_i<7; luc_i++)	○
	for(luc_j=0; luc_j<M_NC_AVERAGE_NUMBER; luc_j++)	○
	for(luc_i=0; luc_i<2; luc_i++)	○
	for(luc_j=0; luc_j<M_EC_AVERAGE_NUMBER; luc_j++)	○
	for(luc_i=0; luc_i<M_TEMP_AVERAGE_NUMBER; luc_i++)	○
	for(luc_i=0; luc_i<6; luc_i++)	○
	for(luc_j=0; luc_j<2; luc_j++)	○
	Symbol	Range
Input	None	
Output	dbs_m_ec_ad_value[0][0]	0
	dbs_m_nc_ad_ave[0][0]	0
	dbs_m_nc_ad_backup[0][0]	0
	dbs_m_nc_ad_value[0][0]	0
	dbs_m_temp_ad_value[0]	0
	fts_m_ec_data[0]	0
	fts_m_nc_data[0]	0
	fts_m_temp_data	0
	ucs_m_nc_migrationflg	0
	ucs_m_nc_update_count	0
	ucs_m_pga[0]	2
	ucs_m_pga[1]	0
	ucs_m_pga[2]	0
	ucs_m_pga[3]	0
Judgment		

m_bit24AD_Acquisition

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1
Root	None	○
	Symbol	Range
Input	None	-
Output	lul_ad_data	0
Judgment		0

m_bit24AD_Channel_Check

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	5
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3	case4	case5
Root	switch(DSADCRC & 0xe0)	○	○	○	○	○
	case 0x20	○	-	-	-	-
	case 0x40	-	○	-	-	-
	case 0x60	-	-	○	-	-
	case 0xa0	-	-	-	○	-
	default	-	-	-	-	○
	Symbol	Range				
Input	DSADCRC	0x00~0xA0	0x20	0x40	0x60	0xA0
Output	luc_ch	0x00~0xFF	0x00	0x01	0x02	0x03
Judgment						0xFF

m_bit24AD_Chk_ChangePGA

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	8
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3	case4	case5	case6	case7	case8
Root	if(puc_ch != M_TEMP_AD_CH)	○	-	○	○	○	○	○	○
	if(ECSSENSOR_Fixed_PGA1_Flg(puc_ch) == M_ON)	-	-	○	-	-	-	-	-
	else	○	-	-	○	○	○	○	○
	if(luc_num != M_PGA1_NUM)	○	-	-	○	○	○	-	-
	if(ulc_m_chg_ad_max < pul_ad)	-	-	-	-	○	○	-	-
	else	○	-	-	-	-	-	-	-
	else	-	-	-	○	-	-	○	○
	if(luc_num != M_PGA16_NUM)	○	-	-	○	○	○	○	○
	if(ulc_m_chg_ad_min > pul_ad)	-	-	-	○	-	-	○	-
	else	○	-	-	-	○	○	-	○
	else	-	-	-	-	-	-	-	-
	else	-	○	-	-	-	-	-	-
	Symbol	Range							
Input	puc_ch	0~4	4	3	4	0	0	0	0
	pul_ad	3145727~6710887	6710887	6710887	6710887	6710887	6710886	3145727	3145729
	ucs_m_pga[0]	0.1	1	1	1	0	1	0	0
	ECSSENSOR_Fixed_PGA1_Flg	1.2	2	2	1	2	2	2	2
Output	ucs_m_pga[puc_ch]	0.1	1	1	1	0	0	1	0
Judgment									

m_bit24AD_Chk_minus

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	4
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3	case4
Root	if(!(*pulp_ad_data) & M_PGA_SIGN_FLG) != 0)	○	-	-	-
	else	-	○	○	○
	Symbol	Range			
Input	*pulp_ad_data	0~16777216	8388608	0	16777215
Output	lst_data	8388608~16777216	-8388608	0	-1
Judgment					16777216

m_bit24AD Set PGARegister

	Responsible	Last update
Coding	Ikarashi	
Test	Taki	
Judgment	Ikarashi	

			case1	case2	case3
Root	None		○	○	○
	Symbol	Range			
Input	ucs_m_pga[0]	2~5	2	4	5
	ucs_m_pga[1]	0~5	0	4	5
	ucs_m_pga[2]	0~5	0	4	5
	ucc_m_pga_reg_table[0]	0x40~0x48	0x40	0x47	0x48
	ucc_m_pga_reg_table[2]	0x42~0x48	0x42	0x47	0x48
Output	PGA0CTL0	1~71	66	71	1
	PGA1CTL0	1~71	64	71	1
	PGA2CTL0	1~71	64	71	1
	PGA4CTL0	64	64	64	64
Judgment					

m bit24AD To buffer

	Responsible	Last update
Coding	Ikarashi	
Test	Taki	
Judgment	Ikarashi	

[illegible]

Unit Test Specification

Project name	GX-Force
File name	ec_sensor.c

ECSENSOR_Calc_AD_Main

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	2
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1	case2
Root	if(uc_m_sub_ec_chk_flg[1] == M_ON)		○	-
	else		-	○
	Symbol	Range		
Input	Ad24bit_bit24AD_Conversion	0	0	0
	uc_m_sub_ec_chk_flg[1]	0,1	0x01	0x00
Output	fl_m_ec_chk_difference[2]	0	0	0
	fl_m_ec_chk_difference[3]	0	0	0
	uc_m_sub_ec_chk_flg[1]	0	0	0
Judgment				

ECSENSOR_Fixed_PGA1_Flg

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	6
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1	case2	case3	case4	case5	case6
Root	if(puc_ch == 0)		○	-	-	-	-	-
	else		-	○	○	○	○	○
	if((uc_m_ec_chk_flg[1] != M_CHK_STAGE_OFF) && (ucsc_not_use_flg[puc_ch] == M_ON))		-	○	○	○	○	-
	else		-	-	-	-	-	○
	Symbol	Range						
Input	puc_ch	0-4	0	1	1	2	2	4
	uc_m_ec_chk_flg[1]	0-2	0	0	1	0	1	2
	ucsc_not_use_flg[0]	0	0	0	0	0	0	0
	ucsc_not_use_flg[1]	1	1	1	1	1	1	1
	ucsc_not_use_flg[2]	1	1	1	1	1	1	1
	ucsc_not_use_flg[3]	1	1	1	1	1	1	1
	ucsc_not_use_flg[4]	0	0	0	0	0	0	0
Output	luc_flg	0x00,0x01	0x00	0x01	0x01	0x00	0x01	0x00
Judgment								

ECSENSOR_Get_Chk_Status

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	5
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1	case2	case3	case4	case5
Root	if(uc_m_ec_chk_flg[0] != M_OFF)		○	-	-	○	○
	else		-	○	○	-	-
	if(uc_m_ec_chk_flg[1] != M_OFF)		○	-	○	○	○
	else		-	○	-	-	-
	Symbol	Range					
Input	uc_m_ec_chk_flg[0]	0-15	1	0	0	14	15
	uc_m_ec_chk_flg[1]	0-15	0	0	1	14	15
Output	luc_ans	0x00-0x03	0x01	0x00	0x02	0x03	0x03
Judgment							

ECSENSOR_Get_Difference_AD

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1	case2	case3
Root	None		-	-	-
	Symbol	Range			
Input	puc_ch	0-4	0	3	4
Output	fl_m_ec_chk_difference[puc_ch]	0	0	0	0
Judgment					

ECSENSOR_Interval_Connect_Chk

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	5
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3	case4	case5	
Root	for(luc_i=0; luc_i<2; luc_i++)	○	○	○	○	○	
	if(uc_m_ec_chk_flg[luc_i] != M_CHK_STAGE_OFF)	○	○	-	-	○	
	if(uc_m_ec_chk_flg[luc_i] == M_CHK_STAGE_END)	○	-	-	-	-	
	else	-	○	-	-	○	
	if(uc_m_ec_chk_flg[luc_i] == M_CHK_STAGE_PULSE)	-	○	-	-	-	
	else	○	-	-	-	○	
	if(us_m_not_use_data_time[luc_i] != 0)	○	-	-	○	○	
	else	-	○	○	-	-	
	Symbol	Range					
Input	uc_m_ec_chk_flg[0]	0-15	14	2	0	0	15
	us_m_not_use_data_time[0]	0-501	1	0	0	500	501
Output	uc_m_sub_ec_chk_flg[0]	1	1	1	1	1	1
	uc_m_ec_chk_flg[0]	0-16	0	3	0	0	16
	us_m_not_use_data_time[0]	0-500	0	0	0	499	500
Judgment							

ECSENSOR_Not_Use_Flg

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	7
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3	case4	case5	case6	case7	
Root	if(puc_ch == 0)	○	-	-	-	-	○	-	
	else	-	○	○	○	○	-	○	
	if(us_m_not_use_data_time[1] != 0 && ucsc_not_use_flg[puc_ch] == M_ON)	-	○	○	○	○	-	○	
	else	-	-	-	-	-	-	-	
Symbol		Range							
Input	puc_ch	0x00-0xFF	0x00	0x01	0x01	0x02	0x02	0x00	0xFF
	us_m_not_use_data_time[1]	0-501	0	0	1	0	1	500	501
Output	luc_flg	0x00,0x01	0x00	0x00	0x01	0x00	0x01	0x00	0x00
Judgment									

ECSENSOR_Set_AD_Connect_Chk

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	6
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3	case4	case5	case6	
Root	if(uc_m_ec_chk_flg[1] != M_CHK_STAGE_OFF)	○	○	-	○	○	○	
	else	-	-	○	-	-	-	
	Symbol	Range						
Input	puc_ch	0-2	1	0	0	0	2	
	pdb_data	-8388608-8388608	4096	4096	4096	-8388608	8388607	8388608
	uc_m_ec_chk_flg[1]	0x00-0xFF	0x00	0x01	0x00	0x0E	0x0F	0xFF
Output	db_m_ec_chk_data[0]	-	-	-	-	-	-	
Judgment								

ECSENSOR_Set_InitRAM

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1
Root	for(luc_i=0; luc_j<2; luc_i++)	○
	for(luc_i=0; luc_j<M_DATA_CH; luc_i++)	○
	for(luc_j=0; luc_j<M_CHK_STAGE_END; luc_j++)	○
	Symbol	Range
Input	None	-
Output	uc_m_ec_chk_flg[luc_i]	0
	us_m_not_use_data_time[luc_i]	0
	uc_m_sub_ec_chk_flg[luc_i]	0
	db_m_ec_chk_data[luc_i][luc_j]	0
	fl_m_ec_chk_difference[luc_i]	0
Judgment		

ECSENSOR_Start_ConnectChk

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	5
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3	case4	case5
Root	if(uc_m_ec_chk_flg[puc_flg] == M_CHK_STAGE_OFF)	○	○	-	○	-
	if(puc_flg == 0)	○	-	-	-	-
	else	-	○	-	○	-
	else	-	-	○	-	○
	Symbol	Range				
Input	uc_m_ec_chk_flg[puc_flg]	0x00~0x0F	0x00	0x00	0x01	0x0E
	puc_flg	0x00~0x02	0x00	0x01	0x01	0x02
Output	us_m_not_use_data_time[puc_flg]	200	200	200	200	200
	uc_m_ec_chk_flg[puc_flg]	0x00~0x0F	0x01	0x00	0x01	0x0E
Judgment						

m_Set_AD_Buf_Clr

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1
Root	for(luc_i=0; luc_i<M_CHK_STAGE_END; luc_i++)	○
	Symbol	Range
Input	none	
Output	db_m_ec_chk_data[1][luc_i]	0
	db_m_ec_chk_data[2][luc_i]	0
Judgment		

m_Set_EcChk_Port

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	5
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3	case4	case5
Root	if(puc_flg == 0)	○	○	-	-	-
	else	-	-	○	○	○
	if(puc_onoff == M_ON)	-	-	○	-	-
	else	-	-	-	○	○
	Symbol	Range				
Input	puc_flg	0~2	0	1	1	2
	puc_onoff	0~2	1	0	1	0
Output	P1	8,9	8	8	9	8
Judgment						

Unit Test Specification

Project name	GX-Force
File name	interval_timer.c

IntervalTimer_Flag_Acquisition_250msec

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1
Root	None	-
	Symbol	Range
Input	None	-
Output	uc_m_250msec_flag_time	0
Judgment		

IntervalTimer_Flag_Set_250msec

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3
Root	None	-	-	-
	Symbol	Range		
Input	puc_num	0~2	0	1
Output	uc_m_250msec_flag_time	0~2	0	1
Judgment				

IntervalTimer_Int_Timer_Op

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	4
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3	case4
Root	if(uc_t250m != 0)	-	○	○	○
	if(!uc_t250m)	-	○	-	-
	else	-	-	○	○
	else	○	-	-	-
	Symbol	Range			
Input	uc_t250m	0~25	0	1	25
Output	uc_t250m	24,25	25	25	24
	uc_m_250msec_flag_time	0,1	0	1	1
Judgment					

IntervalTimer_Set_InitRAM

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1
Root	None	-
	Symbol	Range
Input	None	-
Output	uc_m_250msec_flag_time	0
Judgment		

Unit Test Specification

Project name	GX-Force
File name	lvd.c

LVD_Cyclic_250msecProcess_isFault

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1	case2	case3
Root	if(LVIF == 0U)		○	-	○
	else		-	○	-
	if(fuc_lvd_count >= F_LVD_COUNT_MAX)		-	○	-
	else		○	-	○
	Symbol	Range			
Input	fuc_lvd_count	0~21	0	20	21
	LVIF	0,1	0	1	0
Output	fuc_lvd_count	0,20	0	20	0
	luc_ans	0,1	0	1	0
Judgment					

LVD_Set_InitRAM

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1
Root		-
	Symbol	Range
Input	None	-
Output	fuc_lvd_count	0
Judgment		

Unit Test Specification

Project name	GX-Force
File name	main.c

Main_250msecCyclic_24hCheckCount

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1	case2	case3
Root	if(luls_24h_count >= M_24H_COUNT_MAX_NUM)		-	○	○
	else		○	-	-
	Symbol	Range			
Input	luls_24h_count	0~345601	0	345600	345601
Output	luls_24h_count	0,1	1	0	0
Judgment					

Main_Get_FailStatus

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1
Root	None		-
	Symbol	Range	
Input	None	-	-
Output	uc_m_status	0	0
Judgment			

Main_Get_Gas_Setting

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1	case2	case3
Root	None		-	-	-
	Symbol	Range			
Input	puc_num	0~4	0	3	4
Output	uc_gas_onoff[puc_num]	0	0	0	0
Judgment					

Main_Process

	Responsible	Last update	Infinite loop	Yes
Coding	Ikarashi		Verification pass	5
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1	case2	case3	case4	case5
Root	if(FuncRamChk_Start_InitRamChk() == M_NG)		○	-	-	-	-
	else		-	○	○	○	○
	while(1U)		○	○	○	○	○
	if(IntervalTimer_Flag_Acquisition_250msec() == TRUE)		○	○	○	-	-
	if(luc_buf == M_NG)		○	-	-	-	-
	else if(luc_buf == M_OK)		-	○	-	-	-
	else		-	-	○	-	-
	else		-	-	-	○	○
	Symbol	Range					
Input	FuncRamChk_Start_InitRamChk()	0~2	1	0	0	0	2
	ROMCHK_Process()	0~3	1	0	2	0	3
	IntervalTimer_Flag_Acquisition_250msec()	0^2	1	1	1	0	2
	FuncRamChk_Cyclic_250msecProcess()	0,3	3	0	0	0	0
	LVD_Cyclic_250msecProcess_isFault()	0,1	1	0	0	0	0
Output	uc_m_status	0x00,0x18	0x18	0x00	0x00	0x00	0x00
Judgment							

Main_Set_Gas_Setting

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1	case2	case3
Root	if(puc_onoff == M_OFF)		○	-	-
	else		-	○	○
	Symbol	Range			
Input	puc_num	0~4	0	3	4
	puc_onoff	0~2	0	1	2
Output	uc_gas_onoff	0	0	0	0
Judgment					

Unit Test Specification

Project name	GX-Force
File name	nc_sensor.c

M_Set_Element_Port

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	4
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1	case2	case3	case4
Root	switch(luc_num)		○	○	○	○
	case 1		-	○	-	-
	case 2		-	-	○	-
	default		○	-	-	○
	Symbol	Range				
Input	luc_num	0~3	0	1	2	3
Output	P1	8~12	8	10	12	8
Judgment						

NcSensor_Get_Long_Energy

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1
Root	None	-
	Symbol	Range
Input	None	-
Output	uc_m_long_energy_flg	0
Judgment		

NcSensor_Get_Protection

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1
Root	None	-
	Symbol	Range
Input	None	-
Output	uc_m_nc_protection_flg	0
Judgment		

NcSensor_Reading_Element_Flg

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1
Root	None		-
	Symbol	Range	
Input	None	-	-
Output	uc_m_nc_element_flg	0x05	0x05
Judgment			

NcSensor_Set_InitRAM

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1
Root	None		-
	Symbol	Range	
Input	None	-	-
Output	uc_m_nc_element_flg	0	0
	uc_m_long_energy_flg	0	0
	uc_m_nc_protection_main_flg	0	0
	uc_m_nc_protection_sub_flg	0	0
	uc_m_nc_warmup_main_flg	1	1
	uc_m_nc_protection_permission_flg	0	0
Judgment			

NcSensor_Set_Long_Energy

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1	case2	case3
Root	if(puc_onoff == M_ON)		○	-	-
	else		-	○	○
	Symbol	Range			
Input	puc_onoff	0~2	1	0	2
Output	uc_m_long_energy_flg	0,1	1	0	0
Judgment					

NcSensor_Set_Protection

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1	case2	case3
Root	if(puc_onoff == M_ON)		○	-	-
	else		-	○	○
	Symbol	Range			
Input	puc_onoff	0~2	1	0	2
Output	uc_m_nc_protection_flg	0,1	1	0	0
Judgment					

NcSensor_Set_ProtectionPermissionFlg

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1	case2	case3
Root	if(puc_onoff == M_ON)		○	-	-
	else		-	○	○
	Symbol	Range			
Input	puc_onoff	0~2	1	0	2
Output	uc_m_nc_protection_permission_flg	0,1	1	0	0
Judgment					

NcSensor_Set_Warmup

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1	case2	case3
Root	if(puc_onoff == M_ON)		○	-	-
	else		-	○	○
	Symbol	Range			
Input	puc_onoff	0~2	1	0	2
Output	uc_m_nc_warmup_main_flg	0,1	1	0	0
Judgment					

NcSensor_Element_Count

	Responsible	Last update
Coding	Ikarashi	
Test	Taki	
Judgment	Ikarashi	

[illegible]**m_Set_NcProtectionFlg**

	Responsible	Last update
Coding	Ikarashi	
Test	Taki	
Judgment	Ikarashi	

Infinite loop	None
Verification pass	10

Judgment	

[illegible]

Unit Test Specification

Project name	GX-Force
File name	ram_chk.c

f_Check_CopyRam

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1
Root	if(lus_num == 0U)	-
	else	○
	Symbol	Range
Input	None	-
Output	len_ans	0
Judgment		

f_Check_MainRam

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3
Root	for(lus_loop=0U; lus_loop<F_CHECK_RAM_BUF_SIZE; lus_loop++)	○	○	○
	if((fuc_num[0] != F_55_BIT) (fuc_num[1] != F_AA_BIT))	-	-	-
	break	-	-	-
	else	○	○	○
	if(fus_check_main_address >= F_MAIN_RAM_END_ADDRESS)	-	○	○
	if(len_ans == FEN_RAMCHECK_ANS_SUB)	-	○	○
	else	-	-	-
	else	○	-	-
	Symbol	Range		
Input	fus_check_main_address	0xE780~0xFDE1	0xE780	0xFDE0
	*fucp_check_point	0	0	0
	fuc_num[0]	0	0	0
	fuc_num[1]	0	0	0
	fuc_sub_buf	0	0	0
Output	fuc_sub_buf	0	0	0
	*fucp_check_point	0	0	0
	fuc_num[0]	85	85	85
	fuc_num[1]	170	170	170
	len_ans	0,2	0	0
Judgment				

f_Cyclic_CheckProcessMainPhase

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3
Root	if(len_chk == FEN_ROMCHECK_ANS_SUB)	○	-	-
	else if(len_chk == FEN_ROMCHECK_ANS_PASS)	-	○	-
	else	-	-	○
	Symbol	Range		
Input	pen_phase	3,4	3	4
	f_Check_MainRam()	0~3	2	0
Output	len_ans	3~5	3	4
Judgment				

f_Cyclic_CheckProcessSubPhase

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	2
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1	case2
Root	if(len_chk == FEN_ROMCHECK_ANS_PASS)		○	-
	else		-	○
	Symbol	Range		
Input	f_Check_CopyRam()	0,2	0	2
Output	len_ans	3,5	3	5
Judgment				

f_Init_MainRam

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1	
Root	None		-	
	Symbol	Range		
Input	None	-	-	
Output	fus_check_main_address	0xE780	0xE780	
Judgment				

FuncRamChk_Cyclic_250msecProcess

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi	2021/6/8	Verification pass	2
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1	case2
Root	None		-	-
	Symbol	Range		
Input	f_Cyclic_CheckProcess()	0~3	0	3
Output	len_result	0~3	0	3
Judgment				

FuncRamChk_Start_Check

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	2
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2
Root	if(fen_phase_flag == FEN_RAMCHECK_PHASE_OFF)	○	-
	else	-	○
	Symbol	Range	
Input	fen_phase_flag	0,5	0 5
Output	fen_phase_flag	1,5	1 5
	fuc_err_count	0	0 0
Judgment			

FuncRamChk_Start_InitRamChk

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	4
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3	case4
Root	for(lul_num=0U; lul_num<F_INIT_LOOP_MAX; lul_num++)	○	○	○	○
	if((lul_result == EN_RAMCHECK_RESULT_FAIL) (lul_result == EN_RAMCHECK_RESULT_PASS))	○	○	-	-
	break	○	○	-	-
	else	-	-	○	○
	if(lul_result == EN_RAMCHECK_RESULT_FAIL)	○	○	○	○
	else	-	-	-	-
	Symbol	Range			
Input	f_Cyclic_CheckProcess()	0~3	0 1 2 3		
Output	RPERDIS	1	1 1 1 1		
	luc_ans	0,1	0 0 0 1		
Judgment					

Unit Test Specification

Project name	GX-Force
File name	rom_chk.c

m_rom_sum_calc

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	4
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1	case2	case3	case4
Root	while(lucp_now_address <= (U_CHR*)pus_end)		○	○	○	-
	else		-	-	-	○
	Symbol	Range				
Input	pus_start	0x0000~0x6001	0x0000	0x6000	0x6001	0x0001
	pus_end	0x1FFF~0x7FFF	0x1FFF	0x7FFF	0x8000	0x0000
	pus_base	0x0000	0x0000	0x0000	0x0000	0x0000
Output	pus_base	0x0000~0xFE00	0x12CE	0xFE00	0xFE00	0x0000
Judgment						

ROMCHK_Get_SUM_NUM

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1
Root	None		-
	Symbol	Range	
Input	uss_m_rom_sum_data	10	10
Output	uss_m_rom_sum_data	10	10
Judgment			

ROMCHK_Get_SUMchkflg

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1
Root	None		-
	Symbol	Range	
Input	ucs_m_sum_chk	0x01	0x01
Output	ucs_m_sum_chk	0x01	0x01
Judgment			

ROMCHK_Process

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	6
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1	case2	case3	case4	case5	case6
Root	switch(ucs_m_sum_chk)		○	○	○	○	○	○
	case 1		○	-	-	-	-	-
	case 2		-	○	-	-	-	-
	case 3		-	-	○	-	-	-
	case 4		-	-	-	○	○	-
	if(uss_m_rom_sum_data != us_m_sum_adr[1][0])		-	-	-	○	-	-
	else		-	-	-	-	○	-
	default		-	-	-	-	-	○
	Symbol	Range						
Input	ucs_m_sum_chk	0~4	1	2	3	4	4	0
	uss_m_rom_sum_data	0	0	0	0	0	0	0
	ussc_m_sum_area[0][0]	0x0000	0x0000	0x0000	0x0000	0x0000	0x0000	0x0000
	ussc_m_sum_area[0][1]	0x0000,0x1fff	0x1fff	0x1fff	0x1fff	0x1fff	0x0000	0x1fff
	ussc_m_sum_area[1][0]	0x0000,0x2000	0x2000	0x2000	0x2000	0x2000	0x0000	0x2000
	ussc_m_sum_area[1][1]	0x0000,0x3fff	0x3fff	0x3fff	0x3fff	0x3fff	0x0000	0x3fff
	ussc_m_sum_area[2][0]	0x0000,0x4000	0x4000	0x4000	0x4000	0x4000	0x0000	0x4000
	ussc_m_sum_area[2][1]	0x0000,0x5fff	0x5fff	0x5fff	0x5fff	0x5fff	0x0000	0x5fff
	ussc_m_sum_area[3][0]	0x0000,0x6000	0x6000	0x6000	0x6000	0x6000	0x0000	0x6000
	ussc_m_sum_area[3][1]	0x7fff	0x7fff	0x7fff	0x7fff	0x7fff	0x0000	0x7fff
	us_m_sum_adr[1][0]	0x0000,0xd793	0xd793	0xd793	0xd793	0xd793	0x0000	0xd793
	Output							
Output	uss_m_rom_sum_data	0	0	0	0	0	0	0
	ucs_m_sum_chk	0~4	2	3	4	0	0	0
	luc_ans	0~2	2	2	2	1	0	2
Judgment								

ROMCHK_Set_SUMChkflg_Start

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1
Root	None		-
	Symbol	Range	
Input	None	None	-
Output	ucs_m_sum_chk	1	1
Judgment			

Unit Test Specification

Project name	GX-Force
File name	tool.c

Tool_Asc_Hex

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	4
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1	case2	case3	case4
Root	for(i = 0; i < puc_num; i++)		○	○	-	○
	for(luc_loop = 0; luc_loop < 2; luc_loop++)		○	○	-	○
	if((*pucp_pnt1 >= '0') && (*pucp_pnt1 <= '9'))		○	-	-	-
	if(luc_loop == 0)		○	-	-	-
	else		-	-	-	-
	else		-	○	-	○
	if((*pucp_pnt1 >= 'A') && (*pucp_pnt1 <= 'F'))		-	○	-	-
	if(luc_loop == 0)		-	○	-	-
	else		-	-	-	-
	else		○	-	-	○
	if(puc_num == 2)		○	-	-	-
	else		-	○	○	○
	if(puc_num == 4)		-	○	-	-
else		○	-	○	○	
	Symbol	Range				
Input	*pucp_pnt1	0x00~0xFF	0x30	0x41	0x00	0xFF
	*pucp_pnt2	0x00~0xFF	0x00	0x00	0xFF	0x00
	puc_num	0~5	2	4	0	5
Output	*pucp_pnt2	0~255	0	16	255	0
Judgment						

Tool_Bin_Asc

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	2
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1	case2
Root	-		-	-
	Symbol	Range		
Input	pus_num	0x0000,0xFFFF	0x0000	0xFFFF
	ppuc_asc	0x00,0xFF	0x00	0xFF
Output	ppuc_asc[0]	48,54	48	54
	ppuc_asc[1]	48,53	48	53
	ppuc_asc[2]	48,53	48	53
	ppuc_asc[3]	48,51	48	51
	ppuc_asc[4]	48,53	48	53
Judgment				

Tool_Comp_Pnt

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	4
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3	case4
Root	for(lul_num=0; lul_num<pul_size; lul_num++)	○	○	○	○
	if(*ppuc_add1 != *ppuc_add2)	○	○	-	○
	break	-	○	-	-
	else	-	-	-	-
	Symbol	Range			
Input	ppuc_add1	0x00,0xFF	0x00	0x00	0x00
	ppuc_add2	0x00,0xFF	0x00	0x01	0x01
	pul_size	0~11	10	10	0
Output	luc_ACK	0,1	1	1	0
	ppuc_add1	0~255	0	1	1
	ppuc_add2	0,255	0	0	0
Judgment					

Tool_Copy_Pnt

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3
Root	for(lul_loop = 0; lul_loop < pul_num ; ++lul_loop)	○	○	○
	Symbol	Range		
Input	ppuc_pnt1	0x00,0xFF	0x00	0xFF
	ppuc_pnt2	0x00,0xFF	0x00	0xFF
	pul_num	0~257	0	256
Output	None	-	-	-
Judgment				

Tool_Hex_Asc

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	10
Test	Taki			
Judgment	Ikarashi		Judgment	

[illegible]

Unit Test Specification

Project name	GX-Force
File name	uart_sau_command.c

m_SAU_Code_DU

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	4
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3	case4
Root	if(*(pucp_rxd + M_PC_SUB_COM_POS) == 'W')	○	-	-	-
	else if(*(pucp_rxd + M_PC_SUB_COM_POS) == 'R')	-	○	-	-
	else	-	-	○	○
	Symbol	Range			
Input	*(pucp_rxd + M_PC_SUB_COM_POS)	0x00~0xFF	0x57	0x52	0x00
	pucp_bxd	0x00,0xFF	0x00	0x00	0xFF
Output	None	-	-	-	-
Judgment					

m_SAU_Code_DUR

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	2
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2
Root	for(luc_i=0; luc_i<4; luc_i++)	○	○
	Symbol	Range	
Input	pucp_rxd	0x00,0xFF	0x00
	pucp_bxd	0x00,0xFF	0xFF
Output	pucp_bxd[10]	44,48	48
	pucp_bxd[11]	44,48	44
Judgment			

m_SAU_Code_DUW

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	4
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3	case4
Root	for(luc_i=0; luc_i<4; luc_i++)	○	○	○	○
	if((luc_com_data[luc_i] != '1') && (luc_com_data[luc_i] != '0'))	○	○	○	○
	else	-	-	-	-
	if(luc_flg == M_OK)	-	-	-	-
	for(luc_i=0; luc_i<4; luc_i++)	-	-	-	-
	else	○	○	○	○
	Symbol	Range			
Input	*(pucp_rxd + M_PC_DATA_POS + (luc_i * 2))	0x00~0xFF	0x00	0x30	0x00
	pucp_bxd	0x00,0xFF	0x00	0x00	0xFF
Output	*pucp_rxd	0	0	0	0
	*pucp_bxd	0,255	0	0	255
Judgment					

m_SAU_Code_HA

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	4
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3	case4
Root	if(*(pucp_rxd + M_PC_SUB_COM_POS) == 'W')	○	-	-	-
	else if(*(pucp_rxd + M_PC_SUB_COM_POS) == 'R')	-	○	-	-
	else	-	-	○	○
	Symbol	Range			
Input	*(pucp_rxd + M_PC_SUB_COM_POS)	0x00~0xFF	0x57	0x52	0x00
	pucp_bxd	0x00,0xFF	0x00	0x00	0xFF
Output	None	-	-	-	-
Judgment					

m_SAU_Code_HAR

	Responsible	Last update
Coding	Ikarashi	
Test	Taki	
Judgment	Ikarashi	

Infinite loop	None
Verification pass	2
Judgment	

			case1	case2
Root	for(luc_i=0; luc_i<13; luc_i++)		○	○
	Symbol	Range		
Input	pucp_rxd	0x00,0xFF	0x00	0xFF
	pucp_bxd	0x00,0xFF	0x00	0xFF
Output	pucp_bxd[18]	44	44	44
	pucp_bxd[127]	48	48	48
	pucp_bxd[128]	44	44	44
	pucp_bxd[129]	48	48	48
	pucp_bxd[130]	44	44	44
	pucp_bxd[131]	48	48	48
	pucp_bxd[132]	44	44	44
	pucp_bxd[133]	48	48	48
	pucp_bxd[134]	44	44	44
	pucp_bxd[135]	48	48	48
	pucp_bxd[136]	44	44	44
Judgment				

m_SAU_Code_HAW

	Responsible	Last update
Coding	Ikarashi	
Test	Taki	
Judgment	Ikarashi	

Infinite loop	None
Verification pass	6
Judgment	

			case1	case2	case3	case4	case5	case6
Root	if((luc_com_data[0] != '1') && (luc_com_data[0] != '0'))		○	-	-	-	-	○
	else		-	○	○	○	○	-
	if((luc_com_data[1] != '2') && (luc_com_data[1] != '1') && (luc_com_data[1] != '0'))		○	-	-	-	-	○
	else		-	○	○	○	○	-
	if((luc_com_data[2] != '3') && (luc_com_data[2] != '2') && (luc_com_data[2] != '1') && (luc_com_data[2] != '0'))		○	-	-	-	-	○
	else		-	○	○	○	○	-
	if((luc_com_data[3] != '1') && (luc_com_data[3] != '0'))		○	-	-	-	-	○
	else		-	○	○	○	○	-
	if(luc_flg == M_OK)		-	○	○	○	○	-
	if(luc_com_data[1] == '1')		-	-	○	-	-	-
	else if(luc_com_data[1] == '2')		-	-	-	○	○	-
	else		-	○	-	-	-	-
	if(luc_com_data[2] == '1')		-	-	○	-	-	-
	else if(luc_com_data[2] == '2')		-	-	-	○	-	-
	else if(luc_com_data[2] == '3')		-	-	-	-	○	-
	else		-	○	-	-	-	-
	if(luc_com_data[3] == '1')		-	-	○	○	○	-
	else		-	○	-	-	-	-
	else		○	-	-	-	-	○
	Symbol	Range						
Input	*(pucp_rxd + M_PC_DATA_POS + 0)	0x30~0xFF	0x32	0x30	0x31	0x31	0x31	0xFF
	*(pucp_rxd + M_PC_DATA_POS + 2)	0x30~0xFF	0x33	0x30	0x31	0x32	0x32	0xFF
	*(pucp_rxd + M_PC_DATA_POS + 4)	0x30~0xFF	0x34	0x30	0x31	0x32	0x33	0xFF
	*(pucp_rxd + M_PC_DATA_POS + 16)	0x30~0xFF	0x30	0x30	0x31	0x31	0x31	0xFF
	pucp_bxd	0x00,0xFF	0x00	0x00	0x00	0x00	0x00	0xFF
Output	None	-	-	-	-	-	-	-
Judgment								

m_SAU_Code_RC

	Responsible	Last update
Coding	Ikarashi	
Test	Taki	
Judgment	Ikarashi	

Infinite loop	None
Verification pass	3
Judgment	

			case1	case2	case3
Root	if(*(pucp_rxd + M_PC_SUB_COM_POS) == 'R')		○	-	-
	else		-	○	○
	Symbol	Range			
Input	*(pucp_rxd + M_PC_SUB_COM_POS)	0x00~0xFF	0x52	0x00	0xFF
	pucp_bxd	0x00,0xFF	0x00	0x00	0xFF
Output	None	-	-	-	-
Judgment					

m_SAU_Code_RCR

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	2
Test	Taki			
Judgment	Ikarashi		Judgment	

Root	None		case1	case2
			-	-
	Symbol	Range		
Input	pucp_rxd	0x00,0xFF	0x00	0xFF
	pucp_bxd	0x00,0xFF	0x00	0xFF
Output	None	-	-	-
Judgment				

m_SAU_Code_VP

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

Root	if(*(pucp_rxd + M_PC_SUB_COM_POS) == 'R')		case1	case2	case3
	else		○	-	-
			-	○	○
	Symbol	Range			
Input	*(pucp_rxd + M_PC_SUB_COM_POS) == 'R'	0x00~0xFF	0x52	0x00	0xFF
	pucp_bxd	0x00,0xFF	0x00	0x00	0xFF
Output	None	-	-	-	-
Judgment					

m_SAU_Code_VPR

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	2
Test	Taki			
Judgment	Ikarashi		Judgment	

Root	None		case1	case2
			-	-
	Symbol	Range		
Input	pucp_rxd	0x00,0xFF	0x00	0xFF
	pucp_bxd	0x00,0xFF	0x00	0xFF
Output	pucp_bxd[15]	44	44	44
Judgment				

m_SAU_Code_VS

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	5
Test	Taki			
Judgment	Ikarashi		Judgment	

Root	if(*(pucp_rxd + M_PC_SUB_COM_POS) == 'R')		case1	case2	case3	case4	case5
	else if(*(pucp_rxd + M_PC_SUB_COM_POS) == 'W')		○	-	-	-	-
	else if(*(pucp_rxd + M_PC_SUB_COM_POS) == 'C')		-	○	-	-	-
	else		-	-	○	○	○
	Symbol	Range					
Input	*(pucp_rxd + M_PC_SUB_COM_POS) == 'R'	0x00~0xFF	0x52	0x57	0x43	0x00	0xFF
	pucp_bxd	0x00,0xFF	0x00	0x00	0x00	0x00	0xFF
Output	None	-	-	-	-	-	-
Judgment							

m_SAU_Code_VSC

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

Root	if(ROMCHK_Get_SUMChkflg() != M_OFF)		case1	case2	case3
	else		○	-	-
			-	○	○
	Symbol	Range			
Input	ROMCHK_Get_SUMChkflg()	0~2	0	1	2
	pucp_rxd	0x00,0xFF	0x00	0xFF	0x00
	pucp_bxd	0x00,0xFF	0x00	0xFF	0x00
Output	pucp_bxd[10]	48,49	48	49	49
Judgment					

m_SAU_Code_VSR

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	2
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1	case2
Root	None		-	-
	Symbol	Range		
Input	pucp_rxd	0x00,0xFF	0x00	0xFF
	pucp_bxd	0x00,0xFF	0x00	0xFF
Output	None	-	-	-
Judgment				

m_SAU_Code_VSW

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1	case2	case3
Root	if(ROMCHK_Get_SUMChkflg() == M_OFF)		○	-	-
	else		-	○	○
	Symbol	Range			
Input	ROMCHK_Get_SUMChkflg()	0~2	0	1	2
	pucp_rxd	0x00,0xFF	0x00	0xFF	0xFF
	pucp_bxd	0x00,0xFF	0x00	0xFF	0xFF
Output	None	-	-	-	-
Judgment					

UartSAUCommand_Command_Op

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	6
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1	case2	case3	case4	case5	case6
Root	switch(puc_com_mode)		○	○	○	○	○	○
	case Cmd_RC		○	-	-	-	-	-
	case Cmd_VP		-	○	-	-	-	-
	case Cmd_VS		-	-	○	-	-	-
	case Cmd_DU		-	-	-	○	-	-
	case Cmd_HA		-	-	-	-	○	-
	default		-	-	-	-	-	○
	Symbol	Range						
Input	puc_com_mode	1~9	1	2	3	4	5	9
	pucp_rxd	0x00,0xFF	0x00	0x00	0x00	0x00	0x00	0xFF
	pucp_bxd	0x00,0xFF	0x00	0x00	0x00	0x00	0x00	0xFF
Output	None	-	-	-	-	-	-	-
Judgment								

UartSAUCommand_Get_Cmd_NUM

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1
Root	None		-
	Symbol	Range	
Input	None	-	-
Output	Cmd_NUM	7	7
Judgment			

UartSAUCommand_Get_Comnd_Data

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1	case2	case3
Root	None		-	-	-
	Symbol	Range			
Input	puc_cmd_num	0-9	0	8	9
Output	uc_comnd_tbl[puc_cmd_num].uc_cmd_code	1-147	1	147	40
Judgment					

UartSAUCommand_Get_Comnd_Pointer

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1	case2	case3
Root	None		-	-	-
	Symbol	Range			
Input	puc_cmd_num	0-9	0	8	9
Output	&uc_comnd_tbl[puc_cmd_num].uc_cmd_chr[0]	82-215	82	204	215
Judgment					

Unit Test Specification

Project name	GX-Force
File name	uart_sau_main.c

m_Comand_Chk

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	5
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3	case4	case5
Root	if(m_Rxd_Sum_Chk() == M_OK)	-	-	-	○	○
	while(luc_cmd_cnt <= UartSAUCommand_Get_Cmd_NUM())	-	-	-	○	○
	if(Tool_Comp_Pnt((U_CHR*)&uc_m_rxd_buf[M_PC_COMMAND_POS], (U_CHR*)&UartSAUCommand_Get_Cmdnd_Pointer(luc_cmd_cnt), 2) == 0)	-	-	-	○	-
	else	-	-	-	-	○
	else	-	-	-	-	-
	else	○	○	○	-	-
	Symbol	Range				
Input	m_Rxd_Sum_Chk()	0-2	1	2	0	0
	luc_cmd_cnt	0-9	0	8	9	0
	Tool_Comp_Pnt((U_CHR*)&uc_m_rxd_buf[M_PC_COMMAND_POS], (U_CHR*)&UartSAUCommand_Get_Cmdnd_Pointer(luc_cmd_cnt), 2)	0-2	0	1	2	0
Output	luc_com_mode	0,255	255	255	255	0
Judgment						

m_Comu_Op_Sub

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	2
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2
Root	if(luc_com_mode != 0xff)	○	-
	else	-	○
	Symbol	Range	
Input	m_Comand_Chk	0x00-0xFF	0x00
Output	None	-	-
Judgment			

m_Rxd_Sum_Chk

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	4
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3	case4
Root	for(lus_i = 0; lus_i < sizeof(uc_m_rxd_buf); lus_i++)	○	○	○	○
	if(*lucp_pnt == M_C_STX)	○	-	-	-
	else	-	○	○	○
	if(luc_stx_flg == M_ON)	○	-	-	-
	else	-	○	○	○
	if(*lucp_pnt == M_C_ETX)	-	○	-	-
	else	○	-	○	○
	if(!luc_sum_1_dat == luc_sum_ck_dat)	○	-	-	-
	else	-	○	○	○
	Symbol	Range			
Input	&uc_m_rxd_buf[0]	0x00-0xFF	0x02	0x03	0x00
Output	luc_ans	1	1	1	1
Judgment					

m_Txd_Busy

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1
Root	None		-
	Symbol	Range	
Input	us_m_rxd_cnt	0	0
	uc_rxd_chk_flg	0	0
Output	None	-	-
Judgment			

m_Txd_Start

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	2
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1	case2
Root	None		-	-
	Symbol	Range		
Input	pus_txd_size	0x0000,0xFFFF	0x0000	0xFFFF
Output	None	-	-	-
Judgment				

m_Txd_Sum_Calc

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	2
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1	case2
Root	for(lus_i = 0; lus_i < (lus_txd_count); lus_i++)		○	○
	Symbol	Range		
Input	lus_txd_count	0x0000,0xFFFF	0x0000	0xFFFF
	uc_m_txd_buf[0]	0x00,0xFF	0x00	0xFF
Output	luc_sum_1_dat	0,76	0	76
Judgment				

UARTSAUMAIN_Comu_Op

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1	case2	case3
Root	if(uc_rxd_chk_flg == M_ON)		○	-	-
	else		-	○	○
	Symbol	Range			
Input	uc_rxd_chk_flg	0-2	1	0	2
Output	None	-	-	-	-
Judgment					

UartSAUMain_Err_Op

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1
Root	None		-
	Symbol	Range	
Input	None	-	-
Output	uc_m_txd_buf[M_PC_DATA_POS]	0x15	0x15
Judgment			

UARTSAUMAIN_Get_Rxd_Data

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	7
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3	case4	case5	case6	case7
Root	if(luc_rxd_one_data == M_C_STX)	-	-	-	O	-	-	-
	else	O	O	O	-	O	O	O
	if(suc_stx_received_flg == M_ON)	O	O	-	O	-	-	O
	else	-	-	O	-	O	O	-
	if(us_m_rxd_cnt >= lus_buf_limit)	O	O	O	O	O	O	O
	else	-	-	-	-	-	-	-
	if((luc_rxd_one_data == M_C_CR) (luc_rxd_one_data == M_C_EOT) (luc_rxd_one_data == M_C_ETB))	-	-	-	-	O	O	O
	else	O	O	O	O	-	-	-
	Symbol	Range						
Input	uc_m_one_char_receive[0]	0x00-0xFF	0x00	0xFF	0x00	0x02	0x04	0x17
	us_m_rxd_cnt	0-300	300	299	0	0	299	0
	suc_stx_received_flg	0,1	1	1	0	0	0	1
Output	uc_m_rxd_buf[lus_rxd_cnt]	0x00,0x02	0x00	0x00	0x00	0x02	0x02	0x02
	us_m_rxd_cnt	0-299	299	299	0	1	0	0
	uc_m_terminator	0x00-0x17	0x00	0x00	0x00	0x00	0x04	0x17
Judgment								

UartSAUMain_Head_Set

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	2
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2
Root	for(luc_i = 0; luc_i < M_PC_DATA_POS; ++luc_i)	O	-
	Symbol	Range	
Input	uc_m_rxd_buf[luc_i]	0x00	0xFF
Output	uc_m_txd_buf[luc_i]	0x00	0xFF
Judgment			

UartSAUMain_Rxd_Buf_Pointre

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1
Root	-	-
	Symbol	Range
Input	None	-
Output	*uc_m_rxd_buf	255
Judgment		

UARTSAUMAIN_Set_InitRAM

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1
Root	for(lus_i=0; lus_i<M_RXD_MAX_SIZE; lus_i++)	O
	for(lus_i=0; lus_i<M_TXD_MAX_SIZE; lus_i++)	O
	for(lus_i=0; lus_i<2; lus_i++)	O
	Symbol	Range
Input	None	-
Output	uc_m_rxd_buf[lus_i]	0
	uc_m_txd_buf[lus_i]	0
	uc_m_one_char_receive[lus_i]	0
	us_m_rxd_cnt	0
	uc_m_terminator	0
	uc_rxd_chk_flg	0
Judgment		

UARTSAUMAIN_Set_Rxd_Next_Buf

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1
Root	None		-
	Symbol	Range	
Input	None	-	-
Output	None	-	-
Judgment			

UartSAUMain_tx_nbyte

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	2
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1	case2
Root	None		-	-
	Symbol	Range		
Input	pus_num	0x0000,0xFFFF	0x0000	0xFFFF
	uc_m_terminator	0x00,0xFF	0x00	0xFF
Output	uc_m_txd_buf[13 + pus_num]	255	255	255
Judgment				

UartSAUMain_Txd_Buf_Pointre

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1
Root	None		-
	Symbol	Range	
Input	None	-	-
Output	*uc_m_txd_buf	255	255
Judgment			

Unit Test Specification

Project name	GX-Force
File name	r_cg_camp.c

R_CAMP0_Start

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki		Judgment	
Judgment	Ikarashi			

			case1
Root	None		-
	Symbol	Range	
Input	None	-	-
Output	None	-	-
Judgment			

R_CAMP1_Start

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki		Judgment	
Judgment	Ikarashi			

			case1
Root	None		-
	Symbol	Range	
Input	None	-	-
Output	None	-	-
Judgment			

R_CAMP_Create

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki		Judgment	
Judgment	Ikarashi			

			case1
Root	None		-
	Symbol	Range	
Input	None	-	-
Output	None	-	-
Judgment			

Unit Test Specification

Project name	GX-Force
File name	r_cg_cgc.c

R_CGC_Create

	Responsible	Last update
Coding	Ikarashi	
Test	Taki	
Judgment	Ikarashi	

Infinite loop	None
Verification pass	1

Judgment	

			case1
Root	None		-
	Symbol	Range	
Input	None	-	-
Output	None	-	-
Judgment			

Unit Test Specification

Project name	GX-Force
File name	r_cg_cgc_user.c

R_CGC_Get_ResetSource

	Responsible	Last update
Coding	Ikarashi	
Test	Taki	
Judgment	Ikarashi	

Infinite loop	None
Verification pass	1

Judgment	

			case1
Root	None		-
	Symbol	Range	
Input	None	-	-
Output	None	-	-
Judgment			

Unit Test Specification

Project name	GX-Force
File name	r_cg_it.c

R_IT_Create

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1
Root	None		-
	Symbol	Range	
Input	None	-	-
Output	None	-	-
Judgment			

R_IT_Start

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1
Root	None		-
	Symbol	Range	
Input	None	-	-
Output	None	-	-
Judgment			

R_IT_Stop

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1
Root	None		-
	Symbol	Range	
Input	None	-	-
Output	None	-	-
Judgment			

Unit Test Specification

Project name	GX-Force
File name	r_cg_it_user.c

r_it_interrupt

	Responsible	Last update
Coding	Ikarashi	
Test	Taki	
Judgment	Ikarashi	

Infinite loop	None
Verification pass	1

Judgment	

			case1
Root	None		-
	Symbol	Range	
Input	None	-	-
Output	None	-	-
Judgment			

Unit Test Specification

Project name	GX-Force
File name	r_cg_lvi.c

R_LVI_Create

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1
Root			-
	Symbol	Range	
Input	None	-	-
Output	None	-	-
Judgment			

Unit Test Specification

Project name	GX-Force
File name	r_cg_lvi_user.c

r_lvi_interrupt

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1
Root			-
	Symbol	Range	
Input	None	-	-
Output	None	-	-
Judgment			

Unit Test Specification

Project name	GX-Force
File name	r_cg_main.c

main

	Responsible	Last update	Infinite loop	Yes
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1
Root	while(1U)		○
	Symbol	Range	
Input	None	-	-
Output	None	-	-
Judgment			

R_MAIN_UserInit

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1
Root	None		-
	Symbol	Range	
Input	None	-	-
Output	None	-	-
Judgment			

Unit Test Specification

Project name	GX-Force
File name	r_cg_pga_dsad.c

R_PGA_DSAD_CAMP_OffsetTrimming

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1
Root	None		○
	Symbol	Range	
Input	None	-	-
Output	None	-	-
Judgment			

R_PGA_DSAD_Create

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1
Root	while(0U == AFESTAT)		○
	while(0U == PGASTAT)		○
	Symbol	Range	
Input	None	-	-
Output	None	-	-
Judgment			

R_PGA_DSAD_Get_AverageResult

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	2
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1	case2
Root	None		-	-
	Symbol	Range		
Input	bufferH	0x0000,0xFFFF	0x0000	0xFFFF
	bufferL	0x0000,0xFFFF	0x0000	0xFFFF
	DSADMV0	0x00,0xFF	0x00	0xFF
	DSADMV1	0x00,0xFF	0x00	0xFF
Output	*bufferH	0x00,0xFF	0x00	0xFF
	*bufferL	0x00,0xFF	0x00	0xFF
Judgment				

R_PGA_DSAD_Get_Result

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	2
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1	case2
Root	-		-	-
	Symbol	Range		
Input	bufferH	0x0000,0xFFFFF	0x0000	0xFFFFF
	bufferL	0x0000,0xFFFFF	0x0000	0xFFFFF
	DSADCR0	0x00,0xFF	0x00	0xFF
	DSADCR1	0x00,0xFF	0x00	0xFF
Output	*bufferH	0x00,0xFF	0x00	0xFF
	*bufferL	0x00,0xFF	0x00	0xFF
Judgment				

R_PGA_DSAD_Start

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1
Root	None		-
	Symbol	Range	
Input	None	-	-
Output	None	-	-
Judgment			

R_PGA_DSAD_Stop

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1
Root	None		-
	Symbol	Range	
Input	None	-	-
Output	None	-	-
Judgment			

Unit Test Specification

Project name	GX-Force
File name	r_cg_pga_dsad_user.c

r_pga_dsad_interrupt_conversion

	Responsible	Last update
Coding	Ikarashi	
Test	Taki	
Judgment	Ikarashi	

Infinite loop	None
Verification pass	1

Judgment	

			case1
Root	None		-
	Symbol	Range	
Input	None	-	-
Output	None	-	-
Judgment			

Unit Test Specification

Project name	GX-Force
File name	r_cg_port.c

R_PORT_Create

	Responsible	Last update
Coding	Ikarashi	
Test	Taki	
Judgment	Ikarashi	

Infinite loop	None
Verification pass	1

Judgment	

			case1
Root	None		-
	Symbol	Range	
Input	None	-	-
Output	None	-	-
Judgment			

Unit Test Specification

Project name	GX-Force
File name	r_cg_sau.c

R_SAU0_Create

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1
Root	None		-
	Symbol	Range	
Input	None	-	-
Output	None	-	-
Judgment			

R_UART0_Create

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1
Root	None		-
	Symbol	Range	
Input	None	-	-
Output	None	-	-
Judgment			

R_UART0_Receive

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1	case2	case3
Root	if(rx_num < 1U)		○	-	-
	else		-	○	○
	Symbol	Range			
Input	rx_buf	0x00,0xFF	0x00	0x00	0xFF
	rx_num	0~2	0	1	2
Output	g_uart0_rx_count	0	0	0	0
	g_uart0_rx_length	0~2	0	1	2
	gp_uart0_rx_address	0x00,0xFF	0x00	0x00	0xFF
	status	0x00,0x81	0x81	0x00	0x00
Judgment					

R_UART0_Send

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1	case2	case3
Root	if(tx_num < 1U)		○	-	-
	else		-	○	○
	Symbol	Range			
Input	tx_num	0~123	0	122	123
	tx_buf	0x00,0xFF	0x00	0x00	0xFF
Output	gp_uart0_tx_address	0x00	0x00	0x00	0x00
	g_uart0_tx_count	0~122	0	121	122
	status	0,129	129	0	0
Judgment					

R_UART0_Start

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1
Root	None		-
	Symbol	Range	
Input	None	-	-
Output	None	-	-
Judgment			

R_UART0_Stop

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1
Root	None		-
	Symbol	Range	
Input	None	-	-
Output	None	-	-
Judgment			

Unit Test Specification

Project name	GX-Force
File name	r_cg_sau_user.c

r_uart0_callback_error

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1
Root	None		-
	Symbol	Range	
Input	err_type	0	0
Output	None	-	-
Judgment			

r_uart0_callback_receiveend

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1
Root	None		-
	Symbol	Range	
Input	None	-	-
Output	None	-	-
Judgment			

r_uart0_callback_sendend

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1
Root	None		-
	Symbol	Range	
Input	None	-	-
Output	None	-	-
Judgment			

r_uart0_interrupt_error

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1
Root	None	-
	Symbol	Range
Input	None	-
Output	*gp_uart0_rx_address	0
Judgment		

r_uart0_interrupt_receive

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3
Root	if(g_uart0_rx_length > g_uart0_rx_count)	○	○	-
	if(g_uart0_rx_length == g_uart0_rx_count)	○	-	-
	else	-	○	-
	else	-	-	○
	Symbol	Range		
Input	g_uart0_rx_length	0x0000~0xFFFF	0x0001	0xFFFF
	g_uart0_rx_count	0x0000,0xFFFF	0x0000	0xFFFF
Output	gp_uart0_rx_address	1, 65535	1	1
	g_uart0_rx_count	0	0	0
Judgment				

r_uart0_interrupt_send

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	2
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2
Root	if(g_uart0_tx_count > 0U)	○	-
	else	-	○
	Symbol	Range	
Input	g_uart0_tx_count	0x0000,0xFFFF	0xFFFF
Output	gp_uart0_tx_address	-	0
	g_uart0_tx_count	0,65534	0
Judgment			

r_uart0_callback_softwareoverrun

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	2
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1
Root	None	○
	Symbol	Range
Input	rx_data	0x0000
Output	None	-
Judgment		

Unit Test Specification

Project name	GX-Force
File name	r_cg_systeminit.c

hdwinit

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1
Root	None		-
	Symbol	Range	
Input	None	-	-
Output	None	-	-
Judgment			

R_Systeminit

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1
Root	None		-
	Symbol	Range	
Input	None	-	-
Output	None	-	-
Judgment			

Unit Test Specification

Project name	GX-Force
File name	r_cg_wdt.c

R_WDT_Create

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1
Root	None		-
	Symbol	Range	
Input	None	-	-
Output	None	-	-
Judgment			

R_WDT_Restart

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1
Root	None		-
	Symbol	Range	
Input	None	-	-
Output	None	-	-
Judgment			

Unit Test Specification

Project name	GX-Force
File name	r_cg_wdt_user.c

r_wdt_interrupt

	Responsible	Last update
Coding	Ikarashi	
Test	Taki	
Judgment	Ikarashi	

Infinite loop	None
Verification pass	1

Judgment	

			case1
Root	None		-
	Symbol	Range	
Input	None	-	-
Output	None	-	-
Judgment			

Unit Test Specification

Project name	GX-Force
File name	ad_12bit.c

AD12BIT_Init_Setting

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1
Root	for(luc_ch=F_INIT_VAL; luc_ch<(U8_CHR)M_12BITAD_QUANTITY_NUMBER; luc_ch++)		○
	for(luc_ave=F_INIT_VAL; luc_ave<M_12BITAD_AVERAGE_NUMBER; luc_ave++)		○
	Symbol	Range	
Input	None	-	
Output	fen_inital_flag	0	0
	fl_m_12bit_ad_data[0]	0	0
	uc_m_12bit_ad_average_flg	0	0
	uc_m_12bit_ad_average[0][0]	0	0
Judgment			

Ad12bit_Ad_Ave_Op

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1	case2	case3
Root	for(luc_j=0; luc_j<M_12BITAD_QUANTITY_NUMBER; luc_j++)		○	○	○
	for(luc_j=0; luc_j<M_12BITAD_AVERAGE_NUMBER; luc_j++)		○	○	○
	Symbol	Range			
Input	us_m_12bit_ad_average[luc_ij][luc_j]	0~2801	0	2800	2801
	m_bit12AD_Conversion(lsl_ad_average_data[luc_ij])	0~1915	0	1914.0625	1915
Output	uc_m_12bit_ad_average_flg	0	0	0	0
	fl_m_12bit_ad_data[luc_ij]	0~1915	0	1914.063	1915
Judgment					

Ad12bit_Calc_Voltage

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1
Root	None		-
	Symbol	Range	
Input	psl_data	0	0
Output	lfl_ad	0	0
Judgment			

Ad12bit_Check_InitalProcessFlag

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1	case2	case3
Root	if(fen_inital_flag != FEN_AD12BIT_INITIAL_PROCESS_COMPLETE)		○	-	○
	else		-	○	-
	Symbol	Range			
Input	fen_inital_flag	0~3	0	2	3
Output	lbi_ans	0,1	1	0	1
Judgment					

Ad12bit_Get_Ad_Data

	Responsible	Last update
Coding	Ikarashi	
Test	Taki	
Judgment	Ikarashi	

Infinite loop	None
Verification pass	3
Judgment	

		case1	case2	case3
Root	None	-	-	-
	Symbol	Range		
Input	puc_ch	0~3		
Output	fl_m_12bit_ad_data[puc_ch]	0,1915	1915	0
Judgment				

Ad12bit_Int_Ad_Start

	Responsible	Last update
Coding	Ikarashi	
Test	Taki	
Judgment	Ikarashi	

Infinite loop	None
Verification pass	3
Judgment	

		case1	case1	case3
Root	if(S12AD.ADCSR.BIT.ADST == 0)	○	-	-
	else	-	○	○
	Symbol	Range		
Input	S12AD.ADCSR.BIT.ADST	0~2	0	1
Output	None	-	-	-
Judgment				

Ad12bit_Int_Adc

	Responsible	Last update
Coding	Ikarashi	
Test	Taki	
Judgment	Ikarashi	

Infinite loop	None
Verification pass	3
Judgment	

		case1	case2	case3
Root	if(uc_m_12bit_ad_average_flg == OFF)	○	-	-
	else	-	○	○
	Symbol	Range		
Input	uc_m_12bit_ad_average_flg	0~2	0	1
Output	None	-	-	-
Judgment				

m_bit12AD_To_Average_Buffer

	Responsible	Last update
Coding	Ikarashi	
Test	Taki	
Judgment	Ikarashi	

Infinite loop	None
Verification pass	5
Judgment	

		case1	case2	case3	case4	case5
Root	for(luc_i=0; luc_i<M_12BITAD_QUANTITY_NUMBER; luc_i++)	○	○	○	○	○
	if ((luc_i==AD12BIT_AN002)&&(O2WarmUp_Get_WarmFlg()==1))	-	-	-	-	-
	else	○	○	○	○	○
	if(ECSENSOR_Not_Use_Flg(luc_i) == 0U)	○	○	-	○	○
	if(luc_average_num[luc_i] >= M_12BITAD_AVERAGE_NUMBER)	○	○	-	-	○
	if(fen_initial_flag == FEN_AD12BIT_INITIAL_PROCESS_GET_AD)	○	○	-	-	-
	else	-	-	○	-	-
	Symbol	Range				
Input	*pusp_buffer	0	0	0	0	0
	ECSENSOR_Not_Use_Flg()	0,1	0	1	0	0
	O2WarmUp_Get_WarmFlg()	1,2	1	2	1	1
	fen_initial_flag	0,1	0	0	0	1
	luc_average_num[0]	18,19	19	19	18	19
Output	None	-	-	-	-	-
Judgment						

Unit Test Specification

Project name	GX-Force
File name	alarm_event.c

AlarmEvent_Judg_AlarmEvent

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	5
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3	case4	case5
Root	if(stp_data->uc_alarm_on == M_ON)	○	○	○	-	-
	for(luc_i=0; luc_i<HDDDEF_GAS_MAX; luc_i++)	○	○	○	-	-
	if(((stp_GasInfo_addr+luc_i)->uc_gas_comb != 0x00) && !(((stp_denst+luc_i)->uc_state_trb & (DataStructConst_S_FAIL_INS DataStructConst_S_FAIL_SEN))))	○	○	-	-	-
	if((luc_i == DataStructConst_CO_CAN_H2_H2_CH) && ((stp_GasInfo_addr+luc_i)->uc_gas_comb == DataStructConst_CO_CAN_H2_GAS_NUM))	○	-	-	-	-
	else	-	○	-	-	-
	else	-	-	○	-	-
	else	-	-	-	○	○
	Symbol	Range				
Input	stp_data->uc_alarm_on	0~2	1	1	0	2
	(stp_GasInfo_addr+luc_i)->uc_gas_comb	0~30	3	29	0	30
	(stp_denst+luc_i)->uc_state_trb	0x00~0xFF	0x00	0x00	0xFF	0xFF
	(stp_denst+luc_i)->uc_over_flg	0~2	1	0	0	2
	(stp_denst+luc_i)->uc_state_alm	0x00	0x00	0x00	0x00	0x00
Output	(stp_denst+luc_i)->uc_alarm_lat	0x00	0x00	0x00	0x00	0x00
	ucs_m_reset_flg	0	0	0	0	0
Judgment						

AlarmEvent_Set_AlarmReset

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1
Root	None	-
	Symbol	Range
Input	None	-
Output	ucs_m_reset_flg	1
Judgment		

AlarmEvent_Set_InitAlarmFlg

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1
Root	for(luc_i=0; luc_i<HDDDEF_GAS_MAX; luc_i++)	○
	Symbol	Range
Input	None	-
Output	(stp_denst+luc_i)->uc_alarm_lat	0x00
	(stp_denst+luc_i)->uc_state_alm	0x00
Judgment		

m_Check_GasAlarm

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	9
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3	case4	case5	case6	case7	case8	case9	
Root	if(ZIPCNumSet_Get_GasTestFlg() == M_ON)	○	-	-	-	-	-	-	-	-	
	if((puc_num == DataStructConst_IR_GAS_CH) && (stp_GasInfo_addr->uc_gas_comb == DataStructConst_IR_GAS_NUM))	○	-	-	-	-	-	-	○	○	
	else	-	-	-	-	-	-	-	○	○	
	else	-	○	○	○	○	○	○	-	-	
	if(stp_denst->ul_denst != M_OFF_VAL)	○	○	○	○	○	○	-	-	○	
	if(stp_denst->uc_denst_minus_flg == M_OFF)	○	○	○	○	○	○	-	-	○	
	if(puc_num == 1)	-	-	-	○	○	-	-	-	-	
	if(stp_GasInfo_addr->ul_1st_alarm != M_OFF_VAL)	-	-	-	○	-	-	-	-	-	
	else	-	-	-	-	○	-	-	-	-	
	if(stp_GasInfo_addr->ul_2nd_alarm != M_OFF_VAL)	-	-	-	○	-	-	-	-	-	
	else	-	-	-	-	○	-	-	-	-	
	else	○	○	○	-	-	-	-	-	○	
	if(stp_GasInfo_addr->ul_1st_alarm != M_OFF_VAL)	○	-	-	-	-	-	-	-	○	
	else	-	○	○	-	-	-	-	-	-	
	if(stp_GasInfo_addr->ul_2nd_alarm != M_OFF_VAL)	○	-	-	-	-	-	-	-	-	
	else	-	○	○	-	-	-	-	-	-	
	if(stp_GasInfo_addr->ul_3rd_alarm != M_OFF_VAL)	○	-	-	○	-	-	-	-	○	
	else	-	○	○	-	○	-	-	-	-	
	else	-	-	-	-	-	○	-	-	-	
	if(puc_num == 1)	-	-	-	-	-	-	○	-	-	
	else	-	-	-	-	-	-	-	○	-	
	if(stp_denst->ul_stel != M_OFF_VAL)	○	○	-	-	-	-	-	-	-	○
	if(stp_GasInfo_addr->ul_stel_alarm != M_OFF_VAL)	○	-	-	-	-	-	-	-	-	○
	else	-	○	-	-	-	-	-	-	-	-
	else	-	-	○	○	○	○	○	○	-	-
	if(stp_denst->ul_twa != M_OFF_VAL)	○	○	○	○	○	○	-	-	-	○
	if(stp_GasInfo_addr->ul_twa_alarm != M_OFF_VAL)	○	○	○	○	○	-	-	-	-	○
	if(puc_num == DataStructConst_CO_CH)	-	○	○	-	-	-	-	-	-	-
	if(stp_data->uc_1h_alarm_on == M_ON)	-	○	-	-	-	-	-	-	-	-
	else	-	-	○	-	-	-	-	-	-	-
	else	○	-	-	-	○	-	-	-	-	-
	else	-	-	-	-	-	○	-	-	-	-
	else	-	-	-	-	-	-	○	○	-	-
	else	-	-	-	-	-	-	-	-	○	○
	if(stp_GasInfo_addr->ul_over_alarm != M_OFF_VAL)	○	-	-	-	-	-	-	-	○	○
	else	-	○	○	○	○	○	○	○	-	-
	if(stp_GasInfo_addr->ul_upper_limit != M_OFF_VAL)	○	○	-	-	-	-	-	-	○	○
	else	-	-	-	○	○	○	○	○	-	-
		Symbol	Range								
Input	puc_num	0~5	4	3	3	1	1	1	3	0	5
	stp_GasInfo_addr->ul_1st_alarm	0x00000000~0xFFFFFFFF	0x00000000	0xDDDDDDDD	0xDDDDDDDD	0x00000000	0xDDDDDDDD	0x00000000	0x00000000	0xFFFFFFFF	0xFFFFFFFF
	stp_GasInfo_addr->ul_2nd_alarm	0x00000000~0xFFFFFFFF	0x00000000	0xDDDDDDDD	0xDDDDDDDD	0x00000000	0xDDDDDDDD	0x00000000	0x00000000	0xFFFFFFFF	0xFFFFFFFF
	stp_GasInfo_addr->ul_3rd_alarm	0x00000000~0xFFFFFFFF	0x00000000	0xDDDDDDDD	0xDDDDDDDD	0x00000000	0xDDDDDDDD	0x00000000	0x00000000	0xFFFFFFFF	0xFFFFFFFF
	stp_GasInfo_addr->ul_stel_alarm	0x00000000~0xFFFFFFFF	0x00000000	0xDDDDDDDD	0xDDDDDDDD	0x00000000	0x00000000	0x00000000	0x00000000	0xFFFFFFFF	0xFFFFFFFF
	stp_GasInfo_addr->ul_twa_alarm	0x00000000~0xFFFFFFFF	0x00000000	0xDDDDDDDD	0xDDDDDDDD	0x00000000	0xDDDDDDDD	0x00000000	0x00000000	0xFFFFFFFF	0xFFFFFFFF
	ZIPCNumSet_Get_GasTestFlg()	0~2	1	0	0	0	0	0	2	1	1
	stp_GasInfo_addr->uc_gas_comb	0~30	1	0	0	0	0	0	30	29	29
	stp_denst->ul_denst	0x00000000~0xFFFFFFFF	0x00000000	0x00000000	0x00000000	0x00000000	0x00000000	0x00000000	0xFFFFFFFF	0xDDDDDDDD	0xDDDDDDDD
	stp_denst->uc_denst_minus_flg	0~2	0	0	0	0	0	1	1	2	2
	stp_denst->ul_stel	0x00000000~0xFFFFFFFF	0x00000000	0x00000000	0xDDDDDDDD	0xDDDDDDDD	0xDDDDDDDD	0xDDDDDDDD	0xFFFFFFFF	0xFFFFFFFF	0xFFFFFFFF
	stp_denst->ul_twa	0x00000000~0xFFFFFFFF	0x00000000	0x00000000	0x00000000	0x00000000	0xDDDDDDDD	0xDDDDDDDD	0xFFFFFFFF	0xFFFFFFFF	0xFFFFFFFF
	stp_data->uc_1h_alarm_on	0~2	1	1	0	1	0	0	0	0	2
	stp_GasInfo_addr->ul_over_alarm	0x00000000~0xFFFFFFFF	0x00000000	0xDDDDDDDD	0xDDDDDDDD	0xDDDDDDDD	0xDDDDDDDD	0xDDDDDDDD	0xFFFFFFFF	0xFFFFFFFF	0xFFFFFFFF
	stp_denst->uc_over_minus_flg	0~2	1	1	1	1	1	1	0	2	2
	stp_denst->uc_over_flg	0~2	1	1	1	1	1	1	0	2	2
	stp_GasInfo_addr->ul_upper_limit	0x00000000~0xFFFFFFFF	0x00000000	0xDDDDDDDD	0xDDDDDDDD	0xDDDDDDDD	0xDDDDDDDD	0xDDDDDDDD	0xFFFFFFFF	0xFFFFFFFF	0xFFFFFFFF
	Output	stp_denst->uc_state_alm	0x00	0x00	0x00	0x00	0x00	0x00	0x00	0x00	0x00
	Judgment										

m_Set_GasAlarmFlg

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3	
Root	if(stp_data->uc_alarm_pattern == M_OFF ucs_m_reset_flg == M_ON)	○	-	-	
	else	-	○	○	
Symbol		Range			
Input	puc_num	0-5	4	0	5
	stp_denst->uc_state_alm	0x00-0xFF	0x00	0xFF	0xFF
	stp_data->uc_alarm_pattern	0-2	0	1	2
	ucs_m_reset_flg	0-2	1	0	2
Output	stp_denst->uc_alarm_lat	0x00,0xFF	0x00	0xFF	0x00
Judgment					

Unit Test Specification

Project name	GX-Force
File name	Battery.c

Battery_Get_BatteryAD

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1
Root	None		-
	Symbol	Range	
Input	None	-	-
Output	ffs_batt_ad	5743	5743
Judgment			

Battery_Get_ComBatteryAD

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1
Root	None		-
	Symbol	Range	
Input	None	-	-
Output	ffs_com_batt_ad	5743	5743
Judgment			

Battery_Get_ComBatteryIconAD

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1
Root	None		-
	Symbol	Range	
Input	None	-	-
Output	uc_batt_status	6	6
Judgment			

Battery_Get_PowerOffFig

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1
Root	None		-
	Symbol	Range	
Input	None	-	-
Output	ucs_batt_power_off	1	1
Judgment			

Battery_Set_BatteryMark

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	6
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3	case4	case5	case6	case7
Root	switch(uc_batt_status)	○	○	○	○	○	○	○
	case BATTERY_BATT_STATUS_FULL	○	-	-	-	-	-	-
	case BATTERY_BATT_STATUS_MANY	-	○	-	-	-	-	-
	case BATTERY_BATT_STATUS_NORMAL	-	-	○	-	-	-	-
	case BATTERY_BATT_STATUS_WARNING	-	-	-	○	-	-	-
	case BATTERY_BATT_STATUS_ALARM	-	-	-	-	○	-	-
	default	-	-	-	-	-	○	○
	Symbol	Range						
Input	uc_batt_status	0-6	5	4	3	2	1	0
Output	None	-	-	-	-	-	-	-
Judgment								

f_Check_LowTempMoveFlag

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	2
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3
Root	if(FlowMain_Get_ModeStatus() == FlowMain_INITIAL_MODE_NUMBER)	○	-	○
	if(stp_sub_ad->fl_temp_data < F_LOW_TEMP_VAL)	○	-	-
	else	-	-	○
	else	-	○	-
	Symbol	Range		
Input	RL78I1EControl_Get_Data_point()	-11,-10	-11	-10
	FlowMain_Get_ModeStatus()	0,1	0	1
Output	lbl_init_mode_flag	0,1	1	0
Judgment				

m_Calc_BatteryAD

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3
Root	None	-	-	-
	Symbol	Range		
Input	Ad12bit_Get_Ad_Data(0)	0-1915	1914.0625	0
Output	ucs_batt_type	0	0	0
Judgment				

Battery Chk Battery

	Responsible	Last update
Coding	Ikarashi	
Test	Taki	
Judgment	Ikarashi	

[illegible]

Unit Test Specification

Project name	GX-Force
File name	buzzer.c

BUZZER_Chk_TestFlg

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3
Root	if(us_m_test_sdm_flg == 0)	O	-	-
	else	-	O	O
	Symbol	Range		
Input	us_m_test_sdm_flg	0~2	0	1
	us_m_test_type_flg	0~2	0	1
Output	uc_ans	0~2	0	1
Judgment				

BUZZER_Get_BuzzerOnOff

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1
Root	None		-
	Symbol	Range	
Input	None	-	-
Output	uc_buzz_on_flg	0	0
Judgment			

BUZZER_Get_MotorOnOff

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1
Root	None		-
	Symbol	Range	
Input	None	-	-
Output	uc_motor_on_flg	0	0
Judgment			

BUZZER_Hz_Set_Op

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	5
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3	case4	case5
Root	if(uc_m_FLG_ALARM_CYC_REQ_chk == M_ON)	O	-	-	-	-
	else	-	O	O	O	O
	if(us_m_test_sdm_flg)	O	-	-	O	O
	else	-	O	O	-	-
	if(uc_m_FLG_ALARM_CYC_REQ_flg == M_ON)	O	O	O	-	-
	if((us_m_test_sdm_flg == 0U) (us_m_test_type_flg != 0U))	-	O	-	-	-
	else	O	-	O	-	-
	if(is_tbl_end)	O	O	-	-	-
	if((info->short_bz_req!=ALARM_PTN_OFF)	O	-	-	-	-
	else	-	O	-	-	-
	else	-	-	O	-	-
	else	-	-	-	O	O
	Symbol	Range				
Input	uc_m_FLG_ALARM_CYC_REQ_chk	0~2	1	0	0	2
	us_m_test_sdm_flg	0~2001	2000	0	0	2001
	uc_m_FLG_ALARM_CYC_REQ_flg	0~2	1	1	1	2
	us_m_test_type_flg	0~3	0	3	0	0
	info->short_bz_req	0~17	0	16	0	17
Output	alarm_ptn	17	17	17	17	17
	uc_alm_ptn	0	0	0	0	0
	info->short_bz_req	0~17	0	16	0	17
	uc_m_FLG_ALARM_CYC_REQ_chk	0~2	1	0	0	2
	us_m_test_sdm_flg	0~2000	1999	0	0	2000
Judgment						

BUZZER_Init_Set

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1
Root	None		O
	Symbol	Range	
Input	None		
Output	alarm_ptn	0	0
	uc_m_FLG_ALARM_CYC_REQ_chk	0	0
	uc_m_FLG_ALARM_CYC_REQ_flg	0	0
Judgment			

BUZZER Interrupt A CompareMatch

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

Root	if(uc_buzz_on_flg == M_OFF)		case1	case2	case3
	else		○	-	-
	Symbol	Range	-	○	○
Input	us_tgr_a_buf	0x0000,0xFFFF	0x0000	0xFFFF	0xFFFF
	us_tgr_b_buf	0x0000,0xFFFF	0x0000	0xFFFF	0xFFFF
	uc_buzz_on_flg	0~2	0	1	2
Output	MTU2.TGRA	0x0000,0xFFFF	0x0000	0xFFFF	0xFFFF
	MTU2.TGRB	0x0000,0xFFFF	0x0000	0xFFFF	0xFFFF
Judgment					

BUZZER_Set_AlarmSilence

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

Root	None		case1	case2	case3
			-	-	-
	Symbol	Range			
Input	puc_onoff	0~2	1	0	2
Output	uc_silence_active_flag	0~2	1	0	2
Judgment					

BUZZER_Set_Boot_Flg

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

Root	None		case1	case2	case3
			-	-	-
	Symbol	Range			
Input	puc_flg	0~2	1	0	2
Output	uc_m_boot_status	0~2	1	0	2
Judgment					

BUZZER_Set_FailBuzzer

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	4
Test	Taki			
Judgment	Ikarashi		Judgment	

Root	if(puc_onoff == M_OFF)		case1	case2	case3	case4
	if(uc_fail_bz == M_ON)		○	○	-	-
	else		○	-	-	-
	else		-	○	-	-
	if(uc_fail_bz == M_OFF)		-	-	○	○
	else		-	-	○	-
	else		-	-	-	○
	Symbol	Range				
Input	puc_onoff	0~2	0	0	1	2
	uc_fail_bz	0~2	1	0	0	2
Output	uc_fail_bz	0~2	0	0	1	2
Judgment						

BUZZER_Set_PowerOFF

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

Root	None		case1
			-
	Symbol	Range	
Input	None	-	-
Output	uc_turn_off_flg	1	1
Judgment			

BUZZER_Set_TestBuzzer

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	9
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3	case4	case5	case6	case7	case8	case9
Root	if(puc_onoff == M_OFF)	○	-	-	-	-	-	-	-	-
	else	-	○	○	○	○	○	○	○	○
	switch(puc_type)	-	○	○	○	○	○	○	○	○
	case 0	-	○	-	-	-	-	-	-	-
	case 1	-	-	○	-	-	-	-	-	-
	case 2	-	-	-	○	-	-	-	-	-
	case 3	-	-	-	-	○	-	-	-	-
	case 4	-	-	-	-	-	○	-	-	-
	case 5	-	-	-	-	-	-	○	-	-
	case 6	-	-	-	-	-	-	-	○	-
	default	-	-	-	-	-	-	-	-	○
Symbol		Range								
Input	puc_onoff	0~2	0	1	1	1	1	1	1	2
	puc_type	0~7	0	0	1	2	3	4	5	7
Output	us_m_test_type_flg	0~3	0	2	1	2	2	1	1	3
	us_m_test_sdm_flg	0,2000	0	2000	2000	2000	2000	2000	2000	2000
Judgment										

BUZZER_Short_Command

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	10
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3	case4	case5	case6	case7	case8	case9	case10
Root	if(puc_type == 9)	○	-	-	-	-	-	-	-	-	-
	else if(puc_type == 7)	-	○	-	-	-	-	-	-	-	-
	else if(puc_type == 6)	-	-	○	-	-	-	-	-	-	-
	else if(puc_type == 5)	-	-	-	○	-	-	-	-	-	-
	else if(puc_type == 4)	-	-	-	-	○	-	-	-	-	-
	else if(puc_type == 3)	-	-	-	-	-	○	-	-	-	-
	else if(puc_type == 2)	-	-	-	-	-	-	○	-	-	-
	else if(puc_type == 1)	-	-	-	-	-	-	-	○	-	-
	else	-	-	-	-	-	-	-	-	○	○
	if(puc_type == 1 puc_type == 2)	-	-	-	-	-	-	○	○	-	-
	if(stp_data->uc_key_tone_onoff == M_OFF)	-	-	-	-	-	-	○	-	-	-
	else	-	-	-	-	-	-	-	○	-	-
	else	○	○	○	○	○	○	-	-	○	○
	Symbol	Range									
Input	puc_type	0~10	9	7	6	5	4	3	2	1	0
	stp_data->uc_key_tone_onoff	0,1	1	1	1	1	1	1	0	1	0
Output	uc_m_short_bz_flg	0~7	1	7	6	5	4	3	0	1	0
Judgment											

BUZZER_Test_Command

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3
Root	if(puc_buz_onoff == M_OFF)	○	-	-
	else	-	○	○
	if(puc_vib_onoff == M_OFF)	○	-	-
	else	-	○	○
	if(puc_led_onoff == M_OFF)	○	-	-
	else	-	○	○
	if((puc_buz_onoff puc_vib_onoff puc_led_onoff) != M_OFF)	-	○	○
Input	Symbol	Range		
	puc_buz_onoff	0~2	0	1
Output	puc_vib_onoff	0~2	0	1
	puc_led_onoff	0~2	0	1
	us_m_test_sdm_flg	0,6000	0	6000
Judgment				

f. Cyclic_250msecProcess

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	2
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3	case4	
Root	if((FlowMain_Get_ModeStatus() != FlowMain_MEASURE_MODE_NUMBER) && (FlowMain_Get_ModeStatus() != FlowMain_DISP_MODE_NUMBER))	○	-	○	○	
	else	-	○	-	-	
	if(GasFuncAir_Dispatch_Get_AirCalFlag() == M_ON)	○	-	○	-	
	else	-	○	-	○	
	if(Battery_Get_ComBatteryIconAD() <= BATTERY_BATT_STATUS_WARNING)	○	-	-	-	
	else	-	○	○	○	
	if((luc_mode_chk == M_OFF) && (luc_batt_chk == M_OFF))	-	○	-	-	
	else	○	-	○	○	
	if(luc_4sec_count >= M_4SEC_NUM)	○	-	○	○	
	if(luc_batt_chk == M_ON)	○	-	-	-	
	else	-	-	○	○	
	else	-	○	-	-	
シンボル		範囲				
Input	luc_4sec_count	0~16	15	0	15	16
	FlowProcesDisplay_Get_PumpOffFlag()	0~2	0	0	1	2
	FlowProcesDisplay_Get_PurgeFlag()	0~2	0	0	1	2
	FlowMain_Get_ModeStatus()	0~8	0	1	7	8
	GasFuncAir_Dispatch_Get_AirCalFlag()	0~2	1	0	1	2
	Battery_Get_ComBatteryIconAD()	2~6	2	5	5	6
Output	luc_4sec_count	0,1	0	1	0	0
	uc_m_batt_buz_flg	1	1	1	1	1
	uc_m_mode_led_flg	0,1	0	0	1	1
Judgment						

m. Check_AlarmCondition

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	2
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2
Root	for(luc_i=0; luc_i<HDEF_GAS_MAX; luc_i++)	○	○
	Symbol	Range	
Input	(stp_densit + luc_i)->uc_alarm_lat	0xFF	0x00
Output	luc_alarm_total	0x00,0xFF	0xFF
Judgment			0x00

m. Io_Buzzer_Set

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	5
Test	Taki			
Judgment	Ikarashi		Judgment	

Root			case1	case2	case3	case4	case5
	if(puc_onoff == M_ON)		○	○	○	-	-
	if((3000 <= pus_count) && (pus_count <= 7373))		○	○	-	-	-
	if(puc_hilo == BUZZER_LV_LO)		○	-	-	-	-
	else		-	○	-	-	-
	else		-	-	○	-	-
else		-	-	-	○	○	
	Symbol	Range					
Input	puc_onoff	0~2	1	1	1	0	2
	pus_count	2999~7374	7373	7373	2999	2999	7374
	puc_hilo	0~101	0	100	0	0	101
Output	uc_buzz_on_flg	0,1	1	1	1	0	0
	us_tgr_a_buf	7373	7373	7373	7373	7373	7373
	us_tgr_b_buf	3686	3686	3686	3686	3686	3686
Judgment							

m. Io_Led_Set

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	4
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3	case4	
Root	if(puc_set & M_LED_P1)	○	-	-	-	
	else	-	○	○	○	
	if(puc_set & M_LED_P2)	-	○	-	-	
	else	○	-	○	○	
	if(puc_set & M_LED_P3)	-	-	○	-	
	else	○	○	-	○	
Symbol		Range				
Input	puc_set	0x01~0xFF	0x01	0x02	0x04	0xFF
Output	None	-	-	-	-	
Judgment						

m. Io_Vibration_Set

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1	case2	case3
Root	if(puc_onoff)		-	○	○
	else		○	-	-
	Symbol	Range			
Input	puc_onoff	0,1	0	1	2
Output	uc_motor_on_flg	0,1	0	1	1
Judgment					

m_cyc_exec

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3	case4	case5	case6
Root	if(!('is_tbl_end' && (tmp_para.alm_re_execute == (U_CHR)ALARM_RE_EXECUTE_ENA))	○	-	-	-	-	-
	else	-	○	○	○	○	-
	if(!('is_tbl_end'	○	-	-	-	-	-
	else	-	○	○	○	○	-
	if(stp_data->uc_stealth_on == M_ON)	-	○	-	-	-	-
	else	-	-	○	○	○	-
	if(ZIPCNumSet_Get_GasTestFlg() == M_ON)	-	-	○	○	○	-
	if(arm_ct_tbl(alarm_ptn).bz_freq_typ != BUZZER_FREQ_TYP_STATIC)	-	-	○	-	-	-
	else if((arm_ct_tbl(p_alm_ptn).uc_silence == ALARM_SILENCE_ENA) && (uc_silence_active_flag == M_ON))	-	-	-	○	-	-
	else	-	-	-	-	○	-
Input	Symbol	Range					
	is_tbl_end	0,1	1	0	0	0	2
	stp_data->uc_stealth_on	0,1	0	1	0	0	2
	ZIPCNumSet_Get_GasTestFlg()	0,1	0	0	1	0	2
	alarm_ptn	0~16	0	0	0	1	17
	stp_data->uc_stealth_motor_on	0,1	0	1	1	1	2
	uc_silence_active_flag	0x0000~0xFFFF	0x0000	0x0000	0x0000	0x0003	0xFFFF
Output	None	-	-	-	-	-	-
Judgment							

m_init_get_param

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1
Root	None	-
	Symbol	Range
Input	None	-
Output	pst_tinfo->bz_tbl_alm_idx	0
	pst_tinfo->is_req_power_off	0
Judgment		

BLUZZER Main Loop On

	Responsible	Last update	Initials (log)	None
Coding	Sanashi		Initiation date	22
Test	Taki			
Judgment	Sanashi		Judgment	

[illegible]

m.net.params

	Responsible	Last update	Infinito loop	None
Coding	Satoshi		infinite-loop	21
Test	Yuki			
Acceptance	Satoshi		Acceptance	

[illegible]

in judge request

	Responsible	Last update
Coding	Shashi	
Test	Tali	
Deployment	Shashi	

[illegible]

Unit Test Specification

Project name	GX-Force
File name	ComCommand.c

ComCommand_Init_Process

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1
Root	for(lus_i=F_INIT_VAL; lus_i<F_RECEIVE_BUFFER_SIZE; lus_i++)		○
	for(lus_i=F_INIT_VAL; lus_i<F_SEND_BUFFER_SIZE; lus_i++)		○
	Symbol	Range	
Input	None	-	-
Output	fus_receive_count	0	0
	fnc_receive_end_char	4	4
	fbl_receive_end_flg	0	0
	fbl_Active_flg	0	0
Judgment			

ComCommand_Check_UsbComNonPartner

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1	case2	case3
Root	if(luss_non_partner_count != F_INIT_VAL)		○	-	○
	if(Port_Get_UsbPort_isOn() == false)		○	○	-
	if(luss_non_partner_count == F_INIT_VAL)		-	-	○
	else		○	○	-
	Symbol	Range			
Input	Port_Get_UsbPort_isOn()	0,1	0	0	1
	luss_non_partner_count	0,1	1	0	1
Output	luss_non_partner_count	0,720	720	720	0
Judgment					

ComCommand_Chk_ReceiveSumFault

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	5
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1	case2	case3	case4	case5
Root	for(lus_i=F_INIT_VAL; lus_i<puc_buf_size; lus_i++)		○	-	○	○	○
	if(*lncp_r_buf_p == COMDATA_STX)		○	-	○	-	-
	if(fbl_com_start == true)		○	-	○	-	-
	if(*lncp_r_buf_p != COMDATA_ETX)		○	-	○	-	○
	else		-	-	-	○	-
	if(luc_calc_sum == luc_rxd_sum)		-	○	-	○	○
	else		○	-	○	-	-
	Symbol	Range					
Input	pnc_buf[0]	2~4	2	2	2	3	4
	puc_buf_size	0~2	1	0	2	1	1
Output	fbl_ans_fault	0,1	1	0	1	0	0
Judgment							

ComCommand_Error_ReceiveData

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1
Root	for(lus_i=F_INIT_VAL; lus_i<F_RECEIVE_BUFFER_SIZE; lus_i++)		○
	Symbol	Range	
Input	None	-	-
Output	fnc_receive_data[0]	0	0
	fus_receive_count	0	0
Judgment			

ComCommand_Get_DeviceStatus

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1	case1	case1
Root	None		-	-	-
	Symbol	Range			
Input	fbl_Active_flg	0~2	0	1	2
Output	fbl_Active_flg	0~2	0	1	2
Judgment					

ComCommand_Get_DeviceTransmitEnable

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3
Root	if(luc_reg != F_INIT_VAL)	○	-	○
	else	-	○	-
	Symbol	Range		
Input	UartSci5_Get_TransmitEnable()	0-2	1	0
Output	lbl_ans	0,1	1	0
Judgment				

ComCommand_Get_ReceiveData

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	8
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3	case4	case5	case6	case7	case8
Root	if(fbl_Active_flg == true)	○	-	○	○	○	○	○	○
	if(fus_receive_count > F_RECEIVE_COUNTER_MAX_SIZE)	○	-	-	-	-	-	-	-
	if((lnc_data == COMDATA_EOT) (lnc_data == COMDATA_ETB) (lnc_data == COMDATA_CR))	○	-	○	-	○	-	○	-
	Symbol	Range							
Input	puc_data	4-24	4	4	4	5	23	24	13
	fbl_Active_flg	1,2	1	2	1	1	1	1	1
	fus_receive_count	638,639	639	639	638	638	638	638	638
Output	fus_receive_count	639	639	639	639	639	639	639	639
	fbl_receive_end_flg	1	1	1	1	1	1	1	1
	fnc_receive_data	0	0	0	0	0	0	0	0
	fnc_receive_end_char	4-23	4	4	4	23	23	13	13
Judgment									

ComCommand_Get_UsbComPartner

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3
Root	if(Port_Get_UsbPort_isOn() == false)	○	-	-
	else	-	○	○
	Symbol	Range		
Input	Port_Get_UsbPort_isOn()	0-2	0	1
Output	lbl_ans	0,1	1	0
Judgment				

ComCommand_Process_AnalysisData

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	4
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3	case4
Root	if(fbl_Active_flg == true)	○	-	○	○
	if(fbl_receive_end_flg == true)	○	-	-	○
	for(luc_j=F_INIT_VAL; luc_j<COMDATA_DATA_POS; luc_j++)	○	-	-	○
	if(fbl_chk_fault == false)	○	-	-	-
	else	-	-	-	○
	Symbol	Range			
Input	ComCommand_Chk_ReceiveSumFault()	0,1	0	0	0
	USBCom_Cmd_Proc()	0	0	0	0
	fbl_Active_flg	1,2	1	2	1
	fbl_receive_end_flg	1,2	1	1	2
	fnc_receive_data[0]	0	0	0	0
Output	fbl_receive_end_flg	0-2	0	1	2
	fnc_receive_data[10]	0,21	0	0	0
	fnc_send_data[0]	0	0	0	0
	fus_receive_count	0	0	0	0
Judgment					

ComCommand_Start_Device

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1
Root	None		-
	Symbol	Range	
Input	None	-	-
Output	uc_m_boot_status	1	1
Judgment			

ComCommand_Stop_Device

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	4
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1
Root	None		-
	Symbol	Range	
Input	None	-	-
Output	uc_m_boot_status	0	0
Judgment			

f_Set_SendData

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1
Root	None		-
	Symbol	Range	
Input	*pnc_buff	0	0
	pus_size	0	0
	f_Sum_Calc()	0	0
	Tool_Hex_Asc()	0	0
	R_SCI5_Serial_Send()	0	0
Output	None	-	-
Judgment			

f_Sum_Calc

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1	case2	case3
Root	for(lus_i=F_INIT_VAL; lus_i<pus_size; lus_i++)		-	-	-
	Symbol	Range			
Input	*pnc_buff	1	1	1	1
	pnc_buff[0]	0	0	0	0
	pus_size	0~2	1	0	2
Output	luc_ans	0,1	0	0	1
Judgment					

Unit Test Specification

Project name	GX-Force
File name	DA12bit.c

DA12bit_Init_Setting

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1
Root	None		-
	Symbol	Range	
Input	None	-	-
Output	fuss_percentage	0	0
Judgment			

DA12bit_Set_OutputNum

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	4
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1	case2	case4
Root	if(pus_num < DA12BIT_PERCENTAGE_MAX_SIZE)		○	○	-
	else		-	-	○
	Symbol	Range			
Input	pus_num	0~1000	0	999	1000
	f_Calc_RegisterNum()	0,1	0	0	1
	fuss_percentage	0,1	0	0	1
Output	fuss_percentage	0~1000	0	999	1000
Judgment					

DA12bit_Start_Output

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1
Root	None		-
	Symbol	Range	
Input	None	-	-
Output	None	-	-
Judgment			

DA12bit_Stop_Output

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1
Root	None		-
	Symbol	Range	
Input	None	-	-
Output	None	-	-
Judgment			

f_Calc_RegisterNum

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	2
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1	case2
Root	None		-	-
	Symbol	Range		
Input	pus_percentage	0,255	0	255
Output	lus_ans	0,1044	0	1044
Judgment				

Unit Test Specification

Project name	GX-Force
File name	DA12bitSelfCheck.c

DA12bitSelfCheck_Init_Setting

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1
Root	None		-
	Symbol	Range	
Input	None	-	-
Output	fbl_active_flag	0	0
	fuc_check_wait	2	2
Judgment			

DA12bitSelfCheck_Set_CheckStart

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1	case2	case3
Root	None		-	-	-
	Symbol	Range			
Input	pbl_flag	0~2	0	1	2
Output	fbl_active_flag	0~2	0	1	2
Judgment					

DA12bitSelfCheck_Set_CheckWaitTimer

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1
Root	None		-
	Symbol	Range	
Input	None	-	-
Output	fuc_check_wait	2	2
Judgment			

Unit Test Specification

Project name	GX-Force
File name	data_flash.c

DataFlash_flash_write

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	9
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3	case4	case5	case6	case7	case8	case9
Root	if((pul_flash_address + (U_LNG)puc_write_byte) -1 <= 0x00FFFFFF)	○	○	○	○	○	○	○	○	○
	for(lus_i=0; lus_i<(M_FLASH_RECEIVE_MAX); lus_i++)	○	○	○	-	○	○	○	○	○
	if (puc_err_write == 0x00)	○	-	○	-	○	○	○	-	○
	if(luc_ack == M_FLASH_OK)	○	-	-	-	○	○	○	-	○
	for(lus_j=0; lus_j<puc_write_byte; lus_j++)	○	-	-	-	○	○	○	-	○
	if((uc_m_flash_receive_buf[lus_j + M_DATA_POS] != 0xFF)	○	-	-	-	○	○	○	-	○
	else	-	-	○	-	-	-	-	-	-
	for(lus_i=0; lus_i<(M_FLASH_RECEIVE_MAX); lus_i++)	○	○	○	-	○	○	○	○	○
	if(luc_ack == M_FLASH_OK)	-	○	-	-	-	-	-	○	-
	if(luc_ack == M_FLASH_OK)	-	○	-	-	-	-	-	○	-
	if (puc_err_write == 0x00)	-	○	-	-	-	-	-	-	-
	if(luc_ack == M_FLASH_OK)	-	○	-	-	-	-	-	○	-
	while(ucc_m_wait_count)	-	○	-	-	-	-	-	○	-
	if((luc_ack == M_FLASH_OK) && (luc_status == 0x00)	-	○	-	-	-	-	-	○	-
	if(ucc_m_wait_count == 0)	-	-	-	-	-	-	-	-	-
	else	-	-	-	○	-	-	-	-	-
Symbol Range										
Input	*pucp_sram_address	0	0	0	0	0	0	0	0	0
	pul_flash_address	0	0	0	0	0	0	0	0	0
	puc_write_byte	0~2	1	1	1	0	2	1	1	1
	puc_err_write	0,1	0	1	0	0	0	0	0	1
	m_flash_write_enable()	0,1	0	0	0	0	0	1	0	0
	flash_status_read(&luc_status, 0)	0,1	0	0	0	0	0	0	0	1
	uc_m_flash_receive_buf[lus_j + M_DATA_POS]	0,1	0	0	1	0	0	0	0	0
	ucc_m_wait_count	0	0	0	0	0	0	0	0	0
Output	uc_m_flash_send_buf[lus_i]	0	0	0	0	0	0	0	0	0
	uc_m_flash_receive_buf[lus_i]	0,2	0	2	0	0	0	0	2	0
	ucc_m_wait_count	0,2	0	2	0	0	0	0	2	0
	m_cmd_ResponsTerm()	0,1	1	0	1	1	1	1	0	1
Judgment										

Flash 10msec_interrupt

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3
Root	if(ucc_m_wait_count)	-	○	○
	else	○	-	-
Symbol Range				
Input	ucc_m_wait_count	0~3	0	2
Output	None	0~2	0	1
Judgment				

flash_Block_Erase

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	4
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3	case4
Root	if((puc_type < 3) && ((puc_type == 0) && (pul_flash_address <= 0x00FF000) && ((pul_flash_address % 0x001000) == 0)) ((puc_type == 1) && (pul_flash_address <= 0x00F8000) && ((pul_flash_address % 0x008000) == 0)) ((puc_type == 2) && (pul_flash_address <= 0x00F0000) && ((pul_flash_address % 0x010000) == 0))))	○	○	-	-
	for(lus_i=0; lus_i<5; lus_i++)	○	○	-	-
	if(luc_ack == M_FLASH_OK)	○	-	-	-
	else	-	○	-	-
	else	-	-	○	○
Symbol Range					
Input	pul_flash_address	0x00000000~0xFFFFFFFF	0x00001000	0x00010000	0x00000000
	puc_type	0~3	0	2	1
	m_flash_write_enable()	0~2	0	1	1
Output	uc_m_flash_send_buf[lus_i]	32~216	32	216	82
	luc_ack	0,1	0	1	1
Judgment					

flash_read

	Responsible	Last update
Coding	Ikarashi	
Test	Taki	
Judgment	Ikarashi	

Infinite loop	None
Verification pass	3
Judgment	

		case1	case2	case3
Root	if((((put_flash_address + (U_LNG)pus_read_byte) - 1) <= 0x00FFFFFF) && (pus_read_byte <= M_FLASH_SEND_DATA))	O	O	-
	for(lus_i=0; lus_i<M_FLASH_RECEIVE_MAX; lus_i++)	O	O	-
	if(luc_ack == M_FLASH_OK)	O	-	-
	else	-	O	-
	else	-	-	O
	Symbol	Range		
Input	put_flash_address	0x00000000-0xFFFFFFFF	0x00000001	0x00000000
	pus_read_byte	0x0000-0xFFFF	0x0000	0x0001
	RSPI_Send_Receive(uc_m_flash_send_buf, (pus_read_byte + M_DATA_POS), uc_m_flash_receive_buf, M_FLASH_CH)	0,1	0	1
Output	uc_m_flash_send_buf[lus_i]	3	3	3
	uc_m_flash_receive_buf[lus_i]	0	0	0
	luc_ack	0,1	0	1
Judgment				

flash_status_read

	Responsible	Last update
Coding	Ikarashi	
Test	Taki	
Judgment	Ikarashi	

Infinite loop	None
Verification pass	3
Judgment	

		case1	case2	case3
Root	if(puc_type < 2)	O	O	-
	for(lus_i=0; lus_i<2; lus_i++)	O	O	-
	if(luc_ack == M_FLASH_OK)	O	-	-
	else	-	O	-
	else	-	-	O
	Symbol	Range		
Input	puc_type	0~2	0	1
	RSPI_Send_Receive(uc_m_flash_status_send_buf, 2, uc_m_flash_status_receive_buf, M_FLASH_CH)	0~2	0	0
	uc_m_flash_status_send_buf[lus_i]	5,53	5	53
Output	uc_m_flash_status_receive_buf[lus_i]	0	0	0
	luc_ack	0,1	0	1
Judgment				

m_Chg_Address_LNG_CHR

	Responsible	Last update
Coding	Ikarashi	
Test	Taki	
Judgment	Ikarashi	

Infinite loop	None
Verification pass	2
Judgment	

		case1	case2
Root	None	-	-
	Symbol	Range	
Input	put_16_address	0x00000000,0xFFFFFFFF	0x00000000
Output	-	-	-
Judgment			

m_flash_write_enable

	Responsible	Last update
Coding	Ikarashi	
Test	Taki	
Judgment	Ikarashi	

Infinite loop	None
Verification pass	3
Judgment	

		case1	case2	case3
Root	None	-	-	-
	Symbol	Range		
Input	RSPI_Send_Receive(luc_send_buf, 1, luc_receive_buf, M_FLASH_CH)	0,1	0	1
Output	luc_ack	0~2	0	1
Judgment				

Unit Test Specification

Project name	GX-Force
File name	data_fram.c

DataFram_AlarmReset_Load

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	8
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3	case4	case5	case6	case7	case8
Root	if(fram_ar_data[0].uc_alarm_reset_wcount[0] != fram_ar_data[0].uc_alarm_reset_wcount[1])	-	-	○	○	-	○	○	○
	else	○	○	-	-	○	-	-	-
	if(fram_ar_data[1].uc_alarm_reset_wcount[0] != fram_ar_data[1].uc_alarm_reset_wcount[1])	-	-	○	-	○	○	○	○
	else	○	○	-	○	-	-	-	-
	if(luc_ret == 0)	○	○	○	○	-	-	-	-
	if(luc_ans == 0)	○	○	-	-	-	-	-	-
	if(fram_ar_data[0].uc_alarm_reset_wcount[0] >= fram_ar_data[1].uc_alarm_reset_wcount[0])	○	-	-	-	-	-	-	-
	else	-	○	-	-	-	-	-	-
	if((luc_sort[0] == 0xf)&&(luc_sort[1] == 0x00))	-	○	-	-	-	-	-	-
	else	○	-	-	-	-	-	-	-
	else if((luc_ans & 0x0f) && (luc_ans & 0xf0))	-	-	○	-	-	-	-	-
	else if(luc_ans & 0x0f)	-	-	-	○	-	-	-	-
	else	-	-	-	-	○	-	-	-
	else if(luc_ack[0] == 0)	-	-	-	-	-	○	-	-
	else if(luc_ack[1] == 0)	-	-	-	-	-	-	○	-
	else	-	-	-	-	-	-	-	○
	if(luc_side_select == 0xf)	-	-	○	-	-	-	-	○
	else	○	○	-	○	○	-	-	-
	for(lus_i = 0; lus_i < sizeof(FRAM_AR_DATA); lus_i++)	○	○	-	○	○	-	-	-
	Symbol	Range							
Input	m_FRAM_AlarmReset_Side_Load (&fram_ar_data[0], 0)	0x00,0xFF	0x00	0x00	0x00	0x00	0x00	0x00	0xFF
	m_FRAM_AlarmReset_Side_Load (&fram_ar_data[1], 1)	0x00,0xFF	0x00	0x00	0x00	0x00	0x00	0xFF	0x00
	fram_ar_data[0].uc_alarm_reset_wcount[0]	0x00,0xFF	0x00	0x00	0xFF	0xFF	0x00	0x00	0x00
	fram_ar_data[0].uc_alarm_reset_wcount[1]	0x00,0xFF	0x00	0x00	0x00	0x00	0xFF	0xFF	0xFF
	fram_ar_data[1].uc_alarm_reset_wcount[0]	0x00,0xFF	0x00	0xFF	0xFF	0x00	0xFF	0x00	0x00
	fram_ar_data[1].uc_alarm_reset_wcount[1]	0x00,0xFF	0x00	0xFF	0xFF	0x00	0xFF	0xFF	0xFF
	luc_ret	0x00~0xFF	0x00	0x00	0xFE	0x00	0x00	0x0F	0xFF
Judgment									

DataFram_AlarmReset_Write

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3
Root	None	-	-	-
	Symbol	Range		
Input	FRAM_AR_DATA.uc_alarm_reset_wcount[0]	0x00,0xFF	0x00	0xFF
	m_fram_alarm_reset_sum_calc(&FRAM_AR_DATA)	0x0000,0xFFFF	0x0000	0xFFFF
	m_FRAM_AlarmReset_Save(0)	0~2	0	1
	m_FRAM_AlarmReset_Save(1)	0~2	0	1
	FRAM_AR_DATA.uc_alarm_reset_wcount[0]	0,1	1	0
Output	FRAM_AR_DATA.uc_alarm_reset_wcount[1]	0	0	0
	FRAM_AR_DATA.uc_alarm_reset_wcount[2]	85	85	85
	FRAM_AR_DATA.uc_alarm_reset_wcount[3]	170	170	170
	FRAM_AR_DATA.us_alarm_reset_sum	0x0000,0xFFFF	0x0000	0xFFFF
	luc_ack[0]	0~2	0	1
Judgment				

DataFram_FRAM_Diag

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3
Root	if(FRAM_DATA.us_fram_sum == lus_fram_sum)	○	-	-
	else	-	○	○
	Symbol	Range		
Input	m_fram_sum_calc()	0x0000,0xFFFF	0xFFFF	0x0000
	FRAM_DATA.us_fram_sum	0x0000,0xFFFF	0xFFFF	0x0000
Output	luc_ans	0,1	0	1
Judgment				

DataFram_FRAM_Factory_load

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	8
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3	case4	case5	case6	case7	case8
Root	if(fram_factory[0].uc_fram_wcount[0] != fram_factory[0].uc_fram_wcount[1])	-	-	○	○	-	○	○	○
	else	○	○	-	-	○	-	-	-
	if(fram_factory[1].uc_fram_wcount[0] != fram_factory[1].uc_fram_wcount[1])	-	-	○	-	○	○	○	○
	else	○	○	-	○	-	-	-	-
	if(luc_ret == 0)	○	○	○	○	-	-	-	-
	if(luc_ans == 0)	○	○	-	-	-	-	-	-
	if(fram_factory[0].uc_fram_wcount[0] >= fram_factory[1].uc_fram_wcount[0])	○	-	-	-	-	-	-	-
	else	-	○	-	-	-	-	-	-
	if((luc_sort[0] == 0xff)&&(luc_sort[1] == 0x00))	-	○	-	-	-	-	-	-
	else	○	-	-	-	-	-	-	-
	else if((luc_ans & 0x0f) && (luc_ans & 0xf0))	-	-	○	-	-	-	-	-
	else if(luc_ans & 0x0f)	-	-	-	○	-	-	-	-
	else	-	-	-	-	○	-	-	-
	else if(luc_ack[0] == 0)	-	-	-	-	-	○	-	-
	else if(luc_ack[1] == 0)	-	-	-	-	-	-	○	-
	else	-	-	-	-	-	-	-	○
	if(luc_side_select == 0xff)	-	-	○	-	-	-	-	○
	else	○	○	-	○	○	-	-	-
	for(lus_i = 0; lus_i < pus_byte; lus_i++)	○	○	-	○	○	-	-	-
	Symbol	Range							
Input	pul_factory_start_byte	0x00000000,0xFFFFFFFF	0x00000000	0x00000000	0x00000000	0x00000000	0x00000000	0x00000000	0xFFFFFFFF
	pus_byte	0x0000,0xFFFF	0x0000	0x0000	0x0000	0x0000	0x0000	0x0000	0xFFFF
	m_FRAM_Factory_Side_Load(&fram_factory[0], 0)	0x00,0xFF	0x00	0x00	0x00	0x00	0x00	0xFF	0xFF
	m_FRAM_Factory_Side_Load(&fram_factory[1], 1)	0x00,0xFF	0x00	0x00	0x00	0x00	0xFF	0x00	0xFF
	fram_factory[0].uc_fram_wcount[0]	0x00,0xFF	0x00	0x00	0xFF	0xFF	0x00	0x00	0x00
	fram_factory[0].uc_fram_wcount[1]	0x00,0xFF	0x00	0x00	0x00	0x00	0xFF	0xFF	0xFF
	fram_factory[1].uc_fram_wcount[0]	0x00,0xFF	0x00	0xFF	0xFF	0x00	0xFF	0x00	0x00
	fram_factory[1].uc_fram_wcount[1]	0x00,0xFF	0x00	0xFF	0xFF	0x00	0xFF	0xFF	0xFF
Output	luc_ret	0x00,0xFF	0x00	0x00	0xFE	0x00	0x00	0x0F	0xFF
Judgment									

DataFram_Get_AlarmResetAddress

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1
Root	None	-
	Symbol	Range
Input	None	-
Output	&FRAM_AR_DATA	Indefinite value
Judgment		

DataFram_Get_ChkDataAddress

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1
Root	None	-
	Symbol	Range
Input	None	-
Output	&FRAM_DATA_CHK_DATA	Indefinite value
Judgment		

DataFram_Get_DataLoggerAddress

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1
Root	None	-
	Symbol	Range
Input	None	-
Output	&FRAM_DATA_DATA_LOGGER	Indefinite value
Judgment		

DataFram_Get_Dumload

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

Root	if(pus_num <= M_DUMP_SIZE_NUM)		case1	case2	case3
	else		○	-	-
	Symbol	Range	-	○	○
Input	pus_num	0x0000-0xFFFF	0x0000	0xFFFF	0xFFFF
	m_fram_read((pus_num*(M_FRAM_STACK_SIZE*2)), pucp_set_data, M_FRAM_STACK_SIZE)	0,1	0	1	2
	m_fram_read((pus_num*(M_FRAM_STACK_SIZE*2))+ M_FRAM_STACK_SIZE, pucp_set_data, M_FRAM_STACK_SIZE)	01,	0	1	2
Output	luc_ans	0,1	0	1	1
Judgment					

DataFram_Get_FramDataAddress

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

Root	None		case1
			-
	Symbol	Range	
Input	None	-	-
Output	&FRAM_DATA	-	Indefinite value
Judgment			

DataFram_Get_LunchBreakAddress

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

Root	None		case1
			-
	Symbol	Range	
Input	None	-	-
Output	&FRAM_LB_DATA	-	Indefinite value
Judgment			

DataFram_Get_StIDAddress

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

Root	None		case1
			-
	Symbol	Range	
Input	None	-	-
Output	&FRAM_ST_ID_DATA	-	Indefinite value
Judgment			

DataFram_Get_UserIDAddress

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

Root	None		case1
			-
	Symbol	Range	
Input	None	-	-
Output	&FRAM_USER_ID_DATA	-	Indefinite value
Judgment			

DataFram_LunchBreak_Load

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	8
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3	case4	case5	case6	case7	case8
Root	if(fram_lb_data[0].uc_lb_wcount[0] != fram_lb_data[0].uc_lb_wcount[1])	-	-	○	○	-	○	○	○
	else	○	○	-	-	○	-	-	-
	if(fram_lb_data[1].uc_lb_wcount[0] != fram_lb_data[1].uc_lb_wcount[1])	-	-	○	-	○	○	○	○
	else	○	○	-	○	-	-	-	-
	if(luc_ret == 0)	○	○	○	○	-	-	-	-
	if(luc_ans == 0)	○	○	-	-	-	-	-	-
	if(fram_lb_data[0].uc_lb_wcount[0] >= fram_lb_data[1].uc_lb_wcount[0])	○	-	-	-	-	-	-	-
	else	-	○	-	-	-	-	-	-
	if((luc_sort[0] == 0xf)&&(luc_sort[1] == 0x00))	-	○	-	-	-	-	-	-
	else	○	-	-	-	-	-	-	-
	else if((luc_ans & 0x0f) && (luc_ans & 0xf0))	-	-	○	-	-	-	-	-
	else if(luc_ans & 0x0f)	-	-	-	○	-	-	-	-
	else	-	-	-	-	○	-	-	-
	else if(luc_ack[0] == 0)	-	-	-	-	-	○	-	-
	else if(luc_ack[1] == 0)	-	-	-	-	-	-	○	-
	else	-	-	-	-	-	-	-	○
	if(uc_m_side_select_lunchbreak == 0xf)	-	-	○	-	-	-	-	○
	else	○	○	-	○	○	-	-	-
	for(lus_i = 0; lus_i < sizeof(FRAM_LB_DATA); lus_i++)	○	○	-	○	○	-	-	-
	Symbol	Range							
Input	m_FRAM_LunchBreak_Side_Load(&fram_lb_data[0], 0)	0x00,0xFF	0x00	0x00	0x00	0x00	0x00	0x00	0xFF
	m_FRAM_LunchBreak_Side_Load(&fram_lb_data[1], 1)	0x00,0xFF	0x00	0x00	0x00	0x00	0x00	0xFF	0x00
	fram_lb_data[0].uc_lb_wcount[0]	0x00,0xFF	0x00	0x00	0xFF	0xFF	0x00	0x00	0x00
	fram_lb_data[0].uc_lb_wcount[1]	0x00,0xFF	0x00	0x00	0x00	0x00	0xFF	0xFF	0xFF
	fram_lb_data[1].uc_lb_wcount[0]	0x00,0xFF	0x00	0xFF	0xFF	0x00	0xFF	0x00	0x00
	fram_lb_data[1].uc_lb_wcount[1]	0x00,0xFF	0x00	0xFF	0x00	0x00	0xFF	0xFF	0xFF
	uc_m_side_select_lunchbreak	0x00-0xFF	0x00	0x00	0xFF	0x01	0x00	0x00	0xFF
Output	luc_ret	0x00-0xFF	0x00	0x00	0xFE	0x00	0x00	0x0F	0xFF
Judgment									

DataFram_LunchBreak_Write

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3
Root	if(uc_m_side_select_lunchbreak == 0x00)	○	-	-
	else if(uc_m_side_select_lunchbreak == 0x01)	-	○	-
	else	-	-	○
	Symbol	Range		
Input	FRAM_LB_DATA.uc_lb_wcount[0]	0x00,0xFF	0x00	0x00
	uc_m_side_select_lunchbreak	0x00-0xFF	0x01	0x00
	m_fram_lunchbreak_sum_calc(&FRAM_LB_DATA)	0x0000,0xFFFF	0x0000	0x0000
	m_FRAM_LunchBreak_Save(0)	0.1	1	0
	m_FRAM_LunchBreak_Save(1)	0.1	1	0
Output	FRAM_LB_DATA.uc_lb_wcount[0]	0.1	1	0
	FRAM_LB_DATA.us_lunch_break_sum	0x0000	0x0000	0x0000
	uc_m_side_select_lunchbreak	0.1	0	1
	luc_ack[0]	0	1	0
Judgment				

DataFram_write_factory_fram

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3
Root	None	-	-	-
	Symbol	Range		
Input	m_fram_sum_calc()	0x0000-0xFFFF	0x0000	0xFFFF
	m_fram_factory_save(0)	0-2	0	1
	m_fram_factory_save(1)	0-2	0	1
Output	FRAM_DATA.us_fram_sum	0x0000,0xFFFF	0x0000	0xFFFF
	luc_ack[0]	0-2	0	1
Judgment				

FRAM_Get_DefaultAnsFig

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1
Root	None	-
	Symbol	Range
Input	None	-
Output	uc_default_chk_ans	0
Judgment		

FRAM_Get_DefaultEndFlg

	Responsible	Last update
Coding	Ikarashi	
Test	Taki	
Judgment	Ikarashi	

Infinite loop	None
Verification pass	3
Judgment	

		case1	case2	case3	
Root	if(default_flg == DataFram_DEFAULT_OFF)	○	-	-	
	else if(default_flg == DataFram_DEFAULT_ERROR)	-	○	-	
	else	-	-	○	
	Symbol	Range			
Input	default_flg	0~8	0	7	8
Output	luc_ret	0,1	0	0	1
Judgment					

FRAM_Get_flg

	Responsible	Last update
Coding	Ikarashi	
Test	Taki	
Judgment	Ikarashi	

Infinite loop	None
Verification pass	1
Judgment	

		case1
Root	None	-
	Symbol	Range
Input	None	-
Output	uc_m_fram_write_flg	0
Judgment		

FRAM_ID_load

	Responsible	Last update
Coding	Ikarashi	
Test	Taki	
Judgment	Ikarashi	

Infinite loop	None
Verification pass	3
Judgment	

		case1	case2	case3	
Root	for(lul_i = 0; lul_i < (sizeof(FRAM_USER_ID_DATA) / M_FRAM_STACK_SIZE); lul_i++)	○	○	○	
	if((sizeof(FRAM_USER_ID_DATA) % M_FRAM_STACK_SIZE) != 0)	○	-	-	
	else	-	○	○	
	for(lul_j = 0; lul_j < (sizeof(FRAM_ST_ID_DATA) / M_FRAM_STACK_SIZE); lul_j++)	○	-	○	
	if((sizeof(FRAM_ST_ID_DATA) % M_FRAM_STACK_SIZE) != 0)	-	○	-	
	else	-	-	○	
	Symbol	Range			
Input	m_fram_read((((U_LNG)&FRAM_USER_ID_VOL.uc_ur_id) + (lul_i * M_FRAM_STACK_SIZE)), ((U_CHR*)&FRAM_USER_ID_DATA.uc_ur_id + (lul_j * M_FRAM_STACK_SIZE)), (sizeof(FRAM_USER_ID_DATA) % M_FRAM_STACK_SIZE))	0~2	1	0	2
	m_fram_read((((U_LNG)&FRAM_ST_ID_VOL.uc_st_id) + (lul_i * M_FRAM_STACK_SIZE)), ((U_CHR*)&FRAM_ST_ID_DATA.uc_st_id + (lul_j * M_FRAM_STACK_SIZE)), (sizeof(FRAM_ST_ID_DATA) % M_FRAM_STACK_SIZE))	0~2	1	0	2
Output	luc_ack	0~2	1	0	2
Judgment					

FRAM_id_write_op

	Responsible	Last update
Coding	Ikarashi	
Test	Taki	
Judgment	Ikarashi	

Infinite loop	None
Verification pass	3
Judgment	

		case1	case2	case3	
Root	if((stp_status->us_main_state & (DataStructConst_FAIL_FRM DataStructConst_FAIL_ROM DataStructConst_FAIL_RAM)) == 0)	○	-	-	
	else	-	○	○	
	if(luc_status == M_NG)	○	-	-	
	else	-	○	○	
Input	Symbol	Range			
	stp_status->us_main_state	0x0000,0xFFFF	0x0000	0xFFFF	0xFFFF
	puc_select_id	0,1	0	0	1
	puc_idx	0~129	0	128	129
	m_write_id_data_fram(puc_select_id, puc_idx)	0~2	1	0	2
Output	None	-	-	-	
Judgment					

FRAM_Init_DataAddress

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1
Root	None	-
	Symbol	Range
Input	None	-
Output	None	-
Judgment		

FRAM_load

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	8
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3	case4	case5	case6	case7	case8
Root	if(fram[0].uc_fram_wcount[0] != fram[0].uc_fram_wcount[1])	-	-	○	○	-	○	○	○
	else	○	○	-	-	○	-	-	-
	if(fram[1].uc_fram_wcount[0] != fram[1].uc_fram_wcount[1])	-	-	○	-	○	○	○	○
	else	○	○	-	○	-	-	-	-
	if(luc_ret == 0)	○	○	○	○	-	-	-	-
	if(luc_ans == 0)	○	○	-	-	-	-	-	-
	if(fram[0].uc_fram_wcount[0] >= fram[1].uc_fram_wcount[0])	○	-	-	-	-	-	-	-
	else	-	○	-	-	-	-	-	-
	if((luc_sort[0] == 0xf) && (luc_sort[1] == 0x00))	-	○	-	-	-	-	-	-
	else	○	-	-	-	-	-	-	-
	else if((luc_ans & 0xf0) && (luc_ans & 0xf0))	-	-	○	-	-	-	-	-
	else if(luc_ans & 0xf0)	-	-	-	○	-	-	-	-
	else	-	-	-	-	○	-	-	-
	else if(luc_ack[0] == 0)	-	-	-	-	-	○	-	-
	else if(luc_ack[1] == 0)	-	-	-	-	-	-	○	-
	else	-	-	-	-	-	-	-	○
	if(uc_m_side_select == 0xf)	-	-	○	-	-	-	-	○
	else	○	○	-	○	○	-	-	-
	for(lus_i = 0; lus_i < sizeof(FRAM_DATA); lus_i++)	○	○	-	○	○	-	-	-
	Symbol	Range							
Input	m_FRAM_Side_Load((U_CHR *)&fram[0].us_fram_st_size, 0)	0x00,0xFF	0x00	0x00	0x00	0x00	0x00	0x00	0xFF
	m_FRAM_Side_Load((U_CHR *)&fram[1].us_fram_st_size, 1)	0x00,0xFF	0x00	0x00	0x00	0x00	0x00	0xFF	0x00
	fram[0].uc_fram_wcount[0]	0x00,0xFF	0x00	0x00	0xFF	0xFF	0x00	0x00	0x00
	fram[0].uc_fram_wcount[1]	0x00,0xFF	0x00	0x00	0x00	0x00	0x00	0xFF	0xFF
	fram[1].uc_fram_wcount[0]	0x00,0xFF	0x00	0xFF	0xFF	0x00	0xFF	0x00	0x00
	fram[1].uc_fram_wcount[1]	0x00,0xFF	0x00	0xFF	0x00	0x00	0xFF	0xFF	0xFF
	uc_m_side_select	0x00-0xFF	0x00	0x00	0xFF	0x01	0x00	0x00	0x01
Output	luc_ret	0x00-0xFF	0x00	0x00	0xFE	0x00	0x00	0x0F	0xFF
Judgment									

FRAM_Set_ChkData_Default

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1
Root	None	-
	Symbol	Range
Input	None	-
Output	None	-
Judgment		

FRAM_Set_Default

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1
Root	None	-
	Symbol	Range
Input	None	-
Output	stp_data->us_fram_st_size	0x0000
	stp_data->uc_fram_prg_ver[0]	48
	stp_data->uc_fram_prg_ver[1]	48
	stp_data->uc_fram_prg_ver[2]	48
	stp_data->uc_fram_prg_ver[3]	48
	stp_data->uc_fram_prg_ver[4]	48
	stp_data->uc_fram_dumy1	0x00
	stp_data->uc_fram_wcount[0]	0x00
	stp_data->uc_fram_wcount[1]	0x00
	stp_data->us_fram_sum	0x0000
Judgment		

FRAM_Set_DefaultStartFlg

	Responsible	Last update
Coding	Ikarashi	
Test	Taki	
Judgment	Ikarashi	

			case1
Root	None		
	Symbol	Range	
Input	None	-	-
Output	default_flg	1	1
Judgment			

```
FRAM_Set_FailFlg
```

	Responsible	Last update
Coding	Ikarashi	
Test	Taki	
Judgment	Ikarashi	

			case1
Root	None		-
	Symbol	Range	
Input	None	-	-
Output	None	-	-
Judgment			

FRAM Set flg

	Responsible	Last update
Coding	Ikarashi	
Test	Taki	
Judgment	Ikarashi	

Infinite loop	None
Verification pass	1

Judgment	

			case1
Root	None		-
	Symbol	Range	
Input	None	-	-
Output	uc_m_fram_write_flg	1	1
Judgment			

FRAM Set ID Default

	Responsible	Last update
Coding	Ikarashi	
Test	Taki	
Judgment	Ikarashi	

			case1
Root	None		-
	Symbol	Range	
Input	None	-	-
Output	None	-	-
Judgment			

FRAM_Set MainDefault

	Responsible	Last update
Coding	Ikarashi	
Test	Taki	
Judgment	Ikarashi	

[illegible]

FRAM_write_op

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	4
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3	case4
Root	if(uc_m_fram_write_flg == 1)	○	○	-	-
	if((stp_status->us_main_state & (DataStructConst_FAIL_FRM DataStructConst_FAIL_ROM DataStructConst_FAIL_RAM) == 0)	○	-	-	-
	else	-	○	-	-
	if(luc_status == M_NG)	○	-	-	-
	else	-	○	-	-
	else	-	-	○	○
	Symbol	Range			
Input	uc_m_fram_write_flg	0~2	1	1	0
	stp_status->us_main_state	0x0000~0xFFFF	0x0000	0xFFFF	0xFFFF
	m_write_setting_fram()	0~2	1	0	0
Output	uc_m_fram_write_flg	0,2	0	0	0
Judgment					

m_fram_alarm_reset_sum_calc

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	2
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2
Root	for(lus_j = 0; lus_i < stp_data->us_alarm_reset_st_size; lus_i++)	-	○
	Symbol	Range	
Input	stp_data->us_alarm_reset_st_size	0x0000~0xFFFF	0x0000
Output	lus_ans	0x0000	0x0000
Judgment			

m_FRAM_AlarmReset_Save

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3
Root	for(lus_num = 0; lus_num < sizeof(FRAM_AR_DATA); lus_num++)	○	○	○
	if(pus_side == 0)	○	-	-
	else	-	○	○
	for(lus_turn=0; lus_turn<lus_fram_freq; lus_turn++)	○	-	-
	if(lus_fram_rem != 0)	○	-	○
	else	-	○	-
	Symbol	Range		
Input	pus_side	0~2	0	1
	m_write_and_check_fram(lul_set_add0, lucp_fram_ar_pnt, M_FRAM_STACK_SIZE)	0~2	1	0
	m_write_and_check_fram(lul_set_add1, lucp_rev_pnt, M_FRAM_STACK_SIZE)	0~2	1	0
	m_write_and_check_fram(lul_set_add0, lucp_fram_ar_pnt, lus_fram_rem)	0~2	1	0
	m_write_and_check_fram(lul_set_add1, lucp_rev_pnt, lus_fram_rem)	0~2	1	0
Output	luc_status	0~2	1	0
Judgment				

m_FRAM_AlarmReset_Side_Load

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	6
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3	case4	case5	case6
Root	for(lul_j = 0; lul_j < (sizeof(FRAM_AR_DATA) / M_FRAM_STACK_SIZE); lul_j++)	○	○	○	○	○	○
	if(puc_side == 0)	○	-	○	○	-	○
	else	-	○	-	-	○	-
	for(lul_j = 0; lul_j < M_FRAM_STACK_SIZE; lul_j++)	○	○	○	○	○	○
	if((*lucp_ram_pnt + luc_data[lul_j]) != 0xf)	○	○	○	○	○	○
	else	○	-	-	-	-	-
	if((sizeof(FRAM_AR_DATA) % M_FRAM_STACK_SIZE) != 0)	○	-	○	○	○	-
	if(puc_side == 0)	-	-	○	○	-	-
	else	-	-	-	-	○	-
	for(lul_j = 0; lul_j < (sizeof(FRAM_AR_DATA) % M_FRAM_STACK_SIZE); lul_j++)	○	-	○	○	○	-
	if((*lucp_ram_pnt + luc_data[lul_j]) != 0xf)	○	-	○	○	○	-
	else	-	-	-	-	○	-
	else	-	○	-	-	-	○
	if(stp_data->us_alarm_reset_st_size == sizeof(FRAM_AR_DATA.ALARM_POINT))	-	-	○	○	-	-
	if(lus_sum != stp_data->us_alarm_reset_sum)	-	-	○	-	-	-
	else	-	-	-	○	-	-
	else	○	○	-	-	○	○
	Symbol	Range					
Input	puc_side	0~2	0	1	0	0	2
	stp_data->us_alarm_reset_st_size	0x0000~0xFFFF	0x0033	0x0000	0x00A0	0x00A0	0x0033
	m_fram_alarm_reset_sum_calc(stp_data)	0x0000~0xFFFF	0x0000	0x0000	0x0000	0xFFFF	0x0000
	stp_data->us_alarm_reset_sum	0x0000~0xFFFF	0xFFFF	0x0000	0xFFFF	0xFFFF	0x0000
Output	luc_ack	80	80	80	80	80	80
Judgment							

m_fram_factory_save

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1	case2	case3
Root	for(lus_num = 0; lus_num < sizeof(FRAM_DATA); lus_num++)		○	○	○
	if(puc_side == 0)		○	-	-
	else		-	○	○
	for(lus_turn=0; lus_turn<lus_fram_freq; lus_turn++)		○	-	-
	if(lus_fram_rem != 0)		○	-	○
	else		-	○	-
Input	Symbol	Range			
	puc_side	0,2	0	1	2
	m_write_and_check_fram(lul_set_add0, lucp_fram_pnt, M_FRAM_STACK_SIZE)	0,2	1	0	2
	m_write_and_check_fram(lul_set_add1, lucp_rev_pnt, M_FRAM_STACK_SIZE)	0,2	1	0	2
	m_write_and_check_fram(lul_set_add0, lucp_fram_pnt, lus_fram_rem)	0,2	1	0	2
	m_write_and_check_fram(lul_set_add1, lucp_rev_pnt, lus_fram_rem)	0,2	1	0	2
Output	luc_status	0~2	1	0	2
Judgment					

m_FRAM_Factory_Side_Load

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	6
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1	case2	case3	case4	case5	case6
Root	for(lul_j = 0; lul_j < (sizeof(FRAM_DATA) / M_FRAM_STACK_SIZE); lul_j++)		○	○	○	○	○	○
	if(puc_side == 0)		○	-	○	○	-	○
	else		-	○	-	-	○	-
	for(lul_j = 0; lul_j < M_FRAM_STACK_SIZE; lul_j++)		○	○	○	○	○	○
	if((*lucp_ram_pnt + luc_data[lul_j]) != 0x0f)		○	○	○	○	○	○
	else		○	-	-	-	-	-
	if((sizeof(FRAM_DATA) % M_FRAM_STACK_SIZE) != 0)		○	-	○	○	○	-
	if(puc_side == 0)		-	-	○	○	-	-
	else		-	-	-	-	○	-
	for(lul_j = 0; lul_j < (sizeof(FRAM_DATA) % M_FRAM_STACK_SIZE); lul_j++)		○	-	○	○	○	-
	if((*lucp_ram_pnt + luc_data[lul_j]) != 0xff)		○	-	○	○	○	-
	else		-	-	-	-	○	-
	else		-	○	-	-	-	○
	if(stp_data->us_fram_st_size == sizeof(FRAM_DATA.CHK_DATA))		-	-	○	○	-	-
	if(lus_sum != stp_data->us_fram_sum)		-	-	○	-	-	-
	else		-	-	-	○	-	-
	else		○	○	-	-	○	○
	Symbol	Range						
Input	puc_side	0~2	0	1	0	0	2	0
	stp_data->us_fram_st_size	0x0000~0xFFFF	0x0033	0x0000	0x0678	0x0678	0x0033	0xFFFF
	m_fram_factory_sum_calc(stp_data)	0x0000,0xFFFF	0x0000	0x0000	0x0000	0xFFFF	0x0000	0x0000
	stp_data->us_fram_sum	0x0000,0xFFFF	0xFFFF	0x0000	0xFFFF	0xFFFF	0xFFFF	0x0000
Output	luc_ack	80	80	80	80	80	80	80
Judgment								

m_fram_factory_sum_calc

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	2
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2
Root	for(lus_j = 0; lus_i < stp_data->us_fram_st_size; lus_i++)	-	○
	Symbol	Range	
Input	stp_data->us_fram_st_size	0x0000,0xFFFF	0x0000 0xFFFF
Output	lus_ans	0x0000	0x0000 0x0000
Judgment			

m_fram_id_save

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

Root	if(puc_select_id == 0)		case1	case2	case3
	else		○	-	-
			-	○	○
Input	Symbol	Range			
	puc_select_id	0~2	0	1	2
	puc_idx	0x00,0xFF	0x00	0x00	0xFF
	m_write_and_check_fram(lul_set_add, lucp_fram_id_pnt, luc_write_byte)	0~2	0	1	2
Output	luc_status	0~2	0	1	2
Judgment					

m_fram_id_save_all

	Responsible	Last update
Coding	Ikarashi	
Test	Taki	
Judgment	Ikarashi	

Infinite loop	None
Verification pass	3
Judgment	

		case1	case2	case3
Root	for(lus_turn=0; lus_turn<lus_fram_freq; lus_turn++)	○	○	○
	if(lus_fram_rem != 0)	○	-	○
	else	-	○	-
	for(lus_turn=0; lus_turn<lus_fram_freq; lus_turn++)	○	○	○
	if(lus_fram_rem != 0)	○	-	○
	else	-	○	-
	Symbol	Range		
Input	m_write_and_check_fram(lul_set_add, lucp_fram_pnt, M_FRAM_STACK_SIZE)	0	1	2
	m_write_and_check_fram(lul_set_add, lucp_fram_pnt, lus_fram_rem)	0	1	2
Output	luc_status	0~2	0	2
Judgment				

m_FRAM_LunchBreak_Save

	Responsible	Last update
Coding	Ikarashi	
Test	Taki	
Judgment	Ikarashi	

Infinite loop	None
Verification pass	3
Judgment	

		case1	case2	case3	
Root	for(lus_num = 0; lus_num < sizeof(FRAM_LB_DATA); lus_num++)	○	○	○	
	if(pus_side == 0)	○	-	-	
	else	-	○	○	
	for(lus_turn=0; lus_turn<lus_fram_freq; lus_turn++)	○	-	-	
	if(lus_fram_rem != 0)	○	-	○	
	else	-	○	-	
	Symbol	Range			
Input	pus_side	0~2	0	1	2
	m_write_and_check_fram(lul_set_add0, lucp_fram_lb_pnt, M_FRAM_STACK_SIZE)	0~2	1	0	2
	m_write_and_check_fram(lul_set_add1, lucp_rev_pnt, M_FRAM_STACK_SIZE)	0~2	1	0	2
	m_write_and_check_fram(lul_set_add0, lucp_fram_lb_pnt, lus_fram_rem)	0~2	1	0	2
	m_write_and_check_fram(lul_set_add1, lucp_rev_pnt, lus_fram_rem)	0~2	1	0	2
Output	luc_status	0~2	1	0	2
Judgment					

m_FRAM_LunchBreak_Side_Load

	Responsible	Last update
Coding	Ikarashi	
Test	Taki	
Judgment	Ikarashi	

Infinite loop	None
Verification pass	6
Judgment	

		case1	case2	case3	case4	case5	case6	
Root	for(lul_j = 0; lul_j < (sizeof(FRAM_LB_DATA) / M_FRAM_STACK_SIZE); lul_j++)	○	○	○	○	○	○	
	if(puc_side == 0)	○	-	○	○	-	○	
	else	-	○	-	-	○	-	
	for(lul_j = 0; lul_j < M_FRAM_STACK_SIZE; lul_j++)	○	○	○	○	○	○	
	if((*lucp_ram_pnt + luc_data[lul_j]) != 0xf)	○	○	○	○	○	○	
	else	○	-	-	-	-	-	
	if((sizeof(FRAM_LB_DATA) % M_FRAM_STACK_SIZE) != 0)	○	-	○	○	○	-	
	if(puc_side == 0)	-	-	○	○	-	-	
	else	-	-	-	-	○	-	
	for(lul_j = 0; lul_j < (sizeof(FRAM_LB_DATA) % M_FRAM_STACK_SIZE); lul_j++)	○	-	○	○	○	-	
	if((*lucp_ram_pnt + luc_data[lul_j]) != 0xf)	○	-	○	○	○	-	
	else	-	-	-	-	○	-	
	else	-	○	-	-	-	○	
	if(stp_data->us_lunch_break_st_size == sizeof(FRAM_LB_DATA.st_param))	-	-	○	○	-	-	
	if(lus_sum != stp_data->us_lunch_break_sum)	-	-	○	-	-	-	
	else	-	-	-	○	-	-	
	else	○	○	-	-	○	○	
	Symbol	Range						
Input	puc_side	0~2	0	1	0	0	2	0
	stp_data->us_lunch_break_st_size	0x0000~0xFFFF	0x0033	0x0000	0x00C8	0x00C8	0x0033	0xFFFF
	m_fram_lunchbreak_sum_calc(stp_data)	0x0000,0xFFFF	0x0000	0x0000	0x0000	0xFFFF	0x0000	0x0000
	stp_data->us_lunch_break_sum	0x0000,0xFFFF	0xFFFF	0x0000	0xFFFF	0xFFFF	0xFFFF	0x0000
Output	luc_ack	80	80	80	80	80	80	80
	Judgment							

m_fram_lunchbreak_sum_calc

	Responsible	Last update
Coding	Ikarashi	
Test	Taki	
Judgment	Ikarashi	

Infinite loop	None
Verification pass	2
Judgment	

			case1	case2
Root	for(lus_i = 0; lus_i < stp_data->us_lunch_break_st_size; lus_i++)		-	○
	Symbol	Range		
Input	stp_data->us_lunch_break_st_size	0x0000,0xFFFF	0x0000	0xFFFF
Output	lus_ans	0x00	0x00	0x00
Judgment				

m_fram_read

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3	
Root	if(pus_byte <= M_FRAM_STACK_SIZE)	○	○	-	
	for(luc_i=0; luc_i<(M_FRAM_STACK_SIZE+3); luc_i++)	○	○	-	
	if(luc_chk != M_OK)	○	-	-	
	else	-	○	-	
	else	-	-	○	
Symbol		Range			
Input	pus_byte	0x0000,0xFFFF	0x0000	0xFFFF	0xFFFF
	RSPi_Send_Receive(luc_fram_send_data, (pus_byte + 3), (U_CHR *)&luc_fram_receive_data[0], M_FRAM_CH)	0~2	1	0	2
Output	luc_chk	1	1	1	1
Judgment					

m_fram_save

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

Root	for(lus_num = 0; lus_num < sizeof(FRAM_DATA); lus_num++)		case1	case2	case3
	if(pus_side == 0)		○	○	○
	else		○	-	-
	for(lus_turn=0; lus_turn<lus_fram_freq; lus_turn++)		-	○	○
	if(lus_fram_rem != 0)		○	-	-
	else		○	-	○
			-	○	-
Input	Symbol	Range			
	pus_side	0-2	0	1	2
	m_write_and_check_fram(lul_set_add0, lucp_fram_pnt, M_FRAM_STACK_SIZE)	0-2	1	0	2
	m_write_and_check_fram(lul_set_add1, lucp_rev_pnt, M_FRAM_STACK_SIZE)	0-2	1	0	2
	m_write_and_check_fram(lul_set_add0, lucp_fram_pnt, lus_fram_rem)	0-2	1	0	2
	m_write_and_check_fram(lul_set_add1, lucp_rev_pnt, lus_fram_rem)	0-2	1	0	2
Output	luc_status	0-2	1	0	2
Judgment					

m_FRAM_Side_Load

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	8
Test	Taki			
Judgment	Ikarashi		Judgment	

Root	for(lul_i = 0; lul_i < (sizeof(FRAM_DATA) / M_FRAM_STACK_SIZE); lul_i++)		case1	case2	case3	case4	case5	case6
	if(puc_side == 0)		○	○	○	○	○	○
	else		○	-	○	○	-	○
	for(lul_j = 0; lul_j < M_FRAM_STACK_SIZE; lul_j++)		-	○	-	-	○	-
	if((*lucp_frm_pnt + luc_data[lul_j]) != 0xff)		○	○	○	○	○	○
	else		○	-	-	-	-	-
	if((sizeof(FRAM_DATA) % M_FRAM_STACK_SIZE) != 0)		○	-	○	○	○	-
	if(puc_side == 0)		-	-	○	○	-	-
	else		-	-	-	-	○	-
	for(lul_j = 0; lul_j < (sizeof(FRAM_DATA) % M_FRAM_STACK_SIZE); lul_j++)		○	-	○	○	○	-
	if((*lucp_frm_pnt + luc_data[lul_j]) != 0xff)		○	-	○	○	○	-
	else		-	-	-	-	○	-
	else		-	○	-	-	-	○
	if(FRAM_DATA.us_fram_st_size == sizeof(FRAM_DATA.CHK_DATA))		-	-	○	○	-	-
	if(lus_sum != FRAM_DATA.us_fram_sum)		-	-	○	-	-	-
	else		-	-	-	○	-	-
	else		○	○	-	-	○	○
	for(lul_i = 0; lul_i < sizeof(FRAM_DATA); lul_i++)		○	○	○	○	○	○
Input	Symbol	Range						
	puc_side	0~2	0	1	0	0	2	0
	FRAM_DATA.us_fram_st_size	0x0000~0xFFFF	0x0033	0x0000	0x0678	0x0678	0x0033	0xFFFF
	m_fram_sum_calc()	0x0000,0xFFFF	0x0000	0x0000	0x0000	0xFFFF	0x0000	0x0000
	FRAM_DATA.us_fram_sum	0x0000,0xFFFF	0xFFFF	0x0000	0xFFFF	0xFFFF	0xFFFF	0x0000
Output	luc_ack	80	80	80	80	80	80	80
Judgment								

m_fram_sum_calc

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	2
Test	Taki			
Judgment	Ikarashi		Judgment	

Root	for(lus_i = 0; lus_i < FRAM_DATA.us_fram_st_size; lus_i++)		case1	case2
	Symbol	Range	○	○
Input	FRAM_DATA.us_fram_st_size	0x00,0xFF	0x00	0xFF
Output	lus_ans	-	0	Indefinite value
Judgment				

m_fram_write

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3	
Root	for(luc_i=0; luc_i<(M_FRAM_STACK_SIZE+3); luc_i++)	○	○	○	
	if(luc_chk != M_OK)	○	-	○	
	else	-	○	-	
Symbol		Range			
Input	puc_byte	0x00,0xFF	0x00	0x00	0xFF
	RSPi_Send_Receive(luc_fram_send_data, (U_SHORT)puc_byte + 3), luc_fram_receive_data, M_FRAM_CH)	0~2	1	0	2
Output	luc_chk	0,1	1	0	1
Judgment					

m_write_and_check_fram

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	5
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3	case4	case5
Root	while((luc_write_counter < M_WRITE_RETRY_COUNT) && (luc_read_counter < M_READ_RETRY_COUNT) && (luc_verify_counter < M_VERIFY_RETRY_COUNT))	○	○	○	○	○
	if(luc_write_success == 0U){	○	○	-	-	-
	if(luc_ret != M_OK)	○	-	-	-	-
	else	-	○	-	-	-
	else	-	-	○	○	○
	if(luc_err_flg == M_OFF)	-	○	○	○	-
	if(luc_ret != M_OK)	-	○	-	-	-
	else	-	-	-	-	-
	else	○	-	○	○	○
	if(luc_err_flg == M_OFF)	-	-	○	○	-
	if(Tool_Comp_Pnt(ppuc_write_buff, luc_read_buff, (U_LNG)pus_size) == 0)	-	-	○	-	-
	else	-	-	-	○	-
	else	○	○	-	-	○
	if((luc_write_counter >= M_WRITE_RETRY_COUNT) (luc_read_counter >= M_READ_RETRY_COUNT) (luc_verify_counter >= M_VERIFY_RETRY_COUNT))	○	○	○	-	-
	else	-	-	-	-	-
	Symbol	Range				
Input	pul_addr	0x00000000,0xFFFFFFFF	0x00000000	0x00000000	0x00000000	0xFFFFFFFF
	*ppuc_write_buff	0x00,0xFF	0x00	0x00	0x00	0xFF
	pus_size	0x0000,0xFFFF	0x0000	0x0000	0x0000	0xFFFF
	m_fram_write(U_SHORT)pul_addr, ppuc_write_buff, pus_size)	0~2	1	0	1	2
	m_fram_read(U_SHORT)pul_addr, luc_read_buff, pus_size)	0~2	1	1	0	2
	Tool_Comp_Pnt(ppuc_write_buff, luc_read_buff, (U_LNG)pus_size)	0~2	1	1	0	2
Output	luc_ret	1	1	1	1	1
Judgment						

m_write_id_data_fram

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1	case2	case3
Root	None		-	-	-
	Symbol	Range			
Input	puc_select_id	0~2	0	1	2
	puc_idx	0x00,0xFF	0x00	0x00	0xFF
	m_fram_id_save(puc_select_id, puc_idx)	0~2	0	1	2
Output	luc_ack	0~2	0	1	2
Judgment					

m_write_setting_fram

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3	
Root	if(uc_m_side_select == 0x00)	○	-	-	
	else if(uc_m_side_select == 0x01)	-	○	-	
	else	-	-	○	
	Symbol	Range			
Input	FRAM_DATA.uc_fram_wcount[0]	0x00,0xFF	0x00	0x00	0xFF
	m_fram_sum_calc()	0x0000,0xFFFF	0x0000	0x0000	0xFFFF
	uc_m_side_select	0x00~0xFF	0x01	0x00	0xFF
Output	FRAM_DATA.us_fram_st_size	1400	1400	1400	1400
	FRAM_DATA.uc_fram_wcount[0]	0,1	1	1	0
	FRAM_DATA.uc_fram_wcount[1]	0	0	0	0
	FRAM_DATA.uc_fram_wcount[2]	85	85	85	85
	FRAM_DATA.uc_fram_wcount[3]	170	170	170	170
	FRAM_DATA.us_fram_sum	0x0000,0xFFFF	0x0000	0x0000	0xFFFF
	uc_m_side_select	0,1	0	1	0
	luc_ack[0]	0	0	0	0
Judgment					

Unit Test Specification

Project name	GX-Force
File name	data_fram_factory.c

DataFramFactory_Alarmpoint_load

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1	case2	case3
Root	for(luc_i = 0; luc_i < HDDEF_GAS_MAX; luc_i++)		O	O	O
	Symbol	Range			
Input	stp_AlarmReset_addr->ALARM_POINT. RESET_ALARM[luc_i].ul_1st_alarm	0~1001	0	1000	1001
	stp_AlarmReset_addr->ALARM_POINT. RESET_ALARM[luc_i].ul_2nd_alarm	0~25001	0	25000	25001
	stp_AlarmReset_addr->ALARM_POINT. RESET_ALARM[luc_i].ul_3rd_alarm	0~50001	0	50000	50001
	stp_AlarmReset_addr->ALARM_POINT. RESET_ALARM[luc_i].ul_stel_alarm	0~5001	0	5000	5001
	stp_AlarmReset_addr->ALARM_POINT. RESET_ALARM[luc_i].ul_twa_alarm	0~2501	0	2500	2501
Output	(stp_GasInfo_addr+luc_i)->ul_1st_alarm	0	0	0	0
	(stp_GasInfo_addr+luc_i)->ul_2nd_alarm	0	0	0	0
	(stp_GasInfo_addr+luc_i)->ul_3rd_alarm	0	0	0	0
	(stp_GasInfo_addr+luc_i)->ul_stel_alarm	0	0	0	0
	(stp_GasInfo_addr+luc_i)->ul_twa_alarm	0	0	0	0
	luc_status	0	0	0	0
Judgment					

DataFramFactory_All_load

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	2
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1	case2
Root	None		-	-
	Symbol	Range		
Input	DataFram_FRAM_Factory_load (luc_fram_load_addr, lul_factory_start_byte, (U_SHORTT)sizeof(struct st_sum_chk_rom))	0x00,0xFF	0x00	0xFF
Output	luc_status	0x00,0xFF	0x00	0xFF
Judgment				

DataFramFactory_Chk_AlarmReset_load

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	9
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3	case4	case5	case6	case7	case8	case9
Root	for(luc_i = 0; luc_i < HDDEF_GAS_MAX; luc_i++)	○	○	○	○	○	○	○	○	○
	if((stp_GasInfo_addr+luc_i)>ul_full_scale != stp_AlarmReset_addr->ALARM_POINT.RESET_ALARM[luc_i].ul_full_scale)	-	-	-	-	-	-	○	-	-
	if((stp_GasInfo_addr+luc_i)>ul_digit != stp_AlarmReset_addr->ALARM_POINT.RESET_ALARM[luc_i].ul_digit)	-	-	-	-	-	-	-	○	-
	if((stp_GasInfo_addr+luc_i)>uc_uni_dec != stp_AlarmReset_addr->ALARM_POINT.RESET_ALARM[luc_i].uc_uni_dec)	-	-	-	○	-	-	-	-	-
	if(stp_AlarmReset_addr->ALARM_POINT.RESET_ALARM[luc_i].ul_1st_alarm != GASTABLEDATA_OFF_VAL)	-	○	○	-	○	○	-	-	○
	if((stp_GasInfo_addr+luc_i)>ul_gas_alarm_max < stp_AlarmReset_addr->ALARM_POINT.RESET_ALARM[luc_i].ul_1st_alarm (stp_GasInfo_addr+luc_i)>ul_gas_alarm_min > stp_AlarmReset_addr->ALARM_POINT.RESET_ALARM[luc_i].ul_1st_alarm)	-	-	○	-	-	-	-	-	-
	if(stp_AlarmReset_addr->ALARM_POINT.RESET_ALARM[luc_i].ul_2nd_alarm != GASTABLEDATA_OFF_VAL)	○	○	-	-	○	○	-	-	○
	if((stp_GasInfo_addr+luc_i)>ul_gas_alarm_max < stp_AlarmReset_addr->ALARM_POINT.RESET_ALARM[luc_i].ul_2nd_alarm (stp_GasInfo_addr+luc_i)>ul_gas_alarm_min > stp_AlarmReset_addr->ALARM_POINT.RESET_ALARM[luc_i].ul_2nd_alarm)	○	-	-	-	-	-	-	-	-
	if(stp_AlarmReset_addr->ALARM_POINT.RESET_ALARM[luc_i].ul_3rd_alarm != GASTABLEDATA_OFF_VAL)	-	○	-	-	○	○	-	-	○
	if((stp_GasInfo_addr+luc_i)>ul_gas_alarm_max < stp_AlarmReset_addr->ALARM_POINT.RESET_ALARM[luc_i].ul_3rd_alarm (stp_GasInfo_addr+luc_i)>ul_gas_alarm_min > stp_AlarmReset_addr->ALARM_POINT.RESET_ALARM[luc_i].ul_3rd_alarm)	-	-	-	-	-	○	-	-	-
	if(stp_AlarmReset_addr->ALARM_POINT.RESET_ALARM[luc_i].ul_stel_alarm != GASTABLEDATA_OFF_VAL)	-	○	-	-	○	-	-	-	○
	if((stp_GasInfo_addr+luc_i)>ul_stel_alarm_max < stp_AlarmReset_addr->ALARM_POINT.RESET_ALARM[luc_i].ul_stel_alarm (stp_GasInfo_addr+luc_i)>ul_stel_alarm_min > stp_AlarmReset_addr->ALARM_POINT.RESET_ALARM[luc_i].ul_stel_alarm)	-	○	-	-	-	-	-	-	-
	if(stp_AlarmReset_addr->ALARM_POINT.RESET_ALARM[luc_i].ul_twa_alarm != GASTABLEDATA_OFF_VAL)	-	-	-	-	○	-	-	-	○
	if((stp_GasInfo_addr+luc_i)>ul_twa_alarm_max < stp_AlarmReset_addr->ALARM_POINT.RESET_ALARM[luc_i].ul_twa_alarm (stp_GasInfo_addr+luc_i)>ul_twa_alarm_min > stp_AlarmReset_addr->ALARM_POINT.RESET_ALARM[luc_i].ul_twa_alarm)	-	-	-	-	○	-	-	-	-
	if(luc_ans == M_OFF)	○	○	○	○	○	○	○	○	-
	else	-	-	-	-	-	-	-	-	○
Input	Symbol	Range								
	ALARM_POINT.RESET_ALARM[0].ul_full_scale	0	0	0	0	0	0	0	0	0
	ALARM_POINT.RESET_ALARM[0].ul_digit	0	0	0	0	0	0	0	0	0
	ALARM_POINT.RESET_ALARM[0].uc_uni_dec	0	0	0	0	0	0	0	0	0
	ALARM_POINT.RESET_ALARM[0].ul_1st_alarm	0x00000000,0x0000000E	0x00000000	0x0000000E	0x0000000E	0x0000000E	0x0000000E	0x0000000E	0x0000000E	0x00000000
	ALARM_POINT.RESET_ALARM[0].ul_2nd_alarm	0x00000000-0x0000000F	0x0000000E	0x0000000E	0x0000000F	0x0000000F	0x0000000E	0x0000000E	0x0000000F	0x00000000
	ALARM_POINT.RESET_ALARM[0].ul_3rd_alarm	0x00000000-0x0000000F	0x0000000F	0x0000000E	0x0000000F	0x0000000F	0x0000000E	0x0000000F	0x0000000F	0x00000000
	ALARM_POINT.RESET_ALARM[0].ul_stel_alarm	0x00000000,0x0000000E	0x0000000E	0x0000000E	0x0000000E	0x0000000E	0x0000000E	0x0000000E	0x0000000E	0x00000000
	ALARM_POINT.RESET_ALARM[0].ul_twa_alarm	0x00000000,0x0000000E	0x0000000E	0x0000000E	0x0000000E	0x0000000E	0x0000000E	0x0000000E	0x0000000E	0x00000000
	ul_full_scale	0,1	0	0	0	0	0	0	1	0
	ul_digit	0,1	0	0	0	0	0	0	1	0
	uc_uni_dec	0,1	0	0	0	1	0	0	1	0
	ul_gas_alarm_min	0x0000000E	0x0000000E	0x0000000E	0x0000000E	0x0000000E	0x0000000E	0x0000000E	0x0000000E	0x0000000E
	ul_gas_alarm_max	0x00000000,0x0000000E	0x00000000	0x0000000E	0x00000000	0x0000000E	0x0000000E	0x00000000	0x00000000	0x00000000
	ul_stel_alarm_min	0x0000000E	0x0000000E	0x0000000E	0x0000000E	0x0000000E	0x0000000E	0x0000000E	0x0000000E	0x0000000E
	ul_stel_alarm_max	0x00000000,0x0000000E	0x0000000E	0x0000000E	0x0000000E	0x0000000E	0x00000000	0x0000000E	0x0000000E	0x0000000E
	ul_twa_alarm_min	0x0000000E,0x0000000F	0x0000000E	0x0000000E	0x0000000E	0x0000000E	0x00000000	0x0000000E	0x0000000E	0x0000000E
	ultwa_alarm_max	0x00000000	0x00000000	0x00000000	0x00000000	0x00000000	0x00000000	0x00000000	0x00000000	0x00000000
Output	uc_m_alarm_reset_onoff_flg	0,1	0	0	0	0	0	0	0	1
Judgment										

DataFramFactory_Chk_AlarmResetOnOffFlg

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1
Root	None	-
	Symbol	Range
Input	None	-
Output	uc_m_alarm_reset_onoff_flg	1
Judgment		

DataFramFactory_write_op

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3
Root	if((stp_status->us_main_state & (DataStructConst_FAIL_FRM DataStructConst_FAIL_ROM)) == 0)	○	○	-
	if(luc_status == M_NG)	○	-	-
	else	-	○	-
	else	-	-	○
	else	-	-	○
	Symbol	Range		
Input	stp_status->us_main_state	0x0000,0xFFFF	0x0000	0x0000
	DataFram_write_factory_fram()	0-2	1	0
Output	luc_status	0-2	1	0
Judgment				

Unit Test Specification

Project name	GX-Force
File name	data_logger.c

DataLogger_air_adjustment

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	6
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3	case4	case5	case6
Root	if((st_datalogger_control.uc_state & DATALOGGER_FATAL) != DATALOGGER_FATAL)	○	○	○	○	-	-
	if((st_datalogger_control.uc_state & DATALOGGER_RUN) == DATALOGGER_RUN)	○	○	○	-	-	-
	for(lus_i=0; lus_i<M_MAX_PORT; lus_i++)	○	○	○	-	-	-
	if((luc_port & puc_portCode) == luc_port)	○	○	-	-	-	-
	for(lus_k=0; lus_k<M_MAX_CHANNEL; lus_k++)	○	○	-	-	-	-
	if(st_m_ch_data[lus_k].uc_port == lus_i)	○	-	-	-	-	-
	else	-	○	-	-	-	-
	else	-	-	○	-	-	-
	else	-	-	-	○	-	-
	else	-	-	-	-	○	○
	Symbol	Range					
Input	puc_portCode	0x00~0xFF	0x01	0x01	0x01	0x00	0x00
	st_datalogger_control.uc_state	0x00~0xFF	0x01	0x01	0x00	0x00	0xFF
	st_m_ch_data[lus_k].uc_port	0x00,0xFF	0x00	0xFF	0xFF	0x00	0xFF
Output	uc_m_keep_auto_zero	0,1	0	0	1	0	0
Judgment							

DataLogger_bump

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	6
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3	case4	case5	case6
Root	if(puc_portCode != 0)	○	○	○	○	-	○
	do	○	○	○	○	-	○
	do	○	○	○	○	-	○
	for(lus_i=lus_is; lus_i<M_MAX_PORT; lus_i++)	○	○	○	○	-	○
	if((luc_port & puc_portCode) == luc_port)	○	○	○	○	-	○
	for(luc_ch=0; luc_ch<M_MAX_CHANNEL; luc_ch++)	○	-	○	○	-	○
	if(st_m_ch_data[lus_ch].uc_port == lus_i)	-	○	○	○	-	○
	if((luc_port & puc_portPass) == luc_port)	○	-	-	-	-	○
	else	-	○	○	○	-	-
	if(puc_fast_flg == 1)	-	○	-	-	-	-
	else	-	-	○	○	-	-
	if(luc_m_max_same_calibration < uc_m_same_calibration_time)	○	-	○	○	-	○
	if (luc_cnt>0)	○	○	○	○	-	○
	for(lus_i=0; lus_i<M_PAGE_SIZE-luc_cnt; lus_i++)	○	○	○	○	-	○
	if(uc_m_same_calibration_time > 1)	○	○	○	-	-	○
	while(lus_is < M_MAX_PORT)	○	○	○	○	-	○
	while(uc_m_calibration_fail == 1)	-	-	-	-	-	-
	if(uc_m_calibration_fail > 1)	-	○	-	○	-	○
	Symbol	Range					
Input	puc_portCode	0~6	1	1	5	5	0
	puc_portPass	0~6	1	0	0	0	5
	puc_fast_flg	0~2	0	1	0	0	0
	st_m_ch_data[lus_ch].uc_port	0x00,0xFF	0x00	0xFF	0xFF	0xFF	0xFF
	uc_m_max_same_calibration	0x00,0xFF	0x00	0xFF	0x00	0xFF	0x00
	uc_m_calibration_fail	0~3	0	2	0	2	0
Output	uc_m_buffer[luc_cnt+lus_i]	0	0	0	0	0	0
Judgment							

DataLogger_calibration

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	8
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3	case4	case5	case6	case7	case8
Root	if(puc_portCode != 0)	○	-	○	○	○	○	○	○
	do	○	-	○	○	○	○	○	○
	do	○	-	○	○	○	○	○	○
	for(lus_i=lus_is; lus_i<M_MAX_PORT; lus_i++)	○	-	○	○	○	○	○	○
	if((luc_port & puc_portCode) == luc_port)	○	-	○	○	○	○	○	○
	for(luc_ch=0; luc_ch<M_MAX_CHANNEL; luc_ch++)	○	-	○	○	○	○	○	○
	if(st_m_ch_data[st_m_ch].uc_port == lus_i)	○	-	○	○	○	○	○	○
	if(m_comp_pnt(st_m_gas_data[st_m_i].uc_cal_data, (stp_m_sensor+luc_i)->uc_cal_data, 6) == M_TRUE)	○	-	○	○	-	○	-	-
	else	-	-	-	-	○	-	○	○
	if(uc_m_max_same_calibration < uc_m_same_calibration_time)	○	-	○	○	○	○	○	○
	if (luc_cnt>0)	○	-	○	○	○	○	○	○
	for(lus_i=0; lus_i<M_PAGE_SIZE-luc_cnt; lus_i++)	○	-	○	○	○	○	○	○
	if(uc_m_same_calibration_time > 1)	○	-	○	○	○	○	○	○
	while(lus_i < M_MAX_PORT)	○	-	○	○	○	○	○	○
	while(uc_m_calibration_fail == 1)	-	-	-	-	-	-	-	-
	if(uc_m_calibration_fail > 1)	-	-	-	-	-	○	○	-
Input	Symbol	Range							
	puc_portCode	0-2	1	0	2	1	1	1	1
	ul_denst	0	0	0	0	0	0	0	0
	uc_cal_date	1	1	1	1	1	1	1	1
	ul_cal_before	0	0	0	0	0	0	0	0
	ul_cal_after	0	0	0	0	0	0	0	0
	m_comp_pnt()	0-2	1	1	1	2	1	2	2
	m_lg_calibration_data()	0	0	0	0	0	0	0	0
	m_lg_header_data()	0	0	0	0	0	0	0	0
	uc_port	0,1	0	0	0	1	1	0	1
	uc_cal_data	1	1	1	1	1	1	1	1
	uc_m_buffer	255	255	255	255	255	255	255	255
	uc_m_calibration_fail	0x00,0xFF	0x00	0xFF	0x00	0xFF	0x00	0x00	0xFF
	uc_m_max_same_calibration	0-2	1	0	0	0	0	0	2
	uc_m_same_calibration_time	0x00,0xFF	0x00	0xFF	0x00	0xFF	0x00	0x00	0xFF
	uc_calibration_cnt	0-3	0	0	2	2	0	2	3
Output	uc_m_buffer	255	255	255	255	255	255	255	255
	uc_m_max_same_calibration	0,33	33	0	33	33	33	33	33
	uc_m_same_calibration_time	0,1	1	0	1	1	1	1	1
	uc_calibration_cnt	0,1	0	0	0	0	1	1	0
Judgment									

DataLogger_clear

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	5
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3	case4	case5
Root	if((st_datalogger_control.uc_state & DATALOGGER_FATAL) != DATALOGGER_FATAL)	○	○	○	○	-
	if(luc_step == 0)	○	-	-	-	-
	if((luc_ack == 0x00) && (luc_sts == 0x00))	-	-	-	-	-
	if (luc_step>0)	-	-	-	-	-
	if(luc_step == 8)	-	-	-	-	-
	if(luc_step == 0)	-	-	-	-	-
Input	Symbol	Range				
	st_datalogger_control.uc_state	0x00-0xFF	0x00	0x01	0x00	0xFF
	luc_step	0-15	0	1	14	15
	flash_status_read(&luc_sts, 0)	0-2	0	0	1	2
Output	st_datalogger_control.uc_state	0x00-0xFF	0x04	0x01	0x00	0xFF
	ul_m_flash_erase_address	0x00000000	0x00000000	0x00000000	0x00000000	0x00000000
	stp_DataLogger_addr->us_logger_count	0	0	0	0	0
	stp_DataLogger_addr->us_interval_page_pnt	0	0	0	0	0
	stp_DataLogger_addr->uc_interval_page_address	0	0	0	0	0
	stp_DataLogger_addr->uc_alarm_head_page_pnt	0	0	0	0	0
	stp_DataLogger_addr->uc_calibration_cnt	0,4	4	0	0	0
	stp_DataLogger_addr->uc_alarm_event_cnt	0	0	0	0	0
	stp_DataLogger_addr->uc_trouble_cnt	0	0	0	0	0
	stp_DataLogger_addr->uc_over_write	0	0	0	0	0
	stp_DataLogger_addr->uc_snap_rec_pnt	0	0	0	0	0
	st_datalogger_control.uc_lunch_break	0	0	0	0	0
	st_datalogger_control.uc_cmd_sts	1-15	9	1	14	15
	luc_step	1-15	9	1	14	15
Judgment						

DataLogger_clearPower

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	5
Test	Taki		Judgment	
Judgment	Ikarashi			

		case1	case2	case3	case4	case5
Root	if((st_dataLogger_control.uc_state & DATALOGGER_FATAL) != DATALOGGER_FATAL)	○	○	○	○	-
	if((uc_step == 0)	○	-	-	-	-
	if((uc_ack == 0x00) && (uc_sts == 0x00))	-	-	-	-	-
	if((uc_step == 2)	-	-	-	-	-
	else if((uc_step == 1)	-	-	-	-	-
	if((uc_step == 0)	-	-	-	-	-
	Symbol	Range				
Input	st_dataLogger_control.uc_state	0x00,0xFF	0x00	0x00	0x00	0xFF
	uc_step	0~15	0	1	14	15
	flash_status_read(&uc_sts, 0)	0~2	0	0	1	2
Output	st_dataLogger_control.uc_state	0x00~0xFF	0x04	0x00	0x00	0xFF
	uc_step	1~15	2	1	14	15
	ul_m_flash_erase_address	0x00	0x00	0x00	0x00	0x00
	stp_DataLogger_addr->us_power_count	0	0	0	0	0
	stp_DataLogger_addr->uc_power_cnt	0	0	0	0	0
	stp_DataLogger_addr->uc_setting_cnt	0	0	0	0	0
	st_dataLogger_control.uc_cmd_sts	0~15	2	1	14	15
	uc_m_power_cnt	0	0	0	0	0
Judgment						

DataLogger_default

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	4
Test	Taki		Judgment	
Judgment	Ikarashi			

		case1	case2	case3	case4
Root	if((uc_step == 0)	○	-	-	-
	if((uc_ack == 0x00) && (uc_sts == 0x00))	-	-	-	-
	if((uc_step>1)	-	-	-	-
	else if ((uc_step == 1)	-	-	-	-
	Symbol	Range			
Input	uc_step	0~15	0	1	15
	flash_status_read(&uc_sts, 0)	0~2	0	0	2
Output	st_dataLogger_control.uc_state	0x04	0x04	0x04	0x04
	ul_m_flash_erase_address	0x00	0x00	0x00	0x00
	uc_step	1~15	11	1	15
	st_dataLogger_control.uc_cmd_sts	1~15	11	1	15
Judgment					

DataLogger_Init_EepAddress

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	2
Test	Taki		Judgment	
Judgment	Ikarashi			

		case1	case2
Root	None	-	-
	Symbol	Range	
Input	*stp_data	0x0000,0xFFFF	0xFFFF
Output	stp_DataLogger_addr	0x0000,0xFFFF	0xFFFF
Judgment			

DataLogger_peak_clear

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1
Root	None		-
	Symbol	Range	
Input	None	-	-
Output	None	-	-
Judgment			

DataLogger_power_on

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1	case2	case3
Root	if((st_datalogger_control.uc_error_state & DATALOGGER_ER_NO_INIT) == DATALOGGER_ER_NO_INIT)		○	-	-
	do		○	○	○
	while(uc_m_power_fail == 1)		-	-	-
	if(uc_m_power_fail > 1)		○	-	○
	Symbol	Range			
Input	uc_m_power_fail	0-3	2	0	3
	st_datalogger_control.uc_error_state	0x00,0xFF	0xFF	0x00	0x00
Output	ul_m_pass_count	0	0	0	0
Judgment					

DataLogger_Set Default

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	2
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1
Root	for(ul_i=0; ul_i<sizeof(DataLogger_Default); ul_i++)		○
	Symbol	Range	
Input	None	-	-
Output	None	-	-
Judgment			

DataLogger_setting_check

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	4
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3	case4
Root	for(luc_i=0; luc_i<M_MAX_PORT; luc_i++)	○	○	○	○
	if(st_m_last_gas_comb[luc_i].uc_gas_comb != (stp_m_sensor+luc_i)->uc_gas_comb)	○	○	○	-
	else	-	-	-	○
	if(st_m_last_gas_comb[luc_i].uc_sub_comb != (stp_m_sensor+luc_i)->uc_sub_comb)	○	○	○	-
	else	-	-	-	○
	if(st_m_last_gas_comb[luc_i].uc_uni_dec != (stp_m_sensor+luc_i)->uc_uni_dec)	○	○	○	-
	else	-	-	-	○
	if(m_comp_pnt(st_m_last_gas_comb[luc_i].uc_name[1], (stp_m_sensor+luc_i)->uc_name[1], M_GAS_NAME_SIZE) != M_TRUE)	○	○	○	-
	else	-	-	-	○
	if(st_m_last_gas_comb[luc_i].ul_1st_alarm != (stp_m_sensor+luc_i)->ul_1st_alarm)	○	○	○	-
	else	-	-	-	○
	if(st_m_last_gas_comb[luc_i].ul_2nd_alarm != (stp_m_sensor+luc_i)->ul_2nd_alarm)	○	○	○	-
	else	-	-	-	○
	if(st_m_last_gas_comb[luc_i].ul_3rd_alarm != (stp_m_sensor+luc_i)->ul_3rd_alarm)	○	○	○	-
	else	-	-	-	○
	if(st_m_last_gas_comb[luc_i].ul_stel_alarm != (stp_m_sensor+luc_i)->ul_stel_alarm)	○	○	○	-
	else	-	-	-	○
	if(st_m_last_gas_comb[luc_i].ul_twa_alarm != (stp_m_sensor+luc_i)->ul_twa_alarm)	○	○	○	-
	else	-	-	-	○
	if(st_m_last_gas_comb[luc_i].ul_cal_denst != (stp_m_sensor+luc_i)->ul_cal_denst)	○	○	○	-
	else	-	-	-	○
	if(st_m_last_gas_comb[luc_i].uc_cal_group != (stp_m_sensor+luc_i)->uc_cal_group)	○	○	○	-
	else	-	-	-	○
	if(m_comp_pnt(st_m_last_gas_comb[luc_i].uc_notice_date, (stp_m_sensor+luc_i)->uc_notice_date, 3) != M_TRUE)	○	○	○	-
	else	-	-	-	○
	if(m_comp_pnt(st_m_last_gas_comb[luc_i].uc_chg_sen_date, (stp_m_sensor+luc_i)->uc_chg_sen_date, 3) != M_TRUE)	○	○	○	-
	else	-	-	-	○
	if(st_m_last_gas_comb[luc_i].uc_suppress_onoff != (stp_m_sensor+luc_i)->uc_suppress_onoff)	○	○	○	-
	else	-	-	-	○
	if(st_m_last_gas_comb[luc_i].uc_follower_onoff != (stp_m_sensor+luc_i)->uc_follower_onoff)	○	○	○	-
	else	-	-	-	○
	if(m_comp_pnt(st_m_last_setup.uc_sep_no, stp_m_setting-> uc_sep_no, HDEF_SEP_NO_SIZE) != M_TRUE)	○	○	○	-
	else	-	-	-	○
	if(st_m_last_setup.uc_exp_flg != stp_m_setting->uc_exp_flg)	○	○	○	-
	else	-	-	-	○
	if(st_m_last_setup.us_back_light_time != stp_m_setting->us_back_light_time)	○	○	○	-
	else	-	-	-	○
	if(st_m_last_setup.uc_auto_back_light != stp_m_setting->uc_auto_back_light)	○	○	○	-
	else	-	-	-	○
	if(st_m_last_setup.uc_date_format != stp_m_setting->uc_date_format)	○	○	○	-
	else	-	-	-	○
	if(st_m_last_setup.uc_lcd_invert != stp_m_setting->uc_lcd_invert)	○	○	○	-
	else	-	-	-	○
	if(st_m_last_setup.uc_lcd_back_ground != stp_m_setting->uc_lcd_back_ground)	○	○	○	-
	else	-	-	-	○
	if(st_m_last_setup.uc_lcd_contrast != stp_m_setting->uc_lcd_contrast)	○	○	○	-
	else	-	-	-	○
	if(st_m_last_setup.uc_long_energy_flg != stp_m_setting->uc_long_energy_flg)	○	○	○	-
	else	-	-	-	○
	if(st_m_last_setup.uc_lel_sel_flg != stp_m_setting->uc_lel_sel_flg)	○	○	○	-
	else	-	-	-	○
	if(st_m_last_setup.uc_margin_disp_onoff != stp_m_setting->uc_margin_disp_onoff)	○	○	○	-
	else	-	-	-	○
	if(st_m_last_setup.uc_ir_unit != stp_m_setting->uc_ir_unit)	○	○	○	-
	else	-	-	-	○
	if(st_m_last_setup.uc_ir_air_onoff != stp_m_setting->uc_ir_air_onoff)	○	○	○	-
	else	-	-	-	○
	if(st_m_last_setup.uc_up_cal_flg != stp_m_setting->uc_up_cal_flg)	○	○	○	-
	else	-	-	-	○
	if(st_m_last_setup.uc_alarm_pattern != stp_m_setting->uc_alarm_pattern)	○	○	○	-
	else	-	-	-	○
	if(st_m_last_setup.uc_1h_alarm_on != stp_m_setting->uc_1h_alarm_on)	○	○	○	-
	else	-	-	-	○
	if(st_m_last_setup.uc_alarm_on != stp_m_setting->uc_alarm_on)	○	○	○	-
	else	-	-	-	○
	if(st_m_last_setup.uc_steath_on != stp_m_setting->uc_steath_on)	○	○	○	-
	else	-	-	-	○
	if(st_m_last_setup.uc_steath_motor_on != stp_m_setting->uc_steath_motor_on)	○	○	○	-
	else	-	-	-	○
	if(st_m_last_setup.uc_buzz_volume != stp_m_setting->uc_buzz_volume)	○	○	○	-
	else	-	-	-	○
	if(st_m_last_setup.uc_beep_select != stp_m_setting->uc_beep_select)	○	○	○	-
	else	-	-	-	○
	if(st_m_last_setup.uc_beep_time != stp_m_setting->uc_beep_time)	○	○	○	-
	else	-	-	-	○
	if(st_m_last_setup.uc_disp_pump_off != stp_m_setting->uc_disp_pump_off)	○	○	○	-
	else	-	-	-	○
	if(st_m_last_setup.uc_alarm_silence != stp_m_setting->uc_alarm_silence)	○	○	○	-
	else	-	-	-	○
	if(st_m_last_setup.uc_leak_buzzer_onoff != stp_m_setting->uc_leak_buzzer_onoff)	○	○	○	-
	else	-	-	-	○
	if(st_m_last_setup.uc_leak_fs_dp != stp_m_setting->uc_leak_fs_dp)	○	○	○	-
	else	-	-	-	○
	if(st_m_last_setup.uc_leak_mode_flg != stp_m_setting->uc_leak_mode_flg)	○	○	○	-
	else	-	-	-	○
	if(st_m_last_setup.us_cal_lmt_day != stp_m_setting->us_cal_lmt_day)	○	○	○	-
	else	-	-	-	○

if(st_m_last_setup.uc_cal_lmt_set != stp_m_setting->uc_cal_lmt_set)	O	O	O	-
else	-	-	-	O
if(st_m_last_setup.uc_cal_lmt_chk != stp_m_setting->uc_cal_lmt_chk)	O	O	O	-
else	-	-	-	O
if(st_m_last_setup.uc_cal_lmt_gas != stp_m_setting->uc_cal_lmt_gas)	O	O	O	-
else	-	-	-	O
if(st_m_last_setup.us_bump_lmt_day != stp_m_setting->us_bump_lmt_day)	O	O	O	-
else	-	-	-	O
if(st_m_last_setup.uc_bump_lmt_set != stp_m_setting->uc_bump_lmt_set)	O	O	O	-
else	-	-	-	O
if(st_m_last_setup.uc_bump_lmt_chk != stp_m_setting->uc_bump_lmt_chk)	O	O	O	-
else	-	-	-	O
if(st_m_last_setup.uc_bump_lmt_gas != stp_m_setting->uc_bump_lmt_gas)	O	O	O	-
else	-	-	-	O
if(m_comp_pnt(st_m_last_setup.uc_chg_batt_date, stp_m_setting->uc_chg_batt_date, 3) != M_TRUE)	O	O	O	-
else	-	-	-	O
if(st_m_last_setup.uc_mainte_notice_onoff != stp_m_setting->uc_mainte_notice_onoff)	O	O	O	-
else	-	-	-	O
if(st_m_last_setup.uc_mainte_lmt_chk != stp_m_setting->uc_mainte_lmt_chk)	O	O	O	-
else	-	-	-	O
if(st_m_last_setup.uc_mainte_notice_gas != stp_m_setting->uc_mainte_notice_gas)	O	O	O	-
else	-	-	-	O
if(st_m_last_setup.us_mainte_notice_day != stp_m_setting->us_mainte_notice_day)	O	O	O	-
else	-	-	-	O
if(st_m_last_setup.uc_bump_time != stp_m_setting->uc_bump_time)	O	O	O	-
else	-	-	-	O
if(st_m_last_setup.uc_bump_limit != stp_m_setting->uc_bump_limit)	O	O	O	-
else	-	-	-	O
if(st_m_last_setup.uc_bump_cal_time != stp_m_setting->uc_bump_cal_time)	O	O	O	-
else	-	-	-	O
if(st_m_last_setup.uc_bump_cal_flg != stp_m_setting->uc_bump_cal_flg)	O	O	O	-
else	-	-	-	O
if(st_m_last_setup.uc_ble_onoff != stp_m_setting->uc_ble_onoff)	O	O	O	-
else	-	-	-	O
if(st_m_last_setup.uc_id_disp_onoff != stp_m_setting->uc_id_disp_onoff)	O	O	O	-
else	-	-	-	O
if(st_m_last_setup.uc_disp_zero_flg != stp_m_setting->uc_disp_zero_flg)	O	O	O	-
else	-	-	-	O
if(st_m_last_setup.uc_disp_suppress_val != stp_m_setting->uc_disp_suppress_val)	O	O	O	-
else	-	-	-	O
if(st_m_last_setup.uc_lunch_onoff != stp_m_setting->uc_lunch_onoff)	O	O	O	-
else	-	-	-	O
if(st_m_last_setup.uc_key_tone_onoff != stp_m_setting->uc_key_tone_onoff)	O	O	O	-
else	-	-	-	O
if(st_m_last_setup.uc_disp_setting_item_onoff != stp_m_setting->uc_disp_setting_item_onoff)	O	O	O	-
else	-	-	-	O
if(st_m_last_setup.uc_auto_zero_onoff != stp_m_setting->uc_auto_zero_onoff)	O	O	O	-
else	-	-	-	O
if(st_m_last_setup.uc_demand_zero_onoff != stp_m_setting->uc_demand_zero_onoff)	O	O	O	-
else	-	-	-	O
if(st_m_last_setup.uc_user_pass_onoff != stp_m_setting->uc_user_pass_onoff)	O	O	O	-
else	-	-	-	O
if(st_m_last_setup.uc_mainte_pass_onoff != stp_m_setting->uc_mainte_pass_onoff)	O	O	O	-
else	-	-	-	O
if(st_m_last_setup.us_user_pass_num != stp_m_setting->us_user_pass_num)	O	O	O	-
else	-	-	-	O
if(st_m_last_setup.us_mainte_pass_num != stp_m_setting->us_mainte_pass_num)	O	O	O	-
else	-	-	-	O
if(st_m_last_setup.uc_protect_pword_onoff != stp_m_setting->uc_protect_pword_onoff)	O	O	O	-
else	-	-	-	O
if(st_m_last_setup.us_interval_time != stp_m_setting->us_interval_time)	O	O	O	-
else	-	-	-	O
if(st_m_last_setup.uc_over_write != stp_m_setting->uc_over_write)	O	O	O	-
else	-	-	-	O
if(luc_hit>0 stp_DataLogger_addr->uc_setting_cnt == 0)	O	O	O	-
do	O	O	O	-
if(luc_cnt>0)	O	O	O	-
for(lus_i=0; lus_i<M_PAGE_SIZE-luc_cnt; lus_i++)	O	O	O	-
else	-	-	-	-
while(uc_m_setting_fail == 1)	-	-	-	-
if(uc_m_setting_fail > 1)	-	O	-	-
else	-	-	O	-
else	-	-	-	O

	Symbol	Range				
Input	st_m_last_gas_comb(luc_ij.uc_gas_comb	0,29	0	29	29	0
	(stp_m_sensor+luc_ij->uc_gas_comb	0,29	29	0	0	0
	st_m_last_gas_comb(luc_ij.uc_sub_comb	0,29	0	29	29	0
	(stp_m_sensor+luc_ij->uc_sub_comb	0,29	29	0	0	0
	st_m_last_gas_comb(luc_ij.uc_1st_alarm	0x00,0x22	0x00	0x22	0x22	0
	(stp_m_sensor+luc_ij->uc_1st_alarm	0x00,0x22	0x22	0x00	0x00	0
	m_comp_pnt()	0-2	0	1	2	0
	st_m_last_gas_comb(luc_ij.ul_1st_alarm	0,1000	0	1000	1000	0
	(stp_m_sensor+luc_ij->ul_1st_alarm	0,1000	1000	0	0	0
	st_m_last_gas_comb(luc_ij.ul_2nd_alarm	0,25000	0	25000	25000	0
	(stp_m_sensor+luc_ij->ul_2nd_alarm	0,25000	25000	0	0	0
	st_m_last_gas_comb(luc_ij.ul_3rd_alarm	0,50000	0	50000	50000	0
	(stp_m_sensor+luc_ij->ul_3rd_alarm	0,50000	50000	0	0	0
	st_m_last_gas_comb(luc_ij.ul_stel_alarm	0,5000	0	5000	5000	0
	(stp_m_sensor+luc_ij->ul_stel_alarm	0,5000	5000	0	0	0
	st_m_last_gas_comb(luc_ij.ul_twa_alarm	0,2500	0	2500	2500	0
	(stp_m_sensor+luc_ij->ul_twa_alarm	0,2500	2500	0	0	0
	st_m_last_gas_comb(luc_ij.ul_cal_densit	0,50000	0	50000	50000	0
	(stp_m_sensor+luc_ij->ul_cal_densit	0,50000	50000	0	0	0
	st_m_last_gas_comb(luc_ij.uc_cal_group	0x00,0xFF	0x00	0xFF	0xFF	0x00
	(stp_m_sensor+luc_ij->uc_cal_group	0x00,0xFF	0xFF	0x00	0x00	0x00
	st_m_last_gas_comb(luc_ij.uc_suppress_onoff	0,1	0	1	1	0
	(stp_m_sensor+luc_ij->uc_suppress_onoff	0,1	1	0	0	0
	st_m_last_gas_comb(luc_ij.uc_follower_onoff	0,1	0	1	1	0
	(stp_m_sensor+luc_ij->uc_follower_onoff	0,1	1	0	0	0
	st_m_last_setup.uc_exp_flg	0,3	0	3	3	0
	stp_m_setting->uc_exp_flg	0,3	3	0	0	0
	st_m_last_setup.us_back_light_time	0,255	0	255	255	0
	stp_m_setting->us_back_light_time	0,255	255	0	0	0
	st_m_last_setup.uc_auto_back_light	0,1	0	1	1	0
	stp_m_setting->uc_auto_back_light	0,1	1	0	0	0
	st_m_last_setup.uc_date_format	0,2	0	2	2	0
	stp_m_setting->uc_date_format	0,2	2	0	0	0
	st_m_last_setup.uc_lcd_invert	0,2	0	2	2	0
	stp_m_setting->uc_lcd_invert	0,2	2	0	0	0
	st_m_last_setup.uc_lcd_back_ground	0,1	0	1	1	0
	stp_m_setting->uc_lcd_back_ground	0,1	1	0	0	0
	st_m_last_setup.uc_lcd_contrast	0-50	1	50	50	0
	stp_m_setting->uc_lcd_contrast	0-50	50	1	1	0
	st_m_last_setup.uc_long_energy_flg	0,1	0	1	1	0
	stp_m_setting->uc_long_energy_flg	0,1	1	0	0	0
	st_m_last_setup.uc_lsl_sel_flg	0,2	0	2	2	0
	stp_m_setting->uc_lsl_sel_flg	0,2	2	0	0	0
	st_m_last_setup.uc_margin_disp_onoff	0,1	0	1	1	0
	stp_m_setting->uc_margin_disp_onoff	0,1	1	0	0	0
	st_m_last_setup.uc_ir_unit	0x00,0xFF	0x00	0xFF	0xFF	0x00
	stp_m_setting->uc_ir_unit	0x00,0xFF	0xFF	0x00	0x00	0x00
	st_m_last_setup.uc_ir_air_onoff	0,1	0	1	1	0
	stp_m_setting->uc_ir_air_onoff	0,1	1	0	0	0
	st_m_last_setup.uc_up_cal_flg	0x00-0x08	0x01	0x08	0x08	0x00
	stp_m_setting->uc_up_cal_flg	0x00-0x08	0x08	0x01	0x01	0x00
	st_m_last_setup.uc_alarm_pattern	0,1	0	1	1	0
	stp_m_setting->uc_alarm_pattern	0,1	1	0	0	0
	st_m_last_setup.uc_1h_alarm_on	0,1	0	1	1	0
	stp_m_setting->uc_1h_alarm_on	0,1	1	0	0	0
	st_m_last_setup.uc_alarm_on	0,1	0	1	1	0
	stp_m_setting->uc_alarm_on	0,1	1	0	0	0
	st_m_last_setup.uc_stealth_on	0,1	0	1	1	0
	stp_m_setting->uc_stealth_on	0,1	1	0	0	0
	st_m_last_setup.uc_stealth_motor_on	0,1	0	1	1	0
	stp_m_setting->uc_stealth_motor_on	0,1	1	0	0	0
	st_m_last_setup.uc_buzz_volume	0,1	0	1	1	0
	stp_m_setting->uc_buzz_volume	0,1	1	0	0	0
	st_m_last_setup.uc_beep_select	0-4	0	4	4	0
	stp_m_setting->uc_beep_select	0-4	4	0	0	0
	st_m_last_setup.uc_beep_time	0,99	0	99	99	0
	stp_m_setting->uc_beep_time	0,99	99	0	0	0
	st_m_last_setup.uc_disp_pump_off	0,1	0	1	1	0
	stp_m_setting->uc_disp_pump_off	0,1	1	0	0	0
	st_m_last_setup.uc_alarm_silence	0,1	0	1	1	0
	stp_m_setting->uc_alarm_silence	0,1	1	0	0	0
	st_m_last_setup.uc_leak_buzzer_onoff	0,1	0	1	1	0
	stp_m_setting->uc_leak_buzzer_onoff	0,1	1	0	0	0
	st_m_last_setup.uc_leak_fs_dp	0,1	0	1	1	0

	stp_m_setting->uc_leak_fs_dp	0,1	1	0	0	0
	st_m_last_setup.uc_leak_mode_flg	0,1	0	1	1	0
	stp_m_setting->uc_leak_mode_flg	0,1	1	0	0	0
	st_m_last_setup.us_cal_lmt_day	0-1000	1	1000	1000	0
	stp_m_setting->us_cal_lmt_day	0-1000	1000	1	1	0
	st_m_last_setup.uc_cal_lmt_set	0,1	0	1	1	0
	stp_m_setting->uc_cal_lmt_set	0,1	1	0	0	0
	st_m_last_setup.uc_cal_lmt_chk	0,2	0	2	2	0
	stp_m_setting->uc_cal_lmt_chk	0,2	2	0	0	0
	st_m_last_setup.uc_cal_lmt_gas	0,1	0	1	1	0
	stp_m_setting->uc_cal_lmt_gas	0,1	1	0	0	0
	st_m_last_setup.us_bump_lmt_day	0-1000	1	1000	1000	0
	stp_m_setting->us_bump_lmt_day	0-1000	1000	1	1	0
	st_m_last_setup.uc_bump_lmt_set	0,1	0	1	1	0
	stp_m_setting->uc_bump_lmt_set	0,1	1	0	0	0
	st_m_last_setup.uc_bump_lmt_chk	0,2	0	2	2	0
	stp_m_setting->uc_bump_lmt_chk	0,2	2	0	0	0
	st_m_last_setup.uc_bump_lmt_gas	0,1	0	1	1	0
	stp_m_setting->uc_bump_lmt_gas	0,1	1	0	0	0
	st_m_last_setup.uc_mainte_notice_onoff	0,1	0	1	1	0
	stp_m_setting->uc_mainte_notice_onoff	0,1	1	0	0	0
	st_m_last_setup.uc_mainte_lmt_chk	0,2	0	2	2	0
	stp_m_setting->uc_mainte_lmt_chk	0,2	2	0	0	0
	st_m_last_setup.uc_mainte_notice_gas	0,1	0	1	1	0
	stp_m_setting->uc_mainte_notice_gas	0,1	1	0	0	0
	st_m_last_setup.us_mainte_notice_day	0-1000	1	1000	1000	0
	stp_m_setting->us_mainte_notice_day	0-1000	1000	1	1	0
	st_m_last_setup.uc_bump_time	0-90	30	90	90	0
	stp_m_setting->uc_bump_time	0-90	90	30	30	0
	st_m_last_setup.uc_bump_limit	0-50	10	50	50	0
	stp_m_setting->uc_bump_limit	0-50	50	10	10	0
	st_m_last_setup.uc_bump_cal_time	0-120	90	120	120	0
	stp_m_setting->uc_bump_cal_time	0-120	120	90	90	0
	st_m_last_setup.uc_bump_cal_flg	0,1	0	1	1	0
	stp_m_setting->uc_bump_cal_flg	0,1	1	0	0	0
	st_m_last_setup.uc_ble_onoff	0,1	0	1	1	0
	stp_m_setting->uc_ble_onoff	0,1	1	0	0	0
	st_m_last_setup.uc_id_disp_onoff	0,1	0	1	1	0
	stp_m_setting->uc_id_disp_onoff	0,1	1	0	0	0
	st_m_last_setup.uc_disp_zero_flgwr	0,1	0	1	1	0
	stp_m_setting->uc_disp_zero_flgwr	0,1	1	0	0	0
	st_m_last_setup.uc_disp_suppress_val	0,1	0	1	1	0
	stp_m_setting->uc_disp_suppress_val	0,1	1	0	0	0
	st_m_last_setup.uc_lunch_onoff	0,1	0	1	1	0
	stp_m_setting->uc_lunch_onoff	0,1	1	0	0	0
	st_m_last_setup.uc_key_tone_onoff	0,1	0	1	1	0
	stp_m_setting->uc_key_tone_onoff	0,1	1	0	0	0
	st_m_last_setup.uc_disp_setting_item_onoff	0,1	0	1	1	0
	stp_m_setting->uc_disp_setting_item_onoff	0,1	1	0	0	0
	st_m_last_setup.uc_auto_zero_onoff	0,1	0	1	1	0
	stp_m_setting->uc_auto_zero_onoff	0,1	1	0	0	0
	st_m_last_setup.uc_demand_zero_onoff	0,1	0	1	1	0
	stp_m_setting->uc_demand_zero_onoff	0,1	1	0	0	0
	st_m_last_setup.uc_user_pass_onoff	0,1	0	1	1	0
	stp_m_setting->uc_user_pass_onoff	0,1	1	0	0	0
	st_m_last_setup.uc_mainte_pass_onoff	0,1	0	1	1	0
	stp_m_setting->uc_mainte_pass_onoff	0,1	1	0	0	0
	st_m_last_setup.us_user_pass_num	0,9999	0	9999	9999	0
	stp_m_setting->us_user_pass_num	0,9999	9999	0	0	0
	st_m_last_setup.us_mainte_pass_num	0,9999	0	9999	9999	0
	stp_m_setting->us_mainte_pass_num	0,9999	9999	0	0	0
	st_m_last_setup.uc_protect_pword_onoff	0,1	0	1	1	0
	stp_m_setting->uc_protect_pword_onoff	0,1	1	0	0	0
	st_m_last_setup.us_interval_time	0x0000,0xFFFF	0x0000	0xFFFF	0xFFFF	0x0000
	stp_m_setting->us_interval_time	0x0000,0xFFFF	0xFFFF	0x0000	0x0000	0x0000
	st_m_last_setup.uc_over_write	0,1	0	1	1	0
	stp_m_setting->uc_over_write	0,1	1	0	0	2
	stp_DataLogger_addr->uc_setting_crt	0x00,0xFF	0x00	0xFF	0xFF	0
	m_lg_setting_data(uc_m_buffer)	0x00,0xFF	0xFF	0x00	0x00	0x00
	uc_m_setting_fail	0-2	1	2	0	0
Output	None	-	-	-	-	-
Judgment						

DataLogger_snap

	Responsible	Last update
Coding	Ikarashi	
Test	Taki	
Judgment	Ikarashi	

Infinite loop	None
Verification pass	8
Judgment	

		case1	case2	case3	case4	case5	case6	case7	case8
Root	if ((st_dataLogger_control.uc_state & DATALOGGER_FATAL) != DATALOGGER_FATAL)	○	-	○	○	○	○	○	○
	do	○	-	○	○	○	○	○	○
	for(luc_ch=0; luc_ch<M_MAX_CHANNEL; luc_ch++)	○	-	○	○	○	○	○	○
	if (stp_m_ad->fl_disp_temp < 0)	○	-	-	-	-	○	○	-
	else	-	-	○	○	○	-	-	-
	for(luc_ch=0; luc_ch<M_MAX_CHANNEL; luc_ch++)	○	-	○	○	○	○	○	○
	if (luc_port != M_NO_ASSIGN)	○	-	○	○	○	○	○	○
	if ((stp_m_denst+luc_port)>uc_denst_minus_flg) luc_minus_bit = (1 << luc_port)	○	-	○	○	○	○	○	○
	for(lui_i=0; lui_i<M_PAGE_SIZE-lui_cnt; lui_i++)	○	-	○	○	○	○	○	○
	while(uc_m_snap_fail == 1)	-	-	-	-	-	-	-	-
	if (uc_m_snap_fail > 1)	-	-	-	-	-	-	○	○
	if (stp_DataLogger_addr->uc_snap_rec_pnt == 0)	-	-	-	-	-	-	-	○
	Symbol	Range							
Input	uc_denst_minus_flg	0,1	1	1	1	1	0	1	1
	m_lg_header_data()	0	0	0	0	0	0	0	0
	m_lg_header_plus()	0	0	0	0	0	0	0	0
	m_lg_snap_data()	0	0	0	0	0	0	0	0
	m_ui2uc()	0	0	0	0	0	0	0	0
	fl_disp_temp	-1,0	-1	-1	0	0	0	-1	-1
	uc_port	254	254	254	254	254	254	254	254
	uc_snap_rec_pnt	0,255	255	255	255	255	255	0	255
	uc_m_buffer	0	0	0	0	0	0	0	0
	uc_m_snap_fail	0,2	0	0	0	0	0	2	2
	st_dataLogger_control.uc_state	0,128	0	128	0	0	0	0	0
	uc_snap_rec_pnt	0-255	255	255	255	255	255	1	0
Output	uc_snap_ext_flg	0,1	0	0	0	0	0	0	1
	uc_snap_write_pnt	0-3	0	0	0	0	0	2	3
	uc_m_buffer	0	0	0	0	0	0	0	0
	uc_m_buffer	0	0	0	0	0	0	0	0
Judgment									

DataLogger_snap_end data

	Responsible	Last update
Coding	Ikarashi	
Test	Taki	
Judgment	Ikarashi	

Infinite loop	None
Verification pass	3
Judgment	

		case1	case2	case3
Root	if (stp_DataLogger_addr->uc_snap_ext_flg > 0)	○	-	-
	else	-	○	○
	if (lus_pnt >= M_LG_SNAP_REC_MAX)	-	○	-
	else	-	-	○
	if((luc_buf[0] == 0xEEU) && (luc_buf[1] == 0xEEU))	-	-	-
	else	○	○	○
Input	Symbol	Range		
	flash_read()	0	0	0
	m_lg_get_snap_write_pnt()	255,256	256	255
	uc_snap_wdt_flg	0,1	1	0
Output	luc_ans	0,1	1	0
Judgment				

DataLogger_snap_read

	Responsible	Last update
Coding	Ikarashi	
Test	Taki	
Judgment	Ikarashi	

Infinite loop	None
Verification pass	2
Judgment	

		case1	case2
Root	if (lus_pnt >= M_LG_SNAP_REC_MAX)	○	-
	else	-	○
Input	Symbol	Range	
	puc_pnt	0	0
	flash_read	0	0
	m_lg_get_snap_write_pnt()	255,256	256
	uc_m_buffer	0	0
Output	uc_m_buffer	0	0
Judgment			

DataLogger_start

	Responsible	Last update
Coding	Ikarashi	
Test	Taki	
Judgment	Ikarashi	

Infinite loop	None
Verification pass	7
Judgment	

		case1	case2	case3	case4	case5	case6	case7
Root	if (((st_datalogger_control.uc_state & DATALOGGER_FATAL) != DATALOGGER_FATAL) && ((st_datalogger_control.uc_state & DATALOGGER_RUN) != DATALOGGER_RUN))	○	○	○	○	○	○	-
	if(st_datalogger_control.uc_measure_mode != 0x01)	○	○	-	-	○	-	-
	if((st_datalogger_control.uc_lunch_break != M_ON) && (st_datalogger_control.uc_lunch_break != M_OFF))	○	-	-	-	○	-	-
	else	-	○	-	-	-	-	-
	else	-	-	○	○	-	○	-
	if(us_m_lg_int > 50000)	○	-	-	-	-	-	-
	else	-	○	○	○	○	○	-
	for(ius_i=0; ius_i<M_MAX_CHANNEL; ius_i++)	○	○	○	○	○	○	-
	if(ui_m_logger_count != 0)	○	-	-	-	-	-	-
	else	-	○	○	○	○	○	-
	for(ius_i=0; ius_i<M_MAX_PORT; ius_i++)	○	○	○	○	○	○	-
	if(((stip_m_denst+ius_i)>uc_state.trb & DataStructConst.S_FAIL_SEN) != DataStructConst.S_FAIL_SEN) && ((stip_m_denst+ius_i)>ul_denst != GASTABLEDATA_OFF_VAL)	○	○	○	○	○	○	-
	if((stip_m_denst+ius_i)>uc_denst_minus_flg)	○	-	-	-	-	-	-
	else	○	○	○	○	○	○	-
	else	-	-	○	○	○	○	-
	for(ius_i=0; ius_i<M_MAX_CHANNEL; ius_i++)	○	○	○	○	○	○	-
	if(st_m_ch_data[ius_i].uc_port != M_NO_ASSIGN)	○	○	○	○	○	○	-
	else	-	○	○	○	○	○	-
	if(stip_m_setting->us_interval_time <= 60)	○	-	-	-	-	-	-
	else	-	○	○	○	○	○	-
	if(stip_DataLogger_addr->us_interval_page_pnt == (M_INTERVAL_PAGES - 1))	○	○	-	-	-	-	-
	if(stip_m_setting->uc_over_write == M_OFF)	○	-	-	-	-	-	-
	else	-	○	-	-	-	-	-
	else	-	○	○	○	○	○	-
	if((st_datalogger_control.uc_state & DATALOGGER_FATAL) != DATALOGGER_FATAL)	○	○	○	-	○	-	-
	if(uc_m_channels != 0)	○	○	○	-	○	-	-
	if(st_datalogger_control.uc_measure_mode != 0x01)	○	○	-	-	○	-	-
	else	-	-	○	-	-	-	-
	else	-	-	○	○	-	-	-
	if(((st_datalogger_control.uc_state & DATALOGGER_FULL) != DATALOGGER_FULL) && ((st_datalogger_control.uc_state & DATALOGGER_RUN) == DATALOGGER_RUN))	○	○	-	-	○	-	-
	if((st_datalogger_control.uc_measure_mode == 0x00) (st_datalogger_control.uc_measure_mode == 0x03))	○	-	-	-	-	-	-
	else if(st_datalogger_control.uc_measure_mode == 0x02)	-	○	-	-	-	-	-
	else	-	-	-	-	○	-	-
	if((stip_m_setting->uc_auto_zero_onoff == M_ON) && (uc_m_keep_auto_zero != 0))	○	○	-	-	-	-	-
	else	-	-	-	-	○	-	-
	else	-	-	-	-	-	-	-
	else	-	-	-	-	-	○	-
	else	-	-	-	-	-	-	○

	Symbol	Range							
Input	st_datalogger_control.uc_measure_mode	0x00~0xFF	0x00	0x02	0x01	0x01	0x02	0xFF	0xFF
	st_datalogger_control.uc_lunch_break	0~4	3	0	0	0	4	4	4
	stp_DataLogger_addr->us_logger_count	0x0000~0xFFFF	0xFFFFF	0x0000	0x0000	0x0000	0x0000	0x0000	0xFFFF
	us_m_lg_int	0x0000,0xFFFF	0xFFFF	0x0000	0x0000	0x0000	0x0000	0x0000	0x0000
	ul_m_logger_count	0x00000000,0xFFFFFFFF	0xFFFFFFFF	0x00000000	0x00000000	0x00000000	0x00000000	0x00000000	0x00000000
	(stp_m_denst+us_i)->uc_state_trb	0x00,0xFF	0x00	0x00	0xFF	0xFF	0xFF	0xFF	0xFF
	(stp_m_denst+us_i)->ul_denst	0x00000000~0xFFFFFFFF	0xFFFFFFFF	0xFFFFFFFF	0xDDDDDDDD	0xDDDDDDDD	0x00000000	0x00000000	0x00000000
	(stp_m_denst+us_i)->uc_denst_minus_flg	0~2	1	0	0	0	2	2	2
	st_m_ch_dastas[us_i].uc_port	0x00,0xFF	0x00	0xFF	0xFF	0xFF	0xFF	0xFF	0xFF
	ul_m_last_interval_checktime	0x00000000,0xFFFFFFFF	0x00000000	0x00000000	0x00000000	0x00000000	0xFFFFFFFF	0xFFFFFFFF	0xFFFFFFFF
	stp_m_setting->us_interval_time	0x0000,0xFFFF	0x0000	0xFFFF	0xFFFF	0xFFFF	0xFFFF	0xFFFF	0xFFFF
	stp_DataLogger_addr->us_interval_page_pnt	0x011F,0xFFFF	0x011F	0x011F	0xFFFF	0xFFFF	0xFFFF	0xFFFF	0xFFFF
	stp_m_setting->uc_over_write	0~2	0	1	1	1	2	2	2
	st_datalogger_control.uc_state	0x00,0xFF	0x00	0x00	0x00	0x00	0x00	0x00	0xFF
	uc_m_channels	0~6	5	5	5	0	6	6	6
	stp_m_setting->uc_auto_zero_onoff	0~2	1	1	0	0	2	2	2
uc_m_keep_auto_zero	0~6	5	5	0	0	6	6	6	
Output	us_m_lg_int	0,1	0	1	1	1	1	1	0
	uc_m_last_alm_state[us_i]	0	0	0	0	0	0	0	0
	uc_m_last_state_trb[us_i]	0	0	0	0	0	0	0	0
	us_m_last_main_state	0	0	0	0	0	0	0	0
	ul_m_logger_count	0	0	0	0	0	0	0	0
	stp_DataLogger_addr->uc_interval_page_address	0	0	0	0	0	0	0	0
	st_m_alarm[0].uc_trend_page_address	0	0	0	0	0	0	0	0
	st_m_alarm[1].uc_trend_page_address	0	0	0	0	0	0	0	0
	uc_m_alarm_crt	0	uc_m_alarm_crt	0	0	0	0	0	0
	uc_m_FuncTempWarning_Get_OutOfRangeFlg	0	0	0	0	0	0	0	0
	ul_m_tick_total[us_i]	0x00000000~0xFFFFFFFF	0x00000000	0xFFFFFFFF	0x00000000	0x00000000	0x00000000	0x00000000	0x00000000
	ul_m_tick_count[us_i]	0,1	1	1	0	0	0	0	0
	st_m_gas_dastas[us_i].uc_invalid	0	0	0	0	0	0	0	0
	st_m_gas_dastas[us_i].uc_onoff	1	1	1	1	1	1	1	1
	ul_m_alarm_peak_dastas[us_i]	0x00000000~0xFFFFFFFF	0xFFFFFFFF	0xFFFFFFFF	0xDDDDDDDD	0xDDDDDDDD	0x00000000	0x00000000	0x00000000
	uc_m_alarm_peak_minus[us_i]	0~2	1	0	0	0	2	2	2
	ft_m_alarm_peak_temp_data	0	0	0	0	0	0	0	0
	ft_m_tick_temp_total	0	0	0	0	0	0	0	0
	ul_m_tick_temp_count	1	1	1	1	1	1	1	1
	ul_m_last_interval_checktime	0x00000000,0xFFFFFFFF	0x00000000	0x00000000	0x00000000	0x00000000	0x00000000	0x00000000	0xFFFFFFFF
	ul_m_last_alarm_checktime	0	0	0	0	0	0	0	0
	st_m_ch_dastas[us_i].ul_write_time	0	0	0	0	0	0	0	0
	st_m_ch_dastas[us_i].ul_concentration	0	0	0	0	0	0	0	0
	st_m_ch_dastas[us_i].uc_count	0	0	0	0	0	0	0	0
	sl_temp_data	0	0	0	0	0	0	0	0
	uc_temp_count	0	0	0	0	0	0	0	0
	ul_temp_write_time	0	0	0	0	0	0	0	0
	us_m_auto_sec	9,003,600	900	3600	3600	3600	3600	3600	3600
	uc_m_interval_own_sec	61,79	79	79	61	61	61	61	61
	st_datalogger_control.uc_state	0x00~0xFF	0x01	0x01	0x00	0x00	0x01	0x80	0xFF
	uc_m_interval_flag	0	0	0	0	0	0	0	0
	uc_m_same_alarm_event_time	0	0	0	0	0	0	0	0
uc_m_same_trouble_time	0	0	0	0	0	0	0	0	
uc_m_same_calibration_time	0	0	0	0	0	0	0	0	
Judgment									

DataLogger_stop

	Responsible	Last update
Coding	Ikarashi	
Test	Taki	
Judgment	Ikarashi	

Infinite loop	None
Verification pass	6
Judgment	

		case1	case2	case3	case4	case5	case6	
Root	if(((st_datalogger_control.uc_state & DATALOGGER_TOSTOP) == DATALOGGER_TOSTOP) ((st_datalogger_control.uc_state & DATALOGGER_RUN) == DATALOGGER_RUN)) && ((st_datalogger_control.uc_state & DATALOGGER_FATAL) != DATALOGGER_FATAL))	○	○	○	○	-	-	
	if(luc_step == 0)	○	○	-	-	-	-	
	for(lus_i=0; lus_i<uc_m_alarm_cnt; lus_i++)	○	○	-	-	-	-	
	if(st_m_alarm[lus_i].uc_trend_page_address !=0)	○	-	-	-	-	-	
	else	-	○	-	-	-	-	
	else	-	-	○	○	-	-	
	if(luc_step == 1)	○	○	○	-	-	-	
	if(ul_m_flash_erase_address != M_FLASH_SIZE)	○	-	-	-	-	-	
	if(luc_sts == 0x00)	○	-	-	-	-	-	
	else	-	○	-	-	-	-	
	else	-	-	○	-	-	-	
	else	-	-	-	○	-	-	
	if(luc_step == 2)	○	-	○	-	-	-	
	while(uc_m_alarm_cnt > 0)	○	-	-	-	-	-	
	else	-	-	-	-	-	-	
	if(luc_step == 3)	○	-	○	○	-	-	
	if((st_datalogger_control.uc_state & DATALOGGER_FULL) != DATALOGGER_FULL)	○	-	-	-	-	-	
	if(luc_sts == 0)	○	-	-	-	-	-	
	else	-	-	○	-	-	-	
	else	-	-	-	○	-	-	
	if(((luc_step == 4) (luc_sts >= 3))	○	-	-	○	-	-	
	else	-	-	○	-	-	-	
	else	-	○	-	-	-	-	
	if(luc_step == 4)	○	-	-	○	-	-	
	else	-	○	○	-	-	-	
	else	-	-	-	-	○	○	
	Symbol	Range						
Input	luc_step	0~15	0	0	1	3	14	15
	st_datalogger_control.uc_state	0x00~0xFF	0x01	0x01	0x01	0x03	0xFF	0x00
	st_m_alarm[lus_i].uc_trend_page_address	0x00~0xFF	0xFF	0xFF	0xFF	0xFF	0xFF	0x00
	ul_m_flash_erase_address	0x00000000~0xFFFFFFFF	0x00000000	0x00000000	0x00100000	0x00100000	0x00100000	0xFFFFFFFF
	m_flash_status()	0~2	0	1	1	1	1	2
	uc_m_alarm_cnt	0.2	2	2	0	0	0	3
	m_lq_stop_interval()	0~15	0	0	1	14	14	15
Output	st_datalogger_control.uc_state	0x00~0xFF	0x00	0x01	0x01	0x02	0xFF	0x00
	st_datalogger_control.uc_cmd_sts	0~15	0	1	3	0	14	15
	ul_m_logger_count	0	0	0	0	0	0	0
	luc_step	0~15	0	1	3	0	14	15
Judgment								

DataLogger_write_test

	Responsible	Last update
Coding	Ikarashi	
Test	Taki	
Judgment	Ikarashi	

Infinite loop	None
Verification pass	1
Judgment	

		case1
Root	for(lui_i=luc_cnt; lui_i<M_PAGE_SIZE; lui_i++)	○
	for(lui_i=luc_cnt; lui_i<M_PAGE_SIZE; lui_i++)	○
	for(lui_i=luc_cnt; lui_i<M_PAGE_SIZE; lui_i++)	○
	for(lui_i=luc_cnt; lui_i<M_PAGE_SIZE; lui_i++)	○
	for(lui_i=luc_cnt; lui_i<M_PAGE_SIZE; lui_i++)	○
	for(lui_i=luc_cnt; lui_i<M_PAGE_SIZE; lui_i++)	○
	for(lui_i=luc_cnt; lui_i<M_PAGE_SIZE; lui_i++)	○
	for(lui_i=luc_cnt; lui_i<M_PAGE_SIZE; lui_i++)	○
	for(lui_i=0; lui_i<M_PAGE_SIZE; lui_i++)	○
Symbol		Range
Input	None	-
Output	uc_m_buffer[0]	0x00
Judgment		

m_comp_pnt

	Responsible	Last update
Coding	Ikarashi	
Test	Taki	
Judgment	Ikarashi	

Infinite loop	None
Verification pass	3
Judgment	

		case1	case2	case3
Root	for(luc_i=0U;luc_i<puc_num;luc_i++)	○	○	○
	if(pucp_pnt1[luc_i] == pucp_pnt2[luc_i])	○	-	-
	else	-	○	○
	Symbol	Range		
Input	pucp_pnt1[luc_i]	0x00,0xFF	0x00	0xFF
	pucp_pnt2[luc_i]	0x00,0xFF	0x00	0xFF
	puc_num	0x0000,0xFFFF	0xFFFF	0x0000
Output	luc_ret	0,1	0	1
Judgment				

m_copy_nbyte

	Responsible	Last update
Coding	Ikarashi	
Test	Taki	
Judgment	Ikarashi	

Infinite loop	None
Verification pass	2
Judgment	

		case1	case2
Root	None	-	-
	Symbol	Range	
Input	*ppuc_to	0x00,0xFF	0x00
	*ppuc_from	0x00,0xFF	0x00
	pnbyte	0x0000,0xFFFF	0x0000
Output	None	-	-
Judgment			

m_flash_status

	Responsible	Last update
Coding	Ikarashi	
Test	Taki	
Judgment	Ikarashi	

Infinite loop	None
Verification pass	4
Judgment	

		case1	case2	case3	case4
Root	if((luc_ack == 0x00) && (luc_sts == 0x00))	-	-	-	-
	if(uc_m_erase_cnt == 0)	-	-	-	-
	else	-	-	-	-
	else	○	○	○	○
	Symbol	Range			
Input	flash_status_read(&luc_sts, 0)	0~2	0	1	2
	uc_m_erase_cnt	0~4	0	3	0
Output	ul_m_flash_erase_address	0	0	0	0
	ul_m_erase_address	0	0	0	0
	luc_ret	1	1	1	1
Judgment					

m_isLeapYear

	Responsible	Last update
Coding	Ikarashi	
Test	Taki	
Judgment	Ikarashi	

Infinite loop	None
Verification pass	6
Judgment	

		case1	case2	case3	case4	case5	case6
Root	if((y % 4) == 0x00)	○	○	○	-	-	○
	if((y % 100) == 0x00)	○	○	-	-	-	○
	if((y % 400) == 0x00)	○	-	-	-	-	-
	else	-	○	-	-	-	○
	else	-	-	○	-	-	-
	else	-	-	-	○	○	-
	Symbol	Range					
Input	y	1~2100	2000	1900	2096	2099	1
Output	plus_day	0,1	1	0	1	1	0
Judgment							

m_lg_alarm

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	4
Test	Taki		Judgment	
Judgment	Ikarashi			

		case1	case2	case3	case4
Root	if(stp_DataLogger_addr>uc_alarm_head_page_pnt == M_LG_ALARM_HEAD_MAX)	○	-	○	○
	if(ul_m_flash_erase_address == M_FLASH_SIZE)	○	○	-	-
	else	-	-	○	○
	for(luc_ch=0; luc_ch<M_MAX_CHANNEL; luc_ch++)	○	○	○	○
	if(st_m_ch_data[st_ch].uc_port != M_NO_ASSIGN)	○	○	-	-
	for(lu_i=0; lu_i<M_MAX_PORT; lu_i++)	○	○	○	○
	Symbol	Range			
Input	m_lg_time_value()	0	0	0	0
	m_u2uc()	0	0	0	0
	uc_datetime	0	0	0	0
	uc_code	0	0	0	0
	uc_port	254,255	254	254	255
	uc_alarm_head_page_pnt	9,10	9	10	9
	fl_disp_temp	0	0	0	0
	ul_denst	0	0	0	0
	uc_denst_minus_flg	0	0	0	0
	uc_m_alarm_cnt	0	0	0	0
	uc_m_now_time	0	0	0	0
	ul_m_flash_erase_address	1048576, 1048577	1048576	1048576	1048577
	us_m_alarm_work_pnt	0	0	0	0
	uc_trend_page_address	0	0	0	0
	uc_head_page_cnt	9,10	9	10	9
Output	us_trend_cnt	361	361	361	361
	us_copy_pnt	0	0	0	0
	uc_copy_page	0	0	0	0
	us_work_pnt	0	0	0	0
	uc_fail	0	0	0	0
	ul_last_datetime	4294967291	4294967291	4294967291	4294967291
	ul_peak_data	0	0	0	0
	uc_peak_minus	0	0	0	0
	fl_temp_data	0	0	0	0
	uc_alarm_head_page_pnt	0,11	0	11	0
	uc_m_alarm_cnt	1	1	1	1
	ul_m_flash_erase_address	32768-1048577	65536	32768	1048577
	ul_m_flash_pending_erase_address	0,65536	0	0	65536
Judgment					

m_lg_alarm_event

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki		Judgment	
Judgment	Ikarashi			

		case1	case2	case3
Root	do	○	○	○
	if(luc_cnt>0)	-	-	-
	for(lus_i=0; lus_i<M_PAGE_SIZE-luc_cnt; lus_i++)	-	-	-
	else	○	○	○
	while(uc_m_alarm_event_fail == 1)	-	-	-
	if(uc_m_alarm_event_fail > 1)	○	○	-
	Symbol	Range		
Input	puc_event	0x00,0xFF	0x00	0x00
	puc_ch	0-6	0	5
	m_lg_alarm_event_data()	0	0	0
	m_lg_header_data()	0	0	0
	uc_m_event_fail	0,2	2	2
	uc_m_buffer	0x00-0xFF	0xFF	0x00
	uc_m_alarm_event_cnt	0,2	0	0
	uc_m_buffer	0,255	255	0
Output	uc_alarm_event_cnt	1,2	1	1
	uc_m_max_same_alarm_event	127	127	127
	uc_m_same_alarm_event_time	1	1	1
Judgment				

m_lg_alarm_event_data

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	2
Test	Taki		Judgment	
Judgment	Ikarashi			

		case1	case2
Root	if(uc_m_same_alarm_event_time == 1)	○	-
	else	-	○
	Symbol	Range	
Input	*npuc_data	0	0
	puc_event	0	0
	puc_ch	0	0
	m_u2uc()	0	0
	uc_m_same_alarm_event_time	1,2	1
Output	luc_cnt	2,4	4
Judgment			

m_lg_alarm_event_fit

	Responsible	Last update
Coding	Ikarashi	
Test	Taki	
Judgment	Ikarashi	

Infinite loop	None
Verification pass	3
Judgment	

		case1	case2	case3
Root	if(stp_DataLogger_addr->uc_alarm_event_cnt >= puc_cnt)	-	○	○
	for(lui_i=luc_cnt; lui_i>0; lui_i--)	-	○	○
	if(luc_write_res != 0x00)	-	○	○
	else	-	○	○
	if(lui_i > 0)	-	○	-
	else	-	-	○
	Symbol	Range		
Input	DataFlash_flash_write()	0,1	1	0
	puc_cnt	0,1	1	0
	flash_read()	0	0	0
	uc_alarm_event_cnt	0,10	0	10
	uc_m_alarm_event_fail	0	0	0
	uc_m_alarm_event_sec_pnt	0	0	0
	uc_m_buffer	0	0	0
	ul_m_flash_erase_address	0	0	0
Output	uc_alarm_event_cnt	0,10	0	10
	uc_m_alarm_event_fail	0,1	0	1
	uc_m_alarm_event_sec_pnt	0,1	0	1
	ul_m_flash_erase_address	0,360448	0	360448
Judgment				

m_lg_alarm_event_write

	Responsible	Last update
Coding	Ikarashi	
Test	Taki	
Judgment	Ikarashi	

Infinite loop	None
Verification pass	5
Judgment	

		case1	case2	case3	case4	case5
Root	if(stp_DataLogger_addr->uc_alarm_event_cnt == M_LG_ALARM_EVENT_MAX)	○	-	-	-	-
	else	-	○	-	○	○
	if(uc_m_same_alarm_event_time == 1)	-	○	-	-	-
	else	-	-	○	○	○
	if(luc_write_res != 0x00)	-	-	-	○	-
	else	-	○	○	-	○
	if(uc_m_same_alarm_event_time == 1)	-	○	-	-	-
	if(uc_m_alarm_event_fail == 1)	-	○	○	-	-
	else	-	-	-	-	○
	Symbol	Range				
Input	ppuc_data	0	0	0	0	0
	pus_cnt	0	0	0	0	0
	DataFlash_flash_write()	0,1	0	0	1	0
	uc_alarm_event_cnt	128,129	128	129	129	129
	uc_m_alarm_event_fail	1,2	1	1	1	2
	uc_m_alarm_event_sec_pnt	0	0	0	0	0
	uc_m_last_alarm_event_writetime	0	0	0	0	0
	uc_m_max_same_alarm_event	0	0	0	0	0
	uc_m_now_time	0	0	0	0	0
	uc_m_same_alarm_event_time	1,2	1	2	2	2
	ul_m_alarm_event_last_address	0	0	0	0	0
	ul_m_flash_erase_address	0	0	0	0	0
Output	uc_alarm_event_cnt	128~130	128	130	129	129
	uc_m_alarm_event_fail	0~2	1	0	2	0
	uc_m_same_alarm_event_time	0~2	1	1	2	0
	ul_m_alarm_event_last_address	0,360704	0	360704	0	0
	ul_m_flash_erase_address	0,360448	0	360448	360448	0
Judgment						

m_lg_alarm_head

	Responsible	Last update
Coding	Ikarashi	
Test	Taki	
Judgment	Ikarashi	

Infinite loop	None
Verification pass	5
Judgment	

		case1	case2	case3	case4	case5
Root	if(luc_step == 0x00)	○	-	○	○	-
	if(luc_step == 1)	○	○	○	○	-
	if(ul_m_flash_erase_address != M_FLASH_SIZE)	○	○	-	○	-
	if(luc_sts == 0x00)	○	○	-	-	-
	else	-	-	○	-	-
	Symbol	Range				
Input	luc_step	0~2	0	1	0	2
	ul_m_flash_erase_address	1048576, 1048577	1048577	1048577	1048576	1048577
	m_flash_status()	0,1	0	0	1	0
Output	luc_step	0~2	0	0	1	2
Judgment						

m_lg_alarm_head_write

	Responsible	Last update
Coding	Ikarashi	
Test	Taki	
Judgment	Ikarashi	

Infinite loop	None
Verification pass	3
Judgment	

		case1	case2	case3
Root	if(st_m_alarm[0].uc_fail == 0)	○	-	○
	if((uc_write_res != 0x00))	○	-	○
	else	-	○	-
	Symbol	Range		
Input	*ppuc_data	0	0	0
	pus_cnt	0	0	0
	DataFlash_flash_write()	0,1	1	0
	uc_head_page_pnt	0	0	0
	uc_fail	0,1	0	1
	uc_m_buffer	0	0	0
	uc_m_buffer	0	0	0
Output	st_m_alarm[0].uc_fail	0	0	0
Judgment				

m_lg_alarm_trend_a_check

	Responsible	Last update
Coding	Ikarashi	
Test	Taki	
Judgment	Ikarashi	

Infinite loop	None
Verification pass	6
Judgment	

		case1	case2	case3	case4	case5	case6
Root	for(lui_alm=0; lui_alm<uc_m_alarm_cnt; lui_alm++)	○	○	○	○	○	○
	if((m_lg_time_value(uc_m_now_time) - st_m_alarm[lui_alm].ul_last_datetime) >= M_ALARM_INTERVAL)	○	○	○	○	○	-
	for(lui_i=0; lui_i<M_MAX_PORT; lui_i++)	○	○	○	○	○	-
	else	-	○	○	○	○	○
	for(lui_i=0; lui_i<M_MAX_PORT; lui_i++)	-	○	○	○	○	○
	if(((stp_m_denst+lui_i)>ul_denst != GASTABLEDATA_NA_VAL) && ((stp_m_denst+lui_i)>ul_denst != GASTABLEDATA_OFF_VAL))	-	○	-	-	○	-
	if((st_m_alarm[lui_alm].ul_peak_datas[lui_i] == GASTABLEDATA_NA_VAL) (st_m_alarm[lui_alm].ul_peak_datas[lui_i] == GASTABLEDATA_OFF_VAL))	-	○	-	-	-	-
	else if(lui_i != M_UNIT_OX)	-	-	○	○	○	-
	if(st_m_alarm[lui_alm].ul_peak_datas[lui_i] < (stp_m_denst+lui_i)>ul_denst)	-	-	○	-	-	-
	else	-	-	○	○	○	-
	else if(lui_i == M_UNIT_OX)	-	-	○	○	○	-
	if(st_m_alarm[lui_alm].ul_peak_datas[lui_i] > (stp_m_denst+lui_i)>ul_denst)	-	-	-	○	○	-
	else	-	-	○	○	-	-
	else	-	-	-	-	-	-
	else	-	-	-	-	○	○
	if(st_m_alarm[lui_alm].fl_temp_data < stp_m_ad->fl_disp_temp)	-	○	○	-	-	-
	else	-	-	-	○	○	○
	if((uc_m_alarm_cnt > 0) && (st_m_alarm[0].us_trend_cnt > M_LG_ALARM_RECORD))	○	○	○	○	○	-
	else	-	-	-	-	-	○
	Symbol	Range					
Input	m_lg_time_value(uc_m_now_time)	0~3126988800	3126988799	0	0	0	3126988800
	st_m_alarm[lui_alm].ul_last_datetime	0x00000000~0xFFFFFFFF	0x00000000	0x00000000	0x00000000	0xFFFFFFFF	0xFFFFFFFF
	(stp_m_denst+lui_i)>ul_denst	0x00000000~0xFFFFFFFF	0xFFFFFFFF	0x00000000	0x00000001	0x00000000	0xFFFFFFFF
	(stp_m_denst+lui_i)>uc_denst_minus_flg	0~2	2	1	1	1	0
	st_m_alarm[lui_alm].ul_peak_datas[lui_i]	0x00000000~0xFFFFFFFF	0xFFFFFFFF	0xFFFFFFFF	0x00000000	0x00000001	0x00000000
	st_m_alarm[lui_alm].fl_temp_data	-55~86	86	-55	85	85	85
	stp_m_ad->fl_disp_temp	-55~86	86	85	85	-55	-55
	uc_m_alarm_cnt	0~3	3	2	2	2	0
	st_m_alarm[0].us_trend_cnt	0x0000~0xFFFF	0xFFFF	0xFFFF	0xFFFF	0xFFFF	0x0000
Output	st_m_alarm[lui_alm].ul_peak_datas[lui_i]	0x00000000~0xFFFFFFFF	0xFFFFFFFF	0x00000000	0x00000001	0x00000001	0x00000000
	st_m_alarm[lui_alm].uc_peak_minus[lui_i]	1,2	2	1	1	1	1
	st_m_alarm[lui_alm].ul_last_datetime	0x00000000~0xFFFFFFFF	0x00000005	0x00000000	0x00000000	0xFFFFFFFF	0xFFFFFFFF
	st_m_alarm[lui_alm].fl_temp_data	85,86	86	85	85	85	85
Judgment							

m_lg_alarm_trend_b_check

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki		Judgment	
Judgment	Ikarashi			

		case1	case2	case3	case4	case5	case6
Root	if((m_lg_time_value(uc_m_now_time) - ul_m_last_alarm_checktime) >= M_ALARM_INTERVAL)	O	-	-	-	-	O
	for(lus_i=0; lus_i<M_MAX_PORT; lus_i++)	O	-	-	-	-	O
	else	-	O	O	O	O	-
	for(lus_i=0; lus_i<M_MAX_PORT; lus_i++)	-	O	O	O	O	-
	if(((stp_m_denst+lus_i)>ul_denst != GASTABLEDATA_NA_VAL) && ((stp_m_denst+lus_i)>ul_denst != GASTABLEDATA_OFF_VAL))	-	O	O	O	O	-
	if((ul_m_alarm_peak_data[stp_m_denst+lus_i] == GASTABLEDATA_NA_VAL) (ul_m_alarm_peak_data[stp_m_denst+lus_i] == GASTABLEDATA_OFF_VAL))	-	O	-	-	O	-
	else if((lus_i != M_UNIT_OX) && (ul_m_alarm_peak_data[stp_m_denst+lus_i] < ul_denst))	-	-	O	-	-	-
	else if((lus_i == M_UNIT_OX) && (ul_m_alarm_peak_data[stp_m_denst+lus_i] > ul_denst))	-	-	-	O	-	-
	else	-	O	-	-	-	-
	else	-	-	-	-	O	-
Input	if(fl_m_alarm_peak_temp_data < stp_m_ad->fl_disp_temp)	-	-	O	O	O	-
	else	-	O	-	-	-	-
	Symbol	Range					
	m_lg_time_value(uc_m_now_time)	0-3126988800	3126988799	0	0	0	3126988800
	ul_m_last_alarm_checktime	0x00000000-0xFFFFFFFF	0x00000000	0xFFFFFFFF	0xFFFFFFFF	0xFFFFFFFF	0xFFFFFFFF
	(stp_m_denst+lus_i)>ul_denst	0x00000000-0xFFFFFFFF	0xFFFFFFFF	0xFFFFFFFF	0x00000001	0x00000000	0xDDDDDDDD
	(stp_m_ad->fl_disp_temp)	0-2	2	0	0	0	1
	stp_m_ad->fl_disp_temp	-55~86	86	-55	85	85	-55
	ul_m_alarm_peak_data[stp_m_denst+lus_i]	0x00000000-0xFFFFFFFF	0xFFFFFFFF	0xDDDDDDDD	0x00000000	0x00000001	0xFFFFFFFF
	fl_m_alarm_peak_temp_data	-55~86	86	85	-55	-55	85
Output	ul_m_alarm_peak_data[stp_m_denst+lus_i]	0x00000001-0xFFFFFFFF	0xFFFFFFFF	0xFFFFFFFF	0x00000001	0x00000001	0xFFFFFFFF
	uc_m_alarm_peak_minus[stp_m_denst+lus_i]	0-2	2	0	0	0	1
	fl_m_alarm_peak_temp_data	-55~86	86	85	85	85	-55
	ul_m_last_alarm_checktime	0x00000004-0xFFFFFFFF	0x00000005	0xFFFFFFFF	0xFFFFFFFF	0xFFFFFFFF	0x00000004
	Judgment						

m_lg_alarm_trend_c_check

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki		Judgment	
Judgment	Ikarashi			

		case1	case2	case3
Root	if(uc_m_alarm_cnt > 1)	O	-	O
	for(luc_i=0; luc_i<M_MAX_PORT; luc_i++)	O	-	O
Input	Symbol	Range		
	uc_m_alarm_cnt	0-3	2	0
	st_m_alarm[0].uc_trend_page_address	0x00,0xFF	0x00	0xFF
	st_m_alarm[0].uc_head_page_pnt	0x00,0xFF	0x00	0xFF
	st_m_alarm[0].us_trend_cnt	0x0000,0xFFFF	0x0000	0xFFFF
	st_m_alarm[0].us_copy_cnt	0x0000,0xFFFF	0x0000	0xFFFF
	st_m_alarm[0].uc_copy_page	0x00,0xFF	0x00	0xFF
	st_m_alarm[0].us_work_pnt	0x0000,0xFFFF	0x0000	0xFFFF
	st_m_alarm[1].uc_code	0x00,0xFF	0x00	0xFF
	st_m_alarm[0].uc_fail	0x00,0xFF	0x00	0xFF
	st_m_alarm[0].ul_last_datetime	0x00000000,0xFFFFFFFF	0x00000000	0xFFFFFFFF
	st_m_alarm[0].uc_datetime	0x00,0xFF	0x00	0xFF
	st_m_alarm[0].fl_temp_data	-55~86	-55	86
Output	st_m_alarm[0].uc_trend_page_address	0	0	0
	st_m_alarm[0].uc_head_page_pnt	0	0	0
	st_m_alarm[0].us_trend_cnt	0	0	0
	st_m_alarm[0].us_copy_cnt	0	0	0
	st_m_alarm[0].uc_copy_page	0	0	0
	st_m_alarm[0].us_work_pnt	0	0	0
	st_m_alarm[0].uc_code	0	0	0
	st_m_alarm[0].uc_fail	0	0	0
	st_m_alarm[0].ul_last_datetime	0	0	0
	st_m_alarm[0].fl_temp_data	0,85	0	85
	uc_m_alarm_cnt	1~255	1	2
	Judgment			

m_lg_alarm_trend_copy

	Responsible	Last update
Coding	Ikarashi	
Test	Taki	
Judgment	Ikarashi	

Infinite loop	None
Verification pass	4
Judgment	

		case1	case2	case3	case4
Root	if(lui_pad >= TREND_RECORD)	○	○	○	○
	else	-	-	-	-
	for(lui_i=lui_pad; lui_i>0; lui_i--)	○	○	○	○
	if((lui_i % M_ALARM_GAS_BYTE) == 0)	○	○	○	○
	if(st_m_alarm[puc_idx].us_work_pnt == 0)	○	○	○	○
	else	-	-	-	-
	if(luc_dat == 0)	○	○	○	○
	if(lui_cnt != 0)	○	○	○	○
	for(lui_i=0; lui_i<(U_SHORT)M_PAGE_SIZE - lui_pad / M_ALARM_GAS_BYTE * RECORD_SIZE; lui_i++)	-	-	-	-
	if(st_m_alarm[puc_idx].uc_fail == 0)	○	○	○	○
	if(luc_write_res != 0x00)	○	○	○	○
	else	-	-	-	-
Symbol		Range			
Input	puc_idx	0	0	0	0
	DataFlash_flash_write()	0,1	1	1	0
	uc_head_page_pnt	0	0	0	0
	us_copy_cnt	0	0	0	0
	uc_copy_page	0	0	0	0
	us_work_pnt	0,1	0	1	0
	uc_fail	0,1	0	0	1
	uc_m_alarm_work	0	0	0	0
	uc_m_buffer	0	0	0	0
Output	us_copy_cnt	16	16	16	16
	uc_copy_page	1	1	1	1
	us_work_pnt	4602, 4603	4602	4603	4602
	uc_fail	0,1	1	1	0
	uc_m_buffer	0	0	0	0
Judgment					

m_lg_alarm_trend_data

	Responsible	Last update
Coding	Ikarashi	
Test	Taki	
Judgment	Ikarashi	

Infinite loop	None
Verification pass	6
Judgment	

		case1	case2	case3	case4	case5	case6
Root	for(luc_ch=0; luc_ch<M_MAX_CHANNEL; luc_ch++)	○	○	○	○	○	○
	if(st_m_ch_datas[luc_ch].uc_port != M_NO_ASSIGN)	○	○	○	○	○	-
	else	-	-	-	-	-	○
	for(luc_ch=0; luc_ch<M_MAX_CHANNEL; luc_ch++)	○	○	○	○	○	○
	if(luc_port != M_NO_ASSIGN)	○	○	○	○	○	-
	if(st_m_gas_datas[luc_port].uc_invalid == M_TRUE)	○	-	-	-	-	-
	else	-	○	○	○	○	-
	if(puc_idx != M_NO_ASSIGN)	-	○	○	-	-	-
	if((st_m_alarm[puc_idx].ul_peak_datas[luc_port] == GASTABLEDATA_NA_VAL) (st_m_alarm[puc_idx].ul_peak_datas[luc_port] == GASTABLEDATA_OFF_VAL))	-	○	-	-	-	-
	else	-	-	○	-	-	-
	else	-	-	-	○	○	-
	if((ul_m_alarm_peak_datas[luc_port] == GASTABLEDATA_NA_VAL) (ul_m_alarm_peak_datas[luc_port] == GASTABLEDATA_OFF_VAL))	-	-	-	○	○	-
	else	-	-	-	-	○	-
	else	-	-	-	-	-	○
	if(puc_idx != M_NO_ASSIGN)	○	○	○	-	-	-
	if(st_m_alarm[puc_idx].fl_temp_data < 0)	○	-	-	-	-	-
	else	-	○	○	-	-	-
	else	-	-	-	○	○	○
	if(fl_m_alarm_peak_temp_data < 0)	-	-	-	○	-	-
	else	-	-	-	-	○	○
	for(luc_ch=0; luc_ch<M_MAX_CHANNEL; luc_ch++)	○	○	○	○	○	○
	if(luc_port != M_NO_ASSIGN)	○	○	○	○	○	-
	if(puc_idx != M_NO_ASSIGN)	○	○	○	-	-	-
	if(st_m_alarm[puc_idx].uc_peak_minus[luc_port])	○	-	-	-	-	-
	else	-	○	○	-	-	-
	else	-	-	-	○	○	-
	if(uc_m_alarm_peak_minus[luc_port])	-	-	-	○	-	-
	else	-	-	-	-	○	-
	else	-	-	-	-	-	○
	for(luc_i=luc_cnt; luc_i<M_LG_ALARM_DATA_SZ; luc_i++)	○	○	○	○	○	-
Symbol		Range					
Input	puc_idx	0x00,0xFF	0x00	0x00	0x00	0xFF	0xFF
	*puc_data	0x00,0xFF	0x00	0x00	0x00	0x00	0xFF
	st_m_ch_datas[luc_ch].uc_port	0x00,0xFF	0x00	0x00	0x00	0x00	0xFF
	st_m_gas_datas[luc_port].uc_invalid	0-2	1	0	0	0	2
	st_m_alarm[puc_idx].ul_peak_datas[luc_port]	0x00000000,0xFFFFFFFF	0x00000000	0xFFFFFFFF	0x00000000	0xFFFFFFFF	0xFFFFFFFF
	ul_m_alarm_peak_datas[luc_port]	0x00000000,0xFFFFFFFF	0x00000000	0xFFFFFFFF	0x00000000	0xFFFFFFFF	0xFFFFFFFF
	st_m_alarm[puc_idx].fl_temp_data	-55~86	-55	85	85	0	86
	fl_m_alarm_peak_temp_data	-55~86	0	0	0	-55	86
	st_m_alarm[puc_idx].uc_peak_minus[luc_port]	0-2	1	0	0	0	2
	uc_m_alarm_peak_minus[luc_port]	0-2	0	0	0	1	2
Output	luc_cnt	16	16	16	16	16	16
Judgment							

m_lg_alarm_trend_pad_write

	Responsible	Last update
Coding	Ikarashi	
Test	Taki	
Judgment	Ikarashi	

Infinite loop	None
Verification pass	3
Judgment	

		case1	case2	case3
Root	for(lui_i=0; lui_i<M_PAGE_SIZE - st_m_alarm[puc_idx].uc_trend_page_address; lui_i++) if(st_m_alarm[puc_idx].uc_fail == 0) if(luc_write_res != 0x00) else	○ ○ ○ -	○ - - ○	○ ○ - -
	Symbol	Range		
Input	puc_idx	0	0	0
	DataFlash_flash_write()	0	0	0
	m_lg_flash_write()	0.1	1	0
	uc_trend_page_address	0	0	0
	uc_head_page_ptr	0	0	0
	us_trend_cnt	0	0	0
	uc_fail	0.1	0	1
Output	uc_trend_page_address	0	0	0
	uc_fail	0.1	1	0
	uc_m_buffer	255	255	255
Judgment				

m_lg_alarm_trend_write

	Responsible	Last update
Coding	Ikarashi	
Test	Taki	
Judgment	Ikarashi	

Infinite loop	None
Verification pass	3
Judgment	

		case1	case2	case3
Root	if(st_m_alarm[puc_idx].uc_fail == 0) if(luc_write_res != 0x00) else	○ ○ -	- - ○	○ - -
	Symbol	Range		
Input	*ppuc_data	0	0	0
	puc_cnt	0	0	0
	puc_idx	0	0	0
	DataFlash_flash_write()	0	0	0
	m_lg_flash_write()	0.1	1	0
	uc_trend_page_address	0	0	0
	uc_head_page_ptr	0	0	0
	us_trend_cnt	0	0	0
	uc_fail	0.1	0	1
	uc_m_buffer	0	0	0
Output	uc_trend_page_address	0	0	0
	us_trend_cnt	1	1	1
	uc_fail	0.1	1	0
Judgment				

m_lg_bump_data

	Responsible	Last update
Coding	Ikarashi	
Test	Taki	
Judgment	Ikarashi	

Infinite loop	None
Verification pass	2
Judgment	

		case1	case2
Root	if(uc_m_same_calibration_time == 1)	○	-
	Symbol	Range	
Input	*ppuc_data	0	0
	puc_ch	0	0
	pul_bump_densit	0	0
	pul_test_densit	0	0
	puc_pass	0	0
	m_lg_concentration()	0	0
	m_ui2uc()	0	0
	uc_port	0	0
	uc_densit_minus_flg	0	1
	uc_m_same_calibration_time	1.2	1
Output	luc_cnt	7.9	7
	*ppuc_data	0	0
Judgment			

m_lg_calibration_data

	Responsible	Last update
Coding	Ikarashi	
Test	Taki	
Judgment	Ikarashi	

Infinite loop	None
Verification pass	3
Judgment	

		case1	case2	case3
Root	if(puc_pass == M_TRUE) else if(uc_m_same_calibration_time == 1)	○ - ○	- ○ ○	- ○ -
	Symbol	Range		
Input	*ppuc_data	0	0	0
	puc_ch	0	0	0
	pul_before	0	0	0
	pul_after	0	0	0
	puc_pass	1.2	1	2
	m_lg_concentration()	0	0	0
	m_ui2uc()	0	0	0
	uc_port	0	0	0
	uc_densit_minus_flg	0	0	0
	uc_m_same_calibration_time	1.2	1	2
Output	luc_cnt	7-9	9	7
Judgment				

m_lg_calibration_fit

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	4
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3	case4
Root	if(stp_DataLogger_addr->uc_calibration_cnt >= puc_cnt)	○	○	○	-
	for(lui_i=luc_cnt; lui_i>0; lui_i--)	○	○	○	-
	if(luc_write_res != 0x00)	○	-	-	-
	if(lui_i > 0)	○	-	-	-
	else	-	○	○	-
	Symbol	Range			
Input	puc_cnt	0.1	1	1	0
	DataFlash_flash_write()	0.1	1	0	0
	flash_read()	0	0	0	0
	uc_calibration_cnt	0.5	5	5	0
	uc_m_buffer	0	0	0	0
	uc_m_calibration_fail	0	0	0	0
	uc_m_calibration_sec_pnt	0	0	0	0
	ul_m_flash_erase_address	0	0	0	0
Output	uc_calibration_cnt	0.5	5	5	0
	uc_m_calibration_fail	0.1	1	1	0
	uc_m_calibration_sec_pnt	0.1	0	0	1
	ul_m_flash_erase_address	0.589824	589824	589824	0
Judgment					

m_lg_calibration_write

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	5
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3	case4	case5
Root	if(stp_DataLogger_addr->uc_calibration_cnt == M_LG_CALIBRATION_MAX)	○	-	-	-	-
	else	-	○	○	○	○
	if(uc_m_same_calibration_time == 1)	-	○	-	-	-
	else	-	-	○	○	○
	if(luc_write_res != 0x00)	-	-	-	○	-
	else	-	○	○	-	○
	if(uc_m_same_calibration_time == 1)	-	○	-	-	-
	if(uc_m_calibration_fail == 1)	-	○	○	-	-
	Symbol	Range				
Input	*ppuc_data	0	0	0	0	0
	puc_cnt	0	0	0	0	0
	DataFlash_flash_write()	0.1	0	0	1	0
	uc_calibration_cnt	254,255	255	254	254	254
	uc_m_calibration_fail	1	1	1	1	2
	uc_m_calibration_sec_pnt	0	0	0	0	0
	uc_m_last_calibration_writetime	0	0	0	0	0
	uc_m_max_same_calibration	0	0	0	0	0
	uc_m_now_time	0	0	0	0	0
	uc_m_same_calibration_time	1,2	1	1	2	2
	ul_m_calibration_last_address	0	0	0	0	0
	ul_m_flash_erase_address	0	0	0	0	0
Output	uc_calibration_cnt	254,255	255	255	254	254
	uc_m_calibration_fail	0-2	1	0	2	0
	uc_m_same_calibration_time	212	1	1	2	2
	ul_m_calibration_last_address	0.523776	0	523776	0	0
	ul_m_flash_erase_address	0.589824	0	589824	589824	0
Judgment						

m_lg_change_header

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	2
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2
Root	None	-	-
	Symbol	Range	
Input	puc_buf	0x00,0xFF	0x00
	puc_offset	0x00,0xFF	0x00
	uc_m_buffer[4]	0x00,0xFF	0x00
	uc_m_buffer[37]	0x00,0xFF	0x00
	uc_m_buffer[60]	0x00,0xFF	0x00
	uc_m_buffer[86]	0x00,0xFF	0x00
	uc_m_buffer[112]	0x00,0xFF	0x00
	uc_m_buffer[138]	0x00,0xFF	0x00
	uc_m_buffer[164]	0x00,0xFF	0x00
Output	uc_m_buffer[4]	0x00,0xFE	0x00
	uc_m_buffer[37]	0x00,0xFE	0x00
	uc_m_buffer[60]	0x00,0xFE	0x00
	uc_m_buffer[86]	0x00,0xFE	0x00
	uc_m_buffer[112]	0x00,0xFE	0x00
	uc_m_buffer[138]	0x00,0xFE	0x00
	uc_m_buffer[164]	0x00,0xFE	0x00
Judgment			

m_lg_chmap

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3
Root	for(lus_ch=0; lus_ch<M_MAX_CHANNEL; lus_ch++)	○	○	○
	for(lus_i = 0; lus_i<M_MAX_PORT; lus_i++)	○	-	-
	if((stp_m_sensor+lus_i)->uc_gas_comb != 0)	○	-	○
	else	-	○	-
	Symbol	Range		
Input	(stp_m_sensor+lus_i)->uc_gas_comb	0-30	29	0
Output	st_m_ch_data[st_m_ch]uc_port	0x00,0xFF	0x00	0xFF
Judgment				

m_lg_clear_alarm_work

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1
Root	for(lui_i=0; lui_i<M_LG_ALARM_WORK_SZ; lui_i++)	○
	Symbol	Range
Input	None	-
Output	uc_m_alarm_work[lui_i]	0xFF
Judgment		

m_lg_clear_wait

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1
Root	None	-
	Symbol	Range
Input	None	-
Output	st_datalogger_control.uc_state	0x00
	uc_m_wait_sts	0x00
Judgment		

m_lg_concentration

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	6
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3	case4	case5	case6
Root	if((pul_concentration == GASTABLEDATA_OFF_VAL) (pul_concentration == GASTABLEDATA_NA_VAL))	○	○	-	-	-	-
	if(pul_concentration == GASTABLEDATA_OFF_VAL)	○	-	-	-	-	-
	else	-	○	-	-	-	-
	else	-	-	○	○	-	-
	if(puc_minus == M_OFF)	-	-	○	○	-	-
	if((stp_m_sensor+puc_port)->ul_full_scale < pul_concentration)	-	-	○	-	-	-
	else	-	-	-	-	○	○
	if(((stp_m_sensor+puc_port)->ul_upper_limit / 10) < pul_concentration)	-	-	-	-	○	-
	Symbol	Range					
Input	pul_concentration	0x00000000-0xFFFFFFFF	0xDDDDDDDD	0xFFFFFFFF	0x000186A0	0x00000000	0x000186A0
	puc_port	0-6	0	1	2	3	5
	puc_minus	0-2	2	2	0	0	1
	m_lg_ppm2code	0	0	0	0	0	0
	ul_full_scale	0-100001	100001	100000	0	100000	0
	ul_digit	0-501	0	0	500	100	0
	ul_upper_limit	0-100001	100001	0	0	100000	0
Output	lus_ret	0-65278	56797	65278	0	0	0
Judgment							

m_lg_fatal

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1
Root	None	-
	Symbol	Range
Input	None	-
Output	st_datalogger_control.uc_state	0xBF
Judgment		

m_lg_flash_write

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	2
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	
Root	if(pul_flash_address >= ul_interval_trend_addr)	○	-	
	Symbol	Range		
Input	*sram_address	0x00,0xFF	0x00	0xFF
	pul_flash_address	0x00000000,0xFFFFFFFF	0xFFFFFFFF	0x00000000
	write_byte	0x0000,0xFFFF	0x0000	0xFFFF
	puc_idx	0x00,0xFF	0x00	0xFF
	DataFlash_flash_write()	0	0	0
	page_address	0x00,0xFF	0x00	0xFF
Output	luc_ret	0	0	0
Judgment				

m_lg_full

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1
Root	None	-
	Symbol	Range
Input	None	-
Output	st_datalogger_control.uc_state	0xBF
Judgment		

m_lg_full_check

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	4
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1	case2	case3	case4
Root	for(lul_i=0; lul_i<3; lul_i++)		○	○	○	○
	#(lus_pnt == (M_INTERVAL_PAGES - 1))		○	-	○	-
	#(stp_m_setting->uc_over_write == M_OFF)		○	-	-	-
	else		-	-	○	-
	else		-	○	○	○
	if((lus_pnt + 992) == lus_pst)		-	-	○	-
	Symbol	Range				
Input	own_sec	0x00~0xFF	0x00	0x3E	0x3E	0xFF
	us_interval_page_pnt	0x0000~0xFFFF	0x011F	0x0000	0x011D	0xFFFF
	uc_over_write	0~2	0	0	1	2
Output	None	-	-	-	-	-
Judgment						

m_lg_gas

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	4
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3	case4	
Root	if((stp_m_sensor+puc_port)->ul_1st_alarm != GASTABLEDATA_OFF_VAL)	○	○	-	○	
	else	-	-	○	-	
	if((stp_m_sensor+puc_port)->ul_2nd_alarm != GASTABLEDATA_OFF_VAL)	○	○	-	○	
	else	-	-	○	-	
	if((stp_m_sensor+puc_port)->ul_3rd_alarm != GASTABLEDATA_OFF_VAL)	○	○	-	○	
	else	-	-	○	-	
	if((stp_m_sensor+puc_port)->ul_stel_alarm != GASTABLEDATA_OFF_VAL)	○	○	-	○	
	else	-	-	○	-	
	if((stp_m_sensor+puc_port)->ul_twa_alarm != GASTABLEDATA_OFF_VAL)	○	○	-	○	
	else	-	-	○	-	
	if(puc_mode == 0x42)	○	-	-	-	
	else	-	○	○	○	
	if(stp_m_setting->uc_alarm_on != M_ON)	-	-	○	○	
	else	○	○	-	-	
	if(((puc_port != 2) && (puc_port != 3) && (puc_port != 4)) (stp_m_setting->uc_alarm_on != M_ON))	-	-	○	○	
else	○	○	-	-		
if(stp_m_setting->uc_alarm_on != M_ON)	-	-	○	○		
else	○	○	-	-		
Symbol	Symbol	Range				
	Range					
Input	puc_mode	0x00~0xFF	0x42	0x00	0x00	0xFF
	puc_port	0~6	0	4	5	6
	ppuc_buf	0x00~0xFF	0x00	0x00	0xFF	0xFF
	(stp_m_sensor+puc_port)->ul_1st_alarm	0~0xDDDDDDDD	0	1000	0xDDDDDDDD	1001
	(stp_m_sensor+puc_port)->ul_2nd_alarm	0~0xDDDDDDDD	0	25000	0xDDDDDDDD	25001
	(stp_m_sensor+puc_port)->ul_3rd_alarm	0~0xDDDDDDDD	0	50000	0xDDDDDDDD	50001
	(stp_m_sensor+puc_port)->ul_stel_alarm	0~0xDDDDDDDD	0	5000	0xDDDDDDDD	5001
	(stp_m_sensor+puc_port)->ul_twa_alarm	0~0xDDDDDDDD	0	2500	0xDDDDDDDD	2501
	stp_m_setting->uc_alarm_on	0~2	1	1	0	2
	ppuc_buf	-	Indefinite value	Indefinite value	Indefinite value	Indefinite value
Judgment						

m_lg_gas_invalid

	Responsible	Last update
Coding	Ikarashi	
Test	Taki	
Judgment	Ikarashi	

Infinite loop	None
Verification pass	2
Judgment	

			case1	case2
Root	for(lui_i=1; lui_i<19 ;lui_i++)		○	○
Input	Symbol	Range		
	puc_mode	0x00,0xFF	0x00	0xFF
	puc_port	0x00,0xFF	0x00	0xFF
	*ppuc_buf	0x00,0xFF	0x00	0xFF
Output	ppuc_buf	-	Indefinite value	Indefinite value
Judgment				

m_lg_gas_off

	Responsible	Last update
Coding	Ikarashi	
Test	Taki	
Judgment	Ikarashi	

Infinite loop	None
Verification pass	2
Judgment	

		case1	case2	
Root	for(lui_i=1; lui_i<5 ;lui_i++)	○	○	
	for(lui_i=5; lui_i<11 ;lui_i++)	○	○	
	for(lui_i=11; lui_i<13 ;lui_i++)	○	○	
	for(lui_i=13; lui_i<19 ;lui_i++)	○	○	
Symbol		Range		
Input	puc_mode	0x00,0xFF	0x00	0xFF
	puc_port	0x00,0xFF	0x00	0xFF
	*ppuc_buf	0x00,0xFF	0x00	0xFF
Output	ppuc_buf	-	Indefinite value	Indefinite value
Judgment				

m_lg_gas_result

	Responsible	Last update
Coding	Ikarashi	
Test	Taki	
Judgment	Ikarashi	

Infinite loop	None
Verification pass	3
Judgment	

		case1	case2	case3	
Root	if(ul_m_logger_count != 0)	○	-	-	
	else	-	○	○	
	if(puc_port == M_UNIT_OX)	-	○	-	
	else	-	-	○	
	for(lui_i=11; lui_i<19 ;lui_i++)	-	-	○	
	Symbol	Range			
Input	puc_mode	0x00,0xFF	0x00	0x00	0xFF
	puc_port	0x00~0xFF	0x00	0x01	0xFF
	*ppuc_buf	0x00,0xFF	0x00	0x00	0xFF
	ul_m_logger_count	0x00000000,0xFFFFFFFF	0xFFFFFFFF	0x00000000	0xFFFFFFFF
Output	ppuc_buf	-	Indefinite value	Indefinite value	Indefinite value
Judgment					

m_lg_get_snap_write

	Responsible	Last update
Coding	Ikarashi	
Test	Taki	
Judgment	Ikarashi	

Infinite loop	None
Verification pass	5
Judgment	

		case1	case2	case3	case4	case5
Root	if ((luc_ov == 0) ((luc_ov == 1) && (stp_DataLogger_addr->us_snap_write_pnt == 0x100)))	○	○	-	○	-
	else	-	-	○	-	○
	if (puc_pnt >= stp_DataLogger_addr->uc_snap_rec_pnt)	-	-	○	-	-
	else	-	-	-	-	○
	Symbol	Range				
Input	puc_pnt	0	0	0	0	0
	uc_snap_rec_pnt	0,1	0	0	1	1
	uc_snap_ext_flg	0~2	0	1	2	2
	us_snap_write_pnt	256,257	256	256	256	257
Output	lus_x	0~256	0	256	0	240
Judgment						

m_lg_header

	Responsible	Last update
Coding	Ikarashi	
Test	Taki	
Judgment	Ikarashi	

Infinite loop	None
Verification pass	4
Judgment	

			case1	case2	case3	case4
Root	if(puc_type == M_LG_ALARM_TREND)		○	-	-	-
	for(lui_i=luc_cnt; lui_i< M_PAGE_SIZE ; lui_i++)		○	-	-	-
	else		-	○	○	○
	do		-	○	○	○
	while((uc_m_interval_fail == 1) (uc_m_interval_fail == 2))		-	-	-	-
	Symbol	Range				
Input	puc_type	0~7	2	6	0	7
	uc_m_interval_fail	0,3	3	3	3	0
Output	uc_m_buffer[lui_i]	0xFF	0xFF	0xFF	0xFF	0xFF
Judgment						

m_lg_header_data

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	7
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3	case4	case5	case6	case7
Root	switch (puc_type)	○	○	○	○	○	○	○
	case M_LG_ALARM_TREND	○	-	-	-	-	-	-
	case M_LG_ALARM_EVENT	-	○	-	-	-	-	-
	case M_LG_TROUBLE_EVENT	-	-	○	-	-	-	-
	case M_LG_INTERVAL	-	-	-	○	-	-	-
	case M_LG_CALIBRATION	-	-	-	-	○	-	-
	case M_LG_BUMP	-	-	-	-	-	○	-
	default	-	-	-	-	-	-	○
	for(luc_ch=0; luc_ch<M_MAX_CHANNEL; luc_ch++)	○	○	○	○	○	○	○
	if(st_m_ch_data[st_m_ch].uc_port != M_NO_ASSIGN)	○	○	○	○	○	○	-
	else	-	-	-	-	-	-	○
	Symbol	Range						
Input	puc_type	0~7						
	*ppuc_data	0x00,0xFF	0x00	0x00	0x00	0x00	0x00	0xFF
	st_m_ch_data[st_m_ch].uc_port	0x00,0xFF	0x00	0x00	0x00	0x00	0x00	0xFF
Output	luc_cnt	153,181	181	181	181	181	181	153
Judgment								

m_lg_header_plus

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	2
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	
Root	for(luc_ch=0; luc_ch<M_MAX_CHANNEL; luc_ch++)	○	○	
	if(st_m_ch_data[luc_ch].uc_port != M_NO_ASSIGN)	○	-	
	else	-	○	
	Symbol	Range		
Input	*data	0x00,0xFF	0x00	0xFF
	st_m_ch_data[luc_ch].uc_port	0x00,0xFF	0x00	0xFF
Output	luc_cnt	6,8	8	6
Judgment				

m_lg_interval_check

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	5
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3	case4	case5
Root	if(lul_now_sec > ul_m_last_interval_checktime)	○	-	-	-	-
	if(lul_now_sec >= stp_m_setting->us_interval_time)	○	-	-	-	-
	for(lus_i=0; lus_i<M_MAX_PORT; lus_i++)	○	-	○	○	○
	if((((stp_m_denst+lus_i)->uc_state_trb & DataStrucConst_S_FAIL_SEN) != DataStrucConst_S_FAIL_SEN) && ((stp_m_denst+lus_i)->ul_denst != GASTABLEDATA_OFF_VAL))	○	-	○	○	○
	if(((stp_m_denst+lus_i)->uc_denst_minus_flg)	○	-	-	-	-
	else	○	-	○	○	○
	else	-	-	○	○	-
	else	-	-	-	-	-
	for(lus_i=0; lus_i<M_MAX_PORT; lus_i++)	-	-	-	-	-
	if((((stp_m_denst+lus_i)->uc_state_trb & DataStrucConst_S_FAIL_SEN) != DataStrucConst_S_FAIL_SEN) && ((stp_m_denst+lus_i)->ul_denst != GASTABLEDATA_OFF_VAL))	-	-	-	-	-
	if(((stp_m_denst+lus_i)->uc_denst_minus_flg)	-	-	-	-	-
	else	-	-	-	-	-
	Symbol	Range				
Input	m_lg_time_value	0.1	1	0	1	1
	fl_m_tick_temp_total	0	0	0	0	0
	fl_disp_temp	0	0	0	0	0
	ul_denst	3722304899, 3722304990	3722304990	3722304990	3722304989	3722304990
	uc_denst_minus_flg	0.1	1	1	1	0
	uc_state_trb	4,8	8	8	4	8
	us_interval_time	1	1	1	1	1
	uc_m_now_time	0	0	0	0	0
	ul_m_last_interval_checktime	0	0	0	0	0
	ul_m_tick_temp_count	0	0	0	0	0
	ul_m_tick_count[0]	0	0	0	0	0
	ul_m_tick_total[0]	0	0	0	0	0
Output	fl_m_tick_temp_total	0	0	0	0	0
	ul_m_last_interval_checktime	0.1	1	0	1	1
	ul_m_tick_temp_count	0.1	1	0	1	1
	ul_m_tick_count[0]	0.1	1	0	0	1
Output	ul_m_tick_total[0]	0,3722304990	0	0	0	3722304990
Judgment						

m_lg_interval_event

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	8
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3	case4	case5	case6	case7	case8
Root	if((st_dataLogger_control.uc_state & DATALOGGER_FULL) != DATALOGGER_FULL) && ((st_dataLogger_control.uc_state & DATALOGGER_WAIT) != DATALOGGER_WAIT))	O	-	O	-	O	O	O	O
	for(lui_i=0; lui_i<M_MAX_CHANNEL; lui_i++)	O	-	O	-	O	O	O	O
	if(st_m_ch_data[lui_i].uc_count != 0)	O	-	O	-	O	O	O	O
	if(lui_i<M_MAX_CHANNEL)	O	-	O	-	-	-	-	-
	do	O	-	O	-	O	O	O	O
	while((uc_m_interval_fail == 1) (uc_m_interval_fail == 2))	-	-	-	-	-	-	-	-
	Symbol	Range							
Input	puc_event	0x00	0x00	0x00	0x00	0x00	0x00	0x00	0x00
	puc_ch	0	0	0	0	0	0	0	0
	m_lg_interval_event_data()	0	0	0	0	0	0	0	0
	ul_temp_write_time	0	0	0	0	0	0	0	0
	m_lg_time_value()	0	0	0	0	0	0	0	0
	uc_count	0.1	1	1	1	1	0	0	0
	uc_m_buffer	1	1	1	1	1	1	1	1
	uc_m_interval_fail	0~4	3	3	3	3	0	3	4
	uc_m_now_time	1	1	1	1	1	1	1	1
	ul_m_last_interval_checktime	0	0	0	0	0	0	0	0
	uc_state	0~128	4	2	128	64	4	4	4
Output	None	-	-	-	-	-	-	-	-
Judgment									

m_lg_interval_event_check

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3
Root	if(m_comp_pnt(stp_m_setting->uc_st_id, uc_m_last_station, 16) != M_TRUE)	O	-	-
	else	-	O	O
	Symbol	Range		
Input	m_comp_pnt(stp_m_setting->uc_st_id, uc_m_last_station, 16)	0.1	0	1
Output	None	-	-	-
Judgment				

m_lg_interval_event_data

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3
Root	if(uc_m_interval_flag == M_FALSE)	O	-	-
	else	-	O	O
	if(puc_event == M_LG_EV_STATION)	O	-	-
	else	-	O	O
	Symbol	Range		
Input	*puc_data	0x00,0xFF	0x00	0xFF
	puc_event	0x00~0xFF	0x3C	0x00
	puc_ch	0~6	0	5
	pul_sec	0x0000,0xFFFF	0x0000	0xFFFF
	uc_m_interval_flag	0~2	0	1
				2
Output	luc_cnt	4~22	22	4
Judgment				

m_lg_interval_next

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	5
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3	case4	case5
Root	if(stp_DataLogger_addr->us_interval_page_pnt == (M_INTERVAL_PAGES - 1))	O	O	-	-	-
	if(stp_m_setting->uc_over_write == M_OFF)	O	-	-	-	-
	else	-	O	-	-	-
	else	-	-	O	O	O
	if((st_dataLogger_control.uc_state & DATALOGGER_FULL) != DATALOGGER_FULL)	O	O	O	O	-
	if(stp_DataLogger_addr->us_interval_page_pnt == (M_INTERVAL_PAGES - 1))	O	-	O	-	-
	if(stp_m_setting->uc_over_write != M_OFF)	-	-	O	-	-
	else	O	-	-	-	-
	else	-	O	-	O	-
	else	-	-	-	-	O
	Symbol	Range				
Input	stp_DataLogger_addr->us_interval_page_pnt	0x0000~0xFFFF	0x011F	0x011F	0x011E	0x0000
	stp_m_setting->uc_over_write	0~2	0	1	1	0
	st_dataLogger_control.uc_state	0x00,0xFF	0x00	0x00	0x00	0xFF
Output	stp_DataLogger_addr->us_interval_page_pnt	0~287	287	0	287	1
	stp_DataLogger_addr->uc_over_write	0.1	0	1	0	0
Judgment						

m_lg_interval_pad_write

	Responsible	Last update
Coding	Ikarashi	
Test	Taki	
Judgment	Ikarashi	

Infinite loop	None
Verification pass	4
Judgment	

		case1	case2	case3	case4
Root	if(pus_cnt > lui_remain)	○	○	○	-
	if((st_datatlogger_control.uc_state & DATALOGGER_FULL) != DATALOGGER_FULL)	○	○	-	-
	if(ul_m_flash_pending_erase_address != M_FLASH_SIZE)	○	-	-	-
	else	-	○	-	-
	else	-	-	○	-
	else	-	-	-	○
	Symbol	Range			
Input	*ppuc_data	0x00,0xFF	0x00	0x00	0x00
	pus_cnt	0x0000,0xFFFF	0xFFFF	0xFFFF	0xFFFF
	stp_DataLogger_addr->uc_interval_page_address	0x00,0xFF	0xFF	0xFF	0xFF
	st_datatlogger_control.uc_state	0x00,0xFF	0x00	0x00	0xFF
	ul_m_flash_pending_erase_address	0x00000000-0xFFFFFFFF	0x00000000	0x00100000	0xFFFFFFFF
Output	ul_m_flash_erase_address	0	0	0	0
	ul_m_flash_pending_erase_address	0x00100000,0xFFFFFFFF	0x00100000	0x00100000	0xFFFFFFFF
	stp_DataLogger_addr->uc_interval_page_address	0x00,0xFF	0x00	0xFF	0xFF
Judgment					

m_lg_interval_trend

	Responsible	Last update
Coding	Ikarashi	
Test	Taki	
Judgment	Ikarashi	

Infinite loop	None
Verification pass	3
Judgment	

		case1	case2	case3
Root	if(puc_ch == 5)	-	○	-
	else	○	-	○
	do	○	○	○
	while((uc_m_interval_fail == 1) (uc_m_interval_fail == 2))	-	-	-
	Symbol	Range		
Input	puc_ch	0-6	5	6
	uc_m_interval_fail	0-4	4	3
Output	None	-	-	-
Judgment				

m_lg_interval_trend_data

	Responsible	Last update
Coding	Ikarashi	
Test	Taki	
Judgment	Ikarashi	

Infinite loop	None
Verification pass	3
Judgment	

		case1	case2	case3
Root	if(uc_m_interval_flag == M_FALSE)	○	-	-
	else	-	○	-
	if((st_m_gas_datas[luc_port].uc_invalid == M_TRUE) (st_m_ch_datas[puc_ch].ul_concentration == GASTABLEDATA_OFF_VAL))	○	-	-
	else if(st_m_gas_datas[luc_port].uc_onoff == M_OFF)	-	○	-
	else	-	-	○
	Symbol	Range		
Input	*ppuc_data	0x00,0xFF	0x00	0x00
	puc_ch	0-6	5	6
	uc_m_interval_flag	0-2	0	2
	st_m_gas_datas[luc_port].uc_invalid	0-3	1	3
	st_m_ch_datas[puc_ch].ul_concentration	0x00000000-0xFFFFFFFF	0xDDDDDDDD	0x00000000
	st_m_gas_datas[luc_port].uc_onoff	0-2	1	2
	luc_cnt	4,6	6	4
Judgment				

m_lg_interval_trend_temp

	Responsible	Last update
Coding	Ikarashi	
Test	Taki	
Judgment	Ikarashi	

Infinite loop	None
Verification pass	3
Judgment	

		case1	case2	case3
Root	if(sl_temp_data < 0)	-	○	-
	else	○	-	○
	if(uc_m_interval_flag == M_FALSE)	○	-	-
	else	-	○	○
	if(sl_temp_data == GASTABLEDATA_OFF_VAL)	-	-	○
	else	○	○	-
	Symbol	Range		
Input	*ppuc_data	0x00,0xFF	0x00	0x00
	sl_temp_data	0x00000000-0xFFFFFFFF	0x00000000	0xFFFFFFFF
	uc_m_interval_flag	0-2	0	2
Output	luc_cnt	4,6	6	4
Judgment				

m_lg_interval_write

	Responsible	Last update
Coding	Ikarashi	
Test	Taki	
Judgment	Ikarashi	

Infinite loop	None
Verification pass	6
Judgment	

		case1	case2	case3	case4	case5	case6
Root	if ((st_datalogger_control.uc_state & DATALOGGER_FULL) != DATALOGGER_FULL)	○	○	○	-	-	-
	if ((U_SHORT)luc_pnt + pus_cnt == (U_SHORT)M_PAGE_SIZE)	○	-	-	-	-	-
	else	-	○	○	-	-	-
	if (luc_write_res != 0x00)	○	○	-	-	-	-
	if (uc_m_interval_fail > 2)	○	-	-	-	-	-
	else	-	-	○	-	-	-
	if (uc_m_interval_fail == 0)	-	-	-	○	○	○
	if ((st_datalogger_control.uc_state & DATALOGGER_RUN) == DATALOGGER_RUN)	-	-	-	○	○	○
	if (puc_ch < M_MAX_CHANNEL)	-	-	-	○	-	-
	else if (puc_ch == M_MAX_CHANNEL)	-	-	-	-	○	○
	else if (uc_m_interval_fail > 0)	○	○	-	-	-	-
	if (ul_m_flash_pending_erase_address != M_FLASH_SIZE)	○	-	○	-	-	-
Input	Symbol	Range					
	ppuc_data	0x00,0xFF					
	pus_cnt	0x0001~0x0101					
	puc_ch	0,4					
	st_datalogger_control.uc_state	0x00,0xFF					
	stp_DataLogger_addr->uc_interval_page_address	0x00,0xFF					
	m_lg_flash_write()	0~2					
	uc_m_interval_fail	0~2					
	us_ineterval_page_pnt	0					
	ul_m_flash_erase_address	0					
	ul_m_last_interval_checktime	0					
	ul_m_flash_pending_erase_address	0x00000000~0xFFFFFFFF					
		0x00000000	0x00100000	0xFFFFFFFF	0x00100000	0x00100000	0x00100000
Output	stp_DataLogger_addr->uc_interval_page_address	0x00~0xFF					
	uc_m_interval_fail	0~3					
	ul_temp_write_time	0x00000000					
	ul_m_flash_erase_address	0x00000000~0xFFFFFFFF					
	ul_write_time	0					
	uc_m_interval_flg	0,1					
	ul_m_flash_pending_erase_address	0x00100000					
		0x00100000	0x00100000	0x00100000	0x00100000	0x00100000	0x00100000
Judgment							

m_lg_now_time

	Responsible	Last update
Coding	Ikarashi	
Test	Taki	
Judgment	Ikarashi	

Infinite loop	None
Verification pass	1
Judgment	

		case1
Root	None	-
Symbol	Range	
Input	None	-
Output	None	-
Judgment		

m_lg_power_event_data

	Responsible	Last update
Coding	Ikarashi	
Test	Taki	
Judgment	Ikarashi	

Infinite loop	None
Verification pass	2
Judgment	

		case1	case2
Root	None	-	-
Symbol	Range		
Input	*ppuc_data	0x00~0xFF	0x00
	puc_power	0x00~0xFF	0x00
Output	luc_cnt	32	32
	uc_m_power_cnt	2	2
Judgment			

m_lg_power_event_fit

	Responsible	Last update
Coding	Ikarashi	
Test	Taki	
Judgment	Ikarashi	

Infinite loop	None
Verification pass	3
Judgment	

		case1	case2	case3
Root	if(stp_DataLogger_addr->uc_power_cnt >= puc_cnt)	○	○	-
	for(lui_i=luc_cnt; lui_i>0; lui_i--)	○	○	-
	if(luc_write_res != 0x00)	○	-	-
	else	-	○	-
	if(lui_i > 0)	○	-	-
	else	-	○	-
	else	-	-	○
Input	Symbol	Range		
	puc_cnt	0x00,0xFF		
	stp_DataLogger_addr->uc_power_cnt	0x00,0xFF		
Output	DataFlash_flash_write(uc_m_buffer,lui_address, M_PAGE_SIZE, FALSE)	0~2		
	ul_m_flash_erase_address	32768		
	stp_DataLogger_addr->uc_power_cnt	0x00~0xFF		
Judgment	uc_m_power_sec_pnt	0,1		

m_lg_power_event_write

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	4
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3	case4
Root	if(stp_DataLogger_addr->uc_power_cnt == M_LG_POWER_MAX)	○	-	-	-
	else	-	○	○	○
	if(luc_write_res != 0x00)	-	○	-	-
	else	-	-	○	○
	if(uc_m_power_fail == 1)	-	-	○	-
	else	-	-	-	○
	Symbol	Range			
Input	*ppuc_data	0x00~0xFF	0x00	0x00	0xFF
	pus_cnt	0x0000~0xFFFF	0x0000	0x0000	0xFFFF
	stp_DataLogger_addr->uc_power_cnt	0x00~0xFF	0x80	0x00	0xFF
	DataFlash_flash_write(ppuc_data, lul_address, pul_cnt, FALSE)	0,1	2	1	0
	uc_m_power_fail	0~2	3	2	1
Output	uc_m_power_fail	0~3	3	0	0
Judgment					

m_lg_ppm2code

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case2
Root	if(pfl_concentration > 50000)	○	-	○
	else	-	○	-
	Symbol	Range		
Input	pfl_concentration	0~50001	50000	0
Output	lul_ret	0~53248	50000	0
Judgment				

m_lg_remain

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	5
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3	case4	case5
Root	if(stp_DataLogger_addr->us_interval_page_pnt < (M_INTERVAL_PAGES-1))	○	-	-	-	-
	else if(stp_m_setting->uc_over_write == M_OFF)	-	○	-	-	-
	else	-	-	○	○	○
	if((st_datalogger_control.uc_state & DATALOGGER_OVERWRITE) != DATALOGGER_OVERWRITE)	-	-	○	○	-
	if(uc_m_interval_own_sec != (U_CHR)(ul_interval_trend_addr / M_PAGE_SIZE / 16))	-	-	○	-	-
	else	-	-	-	○	-
	else	-	-	-	-	○
	Symbol	Range				
Input	stp_DataLogger_addr->us_interval_page_pnt	0x0000,0xFFFF	0x0000	0xFFFF	0xFFFF	0xFFFF
	stp_m_setting->uc_over_write	0~2	1	0	1	2
	st_datalogger_control.uc_state	0x00,0xFF	0x00	0x00	0x00	0xFF
	uc_m_interval_own_sec	0x00~0xFF	0x00	0x00	0x00	0x3E
	st_datalogger_control.ul_dlog_time	0,60	60	0	60	0
Output						
Judgment						

m_lg_round

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3
Root	if((stp_m_denst+puc_port)->ul_digit != 0)	-	○	○
	else	○	-	-
	Symbol	Range		
Input	pul_dat	0x00000000~0xFFFFFFFF	0x00000000	0xFFFFFFFF
	puc_port	0~6	0	5
	(stp_m_denst+puc_port)->ul_digit	0~501	0	500
Output	pul_dat	0x00000000,0xFFFFFFFF	0x00000000	0xFFFFFFFF
Judgment				

m_lg_set_error

	Responsible	Last update
Coding	Ikarashi	
Test	Taki	
Judgment	Ikarashi	

Infinite loop	None
Verification pass	5
Judgment	

		case1	case2	case3	case4	case5
Root	if(!((st_dataLogger_control.uc_error_record & (DATALOGGER_ER_FLASH_ERASE DATALOGGER_ER_FLASH_WRITE)))	○	○	○	○	-
	if(((stp_m_status->us_main_state & luc_er) != luc_er) && ((us_m_last_main_state & luc_er) != luc_er) && ((puc_err == DATALOGGER_ER_FLASH_ERASE) (puc_err == DATALOGGER_ER_FLASH_WRITE)))	○	○	○	-	-
	if((st_dataLogger_control.uc_state & DATALOGGER_CLEAR) != DATALOGGER_CLEAR)	○	○	-	-	-
	if((puc_err == DATALOGGER_ER_FLASH_WRITE) ((stp_DataLogger_addr->uc_over_write == 1) (puc_kbn != M_KBN_INTERVAL)))	○	-	-	-	-
	else	-	○	-	-	-
	else	-	-	○	-	-
	else	-	-	-	○	-
	else	-	-	-	-	○
	Symbol	Range				
Input	puc_err	0x00~0xFF	0x08	0x04	0x04	0x00
	puc_kbn	1~9	1	1	1	9
	st_dataLogger_control.uc_error_record	0x00~0xFF	0x00	0x00	0x00	0x00
	stp_m_status->us_main_state	0x0000~0xFFFF	0x0000	0x0000	0x00	0x40
	us_m_last_main_state	0x0000~0xFFFF	0x0000	0x0000	0x00	0x40
	st_dataLogger_control.uc_state	0x00~0xFF	0x00	0x00	0x04	0x00
	stp_DataLogger_addr->uc_over_write	0,1	1	0	0	2
Output	uc_m_error_kbn	1,9	1	1	1	9
	us_m_last_main_state	0x00~0xFF	0x00	0x00	0x40	0x40
	stp_m_status->us_main_state	0x00~0xFF	0x00	0x00	0x40	0x40
	st_dataLogger_control.uc_error_state	0x00~0xFF	0x08	0x0C	0x0C	0x0C
	st_dataLogger_control.uc_error_record	0x00~0xFF	0x08	0x04	0x04	0x00
Judgment						

m_lg_setting_data

	Responsible	Last update
Coding	Ikarashi	
Test	Taki	
Judgment	Ikarashi	

Infinite loop	None
Verification pass	2
Judgment	

		case1	case2
Root	for(luc_i=0; luc_i<M_MAX_PORT; luc_i++)	○	○
	Symbol	Range	
Input	*ppuc_data	0x00,0xFF	0xFF
Output	luc_cnt	222	222
Judgment			

m_lg_setting_fit

	Responsible	Last update
Coding	Ikarashi	
Test	Taki	
Judgment	Ikarashi	

Infinite loop	None
Verification pass	3
Judgment	

		case1	case2	case3
Root	if(stp_DataLogger_addr->uc_setting_cnt >= puc_cnt)	○	○	-
	for(lui_i=luc_cnt; lui_i>0; lui_i--)	○	○	-
	if(luc_write_res != 0x00)	○	-	-
	else	-	○	-
	if(lui_i > 0)	-	○	-
	else	○	-	-
	else	-	-	○
	Symbol	Range		
Input	puc_cnt	0x00,0xFF	0x00	0xFF
	stp_DataLogger_addr->uc_setting_cnt	0x00,0xFF	0xFF	0xFF
	DataFlash_flash_write(uc_m_buffer, lui_address, M_PAGE_SIZE, FALSE)	0~2	1	0
Output	ul_m_flash_erase_address	0x88000	0x88000	0x88000
	stp_DataLogger_addr->uc_setting_cnt	0x00~0xFF	0xFF	0x64
	uc_m_setting_sec_pnt	0,1	0	1
Judgment				

m_lg_setting_memory

	Responsible	Last update
Coding	Ikarashi	
Test	Taki	
Judgment	Ikarashi	

Infinite loop	None
Verification pass	1
Judgment	

			case1
Root	for(luc_i=0; luc_i<M_MAX_PORT; luc_i++)		○
Input	Symbol	Range	
	uc_gas_comb	0	0
	uc_sub_comb	0	0
	uc_uni_dec	0	0
	ul_1st_alarm	0	0
	ul_2nd_alarm	0	0
	ul_3rd_alarm	0	0
	ul_stel_alarm	0	0
	ul_twa_alarm	0	0
	ul_cal_denst	0	0
	uc_cal_group	0	0
	uc_suppress_onoff	0	0
	uc_follower_onoff	0	0
	uc_notice_date	0	0
	uc_chg_sen_date	0	0
	uc_sep_no	0	0
	uc_exp_flg	0	0
	us_back_light_time	0	0
	uc_auto_back_light	0	0
	uc_date_format	0	0
	uc_lcd_invert	0	0
	uc_lcd_back_ground	0	0
	uc_lcd_contrast	0	0
	uc_disp_suppress_val	0	0
	uc_disp_zero_flg	0	0
	uc_long_energy_flg	0	0
	uc_margin_disp_onoff	0	0
	uc_ir_unit	0	0
	uc_ir_air_onoff	0	0
	uc_up_cal_flg	0	0
	uc_alarm_pattern	0	0
	uc_1h_alarm_on	0	0
	uc_alarm_on	0	0
	uc_stealth_on	0	0
	uc_stealth_motor_on	0	0
	uc_buzz_volume	0	0
	uc_beep_select	0	0
	uc_beep_time	0	0
	uc_disp_pump_off	0	0
	uc_alarm_silence	0	0
	uc_leak_buzzer_onoff	0	0
	uc_leak_ts_dp	0	0
	uc_leak_mode_flg	0	0
	us_cal_lmt_day	0	0
	uc_cal_lmt_set	0	0
	uc_cal_lmt_chk	0	0
	uc_cal_lmt_gas	0	0
	us_bump_lmt_day	0	0
	uc_bump_lmt_set	0	0
	uc_bump_lmt_chk	0	0
	uc_bump_lmt_gas	0	0
	uc_chg_batt_date	0	0
	uc_mainte_notice_onoff	0	0
	uc_mainte_lmt_chk	0	0
	uc_mainte_notice_gas	0	0
	us_mainte_notice_day	0	0
	uc_bump_time	0	0
	uc_bump_limit	0	0
	uc_bump_cal_time	0	0
	uc_bump_cal_flg	0	0
	uc_ble_onoff	0	0
	uc_id_disp_onoff	0	0
	uc_lunch_onoff	0	0
	uc_key_tone_onoff	0	0
	uc_disp_setting_item_onoff	0	0
	uc_auto_zero_onoff	0	0
	uc_demand_zero_onoff	0	0
	uc_user_pass_onoff	0	0
	uc_mainte_pass_onoff	0	0
	us_user_pass_num	0	0
	us_mainte_pass_num	0	0
	uc_protect_pword_onoff	0	0
	us_interval_time	0	0
	uc_over_write	0	0

Output	uc_gas_comb	0	0
	uc_sub_comb	0	0
	uc_uni_dec	0	0
	ul_1st_alarm	0	0
	ul_2nd_alarm	0	0
	ul_3rd_alarm	0	0
	ul_stel_alarm	0	0
	ul_twa_alarm	0	0
	ul_cal_denst	0	0
	uc_cal_group	0	0
	uc_suppress_onoff	0	0
	uc_follower_onoff	0	0
	uc_notice_date	0	0
	uc_chg_sen_date	0	0
	uc_sep_no	0	0
	uc_exp_flg	0	0
	us_back_light_time	0	0
	uc_auto_back_light	0	0
	uc_date_format	0	0
	uc_lcd_invert	0	0
	uc_lcd_back_ground	0	0
	uc_lcd_contrast	0	0
	uc_disp_suppress_val	0	0
	uc_disp_zero_flg	0	0
	uc_long_energy_flg	0	0
	uc_margin_disp_onoff	0	0
	uc_ir_unit	0	0
	uc_ir_air_onoff	0	0
	uc_up_cal_flg	0	0
	uc_alarm_pattern	0	0
	uc_1h_alarm_on	0	0
	uc_alarm_on	0	0
	uc_stealth_on	0	0
	uc_stealth_motor_on	0	0
	uc_buzz_volume	0	0
	uc_beep_select	0	0
	uc_beep_time	0	0
	uc_disp_pump_off	0	0
	uc_alarm_silence	0	0
	uc_leak_buzzer_onoff	0	0
	uc_leak_fs_dp	0	0
	uc_leak_mode_flg	0	0
	us_cal_lmt_day	0	0
	uc_cal_lmt_set	0	0
	uc_cal_lmt_chk	0	0
	uc_cal_lmt_gas	0	0
	us_bump_lmt_day	0	0
	uc_bump_lmt_set	0	0
	uc_bump_lmt_chk	0	0
	uc_bump_lmt_gas	0	0
	uc_chg_batt_date	0	0
	uc_mainte_notice_onoff	0	0
	uc_mainte_lmt_chk	0	0
	uc_mainte_notice_gas	0	0
	us_mainte_notice_day	0	0
	uc_bump_time	0	0
	uc_bump_limit	0	0
	uc_bump_cal_time	0	0
	uc_bump_cal_flg	0	0
	uc_ble_onoff	0	0
	uc_id_disp_onoff	0	0
	uc_lunch_onoff	0	0
	uc_key_tone_onoff	0	0
	uc_disp_setting_item_onoff	0	0
	uc_auto_zero_onoff	0	0
	uc_demand_zero_onoff	0	0
	uc_user_pass_onoff	0	0
	uc_mainte_pass_onoff	0	0
	us_user_pass_num	0	0
	us_mainte_pass_num	0	0
	uc_protect_pword_onoff	0	0
	us_interval_time	0	0
	uc_over_write	0	0
Judgment			

m_lg_setting_write

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	4
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3	case4	
Root	if(stp_DataLogger_addr->uc_setting_cnt == M_LG_SETTING_MAX)	○	-	-	-	
	else	-	○	○	○	
	if(luc_write_res != 0x00)	-	○	-	-	
	else	-	-	○	○	
	if(uc_m_setting_fail == 1)	-	-	○	-	
	else	-	-	-	○	
Symbol		Range				
Input	*ppuc_data	0x00,0xFF	0x00	0x00	0x00	0xFF
	pus_cnt	0x0000,0xFFFF	0x0000	0x0000	0x0000	0xFFFF
	stp_DataLogger_addr->uc_setting_cnt	0x00~0xFF	0x80	0x00	0x00	0xFF
	DataFlash_flash_write(ppuc_data, lul_address, M_PAGE_SIZE, FALSE)	0~2	2	1	0	0
	uc_m_setting_fail	0~2	2	0	1	0
Output	ul_m_flash_erase_address	0x0000000~0x00088000	0x00000000	0x00000000	0x88000	0x88000
	uc_m_setting_fail	0~2	2	1	0	0
Judgment						

m_lg_snap_data

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	9
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3	case4	case5	case6	case7	case8	case9
Root	if(puc_ch == 0)	○	-	○	○	○	○	○	○	○
	if(luc_port != M_NO_ASSIGN)	○	○	-	○	○	○	○	○	○
	if((st_m_gas_data[st_m_gas_data[luc_port].uc_invalid == M_TRUE] ((st_m_densit+luc_port)->ul_densit == GASTABLEDATA_OFF_VAL))	-	-	-	-	-	-	-	-	-
	else if((st_m_gas_data[st_m_gas_data[luc_port].uc_onoff == M_OFF] && ((st_dataLogger_control.uc_measure_mode == 0x00) (st_dataLogger_control.uc_measure_mode == 0x03)))	○	○	-	○	○	○	-	○	-
	else	-	-	-	-	-	-	○	-	○
	else	-	-	○	-	-	-	-	-	-
Symbol		Range								
Input	*ppuc_data	0	0	0	0	0	0	0	0	0
	puc_ch	0,1	0	1	0	0	0	0	0	0
	m_lg_concentrator()	0	0	0	0	0	0	0	0	0
	m_ui2uc()	0	0	0	0	0	0	0	0	0
	uc_port	254,255	254	254	255	254	254	254	254	254
	uc_onoff	0,1	0	0	0	0	0	1	0	0
	uc_invalid	1,2	2	2	2	1	1	2	2	2
	ul_densit	0x00000000,0x0000000E	0x0000000E	0x0000000E	0x0000000E	0x00000000	0x0000000E	0x0000000E	0x0000000E	0x0000000E
	uc_densit_minus_flg	0	0	0	0	0	0	0	0	0
	uc_alarm_lat	0	0	0	0	0	0	0	0	0
	st_dataLogger_control.uc_measure_mode	0~4	0	0	0	0	0	1	3	4
Output	inc_cnt	3,5	5	3	5	5	5	5	5	5
	*ppuc_data	0	0	0	0	0	0	0	0	0
Judgment										

m_lg_snap_write

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	4
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3	case4
Root	if(lus_pnt >= M_LG_SNAP_REC_MAX)	○	-	○	○
	else	-	○	-	-
	if(luc_write_res != 0x00)	-	-	○	-
	else	○	○	-	○
	if(stp_DataLogger_addr->uc_snap_rec_pnt == 0)	○	○	-	-
Symbol		Range			
Input	*pucp_data	0	0	0	0
	pui_cnt	0	0	0	0
	DataFlash_flash_write()	0,1	0	1	0
	m_ui2uc()	0	0	0	0
	uc_snap_rec_pnt	0,255	255	255	255
	uc_snap_ext_flg	0	0	0	0
	uc_snap_write_pnt	256	256	256	256
	uc_m_now_time	0	0	0	0
	uc_m_snap_fail	0	0	0	0
Output	uc_snap_rec_pnt	0~255	0	0	255
	uc_snap_ext_flg	0,1	1	1	0
	uc_snap_write_pnt	256,257	257	256	257
	uc_m_buffer	0,255	0	0	255
	uc_m_snap_fail	0,1	0	0	1
Judgment					

m_lg_stop_interval

	Responsible	Last update
Coding	Ikarashi	
Test	Taki	
Judgment	Ikarashi	

Infinite loop	None
Verification pass	7
Judgment	

		case1	case2	case3	case4	case5	case6	case7
Root	if(luc_step == 0)	○	-	-	-	-	-	-
	else	-	○	○	○	○	○	○
	if(luc_step == 1)	○	○	○	-	-	-	-
	if(ul_m_flash_erase_address != M_FLASH_SIZE)	○	○	-	-	-	-	-
	if(luc_sts == 0x00)	○	-	-	-	-	-	-
	else	-	○	-	-	-	-	-
	else	-	-	○	-	-	-	-
	else	-	-	-	○	○	○	○
	if(luc_step == 2)	○	-	○	-	-	-	-
	if((st_datatlogger_control.uc_measure_mode == 0x00) (st_datatlogger_control.uc_measure_mode == 0x03))	○	-	-	-	-	-	-
	else	-	-	○	-	-	-	-
	else	-	○	-	○	○	○	○
	if(luc_step == 3)	○	-	○	○	-	-	-
	if(ul_m_flash_erase_address != M_FLASH_SIZE)	○	-	-	○	-	-	-
	if(luc_sts == 0x00)	○	-	-	-	-	-	-
	else	-	-	-	○	-	-	-
	else	-	-	○	-	-	-	-
	else	-	○	-	-	○	○	○
	if(luc_step == 4)	○	-	○	-	-	-	-
	else	-	○	-	○	○	○	○
	if(luc_step == 5)	○	-	○	-	○	-	-
	if(ul_m_flash_erase_address != M_FLASH_SIZE)	○	-	-	-	○	-	-
	if(luc_sts == 0x00)	○	-	-	-	-	-	-
	else	-	-	-	-	○	-	-
	else	-	-	○	-	-	-	-
	else	-	○	-	○	-	○	○
Symbol		Range						
Input	luc_step	0-15	0	1	1	3	5	14
	ul_m_flash_erase_address	0x00000000,0xFFFFFFFF	0x00000000	0xFFFFFFFF	0x00100000	0x00000000	0x00000000	0xFFFFFFFF
	m_flash_status()	0-2	0	1	0	1	1	2
	st_datatlogger_control.uc_measure_mode	0x00-0xFF	0x00	0x00	0xFF	0xFF	0xFF	0xFF
	st_datatlogger_control.uc_measure_mode	0x00-0xFF	0x00	0x00	0xFF	0xFF	0xFF	0xFF
Output	luc_step	0-15	0	1	0	3	5	14
Judgment								

m_lg_trailer

	Responsible	Last update
Coding	Ikarashi	
Test	Taki	
Judgment	Ikarashi	

Infinite loop	None
Verification pass	3
Judgment	

		case1	case2	case3
Root	do	○	○	○
	while((uc_m_interval_fail == 1) (uc_m_interval_fail == 2))	-	○	-
Symbol		Range		
Input	puc_type	0-7	0	6
	uc_m_interval_fail	0-4	0	4
Output	None	-	-	-
Judgment				

m_lg_trailer_data

	Responsible	Last update
Coding	Ikarashi	
Test	Taki	
Judgment	Ikarashi	

Infinite loop	None
Verification pass	4
Judgment	

		case1	case2	case3	case4
Root	if(puc_type == M_LG_BARHOLE)	○	-	-	-
	else	-	○	○	○
	for(luc_ch=0; luc_ch<M_MAX_CHANNEL; luc_ch++)	○	○	○	○
	if(st_m_ch_datas[luc_ch].uc_port != M_NO_ASSIGN)	○	-	-	-
	if(st_m_gas_datas[luc_ij].uc_invalid == M_TRUE)	○	-	-	-
	else if(st_m_gas_datas[luc_ij].uc_onoff == M_OFF)	-	○	-	-
	else	-	-	○	-
	else	-	-	-	○
Symbol		Range			
Input	*ppuc_data	0x00-0xFF	0x00	0x00	0xFF
	puc_type	0-7	1	0	6
	st_m_ch_datas[luc_ch].uc_port	0x00,0xFF	0x00	0x00	0xFF
	st_m_gas_datas[luc_ij].uc_invalid	0-2	1	0	2
	st_m_gas_datas[luc_ij].uc_onoff	0-2	1	0	2
	st_m_gas_datas[luc_ij].uc_onoff	0-2	1	0	2
Output	luc_cnt	71,91	91	91	71
Judgment					

m_lg_trend_check

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	6
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3	case4	case5	case6
Root	for(luc_ch=0; luc_ch<M_MAX_CHANNEL; luc_ch++)	○	○	○	○	○	○
	if(st_m_ch_datas[luc_ch].uc_port != M_NO_ASSIGN)	○	○	○	○	○	-
	if(ui_m_tick_count[lui_i] > 0)	○	-	-	○	○	-
	else	-	○	○	-	-	-
	if((puc_force == M_FALSE) && ((st_m_gas_datas[lui_i].uc_invalid == M_TRUE) (st_m_gas_datas[lui_i].uc_onoff == M_OFF) (st_m_ch_datas[luc_ch].uc_count == 0) ((lui_dat == st_m_ch_datas[luc_ch].ui_concentration))))	-	○	○	-	-	-
	if((lui_now_sec >= us_m_auto_sec) (st_m_ch_datas[luc_ch].uc_count == M_AUTO_LIMIT_COUNT))	-	○	-	-	-	-
	else	-	-	○	-	-	-
	else	○	-	-	○	○	-
	if(st_m_ch_datas[luc_ch].uc_count != 0)	○	-	-	○	-	-
	else	-	-	-	-	○	-
	if((puc_force == M_FALSE) && (lui_dat != st_m_ch_datas[luc_ch].ui_concentration))	-	-	-	-	-	-
	else	○	-	-	○	○	-
	else	-	-	-	-	-	○
	if(ui_m_tick_temp_count > 0)	○	-	-	○	○	-
	else	-	○	○	-	-	○
	if((puc_force == M_FALSE) && ((uc_temp_count == 0) ((sl_data == sl_temp_data))))	-	○	○	-	-	-
	if((lui_now_sec >= us_m_auto_sec) (uc_temp_count == M_AUTO_LIMIT_COUNT))	-	○	-	-	-	-
	else	-	-	○	-	-	-
	else	○	-	-	○	○	○
	if(uc_temp_count != 0)	○	-	-	○	-	-
	else	-	-	-	-	○	○
	if((puc_force == M_FALSE) && (sl_data != sl_temp_data))	-	-	-	-	-	○
	else	○	-	-	○	○	-
Input	Symbol	Range					
	puc_force	0~2	1	0	0	0	1
	st_m_ch_datas[luc_ch].uc_port	0x00,0xFF	0x00	0x00	0x00	0x00	0xFF
	ui_m_tick_count[lui_i]	0x00000000~0xFFFFFFFF	0xFFFFFFFF	0x00000000	0xFFFFFFFF	0xFFFFFFFF	0x00000000
	st_m_gas_datas[lui_i].uc_invalid	0~2	1	1	0	0	2
	st_m_gas_datas[lui_i].uc_onoff	0~2	1	0	1	1	2
	st_m_ch_datas[luc_ch].uc_count	0~180	180	179	0	180	0
	m_lg_time_value(luc_m_now_time)	0~3126988800	0	3126988799	0	0	3126988800
	st_m_ch_datas[luc_ch].ui_write_time	0x00000000,0xFFFFFFFF	0xFFFFFFFF	0xFFFFFFFF	0xFFFFFFFF	0xFFFFFFFF	0x00000000
	us_m_auto_sec	0x0000,0xFFFF	0xFFFF	0x000	0xFFFF	0xFFFF	0xFFFF
	st_m_ch_datas[luc_ch].ui_concentration	0x00000000~0xFFFFFFFF	0xFFFFFFFF	0xDDDDDDDD	0xDDDDDDDD	0xDDDDDDDD	0x00000000
	ui_m_tick_temp_count	0x00000000~0xFFFFFFFF	0xFFFFFFFF	0x00000000	0x00000000	0xFFFFFFFF	0x00000000
	uc_temp_count	0~180	180	179	0	180	0
	sl_temp_data	0x00000000~0xFFFFFFFF	0xFFFFFFFF	0xDDDDDDDD	0xDDDDDDDD	0xFFFFFFFF	0x00000000
Output	Symbol	Range					
	st_m_ch_datas[luc_ch].ui_concentration	0x00000000~0xFFFFFFFF	0xFFFFFFFF	0xDDDDDDDD	0xDDDDDDDD	0x00000000	0xDDDDDDDD
	sl_temp_data	-572662307~0	-1	-572662307	-572662307	0	-1
	uc_temp_count	0~181	0	0	1	0	181
Judgment							

m_lg_trend_keep_going

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3
Root	if(us_m_alarm_work_pnt == M_LG_ALARM_WORK_SZ)	-	○	-
	Symbol	Range		
Input	us_m_alarm_work_pnt	0x0000~0xFFFF	0x0000	0x12BD
Output	us_m_alarm_work_pnt	0~13	13	0
Judgment				

m_lg_trouble_event

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	4
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3	case4
Root	do	○	○	○	○
	if(luc_crit>0)	○	○	○	○
	for(lus_i=0; lus_i<M_PAGE_SIZE-luc_crit; lus_i++)	○	-	-	○
	while(uc_m_trouble_event_fail == 1)	-	-	-	-
	if(uc_m_trouble_event_fail > 1)	-	-	○	○
Input	Symbol	Range			
	m_lg_header_data(uc_m_buffer, M_LG_TROUBLE_EVENT)	0x00~0xFF	0xFF	0x00	0xFF
	puc_event	0x00~0xFF	0x00	0x00	0xFF
	puc_ch	0~5	0	5	6
	uc_m_trouble_event_fail	0~2	0	0	2
Output	uc_m_same_trouble_time	1	1	1	1
	uc_m_max_same_trouble	0x7F	0x7F	0x7F	0x7F
	uc_m_buffer[luc_crit+lus_i]	0	0	0	0
Judgment					

m_lg_trouble_event_data

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	6
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1	case2	case3	case4	case5	case6
Root	if(uc_m_same_trouble_time == 1)		○	-	○	○	○	○
	for(luc_i=0; luc_i<3; luc_i++)		○	○	○	○	○	○
	switch (puc_ch)		○	○	○	○	○	○
	case M_UNIT_OX		○	○	-	-	-	-
	case M_UNIT_H2S		-	-	○	-	-	-
	case M_UNIT_CO		-	-	-	○	-	-
	case M_UNIT_EC		-	-	-	-	○	-
	default		-	-	-	-	-	○
	Symbol	Range						
Input	puc_ch	1~5	1	1	2	3	4	5
	Ad12bit_Get_Ad_Data()	0	0	0	0	0	0	0
	m_u2uc()	0	0	0	0	0	0	0
	PumpFlow_Get_PumpFailPressValue()	0	0	0	0	0	0	0
	PumpFlow_Get_PumpOffPressValue()	0	0	0	0	0	0	0
	fl_nc_ad_data[0][0][2]	0	0	0	0	0	0	0
	fl_nc_ad_data[0][1][2]	0	0	0	0	0	0	0
	fl_ec_ad_data[0]	0	0	0	0	0	0	0
	fl_ec_ad_data[1]	0	0	0	0	0	0	0
	fl_ec_ad_data[2]	0	0	0	0	0	0	0
	fl_ec_chk_data[0]	0	0	0	0	0	0	0
	fl_ec_chk_data[1]	0	0	0	0	0	0	0
	fl_ec_chk_data[2]	0	0	0	0	0	0	0
	fl_temp_data	0	0	0	0	0	0	0
	uc_state_error_code[0]	1~6	1	2	4	5	5	6
	uc_m_same_trouble_time	1,2	1	2	1	1	1	1
Output	luc_cnt	55~63	59	57	63	63	55	55
	*ppuc_data	0	0	0	0	0	0	0
Judgment								

m_lg_trouble_event_fit

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1	case2	case3
Root	if(stp_DataLogger_addr->uc_trouble_cnt >= puc_cnt)		○	○	-
	for(lui_i=luc_cnt; lui_i>0; lui_i--)		○	○	-
	if(luc_write_res != 0x00)		○	-	-
	else		-	○	-
	if(lui_i > 0)else		○	-	-
	else		-	○	-
	else		-	-	○
			-	-	○
	Symbol	Range			
Input	puc_cnt	0x00,0xFF	0x00	0xFF	0xFF
	stp_DataLogger_addr->uc_trouble_cnt	0x00,0xFF	0xFF	0xFF	0x00
	uc_m_trouble_sec_pnt	0,2	0	0	2
	DataFlash_flash_write(uc_m_buffer, lui_address, M_PAGE_SIZE, FALSE)	0~2	1	0	2
Output	ul_m_flash_erase_address	0x00068000	0x00068000	0x00068000	0x00068000
	stp_DataLogger_addr->uc_trouble_cnt	0x00~0xFF	0xFF	0x64	0x00
	uc_m_trouble_sec_pnt	0~2	0	1	2
Judgment					

m_lg_trouble_event_write

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	4
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1	case2	case3	case4
Root	if(stp_DataLogger_addr->uc_trouble_cnt == M_LG_TROUBLE_EVENT_MAX)		○	-	-	-
	else		-	○	○	-
	if(uc_m_same_trouble_time == 1)		-	○	○	-
	else		-	-	-	-
	if(luc_write_res != 0x00)		-	○	-	-
	else		-	-	○	-
	if(uc_m_same_trouble_time == 1)		-	-	○	-
	else		-	-	-	○
	if(uc_m_trouble_event_fail == 1)		-	-	○	-
	else		-	-	-	○
	Symbol	Range				
Input	*ppuc_data	0x00,0xFF	0x00	0x00	0xFF	0xFF
	pui_cnt	0x00,0xFF	0x00	0x00	0xFF	0xFF
	stp_DataLogger_addr->uc_trouble_cnt	0x00,0xFF	0x80	0x00	0xFF	0xFF
	uc_m_same_trouble_time	0x00,0x01	0x00	0x01	0x01	0x00
	uc_m_trouble_event_fail	0~3	3	0	1	2
	DataFlash_flash_write(ppuc_data, lui_address, M_PAGE_SIZE, FALSE)	0~2	2	1	0	0
	uc_m_max_same_trouble	0x00,0xFF	0x00	0x00	0x0FF	0xFF
Output	uc_m_same_trouble_time	0,1	0	0	1	0
	ul_m_trouble_last_address	0x00000000~0x000700FE	0x00000000	0x00000000	0x0006FFFF	0x000700FE
	ul_m_flash_erase_address	0x00000000,0x00068000	0x00000000	0x00000000	0x00068000	0x00068000
	uc_m_trouble_event_fail	0~3	3	1	0	0
Judgment						

m_lg_unset_error

	Responsible	Last update
Coding	Ikarashi	
Test	Taki	
Judgment	Ikarashi	

Infinite loop	None
Verification pass	2
Judgment	

		case1	case2
Root	None	-	-
	Symbol	Range	
Input	puc_err	0x00,0xFF	0x00 0xFF
Output	st_datalogger_control.uc_error_state	0x00,0xFF	0xFF 0x00
Judgment			

m_lg_wait

	Responsible	Last update
Coding	Ikarashi	
Test	Taki	
Judgment	Ikarashi	

Infinite loop	None
Verification pass	2
Judgment	

		case1	case2
Root	None	-	-
	Symbol	Range	
Input	puc_sts	0x00,0xFF	0x00 0xFF
Output	uc_m_wait_sts	0x00,0xFF	0x00 0xFF
	st_datalogger_control.uc_state	0xFF	0xFF
Judgment			

m_ui2uc

	Responsible	Last update
Coding	Ikarashi	
Test	Taki	
Judgment	Ikarashi	

Infinite loop	None
Verification pass	3
Judgment	

		case1	case2	case3
Root	if(puc_order != M_BIG)	O	-	O
	else	-	O	-
	Symbol	Range		
Input	puc_val	0x0000,0xFFFF	0x0000 0x0000	0xFFFF
	*ppuc_val	0x0000,0xFFFF	0x0000 0x0000	0xFFFF
	puc_order	0~2	1 0	2
Output	ppuc_val	-	Indefinite value	Indefinite value
Judgment				

m_lg_day

	Responsible	Last update
Coding	Ikarashi	
Test	Taki	
Judgment	Ikarashi	

Infinite loop	None
Verification pass	3
Judgment	

		case1	case2	case3
Root	if((!(sc_bc0 < 0) (sc_bc0 > 99))	O	-	O
	else	-	O	-
	if((!(sc_bc1 <= 0) (sc_bc1 > 12))	O	-	O
	else	-	O	-
	if((!(sc_bc2 <= 0) (sc_bc2 > 31))	O	-	O
	else	-	O	-
	for(i=1; k= (sc_bc1 - 1) ;i++)	O	-	-
	switch (i)	O	-	-
	case 1	O	-	-
	case 3	O	-	-
	case 5	O	-	-
	case 7	O	-	-
	case 8	O	-	-
	case 10	O	-	-
	case 12	O	-	-
	case 2	O	-	-
	default	O	-	-
	if((sc_bc0>0)	O	-	-
	for(i=1; k= (sc_bc0 - 1) ;i++)	O	-	-
	else	-	O	O
	Symbol	Range		
Input	puc_bc[0]	0~100	99 100	0
	puc_bc[1]	1~13	12 13	1
	puc_bc[2]	1~32	31 32	1
Output	lu_day	0,36134	36134 0	0
Judgment				

m_lg_DiffTime

	Responsible	Last update
Coding	Ikarashi	
Test	Taki	
Judgment	Ikarashi	

Infinite loop	None
Verification pass	3
Judgment	

		case1	case2	case3	
Root	if(((lsl_day * 86400 + lsl_sec) < lsl_max) && ((lsl_day * 86400 + lsl_sec) > lsl_min))	○	-	-	
	else if(((lsl_day * 86400 + lsl_sec) > lsl_max)	-	-	○	
	else	-	○	-	
	Symbol	Range			
Input	*pucp_ac	0x00,0xFF	0x00	0x00	0xFF
	*pucp_bc	0x00,0xFF	0xFF	0xFF	0x00
Output	lsl_ret	0	0	0	
Judgment					

m_lg_info_write

	Responsible	Last update
Coding	Ikarashi	
Test	Taki	
Judgment	Ikarashi	

Infinite loop	None
Verification pass	3
Judgment	

		case1	case2	case3	
Root	if(stp_DataLogger_addr->uc_power_cnt == M_LG_POWER_MAX)	○	-	-	
	else	-	○	○	
	if(stp_DataLogger_addr->uc_power_cnt != 0)	-	-	○	
	else	-	○	-	
	if(uc_m_power_cnt > (luc_in_page_max-1))	-	○	-	
	else	-	-	○	
	for(lui_i=0; lui_i<M_DEBUG_REC_SZ-puc_cnt; lui_i++)	-	-	○	
	Symbol	Range			
Input	*ppuc_data	0x00,0xFF	0x00	0x00	0xFF
	puc_cnt	0x00,0xFF	0xFF	0x00	0x00
	stp_DataLogger_addr->uc_power_cnt	0x00~0xFF	0x80	0x00	0xFF
	uc_m_power_cnt	0x00,0xFF	0xFF	0xFF	0x00
Output	uc_m_power_cnt	0x01,0xFF	0xFF	0xFF	0x01
Judgment					

m_lg_time

	Responsible	Last update
Coding	Ikarashi	
Test	Taki	
Judgment	Ikarashi	

Infinite loop	None
Verification pass	3
Judgment	

			case1	case2	case3
Root	None		-	-	-
	Symbol	Range			
Input	puc_bc[5]	0-60	0	59	60
	puc_bc[4]	0-60	0	59	60
	puc_bc[3]	0-24	0	23	24
	lul_sec + lul_mins + lul_hours	0-90060	0	86399	90060
Output					
Judgment					

m_lg_time_value

	Responsible	Last update
Coding	Ikarashi	
Test	Taki	
Judgment	Ikarashi	

Infinite loop	None
Verification pass	3
Judgment	

		case1	case2	case3	
Root	None	-	-	-	
	Symbol	Range			
Input	puc_bc	0~86400	0	86399	86400
Output	m_lg_day(puc_bc) * (U_LNG)86400 + m_lg_time(puc_bc)	0	0	0	0
Judgment					

Data owner confirm

	Responsible	Last update
Coding	Ikarashi	
Test	Taki	
Judgment	Ikarashi	

[illegible]

DataLogger_power_off

	Responsible	Last update
Coding	Ikarashi	
Test	Taki	
Judgment	Ikarashi	

[illegible]

m_initialize

	Responsible	Last update
Coding	Ikarashi	
Test	Taki	
Judgment	Ikarashi	

Root	cs000		cs001		cs002		cs003		cs004		cs005		cs006		cs007		cs008		cs009		
if (cs_m_datalogger == M_DATALOGGER_FATAL) == M_DATALOGGER_FATAL		0		0		0		0		0		0		0		0		0		0	
if (cs_m_m == M_ZERO)		0		0		0		0		0		0		0		0		0		0	
if (cs_m_datalogger == cs_m_internal_data_address + 1)		0		0		0		0		0		0		0		0		0		0	
if (cs_m_datalogger == 0)		0		0		0		0		0		0		0		0		0		0	
if (cs_m_datalogger == M_ALARM_00) == M_ALARM_00		0		0		0		0		0		0		0		0		0		0	
if (cs_m_datalogger == M_ALARM_01) == M_ALARM_01		0		0		0		0		0		0		0		0		0		0	
if (cs_m_datalogger == M_ALARM_02) == M_ALARM_02		0		0		0		0		0		0		0		0		0		0	
if (cs_m_datalogger == M_ALARM_03) == M_ALARM_03		0		0		0		0		0		0		0		0		0		0	
if (cs_m_datalogger == M_ALARM_04) == M_ALARM_04		0		0		0		0		0		0		0		0		0		0	
if (cs_m_datalogger == M_ALARM_05) == M_ALARM_05		0		0		0		0		0		0		0		0		0		0	
if (cs_m_datalogger == M_ALARM_06) == M_ALARM_06		0		0		0		0		0		0		0		0		0		0	
if (cs_m_datalogger == M_ALARM_07) == M_ALARM_07		0		0		0		0		0		0		0		0		0		0	
if (cs_m_datalogger == M_ALARM_08) == M_ALARM_08		0		0		0		0		0		0		0		0		0		0	
if (cs_m_datalogger == M_ALARM_09) == M_ALARM_09		0		0		0		0		0		0		0		0		0		0	
if (cs_m_datalogger == M_ALARM_10) == M_ALARM_10		0		0		0		0		0		0		0		0		0		0	
if (cs_m_datalogger == M_ALARM_11) == M_ALARM_11		0		0		0		0		0		0		0		0		0		0	
if (cs_m_datalogger == M_ALARM_12) == M_ALARM_12		0		0		0		0		0		0		0		0		0		0	
if (cs_m_datalogger == M_ALARM_13) == M_ALARM_13		0		0		0		0		0		0		0		0		0		0	
if (cs_m_datalogger == M_ALARM_14) == M_ALARM_14		0		0		0		0		0		0		0		0		0		0	
if (cs_m_datalogger == M_ALARM_15) == M_ALARM_15		0		0		0		0		0		0		0		0		0		0	
if (cs_m_datalogger == M_ALARM_16) == M_ALARM_16		0		0		0		0		0		0		0		0		0		0	
if (cs_m_datalogger == M_ALARM_17) == M_ALARM_17		0		0		0		0		0		0		0		0		0		0	
if (cs_m_datalogger == M_ALARM_18) == M_ALARM_18		0		0		0		0		0		0		0		0		0		0	
if (cs_m_datalogger == M_ALARM_19) == M_ALARM_19		0		0		0		0		0		0		0		0		0		0	
if (cs_m_datalogger == M_ALARM_20) == M_ALARM_20		0		0		0		0		0		0		0		0		0		0	
if (cs_m_datalogger == M_ALARM_21) == M_ALARM_21		0		0		0		0		0		0		0		0		0		0	
if (cs_m_datalogger == M_ALARM_22) == M_ALARM_22		0		0		0		0		0		0		0		0		0		0	
if (cs_m_datalogger == M_ALARM_23) == M_ALARM_23		0		0		0		0		0		0		0		0		0		0	
if (cs_m_datalogger == M_ALARM_24) == M_ALARM_24		0		0		0		0		0		0		0		0		0		0	
if (cs_m_datalogger == M_ALARM_25) == M_ALARM_25		0		0		0		0		0		0		0		0		0		0	
if (cs_m_datalogger == M_ALARM_26) == M_ALARM_26		0		0		0		0		0		0		0		0		0		0	
if (cs_m_datalogger == M_ALARM_27) == M_ALARM_27		0		0		0		0		0		0		0		0		0		0	
if (cs_m_datalogger == M_ALARM_28) == M_ALARM_28		0		0		0		0		0		0		0		0		0		0	
if (cs_m_datalogger == M_ALARM_29) == M_ALARM_29		0		0		0		0		0		0		0		0		0		0	
if (cs_m_datalogger == M_ALARM_30) == M_ALARM_30		0		0		0		0		0		0		0		0		0		0	
if (cs_m_datalogger == M_ALARM_31) == M_ALARM_31		0		0		0		0		0		0		0		0		0		0	
if (cs_m_datalogger == M_ALARM_32) == M_ALARM_32		0		0		0		0		0		0		0		0		0		0	
if (cs_m_datalogger == M_ALARM_33) == M_ALARM_33		0		0		0		0		0		0		0		0		0		0	
if (cs_m_datalogger == M_ALARM_34) == M_ALARM_34		0		0		0		0		0		0		0		0		0		0	
if (cs_m_datalogger == M_ALARM_35) == M_ALARM_35		0		0		0		0		0		0		0		0		0		0	
if (cs_m_datalogger == M_ALARM_36) == M_ALARM_36		0		0		0		0		0		0		0		0		0		0	
if (cs_m_datalogger == M_ALARM_37) == M_ALARM_37		0		0		0		0		0		0		0		0		0		0	
if (cs_m_datalogger == M_ALARM_38) == M_ALARM_38		0		0		0		0		0		0		0		0		0		0	
if (cs_m_datalogger == M_ALARM_39) == M_ALARM_39		0		0		0		0		0		0		0		0		0		0	
if (cs_m_datalogger == M_ALARM_40) == M_ALARM_40		0		0		0		0		0		0		0		0		0		0	
if (cs_m_datalogger == M_ALARM_41) == M_ALARM_41		0		0		0		0		0		0		0		0		0		0	
if (cs_m_datalogger == M_ALARM_42) == M_ALARM_42		0		0		0		0		0		0		0		0		0		0	
if (cs_m_datalogger == M_ALARM_43) == M_ALARM_43		0		0		0		0		0		0		0		0		0		0	
if (cs_m_datalogger == M_ALARM_44) == M_ALARM_44		0		0		0		0		0		0		0		0		0		0	
if (cs_m_datalogger == M_ALARM_45) == M_ALARM_45		0		0		0		0		0		0		0		0		0		0	
if (cs_m_datalogger == M_ALARM_46) == M_ALARM_46		0		0		0		0		0		0		0		0		0		0	
if (cs_m_datalogger == M_ALARM_47) == M_ALARM_47		0		0		0		0		0		0		0		0		0		0	
if (cs_m_datalogger == M_ALARM_48) == M_ALARM_48		0		0		0		0		0		0		0		0		0		0	
if (cs_m_datalogger == M_ALARM_49) == M_ALARM_49		0		0		0		0		0		0		0		0		0		0	
if (cs_m_datalogger == M_ALARM_50) == M_ALARM_50		0		0		0		0		0		0		0		0		0		0	
if (cs_m_datalogger == M_ALARM_51) == M_ALARM_51		0		0		0		0		0		0		0		0		0		0	
if (cs_m_datalogger == M_ALARM_52) == M_ALARM_52		0		0		0		0		0		0		0		0		0		0	
if (cs_m_datalogger == M_ALARM_53) == M_ALARM_53		0		0		0		0		0		0		0		0		0		0	
if (cs_m_datalogger == M_ALARM_54) == M_ALARM_54		0		0		0		0		0		0		0		0		0		0	
if (cs_m_datalogger == M_ALARM_55) == M_ALARM_55		0		0		0		0		0		0		0		0		0		0	
if (cs_m_datalogger == M_ALARM_56) == M_ALARM_56		0		0		0		0		0		0		0		0		0		0	
if (cs_m_datalogger == M_ALARM_57) == M_ALARM_57		0		0		0		0		0		0		0		0		0		0	
if (cs_m_datalogger == M_ALARM_58) == M_ALARM_58		0		0		0		0		0		0		0		0		0		0	
if (cs_m_datalogger == M_ALARM_59) == M_ALARM_59		0		0		0		0		0		0		0		0		0		0	
if (cs_m_datalogger == M_ALARM_60) == M_ALARM_60		0		0		0		0		0		0		0		0		0		0	
if (cs_m_datalogger == M_ALARM_61) == M_ALARM_61		0		0		0		0		0		0		0		0		0		0	
if (cs_m_datalogger == M_ALARM_62) == M_ALARM_62		0		0		0		0		0		0		0		0		0		0	
if (cs_m_datalogger == M_ALARM_63) == M_ALARM_63		0		0		0		0		0		0		0		0		0		0	
if (cs_m_datalogger == M_ALARM_64) == M_ALARM_64		0		0		0		0		0		0		0		0		0		0	
if (cs_m_datalogger == M_ALARM_65) == M_ALARM_65		0		0		0		0		0		0		0		0		0		0	
if (cs_m_datalogger == M_ALARM_66) == M_ALARM_66		0		0		0		0		0		0		0		0		0		0	
if (cs_m_datalogger == M_ALARM_67) == M_ALARM_67		0		0		0		0		0		0		0		0		0		0	
if (cs_m_datalogger == M_ALARM_68) == M_ALARM_68		0		0		0		0		0		0		0		0		0		0	
if (cs_m_datalogger == M_ALARM_69) == M_ALARM_69		0		0		0		0		0		0		0		0		0		0	
if (cs_m_datalogger == M_ALARM_70) == M_ALARM_70		0		0		0		0		0		0		0		0		0		0	
if (cs_m_datalogger == M_ALARM_71) == M_ALARM_71		0		0		0		0		0		0		0		0		0		0	
if (cs_m_datalogger == M_ALARM_72) == M_ALARM_72		0		0		0		0		0		0		0		0		0		0	
if (cs_m_datalogger == M_ALARM_73) == M_ALARM_73		0		0		0		0		0		0		0		0		0		0	
if (cs_m_datalogger == M_ALARM_74) == M_ALARM_74		0		0		0		0		0		0		0		0		0		0	
if (cs_m_datalogger == M_ALARM_75) == M_ALARM_75		0		0		0		0		0		0		0		0		0		0	
if (cs_m_datalogger == M_ALARM_76) == M_ALARM_76		0		0		0		0		0		0		0		0		0		0	
if (cs_m_datalogger == M_ALARM_77) == M_ALARM_77		0		0		0		0		0		0		0		0		0		0	
if (cs_m_datalogger == M_ALARM_78) == M_ALARM_78		0		0		0		0		0		0		0		0		0		0	
if (cs_m_datalogger == M_ALARM_79) == M_ALARM_79		0		0		0		0		0		0		0		0		0		0	
if (cs_m_datalogger == M_ALARM_80) == M_ALARM_80		0		0		0		0		0		0		0		0		0		0	
if (cs_m_datalogger == M_ALARM_81) == M_ALARM_81		0		0		0		0		0		0		0		0		0		0	
if (cs_m_datalogger == M_ALARM_82) == M_ALARM_82		0		0		0		0		0		0		0		0		0		0	
if (cs_m_datalogger == M_ALARM_83) == M_ALARM_83		0		0		0		0		0		0		0		0		0		0	
if (cs_m_datalogger == M_ALARM_84) == M_ALARM_84		0		0		0		0		0		0		0		0		0		0	
if (cs_m_datalogger == M_ALARM_85) == M_ALARM_85		0		0		0		0		0		0		0		0		0		0	
if (cs_m_datalogger == M_ALARM_86) == M_ALARM_86		0		0		0		0		0		0		0		0		0		0	
if (cs_m_datalogger == M_ALARM_87) == M_ALARM_87		0		0		0		0		0		0		0		0		0		0	
if (cs_m_datalogger == M_ALARM_88) == M_ALARM_88		0		0		0		0		0		0		0		0		0		0	
if (cs_m_datalogger == M_ALARM_89) == M_ALARM_89		0		0		0		0		0		0		0		0		0		0	
if (cs_m_datalogger == M_ALARM_90) == M_ALARM_90		0		0		0		0		0		0		0		0		0		0	
if (cs_m_datalogger == M_ALARM_91) == M_ALARM_91		0		0		0		0		0		0		0		0		0		0	
if (cs_m_datalogger == M_ALARM_92) == M_ALARM_92		0		0		0		0		0		0		0		0		0		0	
if (cs_m_datalogger == M_ALARM_93) == M_ALARM_93		0		0		0		0		0		0		0		0		0		0	
if (cs_m_datalogger == M_ALARM_94) == M_ALARM_94		0		0		0		0		0		0		0		0		0		0	
if (cs_m_datalogger == M_ALARM_95) == M_ALARM_95		0		0		0		0		0		0		0		0		0		0	
if (cs_m_datalogger == M_ALARM_96) == M_ALARM_96		0		0		0		0		0		0		0		0		0		0	
if (cs_m_datalogger == M_ALARM_97) == M_ALARM_97		0		0		0															

```
m_lg_alarm_event_check
```

	Responsible	Last update
Coding	Ikarashi	
Test	Taki	
Judgment	Ikarashi	

[illegible]

m_lg_trouble_event_check

	Responsible	Last update
Coding	Ikarashi	
Test	Taki	
Judgment	Ikarashi	

[illegible]

m flash_sector_erase

	Responsible	Last update
Coding	Ikarashi	
Test	Taki	
Deployment	Ikarashi	

[illegible]

Unit Test Specification

Project name	GX-Force
File name	data_struct_const.c

Data_Detector_Init_EepAddress

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1
Root	None		-
	Symbol	Range	
Input	None	-	-
Output	None	-	-
Judgment			

Data_Detector_Set_DataAddress

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1
Root	None		-
	Symbol	Range	
Input	None	-	-
Output	None	-	-
Judgment			

Data_Detector_Set_Default

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1
Root	for(lul_j=0; lul_j<sizeof(Detector_Default); lul_j++)		○
	Symbol	Range	
Input	None	-	-
Output	None	-	-
Judgment			

DataStructConst_def_DenstData

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1
Root	for(luc_i=0; luc_i<HDEF_GAS_MAX; luc_i++)		○
	for(luc_j=0; luc_j<M_DATE_SIZE; luc_j++)		○
	for(luc_j=0; luc_j<15; luc_j++)		○
	Symbol	Range	
Input	None	-	-
Output	DENST_DATA[luc_i].ul_m_denst	0	0
	DENST_DATA[luc_i].ul_denst	0	0
	DENST_DATA[luc_i].uc_m_over_flg	0	0
	DENST_DATA[luc_i].uc_over_flg	0	0
	DENST_DATA[luc_i].uc_m_denst_minus_flg	0	0
	DENST_DATA[luc_i].uc_denst_minus_flg	0	0
	DENST_DATA[luc_i].fl_span_fix	0	0
	DENST_DATA[luc_i].fl_span_max[0]	0	0
	DENST_DATA[luc_i].fl_span_max[1]	0	0
	DENST_DATA[luc_i].fl_span_min[0]	0	0
	DENST_DATA[luc_i].fl_span_min[1]	0	0
	DENST_DATA[luc_i].fl_air_max	0	0
	DENST_DATA[luc_i].fl_air_min	0	0
	DENST_DATA[luc_i].fl_zero[0]	0	0
	DENST_DATA[luc_i].fl_zero[1]	0	0
	DENST_DATA[luc_i].uc_uni_dec	0	0
	DENST_DATA[luc_i].uc_state_alm	0	0
	DENST_DATA[luc_i].uc_state_trb	0	0
	DENST_DATA[luc_i].uc_alarm_lat	0	0
	DENST_DATA[luc_i].ul_pmin	0	0
	DENST_DATA[luc_i].ul_pmax	0	0
	DENST_DATA[luc_i].uc_pmin_tim[luc_j]	0	0
	DENST_DATA[luc_i].uc_pmax_tim[luc_j]	0	0
	DENST_DATA[luc_i].ul_60_ave	0	0
	DENST_DATA[luc_i].ul_60_total	0	0
	DENST_DATA[luc_i].ul_60_cnt	0	0
	DENST_DATA[luc_i].ul_ave	0	0
	DENST_DATA[luc_i].ul_ave_60_cnt	0	0
	DENST_DATA[luc_i].ul_ave_total_cnt	0	0
	DENST_DATA[luc_i].ul_stel_point	0	0
	DENST_DATA[luc_i].ul_stel_buff[luc_j]	0	0
	DENST_DATA[luc_i].ul_stel	0	0
	DENST_DATA[luc_i].ul_twa	0	0
Judgment			

DataSetConst_DefaultStd

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1
Root	for(luc_i = 0U; luc_i < HDDEF_STATION_ID_NUM; luc_i++)	○
	Symbol	Range
Input	None	-
Output	None	-
Judgment		

DataSetConst_DefaultUserId

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1
Root	for(luc_i = 0U; luc_i < HDDEF_USER_ID_NUM; luc_i++)	○
	Symbol	Range
Input	None	-
Output	None	-
Judgment		

DataSetConst_Set_DenstDataAddress

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1
Root	None	-
	Symbol	Range
Input	None	-
Output	None	-
Judgment		

DataStructConst_Set_FramGasSpec

	Responsible	Last update
Coding	Ikarashi	
Test	Taki	
Judgment	Ikarashi	

Infinite loop	None
Verification pass	4
Judgment	

			case1	case2	case3
Root	if(puc_ch == 0 puc_ch == 1)		○	-	-
	else if(puc_ch == 2 puc_ch == 3)		-	○	-
	else		-	-	○
	Symbol	Range			
Input	puc_ch	0~4	0	2	4
	puc_num	0~29	0	1	29
Output	stp_GasCalc_addr->GAS_DATA[puc_ch].uc_gas_comb	0~29	0	1	29
	stp_GasCalc_addr->GAS_DATA[puc_ch].uc_sub_comb	0~29	0	1	29
	stp_GasCalc_addr->GAS_DATA[puc_ch].ul_full_scale	0~2000	100	2000	0
	stp_GasCalc_addr->GAS_DATA[puc_ch].ul_digit	0,1	1	1	0
	stp_GasCalc_addr->GAS_DATA[puc_ch].uc_uni_dec	0,33	0	33	0
	stp_GasCalc_addr->GAS_DATA[puc_ch].uc_gas_direction	0,1	1	0	0
	stp_GasCalc_addr->GAS_DATA[puc_ch].ul_1st_alarm	0,10	0	10	0
	stp_GasCalc_addr->GAS_DATA[puc_ch].ul_2nd_alarm	0,100	0	100	0
	stp_GasCalc_addr->GAS_DATA[puc_ch].ul_3rd_alarm	0,100	0	100	0
	stp_GasCalc_addr->GAS_DATA[puc_ch].ul_over_alarm	0,2000	0	2000	0
	stp_GasCalc_addr->GAS_DATA[puc_ch].ul_upper_limit	0,1000	0	1000	0
	stp_GasCalc_addr->GAS_DATA[puc_ch].ul_stel_alarm	0,50	0	50	0
	stp_GasCalc_addr->GAS_DATA[puc_ch].ul_twa_alarm	0,10	0	10	0
	stp_GasCalc_addr->GAS_DATA[puc_ch].ul_gas_alarm_max	0~2000	60	2000	0
	stp_GasCalc_addr->GAS_DATA[puc_ch].ul_gas_alarm_min	0,10	0	10	0
	stp_GasCalc_addr->GAS_DATA[puc_ch].ul_stel_alarm_max	0~3722304989	3722304989	2000	0
	stp_GasCalc_addr->GAS_DATA[puc_ch].ul_stel_alarm_min	0~3722304989	3722304989	10	0
	stp_GasCalc_addr->GAS_DATA[puc_ch].ul_cal_denst	0,250	0	250	0
	stp_GasCalc_addr->GAS_DATA[puc_ch].ul_cal_denst_min	0,10	0	10	0
	stp_GasCalc_addr->GAS_DATA[puc_ch].ul_cal_denst_max	0,2000	0	2000	0
	stp_GasCalc_addr->GAS_DATA[puc_ch].fl_zero_temp_data	0,25	0	25	25
	stp_GasCalc_addr->GAS_DATA[puc_ch].fl_zero_buf[0]	0	0	0	0
	stp_GasCalc_addr->GAS_DATA[puc_ch].fl_zero_buf[1]	0	0	0	0
	stp_GasCalc_addr->GAS_DATA[puc_ch].fl_span_temp_data	0,25	0	25	25
	stp_GasCalc_addr->GAS_DATA[puc_ch].fl_span_buf[0]	0~167.18	4.2	167.18	0
	stp_GasCalc_addr->GAS_DATA[puc_ch].fl_span_buf[1]	0~167.18	4.2	167.18	0
	stp_GasCalc_addr->GAS_DATA[puc_ch].uc_lin_number[0]	0	0	0	0
	stp_GasCalc_addr->GAS_DATA[puc_ch].uc_lin_number[1]	0,1	0	0	0
	stp_GasCalc_addr->GAS_DATA[puc_ch].uc_meas_group[0]	0,1	0	1	1
	stp_GasCalc_addr->GAS_DATA[puc_ch].uc_meas_group[1]	0,1	0	1	1
	stp_GasCalc_addr->GAS_DATA[puc_ch].us_hc_rate[0]	0,100	0	100	100
	stp_GasCalc_addr->GAS_DATA[puc_ch].us_hc_rate[1]	0,100	0	100	100
	stp_GasCalc_addr->GAS_DATA[puc_ch].fl_lel_ratio[0]	0~5000	0	50000	10000
	stp_GasCalc_addr->GAS_DATA[puc_ch].fl_lel_ratio[1]	0~5000	0	50000	10000
	stp_GasCalc_addr->GAS_DATA[puc_ch].fl_lel_max_ratio[0]	0~5000	0	50000	10000
	stp_GasCalc_addr->GAS_DATA[puc_ch].fl_lel_max_ratio[1]	0~5000	0	50000	10000
Judgment					

DataStructConst_Set_GasSpec

	Responsible	Last update
Coding	Ikarashi	
Test	Taki	
Judgment	Ikarashi	

Infinite loop	None
Verification pass	3
Judgment	

			case1	case2	case3
Root	for(luc_i=0; luc_i<HDDDEF_GAS_MAX; luc_i++)		○	○	○
	if(luc_j == 1)		○	○	○
	else		○	○	○
	for(luc_j=0; luc_j<15; luc_j++)		○	○	○
	Symbol	Range			
Input	stp_GasCalc_addr->GAS_DATA[luc_i].uc_gas_comb	0~30	0	29	30
	stp_GasCalc_addr->GAS_DATA[luc_i].ul_digit	0~501	0	500	501
	stp_GasCalc_addr->GAS_DATA[luc_i].fl_zero_buf[0]	-68.9~76	-68.9	75	76
	stp_GasCalc_addr->GAS_DATA[luc_i].fl_zero_buf[1]	-68.9~76	-68.9	75	76
	stp_GasCalc_addr->GAS_DATA[luc_i].uc_ani_dec	0x00~0x23	0x00	0x22	0x23
Output	ENST_DATA[luc_i].ul_digit	0~501	0	500	501
	DENST_DATA[luc_i].fl_span_fix	0,1	0	1	0
	DENST_DATA[luc_i].fl_span_max[0]	0~8	0	8	0
	DENST_DATA[luc_i].fl_span_max[1]	0~8	0	8	0
	DENST_DATA[luc_i].fl_span_min[0]	0~1.6	0	1.6	0
	DENST_DATA[luc_i].fl_span_min[1]	0~1.6	0	1.6	0
	DENST_DATA[luc_i].fl_air_max	0,85	0	85	0
	DENST_DATA[luc_i].fl_air_min	0,65	0	65	0
	DENST_DATA[luc_i].fl_zero[0]	-68.9~76	-68.9	75	76
	DENST_DATA[luc_i].fl_zero[1]	-68.9~76	-68.9	75	76
	DENST_DATA[luc_i].uc_ani_dec	0~35	0	34	35
	DENST_DATA[luc_i].uc_state_alm	0	0	0	0
	DENST_DATA[luc_i].uc_state_trb	0	0	0	0
	DENST_DATA[luc_i].uc_alarm_lat	0	0	0	0
	DENST_DATA[luc_i].ul_pmin	0	0	0	0
	DENST_DATA[luc_i].ul_pmax	0	0	0	0
	DENST_DATA[luc_i].ul_60_ave	0	0	0	0
	DENST_DATA[luc_i].ul_60_total	0	0	0	0
	DENST_DATA[luc_i].ul_60_cnt	0	0	0	0
	DENST_DATA[luc_i].ul_ave	0	0	0	0
	DENST_DATA[luc_i].ul_ave_60_cnt	0	0	0	0
	DENST_DATA[luc_i].ul_ave_total_cnt	0	0	0	0
	DENST_DATA[luc_i].ul_stel_point	0	0	0	0
	DENST_DATA[luc_i].ul_stel_buf[luc_j]	0	0	0	0
	DENST_DATA[luc_i].ul_stel	0	0	0	0
	DENST_DATA[luc_i].ul_twa	0	0	0	0
Judgment					

DataStructConst_Set_NCGasSpec

	Responsible	Last update
Coding	Ikarashi	
Test	Taki	
Judgment	Ikarashi	

Infinite loop	None
Verification pass	3
Judgment	

			case1	case2	case3
Root	None		-	-	-
	Symbol	Range			
Input	puc_num	0~30	0	29	30
Output	stp_GasCalc_addr->GAS_DATA[0].uc_lin_number[1]	0	0	0	0
	stp_GasCalc_addr->GAS_DATA[0].uc_meas_group[1]	0,1	0	1	0
	stp_GasCalc_addr->GAS_DATA[0].us_hc_rate[1]	0~7680	0	7424	7680
	stp_GasCalc_addr->GAS_DATA[0].fl_lel_ratio[1]	0~1.076197E-41	0	1.04E-41	1.08E-41
	stp_GasCalc_addr->GAS_DATA[0].fl_lel_max_ratio[1]	0~1.076197E-41	0	1.04E-41	1.08E-41
Judgment					

DataStructConst_Set_StatusDataAddress

	Responsible	Last update
Coding	Ikarashi	
Test	Taki	
Judgment	Ikarashi	

Infinite loop	None
Verification pass	1
Judgment	

		case1
Root	None	-
	Symbol	Range
Input	None	-
Output	None	-
Judgment		

GasCalc_Get_Alarm1hON

	Responsible	Last update
Coding	Ikarashi	
Test	Taki	
Judgment	Ikarashi	

Infinite loop	None
Verification pass	4
Judgment	

			case1	case2	case3	case4
Root	if(stp_Detector_addr->uc_1h_alarm_on == M_ON)		○	○	-	-
	if(stp_GasCalc_addr->GAS_DATA[3].uc_gas_comb != 0x00)		○	-	-	-
	else		-	○	-	-
	else		-	-	○	○
	Symbol	Range				
Input	stp_Detector_addr->uc_1h_alarm_on	0~2	1	1	0	2
	stp_GasCalc_addr->GAS_DATA[3].uc_gas_comb	0~30	29	0	29	30
Output	luc_ans	0	0	0	0	0
Judgment						

GasCalc_Get_AlarmTwaON

	Responsible	Last update
Coding	Ikarashi	
Test	Taki	
Judgment	Ikarashi	

Infinite loop	None
Verification pass	4
Judgment	

			case1	case2	case3	case4
Root	for(luc_i=2; luc_i<HDEF_GAS_MAX; luc_i++)		○	○	○	○
	if(stp_GasCalc_addr->GAS_DATA[luc_i].uc_gas_comb != 0x00)		○	○	-	○
	if(luc_i != DataStructConst_CO_CH stp_Detector_addr->uc_1h_alarm_on != M_ON)		○	-	-	-
	else		-	○	-	-
	else		-	-	○	-
	Symbol	Range				
Input	stp_GasCalc_addr->GAS_DATA[luc_i].uc_gas_comb	0~30	29	29	0	30
	stp_Detector_addr->uc_1h_alarm_on	0~2	0	1	0	2
Output	luc_ans	0	0	0	0	0
Judgment						

GasCalc_Get_CombGasON

	Responsible	Last update
Coding	Ikarashi	
Test	Taki	
Judgment	Ikarashi	

Infinite loop	None
Verification pass	4
Judgment	

			case1	case2	case3	case4
Root	if(stp_GasCalc_addr->GAS_DATA[0].uc_gas_comb != 0x00)		○	○	-	○
	if(puc_flg == M_ON && stp_GasCalc_addr->GAS_DATA[0].uc_gas_comb <= 2)		○	-	-	-
	else		-	○	-	○
	if(puc_flg == M_OFF)		-	○	-	-
	else		○	-	-	-
	else		-	-	○	-
	Symbol	Range				
Input	puc_flg	0~2	1	0	0	2
	stp_GasCalc_addr->GAS_DATA[0].uc_gas_comb	0~30	1	29	0	30
Output	luc_ans	0,1	1	1	0	0
Judgment						

GasCalc_Get_Gas_Comb

	Responsible	Last update
Coding	Ikarashi	
Test	Taki	
Judgment	Ikarashi	

Infinite loop	None
Verification pass	3
Judgment	

			case1	case2	case3
Root	if(puc_num > 4)		-	-	○
	else		○	○	-
	Symbol	Range			
Input	puc_num	0~5	0	4	5
Output	stp_GasCalc_addr->GAS_DATA[puc_num]. uc_gas_comb	0,30	30	0	0
Judgment					

GasCalc_Get_GasData_Add

	Responsible	Last update
Coding	Ikarashi	
Test	Taki	
Judgment	Ikarashi	

Infinite loop	None
Verification pass	1
Judgment	

			case1
Root	None		-
	Symbol	Range	
Input	None	-	-
Output	None	-	-
Judgment			

GasCalc_Get_H2MeasurementFlag

	Responsible	Last update
Coding	Ikarashi	
Test	Taki	
Judgment	Ikarashi	

Infinite loop	None
Verification pass	5
Judgment	

			case1	case2	case3	case4	case5
Root	for(luc_ch=0U; luc_ch<HDEF_GAS_MAX; luc_ch++)		○	○	○	○	○
	if(stp_GasCalc_addr->GAS_DATA[luc_ch].uc_gas_comb != 0x00U)		○	○	○	○	○
	if((luc_ch != DataStructConst_CO_CAN_H2_H2_CH) (stp_GasCalc_addr->GAS_DATA[luc_ch].uc_gas_comb != DataStructConst_CO_CAN_H2_GAS_NUM))		○	-	○	○	○
	if(Tool_Comp_Pnt((const U8_CHR *)&(stp_GasCalc_addr->GAS_DATA[luc_ch].uc_disp_name[1][0]), (const U8_CHR *)lnc_h2_name, 3U) == 0U)		○	-	○	○	-
	else		-	-	-	-	○
	else		-	-	-	-	-
	else		-	○	-	-	-
	Symbol	Range					
Input	stp_GasCalc_addr[0].GAS_DATA[0].uc_gas_comb	0~4	1	0	3	4	1
	Tool_Comp_Pnt()	0,1	0	0	0	0	1
Output	lbl_ans	0,1	1	0	1	1	0
Judgment							

GasCalc_Get_IDDispON

	Responsible	Last update
Coding	Ikarashi	
Test	Taki	
Judgment	Ikarashi	

Infinite loop	None
Verification pass	1
Judgment	

			case1
Root	None		-
	Symbol	Range	
Input	None	-	-
Output	stp_Detector_addr->uc_id_disp_onoff	0	0
Judgment			

GasCalc_Get_ToxicGasON

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	4
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3	case4
Root	for(luc_i=2; luc_i<HDEF_GAS_MAX; luc_i++)	○	○	○	○
	if(stp_GasCalc_addr->GAS_DATA[luc_i].uc_gas_comb != 0x00)	○	○	-	-
	if(stp_GasCalc_addr->GAS_DATA[luc_i].ul_stel_alarm != M_OFF_VAL stp_GasCalc_addr->GAS_DATA[luc_i].ul_twa_alarm != M_OFF_VAL)	○	-	-	-
	else	-	○	-	-
	else	-	-	○	○
	Symbol	Range			
Input	stp_GasCalc_addr->GAS_DATA[luc_i].uc_gas_comb	0~30	29	0	30
	stp_GasCalc_addr->GAS_DATA[luc_i].ul_stel_alarm	0~0xDDDDDDDD	0	0xDDDDDDDD	5000
	stp_GasCalc_addr->GAS_DATA[luc_i].ul_twa_alarm	0~0xDDDDDDDD	0	0xDDDDDDDD	2500
Output	luc_ans	0,1	0	0	0
Judgment					

GasTableData_Init_EepAddress

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1
Root	None	-
	Symbol	Range
Input	None	-
Output	None	-
Judgment		

GasTableData_Set_Default

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1
Root	for(lul_i=0; lul_i<sizeof(Gas_Calc_Default); lul_i++)	○
	Symbol	Range
Input	None	-
Output	None	-
Judgment		

Unit Test Specification

Project name	GX-Force
File name	flow_alarm_setting_display.c

FlowAlarmSettingDisplay_Chk_AlarmSettingEndNum

	Responsible	Last update	Infinite loop	None
Coding	ikarashi		Verification status	3
Test	Taki			
Judgment	ikarashi		Judgment	

Root	if(stp_zipu_num>ul_item_select_num == HDEF_GAS_MAX+1)	case1	case2	case3
	else	-	O	-
	Symbol	Range		
Input	stp_zipu_num->ul_item_select_num	0x00000000-0xFFFFFFFF	0x00000000	0x00000005 0xFFFFFFFF
Output	luc_ars	0.1	0	1 0
Judgment				

FlowAlarmSettingDisplay_Chk_AlarmSettingResetNum

	Responsible	Last update	Infinite loop	None
Coding	ikarashi		Verification status	3
Test	Taki			
Judgment	ikarashi		Judgment	

Root	if(stp_zipu_num>ul_item_select_num == HDEF_GAS_MAX)	case1	case2	case3
	else	O	-	O
	Symbol	Range		
Input	stp_zipu_num->ul_item_select_num	0x00000000-0xFFFFFFFF	0x00000000	0x00000004 0xFFFFFFFF
Output	luc_ars	0.1	0	1 0
Judgment				

FlowAlarmSettingDisplay_Disp_AlarmPointChange

	Responsible	Last update	Infinite loop	None
Coding	ikarashi		Verification status	7
Test	Taki			
Judgment	ikarashi		Judgment	

Root	switch(stp_zipu_num->ul_sub_item_select_num)	case1	case2	case3	case4	case5	case6	case7
	case 0	O	O	O	O	O	O	-
	case 1	-	O	-	-	-	-	-
	case 2	-	-	O	-	-	-	-
	case 3	-	-	-	O	-	-	-
	case 4	-	-	-	-	O	O	-
	if(stp_zipu_num->ul_item_select_num == DataStruct_CO_CH && stp_data->luc_1th_alarm_on == M_ON)	-	-	-	-	O	-	-
	else	-	-	-	-	-	O	-
	default	-	-	-	-	-	-	O
	Symbol	Range						
Input	stp_zipu_num->ul_sub_item_select_num	0x00000000-0xFFFFFFFF	0x00000000	0x00000001	0x00000002	0x00000003	0x00000004	0xFFFFFFFF
	stp_zipu_num->ul_item_select_num	0x00000000-0xFFFFFFFF	0x00000000	0x00000000	0x00000000	0x00000003	0x00000003	0xFFFFFFFF
	stp_data->luc_1th_alarm_on	0-2	0	0	0	0	1 0	2
Output	None	-	-	-	-	-	-	-
Judgment								

FlowAlarmSettingDisplay_Disp_AlarmSettingMenu

	Responsible	Last update	Infinite loop	None
Coding	ikarashi		Verification status	3
Test	Taki			
Judgment	ikarashi		Judgment	

Root	if(stp_zipu_num>ul_item_select_num < HDEF_GAS_MAX)	case1	case2	case3
	else if(stp_zipu_num>ul_item_select_num == HDEF_GAS_MAX)	-	O	-
	else	-	-	O
	Symbol	Range		
Input	stp_zipu_num->ul_item_select_num	3-5	3	4 5
Output	None	-	-	-
Judgment				

FlowAlarmSettingDisplay_Disp1_FactoryDefault

	Responsible	Last update	Infinite loop	None
Coding	ikarashi		Verification status	4
Test	Taki			
Judgment	ikarashi		Judgment	

Root	switch(ZPCNumSet_Get_DispFlicker3())	case1	case2	case3	case4
	case 0	O	O	O	O
	case 1	-	-	-	-
	case 2	-	O	-	-
	case 3	-	-	O	-
	default	-	-	-	O
	Symbol	Range			
Input	ZPCNumSet_Get_DispFlicker3()	0-3	0	1	2 3
Output	None	-	-	-	-
Judgment					

FlowAlarmSettingDisplay_Disp2_FactoryDefault

	Responsible	Last update	Infinite loop	None
Coding	ikarashi		Verification status	4
Test	Taki			
Judgment	ikarashi		Judgment	

Root	switch(ZPCNumSet_Get_DispFlicker3())	case1	case2	case3	case4
	case 0	O	O	O	O
	case 1	-	-	-	-
	case 2	-	O	-	-
	case 3	-	-	O	-
	default	-	-	-	O
	Symbol	Range			
Input	ZPCNumSet_Get_DispFlicker3()	0-3	0	1	2 3
Output	None	-	-	-	-
Judgment					

FlowAlarmSettingDisplay_End_AlarmPointChange

	Responsible	Last update	Infinite loop	None
Coding	ikarashi		Verification status	3
Test	Taki			
Judgment	ikarashi		Judgment	

Root	None	case1	case2	case3
	Symbol	Range		
Input	uls_m_getting_data[0]	0-1001	0	1000 1001
	uls_m_getting_data[1]	0-25001	0	25000 25001
	uls_m_getting_data[2]	0-50001	0	50000 50001
	uls_m_getting_data[3]	0-5001	0	5000 5001
	uls_m_getting_data[4]	0-2501	0	2500 2501
Output	stp_zipu_num->ul_sub_item_select_num	0	0	0
	stp_zipu_num->luc_sub_item_select_updown	0	0	0
	(stp_GasInfo_addr+(stp_zipu_num->ul_item_select_num))->ul_1st_alarm	0	0	0
	(stp_GasInfo_addr+(stp_zipu_num->ul_item_select_num))->ul_2nd_alarm	0	0	0
	(stp_GasInfo_addr+(stp_zipu_num->ul_item_select_num))->ul_3rd_alarm	0	0	0
	(stp_GasInfo_addr+(stp_zipu_num->ul_item_select_num))->ul_4th_alarm	0	0	0
	(stp_GasInfo_addr+(stp_zipu_num->ul_item_select_num))->ul_5th_alarm	0	0	0
Judgment				

FlowAlarmSettingDisplay_Init AlarmPointChange

	Responsible	Last update
Coding	Ikarashi	
Test	Taki	
Judgment	Ikarashi	

Root			case1	case2	case3
	None		-	-	-
	Symbol	Range			
Input	(stp_gasinfo_addr+<stp_zipu_num-> uf_item_select_num)-<u1_is_alarm	0-1001	0	1000	1001
	(stp_gasinfo_addr+<stp_zipu_num-> uf_item_select_num)-<u2_2nd_alarm	0-25001	0	25000	25001
	(stp_gasinfo_addr+<stp_zipu_num-> uf_item_select_num)-<u3_3rd_alarm	0-50001	0	50000	50001
	(stp_gasinfo_addr+<stp_zipu_num-> uf_item_select_num)-<u4_sst_alarm	0-5001	0	5000	5001
	(stp_gasinfo_addr+<stp_zipu_num-> uf_item_select_num)-<u5_hiss_alarm	0-2501	0	2500	2501
Output	stp_zipu_num-<u4_sub_item_select_num	0	0	0	0
	stp_zipu_num-<u5_sub_item_select_updown	0	0	0	0
	u1s_m_getting_data[0]	0-1001	0	1000	1001
	u1s_m_getting_data[1]	0-25001	0	25000	25001
	u1s_m_getting_data[2]	0-50001	0	50000	50001
	u1s_m_getting_data[3]	0-5001	0	5000	5001
	u1s_m_getting_data[4]	0-2501	0	2500	2501
Subelement					

FlowAlarmSettingDisplay_Init_AlarmSettingMenu

	Responsible	Last update
Coding	Ikarashi	
Test	Taki	
Judgment	Ikarashi	

		case1	case2	case3
Root	for(iuc_i0,iuc_j)<HDEF_GAS_MAX,iuc_++) if(!((!stp_CasInfo_addr+iuc_i->nuc_gas_comb==0x0)&& (iuc_j!=DataStructConst_CO_CAN_H2_HI_Ch)) &&(stp_CasInfo_addr+iuc_j->nuc_gas_comb!= DataStructConst_CO_CAN_H2_GAS_NUM))) ete SymbolRange	- 	- 	-
Input	(stp_CasInfo_addr+iuc_j->nuc_gas_comb)	0-30	0	30
Output	stp_zipu_num->iub_item_select_num	0	0	0
	stp_zipu_num->iub_item_select_updown	0	0	0
	stp_zipu_num->iub_sub_item_select_num	0	0	0
	stp_zipu_num->iub_sub_item_select_updown	0	0	0

FlowAlarmSettingDisplay_Select_AlarmPointChange

	Responsible	Last update
Coding	Ikarashi	
Test	Taki	
Judgment	Ikarashi	

Root		case0	case1	case2	case3	case4	case5	case6	case7	case8	case9	case10	case11	case12	case13	case14	case15
	if(stp_zipu_num->ul_item_select_num == 1)	0	0	0	0	0	0	0	0	0	0	-	-	-	-	-	-
	switch(stp_zipu_num->ul_sub_item_select_num)	0	0	0	0	0	0	0	0	0	0	-	-	-	-	-	-
	case 0	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	if(stp_GasInfo_addr->ul_gas_alarm_min != M_OFF_VAL && stp_GasInfo_addr->ul_gas_alarm_max != M_OFF_VAL)	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	else	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	case 1	-	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	if(stp_GasInfo_addr->ul_gas_alarm_min != M_OFF_VAL && stp_GasInfo_addr->ul_gas_alarm_max != M_OFF_VAL)	-	-	0	0	-	-	-	-	-	-	-	-	-	-	-	-
	else	-	-	-	0	-	-	-	-	-	-	-	-	-	-	-	-
	case 2	-	-	-	0	-	-	-	-	-	-	-	-	-	-	-	-
	if(stp_GasInfo_addr->ul_gas_alarm_min != M_OFF_VAL && stp_GasInfo_addr->ul_gas_alarm_max != M_OFF_VAL)	-	-	-	-	0	0	-	-	-	-	-	-	-	-	-	-
	else	-	-	-	-	0	-	-	-	-	-	-	-	-	-	-	-
	case 3	-	-	-	-	-	0	-	-	-	-	-	-	-	-	-	-
	case 4	-	-	-	-	-	-	0	-	-	0	-	-	-	-	-	-
	default:	-	-	-	-	-	-	-	-	-	0	-	-	-	-	-	-
else	-	-	-	-	-	-	-	-	-	0	-	-	-	-	-	-	
switch(stp_zipu_num->ul_sub_item_select_num)	-	-	-	-	-	-	-	-	-	-	0	0	0	0	0	0	
case 0:	-	-	-	-	-	-	-	-	-	-	0	0	0	0	0	0	
case 1:	-	-	-	-	-	-	-	-	-	-	-	-	0	-	-	-	
case 2:	-	-	-	-	-	-	-	-	-	-	-	-	0	-	-	-	
case 3:	-	-	-	-	-	-	-	-	-	-	-	-	-	0	-	-	
case 4:	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	-	
default:	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	
if((pul_num == 100))	-	-	-	-	-	-	-	-	-	0	-	-	-	-	-	-	-
else	-	-	-	-	-	-	-	-	-	0	-	-	-	-	-	-	-
		-	-	-	-	-	-	-	-	-	0	-	-	-	-	-	-
Input	Symbol	Range															
	pu_num	0x00000000-0xFFFFFFFF															
	ul_gas_alarm_max	0-100001	100000	0x0DDDDDDD	100000	0x0DDDDDDD	100000	0x0DDDDDDD	0	100000	100000	100000	100000	100000	100000	100000	100001
	ul_gas_alarm_min	0-501	500	0x0DDDDDDD	500	0x0DDDDDDD	500	0x0DDDDDDD	0	500	500	500	500	500	500	500	501
	ul_sst_alarm_max	0-100001	100000	100000	100000	100000	100000	100000	0	100000	100000	100000	100000	100000	100000	100000	100001
	ul_sst_alarm_min	0-501	500	500	500	500	500	500	0	500	500	500	500	500	500	500	501
	ul_twa_alarm_max	0-100001	100000	100000	100000	100000	100000	100000	0	100000	100000	100000	100000	100000	100000	100000	100001
	ul_twa_alarm_min	0-501	500	500	500	500	500	500	0	500	500	500	500	500	500	500	501
	ul_item_select_num	0x00000000-0xFFFFFFFF	0x00000001	0x00000001	0x00000001	0x00000001	0x00000001	0x00000001	0x00000001	0x00000001	0x00000000	0x00000000	0x00000000	0x00000000	0x00000000	0x00000000	0xFFFFFFFF
	ul_sub_item_select_num	0x00000000-0xFFFFFFFF	0x00000000	0x00000000	0x00000001	0x00000001	0x00000002	0x00000002	0x00000003	0x00000004	0xFFFFFFFF	0x00000000	0x00000000	0x00000002	0x00000003	0x00000004	0xFFFFFFFF
	ul_digit	1-501	1	1	1	1	1	1	1	1	500	1	1	1	1	1	501
Output Adaptation	None	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

FlowAlarmSettingDisplay_Select_AlarmSettingMenu

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	7
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3	case4	case5	case6	case7
Root	if(stp_zipu_num>uc_item_select_updown == M_OFF)	O	O	O	-	-	-	-
	if(stp_zipu_num>ul_item_select_num == HDEF_GAS_MAX)	O	-	-	-	-	-	-
	else	-	O	O	-	-	-	-
	if(stp_zipu_num>ul_item_select_num == (HDEF_GAS_MAX+1))	-	O	-	-	-	-	-
	else	-	-	O	-	-	-	-
	for(luc_i; luc_i < HDEF_GAS_MAX; luc_i++)	-	O	O	-	-	-	-
	if(stp_GasInfo_addr+luc_i>uc_gas_comb != 0x00 && (luc_i != DataStructConst_CO_CAN_H2_H2_CH (stp_GasInfo_addr+luc_i>uc_gas_comb != DataStructConst_CO_CAN_H2_GAS_NUM))	-	O	O	-	-	-	-
	else	-	O	O	-	-	-	-
	if(luc_i == HDEF_GAS_MAX && DataFramFactory_Chk_AlarmResetOnOffFlag() == M_OFF)	-	-	O	-	-	-	-
	else	-	O	-	-	-	-	-
	else	-	-	-	O	O	O	O
	if(stp_zipu_num>ul_item_select_num == 0)	-	-	-	O	-	-	-
	else	-	-	-	-	O	O	O
	if(stp_zipu_num>ul_item_select_num == (HDEF_GAS_MAX+1))	-	-	-	O	O	-	-
	if(luc_i == HDEF_GAS_MAX && DataFramFactory_Chk_AlarmResetOnOffFlag() == M_OFF)	-	-	-	-	O	-	-
	else	-	-	-	-	-	O	-
	else	-	-	-	-	-	-	O
	if(luc_i != HDEF_GAS_MAX)	-	-	-	-	O	-	O
	for(luc_i; luc_i > 0; luc_i--)	-	-	-	-	O	-	O
	if(stp_GasInfo_addr+luc_i>uc_gas_comb != 0x00 && (luc_i != DataStructConst_CO_CAN_H2_H2_CH (stp_GasInfo_addr+luc_i>uc_gas_comb != DataStructConst_CO_CAN_H2_GAS_NUM))	-	-	-	-	-	-	O
	else	-	-	-	-	O	-	O
	if(luc_i == 0 && (stp_GasInfo_addr+luc_i>uc_gas_comb == 0x00)	-	-	-	-	O	-	-
	else	-	-	-	-	-	-	O
	else	-	-	-	-	O	O	-
Symbol		Range						
Input	stp_zipu_num>uc_item_select_updown	0-2	0	0	0	1	1	2
	stp_zipu_num>ul_item_select_num	0x00000004-0xFFFFFFFF	0x00000004	0x00000005	0xFFFFFFFF	0x00000000	0x00000005	0x00000002
	stp_GasInfo_addr+luc_i>uc_gas_comb	0-29	0	29	0	0	0	29
	DataFramFactory_Chk_AlarmResetOnOffFlag()	0-2	0	1	0	0	1	2
Output	stp_zipu_num>ul_item_select_num	0-5	5	0	1	5	1	4
Judgment								

FlowAlarmSettingDisplay_Select_PointTypeChange

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	7
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3	case4	case5	case6	case7
Root	if(uc_type == M_OFF)	O	O	O	O	-	-	-
	if(stp_zipu_num>ul_item_select_num < 2)	O	O	-	-	-	-	-
	if(stp_zipu_num>ul_sub_item_select_num < 2)	O	-	-	-	-	-	-
	else	-	O	-	-	-	-	-
	else	-	-	O	O	-	-	-
	if(stp_zipu_num>ul_sub_item_select_num < 4)	-	-	O	-	-	-	-
	else	-	-	-	O	-	-	-
	else	-	-	-	-	O	O	O
	if(stp_zipu_num>ul_sub_item_select_num == 0)	-	-	-	-	O	-	-
	else	-	-	-	-	-	O	O
Symbol		Range						
Input	uc_type	0-2	0	0	0	1	1	2
	stp_zipu_num>ul_item_select_num	0x00000000-0xFFFFFFFF	0x00000000	0x00000000	0xFFFFFFFF	0xFFFFFFFF	0x00000000	0xFFFFFFFF
	stp_zipu_num>ul_sub_item_select_num	0x00000000-0xFFFFFFFF	0x00000000	0xFFFFFFFF	0xFFFFFFFF	0x00000000	0xFFFFFFFF	0xFFFFFFFF
Output	luc_ams	0-2	0	1	0	1	2	0
Judgment								

FlowAlarmSettingDisplay_Set_FactoryDefault

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1
Root	None	-
Symbol	Range	
Input	None	-
Output	None	-
Judgment		

Unit Test Specification

Project name	GX-Force
File name	flow_beep_display.c

FlowBeepDisplay_Dis_ BeepSelect

	Responsible	Last update		Infinite loop	None
Coding	Ikarashi			Verification pass	8
Test	Taki				
Judgment	Ikarashi			Judgment	

			case1	case2	case3	case4	case5	case6	case7	case8
Root	switch(stp_zipu_num->ul_item_select_num)		○	○	○	○	○	○	○	○
	case 0		○	-	-	-	-	-	-	-
	case 1		-	○	-	-	-	-	-	-
	case 2		-	-	○	-	-	-	-	-
	case 3		-	-	-	○	-	-	-	-
	case 4		-	-	-	-	○	-	-	-
	case 5		-	-	-	-	-	○	-	-
	case 6		-	-	-	-	-	-	○	-
	default		-	-	-	-	-	-	-	○
	Symbol	Range								
Input	stp_zipu_num->ul_item_select_num	0x00000000~0xFFFFFFFF	0x00000000	0x00000001	0x00000002	0x00000003	0x00000004	0x00000005	0x00000006	0xFFFFFFFF
Output	stp_ni_disp->uc_lcd_com_blink	0xFF	0	0	0	0	0	0	0	0
Judgment										

FlowBeepDisplay_Dis_ BeepTime

	Responsible	Last update		Infinite loop	None
Coding	Ikarashi			Verification pass	2
Test	Taki				
Judgment	Ikarashi			Judgment	

			case1	case2
Root	if(stp_zipu_num->ul_item_select_num == 0)		○	-
	else		-	○
	Symbol	Range		
Input	stp_zipu_num->ul_item_select_num	0x00000000~0xFFFFFFFF	0x00000000	0xFFFFFFFF
Output	stp_ni_disp->uc_lcd_mes_dot[0]	0x20	0	0
	stp_ni_disp->uc_lcd_mes_dot_blink[0]	0x20	0	0
	stp_ni_disp->uc_lcd_mes_blink[0]	0xFF	0	0
Judgment				

FlowBeepDisplay_End_ BeepSelect

	Responsible	Last update		Infinite loop	None
Coding	Ikarashi			Verification pass	3
Test	Taki				
Judgment	Ikarashi			Judgment	

			case1	case2	case3
Root	if(stp_data->uc_beep_select != stp_zipu_num->ul_item_select_num)		-	○	○
	else		○	-	-
	Symbol	Range			
Input	stp_zipu_num->ul_item_select_num	0x00000000~0xFFFFFFFF	0x00000000	0xFFFFFFFF	0xFFFFFFFF
	stp_data->uc_beep_select	0~6	0	6	7
Output	stp_data->uc_beep_select	0x00~0xFF	0x00	0xFF	0xFF
Judgment					

FlowBeepDisplay_End_ BeepTime

	Responsible	Last update		Infinite loop	None
Coding	Ikarashi			Verification pass	2
Test	Taki				
Judgment	Ikarashi			Judgment	

			case1	case2
Root	None		-	-
	Symbol	Range		
Input	stp_zipu_num->ul_item_select_num	0x00000000~0xFFFFFFFF	0x00000000	0xFFFFFFFF
	stp_data->uc_beep_time	0x00~0xFF	0x00	0x00
Judgment				

FlowBeepDisplay_Init_ BeepMenu

	Responsible	Last update		Infinite loop	None
Coding	Ikarashi			Verification pass	1
Test	Taki				
Judgment	Ikarashi			Judgment	

			case1
Root	None		-
	Symbol	Range	
Input	None	-	-
	stp_zipu_num->ul_sub_mode_select_num	0	0
	stp_zipu_num->uc_sub_mode_select_updown	0	0
	stp_zipu_num->ul_item_select_num	0	0
	stp_zipu_num->uc_item_select_updown	0	0
Judgment			

FlowBeepDisplay_Init_BeepSelect

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1	case2	case3
Root	None		-	-	-
	Symbol	Range			
Input	stp_data->uc_beep_select	0~4	0	4	5
Output	stp_zipu_num->ul_item_select_num	0~5	0	0	0
	stp_zipu_num->uc_item_select_updown	0	0	0	0
Judgment					

FlowBeepDisplay_Init_BeepTime

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1	case2	case3
Root	None		-	-	-
	Symbol	Range			
Input	stp_data->uc_beep_time	0~99	0	99	100
Output	stp_zipu_num->ul_item_select_num	0~99	0	0	0
	stp_zipu_num->uc_item_select_updown	0	0	0	0
Judgment					

FlowBeepDisplay_Select_BeepMenu

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	2
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1	case2
Root	None		-	-
	Symbol	Range		
Input	Tool_OneCount((U_LNG)stp_zipu_num->ul_sub_mode_select_num, 1, (U_LNG)U_P_END_NUM, (U_LNG)U_P_BEEP_ONOFF_NUM, stp_zipu_num->uc_sub_mode_select_updown, M_OFF)	0x00000000~0xFFFFFFFF	0x00000000	0xFFFFFFFF
Output	stp_zipu_num->ul_sub_mode_select_num	0x00000000~0xFFFFFFFF	0x00000000	0
Judgment				

FlowBeepDisplay_Select_BeepSelect

	Responsible	Last update		Infinite loop	None
Coding	Ikarashi			Verification pass	2
Test	Taki				
Judgment	Ikarashi			Judgment	

			case1	case2
Root	None		-	-
	Symbol	Range		
Input	Tool_OneCount((U_LNG)stp_zipu_num->ul_item_select_num, 1, (U_LNG)4, (U_LNG)0, stp_zipu_num->uc_item_select_updown, M_OFF)	0x00000000~0xFFFFFFFF	0x00000000	0xFFFFFFFF
Output	stp_zipu_num->ul_item_select_num	0x00000000~0xFFFFFFFF	0x00000000	0xFFFFFFFF
Judgment				

FlowBeepDisplay_Select_BeepTime

	Responsible	Last update		Infinite loop	None
Coding	Ikarashi			Verification pass	3
Test	Taki				
Judgment	Ikarashi			Judgment	

			case1	case2	case3
Root	if(puc_num == 1)		-	○	-
	else		○	-	○
	Symbol	Range			
Input	puc_num	0x00~0xFF	0x00	0x01	0xFF
	Tool_OneCount((U_LNG)stp_zipu_num->ul_item_select_num, 1, (U_LNG)M_BEEP_TIME_MAX, (U_LNG)M_BEEP_TIME_MIN, stp_zipu_num->uc_item_select_updown, M_OFF)	0x00000000,0xFFFFFFFF	0x00000000	0x00000000	0xFFFFFFFF
	Tool_OneCount((U_LNG)stp_zipu_num->ul_item_select_num, 10, (U_LNG)M_BEEP_TIME_MAX, (U_LNG)M_BEEP_TIME_MIN, stp_zipu_num->uc_item_select_updown, M_OFF)	0x00000000,0xFFFFFFFF	0x00000000	0x00000000	0xFFFFFFFF
Output	stp_zipu_num->ul_item_select_num	0x00000000	0x00000000	0x00000000	0x00000000
Judgment					

FlowBeepDisplay_Set_BeepMenu

	Responsible	Last update		Infinite loop	None
Coding	Ikarashi			Verification pass	4
Test	Taki				
Judgment	Ikarashi			Judgment	

			case1	case2	case3	case4
Root	switch(stp_zipu_num->ul_sub_mode_select_num)		○	○	○	○
	case U_P_BEEP_ONOFF_NUM		○	-	-	-
	case U_P_BEEP_TIME_NUM		-	○	-	-
	case U_P_END_NUM		-	-	○	-
	default		-	-	-	○
	Symbol	Range				
Input	stp_zipu_num->ul_sub_mode_select_num	0x00000000~0xFFFFFFFF	0x00000000	0x00000001	0x00000002	0xFFFFFFFF
Output	None	-	-	-	-	-
Judgment						

Unit Test Specification

Project name	GX-Force
File name	flow_bump_limit_display.c

FlowBumpLimitDisplay_Disb_BumpExprd

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	4
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1	case2	case3	case4
Root	switch(stp_zipu_num->ul_item_select_num)		○	○	○	○
	case 0		○	-	-	-
	case 1		-	○	-	-
	case 2		-	-	○	-
	default		-	-	-	○
	Symbol	Range				
Input	stp_zipu_num->ul_item_select_num	0x00000000-0xFFFFFFFF	0x00000000	0x00000001	0x00000002	0xFFFFFFFF
Output	stp_nl_disp->uc_lcd_com_dot_blink	0	0	0	0	0
	stp_nl_disp->uc_lcd_com_blink	0	0	0	0	0
Judgment						

FlowBumpLimitDisplay_Disb_BumpInterval

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1
Root	None		-
	Symbol	Range	
Input	None	-	-
Output	stp_nl_disp->uc_lcd_mes_blink[0]	0xFF	0xFF
Judgment			

FlowBumpLimitDisplay_Disb_BumpReminder

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1
Root	None		-
	Symbol	Range	
Input	None	-	-
Output	stp_nl_disp->uc_lcd_com_dot	0x10	0x10
Judgment			

FlowBumpLimitDisplay_End_BumpExprd

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1	case2
Root	None		-	-
	Symbol	Range		
Input	stp_zipu_num->ul_item_select_num	0x00000000,0xFFFFFFFF	0x00000000	0xFFFFFFFF
Output	stp_data->uc_bump_lmt_chk	0x00,0xFF	0x00	0xFF
Judgment				

FlowBumpLimitDisplay_End_BumpInterval

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1	case2
Root	None		-	-
	Symbol	Range		
Input	stp_zipu_num->ul_item_select_num	0x00000000,0xFFFFFFFF	0x00000000	0xFFFFFFFF
Output	stp_data->us_bump_lmt_day	0x0000,0xFFFF	0x0000	0xFFFF
Judgment				

FlowBumpLimitDisplay_End_BumpReminder

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1	case2
Root	None		-	-
	Symbol	Range		
Input	stp_zipu_num->ul_item_select_num	0x00000000,0xFFFFFFFF	0x00000000	0xFFFFFFFF
Output	stp_data->uc_bump_lmt_set	0x00,0xFF	0x00	0xFF
Judgment				

FlowBumpLimitDisplay_Init_BumpExprd

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1	case2	case3
Root	None		-	-	-
	Symbol	Range			
Input	stp_data->uc_bump_lmt_chk	0-3	0	2	3
Output	stp_zipu_num->ul_item_select_num	0-3	0	2	3
	stp_zipu_num->uc_item_select_updown	0	0	0	0
Judgment					

FlowBumpLimitDisplay_Init_BumpInterval

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1	case2	case3
Root	None		-	-	-
	Symbol	Range			
Input	stp_data->us_bump_lmt_day	1-1001	1	1000	1001
Output	stp_zipu_num->ul_item_select_num	1-1001	1	1000	1001
	stp_zipu_num->uc_item_select_updown	0	0	0	0
Judgment					

FlowBumpLimitDisplay_Init_BumpLimitMenu

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1
Root	None		-
	Symbol	Range	
Input	None	-	-
Output	stp_zipu_num->ul_sub_mode_select_num	0	0
	stp_zipu_num->uc_sub_mode_select_updown	0	0
	stp_zipu_num->ul_item_select_num	0	0
	stp_zipu_num->uc_item_select_updown	0	0
Judgment			

FlowBumpLimitDisplay_Init_BumpReminder

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3
Root	None	-	-	-
	Symbol	Range		
Input	stp_data->uc_bump_lmt_set	0-2	0	1
Output	stp_zipu_num->ul_item_select_num	0-2	0	1
Judgment				2

FlowBumpLimitDisplay_Select_BumpExprd

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	2
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2
Root	None	-	-
	Symbol	Range	
Input	Tool_OneCount((U_LNG)stp_zipu_num->ul_item_select_num, 1, (U_LNG)2, (U_LNG)0, stp_zipu_num->uc_item_select_updown, M_OFF)	0x00000000,0xFFFFFFFF	0x00000000
Output	stp_zipu_num->ul_item_select_num	0x00000000,0xFFFFFFFF	0x00000000
Judgment			0xFFFFFFFF

FlowBumpLimitDisplay_Select_BumpInterval

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3
Root	if(puc_num == 1)	-	○	-
	else	○	-	○
	Symbol	Range		
Input	puc_num	0x00~0xFF	0x00	0x01
	Tool_OneCount((U_LNG)stp_zipu_num->ul_item_select_num, 1, (U_LNG)M_BUMP_INTVL_MAX, (U_LNG)M_BUMP_INTVL_MIN, stp_zipu_num->uc_item_select_updown, M_OFF)	0x00000000,0xFFFFFFFF	0x00000000	0x00000000
	Tool_OneCount((U_LNG)stp_zipu_num->ul_item_select_num, 10, (U_LNG)M_BUMP_INTVL_MAX, (U_LNG)M_BUMP_INTVL_MIN, stp_zipu_num->uc_item_select_updown, M_OFF)	0x00000000,0xFFFFFFFF	0x00000000	0x00000000
Output	stp_zipu_num->ul_item_select_num	0x00000000,0xFFFFFFFF	0x00000000	0x00000000
Judgment				0xFFFFFFFF

FlowBumpLimitDisplay_Select_BumpLimitMenu

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	4
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3	case4	
Root	if(stp_zipu_num->ul_sub_mode_select_num == U_B_CHK_GAS_NUM)	○	○	-	-	
	if(stp_zipu_num->uc_sub_mode_select_updown == M_OFF)	○	-	-	-	
	else	-	○	-	-	
	else	-	-	○	○	
	Symbol	Range				
Input	Tool_OneCount((U_LNG)stp_zipu_num->ul_sub_mode_select_num, 1, (U_LNG)U_B_END_NUM, (U_LNG)U_B_CONDITION_NUM, stp_zipu_num->uc_sub_mode_select_updown, M_OFF)	0x00000000~0xFFFFFFFF	0x00000004	0x00000004	0x00000000	0xFFFFFFFF
	stp_zipu_num->ul_sub_mode_select_num	0x00000000~0xFFFFFFFF	0x00000004	0x00000004	0x00000000	0xFFFFFFFF
	stp_zipu_num->uc_sub_mode_select_updown	0~2	0	1	0	2
	stp_zipu_num->ul_sub_mode_select_num	0x00000000~0xFFFFFFFF	0x00000005	0x00000003	0x00000000	0xFFFFFFFF
Output						
Judgment						

FlowBumpLimitDisplay_Select_BumpReminder

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3
Root		-	-	-
	Symbol	Range		
Input	Tool_CHR_Chg_OnOff(stp_zipu_num->ul_item_select_num)	0	1	2
Output	stp_zipu_num->ul_item_select_num	0	0	0
Judgment				

FlowBumpLimitDisplay_Set_BumpLimitMenu

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	6
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1	case2	case3	case4	case5	case6
Root	switch(stp_zipu_num->ul_sub_mode_select_num)		○	○	○	○	○	○
	case U_B_CONDITION_NUM		○	-	-	-	-	-
	case U_B_REMAINDER_NUM		-	○	-	-	-	-
	case U_B_INTERVAL_NUM		-	-	○	-	-	-
	case U_B_EXPRD_NUM		-	-	-	○	-	-
	case U_B_END_NUM		-	-	-	-	○	-
	default		-	-	-	-	-	○
	Symbol	Range						
Input	stp_zipu_num->ul_sub_mode_select_num	0x00000000~0xFFFFFFFF	0x00000000	0x00000001	0x00000002	0x00000003	0x00000005	0xFFFFFFFF
Output	stp_nl_disp->uc_lcd_com_dot	0x00	0x00	0x00	0x00	0x00	0x00	0x00
Judgment								

Unit Test Specification

Project name	GX-Force
File name	flow_bump_parameter_display.c

FlowBumpParameterDisplay_Dispatch_BumpCalOnOff

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1
Root	None		-
	Symbol	Range	
Input	None	-	-
Output	None	-	-
Judgment			

FlowBumpParameterDisplay_Dispatch_BumpCalTime

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1
Root	None		-
	Symbol	Range	
Input	None	-	-
Output	stp_ni_disp->uc_lcd_mes_blink[0]	0xFF	0xFF
Judgment			

FlowBumpParameterDisplay_Dispatch_BumpLimit

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1
Root	None		-
	Symbol	Range	
Input	None	-	-
Output	stp_ni_disp->uc_lcd_mes_blink[0]	0xFF	0xFF
Judgment			

FlowBumpParameterDisplay_Dispatch_BumpTime

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1
Root	None		-
	Symbol	Range	
Input	None	-	-
Output	stp_ni_disp->uc_lcd_mes_blink[0]	0xFF	0xFF
Judgment			

FlowBumpParameterDisplay_End_BumpCalOnOff

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	2
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1	case2
Root	None		-	-
	Symbol	Range		
Input	stp_zipu_num->ui_item_select_num	0x00000000,0xFFFFFFFF	0x00000000	0xFFFFFFFF
Output	stp_data->uc_bump_cal_flg	0x00,0xFF	0x00	0xFF
Judgment				

FlowBumpParameterDisplay_End_BumpCalTime

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	2
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1	case2
Root	None		-	-
	Symbol	Range		
Input	stp_zipu_num->ui_item_select_num	0x00000000,0xFFFFFFFF	0x00000000	0xFFFFFFFF
Output	stp_data->uc_bump_cal_time	0x00,0xFF	0x00	0xFF
Judgment				

FlowBumpParameterDisplay_End_BumpLimit

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	2
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1	case2
Root	None		-	-
	Symbol	Range		
Input	stp_zipu_num->ui_item_select_num	0x00000000,0xFFFFFFFF	0x00000000	0xFFFFFFFF
Output	stp_data->uc_bump_limit	0x00,0xFF	0x00	0xFF
Judgment				

FlowBumpParameterDisplay_End_BumpTime

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	2
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1	case2
Root	None		-	-
	Symbol	Range		
Input	stp_zipu_num->ul_item_select_num	0x00000000,0xFFFFFFFF	0x00000000	0xFFFFFFFF
Output	stp_data->uc_bump_time	0x00,0xFF	0x00	0xFF
Judgment				

FlowBumpParameterDisplay_Init_BumpCalOnOff

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1	case2	case3
Root	None		-	-	-
	Symbol	Range			
Input	stp_data->uc_bump_cal_flg	0-2	0	1	2
Output	stp_zipu_num->ul_item_select_num	0-2	0	1	2
Judgment					

FlowBumpParameterDisplay_Init_BumpCalTime

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1	case2	case3
Root	None		-	-	-
	Symbol	Range			
Input	stp_data->uc_bump_cal_time	90-121	90	120	121
Output	stp_zipu_num->ul_item_select_num	90-121	90	120	121
	stp_zipu_num->uc_item_select_updown	0	0	0	0
Judgment					

FlowBumpParameterDisplay_Init_BumpLimit

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1	case2	case3
Root	None		-	-	-
	Symbol	Range			
Input	stp_data->uc_bump_limit	10-51	10	50	51
Output	stp_zipu_num->ul_item_select_num	10-51	10	50	51
	stp_zipu_num->uc_item_select_updown	0	0	0	0
Judgment					

FlowBumpParameterDisplay_Init_BumpParameterMenu

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1
Root	None		-
	Symbol	Range	
Input	None	-	-
Output	stp_zipu_num->ul_sub2_mode_select_num	0	0
	stp_zipu_num->uc_sub2_mode_select_updown	0	0
Judgment			

FlowBumpParameterDisplay_Init_BumpTime

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1	case2	case3
Root	None		-	-	-
	Symbol	Range			
Input	stp_data->uc_bump_time	30-91	30	90	91
Output	stp_zipu_num->ul_item_select_num	30-91	30	90	91
	stp_zipu_num->uc_item_select_updown	0	0	0	0
Judgment					

FlowBumpParameterDisplay_Select_BumpCalOnOff

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1	case2	case3
Root	None		-	-	-
	Symbol	Range			
Input	Tool_CHR_Chg_OnOff (stp_zipu_num->ul_item_select_num)	0,1	0	1	2
Output	stp_zipu_num->ul_item_select_num	0-2	0	1	2
Judgment					

FlowBumpParameterDisplay_Select_BumpCalTime

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3
Root	if(stp_zipu_num->ul_item_select_num == ucc_m_bump_c_time[0])	○	-	-
	else	-	○	○
	Symbol	Range		
Input	stp_zipu_num->ul_item_select_num	0x00000000~0xFFFFFFFF	0x0000005A	0x00000000 0xFFFFFFFF
Output	stp_zipu_num->ul_item_select_num	90,120	120	90
Judgment				

FlowBumpParameterDisplay_Select_BumpLimit

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	10
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3	case4	case5	case6	case7	case8	case9	case10
Root	if(stp_zipu_num->uc_item_select_updown == M_OFF)	○	○	○	○	○	-	-	-	-	-
	if(stp_zipu_num->ul_item_select_num == ucc_m_bump_b_limit[0])	○	-	-	-	-	-	-	-	-	-
	else if(stp_zipu_num->ul_item_select_num == ucc_m_bump_b_limit[1])	-	○	-	-	-	-	-	-	-	-
	else if(stp_zipu_num->ul_item_select_num == ucc_m_bump_b_limit[2])	-	-	○	-	-	-	-	-	-	-
	else if(stp_zipu_num->ul_item_select_num == ucc_m_bump_b_limit[3])	-	-	-	○	-	-	-	-	-	-
	else	-	-	-	-	○	-	-	-	-	-
	else	-	-	-	-	-	○	○	○	○	○
	if(stp_zipu_num->ul_item_select_num == ucc_m_bump_b_limit[0])	-	-	-	-	-	○	-	-	-	-
	else if(stp_zipu_num->ul_item_select_num == ucc_m_bump_b_limit[1])	-	-	-	-	-	-	○	-	-	-
	else if(stp_zipu_num->ul_item_select_num == ucc_m_bump_b_limit[2])	-	-	-	-	-	-	-	○	-	-
	else if(stp_zipu_num->ul_item_select_num == ucc_m_bump_b_limit[3])	-	-	-	-	-	-	-	-	○	-
	else	-	-	-	-	-	-	-	-	-	○
	Symbol	Range									
Input	stp_zipu_num->uc_item_select_updown	0~2	0	0	0	0	1	1	1	1	2
	stp_zipu_num->ul_item_select_num	0x00000000~0xFFFFFFFF	0x0000000A	0x00000014	0x0000001E	0x00000028	0xFFFFFFFF	0x0000000A	0x00000014	0x0000001E	0x00000028 0xFFFFFFFF
Output	stp_zipu_num->ul_item_select_num	10~50	20	30	40	50	10	50	10	20	30 40
Judgment											

FlowBumpParameterDisplay_Select_BumpParameterMenu

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	2
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2
Root	None	-	-
	Symbol	Range	
Input	Tool_OneCount((U_LNG)stp_zipu_num->ul_sub2_mode_select_num, 1, (U_LNG)U_B_S_END_NUM, (U_LNG)U_B_S_BUMP_TIME_NUM, stp_zipu_num->uc_sub2_mode_select_updown, M_OFF)	0x00000000,0xFFFFFFFF	0x00000000 0xFFFFFFFF
Output	stp_zipu_num->ul_sub2_mode_select_num	0x00000000,0xFFFFFFFF	0x00000000 0xFFFFFFFF
Judgment			

FlowBumpParameterDisplay_Select_BumpTime

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	8
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3	case4	case5	case6	case7	case8
Root	if(stp_zipu_num->uc_item_select_updown == M_OFF)	○	○	○	○	-	-	-	-
	if(stp_zipu_num->ul_item_select_num == ucc_m_bump_b_time[0])	○	-	-	-	-	-	-	-
	else if(stp_zipu_num->ul_item_select_num == ucc_m_bump_b_time[1])	-	○	-	-	-	-	-	-
	else if(stp_zipu_num->ul_item_select_num == ucc_m_bump_b_time[2])	-	-	○	-	-	-	-	-
	else	-	-	-	○	-	-	-	-
	else	-	-	-	-	○	○	○	○
	if(stp_zipu_num->ul_item_select_num == ucc_m_bump_b_time[0])	-	-	-	-	○	-	-	-
	else if(stp_zipu_num->ul_item_select_num == ucc_m_bump_b_time[1])	-	-	-	-	-	○	-	-
	else if(stp_zipu_num->ul_item_select_num == ucc_m_bump_b_time[2])	-	-	-	-	-	-	○	-
	else	-	-	-	-	-	-	-	○
	Symbol	Range							
Input	stp_zipu_num->uc_item_select_updown	0~2	0	0	0	1	1	1	2
	stp_zipu_num->ul_item_select_num	0x00000000~0xFFFFFFFF	0x0000001E	0x0000002D	0x0000003C	0xFFFFFFFF	0x0000001E	0x0000002D	0x0000003C 0xFFFFFFFF
Output	stp_zipu_num->ul_item_select_num	45~90	45	60	90	30	90	30	45 60
Judgment									

FlowBumpParameterDisplay_Set_BumpParameterMenu

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	6
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3	case4	case5	case6
Root	switch(stp_zipu_num->ul_sub2_mode_select_num)	○	○	○	○	○	○
	case U_B_S_BUMP_TIME_NUM	○	-	-	-	-	-
	case U_B_S_BUMP_CHK_NUM	-	○	-	-	-	-
	case U_B_S_BCAL_TIME_NUM	-	-	○	-	-	-
	case U_B_S_BCAL_ONOFF_NUM	-	-	-	○	-	-
	case U_B_S_END_NUM	-	-	-	-	○	-
	default	-	-	-	-	-	○
	Symbol	Range					
Input	stp_zipu_num->ul_sub2_mode_select_num	0x00000000~0xFFFFFFFF	0x00000000	0x00000001	0x00000002	0x00000003	0x00000004 0xFFFFFFFF
Output	None	-	-	-	-	-	-
Judgment							

Unit Test Specification

Project name	GX-Force
File name	flow_bump_test_display.c

FlowBumpTestDisplay_10msec_interrupt

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

Root	if(uss_bump_test_time) else if(uss_bump_cal_time) else	case1 - O - O	case2 O - O -	case3 O - O -
	Symbol	Range		
Input	uss_bump_test_time uss_bump_cal_time	0-9001 0-9001	0 0	9000 9000
Output	None	-	-	-
Judgment				

FlowBumpTestDisplay_Chk_BumpAlarm

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	6
Test	Taki			
Judgment	Ikarashi		Judgment	

Root	for(luc_i=0; luc_i<HDEF_GAS_MAX; luc_i++)		case1	case2	case3	case4	case5	case6
	if(m_Chk_BumpPermission(luc_i, stp_zipu_num->ul_sub_mode_select_num) == M_ON)		O	O	O	O	-	O
	if((stp_denst+luc_i)->uc_state_trb & DataStructConst_S_FAIL_BMP)		O	-	-	-	-	-
	else		-	O	O	O	-	-
	if(stp_data->uc_bump_cal_flg == M_ON)		-	O	O	-	-	-
	if((stp_denst+luc_i)->uc_state_trb & DataStructConst_S_FAIL_SPN)		-	O	-	-	-	-
	else		-	-	O	-	-	-
	else		-	-	-	O	-	-
	else		-	-	-	-	O	O
	Symbol	Range						
Input	m_Chk_BumpPermission(luc_i, stp_zipu_num->ul_sub_mode_select_num)	0~2	1	1	1	1	0	2
	(stp_denst+luc_i)->uc_state_trb	0x00~0xFF	0x80	0x02	0x00	0x00	0x00	0xFF
	stp_data->uc_bump_cal_flg	0,1	1	1	1	0	0	0
Output	luc_ans	0,1	1	1	0	0	0	0
Judgment								

FlowBumpTestDisplay_Chk_BumpCalNecessity

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

Root	for(luc_i=0; luc_i<HDEF_GAS_MAX; luc_i++)		case1	case2	case3	case4
			○	○	-	-
	if(m_Chk_BumpPermission(luc_i, stp_zipu_num->ul_sub_mode_select_num) == M_ON)		○	○	-	-
	if((stp_denst+luc_i)->uc_state_trb & DataStructConst_S_FAIL_BMP)		○	-	-	-
	else		-	○	-	-
	else		-	-	○	○
	Symbol	Range				
Input	m_Chk_BumpPermission(luc_i, stp_zipu_num->ul_sub_mode_select_num)	0-2	1	1	0	2
	(stp_denst+luc_i)->uc_state_trb	0x00-0xFF	0xFF	0x00	0x00	0xFF
Output	luc_ans	0,1	1	0	0	0
Judgment			1			

FlowBumpTestDisplay_Chk_BumpCalOnOff

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

Root	if(stp_data->uc_bump_cal_flg == M_ON) else	case1 - O	case2 O -	case3 - O
	Symbol	Range		
Input	stp_data->uc_bump_cal_flg	0-2	0	1
Output	luc_ans	0,1	0	1
Judgment				

FlowBumpTestDisplay_Chk_BumpCalStartInitial

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	7
Test	Taki			
Judgment	Ikarashi		Judgment	

Root	for(luc_i=0; luc_i<HDEF_GAS_MAX; luc_i++)		case1	case2	case3	case4	case5	case6	case7
	if(luc_i==0; luc_i<HDEF_GAS_MAX; luc_i++)		O	O	O	O	O	O	O
	if((stp_GasInfo_addr+luc_i)->uc_gas_comb != 0x00)		O	O	O	O	O	O	O
	if((stp_GasInfo_addr+luc_i)->ul_cal_denst != M_OFF_VAL)		O	O	O	O	O	O	O
	if((stp_GasInfo_addr+luc_i)->uc_cal_group != DataStructConst_CAL_GROUP_A)		O	-	-	-	-	-	-
	if(luc_ans == M_OK)		-	O	O	O	O	O	O
	if(puc_type == 0)		-	O	O	O	-	O	-
	if(stp_data->uc_bump_end_initial != M_ON)		-	O	O	O	-	-	-
	else		-	-	-	-	O	-	O
	if(stp_data->uc_cal_end_initial != M_ON)		-	-	-	-	O	-	-
Input	Symbol	Range							
	puc_type	0,1	0	0	0	0	1	0	1
	uc_bump_end_initial	1,2	2	2	2	2	2	1	2
	uc_cal_end_initial	1,2	2	2	2	2	2	2	1
	uc_gas_comb	0,1	1	0	1	1	1	1	1
	ul_cal_denst	0x00000000-0x0000000E	0x00000000	0x0000000E	0x00000000	0x0000000E	0x0000000E	0x0000000E	0x0000000E
Output	uc_cal_group	0,1	1	1	1	0	0	0	
	luc_ans	0,1	0	1	1	1	1	1	0
Judgment									

FlowBumpTestDisplay_Chk_BumpCalTimeEnd

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1	case2	case3
Root	if(uss_bump_cal_time != 0)		-	○	○
	else		○	-	-
	Symbol	Range			
Input	uss_bump_cal_time	0-9001	0	9000	9001
Output	luc_ans	0,1	0	1	1
Judgment					

FlowBumpTestDisplay_Chk_BumpGasSelect

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1	case2	case3
Root	None		-	-	-
	Symbol	Range			
Input	FlowGasCalDisplay_Chk_AutoCalMenuGasOn (M_ON, stp_zipu_num->ul_sub_mode_select_num)	0~2	0	1	2
Output	luc_ans	0~2	0	1	2
Judgment					

FlowBumpTestDisplay_Chk_BumpSuccess

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	4
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3	case4	
Root	for(luc_i=0; luc_i<HDEF_GAS_MAX; luc_i++)	○	○	○	○	
	if(m_Chk_BumpPermission(luc_i, stp_zipu_num->ul_sub_mode_select_num) == M_ON)	○	○	○	○	
	if((stp_denst+luc_i)->uc_state_trb & DataStructConst_S_FAIL_BMP)	○	-	○	○	
	if(stp_data->uc_bump_cal_flg == M_ON)	○	-	-	-	
	if((stp_denst+luc_i)->uc_state_trb & DataStructConst_S_FAIL_SPN)	○	-	-	-	
	else	-	-	-	○	
	Symbol	Range				
Input	uc_bump_cal_flg	1,2	1	1	2	
	uc_state_trb	0,255	255	255	0	255
	m_Chk_BumpPermission()	1,2	1	2	1	1
	ul_sub_mode_select_num	0	0	0	0	0
Output	luc_ans	0,1	1	0	0	1
Judgment						

FlowBumpTestDisplay_Chk_BumpTestResult

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	4
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3	case4
Root	for(luc_i=0; luc_i<HDEF_GAS_MAX; luc_i++)	○	○	○	○
	if(m_Chk_BumpPermission(luc_i, stp_zipu_num->ul_sub_mode_select_num))	○	○	-	-
	if(luc_ans == M_OK)	○	-	-	-
	else	-	○	-	-
	else	-	-	○	○
	Symbol	Range			
Input	m_Chk_BumpPermission(luc_i, stp_zipu_num->ul_sub_mode_select_num))	0~2	1	0	2
	m_judg_BumpTest(luc_i)	0~2	0	1	1
Output	None	-	-	-	-
Judgment					

FlowBumpTestDisplay_Chk_BumpTestTimeEnd

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1	case2	case3
Root	if(uss_bump_test_time != 0)		-	○	○
	else		○	-	-
	Symbol	Range			
Input	uss_bump_test_time	0~9001	0	9000	9001
Output	luc_ans	0,1	0	1	1
Judgment					

FlowBumpTestDisplay_Chk_HCModeWarmFlg

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	7
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3	case4	case5	case6	case7
Root	if(m_Chk_BumpPermission(0_stp_zipu_num->ul_sub_mode_select_num) == M_ON)	○	○	○	○	○	-	-
	if(stp_data->uc_bump_cal_flg == M_ON)	○	○	○	○	-	-	-
	if(((stp_denst+0)->uc_state_trb & DataStructConst_S_FAIL_SPN) == 0x00)	○	○	○	-	-	-	-
	if((stp_GasInfo_addr->uc_gas_comb != 0x00) && (stp_GasInfo_addr->uc_gas_comb <= 0x02))	○	○	-	-	-	-	-
	if(stp_data->uc_nc_mode_flg == GAS_CALC_NC_MODE_STINT)	○	-	-	-	-	-	-
	else	-	○	-	-	-	-	-
	else	-	-	○	-	-	-	-
	else	-	-	-	○	-	-	-
	else	-	-	-	-	○	-	-
	else	-	-	-	-	-	○	-
	else	-	-	-	-	-	-	○
	Symbol	Range						
Input	m_Chk_BumpPermission(0_stp_zipu_num->ul_sub_mode_select_num)	0~2	1	1	1	1	0	2
	stp_data->uc_bump_cal_flg	0~2	1	1	1	0	0	2
	(stp_denst+0)->uc_state_trb	0x00,0xFF	0x00	0x00	0x00	0xFF	0xFF	0xFF
	stp_GasInfo_addr->uc_gas_comb	0~2	1	1	0	0	0	2
	stp_data->uc_nc_mode_flg	0~2	1	0	0	0	0	2
Output	luc_ans	0,1	1	0	0	0	0	0
Judgment								

FlowBumpTestDisplay_Com_BumpTest

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	6
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3	case4	case5	case6
Root	for(luc_i=0; luc_i<HDDDEF_GAS_MAX; luc_i++)	○	○	○	○	○	○
	if((stp_gasinfo_addr+luc_i)->uc_gas_comb != 0x00)	○	○	○	○	-	○
	if((stp_gasinfo_addr+luc_i)->ul_cal_denst != M_OFF_VAL)	○	○	○	-	-	-
	if(((stp_denst+luc_i)->uc_state_trb & (DataStructConst_S_Fail_INS DataStructConst_S_Fail_SEN)))	○	○	-	-	-	-
	if(luc_aris == M_OK)	○	-	-	-	-	-
	else	-	○	-	-	-	-
	else	-	-	○	-	-	-
	else	-	-	-	○	-	○
	else	-	-	-	-	○	-
Input	Symbol	Range					
(stp_gasinfo_addr+luc_i)->uc_gas_comb	0~30	29	29	29	29	0	30
(stp_gasinfo_addr+luc_i)->ul_cal_denst	0~0x00000000	0	0	50000	0x00000000	50000	50001
(stp_denst+luc_i)->uc_state_trb	0x00,0xFF	0x00	0x00	0xFF	0xFF	0xFF	0xFF
m_judg_BumpTest(luc_i)	0~2	0	1	0	0	0	2
Output	luc_result	0~12	0	7	0	0	12
Judgment							

FlowBumpTestDisplay_Disp_BumpGasSelect

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	9
Test	Taki			
Judgment	Ikarashi		Judgment	

[illegible]

FlowBumpTestDisplay_Disb_BumpResult

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	10
Test	Taki			
Judgment	Ikarashi		Judgment	

[illegible]

FlowBumpTestDisplay_Disg_BumpTest

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	4
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3	case4
Root	for(luc_i=0; luc_i<4; luc_i++)	O	O	O	O
	if(m_Chk_BumpPermission(luc_i, stp_zipu_num->ul_sub_mode_select_num))	O	O	-	-
	if(puc_num == 0 ((stp_denst+luc_i)->uc_state_trb & DataStructConst_S_FAIL_BMP))	O	-	-	-
	else	O	O	-	-
	else	-	-	O	-
	switch(ZIPNumSet_Get_DisgFlicker2())	O	O	O	O
	case 0	O	O	-	-
	if(puc_num == 0)	O	-	-	-
	else	-	O	-	-
	case 1	-	-	O	-
	default	-	-	-	O
	if(puc_num == 0)	O	-	-	-
	else	-	O	O	O
Input	Symbol	Range			
	puc_num	0~2			
	m_Chk_BumpPermission(luc_i, stp_zipu_num->ul_sub_mode_select_num)	0~2			
	(stp_denst+luc_i)->uc_state_trb	0x00~0xFF			
	ZIPNumSet_Get_DisgFlicker2()	0~2			
Output	stp_rl_disp->uc_lcd_time[0]	0x20	0x20	0x20	0x20
	stp_rl_disp->uc_lcd_time[1]	0x20	0x20	0x20	0x20
	stp_rl_disp->uc_lcd_time[2]	0x20	0x20	0x20	0x20
	stp_rl_disp->uc_lcd_time[3]	0x20	0x20	0x20	0x20
	stp_rl_disp->uc_lcd_time_blink	0xFF	0xFF	0xFF	0xFF
	stp_rl_disp->uc_lcd_time_dot	0x00	0x00	0x00	0x00
		0x00	0x00	0x00	0x00
Judgment					

FlowBumpTestDisplay_Disg_SetBumpCal

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1
Root	None	-
Symbol		Range
Input	None	-
Output	None	-
Judgment		

FlowBumpTestDisplay_Execution_BumpCal

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1
Root	None	-
Symbol		Range
Input	None	-
Output	None	-
Judgment		

FlowBumpTestDisplay_Get_BumpCalTime

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3
Root	None	-	-	-
Symbol		Range		
Input	stp_data->uc_bump_cal_time	90	120	121
	stp_data->uc_bump_time	30~91	30	90
Output	uss_bump_cal_time	59546, 62536	59536	62536
Judgment				

FlowBumpTestDisplay_Get_BumpGasSelect

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1
Root	None	-
Symbol		Range
Input	None	-
Output	stp_zipu_num->ul_sub_mode_select_num	0
Judgment		

FlowBumpTestDisplay_Get_BumpResultDens

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3
Root	None	-	-	-
Symbol		Range		
Input	puc_num	0~5	0	4
Output	uls_bump_result_dens[0][puc_num]	0	0	0
Judgment				

FlowBumpTestDisplay_Get_BumpSDMSelear

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1
Root	None	-
Symbol		Range
Input	None	-
Output	None	-
Judgment		

FlowBumpTestDisplay_Get_BumpTestTime

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3
Root	None	-	-	-
	Symbol	Range		
Input	stp_data->uc_bump_time	30	90	91
Output	uss_bump_test_time	3000-9100	3000	9000 9100
Judgment				

FlowBumpTestDisplay_Init_BumpTest

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3
Root	for(luc_i=0; luc_i<DataStructConst_CAL_GROUP_END; luc_i++)	O	O	O
	for(luc_j=0; luc_j<HDDDEF_GAS_MAX; luc_j++)	O	O	O
	if(stp_GasInfo_addr+luc_j>uc_gas_comb != 0x00)	O	O	-
	if(luc_i == (stp_GasInfo_addr+luc_j)>uc_cal_group)	O	-	-
	else	-	O	-
	else	-	-	O
	if(luc_ans == M_ON)	O	-	-
	else	-	O	O
	for(luc_i = 0U; luc_i < HDDDEF_GAS_MAX; luc_i++)	O	O	O
	Symbol	Range		
Input	(stp_GasInfo_addr+luc_j)>uc_gas_comb	0-30	29	30 0
	(stp_GasInfo_addr+luc_j)>uc_cal_group	0x00,0xFF	0x00	0xFF 0xFF
Output	stp_zipu_num->ul_sub_mode_select_num	0,5	0	5 5
	stp_zipu_num->uc_sub_mode_select_updown	0	0	0 0
	stp_zipu_num->ul_sub2_mode_select_num	0	0	0 0
	stp_zipu_num->uc_sub2_mode_select_updown	0	0	0 0
Judgment				

FlowBumpTestDisplay_SelectUp_BumpGasSelect

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	5
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3	case4	case5
Root	if(stp_zipu_num->ul_sub_mode_select_num > DataStructConst_CAL_GROUP_END)	O	-	-	-	-
	else	-	O	O	O	O
	for(luc_i; luc_i < DataStructConst_CAL_GROUP_END; luc_i++){	-	O	O	O	O
	if(FlowGasCalDisplay_Chk_AutoCalMenuGasOn(M_OFF, luc_i) == M_OK)	-	-	O	-	O
	Symbol	Range				
Input	ul_sub_mode_select_num	3-6	6	5	3	4 5
	FlowGasCalDisplay_Chk_AutoCalMenuGasOn()	0,1	0	0	0	0 1
Output	ul_sub_mode_select_num	4-6	6	6	4	5 5
Judgment						

FlowBumpTestDisplay_Select_BumpGasSelect

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	5
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3	case4	case5
Root	if(stp_zipu_num->uc_sub_mode_select_updown == M_OFF)	O	O	-	-	-
	if(stp_zipu_num->ul_sub_mode_select_num == DataStructConst_CAL_GROUP_END)	O	-	-	-	-
	else	-	O	-	-	-
	for(luc_i; luc_i < DataStructConst_CAL_GROUP_END; luc_i++){	O	-	-	-	-
	if(FlowGasCalDisplay_Chk_AutoCalMenuGasOn(M_OFF, luc_i) == M_OK)	O	-	-	-	-
	else	-	O	-	-	-
	else	-	-	O	O	O
	if(stp_zipu_num->ul_sub_mode_select_num == 0)	-	-	O	-	-
	else	-	-	-	O	O
	for(luc_i; luc_i > 0; luc_i--)	-	-	-	O	O
	if(FlowGasCalDisplay_Chk_AutoCalMenuGasOn(M_OFF, luc_i) == M_OK)	-	-	-	O	-
	else	-	-	-	-	O
	if((luc_i == 0) && (FlowGasCalDisplay_Chk_AutoCalMenuGasOn(M_OFF, luc_i) == M_NG))	-	-	-	-	O
	else	-	-	-	O	-
	Symbol	Range				
Input	stp_zipu_num->uc_sub_mode_select_updown	0-2	0	0	1	1 2
	stp_zipu_num->ul_sub_mode_select_num	0x00000000,0xFFFFFFFF	0x00000005	0x00000000	0xFFFFFFFF	0xFFFFFFFF
	FlowGasCalDisplay_Chk_AutoCalMenuGasOn(M_OFF, luc_i)	0-2	0	1	2	0 1
Output	stp_zipu_num->ul_sub_mode_select_num	5-254	6	5	6	254 6
Judgment						

FlowBumpTestDisplay_Select_BumpResult

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	5
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3	case4	case5
Root	!(FlowBumpTestDisplay_Chk_BumpAlarm() == M_ON)	O	O	O	-	-
	!(stp_data->uc_bump_cal_flg == M_ON)	O	O	-	-	-
	else	-	-	O	-	-
	else	-	-	-	O	O
	!(luc_flg == M_ON)	O	O	-	-	-
	!(stp_zipu_num->ul_sub2_mode_select_num > 2)	O	-	-	-	-
	else	-	O	-	-	-
	else	-	-	O	O	O
Input	Symbol	Range				
	FlowBumpTestDisplay_Chk_BumpAlarm()	0~2	1	1	1	0
	stp_data->uc_bump_cal_flg	0~2	1	1	0	0
	stp_zipu_num->ul_sub2_mode_select_num	0x00000000~0xFFFFFFFF	0x00000002	0x00000000	0x00000002	0x00000000
	stp_zipu_num->ul_sub2_mode_select_num	0.1	0	1	0	1
	stp_zipu_num->ul_sub2_mode_select_num		0	1	0	1
	stp_zipu_num->ul_sub2_mode_select_num		0	1	0	1
	stp_zipu_num->ul_sub2_mode_select_num		0	1	0	1
Output	Symbol	Range				
	FlowBumpTestDisplay_Chk_BumpAlarm()	0~2	1	1	1	0
Judgment	Symbol	Range				
	FlowBumpTestDisplay_Chk_BumpAlarm()	0~2	1	1	1	0

FlowBumpTestDisplay_Set_BumpCalData

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3
Root	None	-	-	-
	Symbol	Range		
Input	puc_num	0~5	0	4
	stp_dens->ul_m_dens	0x00000000~0xFFFFFFFF	0x00000000	0xFFFFFFFF
	stp_dens->uc_m_dens_minus_flg	0~2	0	1
	stp_dens->uc_m_over_flg	0~2	0	1
	stp_dens->uc_m_over_minus_flg	0~2	0	1
	stp_dens->uc_m_over_minus_flg	0~2	0	1
Output	uls_bump_result_dens[1][puc_num]	0	0	0
	uls_bump_result_minus_flg[1][puc_num]	0	0	0
	uls_bump_result_over_flg[1][puc_num]	0	0	0
	uls_bump_result_over_minus_flg[1][puc_num]	0	0	0
Judgment	Symbol	Range		
	FlowBumpTestDisplay_Chk_BumpAlarm()	0~2	1	1

FlowBumpTestDisplay_Set_BumpErrorOff

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1
Root	for(luc_i = 0U; luc_i < HDEF_GAS_MAX; luc_i++)		O
	Symbol	Range	
Input	None	-	-
Output	None	-	-
Judgment			

FlowBumpTestDisplay_Set_BumpSDMSelear

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1
Root	None		-
	Symbol	Range	
Input	None	-	-
Output	None	-	-
Judgment			

m_Chk_BumpPermission

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	5
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3	case4	case5
Root	!(stp_Gasinfo_addr+puc_num)->uc_gas_comb != 0x00)	O	O	O	O	-
	!(stp_Gasinfo_addr+puc_num)->ul_cal_dens != M_OFF_VAL)	O	O	O	-	-
	if(!((stp_dens+puc_num)->uc_state_trb & (DataStructConst_S_FAIL_INS DataStructConst_S_FAIL_SEN)))	O	O	-	-	-
	if((stp_Gasinfo_addr+puc_num)->uc_cal_group == stp_zipu_num->ul_sub2_mode_select_num)	O	-	-	-	-
	else	-	O	-	-	-
	else	-	-	O	-	-
	else	-	-	-	O	-
	else	-	-	-	-	O
Input	Symbol	Range				
	puc_num	0~5	0	0	0	4
	puc_flg	0.2	0	0	0	0
	(stp_Gasinfo_addr+puc_num)->uc_gas_comb	0~30	30	29	29	29
	(stp_Gasinfo_addr+puc_num)->ul_cal_dens	0x00000000~0xFFFFFFFF	0xFFFFFFFF	0xFFFFFFFF	0x00000000	0x00000000
	(stp_dens+puc_num)->uc_state_trb	0x00~0xFFFF	0x00	0x00	0xFF	0x00
	(stp_Gasinfo_addr+puc_num)->uc_cal_group	0x00~0xFFFF	0x00	0x00	0xFF	0x00
	stp_zipu_num->ul_sub2_mode_select_num	0x00000000~0xFFFFFFFF	0x00000000	0xFFFFFFFF	0x00000000	0xFFFFFFFF
Output	Symbol	Range				
	FlowBumpTestDisplay_Chk_BumpAlarm()	0~2	1	1	1	0
Judgment	Symbol	Range				
	FlowBumpTestDisplay_Chk_BumpAlarm()	0~2	1	1	1	0

m_judg_BumpTest

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	12
Test	Taki			
Judgment	Ikarashi		Judgment	

Root			case1	case2	case3	case4	case5	case6	case7	case8	case9	case10	case11	case12	
	if(puc_num == 1)		○	○	○	○	○	○	-	-	-	-	-	-	
	if(((ll_cal_denst + ll_lim_data) >= stp_denst->ul_m_denst		○	○	○	○	○	-	-	-	-	-	-	-	
	if(((ll_cal_denst >= ll_lim_data) && (stp_denst->uc_m_denst_minus_flg == 0))		○	○	-	-	-	-	-	-	-	-	-	-	
	if(((ll_cal_denst - ll_lim_data) <= stp_denst->ul_m_denst) && (stp_denst->uc_m_denst_minus_flg == 0))		○	-	-	-	-	-	-	-	-	-	-	-	
	else		-	○	-	-	-	-	-	-	-	-	-	-	
	else		-	-	○	○	○	-	-	-	-	-	-	-	
	if(stp_denst->uc_m_denst_minus_flg == 0)		-	-	○	-	-	-	-	-	-	-	-	-	
	else if(((ll_lim_data - ll_cal_denst) >= stp_denst->ul_m_denst) && (stp_denst->uc_m_denst_minus_flg == 1))		-	-	-	○	-	-	-	-	-	-	-	-	
	else		-	-	-	-	○	-	-	-	-	-	-	-	
	else		-	-	-	-	-	○	-	-	-	-	-	-	
	if(((ll_cal_denst + ll_lim_data) >= stp_denst->ul_m_denst		-	-	-	-	-	-	○	○	○	○	○	○	
	if(((ll_cal_denst >= ll_lim_data) && (stp_denst->uc_m_denst_minus_flg == 0))		-	-	-	-	-	-	○	○	○	○	○	-	
	if(((ll_cal_denst - ll_lim_data) <= stp_denst->ul_m_denst) && (stp_denst->uc_m_denst_minus_flg == 0))		-	-	-	-	-	-	○	○	○	○	○	-	
Input	Symbol	Range													
	puc_num	0~5	1	1	1	1	1	1	0	0	0	0	4	5	
	stp_GasInfo_addr->ul_cal_denst	0x00000000~0x000000C7	0x000000C7	0x000000C7	0x00000000	0x00000000	0x00000000	0x00000000	0x0000000A	0x0000000A	0x0000000A	0x0000000A	0x0000000A	0x00000000	
	stp_data->uc_bump_limit	0x0A~0xFF	0x0A	0x0A	0x32	0x32	0x32	0x0A	0x32	0x32	0xFF	0xFF	0xFF	0xFF	
	stp_denst->ul_m_denst	0x00000000~0xFFFFFFFF	0x000000C7	0x00000000	0x00000000	0x00000000	0x00000000	0xFFFFFFFF	0x00000008	0x00000000	0x00000000	0x00000000	0x00000000	0xFFFFFFFF	
Output	stp_denst->uc_m_denst_minus_flg	0~2	0	0	0	1	1	0	0	0	1	2	2		
	luc_ans	0,1	1	1	1	1	1	1	0	1	0	0	0	0	
Judgment															

m_Set_BumpResult

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3	
Root	if(puc_result == M_OK)	○	-	-	
	else	-	○	○	
Input	Symbol	Range			
	puc_num	0-5	4	0	5
	puc_result	0-2	0	1	2
	stp_denst->ul_m_denst	0x00000000,0xFFFFFFFF	0x00000000	0x00000000	0xFFFFFFFF
	stp_denst->uc_m_denst_minus_flg	0-2	0	1	2
	stp_denst->uc_m_over_flg	0-2	0	1	2
	stp_denst->uc_m_over_minus_flg	0-2	0	1	2
Output	uls_bump_result_denst[0][puc_num]	0	0	0	0
	uls_bump_result_minus_flg[0][puc_num]	0,1	0	1	1
	uls_bump_result_over_flg[0][puc_num]	0,1	0	1	1
	uls_bump_result_over_minus_flg[0][puc_num]	0,1	0	1	1
Judgment					

Unit Test Specification

Project name	GX-Force
File name	flow_cal_limit_display.c

FlowCalLimitDisplay_Dispatch_CalExprd

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	4
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3	case4
Root	switch(stp_zipu_num->ul_item_select_num)	○	○	○	○
	case FuncCalLimit_CAL_CONFIRM	○	-	-	-
	case FuncCalLimit_CAL_NOTUSE	-	○	-	-
	case FuncCalLimit_CAL_TOEEFFECT	-	-	○	-
	default	-	-	-	○
	Symbol	Range			
Input	stp_zipu_num->ul_item_select_num	0x00000000-0xFFFFFFFF	0x00000000	0x00000001	0x00000002
Output	stp_nl_disp->uc_lcd_com_blink	127	127	127	127
	stp_nl_disp->uc_lcd_com_dot_blink	127,255	127	127	255
Judgment					

FlowCalLimitDisplay_Dispatch_CalInterval

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1
Root	None	-
	Symbol	Range
Input	None	-
Output	stp_nl_disp->uc_lcd_mes_blink[0]	0xFF
Judgment		

FlowCalLimitDisplay_Dispatch_CalReminder

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1
Root	None	-
	Symbol	Range
Input	None	-
Output	None	-
Judgment		

FlowCalLimitDisplay_End_CalExprd

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	2
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2
Root	None	-	-
	Symbol	Range	
Input	stp_zipu_num->ul_item_select_num	0x00000000,0xFFFFFFFF	0x00000000
Output	stp_data->uc_cal_lmt_chk	0x00,0xFF	0x00
Judgment			

FlowCalLimitDisplay_End_CallInterval

	Responsible	Last update
Coding	Ikarashi	
Test	Taki	
Judgment	Ikarashi	

Infinite loop	None
Verification pass	2
Judgment	

		case1	case2
Root	None	-	-
	Symbol	Range	
Input	stp_zipu_num->ul_item_select_num	0x00000000,0xFFFFFFFF	0x00000000 0xFFFFFFFF
Output	stp_data->us_cal_lmt_day	0x0000,0xFFFF	0x00000 0xFFFF
Judgment			

FlowCalLimitDisplay_End_CallReminder

	Responsible	Last update
Coding	Ikarashi	
Test	Taki	
Judgment	Ikarashi	

Infinite loop	None
Verification pass	2
Judgment	

		case1	case2
Root	None	-	-
	Symbol	Range	
Input	stp_zipu_num->ul_item_select_num	0x00000000,0xFFFFFFFF	0x00000000 0xFFFFFFFF
Output	stp_data->uc_cal_lmt_set	0x00,0xFF	0x00 0xFF
Judgment			

FlowCalLimitDisplay_Init_CallExprd

	Responsible	Last update
Coding	Ikarashi	
Test	Taki	
Judgment	Ikarashi	

Infinite loop	None
Verification pass	3
Judgment	

		case1	case2	case3
Root	None	-	-	-
	Symbol	Range		
Input	stp_data->uc_cal_lmt_chk	0~3	0	2 3
Output	stp_zipu_num->ul_item_select_num	0~3	0	2 3
	stp_zipu_num->uc_item_select_updown	0	0	0
Judgment				

FlowCalLimitDisplay_Init_CallInterval

	Responsible	Last update
Coding	Ikarashi	
Test	Taki	
Judgment	Ikarashi	

Infinite loop	None
Verification pass	3
Judgment	

		case1	case2	case3
Root	None	-	-	-
	Symbol	Range		
Input	stp_data->us_cal_lmt_day	1~1001	1	1000 1001
Output	stp_zipu_num->ul_item_select_num	1~1001	1	1000 1001
	stp_zipu_num->uc_item_select_updown	0	0	0
Judgment				

FlowCalLimitDisplay_Init_CallLimitMenu

	Responsible	Last update
Coding	Ikarashi	
Test	Taki	
Judgment	Ikarashi	

Infinite loop	None
Verification pass	1
Judgment	

			case1
Root	None		
	Symbol	Range	
Input	None	-	-
Output	stp_zipu_num->ul_sub_mode_select_num	0	0
	stp_zipu_num->uc_sub_mode_select_updown	0	0
Judgment			

FlowCalLimitDisplay_Init_CalReminder

	Responsible	Last update
Coding	Ikarashi	
Test	Taki	
Judgment	Ikarashi	

Infinite loop	None
Verification pass	3
Judgment	

			case1	case2	case3
Root	None		-	-	-
	Symbol	Range			
Input	stp_data->uc_cal_lmt_set	0~2	0	1	2
Output	stp_zipu_num->ul_item_select_num	0~2	0	1	2
	stp_zipu_num->uc_item_select_updown	0	0	0	0
Judgment					

FlowCalLimitDisplay_Select_CalExprd

	Responsible	Last update
Coding	Ikarashi	
Test	Taki	
Judgment	Ikarashi	

Infinite loop	None
Verification pass	2
Judgment	

			case1	case2
Root	None		-	-
	Symbol	Range		
Input	Tool_OneCount((U_LNG)stp_zipu_num->ul_item_select_num, 1, (U_LNG)FuncCalLimit_CAL_TOEEFFECT, (U_LNG)FuncCalLimit_CAL_CONFIRM, stp_zipu_num->uc_item_select_updown, M_OFF)	0x00000000,0xFFFFFFFF	0x00000000	0xFFFFFFFF
Output	stp_zipu_num->ul_item_select_num	0x00000000,0xFFFFFFFF	0x00000000	0xFFFFFFFF
Judgment				

FlowCalLimitDisplay_Select_CalInterval

	Responsible	Last update
Coding	Ikarashi	
Test	Taki	
Judgment	Ikarashi	

Infinite loop	None
Verification pass	3
Judgment	

			case1	case2	case3
Root	if(puc_num == 1) else		- ○	○ -	- ○
	Symbol	Range			
Input	puc_num	0x00~0xFF	0x00	0x01	0xFF
	Tool_OneCount((U_LNG)stp_zipu_num->ul_item_select_num, 1, (U_LNG)M_CAL_INTVL_MAX, (U_LNG)M_CAL_INTVL_MIN, stp_zipu_num->uc_item_select_updown, M_OFF)	0x00000000,0xFFFFFFFF	0x00000000	0x00000000	0xFFFFFFFF
	Tool_OneCount((U_LNG)stp_zipu_num->ul_item_select_num, 10, (U_LNG)M_CAL_INTVL_MAX, (U_LNG)M_CAL_INTVL_MIN, stp_zipu_num->uc_item_select_updown, M_OFF)	0x00000000,0xFFFFFFFF	0x00000000	0x00000000	0xFFFFFFFF
Output	stp_zipu_num->ul_item_select_num	0x00000000,0xFFFFFFFF	0x00000000	0x00000000	0xFFFFFFFF
Judgment					

FlowCalLimitDisplay_Select_CalLimitMenu

	Responsible	Last update
Coding	Ikarashi	
Test	Taki	
Judgment	Ikarashi	

Infinite loop	None
Verification pass	4
Judgment	

		case1	case2	case3	case4	
Root	if(stp_zipu_num->ul_sub_mode_select_num == U_C_CHK_GAS_NUM)	○	○	-	-	
	if(stp_zipu_num->uc_sub_mode_select_updown == M_OFF)	○	-	-	-	
	else	-	○	-	-	
	else	-	-	○	○	
	Symbol	Range				
Input	Tool_OneCount((U_LNG)stp_zipu_num->ul_sub_mode_select_num, 1, (U_LNG)U_C_END_NUM, (U_LNG)U_C_REMAINDER_NUM, stp_zipu_num->uc_sub_mode_select_updown, M_OFF)	0x00000000~0xFFFFFFFF	0x00000003	0x00000003	0x00000000	0xFFFFFFFF
	stp_zipu_num->ul_sub_mode_select_num	0x00000000~0xFFFFFFFF	0x00000003	0x00000003	0x00000000	0xFFFFFFFF
	stp_zipu_num->uc_sub_mode_select_updown	0~2	0	1	1	2
	stp_zipu_num->ul_sub_mode_select_num	0x00000000~0xFFFFFFFF	0x00000004	0x00000002	0x00000000	0xFFFFFFFF
Output						
Judgment						

FlowCalLimitDisplay_Select_CalReminder

	Responsible	Last update
Coding	Ikarashi	
Test	Taki	
Judgment	Ikarashi	

Infinite loop	None
Verification pass	3
Judgment	

			case1	case2	case3
Root	None		-	-	-
	Symbol	Range			
Input	Tool_CHR_Chg_OnOff (stp_zipu_num->ul_item_select_num)	0,1	0	1	2
Output	stp_zipu_num->ul_item_select_num	0~2	0	1	2
Judgment					

FlowCalLimitDisplay_Set_CalLimitMenu

	Responsible	Last update
Coding	Ikarashi	
Test	Taki	
Judgment	Ikarashi	

Infinite loop	None
Verification pass	5
Judgment	

			case1	case2	case3	case4	case5
Root	switch(stp_zipu_num->ul_sub_mode_select_num)		○	○	○	○	○
	case U_C_REMAINDER_NUM		○	-	-	-	-
	case U_C_INTERVAL_NUM		-	○	-	-	-
	case U_C_EXPRD_NUM		-	-	○	-	-
	case U_C_END_NUM		-	-	-	○	-
	default		-	-	-	-	○
	Symbol	Range					
Input	stp_zipu_num->ul_sub_mode_select_num	0x00000000~0xFFFFFFFF	0x00000000	0x00000001	0x00000002	0x00000004	0xFFFFFFFF
Output	None	-	-	-	-	-	-
Judgment							

Unit Test Specification

Project name	GX-Force
File name	flow_com_display.c

FlowComDisplay_Dispatch_SDMMode

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi	2021/6/17	Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1
Root	None		-
	Symbol	Range	
Input	None	-	-
Output	None	-	-
Judgment			

FlowComDisplay_Set_ComConnect

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1
Root	None		-
	Symbol	Range	
Input	None	-	-
Output	None	-	-
Judgment			

Unit Test Specification

Project name	GX-Force
File name	flow_disp_display.c

FlowDispDisplay_Disg_AlarmPointData

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	8
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3	case4	case5	case6	case7	case8
Root	switch(stp_zipu_num->ul_sub_mode_select_num)	○	○	○	○	○	○	○	○
	case 0	○	-	-	-	-	-	-	-
	case 1	-	○	-	-	-	-	-	-
	case 2	-	-	○	-	-	-	-	-
	case 3	-	-	-	○	-	-	-	-
	case 4	-	-	-	-	○	-	-	-
	case 5	-	-	-	-	-	○	-	-
	case 6	-	-	-	-	-	-	○	-
	default	-	-	-	-	-	-	-	○
	Symbol	Range							
Input	stp_zipu_num->ul_sub_mode_select_num	0x00000000~0xFFFFFFFF	0x00000000	0x00000001	0x00000002	0x00000003	0x00000004	0x00000005	0x00000006
Output	None	-	-	-	-	-	-	-	-
Judgment									

FlowDispDisplay_Disg_BumpData

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1
Root	None	-
	Symbol	Range
Input	None	-
Output	stp_rl_disp->uc_lcd_com_dot[0]	0x10
	stp_rl_disp->uc_lcd_mes_dot[0]	0x04
Judgment		

FlowDispDisplay_Disg_CalData

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1
Root	None	-
	Symbol	Range
Input	None	-
Output	stp_rl_disp->uc_lcd_com_dot[0]	0x10
	stp_rl_disp->uc_lcd_mes_dot[0]	0x04
Judgment		

FlowDispDisplay_Disg_HCGasSetting

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1
Root	None	-
	Symbol	Range
Input	None	-
Output	stp_rl_disp->uc_lcd_com_blink	0x7F
Judgment		

FlowDispDisplay_Disg_HCLongSetting

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1
Root	None	-
	Symbol	Range
Input	None	-
Output	stp_rl_disp->uc_lcd_com_dot	0x08
Judgment		

FlowDispDisplay_Disg_PeakClearHold

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1
Root	None	-
	Symbol	Range
Input	None	-
Output	None	-
Judgment		

FlowDispDisplay_Disg_PeakClearRelease

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1
Root	None	-
	Symbol	Range
Input	None	-
Output	None	-
Judgment		

FlowDispDisplay_Disg_PumpOff

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3
Root	switch(ZIPNumSet_Get_DisgFlicker2())	O	O	O
	case 0	O	-	-
	case 1	-	O	-
	default	-	-	O
	Symbol	Range		
Input	uc_lcd_mes[0][0]	0	0	0
	uc_lcd_com[1]	0	0	0
	ZIPNumSetGet_DisgFlicker2()	0~2	0	1
Output	uc_lcd_com_dot	0~16	8	16
Judgment				

FlowDispDisplay_Disg_SnapData

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	4
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3	case4
Root	if(stp_zipu_num->uc_chr_temporary_item[0] != M_OFF)	O	O	O	O
	else	-	-	-	-
	switch(stp_zipu_num->ul_item_select_num)	O	O	O	O
	case 0	O	-	-	-
	case 1	-	O	O	-
	default	-	-	-	O
	Symbol	Range			
Input	ul_sub_mode_select_num	0	0	0	0
	ul_item_select_num	0~2	0	0	1
	uc_chr_temporary_item[0]	0,1	0	1	1
Output	None	-	-	-	-
Judgment					

FlowDispDisplay_Disg_StationIdSelect

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi	2021/6/17	Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1
Root	None	-
	Symbol	Range
Input	None	-
Output	stp_rl_disp->uc_lcd_com_blink	0x7F
Judgment		

FlowDispDisplay_Disg_UserIdSelect

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1
Root	None	-
	Symbol	Range
Input	None	-
Output	stp_rl_disp->uc_lcd_com_blink	0x7F
Judgment		

FlowDispDisplay_End_HCGasSetting

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	2
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2
Root	None	-	-
	Symbol	Range	
Input	stp_zipu_num->ul_sub_mode_select_num	0x00000000, 0xFFFFFFFF	0x00000000
Output	(stp_GasInfo_addr+0)->uc_sub_comb	0x00, 0xFF	0x00
Judgment			

FlowDispDisplay_End_HCLongSetting

	Responsible	Last update
Coding	Ikarashi	
Test	Taki	
Judgment	Ikarashi	

Infinite loop	None
Verification pass	2
Judgment	

		case1	case2
Root	None	-	-
	Symbol	Range	
Input	stp_zipu_num->ul_sub_mode_select_num	0x00000000, 0xFFFFFFFF	0x00000000 0xFFFFFFFF
Output	stp_data->uc_long_energy_flg	0x00, 0xFF	0x00 0xFF
Judgment			

FlowDispDisplay_End_PumpOff

	Responsible	Last update
Coding	Ikarashi	
Test	Taki	
Judgment	Ikarashi	

Infinite loop	None
Verification pass	2
Judgment	

		case1	case2
Root	if(FlowProcesDisplay_Get_PumpOffFlag() == true) for(luc_j=0U; luc_j<HDDDEF_GAS_MAX; luc_j++) for(luc_j=0U; luc_j<15U; luc_j++) for(luc_j=0U; luc_j<9U; luc_j++) else	O O O O -	- - - - O
	Symbol	Range	
Input	FlowProcessDisplay_Get_PumpOffFlag()	1,2	1 2
Output	ul_60_total	0	0 0
	ul_ave	0	0 0
	ul_ave_total_cnt	0	0 0
	ul_stel_point	0	0 0
	ul_stel_buf	0	0 0
	ul_stel	0	0 0
	ul_twa	0	0 0
	ul_60min_buf	0	0 0
	uc_60min_count	0	0 0
Judgment			

FlowDispDisplay_End_StationIdSelect

	Responsible	Last update
Coding	Ikarashi	
Test	Taki	
Judgment	Ikarashi	

Infinite loop	None
Verification pass	2
Judgment	

		case1	case2
Root	None	-	-
	Symbol	Range	
Input	stp_zipu_num->ul_item_select_num	0x00000000, 0xFFFFFFFF	0x00000000 0xFFFFFFFF
Output	stp_data->uc_st_idx	0x00, 0xFF	0x00 0xFF
Judgment			

FlowDispDisplay_End_UserIdSelect

	Responsible	Last update
Coding	Ikarashi	
Test	Taki	
Judgment	Ikarashi	

Infinite loop	None
Verification pass	2
Judgment	

		case1	case2
Root	None	-	-
	Symbol	Range	
Input	stp_zipu_num->ul_item_select_num	0x00000000, 0xFFFFFFFF	0x00000000 0xFFFFFFFF
Output	stp_data->uc_ur_idx	0x00, 0xFF	0x00 0xFF
Judgment			

FlowDispDisplay_Get_LightOnPermission

	Responsible	Last update
Coding	Ikarashi	
Test	Taki	
Judgment	Ikarashi	

Infinite loop	None
Verification pass	2
Judgment	

		case1	case2
Root	if(stp_data->uc_steath_on == M_ON) else	O -	- O
	Symbol	Range	
Input	uc_steath_on	1,2	1 2
Output	lbt_ans	0,1	0 1
Judgment			

FlowDispDisplay_Init_AlarmPointData

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1
Root	None		-
	Symbol	Range	
Input	None	-	-
Output	stp_zipu_num->ul_sub_mode_select_num	0	0
	stp_zipu_num->uc_sub_mode_select_updown	0	0
Judgment			

FlowDispDisplay_Init_BumpData

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1
Root	None		-
	Symbol	Range	
Input	None	-	-
Output	stp_zipu_num->ul_sub_mode_select_num	0	0
	stp_zipu_num->uc_sub_mode_select_updown	0	0
Judgment			

FlowDispDisplay_Init_CalData

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1
Root	None		-
	Symbol	Range	
Input	None	-	-
Output	stp_zipu_num->ul_sub_mode_select_num	0	0
	stp_zipu_num->uc_sub_mode_select_updown	0	0
Judgment			

FlowDispDisplay_Init_Dispmenu

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1
Root	None		-
	Symbol	Range	
Input	None	-	-
Output	stp_zipu_num->ul_sub_mode_select_num	0	0
Judgment			

FlowDispDisplay_Init_HCGasSetting

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1	case2	case3
Root	None		-	-	-
	Symbol	Range			
Input	(stp_GasInfo_addr+0)->uc_sub_comb	0-29	0	29	30
Output	stp_zipu_num->ul_sub_mode_select_num	0-30	0	29	30
	stp_zipu_num->uc_sub_mode_select_updown	0	0	0	0
Judgment					

FlowDispDisplay_Init_HCLongSetting

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1	case2	case3
Root	None		-	-	-
	Symbol	Range			
Input	stp_data->uc_long_energy_flg	0-2	0	1	2
Output	stp_zipu_num->ul_sub_mode_select_num	0-2	0	1	2
Judgment					

FlowDispDisplay_Init_PumpOff

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1
Root	None	-
	Symbol	Range
Input	None	-
Output	None	-
Judgment		

FlowDispDisplay_Init_SnapData

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	5
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1	case2	case3	case4	case5
Root	if(stp_data_logger_data->uc_snap_rec_pnt == 0U) else if(luc_snap_end_data_flg == M_ON) else if((stp_data_logger_data->uc_snap_rec_pnt == 0U) && (luc_snap_end_data_flg == M_OFF)) else		○ - ○ - ○	- ○ ○ - ○	○ - - ○ -	○ - - ○ -	- ○ - ○ ○
	Symbol	Range					
Input	uc_snap_rec_pnt DataLogger_snap_end_data()	0,1 0~2	0 1	1 1	0 2	0 0	1 0
Output	ul_sub_mode_select_num uc_sub_mode_select_updown ul_item_select_num ul_item_select_updown uc_chr_temporary_item ul_long_temporary_item	0,255 0 0 0 0 0~4294967295	255 0 0 0 0 255	0 0 0 0 0 255	255 0 0 0 0 4294967295	255 0 0 0 0 4294967295	0 0 0 0 0 0
Judgment							

FlowDispDisplay_Init_StationIdSelect

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3
Root	None	-	-	-
	Symbol	Range		
Input	stp_data->uc_st_idx	0~127	0	127
Output	stp_zipu_num->ul_item_select_num stp_zipu_num->uc_item_select_updown	0~128 0	0 0	127 0
Judgment				

FlowDispDisplay_Init_UserIdSelect

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3
Root	None	-	-	-
	Symbol	Range		
Input	stp_data->uc_ur_idx	0~128	0	127
Output	stp_zipu_num->ul_item_select_num stp_zipu_num->uc_item_select_updown	0~128 0	0 0	127 0
Judgment				

FlowDispDisplay_Select_AlarmPointData

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	4
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1	case2	case3	case4
Root	if(GasCalc_Get_ToxicGasON() == M_ON) if(GasCalc_Get_Alarm1hON() == M_ON) else if((stp_zipu_num->ul_sub_mode_select_num == 5) && (GasCalc_Get_AlarmTwaON() == M_OFF)) else else		○ ○ - ○ - -	○ - ○ - ○ -	- - - - - ○	- - - - - ○
	Symbol	Range				
Input	GasCalc_Get_ToxicGasON() GasCalc_Get_Alarm1hON() stp_zipu_num->ul_sub_mode_select_num Tool_OneCount((U_LNG)stp_zipu_num-> ul_sub_mode_select_num, 1, (U_LNG)luc_max, (U_LNG)0, stp_zipu_num->uc_sub_mode_select_ updown, M_OFF) GasCalc_Get_AlarmTwaON()	0~2 0~2 0x00000000~0xFFFFFFFF 0x00000000~0xFFFFFFFF 0~2	1 1 0x00000005 0x00000005 0	1 0 0x00000000 0x00000000 1	0 0 0x00000000 0x00000000 1	2 2 0xFFFFFFFF 0xFFFFFFFF 2
Output	stp_zipu_num->ul_sub_mode_select_num	0x00000000~0xFFFFFFFF	0x00000005	0x00000000	0x00000000	0xFFFFFFFF
Judgment						

FlowDispDisplay Select BumpData

	Responsible	Last update
Coding	Ikarashi	
Test	Taki	
Judgment	Ikarashi	

			case1
Root	None		-
	Symbol	Range	
Input	None	-	-
Output	None	-	-
Argument			

FlowDispDisplay Select CalData

	Responsible	Last update
Coding	Ikarashi	
Test	Taki	
Judgment	Ikarashi	

			case1
Root	None		-
	Symbol	Range	
Input	None	-	-
Output	None	-	-
Judgment			

FlowDispDisplay_Select_DispMenu

	Responsible	Last update
Coding	Ikarashi	
Test	Taki	
Judgment	Ikarashi	

			case1	case2	case3
Root	for(luc_i; luc_i<D_MAX_NUM; luc_i++)		○	○	○
	if(luc_disp_mode_item[luc_i] == M_ON)		○	-	-
	else		-	○	-
	if(luc_i == D_MAX_NUM)		-	○	-
	else		○	-	○
	Symbol	Range			
Input	stp_zipu_num>u_l_mode_select_num	0x00000000~0xFFFFFFFF	0x00000000	19	0xFFFFFFFF
	uc_disp_mode_item[luc_i]	0,1	1	0	2
Output	luc_end	0,1	0	1	0
Input					

FlowDispDisplay Select HCGasSetting

	Responsible	Last update
Coding	Ikarashi	
Test	Taki	
Judgment	Ikarashi	

[illegible]

FlowDispDisplay_Select_HCLongSetting

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	2
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3
Root	None	-	-	-
	Symbol	Range		
Input	Tool_CHR_Chg_OnOff (stp_zipu_num->ul_sub_mode_select_num)	0~2	0	1
Output	stp_zipu_num->ul_sub_mode_select_num	0~2	0	1
Judgment				

FlowDispDisplay_Select_SnapDetail

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3
Root	if(stp_zipu_num->uc_chr_temporary_item[0] == M_OFF)	○	-	-
	else	-	○	○
	if(stp_zipu_num->ul_item_select_num == 0U)	-	○	-
	else	-	-	○
	Symbol	Range		
Input	ul_item_select_num	0,1	0	1
	uc_chr_temporary_item[0]	0,1	0	1
Output	ul_item_select_num	0,1	0	1
Judgment				

FlowDispDisplay_Select_SnapRecData

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3
Root	if(stp_zipu_num->uc_chr_temporary_item[0] == M_OFF)	○	-	-
	else	-	○	○
	if(puc_num == 1U)	-	○	-
	else	-	-	○
	Symbol	Range		
Input	puc_num	1,2	1	2
	Tool_OneCount()	0	0	0
	ul_sub_mode_select_num	0	0	0
	ul_sub_mode_select_updown	0	0	0
	uc_chr_temporary_item[0]	0,1	0	1
	ul_long_temporary_item[0]	0	0	0
Output	ul_sub_mode_select_num	0	0	0
Judgment				

FlowDispDisplay_Select_SnapUpDownMode

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	2
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2
Root	if(stp_zipu_num->uc_chr_temporary_item[0] == M_OFF)	○	-
	else	-	○
	Symbol	Range	
Input	uc_chr_temporary_item[0]	0,1	0
Output	None	-	-
Judgment			

FlowDispDisplay_Select_StationIdSelect

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3
Root	if(puc_num == 1)	-	○	-
	else	○	-	○
	Symbol	Range		
Input	puc_num	0x00~0xFF	0x00	0x01 0xFF
	Tool_OneCount((U_LNG)stp_zipu_num->ul_item_select_num, 1, (U_LNG)HDDEF_STATION_ID_NUM-1, 1, stp_zipu_num->uc_item_select_updown, M_OFF)	0x00000000, 0xFFFFFFFF	0x00000000	0x00000000 0xFFFFFFFF
	Tool_OneCount((U_LNG)stp_zipu_num->ul_item_select_num, 10, (U_LNG)HDDEF_STATION_ID_NUM-1, 0, stp_zipu_num->uc_item_select_updown, M_OFF)	0x00000000, 0xFFFFFFFF	0x00000000	0x00000000 0xFFFFFFFF
Output	stp_zipu_num->ul_item_select_num	0x00000000, 0xFFFFFFFF	0x00000000	0x00000000 0xFFFFFFFF
Judgment				

FlowDispDisplay_Select_UserIdSelect

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3
Root	if(puc_num == 1)	-	○	-
	else	○	-	○
	Symbol	Range		
Input	puc_num	0x00~0xFF	0x00	0x01 0xFF
	Tool_OneCount((U_LNG)stp_zipu_num->ul_item_select_num, 1, (U_LNG)HDDEF_USER_ID_NUM-1, 0, stp_zipu_num->uc_item_select_updown, M_OFF)	0x00000000~0xFFFFFFFF	0x00000000	0x00000000 0xFFFFFFFF
	Tool_OneCount((U_LNG)stp_zipu_num->ul_item_select_num, 10, (U_LNG)HDDEF_USER_ID_NUM-1, 0, stp_zipu_num->uc_item_select_updown, M_OFF)	0x00000000~0xFFFFFFFF	0x00000000	0x00000000 0xFFFFFFFF
Output	stp_zipu_num->ul_item_select_num	0x00000000~0xFFFFFFFF	0x00000000	0x00000000 0xFFFFFFFF
Judgment				

FlowDispDisplay_Set_AlarmPointData

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3
Root	if(puc_onoff == M_OFF)	○	-	-
	else	-	○	○
	Symbol	Range		
Input	puc_onoff	0~2	0	1 2
Output	None	-	-	-
Judgment				

FlowDispDisplay_Set_LightOnOffSetting

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1
Root	None	-
	Symbol	Range
Input	None	-
Output	None	-
Judgment		

m_Chk_DispcHCGasSel

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	7
Test	Taki		Judgment	
Judgment	Ikarashi			

		case1	case2	case3	case4	case5	case6	case7
Root	if(Tool_Comp_Pnt(GasTableDefData[0][puc_num].uc_disp_name, (U_CHR *)&("****"), 3) != 0)	○	○	○	○	○	-	○
	if((GasTableDefData[0][puc_num].uc_uni_dec & 0x00) != 0x00)	○	○	○	○	-	-	-
	if(stp_GasInfo_addr->uc_gas_comb != 0x02 (HCTableDefData[puc_num].uc_meas_group & 0x01) == 0x00)	○	○	○	-	-	-	-
	if(stp_data->uc_nc_mode_flg == GAS_CALC_NC_MODE_FULL (HCTableDefData[puc_num].uc_meas_group & 0x10) == 0x00)	○	○	-	-	-	-	-
	if((stp_data->uc_exp_flg != DSC_TGT_JG) (HCTableDefData[puc_num].uc_jg_support == M_ON))	○	-	-	-	-	-	-
	else	-	○	-	-	-	-	-
	else	-	-	○	-	-	-	-
	else	-	-	-	○	-	-	-
	else	-	-	-	-	○	-	○
	else	-	-	-	-	-	○	-
	Symbol	Range						
Input	puc_num	0-30	15	4	1	29	0	30
	Tool_Comp_Pnt(GasTableDefData[0][puc_num].uc_disp_name, (U_CHR *)&("****"), 3)	0-2	1	1	1	1	0	2
	stp_GasInfo_addr->uc_gas_comb	0-30	0	0	0	2	29	30
	stp_data->uc_nc_mode_flg	0-2	0	0	1	1	1	2
	stp_data->uc_exp_flg	0-4	0	3	3	3	3	4
Output	luc_ans	0.1	1	0	0	0	0	0
Judgment								

m_Chk_DispcMenuitem

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	4
Test	Taki		Judgment	
Judgment	Ikarashi			

		case1	case2	case3	case4	
Root	if(GasCalc_Get_ToxicGasON() == M_ON)	○	○	-	-	
	if(GasCalc_Get_AlarmTwaON() == M_ON)	○	-	-	-	
	else	-	○	-	-	
	if(GasCalc_Get_Alarm1hON() == M_ON)	○	-	-	-	
	else	-	○	-	-	
	else	-	-	○	○	
	if(FuncCallLimit_Get_CallLimitOnOff() == M_ON)	○	-	-	-	
	else	-	○	○	○	
	if(stp_data->uc_bump_lmt_set == M_ON)	○	-	-	-	
	else	-	○	○	○	
	if(stp_data->uc_disp_setting_item_onoff == M_ON)	○	○	-	-	
	if(GasCalc_Get_CombGasON(M_ON) == M_ON)	○	-	-	-	
	else	-	○	-	-	
	if(GasCalc_Get_CombGasON(M_OFF) == M_ON)	○	-	-	-	
	else	-	○	-	-	
	if(stp_data->uc_id_disp_onoff == M_ON)	○	-	-	-	
else	-	○	-	-		
if(stp_data->uc_ble_onoff == M_ON)	○	-	-	-		
else	-	○	-	-		
else	-	-	○	○		
	Symbol	Range				
Input	GasCalc_Get_ToxicGasON()	0.1	1	0	2	
	GasCalc_Get_AlarmTwaON()	0.1	1	0	2	
	GasCalc_Get_Alarm1hON()	0.1	1	0	2	
	FuncCallLimit_Get_CallLimitOnOff()	0.1	1	0	2	
	stp_data->uc_bump_lmt_set	0.1	1	0	2	
	stp_data->uc_disp_setting_item_onoff	0.1	1	1	0	2
	GasCalc_Get_CombGasON(M_ON)	0.1	1	0	0	2
	GasCalc_Get_CombGasON(M_OFF)	0.1	1	0	0	2
	stp_data->uc_id_disp_onoff	0.1	1	0	0	2
	stp_data->uc_ble_onoff	0.1	1	0	0	2
Output	uc_disp_mode_item[D_STEL_NUM]	0.1	1	1	0	0
	uc_disp_mode_item[D_TWA_NUM]	0.1	1	0	0	0
	uc_disp_mode_item[D_1H_NUM]	0.1	1	0	0	0
	uc_disp_mode_item[D_CAL_DATA_NUM]	0.1	1	0	0	0
	uc_disp_mode_item[D_BUMP_DATA_NUM]	0.1	1	0	0	0
	uc_disp_mode_item[D_GASSEL_NUM]	0.1	1	0	0	0
	uc_disp_mode_item[D_HC_LONG_NUM]	0.1	1	0	0	0
	uc_disp_mode_item[D_US_ID_NUM]	0.1	1	0	0	0
	uc_disp_mode_item[D_ST_ID_NUM]	0.1	1	0	0	0
	uc_disp_mode_item[D_BLE_NUM]	0.1	1	0	0	0
Judgment						

m_Dispatch

	Responsible	Last update
Coding	Ikarashi	
Test	Taki	
Judgment	Ikarashi	

Infinite loop	None
Verification pass	4
Judgment	

		case1	case2	case3	case4
Root	if((stp_GasInfo_addr+3)->uc_gas_comb != 0x00)	○		-	○
	if(((stp_denst+3)->uc_state_trb & (DataStructConst_S_FAIL_INS DataStructConst_S_FAIL_SEN)))	○	-	-	-
	else	-	○	-	○
	else	-	-	○	-
Symbol		Range			
Input	(stp_GasInfo_addr+3)->uc_gas_comb	0-30	29	29	0
	(stp_denst+3)->uc_state_trb	0x00,0xFF	0x00	0xFF	0xFF
Output	None	-	-	-	-
Judgment					

m_DispatchLight

	Responsible	Last update
Coding	Ikarashi	
Test	Taki	
Judgment	Ikarashi	

Infinite loop	None
Verification pass	2
Judgment	

		case1	case2
Root	if(LED_Get_LightOnOffStatus() != M_OFF)	○	-
	else	-	○
Symbol		Range	
Input	uc_lcd_mes[0][0]	0	0
	uc_lcd_com[1]	0	0
	LED_Get_LightOnOffStatus()	0,1	1
Output	None	-	-
Judgment			

m_DispatchPeak

	Responsible	Last update
Coding	Ikarashi	
Test	Taki	
Judgment	Ikarashi	

Infinite loop	None
Verification pass	5
Judgment	

		case1	case2	case3	case4	case5
Root	for(luc_i=0; luc_i<4; luc_i++)	○	○	○	○	○
	if((stp_GasInfo_addr+luc_i)->uc_gas_comb != 0x00)	○	○	○	-	○
	if(luc_i != DataStructConst_CO_CAN_H2_H2_CH (stp_GasInfo_addr+luc_i)->uc_gas_comb != DataStructConst_CO_CAN_H2_GAS_NUM)	○	○	-	-	-
	if(((stp_denst+luc_i)->uc_state_trb & (DataStructConst_S_FAIL_INS DataStructConst_S_FAIL_SEN)))	○	○	-	-	-
	if(luc_i == 1)	○	○	-	-	-
	else	○	○	-	-	-
	if(lul_peak_flg)	○	-	-	-	-
	else	-	○	-	-	-
	else	-	-	○	-	○
	else	-	-	-	-	-
	else	-	-	-	○	-
Symbol		Range				
Input	(stp_GasInfo_addr+luc_i)->uc_gas_comb	0-30	29	29	0	30
	(stp_denst+luc_i)->uc_state_trb	0x00,0xFF	0x00	0xFF	0xFF	0xFF
	(stp_denst+luc_i)->uc_pmin_flg	0-2	1	0	0	2
Output	None	-	-	-	-	-
Judgment						

m_DispatchConcentration

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	8
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3	case4	case5	case6	case7	case8
Root	for(luc_i=0U; luc_i<HDEF_GAS_MAX; luc_i++)	○	○	○	○	○	○	○	○
	switch(*(lucp_gas_data + (luc_i * 28U)))	○	○	○	○	○	○	○	○
	case 0x32:	○	-	-	-	-	-	-	-
	case 0x33:	-	○	-	-	-	-	-	-
	case 0x34:	-	-	○	-	-	-	-	-
	case 0x35:	-	-	-	○	-	-	-	-
	default:	-	-	-	-	○	○	○	○
	if(*(lucp_gas_data + (luc_i * 28U)) == 0x39U)	-	-	-	-	-	○	-	○
	if(*(lucp_gas_data + (luc_i * 28U) + 7U) >= 0x02U)	-	-	-	-	-	○	-	-
	else	-	-	-	-	-	-	-	○
	else	○	○	○	○	○	-	○	-
	if(luc_mode_disp == 0U)	○	○	○	○	○	-	○	○
	for(luc_j=0U; luc_j<HDEF_GAS_MAX; luc_j++)	○	○	○	○	○	-	○	○
	if(luc_gas_disp[luc_j] != M_ON)	○	○	○	○	○	-	○	○
	else	○	○	○	○	-	-	-	-
	if(luc_concentration == M_OFF_CODE)	-	-	-	-	-	-	-	-
	else	○	○	○	○	-	-	-	-
	if(luc_minus_flg != 0U)	-	-	-	-	-	-	-	-
	else	○	○	○	○	-	-	-	-
	else	-	-	-	-	-	○	-	-
Symbol Range									
Input	puc_rec_pnt	0	0	0	0	0	0	0	0
	DataLogger_snap_read[60]	50-58	50	51	52	53	54	57	58
	DataLogger_snap_read[67]	1,2	2	2	2	2	2	2	1
	DataLogger_snap_read[75]	0	0	0	0	0	0	0	0
	DataLogger_snap_read[72]	0	0	0	0	0	0	0	0
	DataLogger_snap_read[71]	0	0	0	0	0	0	0	0
	uc_lcd_com[1]	0	0	0	0	0	0	0	0
	uc_lcd_com[1]	0	0	0	0	0	0	0	0
Output	None	-	-	-	-	-	-	-	-
Judgment									

m_DispatchDateTime

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	2
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2
Root	for(luc_i=0U; luc_i<HDEF_GAS_MAX; luc_i++)	○	○
	if(*(lucp_date_data + (luc_i * 28U)) == 0x39U)	○	-
	else	-	○
Symbol Range			
Input	puc_rec_pnt	0	0
	DataLogger_snap_read()	57,58	57
	uc_lcd_mes[0][1]	0	0
	uc_lcd_mes[0][4]	0	0
	uc_lcd_mes[0][6]	0	0
	uc_lcd_mes[1][4]	0	0
	uc_lcd_mes[1][6]	0	0
	uc_lcd_com[4]	0	0
Output	uc_lcd_mes_dot	4	4
Judgment			

m_Disp_SnapNoData

	Responsible	Last update
Coding	Ikarashi	
Test	Taki	
Judgment	Ikarashi	

			case1
Root	None		-
	Symbol	Range	
Input	uc_lcd_com[1]	0	0
Output	None	-	-
Argument			

m Disp Stel

	Responsible	Last update
Coding	Ikarashi	
Test	Taki	
Judgment	Ikarashi	

			case1	case2	case3	case4	case5
Root	for(luc_i:=2; luc_i<4; luc_i++)		○	○	○	○	○
	if((stp_GasInfo_addr+luc_i)->uc_gas_comb != 0x00)		○	○	○	○	-
	if(luc_i != DataStructConst_CO_CAN_H2_H2_CH (stp_GasInfo_addr+luc_i)->uc_gas_comb != DataStructConst_CO_CAN_H2_GAS_NUM)		○	○	○	-	-
	if((stp_denst+luc_i)->uc_state_trb & (DataStructConst_S_FAIL_INS DataStructConst_S_FAIL_SEN))		○	○	-	-	-
	if((stp_GasInfo_addr+luc_i)->ul_stel_alarm != M_OFF_VAL)		○	-	-	-	-
	else		-	○	-	-	-
	else		-	-	○	-	-
	else		-	-	-	○	-
	else		-	-	-	-	○
	Symbol	Range					
Input	stp_GasInfo_addr+luc_i->uc_gas_comb	0~30	29	29	30	3	0
	(stp_denst+luc_i)->uc_state_trb	0x00~0xFF	0x00	0x00	0xFF	0xFF	0xFF
	(stp_GasInfo_addr+luc_i)->ul_stel_alarm	0~0xDDDDDDDD	5000	0xDDDDDDDD	0	5001	0
Output	None	-	-	-	-	-	-
Judgment							

m Disp Twa

	Responsible	Last update
Coding	Ikarashi	
Test	Taki	
Judgment	Ikarashi	

		case1	case2	case3	case4	case5	case6	case7
Root	for(luc_i=2; luc_i<4; luc_i++)	○	○	○	○	○	○	-
	if((stp_gasInfo_addr+luc_i)->uc_gas_comb != 0x00)	○	○	○	○	○	-	-
	if(luc_i != DataStructConst_CO_CAN_H2_H2_CH (stp_gasInfo_addr+luc_i)->uc_gas_comb != DataStructConst_CO_CAN_H2_GAS_NUM)	○	○	○	○	-	-	-
	if(!((luc_i == DataStructConst_CO_CH) && (stp_data->uc_1h_alarm_on == M_ON)))	○	○	○	-	-	-	-
	if(!((stp_dens+luc_i)->uc_state_trb & (DataStructConst_S_FAIL_INS DataStructConst_S_FAIL_SEN)))	○	○	-	-	-	-	-
	if((stp_gasInfo_addr+luc_i)->ul_twa_alarm != M_OFF_VAL)	○	-	-	-	-	-	-
	else	-	○	-	-	-	-	-
	else	-	-	○	-	-	-	-
	else	-	-	-	○	-	-	-
	else	-	-	-	-	○	-	-
else	-	-	-	-	-	○	-	
	Symbol	Range						
Input	stp_gasInfo_addr+luc_i)->uc_gas_comb	0-30	29	29	29	30	3	0
	(stp_dens+luc_i)->uc_state_trb	0x00-0xFF	0x00	0x00	0x00	0xFF	0xFF	0xFF
	stp_data->uc_1h_alarm_on	0-2	1	1	1	0	0	2
	(stp_gasInfo_addr+luc_i)->ul_twa_alarm	0-0xDDDDDDDD	2500	0xDDDDDDDD	0	0	2501	0
Output	None	-	-	-	-	-	-	-
Judgment								

```
m_Select CalBumpData
```

	Responsible	Last update
Coding	Ikarashi	
Test	Taki	
Judgment	Ikarashi	

[illegible]

[illegible]

1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053	2054	2055	2056	2057	2058	2059	2060	2061	2062	2063	2064	2065	2066	2067	2068	2069	2070	2071	2072	2073	2074	2075	2076	2077	2078	2079	2080	2081	2082	2083	2084	2085	2086	2087	2088	2089	2090	2091	2092	2093	2094	2095	2096	2097	2098	2099	2100	2101	2102	2103	2104	2105	2106	2107	2108	2109	2110	2111	2112	2113	2114	2115	2116	2117	2118	2119	2120	2121	2122	2123	2124	2125	2126	2127	2128	2129	2130	2131	2132	2133	2134	2135	2136	2137	2138	2139	2140	2141	2142	2143	2144	2145	2146	2147	2148	2149	2150	2151	2152	2153	2154	2155	2156	2157	2158	2159	2160	2161	2162	2163	2164	2165	2166	2167	2168	2169	2170	2171	2172	2173	2174	2175	2176	2177	2178	2179	2180	2181	2182	2183	2184	2185	2186	2187	2188	2189	2190	2191	2192	2193	2194	2195	2196	2197	2198	2199	2200	2201	2202	2203	2204	2205	2206	2207	2208	2209	2210	2211	2212	2213	2214	2215	2216	2217	2218	2219	2220	2221	2222	2223	2224	2225	2226	2227	2228	2229	2230	2231	2232	2233	2234	2235	2236	2237	2238	2239	2240	2241	2242	2243	2244	2245	2246	2247	2248	2249	2250	2251	2252	2253	2254	2255	2256	2257	2258	2259	2260	2261	2262	2263	2264	2265	2266	2267	2268	2269	2270	2271	2272	2273	2274	2275	2276	2277	2278	2279	2280	2281	2282	2283	2284	2285	2286	2287	2288	2289	2290	2291	2292	2293	2294	2295	2296	2297	2298	2299	2300	2301	2302	2303	2304	2305	2306	2307	2308	2309	2310	2311	2312	2313	2314	2315	2316	2317	2318	2319	2320	2321	2322	2323	2324	2325	2326	2327	2328	2329	2330	2331	2332	2333	2334	2335	2336	2337	2338	2339	2340	2341	2342	2343	2344	2345	2346	2347	2348	2349	2350	2351	2352	2353	2354	2355	2356	2357	2358	2359	2360	2361	2362	2363	2364	2365	2366	2367	2368	2369	2370	2371	2372	2373	2374	2375	2376	2377	2378	2379	2380	2381	2382	2383	2384	2385	2386	2387	2388	2389	2390	2391	2392	2393	2394	2395	2396	2397	2398	2399	2400	2401	2402	2403	2404	2405	2406	2407	2408	2409	2410	2411	2412	2413	2414	2415	2416	2417	2418	2419	2420	2421	2422	2423	2424	2425	2426	2427	2428	2429	2430	2431	2432	2433	2434	2435	2436	2437	2438	2439	2440	2441	2442	2443	2444	2445	2446	2447	2448	2449	2450																																																																																																																																																																																																																																																															

Unit Test Specification

Project name	GX-Force
File name	flow_fact_display.c

FlowFactDisplay_Chk_GasCombChannelSelect2chH2Num

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	4
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3	case4
Root	if(stp_zipu_num->ul_item_select_num == DataStructConst_CO_CAN_H2_H2_CH)	○	○	-	-
	if((stp_GasInfo_addr+DataStructConst_CO_CAN_H2_CO_CH)->uc_gas_comb == DataStructConst_CO_CAN_H2_GAS_NUM)	○	-	-	-
	else	-	○	-	-
	else	-	-	○	○
	Symbol	Range			
Input	stp_zipu_num->ul_item_select_num	0x00000000~0xFFFFFFFF	0x00000002	0x00000002	0x00000000
	(stp_GasInfo_addr+DataStructConst_CO_CAN_H2_CO_CH)->uc_gas_comb	0~30	3	0	29
Output	luc_ans	0	0	0	0
Judgment					

FlowFactDisplay_Chk_GasCombChannelSelectEndNum

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3
Root	if(stp_zipu_num->ul_item_select_num == HDDEF_GAS_MAX)	-	○	-
	else	○	-	○
	Symbol	Range		
Input	stp_zipu_num->ul_item_select_num	0x00000000~0xFFFFFFFF	0x00000000	0x00000004
			0	1
Output	luc_ans		0	
Judgment				

FlowFactDisplay_Chk_RomSumDisp

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3
Root	if(!((stp_zipu_num->ul_item_select_num & 0x00000001)) && (FuncRomChk_Chk_EndRomChk() == M_OFF))	○	-	-
	else	-	○	○
	if(!((stp_zipu_num->ul_item_select_num & 0x00000002)) && (RL781ESumChk_Get_PhaseFlg() == M_OFF))	○	-	-
	else	-	○	○
	Symbol	Range		
Input	stp_zipu_num->ul_item_select_num	0x00000000, 0xFFFFFFFF	0x00000000	0xFFFFFFFF
	FuncRomChk_Chk_EndRomChk()	0~2	0	1
	RL781ESumChk_Get_PhaseFlg()	0~2	0	1
			0	2
Output	stp_zipu_num->ul_item_select_num	0x00000003, 0xFFFFFFFF	0x00000003	0xFFFFFFFF
Judgment				

FlowFactDisplay_Disp_GasCombChannelSelect

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3
Root	if(stp_zipu_num->ul_item_select_num < HDDEF_GAS_MAX)	○	○	-
	if((stp_GasInfo_addr+(stp_zipu_num->ul_item_select_num))->uc_gas_comb != 0x00)	○	-	-
	else	-	○	-
	else	-	-	○
	Symbol	Range		
Input	stp_zipu_num->ul_item_select_num	0x00000000, 0xFFFFFFFF	0x00000000	0x00000000
	(stp_GasInfo_addr+(stp_zipu_num->ul_item_select_num))->uc_gas_comb	0~30	29	0
Output	None	-	-	-
Judgment				

FlowFactDisplay_Disp_GasCombGasSelect

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1
Root	None	-
	Symbol	Range
Input	None	-
Output	stp_rl_disp->uc_lcd_com_blink	0x7F
Judgment		

FlowFactDisplay_Dispatch_RomSumDisp

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	6
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3	case4	case5	case6
Root	if(stp_data->uc_ble_onoff == M_ON)	-	-	-	-	○	○
	else	○	○	○	○	-	-
	switch(luc_num)	○	○	○	○	-	-
	case 0	○	-	-	-	-	-
	if(stp_zipu_num->ul_item_select_num & 0x00000001)	○	-	-	-	-	-
	else	-	○	-	-	-	-
	case 1	-	-	○	○	-	-
	if(stp_zipu_num->ul_item_select_num & 0x00000002)	-	-	○	-	-	-
	else	-	-	-	○	-	-
	case 2	-	-	-	-	○	-
	default	-	-	-	-	-	○
	Symbol	Range					
Input	stp_data->uc_ble_onoff	0~2	2	0	0	1	1
	ZIPCNumSet_Get_DispatchFlicker2()	0~2	0	0	1	1	2
	stp_zipu_num->ul_item_select_num	0x00000000, 0xFFFFFFFF	0xFFFFFFFF	0x00000000	0xFFFFFFFF	0x00000000	0x00000000
Output	None	-	-	-	-	-	-
Judgment							

FlowFactDisplay_Dispatch_RunningFactoryDefault

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1
Root	None	-
	Symbol	Range
Input	None	-
Output	None	-
Judgment		

FlowFactDisplay_Dispatch1_FactoryDefault

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	4
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3	case4
Root	switch(ZIPCNumSet_Get_DispatchFlicker3())	○	○	○	○
	case 0	○	-	-	-
	case 1	-	○	-	-
	case 2	-	-	○	-
	default	-	-	-	○
	Symbol	Range			
Input	ZIPCNumSet_Get_DispatchFlicker3()	0~2	0	1	2
Output	uc_lcd_com_dot	0~32	8	16	32
Judgment					

FlowFactDisplay_Dispatch2_FactoryDefault

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	4
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3	case4
Root	switch(ZIPCNumSet_Get_DispatchFlicker3())	○	○	○	○
	case 0	○	-	-	-
	case 1	-	○	-	-
	case 2	-	-	○	-
	default	-	-	-	○
	Symbol	Range			
Input	ZIPCNumSet_Get_DispatchFlicker3()	0~2	0	1	2
Output	None	-	-	-	-
Judgment					

FlowFactDisplay_End_FlowAdjSetting

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1
Root	None	-
	Symbol	Range
Input	None	-
Output	None	-
Judgment		

FlowFactDisplay End FlowAdjSettingAndCheck

	Responsible	Last update
Coding	Ikarashi	
Test	Taki	
Judgment	Ikarashi	

			case1
Root	None		-
	Symbol	Range	
Input	None	-	-
Output	None	-	-
	None	-	-
Judgment			

FlowFactDisplay_End_FlowCheck

	Responsible	Last update
Coding	Ikarashi	
Test	Taki	
Judgment	Ikarashi	

			case1	case2
Root	None		-	-
	Symbol	Range		
Input	ut_item_select_num	0.65535	0	65535
Output	us_flow_output	0.65535	0	65535
Judgment				

FlowFactDisplay End GasCombGasSelect

	Responsible	Last update
Coding	Ikarashi	
Test	Taki	
Judgment	Ikarashi	

[illegible]

FlowFactDisplay_Disp_FlowAdjSetting

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	2
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1	case2
Root	if(!ft_press_ad_val < 0.0F)		○	-
	else		-	○
	Symbol	Range		
Input	Ad_12bit_Get_Ad_Data()	-1.0	-1	0
	uc_lcd_mes[0][0]	0	0	0
	uc_lcd_mes[1][0]	0	0	0
	uc_lcd_com[1]	0	0	0
	ul_item_select_num	0	0	0
Output	uc_lcd_mes_blink	0	0	0
	uc_lcd_mes_dot	8	8	8
	uc_lcd_mes_dot_blink	0	0	0
	uc_lcd_com_dot	8	8	8
Judgment				

FlowFactDisplay_Disp_FlowCheck

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1	case2	case3
Root	if(!ft_press_ad_val < 0.0F)		○	-	○
	else		-	○	-
	if(!ft_pump_off_val < 0.0F)		○	-	-
	else		-	○	○
	if(!bl_check_result == true)		○	-	-
	else		-	○	○
	if(!bl_check_result == true)		-	○	-
	else		-	-	○
	Symbol	Range			
Input	Ad_12bit_Get_Ad_Data()	-1.0	-1	0	-1
	PumpFlow_Check_FlowTest()	0.1	0	1	1
	PumpFlow_Check_PumpTest()	0.1	0	0	1
	PumpFlow_Get_PumpOffPressValue()	-1.0	0	0	-1
Output	uc_lcd_mes_dot	8	8	8	8
	uc_lcd_com_dot	0,8	0	0	8
Judgment					

FlowFactDisplay_Init_ADDisp

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1
Root	None		-
	Symbol	Range	
Input	None		-
Output	stp_zipu_num->ul_item_select_num	0	0
	stp_zipu_num->uc_item_select_updown	0	0
Judgment			

FlowFactDisplay_Init_FactMenu

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1
Root	None		-
	Symbol	Range	
Input	None		-
Output	stp_zipu_num->ul_mode_select_num	0	0
	stp_zipu_num->uc_mode_select_updown	0	0
Judgment			

FlowFactDisplay_Init_FlowAdjSetting

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1
Root	None		-
	Symbol	Range	
Input	us_flow_output	0	0
Output	ul_item_select_num	0	0
	uc_item_select_updown	0	0
Judgment			

FlowFactDisplay_Init_FlowCheck

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1
Root	None		-
	Symbol	Range	
Input	None	-	-
Output	None	-	-
	None	-	-
Judgment			

FlowFactDisplay_Init_GasCombChannelSelect

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1
Root	None		-
	Symbol	Range	
Input	None	-	-
Output	stp_zipu_num->ul_item_select_num	0	0
	stp_zipu_num->uc_item_select_updown	0	0
Judgment			

FlowFactDisplay_Init_GasCombGasSelect

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1	case2	case3
Root	None		-	-	-
	Symbol	Range			
Input	(stp_GasInfo_addr+(stp_zipu_num->ul_item_select_num))->uc_gas_comb	0~29	0	29	30
Output	stp_zipu_num->ul_sub_item_select_num	0~30	0	29	30
	stp_zipu_num->uc_sub_item_select_updown	0	0	0	0
Judgment					

FlowFactDisplay_Init_RomSumDisp

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1
Root	None		-
	Symbol	Range	
Input	None	-	-
Output	stp_zipu_num->ul_item_select_num	0	0
	stp_zipu_num->uc_item_select_updown	0	0
Judgment			

FlowFactDisplay_Select_ADDispNum

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi	2021/6/18	Verification pass	2
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1	case2
Root	None		-	-
	Symbol	Range		
Input	Tool_OneCount((U_LNG)stp_zipu_num->ul_item_select_num, 1, (U_LNG)S, (U_LNG)0, stp_zipu_num->uc_item_select_updown, M_OFF)	0x00000000~0xFFFFFFFF	0x00000000	0xFFFFFFFF
Output	stp_zipu_num->ul_item_select_num	0x00000000~0xFFFFFFFF	0x00000000	0xFF
Judgment				

FlowFactDisplay_Select_FactMenu

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	9
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3	case4	case5	case6	case7	case8	case9
Root	if(stp_zipu_num->uc_mode_select_updown == M_OFF)	○	○	○	○	-	-	-	-	-
	for(luc_i; luc_i<F_MAX_NUM; luc_i++)	○	○	○	-	-	-	-	-	-
	if(uc_fact_mode_item[luc_i] == M_ON)	○	-	-	-	-	-	-	-	-
	else	-	○	-	-	-	-	-	-	-
	if(luc_i >= F_MAX_NUM)	-	○	○	○	-	-	-	-	-
	for(luc_i=0; luc_i<F_MAX_NUM; luc_i++)	-	○	-	○	-	-	-	-	-
	if(uc_fact_mode_item[luc_i] == M_ON)	-	-	-	○	-	-	-	-	-
	else	-	○	-	-	-	-	-	-	-
	else	○	-	-	-	-	-	-	-	-
	else	-	-	-	-	○	○	○	○	○
	if(stp_zipu_num->ul_mode_select_num != 0)	-	-	-	-	○	○	○	-	○
	for(luc_i; luc_i>0; luc_i--)	-	-	-	-	-	-	-	○	-
	if(uc_fact_mode_item[luc_i] == M_ON)	-	-	-	-	○	○	○	○	○
	else	-	-	-	-	-	-	○	-	-
	else	-	-	-	-	-	-	-	○	○
	if((luc_i == 0) && (uc_fact_mode_item[0] != M_ON)	-	-	-	-	○	○	-	○	○
	for(luc_i=F_END_NUM; luc_i>0; luc_i--)	-	-	-	-	○	○	-	○	○
	if(uc_fact_mode_item[luc_i] == M_ON)	-	-	-	-	-	○	-	-	-
	else	-	-	-	-	○	-	-	○	○
	else	-	-	-	-	-	-	○	-	-
Symbol	Range									
Input	stp_zipu_num->uc_mode_select_updown	0~2	0	0	0	1	1	1	1	2
	stp_zipu_num->ul_mode_select_num	0x00000000~0xFFFFFFFF	0x00000000	0x00000000	0xFFFFFFFF	0x00000000	0x00000001	0x00000001	0xFFFFFFFF	0x00000000
	uc_fact_mode_item[luc_i]	0~2	1	0	1	1	1	0	1	0
Output	None	-	-	-	-	-	-	-	-	-
Judgment										

FlowFactDisplay_Select_FlowAdjSetting

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	2
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2
Root	if(puc_num == 1U)	○	-
	else	-	○
Symbol	Range		
Input	puc_num	1,2	1
	Tool_OneCount()	0	0
	ul_item_select_num	0	0
	uc_item_select_updown	0	0
	ul_item_select_num	0	0
Output	ul_item_select_num	0	0
Judgment			

FlowFactDisplay_Select_GasCombChannelSelect

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	5
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3	case4	case5
Root	if(stp_zipu_num->uc_item_select_updown == M_OFF)	○	○	-	-	-
	if(stp_zipu_num->ul_item_select_num == HDDEF_GAS_MAX-1)	○	-	-	-	-
	else	-	○	-	-	-
	else	-	-	○	○	○
	if(stp_zipu_num->ul_item_select_num == HDDEF_GAS_MAX-1)	-	-	○	-	-
	else	-	-	-	○	○
Symbol	Range					
Input	Tool_OneCount(stp_zipu_num->ul_item_select_num, 1, HDDEF_GAS_MAX, 0, stp_zipu_num->uc_item_select_updown, M_OFF)	0x00000000~0xFFFFFFFF	0x00000004	0x00000000	0x00000004	0xFFFFFFFF
	stp_zipu_num->uc_item_select_updown	0,1	0	0	1	2
	stp_zipu_num->ul_item_select_num	0x00000000~0xFFFFFFFF	0x00000005	0x00000000	0x00000003	0xFFFFFFFF
Output	stp_zipu_num->ul_item_select_num					
Judgment						

FlowFactDisplay_Select_GasCombGasSelect

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	5
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3	case4	case5
Root	if(stp_zipu_num->uc_sub_item_select_updown == M_OFF)	○	○	-	-	-
	for(luc_i!=(stp_zipu_num->ul_sub_item_select_num + 1); luc_i < HDDEF_GAS_TABLE_MAX; luc_i++)	○	○	-	-	-
	if(Tool_Comp_Pnt(&(GasTableDefData[stp_zipu_num->ul_item_select_num][luc_i].uc_name[0]), (U_CHR *)"*****", 10) != 0)	○	-	-	-	-
	else	-	○	-	-	-
	if(luc_i == HDDEF_GAS_TABLE_MAX)	-	○	-	-	-
	else	○	-	-	-	-
	else	-	-	○	○	○
	if(stp_zipu_num->ul_sub_item_select_num == 0)	-	-	○	-	-
	else	-	-	-	○	○
	for(luc_i; luc_i > 0; luc_i--)	-	-	○	○	○
Input	Symbol	Range				
	stp_zipu_num->uc_sub_item_select_updown	0~2	0	0	1	1
	Tool_Comp_Pnt(&(GasTableDefData[stp_zipu_num->ul_item_select_num][luc_i].uc_name[0]), (U_CHR *)"*****", 10)	0~2	1	0	1	0
	stp_zipu_num->ul_sub_item_select_num	0x00000000~0xFFFFFFFF	0x00000000	0xFFFFFFFF	0x00000000	0xFFFFFFFF
	Output	None	-	-	-	-
	Judgment					

FlowFactDisplay_Set_FactMenu

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	8
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3	case4	case5	case6	case7	case8
Root	switch(stp_zipu_num->ul_mode_select_num)	○	-	-	-	-	-	-	-
	case F_GAS_COMB_NUM	○	-	-	-	-	-	-	-
	case F_DATE_SET_NUM	-	○	-	-	-	-	-	-
	case F_ROMSUM_NUM	-	-	○	-	-	-	-	-
	case F_A_D_DISP_NUM	-	-	-	○	-	-	-	-
	case F_SHIP_RECORD_NUM	-	-	-	-	○	-	-	-
	case F_DEFAULT_NUM	-	-	-	-	-	○	-	-
	case F_END_NUM	-	-	-	-	-	-	○	-
	default	-	-	-	-	-	-	-	○
	Symbol	Range							
Input	stp_zipu_num->ul_mode_select_num	0x00000000~0xFFFFFFFF	0x00000000	0x00000001	0x00000003	0x00000004	0x00000006	0x00000007	0x00000008
Output	stp_ni_disp->uc_lcd_com_dot	0~64	16	0	0	0	8	8	64
Judgment									

FlowFactDisplay_Set_FactoryDefault

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1
Root	None	-
	Symbol	Range
Input	None	-
Output	None	-
Judgment		

FlowGasCalDisplay_Disp_DefaultConfirmation

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1
Root	None	-
	Symbol	Range
Input	None	-
Output	None	-
Judgment		

FlowGasCalDisplay_Disp_DefaultNG

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1
Root	None	-
	Symbol	Range
Input	None	-
Output	stp_ni_disp->uc_lcd_com_dot	0x40
Judgment		

FlowGasCalDisplay_Disp_DefaultOK

	Responsible	Last update
Coding	Ikarashi	
Test	Taki	
Judgment	Ikarashi	

Infinite loop	None
Verification pass	1
Judgment	

			case1
Root	None		-
	Symbol	Range	
Input	None	-	-
Output	stp_ni_disp->uc_lcd_com_dot	0x40	0x40
Judgment			

FlowGasCalDisplay_Disp_SetDefault

	Responsible	Last update
Coding	Ikarashi	
Test	Taki	
Judgment	Ikarashi	

Infinite loop	None
Verification pass	1
Judgment	

			case1
Root	None		-
	Symbol	Range	
Input	None	-	-
Output	stp_ni_disp->uc_lcd_com_dot	0x40	0x40
Judgment			

[illegible]

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100

Unit Test Specification

Project name	GX-Force
File name	flow_gas_cal_display.c

FlowGasCalDisplay_Chk_AutoCalMenuGasOn

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3	
Root	for(luc_i=0; luc_i<HDDDEF_GAS_MAX; luc_i++)	○	○	○	
	if(((stp_GasInfo_addr+luc_i)->uc_gas_comb != 0x00) && ((stp_GasInfo_addr+luc_i)->uc_cal_group == puc_num))	○	○	-	
	if(puc_flg == M_OFF (stp_GasInfo_addr+luc_i)->ul_cal_densit != M_OFF_VAL)	○	-	-	
	else	-	○	-	
	else	-	-	○	
	else	-	-	-	
	Symbol	Range			
Input	puc_flg	0-2	0	1	2
	puc_num	0x00,0xFF	0x00	0xFF	0x00
	(stp_GasInfo_addr+luc_i)->uc_gas_comb	0-30	29	30	0
	(stp_GasInfo_addr+luc_i)->uc_cal_group	0x00,0xFF	0x00	0xFF	0xFF
	(stp_GasInfo_addr+luc_i)->ul_cal_densit	0x00000000-0xFFFFFFFF	0x00000000	0xDDDDDDDD	0xFFFFFFFF
Output	luc_ans	0,1	0	1	0
Judgment					

FlowGasCalDisplay_Chk_AutoCalMenuZIPC

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3	
Root	None	-	-	-	
	Symbol	Range			
Input	FlowGasCalDisplay_Chk_AutoCalMenuGasOn (M_ON, stp_zipu_num->ul_sub2_mode_select_num)	0,1	1	2	
Output	luc_ans	0-2	0	1	2
Judgment					

FlowGasCalDisplay_Chk_AutoCalSelectMenu

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	2
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1	case2
Root	None		-	-
	Symbol	Range		
Input	ul_sub2_mode_select_num	0-65535	0	65535
Output	ul_sub2_mode_select_num	0-255	0	255
Judgment				

FlowGasCalDisplay_Chk_HCModeWarmFlg

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	5
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3	case4	case5	
Root	if(m_Chk_AutoCalGasOn(0, M_ON, GasFuncAutoCal_Get_AutoCalGroup())) == M_OK)	○	○	○	-	-	
	if((stp_GasInfo_addr->uc_gas_comb != 0x00) && (stp_GasInfo_addr->uc_gas_comb <= 0x02))	○	○	-	-	-	
	if(stp_data->uc_nc_mode_flg == GAS_CALC_NC_MODE_STINT)	○	-	-	-	-	
	else	-	○	-	-	-	
	else	-	-	○	-	-	
	else	-	-	-	○	-	
Input	Symbol	Range					
	m_Chk_AutoCalGasOn(0, M_ON, GasFuncAutoCal_Get_AutoCalGroup())	0-2	0	0	0	1	2
	stp_GasInfo_addr->uc_gas_comb	0-30	1	1	0	29	30
	stp_data->uc_nc_mode_flg	0-2	1	0	0	0	2
Output	luc_ans	0,1	1	0	0	0	0
Judgment							

FlowGasCalDisplay_Disp_AirCalDensit

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1
Root	None	-
	Symbol	Range
Input	None	-
Output	None	-
Judgment		

FlowGasCalDisplay_Disp_AirCalPass

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1
Root	None	-
	Symbol	Range
Input	None	-
Output	None	-
Judgment		

FlowGasCalDisplay_Disp_AirFail

	Responsible	Last update	Infinite loop	None
Coding	ikarashi		Verification pass	4
Test	Taki			
Judgment	ikarashi		Judgment	

		case1	case2	case3	case4
Root	for(luc_i=0; luc_i<4; luc_i++)	○	○	○	○
	if((stp_GasInfo_addr+luc_i)->uc_gas_comb != 0x00)	○	○	○	-
	if((stp_denst + luc_i)->uc_state_trb & DataStructConst_S_FAIL_ZRO)	○	○	-	-
	switch(luc_i)	○	○	-	-
	case 0	○	○	-	-
	case 1	○	○	-	-
	case 2	○	○	-	-
	case 3	○	○	-	-
	default	○	○	-	-
	if(FlowMain_Get_ModeStatus() == FlowMain_MEASURE_MODE_NUMBER FlowMain_Get_ModeStatus() == FlowMain_DISP_MODE_NUMBER)	○	-	-	-
	else	-	○	-	-
	else	-	-	○	-
	else	-	-	-	○
	Symbol	Range			
Input	(stp_GasInfo_addr+luc_i)->uc_gas_comb	0-30	29	30	0
	(stp_denst + luc_i)->uc_state_trb	0x00-0xFF	0xFF	0xFF	0
	FlowMain_Get_ModeStatus()	0-7	1	7	8
Output	None	-	-	-	-
Judgment					

FlowGasCalDisplay_Disp_AirHold

	Responsible	Last update	Infinite loop	None
Coding	ikarashi		Verification pass	1
Test	Taki			
Judgment	ikarashi		Judgment	

		case1
Root	None	-
	Symbol	Range
Input	None	-
Output	None	-
Judgment		

FlowGasCalDisplay_Disp_AirRelease

	Responsible	Last update	Infinite loop	None
Coding	ikarashi		Verification pass	1
Test	Taki			
Judgment	ikarashi		Judgment	

		case1
Root	None	-
	Symbol	Range
Input	None	-
Output	None	-
Judgment		

FlowGasCalDisplay_Disp_AutoCal_ChgDenst

	Responsible	Last update	Infinite loop	None
Coding	ikarashi		Verification pass	1
Test	Taki			
Judgment	ikarashi		Judgment	

		case1
Root	None	-
	Symbol	Range
Input	None	-
Output	None	-
Judgment		

FlowGasCalDisplay_Disp_AutoCal_SelectGas

	Responsible	Last update	Infinite loop	None
Coding	ikarashi		Verification pass	2
Test	Taki			
Judgment	ikarashi		Judgment	

		case1	case2
Root	if(stp_zipu_num->ul_item_select_num < HDEF_GAS_MAX)	○	-
	else	-	○
	Symbol	Range	
Input	stp_zipu_num->ul_item_select_num	0x00000000,0xFFFFFFFF	0x00000000 0xFFFFFFFF
Output	None	-	-
Judgment			

FlowGasCalDisplay_Disp_AutoCalBlinkDenst

	Responsible	Last update	Infinite loop	None
Coding	ikarashi		Verification pass	3
Test	Taki			
Judgment	ikarashi		Judgment	

		case1	case2	case3
Root	for(luc_i=0; luc_i<4; luc_i++)	○	○	○
	if(m_Chk_AutoCalGasOn(luc_i, M_ON, GasFuncAutoCal_Get_AutoCalGroup()) == M_OK)	○	-	-
	else	-	○	○
	switch(ZIPCNumSet_Get_DispFlicker2t())	○	○	○
	case 0	○	-	-
	case 1	-	○	-
	default	-	-	○
	Symbol	Range		
Input	m_Chk_AutoCalGasOn(luc_i, M_ON, GasFuncAutoCal_Get_AutoCalGroup())	0-2	0	1
	ZIPCNumSet_Get_DispFlicker2t()	0-2	0	1
Output	None	-	-	-
Judgment				

FlowGasCalDisplay_Disp_AutoCalDenst

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	11
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3	case4	case5	case6	case7	case8	case9	case10	case11
Root	if(stp_zipu_num->ul_sub2_mode_select_num == M_AUTO_GROUP_MAX+2)	○	-	-	-	-	-	-	-	-	-	-
	else if(stp_zipu_num->ul_sub2_mode_select_num == M_AUTO_GROUP_MAX+1)	-	○	-	-	-	-	-	-	-	-	-
	else if(stp_zipu_num->ul_sub2_mode_select_num == M_AUTO_GROUP_MAX)	-	-	○	-	-	-	-	-	-	-	-
	else	-	-	-	○	○	○	○	○	○	○	○
	for(luc_i=0; luc_i<5; luc_i++)	-	-	-	○	○	○	○	○	○	○	○
	if((stp_GasInfo_addr+luc_i)>uc_gas_comb != 0x00)	-	-	-	○	○	-	-	-	-	-	-
	if(stp_zipu_num->ul_sub2_mode_select_num == (stp_GasInfo_addr+luc_i)>uc_cal_group)	-	-	-	○	-	-	-	-	-	-	-
	else	-	-	-	-	○	-	-	-	-	-	-
	else	-	-	-	-	-	○	○	○	○	○	○
	switch(ZIPCNuMSet_Get_DispFlicker2())	-	-	-	○	○	○	○	○	○	○	○
	case 0	-	-	-	○	-	-	-	-	-	-	-
	case 1	-	-	-	-	○	○	○	○	○	○	-
	switch(stp_zipu_num->ul_sub2_mode_select_num)	-	-	-	-	○	○	○	○	○	○	-
	case DataStructConst_CAL_GROUP_A	-	-	-	-	○	-	-	-	-	-	-
	case DataStructConst_CAL_GROUP_B	-	-	-	-	-	○	-	-	-	-	-
	case DataStructConst_CAL_GROUP_C	-	-	-	-	-	-	○	-	-	-	-
	case DataStructConst_CAL_GROUP_D	-	-	-	-	-	-	-	○	-	-	-
	case DataStructConst_CAL_GROUP_E	-	-	-	-	-	-	-	-	○	-	-
	default	-	-	-	-	-	-	-	-	-	○	-
	default	○	○	○	-	-	-	-	-	-	-	○
	Symbol	Range										
Input	stp_zipu_num->ul_sub2_mode_select_num	0x00000007	0x00000006	0x00000005	0x00000000	0x00000000	0x00000001	0x00000002	0x00000003	0x00000004	0xFFFFFFF	0xFFFFFFFF
	(stp_GasInfo_addr+luc_i)>uc_cal_group	0x00	0x00	0x00	0x00	0xFF	0xFF	0xFF	0xFF	0xFF	0xFF	0xFF
	(stp_GasInfo_addr+luc_i)>uc_gas_comb	0-30	30	0	0	29	29	0	0	0	0	0
	ZIPCNuMSet_Get_DispFlicker2()	0-2	0	0	0	1	1	1	1	1	1	2
Output	None	-	-	-	-	-	-	-	-	-	-	-
Judgment												

FlowGasCalDisplay_Disp_AutoCalPass

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1
Root	None	-
Symbol	Range	
Input	None	-
Output	None	-
Judgment		

FlowGasCalDisplay_Disp_AutoCalRunning

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1
Root	None	-
Symbol	Range	
Input	None	-
Output	None	-
Judgment		

FlowGasCalDisplay_Disp_EndAutoCalDenst

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3
Root	for(luc_i=0; luc_i<4; luc_i++)	○	○	○
	if(m_Chk_AutoCalGasOn(luc_i, M_ON, GasFuncAutoCal_Get_AutoCalGroup0()) == M_OK)	○	-	-
	else	-	○	○
Symbol		Range		
Input	m_Chk_AutoCalGasOn(luc_i, M_ON, GasFuncAutoCal_Get_AutoCalGroup0())	0,1	0	1
Output	None	-	-	-
Judgment				

FlowGasCalDisplay_Disp_FailAutoCal

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	4
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3	case4
Root	for(luc_i=0; luc_i<4; luc_i++)	○	○	○	○
	if(m_Chk_AutoCalGasOn(luc_i, M_ON, GasFuncAutoCal_Get_AutoCalGroup0()) == M_OK)	○	○	-	-
	if((stp_denst + luc_i)>uc_state_trb & DataStructConst_S_FAIL_SPN)	○	-	-	-
	else	-	○	-	-
	else	-	-	○	○
Symbol		Range			
Input	m_Chk_AutoCalGasOn(luc_i, M_ON, GasFuncAutoCal_Get_AutoCalGroup0())	0,1	0	0	1
	(stp_denst + luc_i)>uc_state_trb	0x00-0xFF	0xFF	0x00	0xFF
Output	None	-	-	-	-
Judgment					

FlowGasCalDisplay_Disp_GroupSelectGas

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	2
Test	Taki			
Judgment	Ikarashi		Judgment	

Root	if(stp_zipu_num->ul_item_select_num < HDEF_GAS_MAX)		case1	case2
	else		○	-
	Symbol	Range		○
Input	stp_zipu_num->ul_item_select_num	0x00000000,0xFFFFFFFF	0x00000000	0xFFFFFFFF
Output	None	-	-	-
Judgment				

FlowGasCalDisplay_Disp_GroupSelectGroup

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	6
Test	Taki			
Judgment	Ikarashi		Judgment	

Root	switch(stp_zipu_num->ul_sub_item_select_num)		case1	case2	case3	case4	case5	case6
	case DataStructConst_CAL_GROUP_A		○	○	○	○	○	○
	case DataStructConst_CAL_GROUP_B		○	-	-	-	-	-
	case DataStructConst_CAL_GROUP_C		-	○	-	-	-	-
	case DataStructConst_CAL_GROUP_D		-	-	○	-	-	-
	case DataStructConst_CAL_GROUP_E		-	-	-	○	-	-
	default		-	-	-	-	-	○
	Symbol	Range						
Input	stp_zipu_num->ul_sub_item_select_num	0x00000000~0xFFFFFFFF	0x00000000	0x00000001	0x00000002	0x00000003	0x00000004	0xFFFFFFFF
Output	None	-	-	-	-	-	-	-
Judgment								

FlowGasCalDisplay_Disp_HCModeWarmFlg

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

Root	None		case1
	-		-
	Symbol	Range	
Input	None	-	-
Output	None	-	-
Judgment			

FlowGasCalDisplay_Disp_SpanMargin

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	4
Test	Taki			
Judgment	Ikarashi		Judgment	

Root	for(luc_i=0; luc_i<4; luc_i++)		case1	case2	case3	case4
	if(m_Chk_AutoCalGasOn(luc_i, M_ON, GasFuncAutoCal_Get_AutoCalGroup()) == M_OK)		○	○	○	○
	if(luc_i != DataStructConst_CO_CAN_H2_H2_CH (stp_GasInfo_addr + luc_i)->uc_gas_comb != DataStructConst_CO_CAN_H2_GAS_NUM)		○	-	-	-
	else		-	○	-	-
			-	-	○	○
	Symbol	Range				
Input	m_Chk_AutoCalGasOn(luc_i, M_ON, GasFuncAutoCal_Get_AutoCalGroup())	0~2	0	0	1	2
	(stp_GasInfo_addr + luc_i)->uc_gas_comb	0~30	0	3	29	30
Output	None	-	-	-	-	-
Judgment						

FlowGasCalDisplay_End_AutoCal_ChgDens

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	2
Test	Taki			
Judgment	Ikarashi		Judgment	

Root	None		case1	case2
	-		-	-
	Symbol	Range		
Input	stp_zipu_num->ul_sub_item_select_num	0x00000000,0xFFFFFFFF	0x00000000	0xFFFFFFFF
Output	(stp_GasInfo_addr+(stp_zipu_num->ul_item_select_num)->uc_cal_dens)	0x00000000,0xFFFFFFFF	0x00000000	0xFFFFFFFF
	stp_zipu_num->uc_sub_item_select_updown	0	0	0
Judgment				

FlowGasCalDisplay_End_GroupSelectGroup

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	2
Test	Taki			
Judgment	Ikarashi		Judgment	

Root	None		case1	case2
	-		-	-
	Symbol	Range		
Input	stp_zipu_num->ul_sub_item_select_num	0x00000000,0xFFFFFFFF	0x00000000	0xFFFFFFFF
Output	(stp_GasInfo_addr+(stp_zipu_num->ul_item_select_num)->uc_cal_group)	0x0,0xFF	0x00	0xFF
	stp_zipu_num->uc_sub_item_select_updown	0	0	0
Judgment				

FlowGasCalDisplay_Execution_AutoCal

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

Root	None		case1
	-		-
	Symbol	Range	
Input	None	-	-
Output	None	-	-
Judgment			

FlowGasCalDisplay_Get_SpanMarginOnOff

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	5
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3	case4	case5	
Root	if(stp_data->uc_margin_disp_onoff == M_ON)	○	○	○	-	-	
	for(luc_i=0; luc_i<HDEF_GAS_MAX; luc_i++)	○	○	○	-	-	
	if(m_Chk_AutoCalGasOn(luc_i, M_ON, GasFuncAutoCal_GetAutoCalGroup()) == M_OK)	○	○	-	-	-	
	if(luc_i != DataStructConst_CO_CAN_H2_H2_CH (stp_GasInfo_addr + luc_i)->uc_gas_comb != DataStructConst_CO_CAN_H2_GAS_NUM)	○	-	-	-	-	
	else	-	○	-	-	-	
	else	-	-	○	-	-	
	else	-	-	-	○	○	
	Symbol	Range					
Input	(stp_data->uc_margin_disp_onoff)	0,1	1	1	1	0	2
	m_Chk_AutoCalGasOn(luc_i, M_ON, GasFuncAutoCal_GetAutoCalGroup())	0,1	0	0	1	0	2
	(stp_GasInfo_addr + luc_i)->uc_gas_comb	0-29	0	3	29	0	30
Output	luc_ans	0,1	1	1	1	0	0
Judgment							

FlowGasCalDisplay_Init_AutoCal_ChgDenst

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	2
Test	Taki			
Judgment	Ikarashi		Judgment	

Root	None	case1		case2	
	Symbol	Range			
Input	(stp_GasInfo_addr+(stp_zipu_num->ul_item_select_num))->ul_cal_denst	0x00000000,0xFFFFFFFF	0x00000000	0xFFFFFFFF	
Output	stp_zipu_num->ul_sub_item_select_num	0x00000000,0xFFFFFFFF	0x00000000	0xFFFFFFFF	
	stp_zipu_num->uc_sub_item_select_updown	0	0	0	
Judgment					

FlowGasCalDisplay_Init_AutoCal_SelectGas

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3	
Root	for(luc_i=0; luc_i<HDEF_GAS_MAX; luc_i++)	○	○	○	
	if(((stp_GasInfo_addr+luc_i)->uc_gas_comb != 0x00)	-	○	○	
	else	○	-	-	
	Symbol	Range			
Input	(stp_GasInfo_addr+luc_i)->uc_gas_comb	0-30	0	29	30
Output	stp_zipu_num->ul_item_select_num	0,1	1	0	0
	stp_zipu_num->uc_item_select_updown	0	0	0	0
	stp_zipu_num->ul_sub_item_select_num	0	0	0	0
	stp_zipu_num->uc_sub_item_select_updown	0	0	0	0
Judgment					

FlowGasCalDisplay_Init_AutoCalBlinkDenst

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi	2021/6/18	Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1
Root	None		-
	Symbol	Range	
Input	None	-	-
Output	None	-	-
Judgment			

FlowGasCalDisplay_Init_AutoCalMenu

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1	case2	case3
Root	for(luc_i=0; luc_i<M_AUTO_GROUP_MAX; luc_i++)		○	○	○
	for(luc_j=0; luc_j<HDEF_GAS_MAX; luc_j++)		○	○	○
	if((stp_GasInfo_addr+luc_j)->uc_gas_comb != 0x00)		○	○	-
	if(luc_i == (stp_GasInfo_addr+luc_j)->uc_cal_group)		○	-	-
	else	-	-	○	-
	else	-	-	-	○
	if(luc_ans == M_ON)		○	-	-
	else	-	-	○	-
	Symbol	Range			
Input	(stp_GasInfo_addr+luc_j)->uc_gas_comb	0-29	29	30	0
	(stp_GasInfo_addr+luc_j)->uc_cal_group	0x00-0xFF	0x00	0xFF	0xFF
Output	stp_zipu_num->ul_sub2_mode_select_num	0-5	0	0	0
	stp_zipu_num->uc_sub2_mode_select_updown	0	0	0	0
Judgment					

FlowGasCalDisplay_Init_GasCalMenu

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

Root	None		case1
	Symbol	Range	-
Input	None	-	-
Output	stp_zipu_num->ul_sub_mode_select_num	0	0
	stp_zipu_num->uc_sub_mode_select_updown	0	0
Judgment			

FlowGasCalDisplay_Init_GroupSelectGas

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

Root	for(luc_i=0; luc_i<CHDDEF_GAS_MAX; luc_i++) if((stp_GasInfo_addr+luc_j)->uc_gas_comb != 0x00) else		case1	case2	case3
			○	○	○
			-	○	○
			○	-	-
	Symbol	Range			
Input	(stp_GasInfo_addr+luc_j)->uc_gas_comb	0~30	0	29	30
Output	stp_zipu_num->ul_item_select_num	0,1	1	0	0
	stp_zipu_num->uc_item_select_updown	0	0	0	0
	stp_zipu_num->ul_sub_item_select_num	0	0	0	0
	stp_zipu_num->uc_sub_item_select_updown	0	0	0	0
Judgment					

FlowGasCalDisplay_Init_GroupSelectGroup

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	2
Test	Taki			
Judgment	Ikarashi		Judgment	

Root	None		case1	case2
	Symbol	Range	-	-
Input	(stp_GasInfo_addr+(stp_zipu_num->ul_item_select_num))->uc_cal_group	0x00,0xFF	0x00	0xFF
Output	stp_zipu_num->ul_sub_item_select_num	0x00,0xFF	0x00	0xFF
	stp_zipu_num->uc_sub_item_select_updown	0	0	0
Judgment				

FlowGasCalDisplay_Init_LimitGasCalMenu

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

Root	None		case1
	Symbol	Range	-
Input	None	-	-
Output	ul_sub_mode_select_num	2	2
	ul_sub_mode_select_updown	0	0
Judgment			

FlowGasCalDisplay_SelectUp_AutoCalMenu

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

Root	if(luc_i > (M_AUTO_GROUP_MAX + 3)) for(luc_j; luc_j < M_AUTO_GROUP_MAX; luc_j++) if(FlowGasCalDisplay_Chk_AutoCalMenuGasOn(M_OFF; luc_j) == M_OK)		case1	case2	case3
			○	-	○
			○	○	○
			○	-	○
	Symbol	Range			
Input	FlowGasCalDisplay_Chk_AutoCalMenuGasOn()	0,1	0	0	1
	ul_sub2_mode_select_num	7,8	8	7	8
Output	ul_sub2_mode_select_num	0~8	0	8	5
Judgment					

FlowGasCalDisplay_Select_AutoCal_ChgDenst

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	5
Test	Taki			
Judgment	Ikarashi		Judgment	

Root	if(lul_digit == 100) if((lul_max - lul_min) / M_MAX_CHG_DIGIT > (lul_gas_digit * 10)) else else		case1	case2	case3	case4	case5
			○	○	-	-	-
			○	-	-	-	-
			-	○	-	-	-
			-	-	○	○	○
	Symbol	Range					
Input	lul_digit	1~501	100	100	1	500	501
	(stp_GasInfo_addr+(stp_zipu_num->ul_item_select_num))->ul_cal_densit_max	0~100001	100000	0	0	0	100001
	(stp_GasInfo_addr+(stp_zipu_num->ul_item_select_num))->ul_cal_densit_min	0~501	500	0	0	0	501
	(stp_GasInfo_addr+(stp_zipu_num->ul_item_select_num))->ul_cal_densit_max	0~501	1	500	1	1	501
Output	None	-	-	-	-	-	-
Judgment							

FlowGasCalDisplay Select AutoCal SelectGas

	Responsible	Last update
Coding	Ikarashi	
Test	Taki	
Judgment	Ikarashi	

		case1	case2	case3	case4	case5	case6	case7	case8
Root	if(stp_zipu_num->uc_item_select_updown == M_OFF)	○	○	○	-	-	-	-	-
	if(stp_zipu_num->uf_item_select_num == HDDEF_GAS_MAX)	○	-	-	-	-	-	-	-
	else	-	○	○	-	-	-	-	-
	for(luc_i; luc_i < HDDEF_GAS_MAX; luc_i++)	○	○	-	-	-	-	-	-
	if((stp_gasinfo_addr+luc_i)->uc_gas_comb != 0x00)	○	○	-	-	-	-	-	-
	else	○	○	-	-	-	-	-	-
	else	-	-	-	○	○	○	○	○
	if(stp_zipu_num->uf_item_select_num == 0)	-	-	-	-	-	○	-	-
	else	-	-	-	○	○	-	○	○
	for(luc_i=(stp_zipu_num->uf_item_select_num-1); luc_i > 0; luc_i--)	-	-	-	○	○	-	○	○
	if((stp_gasinfo_addr+luc_i)->uc_gas_comb != 0x00)	-	-	-	-	○	-	○	-
	else	-	-	-	-	-	-	-	○
	if((luc_i == 0) && ((stp_gasinfo_addr+0)->uc_gas_comb == 0x00))	-	-	-	○	-	-	-	○
else	-	-	-	-	○	-	○	-	
Input	Symbol	Range							
	stp_zipu_num->uc_item_select_updown	0~1	0	0	1	1	1	2	1
	(stp_gasinfo_addr+luc_i)->uc_gas_comb	0~29	29	0	29	0	29	0	30
	(stp_gasinfo_addr+0)->uc_gas_comb	0~29	29	0	29	0	29	0	30
Output Judgment	None	-	-	-	-	-	-	-	-

FlowGasCalDisplay Select AutoCalMenu

	Responsible	Last update
Coding	Ikarashi	
Test	Taki	
Judgment	Ikarashi	

[illegible]

FlowGasCalDisplay_Select_GasCalMenu

	Responsible	Last update
Coding	Ikarashi	
Test	Taki	
Judgment	Ikarashi	

[illegible]

FlowGasCalDisplay_Select_GroupSelectGas

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	8
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3	case4	case5	case6	case7	case8
Root	if(stp_zipu_num->uc_item_select_updown == M_OFF)	○	○	○	-	-	-	-	-
	if(stp_zipu_num->ul_item_select_num == HDEF_GAS_MAX)	○	-	-	-	-	-	-	-
	else	-	○	○	-	-	-	-	-
	for(luc_i; luc_i < HDEF_GAS_MAX; luc_i++)	○	○	-	-	-	-	-	-
	if((stp_GasInfo_addr+luc_i)->uc_gas_comb != 0x00)	○	○	-	-	-	-	-	-
	else	○	○	-	-	-	-	-	-
	else	-	-	-	○	○	○	○	○
	if(stp_zipu_num->ul_item_select_num == 0)	-	-	-	-	-	○	-	-
	else	-	-	-	○	○	-	○	-
	for(luc_i=(stp_zipu_num->ul_item_select_num-1); luc_i > 0; luc_i--)	-	-	-	○	○	-	○	○
	if((stp_GasInfo_addr+luc_i)->uc_gas_comb != 0x00)	-	-	-	-	○	-	○	-
	else	-	-	-	○	-	-	-	○
	if((luc_i == 0) && ((stp_GasInfo_addr+0)->uc_gas_comb == 0x00))	-	-	-	○	-	-	-	○
	else	-	-	-	-	○	-	○	-
Symbol		Range							
Input	stp_zipu_num->uc_item_select_updown	0~2	0	0	0	1	1	1	2
	(stp_GasInfo_addr+luc_i)->uc_gas_comb	0~30	29	0	29	0	29	0	30
	(stp_GasInfo_addr+0)->uc_gas_comb	0~30	29	0	29	0	29	0	30
Output	None	-	-	-	-	-	-	-	-
Judgment									

FlowGasCalDisplay_Select_GroupSelectGroup

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	2
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2
Root	None	-	-
Input	Symbol	Range	
	Tool_OneCount(stp_zipu_num->ul_sub_item_select_num, 1, M_AUTO_GROUP_MAX-1, 0, stp_zipu_num->uc_sub_item_select_updown, M_OFF)	0x00000000,0xFFFFFFFF	0x00000000
	stp_zipu_num->ul_sub_item_select_num	0x00000000,0xFFFFFFFF	0x00000000
Output	None	-	-
Judgment			

FlowGasCalDisplay_Set_GasCalMenu

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	5
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3	case4	case5
Root	switch(stp_zipu_num->ul_sub_mode_select_num)	○	○	○	○	○
	case U_G_AIR_NUM	○	-	-	-	-
	case U_G_N2CAL_NUM	-	○	-	-	-
	case U_G_AUTOCAL_NUM	-	-	○	-	-
	case U_G_END_NUM	-	-	-	○	-
	default	-	-	-	-	○
	Symbol	Range				
Input	stp_zipu_num->ul_sub_mode_select_num	0x00000000-0xFFFFFFFF	0x00000000	0x00000001	0x00000002	0x00000004
Output	None	-	-	-	-	-
Judgment						

m_Chk_AutoCalGasOn

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case2
Root	if((stp_GasInfo_addr+puc_gas)->uc_gas_comb != 0x00) && ((stp_GasInfo_addr+puc_gas)->uc_cal_group == puc_num)	○	○	-
	if(puc_flg == M_OFF (stp_GasInfo_addr+puc_gas)->ul_cal_denst != M_OFF_VAL)	○	-	-
	else	-	○	-
	else	-	-	○
	Symbol	Range		
Input	puc_gas	0~30	29	30
	puc_flg	0~2	0	1
	puc_num	0x00,0xFF	0x00	0xFF
	(stp_GasInfo_addr+puc_gas)->uc_gas_comb	0~30	29	30
	(stp_GasInfo_addr+puc_gas)->uc_cal_group	0x00,0xFF	0x00	0xFF
	(stp_GasInfo_addr+puc_gas)->ul_cal_denst	0x00000000-0xFFFFFFFF	0x00000000	0xDDDDDDDD
	Symbol	Range		
Output	luc_ans	0.1	1	1
Judgment				

m_Chk_GasCalMenuItem

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1
Root	if((stp_GasInfo_addr+4)->uc_gas_comb != DataStructConst_IR_GAS_NUM)	○
	else	-
Symbol		Range
Input	None	-
Output	uc_gas_cal_mode_item[U_G_N2CAL_NUM]	0
Judgment		

Unit Test Specification

Project name	GX-Force
File name	flow_gassel_display.c

FlowGasSelDisplay_Disp_ChangeLELValue

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	4
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3	case4
Root	switch(stp_zipu_num->ul_item_select_num)	○	○	○	○
	case 0	○	-	-	-
	case 1	-	○	-	-
	case 2	-	-	○	-
	default	-	-	-	○
	Symbol	Range			
Input	stp_zipu_num->ul_item_select_num	0x00000000-0xFFFFFFFF	0x00000000	0x00000001	0x00000002
Output	stp_rl_disp->uc_lcd_com_blink	0x7F	0x7F	0x7F	0x7F
Judgment					

FlowGasSelDisplay_Disp_MarginDispOnOff

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1
Root	None	-
	Symbol	Range
Input	None	-
Output	None	-
Judgment		

FlowGasSelDisplay_Disp_ResetAlarmPoint

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	4
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3	case4
Root	switch(ZIPNumSet_Get_DispFlicker3())	○	○	○	○
	case 0	○	-	-	-
	case 1	-	○	-	-
	case 2	-	-	○	-
	default	-	-	-	○
	Symbol	Range			
Input	ZIPNumSet_Get_DispFlicker3()	0-3	0	1	2
Output	None	-	-	-	-
Judgment					

FlowGasSelDisplay_Disp_StealthMotorOnOff

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1
Root	None	-
	Symbol	Range
Input	None	-
Output	None	-
Judgment		

FlowGasSelDisplay_Disp_StealthOnOff

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1
Root	None	-
	Symbol	Range
Input	None	-
Output	None	-
Judgment		

FlowGasSelDisplay_End_ChangeLELValue

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3
Root	None	-	-	-
	Symbol	Range		
Input	stp_zipu_num->ul_item_select_num	0x00000000-0xFFFFFFFF	0x00000000	0xFFFFFFFF
	stp_gasinfo_addr->uc_gas_comb	0-30	0	29
Output	stp_data->uc_lel_sel_flg	0x00,0xFF	0x00	0xFF
	stp_gasinfo_addr->fl_lel_ratio[0]	0.5	0	5
Judgment				

FlowGasSelDisplay_End_MarginDispOnOff

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	2
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2
Root	None	-	-
	Symbol	Range	
Input	stp_zipu_num->ul_item_select_num	0x00000000-0xFFFFFFFF	0x00000000 0xFFFFFFFF
Output	stp_data->uc_margin_disp_onoff	0x00-0xFF	0x00 0xFF
Judgment			

FlowGasSelDisplay_End_ResetAlarmPoint

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3
Root	for(luc_i=0; luc_i < HDEF_GAS_MAX; luc_i++) if(luc_ret == M_NG) else	O O -	O - O	O - O
	Symbol	Range		
Input	DataFram_AlarmReset_Write() (stp_GasInfo_addr+luc_i)->ul_full_scale (stp_GasInfo_addr+luc_i)->ul_digit (stp_GasInfo_addr+luc_i)->uc_uni_dec (stp_GasInfo_addr+luc_i)->ul_1st_alarm (stp_GasInfo_addr+luc_i)->ul_2nd_alarm (stp_GasInfo_addr+luc_i)->ul_3rd_alarm (stp_GasInfo_addr+luc_i)->ul_stel_alarm (stp_GasInfo_addr+luc_i)->ul_twa_alarm	0~2 0-100001 1-501 0x00-0x23 0-1001 0-25001 0-50001 0-5001 0-2501	0 100000 500 0x22 1000 25000 50000 5000 2500	2 100001 501 0x23 1001 25001 50001 5001 2501
Output	stp_AlarmReset_addr->ALARM_POINT. RESET_ALARM[luc_i].ul_full_scale stp_AlarmReset_addr->ALARM_POINT. RESET_ALARM[luc_i].ul_digit stp_AlarmReset_addr->ALARM_POINT. RESET_ALARM[luc_i].uc_uni_dec stp_AlarmReset_addr->ALARM_POINT. RESET_ALARM[luc_i].ul_1st_alarm stp_AlarmReset_addr->ALARM_POINT. RESET_ALARM[luc_i].ul_2nd_alarm stp_AlarmReset_addr->ALARM_POINT. RESET_ALARM[luc_i].ul_3rd_alarm stp_AlarmReset_addr->ALARM_POINT. RESET_ALARM[luc_i].ul_stel_alarm stp_AlarmReset_addr->ALARM_POINT. RESET_ALARM[luc_i].ul_twa_alarm luc_ret	0-100001 0-501 0x00-0x23 0-1001 0-25001 0-50001 0-5001 0-2501 0-2	0 1 0x00 0 0 0 0 0 1	100000 500 0x22 1000 25000 50000 5000 2500 0
Judgment				2

FlowGasSelDisplay_End_StealthOnOff

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	2
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2
Root	None	-	-
	Symbol	Range	
Input	stp_zipu_num->ul_item_select_num stp_zipu_num->ul_sub_item_select_num	0x00000000-0xFFFFFFFF 0x00000000-0xFFFFFFFF	0x00000000 0xFFFFFFFF 0x00000000 0xFFFFFFFF
Output	stp_data->uc_stealth_on stp_data->uc_stealth_motor_on	0x00,0xFF 0x00,0xFF	0xFF 0xFF
Judgment			

FlowGasSelDisplay_Init_ChangeLELValue

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3
Root	None	-	-	-
	Symbol	Range		
Input	stp_data->uc_lel_sel_flg	0-3	2	3
Output	stp_zipu_num->ul_item_select_num stp_zipu_num->uc_item_select_updown	0-3 0	2 0	3 0
Judgment				

FlowGasSelDisplay_Init_GasSelMenu

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1
Root	None	-
	Symbol	Range
Input	None	-
Output	stp_zipu_num->ul_mode_select_num stp_zipu_num->uc_mode_select_updown	0 0
Judgment		0

FlowGasSelDisplay Init MarginDispOnOff

	Responsible	Last update
Coding	Ikarashi	
Test	Taki	
Judgment	Ikarashi	

			case1	case2	case3
Root	None		-	-	-
	Symbol	Range			
Input	stp_data->uc_margin_disp_onoff	0-2	0	1	2
Output	stp_zipu_num->ul_item_select_num	0-2	0	1	2
Judgment					

FlowGasSelDisplay Init StealthMotorOnOff

	Responsible	Last update
Coding	Ikarashi	
Test	Taki	
Judgment	Ikarashi	

			case1	case2	case3
Root	None		-	-	-
	Symbol	Range			
Input	stp_data->uc_stealth_motor_on	0-2	0	1	2
Output	stp_zipu_num->ul_sub_item_select_num	0-2	0	1	2
Judgment					

FlowGasSelDisplay_Init StealthOnOff

	Responsible	Last update
Coding	Ikarashi	
Test	Taki	
Judgment	Ikarashi	

			case1	case2	case3
Root	None		-	-	-
	Symbol	Range			
Input	stp_data->uc_stealth_on	0-2	0	1	2
Output	stp_zipu_num->ul_item_select_num	0-2	0	1	2
Judgment					

FlowGasSelDisplay_Select_ChangeLELValue

	Responsible	Last update
Coding	Ikarashi	
Test	Taki	
Judgment	Ikarashi	

Root	None	case1	case2
	Symbol		-
Input	Tool_OneCount((U_LNG)stp_zipu_num->ul_item_select_num, 1, 2, 0, stp_zipu_num->uc_item_select_updown, M_OFF)	0x00000000, 0xFFFFFFFF	0x00000000, 0xFFFFFFFF
Output	stp_zipu_num->ul_item_select_num	0x00000000, 0xFFFFFFFF	0x00000000, 0xFFFFFFFF
Judgment			

FlowGasSelDisplay_Select_GasSelMenu

	Responsible	Last update
Coding	Ikarashi	
Test	Taki	
Judgment	Ikarashi	

[illegible]

FlowGasSelDisplay_Select MarginDispOnOff

	Responsible	Last update
Coding	Ikarashi	
Test	Taki	
Judgment	Ikarashi	

			case1	case2	case3
Root	None		-	-	-
	Symbol	Range			
Input	Tool_CHR_Chg_OnOff (stp_zipu_num->ul_item_select_num)	0,1	0	1	2
Output	stp_zipu_num->ul_item_select_num	0-2	0	1	2
Judgment					

FlowGasSelDisplay Select StealthMotorOnOff

	Responsible	Last update
Coding	Ikarashi	
Test	Taki	
Judgment	Ikarashi	

			case1	case2	case3
Root	None		-	-	-
	Symbol	Range			
Input	Tool_CHR_Chg_OnOff (stp_zipu_num->ul_sub_item_select_num)	0-2	0	1	2
Output	stp_zipu_num->ul_sub_item_select_num	0-2	0	1	2
Judgment					

FlowGasSelDisplay Select StealthOnOff

	Responsible	Last update
Coding	Ikarashi	
Test	Taki	
Judgment	Ikarashi	

			case1	case2	case3
Root	None		-	-	-
	Symbol	Range			
Input	Tool_CHR_Chg_OnOff (stp_zipu_num->ul_item_select_num)	0~2	0	1	2
Output	stp_zipu_num->ul_item_select_num	0~2	0	1	2
Judgment					

FlowGasSelDisplay_Set_GasSelMenu

	Responsible	Last update
Coding	Ikarashi	
Test	Taki	
Judgment	Ikarashi	

		case1	case2	case3	case4	case5	case6	case7
Root	switch(stp_zipu_num->ui_mode_select_num)	○	○	○	○	○	○	○
	case G_GAS_COMB_NUM	○	-	-	-	-	-	-
	case G_SET_RESET_AL_P_NUM	-	○	-	-	-	-	-
	case G_SPARE_ENERGY_NUM	-	-	○	-	-	-	-
	case G_STEALTH_NUM	-	-	-	○	-	-	-
	case G_LEL_CHG_NUM	-	-	-	-	○	-	-
	case G_END_NUM	-	-	-	-	-	○	-
	default	-	-	-	-	-	-	○
Symbol	Range							
Input	stp_zipu_num->ui_mode_select_num	0-6						
Output	None	-	-	-	-	-	-	-
Judgment								

Unit Test Specification

Project name	GX-Force
File name	flow_initial_display.c

FlowInitialDisplay_Calc_InitDispTime

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	6
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3	case4	case5	case6
Root	if(GasCalc_Get_ToxicGasON() == M_ON)	○	○	○	○	-	-
	if(GasCalc_Get_Alarm1hON() == M_ON)	○	○	-	-	-	-
	if(GasCalc_Get_AlarmTwaON() == M_ON)	○	-	-	-	-	-
	else	-	○	-	-	-	-
	else	-	-	○	○	-	-
	if(GasCalc_Get_AlarmTwaON() == M_ON)	-	-	○	-	-	-
	else	-	-	-	○	-	-
	else	-	-	-	-	○	○
	if(FuncMainteNotice_Get_MainteNoticeOnOff() == M_ON)	○	○	-	-	-	-
	if(FuncMainteNotice_Get_MainteNoticeLimitExpired() == M_OFF)	○	-	-	-	-	-
	else	-	○	-	-	-	-
	else	-	-	○	○	○	○
	if(FuncCalLimit_Get_CalLimitOnOff() == M_ON)	○	○	-	-	-	-
	if(FuncCalLimit_Get_ChkCalLimitExpired() == M_OFF)	○	-	-	-	-	-
	else	-	○	-	-	-	-
	else	-	-	○	○	○	○
	if(stp_data->uc_bump_lmt_set == M_ON)	○	○	-	-	-	-
	if(FuncBumpLimit_Get_ChkBumpLimitExpired() == M_OFF)	○	-	-	-	-	-
	else	-	○	-	-	-	-
	else	-	-	○	○	○	○
	if(stp_data->uc_id_disp_onoff == M_ON)	○	-	-	-	-	-
	else	-	○	○	○	○	○
	Symbol	Range					
Input	GasCalc_Get_ToxicGasON()	0-2	1	1	1	0	2
	GasCalc_Get_Alarm1hON()	0-2	1	1	0	0	2
	GasCalc_Get_AlarmTwaON()	0-2	1	0	1	0	2
	FuncMainteNotice_Get_MainteNoticeOnOff()	0-2	1	1	0	0	2
	FuncMainteNotice_Get_MainteNoticeLimitExpired()	0-2	0	1	0	0	2
	FuncCalLimit_Get_CalLimitOnOff()	0-2	1	1	0	0	2
	FuncCalLimit_Get_ChkCalLimitExpired()	0-2	0	1	0	0	2
	stp_data->uc_bump_lmt_set	0-2	1	1	0	0	2
	FuncBumpLimit_Get_ChkBumpLimitExpired()	0-2	0	1	0	0	2
	stp_data->uc_id_disp_onoff	0-2	1	0	0	0	2
Output	uss_init_disp_time[FlowInitialDisplay_DATE_NUMBER]	400	400	400	400	400	400
	uss_init_disp_time[FlowInitialDisplay_BATT_NUMBER]	300,400	300	400	400	400	400
	uss_init_disp_time[FlowInitialDisplay_NAME_NUMBER]	250,350	250	350	350	350	350
	uss_init_disp_time[FlowInitialDisplay_FS_NUMBER]	200-1200	200	600	400	800	1200
	uss_init_disp_time[FlowInitialDisplay_TWA_NUMBER]	0-400	300	0	400	0	0
	uss_init_disp_time[FlowInitialDisplay_STEL_NUMBER]	0-400	300	300	400	400	0
	uss_init_disp_time[FlowInitialDisplay_1H_NUMBER]	0,300	300	300	0	0	0
	uss_init_disp_time[FlowInitialDisplay_1ST_NUMBER]	200,400	200	400	400	400	400
	uss_init_disp_time[FlowInitialDisplay_2ND_NUMBER]	200,400	200	400	400	400	400
	uss_init_disp_time[FlowInitialDisplay_3RD_NUMBER]	200,400	200	400	400	400	400
	uss_init_disp_time[FlowInitialDisplay_MAINTENANCE_NUMBER]	0,300	300	300	0	0	0
	uss_init_disp_time[FlowInitialDisplay_CAL_NUMBER]	0,300	300	300	0	0	0
	uss_init_disp_time[FlowInitialDisplay_U_ID_NUMBER]	0,150	150	0	0	0	0
	uss_init_disp_time[FlowInitialDisplay_S_ID_NUMBER]	0,150	150	0	0	0	0
Judgment							

FlowInitialDisplay_Chk_HCModeHHCflg

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	4
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3	case4
Root	if(stp_data->uc_nc_mode_flg == GAS_CALC_NC_MODE_STINT)	○	○	-	-
	if((stp_GasInfo_addr->uc_gas_comb != 0x00) && (stp_GasInfo_addr->uc_gas_comb <= 0x02))	○	-	-	-
	else	-	○	-	-
	else	-	-	○	○
	Symbol	Range			
Input	stp_data->uc_nc_mode_flg	0-2	1	0	2
	stp_GasInfo_addr->uc_gas_comb	0-30	1	0	29
Output	luc_ans	0,1	1	0	0
Judgment					

FlowInitialDisplay_Disp_BumpLimitEffe

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3
Root	if(lul_day >= FuncBumpLimit_INIT_BUMP_LIMIT_DAY)	○	-	○
	else	-	○	-
	switch(ZIPNumSet_Get_DispFlicker2())	○	○	○
	case 0	○	-	-
	case 1	-	○	-
	default	-	-	○
	Symbol	Range		
Input	FuncBumpLimit_Chk_BumpLimitDay()	0-1001	1000	0
	ZIPNumSet_Get_DispFlicker2()	0-2	0	1
Output	None	-	-	-
Judgment				

FlowInitialDisplay_Disp_BumpLimitOk

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3
Root	if(lul_day >= FuncBumpLimit_INIT_BUMP_LIMIT_DAY)	○	-	○
	else	-	○	-
	Symbol	Range		
Input	FuncBumpLimit_Chk_BumpLimitDay()	0-1001	1000	0
Output	None	-	-	-
Judgment				

FlowInitialDisplay_Disp_BumpLimitOper

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3
Root	switch(ZIPNumSet_Get_DispFlicker2())	○	○	○
	case 0	○	-	-
	case 1	-	○	-
	default	-	-	○
	Symbol	Range		
Input	ZIPNumSet_Get_DispFlicker2()	0-2	0	1
Output	None	-	-	-
Judgment				

FlowInitialDisplay_Disb_BumpLimitRequ

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	4
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3	case4
Root	switch(ZIPNumSet_Get_DisbFlicker3())	○	○	○	○
	case 0	○	-	-	-
	case 1	-	○	-	-
	case 2	-	-	○	-
	default	-	-	-	○
	Symbol	Range			
Input	ZIPNumSet_Get_DisbFlicker3()	0-3	0	1	2
Output	None	-	-	-	-
Judgment					

FlowInitialDisplay_Disb_CalLimitEffe

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3
Root	if((ul_day >= FuncCalLimit_INIT_CAL_LIMIT_DAY))	○	-	○
	else	-	○	-
	switch(ZIPNumSet_Get_DisbFlicker2())	○	○	○
	case 0	○	-	-
	case 1	-	○	-
	default	-	-	○
	Symbol	Range		
Input	FuncCalLimit_Chk_CalLimitDay()	0-1001	1000	0
	ZIPNumSet_Get_DisbFlicker2()	0-2	0	1
Output	None	-	-	-
Judgment				

FlowInitialDisplay_Disb_CalLimitOk

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3
Root	if((ul_day >= FuncCalLimit_INIT_CAL_LIMIT_DAY))	○	-	○
	else	-	○	-
	Symbol	Range		
Input	FuncCalLimit_Chk_CalLimitDay()	0-1001	1000	0
Output	None	-	-	-
Judgment				

FlowInitialDisplay_Disb_CalLimitOper

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3
Root	switch(ZIPNumSet_Get_DisbFlicker2())	○	○	○
	case 0	○	-	-
	case 1	-	○	-
	default	-	-	○
	Symbol	Range		
Input	ZIPNumSet_Get_DisbFlicker2()	0-2	0	1
Output	None	-	-	-
Judgment				

FlowInitialDisplay_DispatchLimitReq

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	4
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3	case4
Root	switch(ZIPNumSet_Get_DispatchFlicker3())	○	○	○	○
	case 0	○	-	-	-
	case 1	-	○	-	-
	case 2	-	-	○	-
	default	-	-	-	○
	Symbol	Range			
Input	ZIPNumSet_Get_DispatchFlicker3()	0-3	0	1	2
Output	None	-	-	-	-
Judgment					

FlowInitialDisplay_DispatchMaintenanceNoticeEffect

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3
Root	if(lul_day >= FuncMaintenanceNotice_Init_MaintenanceNoticeDay())	○	-	○
	else	-	○	-
	Symbol	Range		
Input	FuncMaintenanceNotice_Chk_MaintenanceLimitDay()	0-1001	1000	0
Output	None	-	-	-
Judgment				

FlowInitialDisplay_DispatchMaintenanceNoticeOK

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3
Root	if(lul_day >= FuncMaintenanceNotice_Init_MaintenanceNoticeDay())	○	-	○
	else	-	○	-
	Symbol	Range		
Input	FuncMaintenanceNotice_Chk_MaintenanceLimitDay()	0-1001	1000	0
Output	None	-	-	-
Judgment				

FlowInitialDisplay_DispatchMaintenanceNoticeOper

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1
Root	None	-
	Symbol	Range
Input	None	-
Output	None	-
Judgment		

FlowInitialDisplay_DispatchMaintenanceNoticeReq

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi	2021/6/21	Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1
Root	None	-
	Symbol	Range
Input	None	-
Output	None	-
Judgment		

FlowInitialDisplay_DispatchPleaseWait

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1
Root	None		-
	Symbol	Range	
Input	None	-	-
Output	None	-	-
Judgment			

FlowInitialDisplay_DispatchResumeConfirmation

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	4
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1	case2	case3	case4
Root	switch(ZIPNumSet_GetDispFlicker3())		○	○	○	○
	case 0		○	-	-	-
	case 1		-	○	-	-
	case 2		-	-	○	-
	default		-	-	-	○
	Symbol	Range				
Input	ZIPNumSet_GetDispFlicker3()	0~3	0	1	2	3
Output	None	-	-	-	-	-
Judgment						

FlowInitialDisplay_DispatchResumeFail

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1
Root	None		-
	Symbol	Range	
Input	None	-	-
Output	None	-	-
Judgment			

FlowInitialDisplay_DispatchResumeOFF

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1
Root	None		-
	Symbol	Range	
Input	None	-	-
Output	None	-	-
Judgment			

FlowInitialDisplay_DispatchResumeON

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1
Root	None		-
	Symbol	Range	
Input	None	-	-
Output	None	-	-
Judgment			

FlowInitialDisplay_DispNet_1hAlarm

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1	case2	case3
Root	if((stp_GasInfo_addr+3)->uc_gas_comb != 0x00)		○	○	-
	if(stp_data->uc_alarm_on == M_OFF)		○	-	-
	else		-	○	-
	else		-	-	○
	Symbol	Range			
Input	(stp_GasInfo_addr+3)->uc_gas_comb	0-30	29	30	0
	stp_data->uc_alarm_on	0-2	0	1	2
Output	None	-	-	-	-
Judgment					

FlowInitialDisplay_DispNet_1stAlarm

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	4
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3	case4	
Root	for(luc_i=0; luc_i<4; luc_i++)	○	○	○	○	
	if((stp_GasInfo_addr+luc_i)->uc_gas_comb != 0x00)	○	○	○	-	
	if(luc_i != DataStructConst_CO_CAN_H2_H2_CH (stp_GasInfo_addr+luc_i)->uc_gas_comb != DataStructConst_CO_CAN_H2_GAS_NUM)	○	○	-	-	
	if(stp_data->uc_alarm_on == M_OFF)	○	-	-	-	
	else	-	○	-	-	
	else	-	-	○	-	
	else	-	-	-	○	
	Symbol	Range				
Input	(stp_GasInfo_addr+luc_i)->uc_gas_comb	0-30	29	30	3	0
	stp_data->uc_alarm_on	0-2	0	1	0	2
Output	None	-	-	-	-	-
Judgment						

FlowInitialDisplay_DispNet_2ndAlarm

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	4
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3	case4
Root	for(luc_i=0; luc_i<4; luc_i++)	○	○	○	○
	if((stp_GasInfo_addr+luc_i)->uc_gas_comb != 0x00)	○	○	○	-
	if(luc_i != DataStructConst_CO_CAN_H2_H2_CH (stp_GasInfo_addr+luc_i)->uc_gas_comb != DataStructConst_CO_CAN_H2_GAS_NUM)	○	○	-	-
	if(stp_data->uc_alarm_on == M_OFF)	○	-	-	-
	else	-	○	-	-
	else	-	-	○	-
	else	-	-	-	○
	Symbol	Range			
Input	(stp_GasInfo_addr+luc_i)->uc_gas_comb	0~30	30	3	0
	stp_data->uc_alarm_on	0~2	0	1	0
Output	None	-	-	-	-
Judgment					

FlowInitialDisplay_DispSet_3rdAlarm

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	4
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3	case4
Root	for(luc_i=0; luc_i<4; luc_i++)	○	○	○	○
	if((stp_GasInfo_addr+luc_i)->uc_gas_comb != 0x00)	○	○	○	-
	if(luc_i != DataStructConst_CO_CAN_H2_H2_CH (stp_GasInfo_addr+luc_i)->uc_gas_comb != DataStructConst_CO_CAN_H2_GAS_NUM)	○	○	-	-
	if(stp_data->uc_alarm_on == M_OFF)	○	-	-	-
	else	-	○	-	-
	else	-	-	○	-
	else	-	-	-	○
	Symbol	Range			
Input	(stp_GasInfo_addr+luc_i)->uc_gas_comb	0~30			
	stp_data->uc_alarm_on	0	1	0	2
Output	None	-	-	-	-
Judgment					

FlowInitialDisplay_DispSet_AutoZeroConfirm

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	4
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1	case2	case3	case4
Root	switch(ZIPNumSet_Get_DispFlicker3())		○	○	○	○
	case 0		○	-	-	-
	case 1		-	○	-	-
	case 2		-	-	○	-
	default		-	-	-	○
	Symbol	Range				
Input	ZIPNumSet_Get_DispFlicker3()	0~3	0	1	2	3
Output	None	-	-	-	-	-
Judgment						

FlowInitialDisplay_DispSet_Battery

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3
Root	if(stp_data->uc_alarm_pattern)	-	○	-
	else	○	-	○
	Symbol	Range		
Input	stp_data->uc_alarm_pattern	0..2	1	2
Output	stp_nl_disp->uc_lcd_mes_dot[1]	2	2	2
Judgment				

FlowInitialDisplay_DispSet_DateAndTime

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1
Root	None		-
	Symbol	Range	
Input	None	-	-
Output	stp_nl_disp->uc_lcd_mes_dot[1]	0x05	0x05
Judgment			

FlowInitialDisplay_DispSet_FS

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	4
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3	case4
Root	for(luc_i=0; luc_i<4; luc_i++)	○	○	○	○
	if((stp_GasInfo_addr+luc_i)->uc_gas_comb != 0x00)	○	○	-	○
	if(luc_i != DataStructConst_CO_CAN_H2_H2_CH (stp_GasInfo_addr+luc_i)->uc_gas_comb != DataStructConst_CO_CAN_H2_GAS_NUM)	○	-	-	○
	else	-	○	-	-
	else	-	-	○	-
	if(stp_data->uc_lel_sel_flg == 1)	○	-	-	-
	else if(stp_data->uc_lel_sel_flg == 2)	-	○	-	-
	else	-	-	○	○
	Symbol	Range			
Input	(stp_GasInfo_addr+luc_i)->uc_gas_comb	29	3	0	30
	tp_data->uc_lel_sel_flg	1	2	0	3
Output	None	-	-	-	-
Judgment					

FlowInitialDisplay_DispSet_GasName

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	4
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3	case4	
Root	for(luc_i=0; luc_i<4; luc_i++)	○	○	○	○	
	if((stp_GasInfo_addr+luc_i)->uc_gas_comb != 0x00)	○	○	○	-	
	if(luc_i != DataStructConst_CO_CAN_H2_H2_CH (stp_GasInfo_addr+luc_i)->uc_gas_comb != DataStructConst_CO_CAN_H2_GAS_NUM)	○	○	-	-	
	else	-	-	○	-	
	else	-	-	-	○	
	Symbol	Range				
Input	(stp_GasInfo_addr+luc_i)->uc_gas_comb	0~30	29	30	3	0
Output	None	-	-	-	-	-
Judgment						

FlowInitialDisplay_DispSet_SensorInitFail

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	5
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3	case4	case5
Root	if(stp_status->us_main_state & DataStructConst_FAIL_SUB)	○	-	-	-	○
	else	-	○	○	○	-
	for(luc_i=0; luc_i<HDEF_GAS_MAX; luc_i++)	-	○	○	○	-
	if((stp_densit + luc_i)->uc_state_trb & DataStructConst_S_FAIL_INS)	-	○	○	-	-
	if((luc_i != DataStructConst_CO_CAN_H2_H2_CH) ((stp_GasInfo_addr+luc_i)->uc_gas_comb != DataStructConst_CO_CAN_H2_GAS_NUM))	-	○	-	-	-
	switch(luc_i)	-	○	-	-	-
	case 0	-	○	-	-	-
	case 1	-	○	-	-	-
	case 2	-	○	-	-	-
	case 3	-	○	-	-	-
	default	-	○	-	-	-
	else	-	-	○	-	-
	else	-	-	-	○	-
	Symbol	Range				
Input	stp_status->us_main_state	0x0000-0xFFFF	0x0200	0x0000	0x0000	0xFFFF
	(stp_densit+luc_i)->uc_state_trb	0x00-0xFF	0x00	0x10	0x10	0xFF
	(stp_GasInfo_addr + luc_i)->uc_gas_comb	0-30	29	0	3	30
Output	stp_nl_disp->uc_lcd_mes_blink[0]	0-255	0	255	255	0
	stp_nl_disp->uc_lcd_mes_blink[1]	0-255	0	255	240	0
Judgment						

FlowInitialDisplay_DispSet_StationId

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

Root	None	case1
		-
	Symbol	Range
Input	None	-
Output	None	-
Judgment		

FlowInitialDisplay_DispSet_STELAlarm

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	4
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3	case4
Root	for(luc_i=0; luc_i<4; luc_i++)	○	○	○	○
	if((stp_GasInfo_addr+luc_i)->uc_gas_comb != 0x00)	○	○	○	-
	if(luc_i != DataStructConst_CO_CAN_H2_H2_CH (stp_GasInfo_addr+luc_i)->uc_gas_comb != DataStructConst_CO_CAN_H2_GAS_NUM)	○	○	-	-
	if(stp_data->uc_alarm_on == M_OFF)	○	-	-	-
	else	-	○	-	-
	else	-	-	○	-
	else	-	-	-	○
	Symbol	Range			
Input	(stp_GasInfo_addr+luc_i)->uc_gas_comb	0~30	30	3	0
	stp_data->uc_alarm_on	0~2	0	1	0
Output	None	-	-	-	-
Judgment					

FlowInitialDisplay_DispSet_TWAAlarm

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	5
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3	case4	case5	
Root	for(luc_i=0; luc_i<4; luc_i++)	○	○	○	○	○	
	if((stp_GasInfo_addr+luc_i)->uc_gas_comb != 0x00)	○	○	○	○	-	
	if(luc_i != DataStructConst_CO_CAN_H2_H2_CH (stp_GasInfo_addr+luc_i)->uc_gas_comb != DataStructConst_CO_CAN_H2_GAS_NUM)	○	○	○	-	-	
	if(!((luc_i == DataStructConst_CO_CH) && (stp_data->uc_1h_alarm_on == M_ON)))	○	○	-	-	-	
	if(stp_data->uc_alarm_on == M_OFF)	○	-	-	-	-	
	else	-	○	-	-	-	
	else	-	-	○	-	-	
	else	-	-	-	○	-	
	else	-	-	-	-	○	
	Symbol	Range					
Input	(stp_GasInfo_addr+luc_i)->uc_gas_comb	0-30	29	29	30	3	0
	stp_data->uc_1h_alarm_on	0-2	1	1	0	0	2
	stp_data->uc_alarm_on	0-2	0	1	1	0	2
Output	None	-	-	-	-	-	
Judgment							

FlowInitialDisplay_DispSet_UserId

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

Root	None	case1
		-
	Symbol	Range
Input	None	-
Output	None	-
Judgment		

FlowInitialDisplay_Get_InitDispTime

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

Root	None		case1	case3	case4
	Symbol	Range	-	-	-
Input	puc_num	0~16	0	15	16
Output	uss_init_disp_time[puc_num]	0	0	0	0
Judgment					

FlowInitialDisplay_Set_AllOffDisp

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

Root	None		case1
	Symbol	Range	-
Input	None	-	-
Output	None	-	-
Judgment			

FlowInitialDisplay_Set_AllOnDisp

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

Root	None		case1
	Symbol	Range	-
Input	None	-	-
Output	None	-	-
Judgment			

FlowInitialDisplay_Set_HCModeHHCflgGasName

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	4
Test	Taki			
Judgment	Ikarashi		Judgment	

Root	if((HCTableDefData[stp_GasInfo_addr->uc_sub_comb].uc_meas_group & 0x10) == 0x10)		case1	case2	case3	case4
	else		○	-	-	-
			-	○	○	○
	Symbol	Range				
Input	stp_GasInfo_addr->uc_gas_comb	0~30	4	0	29	30
	stp_GasInfo_addr->uc_sub_comb	0~30	4	0	29	30
Output	stp_GasInfo_addr->uc_sub_comb	0~30	4	0	29	30
Judgment						

Unit Test Specification

Project name	GX-Force
File name	flow_main.c

FlowMain_Disp_FailDisp

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	18
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3	case4	case5	case6	case7	case8	case9	case10	case11	case12	case13	case14	case15	case16	case17	case18
Root	if(!lucx, count <= 4U)	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	if(!lucx, fig >= 7U)	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	else	-	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	else	-	-	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	if(sp_status >= uc_main_state & DataStructConst_SYS_FAIL_PRIORITY_0)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	case (isp_status >= uc_main_state & DataStructConst_SYS_FAIL_PRIORITY_1)	-	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0
	else if(sp_status >= uc_main_state & DataStructConst_SYS_FAIL_PRIORITY_2)	-	-	-	0	0	0	0	-	-	-	-	-	-	-	-	-	-	-
	else if(sp_status >= uc_main_state & DataStructConst_S_FAIL_SEN1)	-	-	-	-	-	-	-	0	0	0	0	0	0	-	-	-	-	-
	(isp_dereft1 >= uc_state_1b & DataStructConst_S_FAIL_SEN1)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	(isp_dereft2 >= uc_state_1b & DataStructConst_S_FAIL_SEN1)	-	-	-	-	-	-	-	0	-	-	-	-	-	-	-	-	-	-
	(isp_dereft3 >= uc_state_1b & DataStructConst_S_FAIL_SEN1)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	(isp_dereft4 >= uc_state_1b & DataStructConst_S_FAIL_SEN1)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	else	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	if(sp_dereft0 >= uc_state_1b & DataStructConst_S_FAIL_SEN1)	-	-	-	-	-	-	-	-	0	0	0	0	0	-	-	-	-	-
	(isp_dereft1 >= uc_state_1b & DataStructConst_S_FAIL_SEN1)	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0	0	0	-
	(isp_dereft2 >= uc_state_1b & DataStructConst_S_FAIL_SEN1)	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0	0	0	-
	(isp_dereft3 >= uc_state_1b & DataStructConst_S_FAIL_SEN1)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	(isp_dereft4 >= uc_state_1b & DataStructConst_S_FAIL_SEN1)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	else if(sp_status >= uc_main_state & DataStructConst_SYS_FAIL_PRIORITY_4)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	else if(sp_status >= uc_main_state & DataStructConst_SYS_FAIL_PRIORITY_5)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	else	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	for(luc_fig, luc, <= 7U, luc, ++)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	if(luc_fig, numfig, 0) == 0)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	else	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	if(luc, 1) == 7U)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	for(luc, <= 0U, luc, <= 7U, luc, ++)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	if(luc_fig, numfig, 0) == 0U)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	else	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	switch(luc_fig, numfig, 0)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	case DataStructConst_FAIL_BTA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	case DataStructConst_FAIL_BTL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	case DataStructConst_FAIL_RAM	-	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	case DataStructConst_FAIL_ROM	-	-	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	case DataStructConst_FAIL_FRM	-	-	-	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	case DataStructConst_FAIL_FLH	-	-	-	-	0	-	-	-	-	-	-	-	-	-	-	-	-	-
	case DataStructConst_FAIL_CLK	-	-	-	-	-	0	-	-	-	-	-	-	-	-	-	-	-	-
	case DataStructConst_FAIL_Bnd	-	-	-	-	-	-	0	-	-	-	-	-	-	-	-	-	-	-
	case DataStructConst_FAIL_SBR	-	-	-	-	-	-	-	0	-	-	-	-	-	-	-	-	-	-
	case DataStructConst_FAIL_VLT	-	-	-	-	-	-	-	-	0	-	-	-	-	-	-	-	-	-
	case DataStructConst_FAIL_TEP	-	-	-	-	-	-	-	-	-	0	-	-	-	-	-	-	-	-
	case DataStructConst_FAIL_RLE	-	-	-	-	-	-	-	-	-	-	0	-	-	-	-	-	-	-
	case DataStructConst_FAIL_PLW	-	-	-	-	-	-	-	-	-	-	-	0	-	-	-	-	-	-
	case DataStructConst_FAIL_PMP	-	-	-	-	-	-	-	-	-	-	-	-	0	-	-	-	-	-
	case M_SEN_ERR_NUM	-	-	-	-	-	-	-	-	-	-	-	-	-	0	-	-	-	-
	for(luc_fig, luc, <= 7U, luc, ++)	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0	0	0	-
	if(sp_dereft1 >= uc_state_1b & DataStructConst_S_FAIL_SEN1)	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0	0	0	-
	if(luc, 1) != DataStructConst_CO_CAN_H2_H2_CH1)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0	0	-
	(isp_gasflow_addr >= uc_gas_flow_count & DataStructConst_CO_CAN_H2_H2_CH1)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0	-
	switch(luc, 0)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0	0	-
	case 0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0	0	-
	case 1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0	0	-
	case 2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0	0	-
	case 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0	0	-
	default	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0	0	-
	(FlowMain_Get_ModeStatus()) == FlowMain_MEASURE_MODE_NUMBER)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	-	-
	FlowMain_Get_ModeStatus() == FlowMain_DISP_MODE_NUMBER)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	-
	else	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	else	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	-	-
	else	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	default	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0
Input	Symbol																		
	lucx, count	Range																	
	lucx, fig	0-30	3	3	2	0	0	0	0	0	0	0	0	0	0	0	0	0	30
	isp_gasflow_addr >= uc_gas_flow_count	0-30	6	5	0	0	0	0	0	0	0	0	0	0	0	0	3	0	30
	isp_status >= uc_main_state	0-30	29	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	30
	FlowMain_Get_ModeStatus()	0x0000-0xffff	0x0000	0x0008	0x0010	0x0020	0x0040	0x0080	0x0100	0x0200	0x0400	0x0800	0x1000	0x2004	0x4000	0x0001	0x0001	0x0001	0xffff
	(isp_dereft0 >= uc_state_1b)	0x00-0fff	0x00	0x00	0x00	0x00	0x00	0x00	0x00	0x04	0x00	0x00	0x00	0x00	0x04	0x04	0x04	0x00	0fff
	(isp_dereft1 >= uc_state_1b)	0x00-0fff	0x00	0x00	0x00	0x00	0x00	0x00	0x00	0x00	0x00	0x00	0x00	0x00	0x04	0x04	0x04	0x04	0fff
	(isp_dereft2 >= uc_state_1b)	0x00-0fff	0x00	0x00	0x00	0x00	0x00	0x00	0x00	0x00	0x00	0x00	0x00	0x00	0x04	0x04	0x04	0x04	0fff
	(isp_dereft3 >= uc_state_1b)	0x00-0fff	0x00	0x00	0x00	0x00	0x00	0x00	0x00	0x00	0x00	0x00	0x00	0x00	0x04	0x04	0x04	0x04	0fff
	(isp_dereft4 >= uc_state_1b)	0x00-0fff	0x00	0x00	0x00	0x00	0x00	0x00	0x00	0x00	0x00	0x00	0x00	0x00	0x04	0x04	0x04	0x04	0fff
	Output	isp_rtl_disp >= uc_mes_bina[0]	0-255	0	0	0	0	0	0	0	0	0	0	0	0	255	255	255	15
isp_rtl_disp >= uc_mes_bina[1]		0-255	0	0	0	0	0	0	0	0	0	0	0	0	255	255	240	255	0
Submers																			

FlowMain Get ModeStatus

	Responsible	Last update
Coding	Ikarashi	
Test	Taki	
Judgment	Ikarashi	

			case1
Root	None		
	Symbol	Range	-
Input	None	-	-
Output	uc_flow_mode_flg	0	0
Judgment			

FlowMain Set ModeStatus

	Responsible	Last update
Coding	Ikarashi	
Test	Taki	
Judgment	Ikarashi	

			case1	case2	case3
Root	None		-	-	-
	Symbol	Range			
Input	puc_mode_flg	0-8	0	7	8
Output	uc_flow_mode_flg	0-8	0	7	8
Judgment					

FlowMain Select MenuNum

	Responsible	Last update
Coding	Ikarashi	
Test	Taki	
Judgment	Ikarashi	

[illegible]

Unit Test Specification

Project name	GX-Force
File name	flow_mainte_display.c

FlowMainteDisplay_Chk_ChangeSensorDateEndNum

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3
Root	if(stp_zipu_num->ul_item_select_num == (HDEF_GAS_MAX+1))	-	○	-
	else	○	-	○
	Symbol	Range		
Input	stp_zipu_num->ul_item_select_num	0x00000000~0xFFFFFFFF	0x00000000	0x00000006
Output	luc_ans	0,1	0	1
Judgment				

FlowMainteDisplay_DigitDown_MaintePassSelect

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	2
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	
Root	if(stp_zipu_num->ul_sub_item_select_num == 0)	○	-	
	else	-	○	
	Symbol	Range		
Input	stp_zipu_num->ul_sub_item_select_num	0x00000000,0xFFFFFFFF	0x00000000	0xFFFFFFFF
Output	luc_ans	0,1	1	0
Judgment				

FlowMainteDisplay_DigitUp_MaintePassSelect

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3
Root	if(stp_zipu_num->ul_sub_item_select_num == 3)	-	○	-
	else	○	-	○
	Symbol	Range		
Input	stp_zipu_num->ul_sub_item_select_num	0x00000000~0xFFFFFFFF	0x00000000	0x00000003
Output	luc_ans	0,1	0	1
Judgment				

FlowMainteDisplay_Disp_AlarmPatternOnOff

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1
Root	None	-
	Symbol	Range
Input	None	-
Output	None	-
Judgment		

FlowMainteDisplay_Disp_AlarmSilenceOnOff

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1
Root	None	-
	Symbol	Range
Input	None	-
Output	None	-
Judgment		

FlowMainteDisplay_Disp_AutoZeroOnOff

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1
Root	None	-
	Symbol	Range
Input	None	-
Output	None	-
Judgment		

FlowMainteDisplay_Disp_ChangeSenDateSet

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	5
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3	case4	case5
Root	switch(ZIPNumSet_Get_DispFlicker3())	○	○	○	○	○
	case 0	○	○	-	-	-
	if(stp_zipu_num->ul_item_select_num == HDDEF_GAS_MAX)	○	-	-	-	-
	else	-	○	-	-	-
	case 1	-	-	○	-	-
	case 2	-	-	-	○	-
	default	-	-	-	-	○
	Symbol	Range				
Input	ZIPNumSet_Get_DispFlicker3()	0-3	0	0	1	2
	stp_zipu_num->ul_item_select_num	0x00000000-0xFFFFFFFF	0x00000004	0x00000000	0xFFFFFFFF	0xFFFFFFFF
Output	stp_nt_disp->uc_lcd_com_dot[0]	0-32	0	0	16	32
	stp_nt_disp->uc_lcd_mes_dot[0]	4	4	4	4	4
Judgment						

FlowMainteDisplay_Disp_ChangeSensorDate

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	4
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3	case4
Root	if(stp_zipu_num->ul_item_select_num == HDDEF_GAS_MAX+1)	○	-	-	-
	else	-	○	○	○
	if(stp_zipu_num->ul_item_select_num == HDDEF_GAS_MAX)	-	○	-	-
	else	-	-	○	○
	Symbol	Range			
Input	stp_zipu_num->ul_item_select_num	0x00000000-0xFFFFFFFF	0x00000005	0x00000004	0x00000000
Output	stp_nt_disp->uc_lcd_mes_dot[0]	4	4	4	4
Judgment					

FlowMainteDisplay_Disp_DemandZeroOnOff

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1
Root	None	-
	Symbol	Range
Input	None	-
Output	None	-
Judgment		

FlowMainteDisplay_Disp_DispPumpOff

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1
Root	None	-
	Symbol	Range
Input	None	-
Output	stp_nt_disp->uc_lcd_com_dot	0x08
Judgment		

FlowMainteDisplay_Disp_DispSuppressOnOff

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1
Root	None	-
	Symbol	Range
Input	None	-
Output	stp_nt_disp->uc_lcd_com_dot	0x08
Judgment		

FlowMainteDisplay_Disp_DispZeroFlwrOnOff

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1
Root	None	-
	Symbol	Range
Input	None	-
Output	stp_nt_disp->uc_lcd_com_dot	0x08
Judgment		

FlowMainteDisplay_Disg_GasTest

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	4
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1	case2	case3	case4
Root	if(ZIPNumSet_Get_DisgFlicker2() == 1)		○	-	-	-
	else		-	○	○	○
	for(luc_i=0; luc_i<HDEF_GAS_MAX; luc_i++)		-	○	-	○
	if((stp_GasInfo_addr+luc_i)->uc_gas_comb != 0x00)		-	○	-	○
	else		-	-	○	-
	if(luc_flg == 0)		-	-	○	○
	else		-	○	-	-
	Symbol	Range				
Input	ZIPNumSet_Get_DisgFlicker2()	0~2	1	0	0	2
	(stp_GasInfo_addr+luc_i)->uc_gas_comb	0~30	0	29	0	30
	(stp_denst+luc_i)->uc_alarm_lat	0x00,0xFF	0x00	0xFF	0xFF	0x00
Output	None		-	-	-	-
Judgment						

FlowMainteDisplay_Disg_IdDispOnOff

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1
Root	None	-
	Symbol	Range
Input	None	-
Output	None	-
Judgment		

FlowMainteDisplay_Disg_MaintePassOnOff

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1
Root	None	-
	Symbol	Range
Input	None	-
Output	None	-
Judgment		

FlowMainteDisplay_Disg_MaintePassSelect

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1
Root	None	-
	Symbol	Range
Input	None	-
Output	None	-
Judgment		

FlowMainteDisplay_Disg_RunningFactoryDefault

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1
Root	None	-
	Symbol	Range
Input	None	-
Output	stp_nt_disp->uc_lcd_com_dot	0x40
Judgment		

FlowMainteDisplay_Disg1_FactoryDefault

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	4
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1	case2	case3	case4
Root	switch(ZIPNumSet_Get_DisgFlicker3())		○	○	○	○
	case 0		○	-	-	-
	case 1		-	○	-	-
	case 2		-	-	○	-
	default		-	-	-	○
	Symbol	Range				
Input	ZIPNumSet_Get_DisgFlicker3()	0~3	0	1	2	3
Output	stp_nt_disp->uc_lcd_com_dot	0~63	64	16	32	0
Judgment						

FlowMainteDisplay_Dis2_FactoryDefault

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	4
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3	case4
Root	switch(ZIPNumSet_Get_Dis2Flicker3())	○	○	○	○
	case 0	○	-	-	-
	case 1	-	○	-	-
	case 2	-	-	○	-
	default	-	-	-	○
	Symbol	Range			
Input	ZIPNumSet_Get_Dis2Flicker3()	0-3	1	2	3
Output	stp_rl_disp->uc_lcd_com_dot	0	16	32	0
Judgment					

FlowMainteDisplay_End_AlarmPatternOnOff

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	2
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2
Root	None	-	-
	Symbol	Range	
Input	stp_zipu_num->ul_item_select_num	0x00000000,0xFFFFFFFF	0x00000000 0xFFFFFFFF
Output	stp_data->uc_alarm_pattern	0x00,0xFF	0x00 0xFF
Judgment			

FlowMainteDisplay_End_AutoZeroOnOff

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	2
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2
Root	None	-	-
	Symbol	Range	
Input	stp_zipu_num->ul_item_select_num	0x00000000,0xFFFFFFFF	0x00000000 0xFFFFFFFF
Output	stp_data->uc_auto_zero_onoff	0x00,0xFF	0x00 0xFF
Judgment			

FlowMainteDisplay_End_ChangeSenDateSet

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3
Root	if(stp_zipu_num->ul_item_select_num == HDDEF_GAS_MAX)	-	○	-
	else	○	-	○
	Symbol	Range		
Input	stp_zipu_num->ul_item_select_num	0x00000000-0xFFFFFFFF	0x00000000	0x00000004 0xFFFFFFFF
Output	None	-	-	-
Judgment				

FlowMainteDisplay_End_DemandZeroOnOff

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	2
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2
Root	None	-	-
	Symbol	Range	
Input	stp_zipu_num->ul_item_select_num	0x00000000,0xFFFFFFFF	0x00000000 0xFFFFFFFF
Output	stp_data->uc_demand_zero_onoff	0x00-0xFF	0x00 0xFF
Judgment			

FlowMainteDisplay_End_Dis2PumpOff

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	2
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2
Root	None	-	-
	Symbol	Range	
Input	stp_zipu_num->ul_item_select_num	0x00000000,0xFFFFFFFF	0x00000000 0xFFFFFFFF
Output	stp_data->uc_disp_pump_off	0x00,0xFF	0x00 0xFF
Judgment			

FlowMainteDisplay_End_Dis2SuppressOnOff

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	2
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2
Root	None	-	-
	Symbol	Range	
Input	stp_zipu_num->ul_item_select_num	0x00000000,0xFFFFFFFF	0x00000000 0xFFFFFFFF
Output	stp_data->uc_disp_suppress_val	0x00,0xFF	0x00 0xFF
Judgment			

FlowMainteDisplay_End_DispZeroFlwrOnOff

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	2
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1	case2
Root	None		-	-
	Symbol	Range		
Input	stp_zipu_num->ul_item_select_num	0x00000000,0xFFFFFFFF	0x00000000	0xFFFFFFFF
Output	stp_data->uc_disp_zero_flgwr	0x00,0xFF	0x00	0xFF
Judgment				

FlowMainteDisplay_End_IdDispOnOff

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	2
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1	case2
Root	None		-	-
	Symbol	Range		
Input	stp_zipu_num->ul_item_select_num	0x00000000,0xFFFFFFFF	0x00000000	0xFFFFFFFF
Output	stp_data->uc_id_disp_onoff	0x00,0xFF	0x00	0xFF
Judgment				

FlowMainteDisplay_End_MaintePassOnOff

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	2
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1	case2
Root	None		-	-
	Symbol	Range		
Input	stp_zipu_num->ul_item_select_num	0x00000000,0xFFFFFFFF	0x00000000	0xFFFFFFFF
Output	stp_data->uc_mainte_pass_onoff	0x00,0xFF	0x00	0xFF
Judgment				

FlowMainteDisplay_End_MaintePassSelect

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	2
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1	case2
Root	None		-	-
	Symbol	Range		
Input	stp_zipu_num->uc_chr_temporary_item[0]	0x00,0xFF	0x00	0xFF
	stp_zipu_num->uc_chr_temporary_item[1]	0x00,0xFF	0x00	0xFF
	stp_zipu_num->uc_chr_temporary_item[2]	0x00,0xFF	0x00	0xFF
	stp_zipu_num->uc_chr_temporary_item[3]	0x00,0xFF	0x00	0xFF
Output	stp_data->us_mainte_pass_num	0,21161	0	21161
Judgment				

FlowMainteDisplay_Init_AlarmPatternOnOff

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1	case2	case3
Root	None		-	-	-
	Symbol	Range			
Input	stp_data->uc_alarm_pattern	0~2	0	1	2
Output	stp_zipu_num->ul_item_select_num	0~2	0	1	2
Judgment					

FlowMainteDisplay_Init_AlarmSilenceOnOff

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1	case2	case3
Root	None		-	-	-
	Symbol	Range			
Input	stp_data->uc_alarm_silence	0~2	0	1	2
Output	stp_zipu_num->ul_item_select_num	0~2	0	1	2
Judgment					

FlowMainteDisplay_Init_AutoZeroOnOff

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1	case2	case3
Root	None		-	-	-
	Symbol	Range			
Input	stp_data->uc_auto_zero_onoff	0~2	0	1	2
Output	stp_zipu_num->ul_item_select_num	0~2	0	1	2
Judgment					

FlowMainteDisplay_Init_ChangeSensorDate

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1	case2	case3
Root	for(luc_i=0; luc_i < (HDEF_GAS_MAX+1); luc_i++)		○	○	○
	if((stp_GasInfo_addr+luc_i)->uc_gas_comb != 0x00)		-	○	○
	else		○	-	-
	Symbol	Range			
Input	(stp_GasInfo_addr+luc_i)->uc_gas_comb	0-30	0	29	30
Output	stp_zipu_num->ul_item_select_num	0-1	1	0	0
	stp_zipu_num->uc_item_select_updown	0	0	0	0
	stp_zipu_num->ul_sub_item_select_num	0	0	0	0
	stp_zipu_num->uc_sub_item_select_updown	0	0	0	0
Judgment					

FlowMainteDisplay_Init_DemandZeroOnOff

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1	case2	case3
Root	None		-	-	-
	Symbol	Range			
Input	stp_data->uc_demand_zero_onoff	0-2	0	1	2
Output	stp_zipu_num->ul_item_select_num	0-2	0	1	2
Judgment					

FlowMainteDisplay_Init_DisppumpOff

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1	case2	case3
Root	None		-	-	-
	Symbol	Range			
Input	stp_data->uc_disp_pump_off	0-2	0	1	2
Output	stp_zipu_num->ul_item_select_num	0-2	0	1	2
Judgment					

FlowMainteDisplay_Init_DispsuppressOnOff

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1	case2	case3
Root	None		-	-	-
	Symbol	Range			
Input	stp_data->uc_disp_suppress_val	0-2	0	1	2
Output	stp_zipu_num->ul_item_select_num	0-2	0	1	2
Judgment					

FlowMainteDisplay_Init_DispZeroFlwrOnOff

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1	case2	case3
Root	None		-	-	-
	Symbol	Range			
Input	stp_data->uc_disp_zero_flwr	0-2	0	1	2
Output	stp_zipu_num->ul_item_select_num	0-2	0	1	2
Judgment					

FlowMainteDisplay_Init_IdDispOnOff

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1	case2	case3
Root	None		-	-	-
	Symbol	Range			
Input	stp_data->uc_id_disp_onoff	0-2	0	1	2
Output	stp_zipu_num->ul_item_select_num	0-2	0	1	2
Judgment					

FlowMainteDisplay_Init_MainteMenu

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1
Root	None		-
	Symbol	Range	
Input	None	-	-
Output	stp_zipu_num->ul_mode_select_num	0	0
	stp_zipu_num->uc_mode_select_updown	0	0
Judgment			

FlowMainteDisplay_Init_MaintePassOnOff

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki		Judgment	
Judgment	Ikarashi			

			case1	case2	case3
Root	None		-	-	-
	Symbol	Range			
Input	stp_data->uc_mainte_pass_onoff	0~2	0	1	2
Output	stp_zipu_num->ul_item_select_num	0~2	0	1	2
Judgment					

FlowMainteDisplay_Init_MaintePassSelect

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki		Judgment	
Judgment	Ikarashi			

			case1	case2	case3
Root	None		-	-	-
	Symbol	Range			
Input	stp_data->us_mainte_pass_num	0~9999	0	9999	10000
Output	stp_zipu_num->ul_sub_item_select_num	0	0	0	0
	stp_zipu_num->uc_chr_temporary_item[0]	0~9	0	9	0
	stp_zipu_num->uc_chr_temporary_item[1]	0~9	0	9	0
	stp_zipu_num->uc_chr_temporary_item[2]	0~9	0	9	0
	stp_zipu_num->uc_chr_temporary_item[3]	0~9	0	9	0
	stp_zipu_num->uc_sub_item_select_updown	0	0	0	0
Judgment					

FlowMainteDisplay_Select_AlarmPatternOnOff

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki		Judgment	
Judgment	Ikarashi			

			case1	case2	case3
Root	None		-	-	-
	Symbol	Range			
Input	Tool_CHR_Chg_OnOff (stp_zipu_num->ul_item_select_num)	0~2	0	1	2
Output	stp_zipu_num->ul_item_select_num	0~2	0	1	2
Judgment					

FlowMainteDisplay_Select_AlarmSilenceOnOff

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki		Judgment	
Judgment	Ikarashi			

			case1	case2	case3
Root	None		-	-	-
	Symbol	Range			
Input	Tool_CHR_Chg_OnOff (stp_zipu_num->ul_item_select_num)	0~2	0	1	2
Output	stp_zipu_num->ul_item_select_num	0~2	0	1	2
Judgment					

FlowMainteDisplay_Select_AutoZeroOnOff

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki		Judgment	
Judgment	Ikarashi			

			case1	case2	case3
Root	None		-	-	-
	Symbol	Range			
Input	Tool_CHR_Chg_OnOff (stp_zipu_num->ul_item_select_num)	0~2	0	1	2
Output	stp_zipu_num->ul_item_select_num	0~2	0	1	2
Judgment					

FlowMainteDisplay_Select_ChangeSensorDate

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	8
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3	case4	case5	case6	case7	case8
Root	if(stp_zipu_num->uc_item_select_updown == M_OFF)	○	○	○	-	-	-	-	-
	if(stp_zipu_num->ul_item_select_num >= (HDEDEF_GAS_MAX+1))	○	-	○	-	-	-	-	-
	else	-	○	-	-	-	-	-	-
	for(luc_i=stp_zipu_num->ul_item_select_num; luc_i < (HDEDEF_GAS_MAX+1); luc_i++)	○	○	○	-	-	-	-	-
	if(luc_i == HDEDEF_GAS_MAX)	○	-	-	-	-	-	-	-
	else	-	-	○	-	-	-	-	-
	if((stp_GasInfo_addr+luc_i)->uc_gas_comb != 0x00)	-	-	○	-	-	-	-	-
	else	○	-	○	-	-	-	-	-
	else	-	-	-	○	○	○	○	○
	if(stp_zipu_num->ul_item_select_num == 0)	-	-	-	○	-	-	-	-
	else	-	-	-	-	○	○	○	○
	for(luc_i=(stp_zipu_num->ul_item_select_num-1); luc_i > 0; luc_i--)	-	-	-	-	○	○	○	○
	if(luc_i == HDEDEF_GAS_MAX)	-	-	-	-	-	○	-	-
	else	-	-	-	-	-	○	○	○
	if((stp_GasInfo_addr+luc_i)->uc_gas_comb != 0x00)	-	-	-	-	-	-	○	○
	else	-	-	-	-	○	○	-	-
	if((luc_i == 0) && ((stp_GasInfo_addr+0)->uc_gas_comb == 0x00))	-	-	-	-	○	-	-	-
	else	-	-	-	-	-	○	○	○
	Symbol	Range							
Input	stp_zipu_num->uc_item_select_updown	0~2	0	0	0	1	1	1	2
	stp_zipu_num->ul_item_select_num	0~8	6	4	6	0	3	8	2
	(stp_GasInfo_addr+luc_i)->uc_gas_comb	0~30	0	29	29	0	0	29	30
	(stp_GasInfo_addr+0)->uc_gas_comb	0~30	0	0	0	0	0	30	29
Output	None	-	-	-	-	-	-	-	-
Judgment									

FlowMainteDisplay_Select_DemandZeroOnOff

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3
Root	None	-	-	-
	Symbol	Range		
Input	Tool_CHR_Chg_OnOff (stp_zipu_num->ul_item_select_num)	0~2	0	1
			2	
Output	stp_zipu_num->ul_item_select_num	0~2	0	1
Judgment				

FlowMainteDisplay_Select_DisppumpOff

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3
Root	None	-	-	-
	Symbol	Range		
Input	Tool_CHR_Chg_OnOff (stp_zipu_num->ul_item_select_num)	0~2	0	1
			2	
Output	stp_zipu_num->ul_item_select_num	0~2	0	1
Judgment				

FlowMainteDisplay_Select_DispsuppressOnOff

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3
Root	None	-	-	-
	Symbol	Range		
Input	Tool_CHR_Chg_OnOff (stp_zipu_num->ul_item_select_num)	0~2	0	1
			2	
Output	stp_zipu_num->ul_item_select_num	0~2	0	1
Judgment				

FlowMainteDisplay_Select_DisppzeroFlwrOnOff

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3
Root	None	-	-	-
	Symbol	Range		
Input	Tool_CHR_Chg_OnOff (stp_zipu_num->ul_item_select_num)	0~2	0	1
			2	
Output	stp_zipu_num->ul_item_select_num	0~2	0	1
Judgment				

FlowMainteDisplay_Select_IdDispOnOff

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1	case2	case3
Root	None		-	-	-
	Symbol	Range			
Input	Tool_CHR_Chg_OnOff (stp_zipu_num->ul_item_select_num)	0-2	0	1	2
Output	stp_zipu_num->ul_item_select_num	0-2	0	1	2
Judgment					

FlowMainteDisplay_Select_MainteMenu

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	9
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3	case4	case5	case6	case7	case8	case9
Root	if(stp_zipu_num->uc_mode_select_updown == M_OFF)	O	O	O	O	-	-	-	-	-
	for(luc_i; luc_i<M_MAX_NUM; luc_i++)	O	O	O	-	-	-	-	-	-
	if(uc_mainte_mode_item[luc_i] == M_ON)	O	-	-	-	-	-	-	-	-
	else	-	O	-	-	-	-	-	-	-
	if(luc_i >= M_MAX_NUM)	-	O	O	O	-	-	-	-	-
	for(luc_i=0; luc_i<M_MAX_NUM; luc_i++)	-	O	-	O	-	-	-	-	-
	if(uc_mainte_mode_item[luc_i] == M_ON)	-	-	-	O	-	-	-	-	-
	else	-	O	-	-	-	-	-	-	-
	else	O	-	-	-	-	-	-	-	-
	else	-	-	-	-	O	O	O	O	O
	if(stp_zipu_num->ul_mode_select_num != 0)	-	-	-	-	O	O	O	-	O
	for(luc_i; luc_i>0; luc_i--)	-	-	-	-	-	-	-	O	-
	if(uc_mainte_mode_item[luc_i] == M_ON)	-	-	-	-	O	O	O	O	O
	else	-	-	-	-	-	-	O	-	-
	else	-	-	-	-	-	-	-	O	O
	if((luc_i == 0) && (uc_mainte_mode_item[0] != M_ON))	-	-	-	-	O	O	-	O	O
	for(luc_i=M_END_NUM; luc_i>0; luc_i--)	-	-	-	-	O	O	-	O	O
	if(uc_mainte_mode_item[luc_i] == M_ON)	-	-	-	-	-	O	-	-	-
	else	-	-	-	-	O	-	-	O	O
else	-	-	-	-	-	-	O	-	-	
	Symbol	Range								
Input	stp_zipu_num->uc_mode_select_updown	0~2	0	0	0	0	1	1	1	2
	stp_zipu_num->ul_mode_select_num	0x00000000~0xFFFFFFFF	0x00000000	0x00000000	0xFFFFFFFF	0x0000001E	0x00000001	0x00000001	0xFFFFFFFF	0x00000000
	uc_mainte_mode_item[luc_i]	0~2	1	0	1	1	1	0	1	2
Output	None	-	-	-	-	-	-	-	-	-
Judgment										

FlowMainteDisplay_Select_MaintePassOnOff

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3
Root	None	-	-	-
	Symbol	Range		
Input	Tool_CHR_Chg_OnOff (stp_zipu_num->ul_item_select_num)	0	1	2
Output	stp_zipu_num->ul_item_select_num	0	1	2
Judgment				

FlowMainteDisplay_Select_MaintePassSelect

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	2
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2
Root	None	-	-
	Symbol	Range	
Input	Tool_OneCount((U_LNG)stp_zipu_num->uc_chr_temporary_item[stp_zipu_num->ul_sub_item_select_num], 1, 9, 0, stp_zipu_num->uc_sub_item_select_updown, M_OFF)	0x00000000,0xFFFFFFFF	0x00000000
Output	stp_zipu_num->uc_chr_temporary_item[stp_zipu_num->ul_sub_item_select_num]	0x00,0xFF	0x00
Judgment			0xFF

FlowMainteDisplay_Set_FactoryDefault

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki		Judgment	
Judgment	Ikarashi			

			case1
Root	None		-
	Symbol	Range	
Input	None	-	-
Output	None	-	-
Judgment			

m_Chk_MainteMenuitem

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	4
Test	Taki		Judgment	
Judgment	Ikarashi			

			case1	case2	case3	case4
Root	if((stp_data->uc_exp_flg == DSC_TGT_JAPAN) (stp_data->uc_exp_flg == DSC_TGT_JG))		○	○	-	-
	else		-	-	○	○
	Symbol	Range				
Input	stp_data->uc_exp_flg	0-5	0	4	1	5
Output	uc_mainte_mode_item[M_M_NOTICE_NUM]	0,1	1	0	0	0
Judgment						

FlowMainteDisplay_Set MainteMenu

	Responsible	Last update
Coding	Ikarashi	
Test	Taki	
Judgment	Ikarashi	

		case1	case2	case3	case4	case5	case6	case7	case8	case9	case10	case11	case12	case13	case14	case15	case16	case17	case18	case19
Root	switch_op_zips_num+id_mode_select_num																			
	case M_GASCAL_NUM	○		○	○	-	○			○					○					
	case M_GAS_TEST_NUM		○			-					○									
	case M_CHD_SENSOR_NUM			○		-												○		○
	case M_BUMPTTEST_NUM				○	-														
	case M_AL_ACTION_NUM					○														
	case M_D_ZERO_NUM																			
	case M_A_ZERO_NUM							○												
	case M_ID_DISP_NUM								○											
	case M_M_NOTICE_NUM									○										
	case M_SUPPRESS_NUM										○									
	case M_Z_FLLWRP_NUM											○								
	case M_SUP_DISP_NUM												○							
	case M_Z_FLL_DISP_NUM													○						
	case M_DATE_SET_NUM														○					
	case M_PASS_NUM															○				
	case M_ROMSUM_NUM																○			
	case M_RESTORE_NUM																	○		
	case M_END_NUM																		○	
	Symbol																			
Input	chip_zips_num+id_mode_select_num	0x00000000-0FFFFFFF																		
Output	step_0_disp_hw_kcd_corr_dot	0x00000000	0x00000001	0x00000002	0x00000003	0x00000004	0x00000005	0x00000006	0x00000007	0x00000008	0x00000009	0x0000000A	0x0000000B	0x0000000C	0x0000000D	0x0000000E	0x0000000F	0x00000010	0x00000011	0xFFFFFFFF
		dot0	dot1	dot2	dot3	dot4	dot5	dot6	dot7	dot8	dot9	dotA	dotB	dotC	dotD	dotE	dotF	dotG	dotH	dotI

Unit Test Specification

Project name	GX-Force
File name	flow_mainte_notice_display.c

FlowMainteNoticeDisplay_DispatchExprd

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	4
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1	case2	case3	case4
Root	switch(stp_zipu_num->ul_item_select_num)		○	○	○	○
	case 0		○	-	-	-
	case 1		-	○	-	-
	case 2		-	-	○	-
	default		-	-	-	○
	Symbol	Range				
Input	stp_zipu_num->ul_item_select_num	0x00000000~0xFFFFFFFF	0x00000000	0x00000001	0x00000002	0xFFFFFFFF
Output	stp_nl_disp->uc_lcd_com_blink	0x7F	0x7F	0x7F	0x7F	0x7F
Judgment						

FlowMainteNoticeDisplay_DispatchMainteNoticeDay

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1
Root	None		-
	Symbol	Range	
Input	None	-	-
Output	stp_nl_disp->uc_lcd_mes_blink[0]	0xFF	0xFF
Judgment			

FlowMainteNoticeDisplay_DispatchMainteNoticeMenu

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	6
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1	case2	case3	case4	case5	case6
Root	switch(stp_zipu_num->ul_sub_mode_select_num)		○	○	○	○	○	○
	case M_M_NOTICE_RESET_NUM		○	-	-	-	-	-
	case M_M_NOTICE_DISP_NUM		-	○	-	-	-	-
	case M_M_NOTICE_DAYS_NUM		-	-	○	-	-	-
	case M_M_NOTICE_EXPRD_NUM		-	-	-	○	-	-
	case M_M_END_NUM		-	-	-	-	○	-
	default		-	-	-	-	-	○
	Symbol	Range						
Input	stp_zipu_num->ul_sub_mode_select_num	0x00000000~0xFFFFFFFF	0x00000000	0x00000001	0x00000002	0x00000003	0x00000005	0xFFFFFFFF
Output	None	-	-	-	-	-	-	-
Judament								

FlowMainteNoticeDisplay_DispatchMainteNoticeOnOff

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1
Root	None	-
	Symbol	Range
Input	None	-
Output	None	-
Judgment		

FlowMainteNoticeDisplay_Dispatch_MainteNoticeReset

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	4
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3	case4
Root	switch(ZIPNumSet_Get_DispatchFlicker3())	○	○	○	○
	case 0	○	-	-	-
	case 1	-	○	-	-
	case 2	-	-	○	-
	default	-	-	-	○
	Symbol	Range			
Input	ZIPNumSet_Get_DispatchFlicker3()	0-3	0	1	2
Output	None	-	-	-	-
Judgment					

FlowMainteNoticeDisplay_End_CallExprd

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	2
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2
Root	None	-	-
	Symbol	Range	
Input	stp_zipu_num->ul_item_select_num	0x00000000,0xFFFFFFFF	0x00000000
Output	stp_data->uc_mainte_lmt_chk	0x00,0xFF	0x00,0xFF
Judgment			

FlowMainteNoticeDisplay_End_MainteNoticeDay

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	2
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2
Root	None	-	-
	Symbol	Range	
Input	stp_zipu_num->ul_item_select_num	0x00000000,0xFFFFFFFF	0x00000000
Output	stp_data->us_mainte_notice_day	0x0000,0xFFFF	0x0000,0xFFFF
Judgment			

FlowMainteNoticeDisplay_End_MainteNoticeOnOff

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	2
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2
Root	None	-	-
	Symbol	Range	
Input	stp_zipu_num->ul_item_select_num	0x00000000,0xFFFFFFFF	0x00000000
Output	stp_data->uc_mainte_notice_onoff	0x00,0xFF	0x00,0xFF
Judgment			

FlowMainteNoticeDisplay_End_MainteNoticeReset

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1
Root	None		-
	Symbol	Range	
Input	None	-	-
Output	None	-	-
Judgment			

FlowMainteNoticeDisplay_Init_CalExprd

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1	case2	case3
Root	None		-	-	-
	Symbol	Range			
Input	stp_data->uc_mainte_lmt_chk	0~3	0	2	3
Output	stp_zipu_num->ul_item_select_num	0~3	0	2	3
	stp_zipu_num->uc_item_select_updown	0	0	0	0
Judgment					

FlowMainteNoticeDisplay_Init_MainteNoticeDay

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1	case2	case3
Root	None		-	-	-
	Symbol	Range			
Input	stp_data->us_mainte_notice_day	1~1001	1	1000	1001
Output	stp_zipu_num->ul_item_select_num	1~1001	1	1000	1001
	stp_zipu_num->uc_item_select_updown	0	0	0	0
Judgment					

FlowMainteNoticeDisplay_Init_MainteNoticeMenu

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1
Root	None		-
	Symbol	Range	
Input	None	-	-
Output	stp_zipu_num->ul_sub_mode_select_num	0	0
	stp_zipu_num->uc_sub_mode_select_updown	0	0
Judgment			

FlowMainteNoticeDisplay_Init_MainteNoticeOnOff

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1	case2	case3
Root	None		-	-	-
	Symbol	Range			
Input	stp_data->uc_mainte_notice_onoff	0~2	0	1	2
Output	stp_zipu_num->ul_item_select_num	0~2	0	1	2
Judgment					

FlowMainteNoticeDisplay_Select_CalExprd

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	2
Test	Taki			
Judgment	Ikarashi		Judgment	

Root	None	case1	case2
		-	-
	Symbol	Range	
Input	Tool_OneCount((U_LNG)stp_zipu_num->ul_item_select_num, 1, (U_LNG)2, (U_LNG)0, stp_zipu_num->uc_item_select_updown, M_OFF)	0x00000000,0xFFFFFFFF	0x00000000 0xFFFFFFFF
Output	stp_zipu_num->ul_item_select_num	0x00000000,0xFFFFFFFF	0x00000000 0xFFFFFFFF
Judgment			

FlowMainteNoticeDisplay_Select_MainteNoticeDay

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

Root	if(puc_num == 1) else	case1 -	case2 ○	case3 -
		○	-	○
	Symbol	Range		
Input	Tool_OneCount((U_LNG)stp_zipu_num->ul_item_select_num, 1, (U_LNG)M_NOTICE_DAYS_MAX, (U_LNG)M_NOTICE_DAYS_MIN, stp_zipu_num->uc_item_select_updown, M_OFF)	0x00000000~0xFFFFFFFF	0x00000000	0x00000000 0xFFFFFFFF
	Tool_OneCount((U_LNG)stp_zipu_num->ul_item_select_num, 10, (U_LNG)M_NOTICE_DAYS_MAX, (U_LNG)M_NOTICE_DAYS_MIN, stp_zipu_num->uc_item_select_updown, M_OFF)	0x00000000~0xFFFFFFFF	0x00000000	0x00000000 0xFFFFFFFF
	puc_num	0x00~0xFF	0x00	0x01 0xFF
Output	stp_zipu_num->ul_item_select_num	0x00000000~0xFFFFFFFF	0x00000000	0x00000000 0xFFFFFFFF
Judgment				

FlowMainteNoticeDisplay_Select_MainteNoticeMenu

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	4
Test	Taki			
Judgment	Ikarashi		Judgment	

Root	if(stp_zipu_num->ul_sub_mode_select_num == M_M_NOTICE_CHK_GAS_NUM) if(stp_zipu_num->uc_sub_mode_select_updown == M_OFF) else else	case1 ○ ○ - -	case2 ○ - ○ -	case3 - - - ○	case4 - - - ○
	Symbol	Range			
Input	Tool_OneCount((U_LNG)stp_zipu_num->ul_sub_mode_select_num, 1, (U_LNG)M_M_END_NUM, (U_LNG)M_M_NOTICE_RESET_NUM, stp_zipu_num->uc_sub_mode_select_updown, M_OFF)	0x00000000~0xFFFFFFFF	0x00000004	0x00000004	0x00000000 0xFFFFFFFF
	stp_zipu_num->uc_sub_mode_select_updown	0~2	0	1	1 2
	stp_zipu_num->ul_sub_mode_select_num	0x00000000~0xFFFFFFFF	0x00000004	0x00000004	0x00000000 0xFFFFFFFF
Output	None	-	-	-	-
Judgment					

FlowMainteNoticeDisplay_Select_MainteNoticeOnOff

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

Root	None	case1	case2	case3
		-	-	-
	Symbol	Range		
Input	Tool_CHR_Chg_OnOff (stp_zipu_num->ul_item_select_num)	0~2	0	1 2
Output	stp_zipu_num->ul_item_select_num	0~2	0	1 2
Judgment				

Unit Test Specification

Project name	GX-Force
File name	flow_meas_display.c

FlowMeasDisplay_Set_MeasDisp

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	6
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3	case4	case5	case6
Root	for(luc_i=0; luc_i<HDDDEF_GAS_MAX; luc_i++)	○	○	○	○	○	○
	if(luc_flg != 0x00)	○	-	-	-	-	○
	else	-	○	○	○	○	-
	if((stp_GasInfo_addr+0)->uc_gas_comb != (stp_GasInfo_addr+0)->uc_sub_comb)	-	-	-	-	-	-
	else	-	-	○	○	○	-
	if(FuncTempWarning_Get_OutOfRangeFlg() != M_OFF)	○	○	○	○	○	-
	if(luc_flickr == M_ON)	○	○	-	-	-	-
	else	-	-	○	○	○	-
	switch(luc_flickr)	○	○	○	○	○	-
	case 0	○	○	-	-	-	-
	if(FuncTempWarning_Get_OutOfRangeFlg() == 2)	○	-	-	-	-	-
	else	-	○	-	-	-	-
	case 1	-	-	○	○	-	-
	for(luc_i=0; luc_i<8; luc_i++)	-	-	○	○	-	-
	if(stp_sub_ad->fl_disp_temp < 0)	-	-	○	-	-	-
	else	-	-	-	○	-	-
	default	-	-	-	-	○	-
	else	-	-	-	-	-	○
	Symbol	Range					
Input	FuncTempWarning_Get_OutOfRangeFlg()	0~3	2	1	1	3	0
	(stp_denst+luc_i)->uc_alarm_lat	0x00,0xFF	0xFF	0x00	0x00	0x00	0xFF
	(stp_GasInfo_addr+0)->uc_gas_comb	0~30	0	29	29	29	30
	(stp_GasInfo_addr+0)->uc_sub_comb	0~30	0	0	29	29	30
	ZIPCNumSet_Get_DispFlicker2()	0~2	0	0	1	2	2
	ZIPCNumSet_Get_DispFlicker3()	0~3	0	0	2	3	3
	stp_sub_ad->fl_disp_temp	-55~86	0	0	-55	85	0
Output	stp_nl_disp->uc_lcd_icon[3]	0,8	0	0	8	8	8
	stp_nl_disp->uc_lcd_com[7]	0,67	0	0	67	67	67
Judgment							

Unit Test Specification

Project name	GX-Force
File name	flow_pass_display.c

FlowPassDisplay_Chg_PassNum

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1	case2	case3
Root	if(st_pass.uc_pass_up)		-	○	○
	else		○	-	-
	Symbol	Range			
Input	Tool_OneCount((U_LNG)st_pass.uc_pass_num [st_pass.uc_pass_digit-1], 1, 9, 0, M_ON, M_OFF)	0x00000000,0xFFFFFFFF	0x00000000	0x00000000	0xFFFFFFFF
	Tool_OneCount((U_LNG)st_pass.uc_pass_num [st_pass.uc_pass_digit-1], 1, 9, 0, M_OFF, M_OFF)	0x00000000,0xFFFFFFFF	0x00000000	0x00000000	0xFFFFFFFF
	st_pass.uc_pass_up	0~2	0	1	2
Output	st_pass.uc_pass_num[st_pass.uc_pass_digit-1]	0x00,0xFF	0x00	0x00	0xFF
Judgment					

FlowPassDisplay_Chg_UpDown

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1	case2	case3
Root	if(st_pass.uc_pass_up == M_ON)		-	○	-
	else		○	-	○
	Symbol	Range			
Input	st_pass.uc_pass_up	0~2	0	1	2
Output	st_pass.uc_pass_up	0~2	1	0	1
Judgment					

FlowPassDisplay_Chk_End

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1	case2	case3
Root	if(st_pass.uc_pass_digit == M_PASS_END_NUM)		-	○	-
	else		○	-	○
	Symbol	Range			
Input	st_pass.uc_pass_digit	1~6	1	5	6
Output	luc_ans	0,1	0	1	0
Judgment					

FlowPassDisplay_Dispatch_Err

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1
Root	None	-
	Symbol	Range
Input	None	-
Output	None	-
Judgment		

FlowPassDisplay_Get_PassType

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1
Root	None	-
	Symbol	Range
Input	None	-
Output	st_pass.uc_pass_type	0
Judgment		

FlowPassDisplay_Get_Return

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1
Root	None	-
	Symbol	Range
Input	None	-
Output	st_pass.uc_pass_return	0
Judgment		

FlowPassDisplay_Input_Pass

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1	case2	case3
Root	None		-	-	-
	Symbol	Range			
Input	st_pass.uc_pass_num[0]	0~10	0	9	10
	st_pass.uc_pass_num[1]	0~10	0	9	10
	st_pass.uc_pass_num[2]	0~10	0	9	10
	st_pass.uc_pass_num[3]	0~10	0	9	10
	st_pass.uc_pass_digit	1~6	1	5	6
Output	stp_nl_disp->uc_lcd_mes[0][2]	48~58	48	57	58
	stp_nl_disp->uc_lcd_mes[0][3]	48~58	48	57	58
	stp_nl_disp->uc_lcd_mes[0][4]	48~58	48	57	58
	stp_nl_disp->uc_lcd_mes[0][5]	48~58	48	57	58
	stp_nl_disp->uc_lcd_mes_blink[0]	1~32	32	2	1
Judgment					

FlowPassDisplay_Set_Enter

	Responsible	Last update
Coding	Ikarashi	
Test	Taki	
Judgment	Ikarashi	

Infinite loop	None
Verification pass	5
Judgment	

		case1	case2	case3	case4	case5
Root	if(puc_num == 0)	○	○	-	-	-
	if(st_pass.uc_pass_digit > M_PASS_RETURN_NUM)	○	-	-	-	-
	else	-	○	-	-	-
	else	-	-	○	○	○
	if(st_pass.uc_pass_digit < M_PASS_END_NUM)	-	-	○	-	-
	else	-	-	-	○	○
	Symbol	Range				
Input	puc_num	0	0	1	1	2
	st_pass.uc_pass_digit	5	1	1	5	6
Output	luc_ans	0	1	0	1	1
Judgment						

FlowPassDisplay_Set_PassInit

	Responsible	Last update
Coding	Ikarashi	
Test	Taki	
Judgment	Ikarashi	

Infinite loop	None
Verification pass	4
Judgment	

		case1	case2	case3	case4
Root	if(puc_type > FlowPassDisplay_PASS_FACT_Type)	-	○	-	-
	else	○	-	○	○
	Symbol	Range			
Input	puc_type	0	2	7	8
Output	st_pass.uc_pass_num[0]	0	0	0	0
	st_pass.uc_pass_num[1]	0	0	0	0
	st_pass.uc_pass_num[2]	0	0	0	0
	st_pass.uc_pass_num[3]	0	0	0	0
	st_pass.uc_pass_up	0	0	0	0
	st_pass.uc_pass_digit	1	1	1	1
	st_pass.uc_pass_type	0	2	7	8
	st_pass.uc_pass_return	0	0	1	1
Judgment					

FlowPassDisplay Chk Pass

	Responsible	Last update
Coding	Ikarashi	
Test	Taki	
Judgment	Ikarashi	

Root	case1	case2	case3	case4	case5	case6	case7	case8	case9	case10	case11	case12	case13	case14	case15	case16	case17	case18
switch(pass_uc, pass_spm)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
case FlowPassDisplay_PASS_USER_Type	0	0																
if(lus_pass == M_USER_PASSWORD lus_pass == stp_data-hus_user_pass_num)	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
else	-	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
case FlowPassDisplay_PASS_MAINTN_Type	-		0	0														
if(lus_pass == M_MAINTN_PASSWORD lus_pass == stp_data-hus_mainte_pass_num)	-		0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
else	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
case FlowPassDisplay_PASS_FACT_Type	-	-	-	0		0	0											
if(lus_pass == M_GAS_SEL_PASSWORD)	-	-	-	-	0	-	-	-	-	-	-	-	-	-	-	-	-	-
else if(lus_pass == M_FACT_PASSWORD)	-	-	-	-	-	0	-	-	-	-	-	-	-	-	-	-	-	-
else	-	-	-	-	-	-	0	-	-	-	-	-	-	-	-	-	-	-
case FlowPassDisplay_PASS_MJ_LIMIT_Type	-	-	-	-	-	-	0	0										
if(lus_pass == M_USER_PASSWORD lus_pass == stp_data-hus_user_pass_num)	-	-	-	-	-	-	0	-	-	-	-	-	-	-	-	-	-	-
else	-	-	-	-	-	-	-	0	-	-	-	-	-	-	-	-	-	-
case FlowPassDisplay_PASS_AUTO_AIR_Type	-	-	-	-	-	-	-	0										
if(lus_pass == M_USER_PASSWORD lus_pass == stp_data-hus_user_pass_num)	-	-	-	-	-	-	-	0	-	-	-	-	-	-	-	-	-	-
else	-	-	-	-	-	-	-	-	0	-	-	-	-	-	-	-	-	-
case FlowPassDisplay_PASS_DEMAND_AIR_Type	-	-	-	-	-	-	-	-	0									
if(lus_pass == M_USER_PASSWORD lus_pass == stp_data-hus_user_pass_num)	-	-	-	-	-	-	-	-	0	-	-	-	-	-	-	-	-	-
else	-	-	-	-	-	-	-	-	-	0	-	-	-	-	-	-	-	-
case FlowPassDisplay_PASS_ALARM_RESET_Type	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0	-	-	-
if(lus_pass == M_USER_PASSWORD lus_pass == stp_data-hus_user_pass_num)	-	-	-	-	-	-	-	-	-	-	-	-	-	0	-	-	-	-
else	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	-	-	-
case FlowPassDisplay_PASS_POWER_OFF_Type	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0	-	-
if(lus_pass == M_USER_PASSWORD lus_pass == stp_data-hus_user_pass_num)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	-	-	-
else	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	-	-
default	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0
Symbol	Range																	
st_pass_uc, pass_type	0-1	0	0	1	1	2	2	2	3	3	4	4	5	5	6	6	7	8
st_pass_uc_pass_num[0]	0-10	0	0	8	0	2	1	0	0	0	0	0	0	0	0	0	9	10
st_pass_uc_pass_num[1]	0-10	4	0	1	0	0	9	0	4	0	4	0	4	0	4	0	4	10
st_pass_uc_pass_num[2]	0-10	0	0	0	0	1	9	0	4	0	0	0	0	0	0	0	0	10
st_pass_uc_pass_num[3]	0-10	0	0	2	0	4	5	0	5	0	5	0	5	0	5	0	5	10
stp_data-hus_user_pass_num	0-10000	405	9999	0	0	2014	1994	9999	405	9999	405	9999	405	9999	405	9999	405	10000

Unit Test Specification

Project name	GX-Force
File name	flow_proces_display.c

FlowProcesDisplay_Set_TurnOff

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1
Root	None		-
	Symbol	Range	
Input	None	-	-
Output	None	-	-
Judgment			

FlowProcesDisplay_Set_UpData

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1
Root	None		-
	Symbol	Range	
Input	None	-	-
Output	None	-	-
Judgment			

FlowProcesDisplay_10msec_Interrupt

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1	case2	case3
Root	None		-	-	-
	Symbol	Range			
Input	uss_purge_count_time	0~2	0	1	2
Output	uss_purge_count_time	0,1	0	0	1
Judgment					

FlowProcesDisplay_Chk_PurgeTimeEnd

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1	case2	case3
Root	None		-	-	-
	Symbol	Range			
Input	uss_purge_count_time	0~2	0	1	2
Output	uss_purge_count_time	0,1	1	0	0
Judgment					

FlowProcesDisplay_Get_PumpOffFlag

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1	case2	case3
Root	None		-	-	-
	Symbol	Range			
Input	fbl_pump_off_flag	0~2	0	1	2
Output	fbl_pump_off_flag	0~2	0	1	2
Judgment					

FlowProcesDisplay_Get_PurgeFlag

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1	case2	case3
Root	None		-	-	-
	Symbol	Range			
Input	fbl_pump_off_flag	0~2	0	1	2
Output	fbl_pump_off_flag	0~2	0	1	2
Judgment					

FlowProcesDisplay_Init_Process

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1
Root	None		-
	Symbol	Range	
Input	None	-	-
Output	fbl_pump_off_flag	0	0
	fbl_purge_flag	0	0
	uss_purge_count_time	0	0
Judgment			

FlowProcesDisplay_Set_PumpOffFlag

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1	case2	case3
Root	None		-	-	-
	Symbol	Range			
Input	fbl_pump_off_flag	0~2	0	1	2
Output	fbl_pump_off_flag	0~2	0	1	2
Judgment					

FlowProcesDisplay_Set_Purge

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1
Root	None		-
	Symbol	Range	
Input	None	-	-
Output	None	-	-
Judgment			

FlowProcesDisplay_Set_PurgeFlag

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1	case2	case3
Root	None		-	-	-
	Symbol	Range			
Input	fbl_pump_off_flag	0~2	0	1	2
Output	fbl_pump_off_flag	0~2	0	1	2
Judgment					

FlowProcesDisplay_Set_PurgeTime

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1
Root	None		-
	Symbol	Range	
Input	None	-	-
Output	uss_purge_count_time	3000	3000
Judgment			

Unit Test Specification

Project name	GX-Force
File name	flow_snaplog_display.c

FlowSnaplogDisplay_Dispatch_SnapDisp

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	5
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1	case2	case3	case4	case5
Root	switch(ZIPNumSet_Get_DispatchFlicker4())		○	○	○	○	○
	case 0:		○	-	-	-	-
	case 1:		-	○	-	-	-
	case 2:		-	-	○	-	-
	case 3:		-	-	-	○	-
	default:		-	-	-	-	○
Input	Symbol	Range					
	ZIPNumSet_Get_DispatchFlicker4()	0~4	0	1	2	3	4
	uc_snap_rec_pnt	0	0	0	0	0	0
	uc_lcd_mes[0][0]	0	0	0	0	0	0
	uc_lcd_mes[1][5]	0	0	0	0	0	0
	uc_lcd_mes[0][1]	0	0	0	0	0	0
	uc_lcd_mes[0][4]	0	0	0	0	0	0
	uc_lcd_mes[0][6]	0	0	0	0	0	0
	uc_lcd_mes[1][4]	0	0	0	0	0	0
	uc_lcd_mes[1][6]	0	0	0	0	0	0
	uc_lcd_com[1]	0	0	0	0	0	0
	uc_st_id[0]	0	0	0	0	0	0
Output	uc_lcd_mes_dot	0,4	0	0	4	0	0
	uc_lcd_com_dot	0~32	16	0	16	32	0
Judgment							

FlowSnaplogDisplay_Set_SnapLog

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1
Root	None	-
	Symbol	Range
Input	None	-
Output	None	-
Judgment		

FlowSnaplogDisplay_Dispatch_SnapSaved

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	2
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2
Root	None	-	-
	Symbol	Range	
Input	uc_lcd_com[1]	0~255	255
Output	None	-	-
Judgment			

Unit Test Specification

Project name	GX-Force
File name	flow_user_display.c

FlowUserDisplay_Chk_UserPassOnOff

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1
Root	None		-
	Symbol	Range	
Input	None	-	-
Output	stp_zipu_num->ul_item_select_num	0	0
Judgment			

FlowUserDisplay_Chk_ZeroSuppressEsc

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1	case2	case3
Root	if(stp_zipu_num->ul_item_select_num == HDDEF_GAS_MAX)		-	○	-
	else		○	-	○
	Symbol	Range			
Input	stp_zipu_num->ul_item_select_num	0x00000000-0xFFFFFFFF	0x00000000	0x00000004	0xFFFFFFFF
Output	luc_ans	0,1	0	1	0
Judgment					

FlowUserDisplay_DigitDown_UserPassSelect

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	2
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1	case2
Root	if(stp_zipu_num->ul_sub_item_select_num == 0)		○	-
	else		-	○
	Symbol	Range		
Input	stp_zipu_num->ul_sub_item_select_num	0x00000000,0xFFFFFFFF	0x00000000	0xFFFFFFFF
Output	luc_ans	0,1	1	0
Judgment				

FlowUserDisplay_DigitUp_UserPassSelect

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1	case2	case3
Root	if(stp_zipu_num->ul_sub_item_select_num == 3)		-	○	-
	else		○	-	○
	Symbol	Range			
Input	stp_zipu_num->ul_item_select_num	0x00000000-0xFFFFFFFF	0x00000000	0x00000003	0xFFFFFFFF
Output	luc_ans	0,1	0	1	0
Judgment					

FlowUserDisplay_Disp_BackLightTime

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	2
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1	case2
Root	if(stp_zipu_num->ul_item_select_num == 0)		○	-
	else		-	○
	Symbol	Range		
Input	stp_zipu_num->ul_item_select_num	0x00000000,0xFFFFFFFF	0x00000000	0xFFFFFFFF
Output	stp_nli_disp->uc_lcd_mes_blink[0]	0xFF	0xFF	0xFF
Judgment				

FlowUserDisplay_Disp_DispModeSettingItemDisplay

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1
Root	None		-
	Symbol	Range	
Input	None	-	-
Output	None	-	-
Judgment			

FlowUserDisplay_Disp_KeyTone

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1
Root	None		-
	Symbol	Range	
Input	None	-	-
Output	None	-	-
Judgment			

FlowUserDisplay_Disp_LunchBreak

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1
Root	None		-
	Symbol	Range	
Input	None	-	-
Output	None	-	-
Judgment			

FlowUserDisplay_Disp_UserPassOnOff

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1
Root	None		-
	Symbol	Range	
Input	None	-	-
Output	None	-	-
Judgment			

FlowUserDisplay_Disp_UserPassSelect

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1	case2	case3
Root	None		-	-	-
	Symbol	Range			
Input	stp_zipu_num->uc_chr_temporary_item[0]	0~10	0	9	10
	stp_zipu_num->uc_chr_temporary_item[1]	0~10	0	9	10
	stp_zipu_num->uc_chr_temporary_item[2]	0~10	0	9	10
	stp_zipu_num->uc_chr_temporary_item[3]	0~10	0	9	10
	stp_zipu_num->ul_sub_item_select_num	0x00000000,0xFFFFFFFF	0x00000000	0x00000000	0xFFFFFFFF
Output	stp_nl_disp->uc_lcd_mes[0][2]	47~58	47	57	58
	stp_nl_disp->uc_lcd_mes[0][3]	47~58	47	57	58
	stp_nl_disp->uc_lcd_mes[0][4]	47~58	47	57	58
	stp_nl_disp->uc_lcd_mes[0][5]	47~58	47	57	58
	stp_nl_disp->uc_lcd_mes_blink[0]	0,32	32	32	0
Judgment					

FlowUserDisplay_Disp_ZeroFollowerGas

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	2
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2
Root	if(stp_zipu_num->ul_item_select_num < HDDEF_GAS_MAX)	○	-
	else	-	○
	Symbol	Range	
Input	stp_zipu_num->ul_item_select_num	0x00000000~0xFFFFFFFF	0x00000000 0xFFFFFFFF
Output	stp_nl_disp->uc_lcd_com_dot	0x10	0x08 0x00
Judgment			

FlowUserDisplay_Disp_ZeroFollowerSet

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3
Root	switch(stp_zipu_num->ul_sub_item_select_num)	○	○	○
	case M_OFF	○	-	-
	case M_ON	-	○	-
	default	-	-	○
	Symbol	Range		
Input	stp_zipu_num->ul_sub_item_select_num	0x00000000~0xFFFFFFFF	0x00000000 0x00000001	0xFFFFFFFF
Output	stp_nl_disp->uc_lcd_com_dot	0x08	0x08 0x08	0x08
Judgment				

FlowUserDisplay_Disp_ZeroSuppressGas

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	2
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2
Root	if(stp_zipu_num->ul_item_select_num < HDDEF_GAS_MAX)	○	-
	else	-	○
	Symbol	Range	
Input	stp_zipu_num->ul_item_select_num	0x00000000,0xFFFFFFFF	0x00000000 0xFFFFFFFF
Output	stp_nl_disp->uc_lcd_com_dot	0x00,0x08	0x08 0x00
Judgment			

FlowUserDisplay_Disp_ZeroSuppressSet

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3
Root	switch(stp_zipu_num->ul_sub_item_select_num)	○	○	○
	case M_OFF	○	-	-
	case M_ON	-	○	-
	default	-	-	○
	Symbol	Range		
Input	stp_zipu_num->ul_sub_item_select_num	0x00000000~0xFFFFFFFF	0x00000000 0x00000001	0xFFFFFFFF
Output	stp_nl_disp->uc_lcd_com_dot	0x08	0x08 0x08	0x08
Judgment				

FlowUserDisplay_End_BackLightTime

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	2
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2
Root	None	-	-
	Symbol	Range	
Input	stp_zipu_num->ul_item_select_num	0x00000000,0xFFFFFFFF	0x00000000 0xFFFFFFFF
Output	stp_data->us_back_light_time	0x0000,0xFFFF	0x0000 0xFFFF
Judgment			

FlowUserDisplay_End_DateSetteng

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1
Root	None		-
	Symbol	Range	
Input	None	-	-
Output	None	-	-
Judgment			

FlowUserDisplay_End_DispModeSettingItemDisplay

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	2
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1	case2
Root	None		-	-
	Symbol	Range		
Input	stp_zipu_num->ul_item_select_num	0x00000000,0xFFFFFFFF	0x00000000	0xFFFFFFFF
Output	stp_data->uc_disp_setting_item_onoff	0x00,0xFF	0x00	0xFF
Judgment				

FlowUserDisplay_End_KeyTone

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	2
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1	case2
Root	None		-	-
	Symbol	Range		
Input	stp_zipu_num->ul_item_select_num	0x00000000,0xFFFFFFFF	0x00000000	0xFFFFFFFF
Output	stp_data->uc_key_tone_onoff	0x00,0xFF	0x00	0xFF
Judgment				

FlowUserDisplay_End_LunchBreak

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	2
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1	case2
Root	None		-	-
	Symbol	Range		
Input	stp_zipu_num->ul_item_select_num	0x00000000,0xFFFFFFFF	0x00000000	0xFFFFFFFF
Output	stp_data->uc_lunch_onoff	0x00,0xFF	0x00	0xFF
Judgment				

FlowUserDisplay_End_UserPassOnOff

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	2
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1	case2
Root	None		-	-
	Symbol	Range		
Input	stp_zipu_num->ul_item_select_num	0x00000000,0xFFFFFFFF	0x00000000	0xFFFFFFFF
Output	stp_data->uc_user_pass_onoff	0x00,0xFF	0x00	0xFF
Judgment				

FlowUserDisplay_End_UserPassSelect

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1	case2	case3
Root	None		-	-	-
	Symbol	Range			
Input	stp_zipu_num->uc_chr_temporary_item[0]	0-10	0	9	10
	stp_zipu_num->uc_chr_temporary_item[1]	0-10	0	9	10
	stp_zipu_num->uc_chr_temporary_item[2]	0-10	0	9	10
	stp_zipu_num->uc_chr_temporary_item[3]	0-10	0	9	10
Output	stp_data->us_user_pass_num	0-11110	0	9999	11110
Judgment					

FlowUserDisplay_End_ZeroFollowerSet

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	2
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1	case2
Root	None		-	-
	Symbol	Range		
Input	stp_zipu_num->ul_sub_item_select_num	0x00000000,0xFFFFFFFF	0x00000000	0xFFFFFFFF
Output	(stp_GasInfo_addr+(stp_zipu_num->ul_item_select_num))->uc_follower_onoff	0x00,0xFF	0x00	0xFF
Judgment				

FlowUserDisplay_End_ZeroSuppressSet

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	2
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1	case2
Root	None		-	-
	Symbol	Range		
Input	stp_zipu_num->ul_sub_item_select_num	0x00000000,0xFFFFFFFF	0x00000000	0xFFFFFFFF
Output	(stp_GasInfo_addr+(stp_zipu_num->ul_item_select_num))->uc_suppress_onoff	0x00,0xFF	0x00	0xFF
Judgment				

FlowUserDisplay_Init_BackLightTime

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1	case2	case3
Root	None		-	-	-
	Symbol	Range			
Input	stp_data->us_back_light_time	0-256	0	255	256
Output	stp_zipu_num->ul_item_select_num	0-256	0	255	256
	stp_zipu_num->uc_item_select_updown	0	0	0	0
Judgment					

FlowUserDisplay_Init_BumpLimitUserMenu

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1
Root	None		-
	Symbol	Range	
Input	None	-	-
Output	stp_zipu_num->ul_item_select_num	0	0
	stp_zipu_num->uc_item_select_updown	0	0
Judgment			

FlowUserDisplay_Init_CallLimitUserMenu

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1
Root	None		-
	Symbol	Range	
Input	None	-	-
Output	stp_zipu_num->ul_item_select_num	1	1
	stp_zipu_num->uc_item_select_updown	0	0
Judgment			

FlowUserDisplay_Init_DateSetteng

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1	case2	case3
Root	if(luc_num[0] > 99)		-	-	○
	else		○	○	-
	if(luc_num[1] <= 0 luc_num[1] > 12)		-	-	○
	else		○	○	-
	if(luc_num[2] <= 0 luc_num[2] > RTTime_Chk_Day((U_SHORT)(luc_num[0])+2000, luc_num[1]))		-	-	○
	else		○	○	-
	if(luc_num[3] > 23)		-	-	○
	else		○	○	-
	if(luc_num[4] > 59)		-	-	○
	else		○	○	-
	Symbol	Range			
Input	luc_num[0]	0~100	0	99	100
	luc_num[1]	1~13	1	12	13
	luc_num[2]	1~32	1	31	32
	luc_num[3]	0~24	0	23	24
	luc_num[4]	0~60	0	59	60
	RTTime_Chk_Day((U_SHORT)(luc_num[0])+2000, luc_num[1]))	29~32	29	32	31
Output	stp_zipu_num->ul_item_select_num	0	0	0	0
	stp_zipu_num->uc_item_select_updown	0	0	0	0
	stp_zipu_num->ul_sub_item_select_num	0	0	0	0
	stp_zipu_num->uc_sub_item_select_updown	0	0	0	0
	stp_zipu_num->uc_chr_temporary_item[0]	0,99	0	99	0
	stp_zipu_num->uc_chr_temporary_item[1]	1,12	1	12	1
	stp_zipu_num->uc_chr_temporary_item[2]	1,31	1	31	1
	stp_zipu_num->uc_chr_temporary_item[3]	0,23	0	23	0
	stp_zipu_num->uc_chr_temporary_item[4]	0,59	0	59	0
	stp_zipu_num->uc_chr_temporary_item[5]	0	0	0	0
Judgment					

FlowUserDisplay_Init_DispModeSettingItemDisplay

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1	case2	case3
Root	None		-	-	-
	Symbol	Range			
Input	stp_data->uc_disp_setting_item_onoff	0-2	0	1	2
Output	stp_zipu_num->ul_item_select_num	0-2	0	1	2
Judgment					

FlowUserDisplay_Init_KeyTone

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1	case2	case3
Root	None		-	-	-
	Symbol	Range			
Input	stp_data->uc_key_tone_onoff	0-2	0	1	2
Output	stp_zipu_num->ul_item_select_num	0-2	0	1	2
Judgment					

FlowUserDisplay_Init_LunchBreak

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1	case2	case3
Root	None		-	-	-
	Symbol	Range			
Input	stp_data->uc_lunch_onoff	0-2	0	1	2
Output	stp_zipu_num->ul_item_select_num	0-2	0	1	2
Judgment					

FlowUserDisplay_Init_UserMenu

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1
Root	None		-
	Symbol	Range	
Input	None	-	-
Output	stp_zipu_num->ul_mode_select_num	0	0
	stp_zipu_num->uc_mode_select_updown	0	0
Judgment			

FlowUserDisplay_Init_UserPassOnOff

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

Root	None		case1	case2	case3
			-	-	-
	Symbol	Range			
Input	stp_data->uc_user_pass_onoff	0~2	0	1	2
Output	stp_zipu_num->ul_item_select_num	0~2	0	1	2
Judgment					

FlowUserDisplay_Init_UserPassSelect

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

Root	None		case1	case2	case3
			-	-	-
	Symbol	Range			
Input	stp_data->us_user_pass_num	0~10000	0	9999	10000
Output	stp_zipu_num->ul_sub_item_select_num	0	0	0	0
	stp_zipu_num->uc_chr_temporary_item[0]	0,9	0	9	0
	stp_zipu_num->uc_chr_temporary_item[1]	0,9	0	9	0
	stp_zipu_num->uc_chr_temporary_item[2]	0,9	0	9	0
	stp_zipu_num->uc_chr_temporary_item[3]	0,9	0	9	0
	stp_zipu_num->uc_sub_item_select_updown	0	0	0	0
Judgment					

FlowUserDisplay_Init_ZeroFollowerGas

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

Root	for(luc_i=0; luc_i < HDEF_GAS_MAX; luc_i++)		case1	case2	case3
	if((((stp_GasInfo_addr+luc_i)->uc_gas_comb != 0x00) && (luc_i != DataStructConst_O2_GAS_CH) && ((luc_i != DataStructConst_CO_CAN_H2_H2_CH) ((stp_GasInfo_addr+luc_i)->uc_gas_comb != DataStructConst_CO_CAN_H2_GAS_NUM))))		○	○	○
	else		○	○	○
	Symbol	Range			
Input	(stp_GasInfo_addr+luc_i)->uc_gas_comb	0~30	0	29	30
Output	stp_zipu_num->ul_item_select_num	0,4	4	0	0
	stp_zipu_num->uc_item_select_updown	0	0	0	0
	stp_zipu_num->ul_sub_item_select_num	0	0	0	0
Judgment					

FlowUserDisplay_Init_ZeroFollowerSet

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3
Root	None	-	-	-
	Symbol	Range		
Input	(stp_GasInfo_addr+(stp_zipu_num->ul_item_select_num))->uc_follower_onoff	0	1	2
Output	stp_zipu_num->ul_sub_item_select_num	0	1	2
Judgment				

FlowUserDisplay_Init_ZeroSuppressGas

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3	
Root	for(luc_i=0; luc_i < HDEF_GAS_MAX; luc_i++)	○	○	○	
	if(((stp_GasInfo_addr+luc_i)->uc_gas_comb != 0x00) && (luc_i != DataStructConst_O2_GAS_CH) && ((luc_i != DataStructConst_CO_CAN_H2_H2_CH) ((stp_GasInfo_addr+luc_i)->uc_gas_comb != DataStructConst_CO_CAN_H2_GAS_NUM))))	-	○	○	
	else	○	○	○	
	Symbol	Range			
Input	(stp_GasInfo_addr+luc_i)->uc_gas_comb	0-30	0	29	30
Output	stp_zipu_num->ul_item_select_num	0,4	4	0	0
	stp_zipu_num->uc_item_select_updown	0	0	0	0
	stp_zipu_num->ul_sub_item_select_num	0	0	0	0
	stp_zipu_num->uc_sub_item_select_updown	0	0	0	0
Judgment					

FlowUserDisplay_Init_ZeroSuppressSet

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3	
Root	None		-	-	-
	Symbol	Range			
Input	(stp_GasInfo_addr+(stp_zipu_num->ul_item_select_num))->uc_suppress_onoff	0	1	2	
Output	stp_zipu_num->ul_sub_item_select_num	0	1	2	
Judgment					

FlowUserDisplay_Select_BackLightTime

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3	
Root	if(puc_num == 1)	-	○	-	
	else	○	-	○	
	Symbol	Range			
Input	Tool_OneCount((U_LNG)stp_zipu_num->ul_item_select_num, 1, (U_LNG)M_BACK_LIGHT_TIME_MAX, (U_LNG)M_BACK_LIGHT_TIME_MIN, stp_zipu_num->uc_item_select_updown, M_OFF)	0x00000000,0xFFFFFFFF	0x00000000	0x00000000	0xFFFFFFFF
	Tool_OneCount((U_LNG)stp_zipu_num->ul_item_select_num, 10, (U_LNG)M_BACK_LIGHT_TIME_MAX, (U_LNG)M_BACK_LIGHT_TIME_MIN, stp_zipu_num->uc_item_select_updown, M_OFF)	0x00000000,0xFFFFFFFF	0x00000000	0x00000000	0xFFFFFFFF
	puc_num	0x00-0xFF	0x00	0x01	0xFF
	Output	stp_zipu_num->ul_item_select_num	0x00000000,0xFFFFFFFF	0x00000000	0x00000000
Judgment					

FlowUserDisplay_Select_DateSettengltem

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	6
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3	case4	case5	case6
Root	if(puc_type == 0)	○	○	○	-	-	-
	if(stp_zipu_num->ul_item_select_num == 2)	○	○	-	-	-	-
	if(stp_zipu_num->uc_chr_temporary_item[2] > RTCTime_Chk_Day((U_SHORT)(stp_zipu_num->uc_chr_temporary_item[0])+2000, stp_zipu_num->uc_chr_temporary_item[1]))	○	-	-	-	-	-
	else	-	○	-	-	-	-
	else	-	-	○	-	-	-
	if(stp_zipu_num->ul_item_select_num == 5)	-	-	○	-	-	-
	else	○	○	-	-	-	-
	else	-	-	-	○	○	○
Input	if(stp_zipu_num->ul_item_select_num > 0)	-	-	-	○	-	○
	else	-	-	-	-	○	-
	Symbol	Range					
	puc_type	0~2	0	0	0	1	1
	stp_zipu_num->ul_item_select_num	0x00000000~0xFFFFFFFF	0x00000001	0x00000001	0x00000004	0xFFFFFFFF	0x00000000
	stp_zipu_num->uc_chr_temporary_item[2]	28~32	31	28	32	28	28
	RTCTime_Chk_Day((U_SHORT)(stp_zipu_num->uc_chr_temporary_item[0])+2000, stp_zipu_num->uc_chr_temporary_item[1]))	28~32	28	31	32	28	28
	uc_chr_temporary_item[1])	28~32	28	31	32	28	28
Output	stp_zipu_num->uc_chr_temporary_item[2]	28~32	28	28	32	28	28
	luc_ans	0~2	0	0	1	0	2
Judgment							

FlowUserDisplay_Select_DateSettingNum

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	6
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3	case4	case5	case6
Root	switch(stp_zipu_num->ul_item_select_num)	○	○	○	○	○	○
	case 0	○	-	-	-	-	-
	case 1	-	○	-	-	-	-
	case 2	-	-	○	-	-	-
	case 3	-	-	-	○	-	-
	case 4	-	-	-	-	○	-
	default	-	-	-	-	-	○
	if(puc_num == 10)	-	-	-	-	○	-
Input	else	○	○	○	○	-	○
	Symbol	Range					
	puc_num	0x00~0xFF	0x00	0x00	0x00	0x00	0x0A
	stp_zipu_num->ul_item_select_num	0x00000000~0xFFFFFFFF	0x00000000	0x00000001	0x00000002	0x00000003	0x00000004
	Tool_OneCount((U_LNG)stp_zipu_num->uc_chr_temporary_item[stp_zipu_num->ul_item_select_num], 10, (U_LNG)luc_max, (U_LNG)luc_min, stp_zipu_num->uc_item_select_updown, M_OFF)	0x00000000,0xFFFFFFFF	0x00000000	0x00000000	0x00000000	0x00000000	0x00000000
	Tool_OneCount((U_LNG)stp_zipu_num->uc_chr_temporary_item[stp_zipu_num->ul_item_select_num], 1, (U_LNG)luc_max, (U_LNG)luc_min, stp_zipu_num->uc_item_select_updown, M_OFF)	0x00000000,0xFFFFFFFF	0x00000000	0x00000000	0x00000000	0x00000000	0x00000000
	Output	stp_zipu_num->uc_chr_temporary_item[stp_zipu_num->ul_item_select_num]	0x00,0xFF	0x00	0x00	0x00	0x00
	Judgment						

FlowUserDisplay_Select_DispmodeSettingItemDisplay

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

Root	None		case1	case2	case3
	Symbol	Range	-	-	-
Input	Tool_CHR_Chg_OnOff (stp_zipu_num->ul_item_select_num)	0~2	0	1	2
Output	stp_zipu_num->ul_item_select_num	0~2	0	1	2
Judgment					

FlowUserDisplay_Select_KeyTone

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

Root	None		case1	case2	case3
	Symbol	Range	-	-	-
Input	Tool_CHR_Chg_OnOff (stp_zipu_num->ul_item_select_num)	0~2	0	1	2
Output	stp_zipu_num->ul_item_select_num	0~2	0	1	2
Judgment					

FlowUserDisplay_Select_LunchBreak

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

Root	None		case1	case2	case3
	Symbol	Range	-	-	-
Input	Tool_CHR_Chg_OnOff (stp_zipu_num->ul_item_select_num)	0~2	0	1	2
Output	stp_zipu_num->ul_item_select_num	0~2	0	1	2
Judgment					

FlowUserDisplay_Select_UserPassOnOff

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

Root	None		case1	case2	case3
	Symbol	Range	-	-	-
Input	Tool_CHR_Chg_OnOff (stp_zipu_num->ul_item_select_num)	0~2	0	1	2
Output	stp_zipu_num->ul_item_select_num	0~2	0	1	2
Judgment					

FlowUserDisplay_Select_UserPassSelect

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	2
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2
Root	None	-	-
	Symbol	Range	
Input	Tool_OneCount((U_LNG)stp_zipu_num->uc_chr_temporary_item[stp_zipu_num->ul_sub_item_select_num], 1, 9, 0, stp_zipu_num->uc_sub_item_select_updown, M_OFF)	0x00000000,0xFFFFFFFF	0x00000000 0xFFFFFFFF
Output	stp_zipu_num->uc_chr_temporary_item[stp_zipu_num->ul_sub_item_select_num]	0x00,0xFF	0x00 0xFF
Judgment			

FlowUserDisplay_Select_ZeroFollowerGas

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	6
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3	case4	case5	case6
Root	if(stp_zipu_num->uc_item_select_updown == M_OFF)	○	○	-	-	-	-
	if(stp_zipu_num->ul_item_select_num == HDEF_GAS_MAX)	○	-	-	-	-	-
	else	-	○	-	-	-	-
	for(luc_i; luc_i < HDEF_GAS_MAX; luc_i++)	○	○	-	-	-	-
	if(((stp_GasInfo_addr+luc_i)->uc_gas_comb != 0x00) && (luc_i != DataStructConst_O2_GAS_CH) && ((luc_i != 2) ((stp_GasInfo_addr+2)->uc_gas_comb != DataStructConst_CO_CAN_H2_GAS_NUM)))	-	○	-	-	-	-
	else	○	-	-	-	-	-
	else	-	-	○	○	○	○
	if(stp_zipu_num->ul_item_select_num == 0)	-	-	○	-	-	○
	else	-	-	-	○	○	-
	for(luc_i=(stp_zipu_num->ul_item_select_num-1); luc_i > 0; luc_i--)	-	-	-	○	○	-
	if(((stp_GasInfo_addr+luc_i)->uc_gas_comb != 0x00) && (luc_i != DataStructConst_O2_GAS_CH) && ((luc_i != 2) ((stp_GasInfo_addr+2)->uc_gas_comb != DataStructConst_CO_CAN_H2_GAS_NUM)))	-	-	-	-	○	-
	else	-	-	-	○	-	-
	if((luc_i == 0) && ((stp_GasInfo_addr+0)->uc_gas_comb == 0x00))	-	-	-	○	-	-
	else	-	-	-	-	○	-
	Symbol	Range					
Input	stp_zipu_num->uc_item_select_updown	0~2	0	1	1	1	2
	stp_zipu_num->ul_item_select_num	0,4	4	0	4	4	0
	(stp_GasInfo_addr+luc_i)->uc_gas_comb	0~30	0	29	0	29	30
	(stp_GasInfo_addr+0)->uc_gas_comb	0~30	0	0	29	29	30
Output	None	-	-	-	-	-	-
Judgment							

FlowUserDisplay_Select_ZeroFollowerSet

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3
Root	None	-	-	-
	Symbol	Range		
Input	Tool_CHR_Chg_OnOff (stp_zipu_num->ul_sub_item_select_num)	0~2	0	1 2
Output	stp_zipu_num->ul_sub_item_select_num	0~2	0	1 2
Judgment				

FlowUserDisplay_Select_ZeroSuppressGas

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	6
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3	case4	case5	case6
Root	if(stp_zipu_num->uc_item_select_updown == M_OFF)	○	○	-	-	-	-
	if(stp_zipu_num->ul_item_select_num == HDEF_GAS_MAX)	○	-	-	-	-	-
	else	-	○	-	-	-	-
	for(luc_i; luc_i < HDEF_GAS_MAX; luc_i++)	○	○	-	-	-	-
	if(((stp_GasInfo_addr+luc_i)->uc_gas_comb != 0x00) && ((luc_i != DataStructConst_CO_CAN_H2_H2_CH) ((stp_GasInfo_addr+2)->uc_gas_comb != DataStructConst_CO_CAN_H2_GAS_NUM)))	-	○	-	-	-	-
	else	○	-	-	-	-	-
	else	-	-	○	○	○	○
	if(stp_zipu_num->ul_item_select_num == 0)	-	-	○	-	-	○
	else	-	-	-	○	○	-
	for(luc_i=(stp_zipu_num->ul_item_select_num-1); luc_i > 0; luc_i--)	-	-	-	○	○	-
	if(((stp_GasInfo_addr+luc_i)->uc_gas_comb != 0x00) && ((luc_i != DataStructConst_CO_CAN_H2_H2_CH) ((stp_GasInfo_addr+2)->uc_gas_comb != DataStructConst_CO_CAN_H2_GAS_NUM)))	-	-	-	-	○	-
	else	-	-	-	○	-	-
Symbol	Symbol	Range					
	Range						
Input	stp_zipu_num->uc_item_select_updown	0-2	0	0	1	1	2
	stp_zipu_num->ul_item_select_num	0-5	4	0	0	4	5
	(stp_GasInfo_addr+luc_i)->uc_gas_comb	0-30	0	29	0	0	29
	(stp_GasInfo_addr+0)->uc_gas_comb	0-30	0	0	29	0	29
Output	None	-	-	-	-	-	-
Judgment							

FlowUserDisplay_Select_ZeroSuppressSet

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3
Root	None	-	-	-
Symbol	Symbol	Range		
	Range			
Input	Tool_CHR_Chg_OnOff	0	1	2
	(stp_zipu_num->ul_sub_item_select_num)	0-2	0	1
Output	stp_zipu_num->ul_sub_item_select_num	0-2	0	1
Judgment				

FlowUserDisplay_Set_DateSetting

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	6
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3	case4	case5	case6
Root	switch(stp_zipu_num->ul_item_select_num)	○	○	○	○	○	○
	case 0	○	-	-	-	-	-
	case 1	-	○	-	-	-	-
	case 2	-	-	○	-	-	-
	case 3	-	-	-	○	-	-
	case 4	-	-	-	-	○	-
	default	-	-	-	-	-	○
Symbol	Symbol	Range					
	Range						
Input	stp_zipu_num->ul_item_select_num	0x00000000-0xFFFFFFFF	0x00000000	0x00000001	0x00000002	0x00000003	0x00000004
Output	stp_nl_disp->uc_lcd_mes[0][3]	45	45	45	45	45	45
	stp_nl_disp->uc_lcd_mes_dot[0]	4	4	4	4	4	4
	stp_nl_disp->uc_lcd_mes_dot[1]	5	5	5	5	5	5
Judgment							

FlowUserDisplay_Set_EndDisp

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1
Root	None		-
	Symbol	Range	
Input	None	-	-
Output	None	-	-
Judgment			

m_Chk_UserMenuItem

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1	case2	case3
Root	if((stp_data->uc_exp_flg == DSC_TGT_JAPAN))((stp_data->uc_exp_flg == DSC_TGT_JG)		○	○	-
	else		-	-	○
	if(stp_data->uc_disp_zero_flg == M_OFF)		○	-	-
	else		-	○	○
	if(stp_data->uc_disp_suppress_val == M_OFF)		○	-	-
	else		-	○	○
	Symbol	Range			
Input	stp_data->uc_exp_flg	0~4	0	3	4
	stp_data->uc_disp_zero_flg	0~2	0	1	2
	stp_data->uc_disp_suppress_val	0~2	0	1	2
Output	uc_user_mode_item[U_CAL_LIM_NUM]	0,1	0	0	1
	uc_user_mode_item[U_Z_FLLWR_NUM]	0,1	0	1	1
	uc_user_mode_item[U_SUPPRESS_NUM]	0,1	0	1	1
Judgment					

[illegible]

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	17
Test	Taki			
Judgment	Ikarashi		Judgment	

[illegible]

Unit Test Specification

Project name	GX-Force
File name	func_bump_limit.c

FuncBumpLimit_Chk_BumpLimitDay

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	5
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3	case4	case5
Root	for(luc_i=0; luc_i<HDEF_GAS_MAX; luc_i++)	○	○	○	○	○
	if(((stp_GasInfo_addr + luc_i)->uc_gas_comb != 0x00) && (!((stp_denst+luc_i)->uc_state_trb & (DataStructConst_S_FAIL_INS DataStructConst_S_FAIL_SEN))))	○	○	○	-	-
	if(luc_i != DataStructConst_CO_CAN_H2_H2_CH (stp_GasInfo_addr+luc_i)->uc_gas_comb != DataStructConst_CO_CAN_H2_GAS_NUM)	○	○	-	-	-
	if(lul_day == 0)	○	-	-	-	-
	else	-	○	-	-	-
	if(lus_ans > lul_day)	-	-	-	-	-
	else	-	○	-	-	-
	else	-	-	○	-	-
	else	-	-	-	○	-
	else	-	-	-	-	○
	Symbol	Range				
Input	(stp_GasInfo_addr + luc_i)->uc_gas_comb	29	29	3	0	30
	(stp_denst+luc_i)->uc_state_trb	0x00	0x00	0x00	0xFF	0xFF
	FuncCallLimit_Calc_Cal_BumpLimitDay (&(stp_GasInfo_addr + luc_i)->uc_bump_date[0], stp_data->us_bump_lmt_day)	0	1	0	1000	1001
Output	lus_ans	0	1	0	1000	1000
Judgment						

FuncBumpLimit_Chk_BumpLimitExpired

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3
Root	if(FuncBumpLimit_Chk_BumpLimitDay() == 0)	○	-	-
	else	-	○	○
	Symbol	Range		
Input	FuncBumpLimit_Chk_BumpLimitDay()	0	232	233
Output	ucs_bump_limit_flg	0,1	1	0
Judgment				

FuncBumpLimit_Get_BumpLimitExpiredBehavior

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1
Root	None	-
	Symbol	Range
Input	None	-
Output	stp_data->uc_bump_lmt_chk	0
Judgment		

FuncBumpLimit_Get_BumpLimitOnOff

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3
Root	if(stp_data->uc_bump_lmt_set == M_ON)	-	○	-
	else	○	-	○
	Symbol	Range		
Input	stp_data->uc_bump_lmt_set	0	1	2
Output	luc_nas	0	1	0
Judgment				

FuncBumpLimit_Get_ChkBumpLimitExpired

	Responsible	Last update
Coding	Ikarashi	
Test	Taki	
Judgment	Ikarashi	

			case1
Root	None		-
	Symbol	Range	
Input	None	-	-
Output	ucs_bump_limit_flg	0	0
Judgment			

FuncBumpLimit_Set_BumpEndDensst

	Responsible	Last update
Coding	Ikarashi	
Test	Taki	
Judgment	Ikarashi	

		case1	case2	case3	case4
Root	if(stp_derst->uc_m_derst_minus_flg)	○	-	-	-
	else	-	○	○	○
	if(stp_derst->uc_m_over_flg)	-	○	-	○
	else	-	-	○	-
	Symbol	Range			
Input	stp_derst->uc_m_derst_minus_flg	0~2	0	0	2
	stp_derst->uc_m_over_flg	0~2	1	0	2
	stp_gasInfo_addr->ul_full_scale	0~1000001	0	100000	100001
	stp_derst->ul_digit	1~501	1	500	501
	stp_derst->ul_m_derst	0x00000000,0xFFFFFFFF	0x00000000	0xFFFFFFFF	0xFFFFFFFF
	puc_gas_num	0~5	0	4	5
	pul_cal_derst	0~50001	0	50000	50001
	stp_gasInfo_addr->ul_bump_val	0,1	0	1	1
Output					
Judgment					

FuncBumpLimit_Set_BumpCalFlagSuccess

	Responsible	Last update
Coding	Ikarashi	
Test	Taki	
Judgment	Ikarashi	

			case1	case2	case3
Root	None		-	-	-
	Symbol	Range			
Input	puc_ch	0-2	0	1	2
Output	ucs_bump_0d_cal_flg[puc_ch]	0.1	1	1	1
Judgment					

m_Chk_BumpLimitFlag

	Responsible	Last update
Coding	Ikarashi	
Test	Taki	
Judgment	Ikarashi	

[illegible]

Unit Test Specification

Project name	GX-Force
File name	func_cal_limit.c

FuncCalLimit_Calc_Cal_BumpLimitDay

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3	
Root	if(lul_lmt_serial >= lul_nuw_serial)	○	-	○	
	else	-	○	-	
	Symbol	Range			
Input	puc_deadline_date	0~100	0	99	100
	pus_limit_day	0~1001	0	1000	1001
	RTCTime_Chg_Day(luc_date[0])	0~36526	36525	0	36526
	RTCTime_Chg_Day(luc_date[1])	0~36526	0	36525	36526
Output	lul_ans_day	0~1001	0	1000	1001
Judgment					

FuncCalLimit_Chk_CalLimitDay

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	5
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1	case2	case3	case4	case5
Root	for(luc_i=0; luc_i<HDEF_GAS_MAX; luc_i++)		○	○	○	○	○
	if(((stp_GasInfo_addr + luc_i)->uc_gas_comb != 0x00) && (!((stp_denst+luc_i)->uc_state_trb & (DataStructConst_S_FAIL_INS DataStructConst_S_FAIL_SEN))))		○	○	○	-	-
	if(luc_i != DataStructConst_CO_CAN_H2_H2_CH (stp_GasInfo_addr+luc_i)->uc_gas_comb != DataStructConst_CO_CAN_H2_GAS_NUM)		○	○	-	-	-
	if(lul_day == 0)		○	-	-	-	-
	else		-	○	-	-	-
	if(lus_ans > lul_day)		○	-	-	-	-
	else		-	○	-	-	-
	else		-	-	○	-	-
	else		-	-	-	○	○
	Symbol	Range					
Input	(stp_GasInfo_addr + luc_i)->uc_gas_comb	0~30	29	29	3	0	30
	(stp_denst+luc_i)->uc_state_trb	0x00,0xFF	0x00	0x00	0x00	0xFF	0xFF
	FuncCallLimit_Calc_Cal_BumpLimitDay (&((stp_GasInfo_addr + luc_i)->uc_cal_date[0]), stp_data->us_cal_lmt_day)	0~1001	0	1	0	1000	1001
Output	lus_ans	0~1000	0	1	0	1000	1000
Judament							

FuncCalLimit_Chk_CalLimitExpired

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3	
Root	if(FuncCallLimit_Chk_CallLimitDay() == 0)	○	-	-	
	else	-	○	○	
	Symbol	Range			
Input	FuncCallLimit_Chk_CallLimitDay()	0~1001	0	1000	1001
Output	ucs_cal_limit_flg	0,1	1	0	0
Judgment					

FuncCalLimit_Get_CalLimitExpiredBehavior

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1
Root	None	-
	Symbol	Range
Input	None	-
Output	stp_data->uc_cal_lmt_chk	0
Judgment		

FuncCalLimit_Get_CalLimitOnOff

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	4
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3	case4
Root	if((stp_data->uc_cal_lmt_set == M_ON) && !((stp_data->uc_exp_flg == DSC_TGT_JAPAN) ((stp_data->uc_exp_flg == DSC_TGT_JG)))	-	○	-	-
	else	○	-	○	○
	Symbol	Range			
Input	stp_data->uc_cal_lmt_set	0~2	0	1	1
	stp_data->uc_exp_flg	0~4	0	1	3
Output	luc_nas	0,1	0	1	0
Judgment					

FuncCalLimit_Get_ChkCalLimitExpired

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1
Root	None	-
	Symbol	Range
Input	None	-
Output	ucs_cal_limit_flg	0
Judgment		

FuncCalLimit_Set_CalEndDens

	Responsible	Last update
Coding	Ikarashi	
Test	Taki	
Judgment	Ikarashi	

Infinite loop	None
Verification pass	4
Judgment	

			case1	case2	case3	case4
Root	if(stp_denst->uc_m_denst_minus_flg)		○	-	-	-
	else		-	○	○	○
	if(stp_denst->uc_m_over_flg)		-	○	-	○
	else		-	-	○	-
	Symbol	Range				
Input	(stp_denst->uc_m_denst_minus_flg	0~2	1	0	0	2
	stp_denst->uc_m_over_flg	0~2	1	1	0	2
	tp_GasInfo_addr->ul_full_scale	0~100001	0	0	100000	100001
	stp_denst->ul_digit	0~501	1	1	500	501
	stp_denst->ul_m_denst	0x00000000~0xFFFFFFFF	0x00000000	0x00000000	0xFFFFFFFF	0xFFFFFFFF
	puc_gas_num	0~5	0	0	4	5
Output	stp_GasInfo_addr->ul_cal_after	0,1	0	1	0	0
Judgment						

FuncCalLimit_Set_CalStartDens

	Responsible	Last update
Coding	Ikarashi	
Test	Taki	
Judgment	Ikarashi	

Infinite loop	None
Verification pass	4
Judgment	

			case1	case2	case3	case4
Root	if(stp_denst->uc_m_denst_minus_flg)		○	-	-	-
	else		-	○	○	○
	iff(stp_denst->uc_m_over_flg)		-	○	-	○
	else		-	-	○	-
	Symbol	Range				
Input	(stp_denst->uc_m_denst_minus_flg	0~2	1	0	0	2
	stp_denst->uc_m_over_flg	0~2	1	1	0	2
	stp_GasInfo_addr->ul_full_scale	0~100001	0	0	100000	100001
	stp_denst->ul_digit	1~501	1	1	500	501
	stp_denst->ul_m_denst	0x00000000,0xFFFFFFFF	0x00000000	0x00000000	0xFFFFFFFF	0xFFFFFFFF
	puc_gas_num	0~5	0	0	4	5
Output	stp_GasInfo_addr->ul_cal_before	0,1	0	1	1	1
Judgment						

Unit Test Specification

Project name	GX-Force
File name	func_chk_main.c

FuncChkMain_Chk_ConfirmEffectiveValue

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	4
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3	case4
Root	if(FlowMain_Get_ModeStatus() != FlowMain_IRDA_MODE_NUMBER)	○	○	○	-
	if(stp_status->us_main_state & DataStructConst_FAIL_FRM)	○	-	-	-
	else	-	○	○	-
	for(luc_i=0; luc_i<HDEF_GAS_MAX; luc_i++)	-	○	○	-
	if(stp_gasinfo_addr+luc_i->uc_gas_comb != 0x00)	-	○	-	-
	else	-	-	○	-
	if(luc_chk == M_NC)	-	○	-	-
Input	if(luc_chk == M_NC)	-	-	○	-
	else	-	-	-	○
Symbol		Range			
Input	stp_status->us_main_state	0x0000-0xFFFF	0x0020	0x0000	0x0000
	FlowMain_Get_ModeStatus()	0~8	0	0	8
	(stp_gasinfo_addr+luc_i)->uc_gas_comb	0~30	29	30	0
Output	luc_flag	0,1	1	0	0
Judgment					

FuncChkMain_Chk_SensorTrouble

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3
Root	if(stp_gasinfo_addr + 0)->uc_gas_comb != 0x00)	○	○	-
	if(GasCalcNC_Chk_SensorFail() == M_NC)	○	-	-
	else	-	○	-
	else	-	-	○
Symbol		Range		
Input	(stp_gasinfo_addr+0)->uc_gas_comb	0~30	29	30
	GasCalcNC_Chk_SensorFail()	0~2	1	2
Output	None	-	-	-
Judgment				

FuncChkMain_Chk_ThermistorTrouble

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3
Root	if(RL781EControl_Chk_TempError() == M_NC)	○	-	-
	else	-	○	○
Symbol		Range		
Input	RL781EControl_Chk_TempError()	0~2	1	0
Output	None	-	-	-
Judgment				

FuncChkMain_Int_1sec

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3
Root	if(++ul_m_count <= M_24H_COUNT_MAX)	○	-	○
	else	-	○	-
Symbol		Range		
Input	ul_m_count	0~86401	86400	0
Output	ul_m_count	0,1	0	1
	uc_m_chk_on_flg	1	1	1
Judgment				

FuncChkMain_Set_BakUpBattFailFlg

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	4
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3	case4
Root	if(puc_flg == M_ON)	○	○	-	-
	if(stp_status->us_main_state & DataStructConst_FAIL_BKB) == 0x00)	○	-	-	-
	else	-	○	-	-
	else	-	-	○	○
Symbol		Range			
Input	puc_flg	0~2	1	1	0
	stp_status->us_main_state	0x0000-0xFFFF	0x0000	0xFFFF	0x0100
	stp_status->us_main_state	0x0000-0xFFFF	0x0100	0xFFFF	0x0000
Output					
Judgment					

FuncChkMain_Set_BattFailFlg

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	6
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3	case4	case5	case6
Root	!(puc_flg == M_ON)	○	○	○	○	-	-
	!(Battery_Get_BatteryType() == BATTERY_BATT_TYPE_LI)	○	○	-	-	-	-
	!(stp_status->us_main_state & DataStructConst_FAIL_BTL) == 0x00	○	-	-	-	-	-
	else	-	○	-	-	-	-
	else	-	-	○	-	-	-
	!(stp_status->us_main_state & DataStructConst_FAIL_BTA) == 0x00	-	-	○	-	-	-
	else	-	-	-	○	-	-
	else	-	-	-	-	○	○
Symbol		Range					
Input	puc_flg	0~2	1	1	1	0	2
	stp_status->us_main_state	0x0000~0xFFFF	0x0000	0xFFFF	0x0000	0xFFFF	0x0002 0xFFFF
Output	stp_status->us_main_state	0x0000~0xFFFF	0x0002	0xFFFF	0x0002	0xFFFF	0x0000 0xFFFF
Judgment							

FuncChkMain_Set_ChkStart

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	5
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3	case4	case5
Root	!(uc_m_chk_on_flg == M_ON)	○	○	○	-	-
	!(uc_fram_write_flg == M_OFF)	○	○	-	-	-
	!(uc_result != M_OK)	○	-	-	-	-
	else	-	○	-	-	-
	else	-	-	○	-	-
	else	-	-	-	○	-
	else	-	-	-	-	○
Symbol		Range				
Input	uc_m_chk_on_flg	0~2	1	1	0	2
	FRAM_Get_flg()	0~2	0	0	1	0 2
	DataFram_FRAM_Diag()	0~2	1	0	0	0 2
Output	uc_m_chk_on_flg	0,2	0	0	0	0 2
Judgment						

FuncChkMain_Set_CircuitVoltageFailFlg

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	4
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3	case4
Root	!(puc_flg == M_ON)	○	○	-	-
	!(!(stp_status->us_main_state & DataStructConst_FAIL_CLK) == 0x00)	○	-	-	-
	else	-	○	-	-
	else	-	-	○	-
	else	-	-	-	○
Symbol		Range			
Input	puc_flg	0~2	1	1	0 2
	stp_status->us_main_state	0x0000~0xFFFF	0x0000	0xFFFF	0x0080 0xFFFF
Output	stp_status->us_main_state	0x0000~0xFFFF	0x0400	0xFFFF	0x0080 0xFBFF
Judgment					

FuncChkMain_Set_ClockFailFlg

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	4
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3	case4
Root	!(puc_flg == M_ON)	○	○	-	-
	!(!(stp_status->us_main_state & DataStructConst_FAIL_CLK) == 0x00)	○	-	-	-
	else	-	○	-	-
	else	-	-	○	-
	else	-	-	-	○
Symbol		Range			
Input	puc_flg	0~2	1	1	0 2
	stp_status->us_main_state	0x0000~0xFFFF	0x0000	0xFFFF	0x0080 0xFFFF
Output	stp_status->us_main_state	0x0000~0xFFFF	0x0080	0xFFFF	0x0000 0xF7FF
Judgment					

FuncChkMain_Set_FlowFailFlg

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	4
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3	case4
Root	!(puc_flg == M_ON)	○	○	-	-
	!(!(stp_status->us_main_state & DataStructConst_FAIL_FRM) == 0x00)	○	-	-	-
	else	-	○	-	-
	else	-	-	○	-
	else	-	-	-	○
Symbol		Range			
Input	puc_flg	0~2	1	1	0 2
	stp_status->us_main_state	0x0000~0xFFFF	0x0000	0xFFFF	0x0020 0xFFFF
Output	stp_status->us_main_state	0x0000~0xFFFF	0x0004	0xFFFF	0x0020 0xFFFB
Judgment					

FuncChkMain Set FramFailFlg

	Responsible	Last update
Coding	Ikarashi	
Test	Taki	
Judgment	Ikarashi	

		case1	case2	case3	case4
Root	if(puc_fg == M_ON)	○	○	-	-
	if(stp_status==stp_main_state & DataStructConst_FAIL_FRM) == 0x00)	○	-	-	-
	else	-	○	-	-
	else	-	-	○	○
	Symbol	Range			
Input	puc_fg	0-2	1	0	2
	stp_status==stp_main_state	0x0000-0xFFFF	0xFFFF	0x0020	0xFFFF
Output	stp_status==stp_main_state	0x0020	0xFFFF	0x0000	0xFFFF
	Input/Output				

FuncChkMain Set PumpFailFlg

	Responsible	Last update
Coding	Ikarashi	
Test	Taki	
Judgment	Ikarashi	

		case1	case2	case3	case4
Root	<code>!ipuc_flg == M_ON</code>	○	○	○	-
	<code>!((stp_status->us_main_state & DataStructConst_FAIL_FRM) == 0x00)</code>	○	-	-	-
	else	-	○	-	-
	else	-	-	○	○
Input	Symbol	Range			
	<code>ipuc_flg</code>	0-2			
Output	<code>stp_status->us_main_state</code>	0x0000-0xFFFF	1	1	0
	<code>stp_status->us_main_state</code>	0x0000-0xFFFF	0x0000	0xFFFF	0x0008
Input/Output	<code>stp_status->us_main_state</code>	0x0000-0xFFFF	0x0000	0xFFFF	0x0008
	<code>stp_status->us_main_state</code>	0x0000-0xFFFF	0x0000	0xFFFF	0x0008

FuncChkMain Set RamFailFlg

	Responsible	Last update
Coding	Ikarashi	
Test	Taki	
Judgment	Ikarashi	

		case1	case2	case3	case4
Root	<code>!ipuc_flg == M_ON</code>	○	○	-	-
	<code>!((stp_status->us_main_state & DataStructConst_FAIL_FRM) == bxx00)</code>	○	-	-	-
	<code>else</code>	○	-	-	-
	<code>else</code>	-	-	○	○
	Symbol	Range			
Input	<code>ipuc_flg</code>	0-2	1	1	0
	<code>stp_status->us_main_state</code>	0x0000-0xFFFF	0x0000	0xFFFF	0x0008
Output	<code>stp_status->us_main_state</code>	0x0000-0xFFFF	0x0008	0xFFFF	0x0000
	unknown				0xFFFF

FuncChkMain Set SensorCalFlo

	Responsible	Last update
Coding	Ikarashi	
Test	Taki	
Judgment	Ikarashi	

[illegible]

FuncChkMain_Set_SensorSubstrateFailFig

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	4
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3	case4
Root	if(puc_flg == M_ON)	○	○	-	-
	if(stp_status>us_main_state & DataStructConst_FAIL_SUB) == 0x00)	○	-	-	-
	else	-	○	-	-
	else	-	-	○	○
Symbol		Range			
Input	puc_flg	0~2	1	1	0
	stp_status>us_main_state	0x0000-0xFFFF	0x0000	0xFFFF	0x0200
Output	stp_status>us_main_state	0x0000-0xFFFF	0x0200	0xFFFF	0x0000
Judgment					

FuncChkMain_Set_SensorTroubleFig

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	4
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3	case4
Root	if((stp_GasInfo_addr>uc_gas_comb != 0x00) && ((stp_denst>uc_state_trb & (DataStructConst_S_FAIL_INS (DataStructConst_S_FAIL_SEN)))	○	○	-	-
	if(FlowMain_Get_ModeStatus() == FlowMain_MEASURE_MODE_NUMBER FlowMain_Get_ModeStatus() == FlowMain_DSP_MODE_NUMBER)	○	-	-	-
	else	-	○	-	-
	else	-	-	○	○
Symbol		Range			
Input	puc_gas	0~5	0	0	4
	puc_code	99~141	100	130	141
	stp_GasInfo_addr>uc_gas_comb	0,29	29	0	30
	stp_denst>uc_state_trb	0x00,0xFF	0x00	0x00	0xFF
	FlowMain_Get_ModeStatus()	0~8	1	0	0
	FlowMain_Get_ModeStatus()	0~8	1	0	8
Output	stp_denst>uc_state_trb	0x04~0xFF	0x04	0x10	0xFF
Judgment					

FuncChkMain_Set_ThermistorFailFig

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	4
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3	case4
Root	if(puc_flg == M_ON)	○	○	-	-
	if((stp_status>us_main_state & DataStructConst_FAIL_TEP) == 0x00)	○	-	-	-
	else	-	○	-	-
	else	-	-	○	○
Symbol		Range			
Input	puc_flg	0~2	1	1	0
	stp_status>us_main_state	0x0000-0xFFFF	0x0000	0xFFFF	0x0800
Output	stp_status>us_main_state	0x0000-0xFFFF	0x0800	0xFFFF	0x0000
Judgment					

m_Chk_Range1stAlarm

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	4
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3	case4
Root	if(stp_GasInfo_addr>ut_1st_alarm != M_OFF_VAL)	○	-	○	○
	if(puc_gas == 1)	○	-	-	-
	else	-	-	○	○
	else	-	○	-	-
Symbol		Range			
Input	puc_gas	0~5	1	4	0
	m_Chk_RangeNum()	0~2	1	0	0
	stp_GasInfo_addr>ut_1st_alarm	0x00000000-0xFFFFFFFF	0	0xDDDDDDDD	0
Output	luc_flg	0~2	1	0	0
Judgment					

m_Chk_Range2ndAlarm

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	4
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3	case4
Root	if(stp_GasInfo_addr>ut_2nd_alarm != M_OFF_VAL)	○	-	○	○
	if(puc_gas == 1)	○	-	-	-
	else	-	-	○	○
	else	-	○	-	-
Symbol		Range			
Input	puc_gas	0~5	1	0	0
	m_Chk_RangeNum()	0~2	1	0	0
	stp_GasInfo_addr>ut_2nd_alarm	0x00000000-0xFFFFFFFF	0	0xDDDDDDDD	0
Output	luc_flg	0~2	1	0	0
Judgment					

m_Chk_Range3rdAlarm

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	4
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3	case4
Root	if(stp_GasInfo_addr->ul_3rd_alarm != M_OFF_VAL)	○		○	○
	if(puc_gas == 1)	○	-	-	-
	else	-	-	○	○
	else	-	○	-	-
	Symbol	Range			
Input	puc_gas	0~5	1	0	5
	m_Chk_RangeNum()	0~2	1	0	2
	stp_GasInfo_addr->ul_3rd_alarm	0x00000000~0xFFFFFFFF	0	0x00000000	0xFFFFFFFF
	luc_flg	0~2	1	0	2
Output					
Judgment					

m_Chk_RangeAlarm

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3
Root	None	-	-	-
	Symbol	Range		
Input	puc_gas	0~5	0	4
	m_Chk_Range2ndAlarm()	0~2	0	1
	m_Chk_Range2ndAlarm()	0~2	0	1
	m_Chk_Range3rdAlarm()	0~2	0	1
	m_Chk_Range3rdAlarm()	0~2	0	1
	m_Chk_Range2ndAlarm()	0~2	0	1
Output	luc_ars	0~2	0	1
Judgment				

m_Chk_RangeCalc

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3
Root	None	-	-	-
	Symbol	Range		
Input	puc_gas	0~5	0	4
	m_Chk_RangeFSCalc()	0~2	0	1
	m_Chk_RangeDigitCalc()	0~2	0	1
	m_Chk_RangeZeroCalc()	0~2	0	1
	m_Chk_RangeSpanCalc()	0~2	0	1
	m_Chk_RangeSpanCalc()	0~2	0	1
Output	luc_ars	0~2	0	1
Judgment				

m_Chk_RangeDigitCalc

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	4
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3	case4
Root	if(puc_gas != DataStructConst_IR_GAS_CH stp_GasInfo_addr->uc_gas_comb != DataStructConst_IR_GAS_NUM)	○	○	-	○
	if(stp_GasInfo_addr->ul_digit != GasTableDefData[puc_gas][stp_GasInfo_addr->uc_gas_comb]_ul_digit)	○	-	-	○
	else	-	○	-	-
	else	-	-	○	-
	Symbol	Range			
	puc_gas	0~5	0	0	4
Input	stp_GasInfo_addr->uc_gas_comb	0~30	29	0	1
	stp_GasInfo_addr->ul_digit	0~501	0	1	500
	luc_flg	0~1	1	0	1
	luc_flg	0~1	1	0	1
Output					
Judgment					

m_Chk_RangeFloat

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3
Root	if((pfl_chk_data < pfl_min) (pfl_max < pfl_chk_data))	○	-	○
	else	-	○	-
	Symbol	Range		
Input	pfl_chk_data	-69~343.3	-69.9	343.3
	pfl_min	-9999~66	66	-9999
	pfl_max	-31~9999	-30.9	9999
Output	luc_flg	0~1	1	0
Judgment				

m_Chk_RangeFSCalc

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	4
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3	case4
Root	if(puc_gas != DataStructConst_IR_GAS_CH stp_GasInfo_addr->uc_gas_comb != DataStructConst_IR_GAS_NUM)	○	○	-	○
	if(stp_GasInfo_addr->ul_full_scale != GasTableDefData[puc_gas][stp_GasInfo_addr->uc_gas_comb]_ul_full_scale)	○	-	-	-
	else	-	○	-	-
	else	-	-	○	-
	Symbol	Range			
	puc_gas	0~5	0	0	4
Input	stp_GasInfo_addr->uc_gas_comb	0~29	29	0	1
	stp_GasInfo_addr->ul_full_scale	0~100000	0	100	100000
	luc_flg	0~1	1	0	1
	luc_flg	0~1	1	0	1
Output					
Judgment					

m_Chk_RangeNum

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3
Root	if(pul_chk_data < pul_min) (pul_max < pul_chk_data)	○	-	-
	else	-	○	○
	Symbol	Range		
Input	pul_chk_data	0x00000000-0xFFFFFFFF	0x00000001	0xFFFFFFFF
	pul_min	0x00000000-0xFFFFFFFF	0xFFFFFFFF	0x00000001
	pul_max	0x00000000-0xFFFFFFFF	0xFFFFFFFF	0xFFFFFFFF
Output	luc_flg	0,1	1	0
Judgment				

m_Chk_RangeSpanCalc

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	4
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3	case4
Root	if(puc_gas != DataStructConst_IR_GAS_CH stp_GasInfo_addr->uc_gas_comb != DataStructConst_IR_GAS_NUM)	○	-	○	○
	else	-	○	-	-
	Symbol	Range			
Input	puc_gas	0-5	0	4	5
	m_Chk_RangeFloat()	0-2	1	0	2
	stp_GasInfo_addr->uc_gas_comb	0-30	29	1	30
	stp_GasInfo_addr->uc_gas_comb	0-30	29	1	30
Output	luc_flg	0-2	1	0	2
Judgment					

m_Chk_RangeStelAlarm

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3
Root	if(stp_GasInfo_addr->ul_stel_alarm != M_OFF_VAL)	○	-	○
	else	-	○	-
	Symbol	Range		
Input	puc_gas	0-5	0	4
	m_Chk_RangeNum()	0-2	1	0
	stp_GasInfo_addr->ul_stel_alarm	0x00000000-0xFFFFFFFF	0x00000000	0xFFFFFFFF
	stp_GasInfo_addr->ul_stel_alarm	0x00000000-0xFFFFFFFF	0x00000000	0xFFFFFFFF
Output	luc_flg	0-2	1	0
Judgment				

m_Chk_RangeTwaAlarm

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3
Root	if(stp_GasInfo_addr->ul_twa_alarm != M_OFF_VAL)	○	-	○
	else	-	○	-
	Symbol	Range		
Input	puc_gas	0-5	0	4
	m_Chk_RangeNum()	0-1	1	0
	stp_GasInfo_addr->ul_twa_alarm	0x00000000-0xFFFFFFFF	0	0xFFFFFFFF
	stp_GasInfo_addr->ul_twa_alarm	0x00000000-0xFFFFFFFF	0	0xFFFFFFFF
Output	luc_flg	0	1	0
Judgment				

m_Chk_RangeZeroCalc

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	4
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3	case4
Root	if(puc_gas != DataStructConst_IR_GAS_CH stp_GasInfo_addr->uc_gas_comb != DataStructConst_IR_GAS_NUM)	○	-	○	○
	else	-	○	-	-
	Symbol	Range			
Input	puc_gas	0-5	0	4	5
	m_Chk_RangeFloat()	0-2	1	0	2
	stp_GasInfo_addr->uc_gas_comb	0-30	29	1	30
	stp_GasInfo_addr->uc_gas_comb	0-30	29	1	30
Output	luc_flg	0-2	1	0	2
Judgment					

m_Set_FailCode

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3
Root	None	-	-	-
	Symbol	Range		
Input	pvs_code	0-144	0	143
Output	stp_status->uc_state_error_code[0]	0x30,0x31	0x30	0x31
	stp_status->uc_state_error_code[1]	0x30-0x34	0x30	0x34
	stp_status->uc_state_error_code[2]	0x30-0x34	0x30	0x33
Judgment				

Unit Test Specification

Project name	GX-Force
File name	func_confirmation_beep.c

FuncConfirmationBeep_1sec_interrupt

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	6
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3	case4	case5	case6
Root	if(FlowMain_Get_ModeStatus() == FlowMain_MEASURE_MODE_NUMBER FlowMain_Get_ModeStatus() == FlowMain_DISP_MODE_NUMBER)	○	○	○	-	-	-
	if(uss_beep_count == 0)	○	○	-	-	-	-
	if(stp_data->uc_beep_time == 0)	○	-	-	-	-	-
	else	-	○	-	-	-	-
	else	-	-	○	-	-	-
	else	-	-	-	○	○	○
	Symbol	Range					
Input	FlowMain_Get_ModeStatus()	0~8	1	1	1	0	7
	uss_beep_count	0~5941	0	0	5940	0	0
	stp_data->uc_beep_time	0~100	0	99	0	0	100
Output	uss_beep_count	0~5941	30	5940	5939	0	0
Judgment							

FuncConfirmationBeep_Clr_ActiveFlg

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case2
Root	for(luc_i=0; luc_i<HDDDEF_GAS_MAX; luc_i++)	○	○	○
	if((stp_GasInfo_addr+luc_i)->uc_nci_active_flg != FUNC_BEEP_NCI_FLG_OFF)	-	○	○
	else	○	-	-
	Symbol	Range		
Input	(stp_GasInfo_addr+luc_i)->uc_nci_active_flg	0~3	0	2
Output	(stp_GasInfo_addr+luc_i)->uc_nci_active_flg	0	0	0
Judgment				

FuncConfirmationBeep_Update_AlarmActiveFlg

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	6
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3	case4	case5	case6
Root	if((stp_data->uc_beep_select == M_BEEP_ALM) (stp_data->uc_beep_select == M_BEEP_B_C_A))	○	○	○	○	-	-
	for(luc_i=0; luc_i<HDDDEF_GAS_MAX; luc_i++)	○	○	○	○	-	-
	if(((stp_GasInfo_addr+luc_i)->uc_gas_comb != 0x00) && (!((stp_denst+luc_i)->uc_state_trb & (DataStructConst_S_FAIL_INS DataStructConst_S_FAIL_SEN))))	○	○	○	-	-	-
	if((luc_i != DataStructConst_CO_CAN_H2_H2_CH) ((stp_GasInfo_addr+luc_i)->uc_gas_comb != DataStructConst_CO_CAN_H2_GAS_NUM))	○	○	-	-	-	-
	if((stp_denst+luc_i)->uc_alarm_lat != 0x00)	○	-	-	-	-	-
	else	-	○	-	-	-	-
	else	-	-	○	-	-	-
	else	-	-	-	○	-	-
	if(luc_flg == M_ON)	○	-	-	-	-	-
	else	-	○	○	-	-	-
	else	-	-	-	-	○	○
	Symbol	Range					
Input	stp_data->uc_beep_select	0~7	6	6	6	0	7
	(stp_GasInfo_addr+luc_i)->uc_gas_comb	0~30	3	3	29	0	30
	(stp_denst+luc_i)->uc_state_trb	0x00~0xFF	0x00	0x00	0x00	0xFF	0xFF
	(stp_denst+luc_i)->uc_alarm_lat	0x00~0xFF	0xFF	0x00	0x00	0x00	0xFF
	None	-	-	-	-	-	-
Judgment							

FuncConfirmationBeep_Update_BumpCalActiveFlg

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	4
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3	case4	
Root	if((stp_GasInfo_addr+puc_ch)->uc_nci_active_flg != FUNC_BEEP_NCI_FLG_OFF)	○	○	-	○	
	if(stp_data->uc_nci_download_flg == M_ON)	○	-	-	-	
	else	-	○	-	○	
	else	-	-	○	-	
	Symbol	Range				
Input	(stp_GasInfo_addr+puc_ch)->uc_nci_active_flg	0~3	2	2	0	3
	stp_data->uc_nci_download_flg	0~2	1	0	0	2
	puc_ch	0~5	0	0	4	5
Output	(stp_GasInfo_addr+puc_ch)->uc_nci_active_flg	0~3	2	0	0	3
Judgment						

FuncConfirmationBeep_Update_DownloadActiveFlg

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3	
Root	for(luc_i=0; luc_i<HDDDEF_GAS_MAX; luc_i++)	○	○	○	
	if((stp_GasInfo_addr+luc_i)->uc_nci_active_flg == FUNC_BEEP_NCI_FLG_DL)	○	-	-	
	else	-	○	○	
	Symbol	Range			
Input	(stp_GasInfo_addr+luc_i)->uc_nci_active_flg	0~3	2	0	3
Output	(stp_GasInfo_addr+luc_i)->uc_nci_active_flg	0~3	0	0	3
Judgment					

FuncConfirmationBeep_Update_LimitActiveFlg

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	5
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3	case4	case5
Root	if((stp_data->uc_beep_select == M_BEEP_B_C) (stp_data->uc_beep_select == M_BEEP_B_C_A))	○	○	○	-	-
	if((stp_data->uc_bump_lmt_set == M_ON)	○	○	-	-	-
	if(FuncBumpLimit_Get_ChkBumpLimitExpired() == M_ON	○	-	-	-	-
	else	-	○	-	-	-
	else	-	-	○	-	-
	if(FuncCalLimit_Get_CalLimitOnOff() == M_ON)	○	○	-	-	-
	if(FuncCalLimit_Get_ChkCalLimitExpired() == M_ON)	○	-	-	-	-
	else	-	○	-	-	-
	else	-	-	○	-	-
	if(luc_flg == M_ON)	○	-	-	-	-
	else	-	○	○	-	-
	else	-	-	-	○	○
	Symbol	Range				
Input	stp_data->uc_beep_select	0~7	6	6	0	7
	stp_data->uc_bump_lmt_set	0~2	1	1	0	2
	FuncBumpLimit_Get_ChkBumpLimitExpired()	0~2	1	0	0	2
	FuncCalLimit_Get_CalLimitOnOff()	0~2	1	1	0	2
	FuncCalLimit_Get_ChkCalLimitExpired()	0~2	1	0	0	2
Output	None	-	-	-	-	-
Judgment						

m_Set BeepEvent

	Responsible	Last update
Coding	Ikarashi	
Test	Taki	
Judgment	Ikarashi	

Infinite loop	None
Verification pass	9

Judgment	

		case1	case2	case3	case4	case5	case6	case7	case8	case9	
Root	switch(stp_data->uc_beep_select)	○	○	○	○	○	○	-	-	-	
	case M_BEEP_LED	○	-	-	-	-	-	-	-	-	
	case M_BEEP_BUZZ	-	○	-	-	-	-	-	-	-	
	case M_BEEP_ALL	-	-	○	-	-	-	-	-	-	
	case M_BEEP_B_C	-	-	-	○	-	-	-	-	-	
	case M_BEEP_ALM	-	-	-	○	○	-	-	-	-	
	case M_BEEP_B_C_A	-	-	-	○	○	○	○	-	-	
	for(luc_i=0; luc_i<HDDEF_GAS_MAX; luc_i++)	-	-	-	○	○	○	○	-	-	
	if((stp_GasInfo_addr+luc_i)->uc_gas_comb != 0x00)	-	-	-	○	○	○	-	-	-	
	if((luc_i != DataStructConst_CO_CAN_H2_H2_CH) ((stp_GasInfo_addr+luc_i)->uc_gas_comb != DataStructConst_CO_CAN_H2_GAS_NUM))	-	-	-	○	○	-	-	-	-	
	if((stp_GasInfo_addr+luc_i)->uc_nci_active_flg != FUNC_BEEP_NCI_FLG_OFF)	-	-	-	○	-	-	-	-	-	
	else	-	-	-	-	○	-	-	-	-	
	else	-	-	-	-	-	○	-	-	-	
	else	-	-	-	-	-	-	○	-	-	
	if(luc_flg == M_ON)	-	-	-	○	-	-	-	-	-	
	else	-	-	-	-	○	-	-	-	-	
	default	-	-	-	-	-	-	-	○	○	
	Symbol	Range									
Input	stp_data->uc_beep_select	0~7	1	2	3	4	5	6	6	0	7
	(stp_GasInfo_addr+luc_i)->uc_gas_comb	0~30	0	0	0	3	3	29	0	0	30
	(stp_GasInfo_addr+luc_i)->uc_nci_active_flg	0~3	0	0	0	2	0	0	0	0	3
Output	None	-	-	-	-	-	-	-	-	-	-
Judgment											

m_Set NciActiveFlg

	Responsible	Last update
Coding	Ikarashi	
Test	Taki	
Judgment	Ikarashi	

Infinite loop	None
Verification pass	4

Judgment	

		case1	case2	case3	case4
Root	for(luc_i=0; luc_i<HDDDEF_GAS_MAX; luc_i++)	○	○	○	○
	if((stp_GasInfo_addr+luc_i)->uc_gas_comb != 0x00)	○	○	-	○
	if((luc_i != DataStructConst_CO_CAN_H2_H2_CH) ((stp_GasInfo_addr+luc_i)->uc_gas_comb != DataStructConst_CO_CAN_H2_GAS_NUM))	○	-	-	-
	else	-	○	-	○
	else	-	-	○	-
Symbol		Range			
Input	(stp_GasInfo_addr+luc_i)->uc_gas_comb	3	29	0	30
Output	(stp_GasInfo_addr+luc_i)->uc_nci_active_flg	1	1	1	1
Judgment					

Unit Test Specification

Project name	GX-Force
File name	func_ec_sensor.c

ECSENSOR_Calc_AD_Main

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	7
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1	case2
Root	if(uc_m_sub_ec_chk_flg == M_ON)		○	○
	Symbol	Range		
Input	stp_status->fl_ec_chk_raw_data[0]	0	0	0
	Ad12bit_Calc_Voltage()	0	0	0
	uc_m_sub_ec_chk_flg	1,2	1	2
	uc_m_ec_chk_data[2]	0	0	0
	uc_m_ec_chk_data[9]	0	0	0
Output	stp_status->fl_ec_chk_raw_data[0]	0	0	0
	stp_sub_ad->fl_ec_chk_data[0]	0	0	0
	uc_m_sub_ec_chk_flg	0,2	0	2
	fl_m_ec_chk_difference	0	0	0
Judgment				

Unit Test Specification

Project name	GX-Force
File name	func_ec_sensor_chk.c

FuncECSensorChk_10msec_interrupt

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	7
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3	case4	case5	case6	case7
Root	for(luc_i=0; luc_i<2; luc_i++)	○	○	○	○	○	○	○
	if(uss_m_start_chk_count[luc_i])	-	-	○	-	-	○	○
	if(uss_m_start_chk_count[luc_i] == 0)	-	-	○	-	-	-	-
	else	-	-	-	-	-	○	○
	else	○	○	-	○	○	○	-
	for(luc_j=0; luc_j<3; luc_j++)	○	○	○	○	○	○	○
	if(uss_m_chk_count[luc_i])	○	○	○	○	-	○	○
	if(uss_m_chk_count[luc_i] == 1)	○	○	○	○	-	-	-
	if(luc_ans != 0x00)	-	○	○	-	-	-	-
	if(uss_m_chk_retry_count[luc_i])	-	○	○	-	-	-	-
	if(uss_m_chk_retry_count[luc_i] == 0)	-	○	-	-	-	-	-
	else	-	-	○	-	-	-	-
	if(luc_i == 0)	-	-	○	-	-	-	-
	else	-	-	○	-	-	-	-
	else	○	-	-	-	-	-	-
	else	-	-	-	○	-	-	-
	else	-	-	-	-	-	○	○
	else	-	-	-	-	○	-	-
	Symbol	Range						
Input	uss_m_start_chk_count[luc_i]	0	0	1	0	0	2600	2601
	uss_m_chk_count[luc_i]	0~301	1	1	1	0	300	301
	m_chk_AD0	0x00~0xFF	0x08	0x08	0x00	0x00	0x00	0xFF
	uss_m_chk_retry_count[luc_i]	0~4	0	1	2	3	0	4
Output	uss_m_chk_retry_count[0]	0~4	0	0	1	3	3	0
	uss_m_chk_wait[luc_i]	0	0	0	0	0	0	0
	uss_m_chk_retry_count[luc_i]	0	0	0	0	0	0	0
	uss_m_chk_retry_count[luc_i]	0	0	0	0	0	0	0
Judgment								

FuncECSensorChk_1sec_interrupt

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	6
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3	case4	case5	case6
Root	if(stp_sub_ad>fl_ec_ad_data[0] >= M_O2_CHK_START_AD)	○	○	○	○	-	○
	if((FlowMain_Get_ModeStatus() == FlowMain_MEASURE_MODE_NUMBER) (FlowMain_Get_ModeStatus() == FlowMain_DISP_MODE_NUMBER))	○	○	○	-	-	-
	if(uss_m_chk_wait[0] == 0)	○	○	-	-	-	-
	if(uss_m_chk_retry_count[0] == 0)	○	-	-	-	-	-
	else	-	○	-	-	-	-
	else	-	-	○	-	-	-
	else	-	-	-	○	-	○
	else	-	-	-	-	○	-
	if(uss_m_chk_wait[0])	○	○	○	○	-	○
	else	-	-	-	-	○	-
	for(luc_i=1; luc_i<3; luc_i++)	○	○	○	○	○	○
	if(uss_m_chk_wait[luc_i])	-	-	○	○	-	○
	else	○	○	-	-	○	-
	if((ZIPCNumSet_Get_AlarmFlg() == M_OFF) && (FlowMain_Get_ModeStatus() <= FlowMain_DISP_MODE_NUMBER))	○	-	-	-	○	-
	if(uss_m_chk_retry_count[luc_i] == 0)	○	-	-	-	-	-
	else	-	-	-	-	○	-
	else	-	○	-	-	-	-
	Symbol	Range					
Input	stp_sub_ad>fl_ec_ad_data[0]	800~801	800	800	800	-800	801
	uss_m_chk_wait[luc_i]	0~901	0	0	900	0	901
	uss_m_chk_retry_count[luc_i]	0~4	0	3	0	3	4
	FlowMain_Get_ModeStatus()	0~8	2	2	2	7	8
	ZIPCNumSet_Get_AlarmFlg()	0~2	0	1	1	0	2
Output	uss_m_chk_retry_count[luc_i]	0~4	3	3	0	3	4
	uss_m_chk_wait[luc_i]	0~900	0	0	899	0	900
Judgment							

FuncECSensorChk_Set_StartChk

	Responsible	Last update	Infinite loop	None
Coding	Karashi		Verification pass	1
Test	Taki			
Judgment	Karashi		Judgment	

Root	None	case1
Symbol		-
Input	None	-
Output	uss_m_start_chk_count[0]	2600
	uss_m_start_chk_count[1]	1100
Judgment		

m_Chk_AD

	Responsible	Last update	Infinite loop	None
Coding	Karashi		Verification pass	13
Test	Taki			
Judgment	Karashi		Judgment	

Root	if(puc_flg == 0)	case1	case2	case3	case4	case5	case6	case7	case8	case9	case10	case11	case12	case13	
	if((stp_GasInb_addr+1)->uc_gas_comb != 0x00 && ((stp_denst+1)->uc_state_trb & (DataStructConst_S_FAIL_INS DataStructConst_S_FAIL_SEN)))	○	-	○	○	-	-	-	-	-	○	○	-	○	
	if(tc_m_chk_ad_min[0] > stp_sub_ad->fl_ec_chk_data[0])	○	-	○	○	-	-	-	-	-	○	○	-	○	
	else if(puc_flg == 1)	-	○	-	-	-	○	○	○	○	-	-	○	-	
	if((stp_GasInb_addr+2)->uc_gas_comb != 0x00 && ((stp_denst+2)->uc_state_trb & (DataStructConst_S_FAIL_INS DataStructConst_S_FAIL_SEN)))	-	○	-	-	-	-	-	-	-	-	-	-	-	
	if((stp_GasInb_addr+2)->uc_gas_comb == DataStructConst_SINGLE_H2S_GAS_NUM)	-	-	-	-	-	○	○	○	○	-	-	○	-	
	else	-	○	-	-	-	-	○	○	○	-	-	○	-	
	if(tc_m_chk_ad_min[luc_flg] > stp_sub_ad->fl_ec_chk_data[luc_flg])	-	○	-	-	-	-	-	-	-	-	-	-	-	
	if((stp_GasInb_addr+3)->uc_gas_comb != 0x00 && ((stp_denst+3)->uc_state_trb & (DataStructConst_S_FAIL_INS DataStructConst_S_FAIL_SEN)))	-	-	-	-	-	-	-	-	-	-	-	-	-	
	if(tc_m_chk_ad_min[1] > stp_sub_ad->fl_ec_chk_data[1])	-	-	-	-	-	-	-	-	-	-	-	-	-	
	else	-	-	-	-	○	-	-	-	-	-	-	-	-	
	Symbol	Range													
	Input	puc_flg	0~2	0	1	0	0	2	1	1	1	1	0	0	1
uc_gas_comb		0~29	1	1	0	1	1	0	1	2	3	29	0	0	29
uc_state_trb		0~255	0	0	0	255	0	0	255	0	0	0	255	0	0
fl_ec_chk_data[0]		-800~800	0	0	0	0	0	0	0	0	0	0	-800	0	800
fl_ec_chk_data[1]		0~800	0	0	0	0	0	0	0	0	0	0	0	800	0
Output	luc_ans	0~2	1	2	1	1	0	2	2	2	2	1	1	2	0
Judgment															

m_Set_ECSensorChk

	Responsible	Last update	Infinite loop	None
Coding	Karashi		Verification pass	4
Test	Taki			
Judgment	Karashi		Judgment	

Root	switch(puc_flg)		case1	case2	case3	case4
			○	○	○	○
	case 0		○	○	-	-
	case 1		-	○	-	-
	case 2		-	-	○	-
	default		-	-	-	○
Symbol			Range			
Input	puc_flg		0	1	2	3
Output	uss_m_chk_count[0]		300	300	300	300
	uss_m_chk_count[1]		0	300	300	300
Judgment						

m_Set_Err

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	5
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3	case4	case5
Root	if(stp_GasInfo_addr+DataStructConst_CO_CAN_H2_H2_CH)->uc_gas_comb == DataStructConst_CO_CAN_H2_GAS_NUM)	-	-	-	-	-
	if(puc_flg & (0x01<<(DataStructConst_CO_CAN_H2_H2_CH - DataStructConst_O2_GAS_CH)))	-	-	-	-	-
	if(stp_GasInfo_addr+DataStructConst_CO_CAN_H2_CO_CO_CH)->uc_gas_comb == DataStructConst_CO_CAN_H2_GAS_NUM)	-	-	-	-	-
	if(puc_flg & (0x01<<(DataStructConst_CO_CAN_H2_CO_CO_CH - DataStructConst_O2_GAS_CH)))	-	-	-	-	-
	for(luc_:=DataStructConst_O2_GAS_CH;luc_<HODEF_GAS_MAX;luc_++)	O	O	O	O	O
	if(puc_flg & (0x01<<(luc_ - DataStructConst_O2_GAS_CH)))	-	O	O	O	-
	if(FlowMain_Get_ModeStatus() == FlowMain_INITIAL_MODE_NUMBER FlowMain_Get_ModeStatus() == FlowMain_MEASURE_MODE_NUMBER FlowMain_Get_ModeStatus() == FlowMain_DISP_MODE_NUMBER)	-	-	O	O	-
	if((stp_GasInfo_addr+luc_)->uc_gas_comb != 0x00)	-	-	O	O	-
	switch(luc_){	-	-	O	O	-
	case 1	-	-	O	O	-
	case 2	-	-	O	O	-
	case 3	-	-	-	-	-
	default	-	-	-	-	-
Symbol		Range				
Input	puc_flg	0x00-0xFF	0x08	0x02	0x01	0xFF
	(stp_GasInfo_addr+luc_)->uc_gas_comb	0~30	3	3	0	29
	FlowMain_Get_ModeStatus()	0~8	0	7	0	0
						8
Output	None	-	-	-	-	-
Judgment						

m_Set_StartInitialChk

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	4
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3	case4
Root	if(puc_flg == 0)	O	-	-	-
	else	-	O	O	O
	if((stp_GasInfo_addr + 4)->uc_gas_comb != DataStructConst_IR_GAS_NUM)	-	O	-	O
	else	-	-	O	-
Symbol		Range			
Input	puc_flg	0~2	0	1	2
	(stp_GasInfo_addr + 4)->uc_gas_comb	0~29	0	29	3
Output	uss_m_chk_retry_count[0]	3	3	3	3
	uss_m_chk_retry_count[1]	0~3	0	3	3
Judgment					

Unit Test Specification

Project name	GX-Force
File name	func_lunch_break.c

FuncLunchBreak_Get_LunchBreakFramData

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1	case2	case3
Root	if((luc_ack & 0x0f) && (luc_ack & 0xf0))		○	○	○
	if((luc_ack & 0x0f) && (luc_ack & 0xf0))		-	-	○
	else		-	-	-
	else		○	○	-
	Symbol	Range			
Input	DataFram_LunchBreak_Load	0x00~0xFF	0xF0	0x0F	0xFF
Output	ucs_m_lunch_status_flg	0,1	0	0	1
	luc_ack	0x0F~0xFF	0xF0	0x0F	0xFF
Judgment					

FuncLunchBreak_Get_LunchBreakOnOff

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1
Root	None		-
	Symbol	Range	
Input	None	-	-
Output	stp_data->uc_lunch_onoff	0	0
Judgment			

FuncLunchBreak_Get_StatusFlg

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1
Root	None		-
	Symbol	Range	
Input	None	-	-
Output	ucs_m_lunch_status_flg	0	0
Judgment			

FuncLunchBreak_Set_LunchBreakData

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1	case2	case3
Root	if((ucs_m_resume_onoff == M_ON) && (ucs_m_lunch_status_flg == M_OK))		○	-	-
	for(luc_i=0; luc_j<HDDEF_GAS_MAX; luc_i++)		○	-	-
	for(luc_j=0; luc_j<6; luc_j++)		○	-	-
	else		-	○	○
	for(luc_i=0; luc_j<HDDEF_GAS_MAX; luc_i++)		-	○	○
	Symbol	Range			
Input	ucs_m_resume_onoff	0~2	1	0	2
	ucs_m_lunch_status_flg	0~2	0	1	2
	stp_lb_data->st_param.st_each[luc_i].ul_pmin	0x00000000,0xFFFFFFFF	0xFFFFFFFF	0x00000000	0xFFFFFFFF
	stp_lb_data->st_param.st_each[luc_i].ul_pmax	0x00000000,0xFFFFFFFF	0xFFFFFFFF	0x00000000	0xFFFFFFFF
	stp_lb_data->st_param.st_each[luc_i].uc_pmin_flg	0~2	1	0	2
	stp_lb_data->st_param.st_each[luc_i].uc_pmax_flg	0~2	1	0	2
	stp_lb_data->st_param.st_each[luc_i].ul_60_total	0x00000000,0xFFFFFFFF	0xFFFFFFFF	0x00000000	0xFFFFFFFF
	stp_lb_data->st_param.st_each[luc_i].ul_ave	0x00000000,0xFFFFFFFF	0xFFFFFFFF	0x00000000	0xFFFFFFFF
	stp_lb_data->st_param.st_each[luc_i].ul_ave_total_cnt	0x00000000,0xFFFFFFFF	0xFFFFFFFF	0x00000000	0xFFFFFFFF
	stp_lb_data->st_param.st_each[luc_i].ul_twa	0x00000000,0xFFFFFFFF	0xFFFFFFFF	0x00000000	0xFFFFFFFF
Output	(stp_denst+luc_i)->ul_pmin	0x00000000,0xFFFFFFFF	0xFFFFFFFF	0x00000000	0x00000000
	(stp_denst+luc_i)->ul_pmax	0x00000000,0xFFFFFFFF	0xFFFFFFFF	0x00000000	0x00000000
	(stp_denst+luc_i)->uc_pmin_flg	1	1	1	1
	(stp_denst+luc_i)->uc_pmax_flg	1	1	1	1
	(stp_denst+luc_i)->uc_pmin_tim[luc_j]	99	99	99	99
	(stp_denst+luc_i)->uc_pmax_tim[luc_j]	99	99	99	99
	(stp_denst+luc_i)->ul_60_total	0x00000000,0xFFFFFFFF	0xFFFFFFFF	0x00000000	0x00000000
	(stp_denst+luc_i)->ul_ave	0x00000000,0xFFFFFFFF	0xFFFFFFFF	0x00000000	0x00000000
	(stp_denst+luc_i)->ul_ave_total_cnt	0x00000000,0xFFFFFFFF	0xFFFFFFFF	0x00000000	0x00000000
	(stp_denst+luc_i)->ul_twa	0x00000000,0xFFFFFFFF	0xFFFFFFFF	0x00000000	0x00000000
Judgment					

FuncLunchBreak_Set_LunchBreakFramData

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	4
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3	case4
Root	if((stp_status->us_main_state & (DataStructConst_FAIL_FRM DataStructConst_FAIL_ROM DataStructConst_FAIL_RAM)) == 0)	○	○	-	-
	if((FlowMain_Get_ModeStatus() == FlowMain_MEASURE_MODE_NUMBER) (FlowMain_Get_ModeStatus() == FlowMain_DISP_MODE_NUMBER))	○	-	-	-
	for(luc_i=0; luc_i<HDDDEF_GAS_MAX; luc_i++)	-	-	-	-
	for(luc_j=0; luc_j<6; luc_j++)	-	-	-	-
	else	-	○		-
	else	-	-	○	○
	Symbol	Range			
Input	stp_status->us_main_state	0x0000,0xFFFF	0x0000	0x0000	0xFFFF
	FlowMain_Get_ModeStatus()	0~8	1	0	7
	(stp_denst+luc_i)->ul_pmin	0x00000000,0xFFFFFFFF	0x00000000	0xFFFFFFFF	0x00000000
	(stp_denst+luc_i)->ul_pmax	0x00000000,0xFFFFFFFF	0x00000000	0xFFFFFFFF	0x00000000
	(stp_denst+luc_i)->uc_pmin_flg	0~2	0	1	0
	(stp_denst+luc_i)->uc_pmax_flg	0~2	0	1	0
	(stp_denst+luc_i)->uc_pmin_tim[luc_j]	0~100	0	99	0
	(stp_denst+luc_i)->uc_pmax_tim[luc_j]	0~100	0	99	0
	(stp_denst+luc_i)->ul_60_total	0x00000000,0xFFFFFFFF	0x00000000	0xFFFFFFFF	0x00000000
	(stp_denst+luc_i)->ul_ave	0x00000000,0xFFFFFFFF	0x00000000	0xFFFFFFFF	0x00000000
	(stp_denst+luc_i)->ul_ave_total_cnt	0x00000000,0xFFFFFFFF	0x00000000	0xFFFFFFFF	0x00000000
	(stp_denst+luc_i)->ul_twa	0x00000000,0xFFFFFFFF	0x00000000	0xFFFFFFFF	0x00000000
Output	luc_status	0,1	0	1	1
	stp_lb_data->st_param.st_each[luc_i].ul_pmin	0	0	0	0
	stp_lb_data->st_param.st_each[luc_i].ul_pmax	0	0	0	0
	stp_lb_data->st_param.st_each[luc_i].uc_pmin_flg	0	0	0	0
	stp_lb_data->st_param.st_each[luc_i].uc_pmax_flg	0	0	0	0
	stp_lb_data->st_param.st_each[luc_i].uc_pmin_tim[luc_j]	0	0	0	0
	stp_lb_data->st_param.st_each[luc_i].uc_pmax_tim[luc_j]	0	0	0	0
	stp_lb_data->st_param.st_each[luc_i].ul_60_total	0	0	0	0
	stp_lb_data->st_param.st_each[luc_i].ul_ave	0	0	0	0
	stp_lb_data->st_param.st_each[luc_i].ul_ave_total_cnt	0	0	0	0
	stp_lb_data->st_param.st_each[luc_i].ul_twa	0	0	0	0
Judgment					

FuncLunchBreak_Set_OnOffFlg

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3
Root	None	-	-	-
	Symbol	Range		
Input	puc_flg	0~2	0	1
Output	ucs_m_resume_onoff	0~2	0	1
Judgment				

Unit Test Specification

Project name	GX-Force
File name	func_mainte_notice.c

FuncMainteNotice_Chk_MainteLimitDay

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	5
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1	case2	case3	case4	case5
Root	for(luc_i=0; luc_i<IHDDDEF_GAS_MAX; luc_i++)		○	○	○	○	○
	if(((stp_GasInfo_addr + luc_i)->uc_gas_comb != 0x00) && (!((stp_denst+luc_i)->uc_state_trb & (DataStructConst_S_FAIL_INS DataStructConst_S_FAIL_SEN))))		○	○	○	-	-
	if(luc_i != DataStructConst_CO_CAN_H2_H2_CH (stp_GasInfo_addr+luc_i)->uc_gas_comb != DataStructConst_CO_CAN_H2_GAS_NUM)		○	○	-	-	-
	if(lul_day == 0)		○	-	-	-	-
	else		-	○	-	-	-
	if(lus_ans > lul_day)		○	-	-	-	-
	else		-	○	-	-	-
	else		-	-	○	-	-
			-	-	-	○	○
	Symbol	Range					
Input	(stp_GasInfo_addr + luc_i)->uc_gas_comb	0~30	29	29	3	0	30
	(stp_denst+luc_i)->uc_state_trb	0x00~0xFF	0x00	0x00	0x00	0xFF	0xFF
	m_Calc_MainteLimitDay(&((stp_GasInfo_addr + luc_i)->uc_notice_date[0]), stp_data->us_mainte_notice_day)	0~1001	0	1	0	1000	1001
Output	lus_ans	0~1000	0	1	0	1000	1000
Judgment							

FuncMainteNotice_Chk_MainteNoticeLimitExpired

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3
Root	if(FuncMainteNotice_Chk_MainteLimitDay() == 0)	○	-	-
	else	-	○	○
	Symbol	Range		
Input	FuncMainteNotice_Chk_MainteLimitDay()	0	1000	1001
Output	ucs_mainte_limit_flg	1	0	0
Judgment				

FuncMainteNotice_Get_MainteLimitExpiredBehavior

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1
Root	None	-
	Symbol	Range
Input	None	-
Output	stp_data->uc_mainte_lmt_chk	0
Judgment		

FuncMainteNotice_Get_MainteNoticeLimitExpired

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1
Root	None	-
	Symbol	Range
Input	None	-
Output	ucs_mainte_limit_flg	0
Judgment		

FuncMainteNotice_Get_MainteNoticeOnOff

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3
Root	if((stp_data->uc_mainte_notice_onoff == M_ON) && !((stp_data->uc_exp_flg == DSC_TGT_JAPAN)) (stp_data->uc_exp_flg == DSC_TGT_JG)))	-	○	-
	else	○	-	○
	Symbol	Range		
Input	stp_data->uc_mainte_notice_onoff	0~2	0	1
	stp_data->uc_exp_flg	0~4	0	3
Output	luc_nas	0,1	0	1
Judgment				

FuncMainteNotice_Set_MainteNoticeReset

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1
Root	for(luc_i=0; luc_i<HDEF_GAS_MAX; luc_i++)	○
	Symbol	Range
Input	None	-
Output	stp_GasInfo_addr->uc_notice_date[0]	0
	stp_GasInfo_addr->uc_notice_date[1]	0
	stp_GasInfo_addr->uc_notice_date[2]	0
Judgment		

FuncMainteNotice_Set_MainteNoticeStart

	Responsible	Last update
Coding	Ikarashi	
Test	Taki	
Judgment	Ikarashi	

Infinite loop	None
Verification pass	4
Judgment	

		case1	case2	case3	case4
Root	for(luc_i=0; luc_i<HDEF_GAS_MAX; luc_i++)	○	○	○	○
	if((stp_GasInfo_addr->uc_notice_date[0] == 0) && (stp_GasInfo_addr->uc_notice_date[1] == 0) && (stp_GasInfo_addr->uc_notice_date[2] == 0))	○	-	-	-
	else	-	○	○	○
	if(luc_flg == M_ON)	○	-	-	-
	else	-	○	○	○
	Symbol	Range			
Input	stp_GasInfo_addr->uc_notice_date[0]	0	99	99	100
	stp_GasInfo_addr->uc_notice_date[1]	0	1	12	13
	stp_GasInfo_addr->uc_notice_date[2]	0	1	31	32
Output	stp_GasInfo_addr->uc_notice_date[0]	204	99	99	100
	stp_GasInfo_addr->uc_notice_date[1]	204	1	12	13
	stp_GasInfo_addr->uc_notice_date[2]	204	100	31	32
Judgment					

FuncMainteNotice_Set_MainteNoticeUpDate

	Responsible	Last update
Coding	Ikarashi	
Test	Taki	
Judgment	Ikarashi	

Infinite loop	None
Verification pass	3
Judgment	

		case1	case2	case3
Root	if(puc_gas_num >= HDEF_GAS_MAX)	-	-	○
	else	○	○	-
	Symbol	Range		
Input	puc_gas_num	0	4	5
Output	stp_GasInfo_addr->uc_notice_date[0]	0	0	0
	stp_GasInfo_addr->uc_notice_date[1]	0	0	0
	stp_GasInfo_addr->uc_notice_date[2]	0	0	0
Judgment				

m_Calc_MainteLimitDay

	Responsible	Last update
Coding	Ikarashi	
Test	Taki	
Judgment	Ikarashi	

Infinite loop	None
Verification pass	3
Judgment	

		case1	case2	case3
Root	if(lul_lmt_serial >= lul_nuw_serial)	○	-	○
	else	-	○	-
	Symbol	Range		
Input	puc_deadline_date	0	99	100
	pus_limit_day	0	1000	1001
	RTCTime_Chg_Day(luc_date[0])	36525	0	36526
	RTCTime_Chg_Day(luc_date[1])	0	36525	36526
Output	lul_ans_day	0	1000	1001
Judgment				

Unit Test Specification

Project name	GX-Force
File name	func_margin_chk.c

FuncMarginChk_Calc_SpanMargine

	Responsible	Last update
Coding	Ikarashi	
Test	Taki	
Judgment	Ikarashi	

[illegible]

Unit Test Specification

Project name	GX-Force
File name	func_o2_warm_up.c

O2WarmUp_Func_main

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	8
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3	case4	case5	case6	case7	case8
Root	if(!fl_temp_ad < M_TEMP_M_20c_mV)	○	-	-	-	-	-	-	-
	else if(!fl_temp_ad < M_TEMP_P_35c_mV)	-	○	○	-	-	-	-	-
	else if(!fl_temp_ad < M_TEMP_P_45c_mV)	-	-	-	○	○	-	-	-
	else if(!fl_temp_ad < M_TEMP_P_55c_mV)	-	-	-	-	-	○	○	-
	else	-	-	-	-	-	-	-	○
	Symbol	Range							
Input	Ad12bit_Calc_Voltage()	0	0	0	0	0	0	0	0
	stp_sub_ad->fl_temp_ad_data	0~249.08	192.37	192.38	233.95	233.96	241.51	241.52	249.07
	uss_m_ad_num	0	0	0	0	0	0	0	0
Output	fls_m_ad_data	0	0	0	0	0	0	0	0
	uc_m_temp_get_flg	0~4	0	1	1	2	2	3	4
	ucs_m_init_flg	0	0	0	0	0	0	0	0
Judgment									

O2WarmUp_Get_AD_data

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	2
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2
Root	None	-	-
	Symbol	Range	
Input	fls_m_ad_data	0,255	0
Output	fls_m_ad_data	0,255	0
Judgment			

O2WarmUp_Get_WarmFlg

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3
Root	None	-	-	-
	Symbol	Range		
Input	ucs_m_init_flg	0~2	0	1
Output	ucs_m_init_flg	0~2	0	1
Judgment				

O2WarmUp_Interval_10msec

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	7
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3	case4	case5	case6	case7
Root	if(ucs_m_init_flg != M_OFF)	○	-	○	○	○	○	○
	if(ucs_m_port_off_timer != 0)	○	-	-	○	○	○	○
	if(ucs_m_port_off_timer == 0)	○	-	-	-	○	○	○
	if(ucs_m_port_on_timer != 0)	○	-	○	○	-	○	○
	if(ucs_m_port_on_timer == 0)	○	-	○	○	-	-	○
	if(us_count_end_time != 0)	○	-	○	○	○	○	-
	Symbol	Range						
Input	ucs_m_init_flg	0,1	1	0	1	1	1	1
	ucs_m_port_off_timer	0~2	1	1	0	2	1	1
	ucs_m_port_on_timer	0~2	1	1	1	1	0	2
	us_count_end_time	0,1	1	1	1	1	1	0
Output	ucs_m_port_off_timer	0~6	6	1	6	6	0	6
	ucs_m_port_on_timer	0,1	0	1	0	0	0	1
	us_count_end_time	0,1	0	1	0	0	0	0
	ucs_m_approval_ad_flg	0,1	0	0	0	1	0	0
Judgment								

O2WarmUp_Set_AD

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

Root	if(ucs_m_approval_ad_flg == M_ON)		case1	case2	case3
	if(pus_data >= db_m_Threshold[uc_m_temp_get_flg])		○	-	○
	else		-	-	-
	if(++ucs_m_chk_count >= 2)		○	-	○
	if((ucs_m_app_count >= uc_m_Chk_Cmt[uc_m_temp_get_flg]) (us_count_end_time == 0))		○	-	-
	else		-	-	○
	Symbol		Range		
Input	pus_data	0	0	0	0
	uc_m_temp_get_flg	0	0	0	0
	ucs_m_app_count	0	0	0	0
	ucs_m_approval_ad_flg	1,2	1	2	1
	ucs_m_chk_count	0	0	0	0
	us_count_end_time	0,1	0	0	1
Output	ucs_m_app_count	0	0	0	0
	ucs_approval_ad_flg	0~2	0	2	0
	ucs_m_chk_count	0	0	0	0
	ucs_m_init_flg	0	0	0	0
	ucs_m_port_off_timer	0	0	0	0
	ucs_m_port_on_timer	0,144	144	0	0
	uss_m_ad_num	0	0	0	0
Judgment					

O2WarmUp_Set_Init

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

Root	None		case1
			-
	Symbol	Range	
Input	-		-
Output	ucs_m_approval_ad_flg	1	1
	ucs_m_init_flg	1	1
	ucs_m_port_off_timer	0	0
	ucs_m_port_on_timer	0	0
Judgment			

O2WarmUp_Set_InitRAM

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

Root	None		case1
			-
	Symbol	Range	
Input	-		-
Output	fis_m_ad_data	0	0
	uc_m_temp_get_flg	0	0
	ucs_m_app_count	0	0
	ucs_m_approval_ad_flg	0	0
	ucs_m_chk_count	0	0
	ucs_m_init_flg	0	0
	ucs_m_port_off_timer	0	0
	ucs_m_port_on_timer	0	1
	us_count_end_time	2000	2000
	uss_m_ad_num	0	0
Judgment			

m_O2WarmUp_Port_Term

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	2
Test	Taki			
Judgment	Ikarashi		Judgment	

Root	if(PORTA.PODR.BIT.B2 == 0U)		case1	case2
			○	-
	Symbol	Range		
Input	PORTA.PODR.BIT.B2	-	0	1
Output	PORTA.PODR.BIT.B2	0	1	1
Judgment				

Unit Test Specification

Project name	GX-Force
File name	func_ram_chk.c

f. Check_CopyRam

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

Root	if(lus_num == 0U)		case1	case2	case3
	else		-	○	-
			○	-	○
	Symbol	Range			
Input	memcmp()	-1~1	-1	0	1
Output	len_ans	0~2	1	0	1
Judgment					

f. Check_MainRam

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	4
Test	Taki			
Judgment	Ikarashi		Judgment	

Root	for(lus_loop=0U; lus_loop<F_CHECK_RAM_BUF_SIZE; lus_loop++)		case1	case2	case3	case4
	if((luc_num[0] != F_55_BIT) (luc_num[1] != F_AA_BIT))		-	-	-	-
	break		-	-	-	-
	else		○	○	○	○
	if(luc_check_main_address >= luc_end_address(pen_area))		-	○	○	○
	if(len_ans == FEN_RAMCHECK_ANS_SUB)		-	○	-	○
	else		○	-	○	-
	else		-	-	-	-
	Symbol	Range				
Input	pen_area	0,1	0	0	1	1
	luc_check_main_address	0x00000004~0x000FFFE0	0x00000004	0x00008660	0x0000EB00	0x000FFFE0
Output	lucp_check_point	0	0	0	0	0
	len_ans	0,2	2	0	2	2
Judgment						

f. Cyclic_CheckProcess

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	13
Test	Taki			
Judgment	Ikarashi		Judgment	

Root	switch(len_phase_flag)		case1	case2	case3	case4	case5	case6	case7	case8	case9	case10	case11	case12	case13
	case FEN_RAMCHECK_PHASE_START:		○	○	○	○	○	○	○	○	○	○	○	○	○
	case FEN_RAMCHECK_PHASE_SUB:		○	-	-	-	-	-	-	-	-	-	-	-	-
	if(len_chk == FEN_RAMCHECK_ANS_PASS)		-	○	○	-	-	-	-	-	-	-	-	-	-
	else		-	-	○	-	-	-	-	-	-	-	-	-	-
	case FEN_RAMCHECK_PHASE_MAIN:		-	-	-	○	○	○	-	-	-	-	-	-	-
	if(len_chk == FEN_RAMCHECK_ANS_PASS)		-	-	-	○	-	-	-	-	-	-	-	-	-
	else if(len_chk != FEN_RAMCHECK_ANS_SUB)		-	-	-	-	○	-	-	-	-	-	-	-	-
	else		-	-	-	-	-	○	-	-	-	-	-	-	-
	case FEN_RAMCHECK_PHASE_STACK:		-	-	-	-	-	-	○	○	○	-	-	-	-
	if(len_chk == FEN_RAMCHECK_ANS_PASS)		-	-	-	-	-	-	○	-	-	-	-	-	-
	else if(len_chk != FEN_RAMCHECK_ANS_SUB)		-	-	-	-	-	-	-	○	-	-	-	-	-
	else		-	-	-	-	-	-	-	-	○	-	-	-	-
	case FEN_RAMCHECK_PHASE_PASS:		-	-	-	-	-	-	-	-	-	○	-	-	-
	case FEN_RAMCHECK_PHASE_FAIL:		-	-	-	-	-	-	-	-	-	-	○	○	-
	if(luc_err_count >= F_ERR_RETRY_MAX)		-	-	-	-	-	-	-	-	-	-	○	-	-
	else		-	-	-	-	-	-	-	-	-	-	-	○	-
	default:		-	-	-	-	-	-	-	-	-	-	-	-	○
	Symbol	Range													
Input	len_phase_flag	0~7	1	2	2	3	3	3	4	4	4	5	6	6	7
	f. Check_CopyRam()	0,2	0	0	2	0	0	0	0	0	0	0	0	0	0
	f. Check_MainRam()	0~3	0	0	0	0	2	1	0	2	1	0	3	0	0
	luc_err_count	0,3	0	0	0	0	0	0	0	0	0	0	3	0	0
Output	luc_err_count	0,1	0	0	0	0	0	0	0	0	0	0	1	1	0
	len_phase_flag	0~6	2	3	6	4	3	6	5	4	6	0	2	2	0
	len_ans	0,1	1	1	1	1	1	1	1	1	1	2	1	1	0
Judgment															

f. Init_MainRam

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	2
Test	Taki			
Judgment	Ikarashi		Judgment	

Root			case1	case2
			-	-
	Symbol	Range		
Input	pen_area	0,1	0	1
Output	luc_check_main_address	0x00000004,0x0000EB00	0x00000004	0x0000EB00
Judgment				

FuncRamChk_Cyclic_100msecProcess

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	2
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2
Root	if(len_result == EN_RAMCHECK_RESULT_FAIL)	-	○
	else	○	-
	Symbol	Range	
Input	f_Cyclic_CheckProcess()	0~3	0 3
Output	None	-	-
Judgment			

FuncRamChk_Set_RamFailFlg

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3
Root	if(puc_flg == M_OK)	○	-	-
	else	-	○	○
	Symbol	Range		
Input	puc_flg	0~2		
Output	slp_status->us_main_state	0x0000,0x0008	0x0000	0x0008
Judgment				

FuncRamChk_Start_Check

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	2
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2
Root	if(len_phase_flag == FEN_RAMCHECK_PHASE_OFF)	○	-
	else	-	○
	Symbol	Range	
Input	len_phase_flag	0	6
Output	len_phase_flag	1	6
	fuc_err_count	0	0
Judgment			

FuncRamChk_Start_InitRamChk

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	2
Test	Taki			
Judgment	Ikarashi		Judgment	

Root		case1	case2	case3	case4	case5	
	for(iul_num=0U; iul_num<F_INIT_LOOP_MAX; iul_num++)				○		
	if((len_result == EN_RAMCHECK_RESULT_FAIL) (len_result == EN_RAMCHECK_RESULT_PASS))	○	○	○	-	○	
	else	-	-	-	○	-	
	if((len_result == EN_RAMCHECK_RESULT_FAIL) (len_result == EN_RAMCHECK_RESULT_PASS))	-	-	-	○	-	
	else	○	○	○	-	○	
	Symbol	Range					
Input	f_Cyclic_CheckProcess()	0~4	0	1	2	3	4
Output	iuc_errs	0,1	0	0	0	1	0
Judgment							

Unit Test Specification

Project name	GX-Force
File name	func_rom_chk.c

FuncRomChk_Chk_EndRomChk

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3	
Root	if(ucs_m_rom_chk_phase == M_ROM_CHK_OFF)	○	-	-	
	else	-	○	○	
	Symbol	Range			
Input	ucs_m_rom_chk_phase	0-4	0	3	4
Output	luc_ans	0,1	0	1	1
Judgment					

FuncRomChk_Get_SumNum

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1
Root	None	-
	Symbol	Range
Input	None	-
Output	uss_m_sum_num	0
Judgment		

FuncRomChk_process_RomChk

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	6
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3	case4	case5	case6	
Root	if(ucs_m_rom_chk_phase != M_ROM_CHK_OFF)	○	○	○	○	-	○	
	if(ucs_m_rom_chk_phase != M_ROM_CHK_END)	○	○	-	-	-	○	
	if(ucs_m_sum_area_phase == M_AREA_START)	○	-	-	-	-	-	
	else	-	○	-	-	-	○	
	if(ucs_m_sum_area_phase == M_AREA_END)	-	○	-	-	-	-	
	else	○	-	-	-	-	○	
	else	-	-	○	○	-	-	
	if(uss_m_sum_num != MAIN_Get_SumNum())	-	-	○	-	-	-	
	else	-	-	-	○	-	-	
	else	-	-	-	-	○	-	
	Symbol	Range						
Input	ucs_m_rom_chk_phase	0~4	1	1	3	3	0	4
	ucs_m_sum_area_phase	0~17	0	15	0	0	16	17
	uss_m_sum_num	0x0000,0xFFFF	0x0000	0x0000	0xFFFF	0x0000	0x0000	0xFFFF
Output	ucs_m_sum_area_phase	0~18	1	16	0	0	16	18
	uss_m_sum_num	0x0000,0xFFFF	0x0000	0x0000	0xFFFF	0x0000	0x0000	0x0000
	ucs_m_rom_chk_phase	0~4	2	3	0	0	0	4
	stp_status->us_main_state	0x0000,0x0010	0x0000	0x0000	0x0010	0x0000	0x0000	0x0000
Judgment								

FuncRomChk_Start_InitRomChk

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1
Root	None		-
	Symbol	Range	
Input	None	-	-
Output	None	-	-
Judgment			

FuncRomChk_Start_RomChk

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1
Root	None		-
	Symbol	Range	
Input	None	-	-
Output	ucs_m_rom_chk_phase	1	1
	ucs_m_sum_area_phase	0	0
Judgment			

m_Calc_RomSum

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1	case2	case3
Root	while(!sl_now_address >= 0)		○	○	○
	Symbol	Range			
Input	&puc_start[0]	0x00,0xFF	0x00	0x00	0xFF
	ppuc_end	0x00,0xFF	0x00	0xFF	0xFF
	pus_base	0x0000~0xFFFF	0x0000	0xFFFF	0xFF
Output	pus_base	-	Indefinite value	Indefinite value	Indefinite value
Judgment					

Unit Test Specification

Project name	GX-Force
File name	func_sdm.c

FuncSDM_Get_CombData

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1	case2	case3
Root	None		-	-	-
	Symbol	Range			
Input	puc_num	0~5	0	4	5
Output	ucs_m_sdm_disp_comb[puc_num]	0	0	0	0
Judgment					

FuncSDM_Get_ExCommandFlg

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1
Root	None		-
	Symbol	Range	
Input	None	-	-
Output	ucs_m_sdm_ex_command_flg	0	0
Judgment			

FuncSDM_Set_DispData

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1	case2	case3
Root	if(*puc_data_p == '0')		○	-	-
	for(luc_i=0; luc_i<5; luc_i++)		○	-	-
	else		-	○	○
	Symbol	Range			
Input	&ucs_m_sdm_disp_data[0]	0x00,0xFF	0x30	0x00	0xFF
Output	None	-	-	-	-
Judgment					

FuncSDM_Set_ExCommandData

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1
Root	None		-
	Symbol	Range	
Input	None	-	-
Output	None	-	-
Judgment			

FuncSDM_Set_ExCommandFig

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1	case2	case3
Root	if(puc_onoff == M_ON)		-	○	-
	else		○	-	○
	Symbol	Range			
Input	puc_onoff	0~2	0	1	2
Output	ucs_m_sdm_ex_command_fig	0,1	0	1	0
Judgment					

m_Dispatch_MaintenanceData

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	2
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1	case2
Root	None		-	-
	Symbol	Range		
Input	puc_data	0x00~0xFF	0x00	0xFF
Output	None	-	-	-
Judgment				

m_Dispatch_MeasurementData

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	4
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1	case2	case3	case4
Root	for(luc_i=0; luc_i<4; luc_i++)		○	○	○	○
	if(luc_unti == 0)		○	○	○	○
	else		-	-	-	-
	switch(luc_i)		○	○	○	○
	case 0		○	○	○	○
	case 1		○	○	○	○
	case 2		○	○	○	○
	case 3		○	○	○	○
	default		-	-	-	-
	if(luc_mes_dot != 0)		○	○	○	○
	else		-	-	-	-
	if(*puc_data == '1')		○	○	○	-
	else		-	-	-	○
	Symbol	Range				
Input	puc_data[3]	48,49	48	49	48	48
	puc_data[4]	48,49	49	49	48	48
	puc_data[11]	49,50	49	49	50	50
Output	stp_nl_disp->uc_lcd_mes_dot[luc_y]	0,32	32	32	0	0
	stp_nl_disp->uc_lcd_mes_blink[luc_y]	0,240	240	240	240	0
	stp_nl_disp->uc_lcd_mes_dot_blink[luc_y]	0,224	224	224	224	0
Judgment						

Unit Test Specification

Project name	GX-Force
File name	func_temp_warning.c

FuncTempWarning_10msec_interrupt

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	4
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3	case4	
Root	if(uls_out_temp_timer < M_TEMP_COUNT_MAX)		○	○	○	-
	else		-	-	-	○
	if(uls_out_temp_reset_timer < M_TEMP_COUNT_MAX)		○	○	○	-
	else		-	-	-	○
	if(uls_out_buzzer_timer < M_TEMP_COUNT_MAX)		○	○	○	-
	else		-	-	-	○
	if(ucs_out_buzzer_flg == M_ON)		○	○	-	-
	if(++uls_buzzer_count_timer >= M_BUZZER_COUNT)		-	○	-	-
	else		○	-	-	-
	else	-	-	○	○	
	Symbol	Range				
Input	uls_out_temp_timer	0~720001	0	720000	720000	720001
	uls_out_temp_reset_timer	0~720001	0	720000	720000	720001
	uls_out_buzzer_timer	0~720001	0	720000	720000	720001
	ucs_out_buzzer_flg	0~2	1	1	0	2
	uls_buzzer_count_timer	0~500	0	499	499	500
Output	None	-	-	-	-	-
Judgment						

FuncTempWarning_Chk_OutOfRange

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	6
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1	case2	case3	case4	case5	case6
Root	if(ucs_out_range_flg == M_ON)		○	-	-	-	-	-
	if((M_TEMP_RESET_MAX <= stp_sub_ad->fl_disp_temp) (M_TEMP_RESET_MIN >= stp_sub_ad->fl_disp_temp))		○	-	-	-	-	-
	else		-	○	-	-	-	-
	if(uls_out_temp_reset_timer >= M_TEMP_RESET_COUNT)		-	○	-	-	-	-
	else		○	-	-	-	-	-
	else		-	-	○	○	○	○
	if((M_TEMP_MAX >= stp_sub_ad->fl_disp_temp) && (M_TEMP_MIN <= stp_sub_ad->fl_disp_temp))		-	-	○	-	-	-
	else		-	-	-	○	○	○
	if(uls_out_temp_timer >= M_TEMP_COUNT)		-	-	-	○	○	○
	if((FlowMain_Get_ModeStatus() == FlowMain_MEASURE_MODE_NUMBER) (FlowMain_Get_ModeStatus() == FlowMain_DISP_MODE_NUMBER))		-	-	-	○	-	-
	else		-	-	-	-	○	○
	else		-	-	○	-	-	-
	if(ucs_out_range_flg == M_ON)		○	-	-	○	-	-
	if((uls_out_buzzer_timer >= M_TEMP_COUNT) (uls_out_temp_timer > M_BUZZER_RESET_COUNT_MAX))		-	-	-	-	-	-
else		○	-	-	-	-	-	
else		-	○	○	-	○	○	
	Symbol	Range						
Input	ucs_out_range_flg	0~2	1	1	0	0	0	2
	stp_sub_ad->fl_disp_temp	-55~86	-55	0	0	85	85	86
	uls_out_temp_reset_timer	0~720001	0	720000	0	0	720000	720001
	FlowMain_Get_ModeStatus()	0~8	0	0	0	1	7	8
	uls_out_temp_timer	0~720001	0	0	0	720000	720000	720001
	uls_out_buzzer_timer	0~720001	0	0	0	0	720000	720001
Output	uls_out_temp_reset_timer	0~720001	0	0	0	0	720000	720001
	ucs_out_range_flg	0~2	1	0	0	1	0	2
	uls_out_buzzer_timer	0	0	0	0	0	0	0
	ucs_out_buzzer_flg	0,1	0	0	0	1	0	0
	uls_out_temp_timer	0~720001	0	0	0	720000	720000	720001
Judgment								

FuncTempWarning_Get_TempBuzzerFlg

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1
Root	None		-
	Symbol	Range	
Input	None	-	-
Output	ucs_out_buzzer_flg	2	2
Judgment			

FuncTempWarning_Get_OutOfRangeFlg

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1	case2	case3
Root	if((ucs_out_range_flg == M_ON) && (uls_out_temp_timer >= M_BUZZER_RESET_COUNT_MAX))		○	-	-
	else		-	○	○
	Symbol	Range			
Input	ucs_out_range_flg	0~2	1	0	2
	uls_out_temp_timer	0~720001	720000	0	720001
Output	luc_ans	0,2	2	0	2
Judgment					

FuncTempWarning_Reset_OutOfRangeBuzzer

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1	case2	case3
Root	if((ucs_out_buzzer_flg == M_ON) && (uls_out_temp_timer < M_BUZZER_RESET_COUNT_MAX))		○	-	-
	else		-	○	○
	Symbol	Range			
Input	ucs_out_buzzer_flg	0~2	1	0	2
	uls_out_temp_timer	0~720001	0	720000	720001
Output	ucs_out_buzzer_flg	0,2	0	0	2
Judgment					

Unit Test Specification

Project name	GX-Force
File name	gas_calc.c

GasCalc_10msec_interrupt

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1
Root	None	-
	Symbol	Range
Input	None	-
Output	None	-
Judgment		

GasCalc_Calc_Gas_Concentration

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	5
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3	case4	case5
Root	if(FuncChkMain_Chk_ConfirmEffectiveValue() == M_OK)	○	○	○	-	-
	if((stp_status->us_main_state & (DataStructConst_FAIL_BTA DataStructConst_FAIL_BTL)) == 0)	○	○	-	-	-
	if(FlowMain_Get_ModeStatus() == FlowMain_INITIAL_MODE_NUMBER FlowMain_Get_ModeStatus() == FlowMain_MEASURE_MODE_NUMBER FlowMain_Get_ModeStatus() == FlowMain_DISP_MODE_NUMBER)	○	-	-	-	-
	else	-	○	-	-	-
	if(FlowMain_Get_ModeStatus() == FlowMain_MEASURE_MODE_NUMBER FlowMain_Get_ModeStatus() == FlowMain_DISP_MODE_NUMBER ZIPCNumSet_Get_GasTestFlg() == M_ON)	○	-	-	-	-
	else	-	○	-	-	-
	if(FlowMain_Get_ModeStatus() == FlowMain_MEASURE_MODE_NUMBER FlowMain_Get_ModeStatus() == FlowMain_DISP_MODE_NUMBER)	○	-	-	-	-
	else	-	○	-	-	-
	else	-	-	○	-	-
	else	-	-	-	○	○
	Symbol	Range				
Input	stp_status->us_main_state	0x0000-0xFFFF	0x0000	0x0000	0xFFFF	0xFFFF
	FlowMain_Get_ModeStatus()	0-8	1	7	0	8
	FuncChkMain_Chk_ConfirmEffectiveValue()	0-2	0	0	0	1
	ZIPCNumSet_Get_GasTestFlg()	0-2	1	0	0	2
Output	None	-	-	-	-	-
Judgment						

GasCalc_Clear_GasFailFlg

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1
Root	for(luc_i=0; luc_i<HDDDEF_GAS_MAX; luc_i++)	○
	Symbol	Range
Input	None	-
Output	stp_denst->uc_state_trb	0x00
Judgment		

GasCalc_Clear_HCPeak

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3
Root	if((stp_denst->uc_state_trb & DataStructConst_S_FAIL_ALL))	○	○	-
	else	-	-	○
	Symbol	Range		
Input	stp_denst->ul_denst	0x00000000-0xFFFFFFFF	0x00000000	0x00000000
	stp_denst->uc_denst_minus_flg	0-2	0	1
	stp_denst->uc_state_trb	0x00-0xFF	0x00	0x00
Output	stp_denst->ul_pmin	0	0	0
	stp_denst->uc_pmin_flg	0,1	0	1
	stp_denst->ul_pmax	0	0	0
	stp_denst->uc_pmax_flg	0,1	0	1
Judgment				

GasCalc Clear Peak

	Responsible	Last update
Coding	Ikarashi	
Test	Taki	
Judgment	Ikarashi	

Infinite loop	None
Verification pass	3
Judgment	

		case1	case2	case3
Root	for(luc_i=0; luc_i<HDDDEF_GAS_MAX; luc_i++)	○	○	○
	if((stp_denst>uc_state_trb & DataStructConst_S_FAIL_ALL))	○	○	-
	else	-	-	○
	Symbol	Range		
Input	stp_denst->ul_denst	0x00000000-0xFFFFFFFF	0x00000000	0x00000000
	stp_denst->uc_denst_minus_flg	0-2	0	1
	stp_denst->uc_state_trb	0x00-0xFF	0x00	0x00
Output	stp_denst->ul_pmin	0	0	0
	stp_denst->uc_pmin_flg	0,1	0	1
	stp_denst->ul_pmax	0	0	0
	stp_denst->uc_pmax_flg	0,1	0	1
Judgment				

f.Shift_TwaBuf

	Responsible	Last update
Coding	Ikarashi	
Test	Taki	
Judgment	Ikarashi	

Infinite loop	None
Verification pass	1
Judgment	

		case1
Root	None	-
	Symbol	Range
Input	puc_ch	0
Output	None	-
Judgment		

m_alarm1h_op

	Responsible	Last update
Coding	Ikarashi	
Test	Taki	
Judgment	Ikarashi	

Infinite loop	None
Verification pass	3
Judgment	

		case1	case2	case3
Root	None	-	-	-
	Symbol	Range		
Input	(stp_denst+puc_num)>ul_60_total	0x00000000-0xFFFFFFFF	0x00000000	0x00000000
	(stp_GasInfo_addr+puc_num)>ul_digit	1-501	500	1
Output	(stp_denst+puc_num)>ul_twa	0	0	0
Judgment				

m_Calc_AverageStelTwa

	Responsible	Last update
Coding	Ikarashi	
Test	Taki	
Judgment	Ikarashi	

Infinite loop	None
Verification pass	4
Judgment	

		case1	case2	case3	case4
Root	for(luc_i=0; luc_i<HDDDEF_GAS_MAX; luc_i++)	○	○	○	○
	if((stp_denst+luc_i)>ul_denst != M_OFF_VAL)	○	○	-	○
	if((stp_denst+luc_i)>uc_m_denst_minus_flg)	○	-	-	○
	else	-	○	-	-
	if(puc_stop_flg == M_OFF)	○	-	-	-
	else	-	○	-	○
	else	-	-	○	-
	if(++(stp_denst+luc_i)>ul_ave_60_cnt) == 60)	○	○	-	-
	if(lul_temp1 > (stp_GasInfo_addr+luc_i)>ul_full_scale)	○	○	-	-
	else	○	○	-	-
	if((luc_i == DataStructConst_CO_CH) && (stp_data->uc_1h_alarm_on == M_ON))	○	-	-	-
	else	-	○	-	-
	else	-	-	○	○
	Symbol	Range			
Input	puc_stop_flg	0-2	0	1	0
	(stp_denst+luc_i)>ul_denst	0x00000000-0xFFFFFFFF	0xFFFFFFFF	0xFFFFFFFF	0x00000000
	(stp_denst+luc_i)>uc_denst_minus_flg	0-2	1	0	2
	(stp_denst+luc_i)>ul_ave_60_cnt	0-61	59	59	60
	(stp_denst+luc_i)>ul_60_cnt	1,61	1	1	61
	(stp_denst+luc_i)>ul_60_ave	0x00000000-0xFFFFFFFF	0x00000000	0xFFFFFFFF	0xFFFFFFFF
	(stp_denst+luc_i)>ul_ave_total_cnt	0x00000000-0xFFFFFFFF	0x00000000	0xFFFFFFFF	0xFFFFFFFF
	(stp_GasInfo_addr+luc_i)>ul_full_scale	0-100001	0	0	100000
	(stp_GasInfo_addr+luc_i)>ul_digit	1-501	1	1	500
	stp_data->uc_1h_alarm_on	0-2	1	0	0
Output	(stp_denst+luc_i)>ul_60_ave	0x00000000	0x00000000	0x00000000	0x00000000
	(stp_denst+luc_i)>ul_60_total	0x00000000-0xFFFFFFFF	0x00000000	0xFFFFFFFF	0x4210842
	(stp_denst+luc_i)>ul_ave	0x00000000	0x00000000	0x00000000	0x00000000
	(stp_denst+luc_i)>ul_60_cnt	0	0	0	0
	(stp_denst+luc_i)>ul_ave_60_cnt	0	0	0	0
Judgment					

m_Calc_Denst

	Responsible	Last update
Coding	Ikarashi	
Test	Taki	
Judgment	Ikarashi	

		case1	case2	case3	case4
Root	if((stp_GasInfo_addr + 1)->uc_gas_comb != 0x00)	○	○	-	○
	else	-	-	○	-
	if((stp_GasInfo_addr + 0)->uc_gas_comb != 0x00)	○	○	-	○
	else	-	-	○	-
	if((stp_GasInfo_addr + 2)->uc_gas_comb != 0x00)	○	○	-	○
	if((stp_GasInfo_addr + 2)->uc_gas_comb == DataStructConst_CO_CAN_H2_GAS_NUM)	○	-	-	-
	else	-	○	-	○
	else	-	-	○	-
	if((stp_GasInfo_addr + 3)->uc_gas_comb != 0x00)	○	○	-	○
Input	if((stp_GasInfo_addr + 3)->uc_gas_comb == DataStructConst_CO_CAN_H2_GAS_NUM)	○	-	-	-
	else	-	○	-	○
	else	-	-	○	-
	if((stp_GasInfo_addr + 3)->uc_gas_comb != 0x00)	○	○	-	○
	else	-	○	-	○
Output	if((stp_GasInfo_addr + 3)->uc_gas_comb == DataStructConst_CO_CAN_H2_GAS_NUM)	○	-	-	-
	else	-	○	-	○
	else	-	-	○	-
	if((stp_GasInfo_addr + 3)->uc_gas_comb != 0x00)	○	○	-	○
	else	-	○	-	○
Judgment	if((stp_GasInfo_addr + 3)->uc_gas_comb == DataStructConst_CO_CAN_H2_GAS_NUM)	○	-	-	-
	else	-	○	-	○
	else	-	-	○	-
	if((stp_GasInfo_addr + 3)->uc_gas_comb != 0x00)	○	○	-	○
	else	-	○	-	○

m_Calc_DispDenstData

	Responsible	Last update
Coding	Ikarashi	
Test	Taki	
Judgment	Ikarashi	

[illegible]

m_calc_peak

	Responsible	Last update
Coding	Ikarashi	
Test	Taki	
Judgment	Ikarashi	

Infinite loop	None
Verification pass	9
Judgment	

		case1	case2	case3	case4	case5	case6	case7	case8	case9
Root	if(puc_stop_flg == M_OFF)	○	○	○	○	○	○	○	-	-
	for(luc_i=0; luc_i<HDEF_GAS_MAX; luc_i++)	○	○	○	○	○	○	○	-	-
	if((stp_denst->uc_state_trb & DataStructConst_S_FAIL_ALL))	○	○	○	○	○	○	○	-	-
	if((stp_denst->uc_denst_minus_flg) && (stp_denst->uc_pmin_flg))	○	○	-	-	-	-	-	-	-
	if(stp_denst->ul_pmin < stp_denst->ul_denst)	○	-	-	-	-	-	-	-	-
	else	-	○	-	-	-	-	-	-	-
	else if((stp_denst->uc_denst_minus_flg == 1) && (stp_denst->uc_pmin_flg == 0))	-	-	○	-	-	-	-	-	-
	else if((stp_denst->uc_denst_minus_flg == 0) && (stp_denst->uc_pmin_flg == 0))	-	-	-	○	○	-	-	-	-
	if(stp_denst->ul_pmin > stp_denst->ul_denst)	-	-	-	○	-	-	-	-	-
	else	-	-	-	-	○	-	-	-	-
	else	-	-	-	-	-	○	-	-	-
	if(luc_flg == M_ON)	○	-	○	○	-	-	-	-	-
	else	-	○	-	-	○	○	-	-	-
	if((stp_denst->uc_denst_minus_flg) && (stp_denst->uc_pmax_flg))	○	○	-	-	-	-	-	-	-
	if(stp_denst->ul_pmax > stp_denst->ul_denst)	-	○	-	-	-	-	-	-	-
	else	○	-	-	-	-	-	-	-	-
	else if(!((stp_denst->uc_denst_minus_flg) && (stp_denst->uc_pmax_flg)))	-	-	-	-	-	○	-	-	-
	else if((stp_denst->uc_denst_minus_flg == 0) && (stp_denst->uc_pmax_flg == 0))	-	-	-	○	○	-	-	-	-
	if(stp_denst->ul_pmax < stp_denst->ul_denst)	-	-	-	-	○	-	-	-	-
	else	-	-	-	○	-	-	-	-	-
	else	-	-	○	-	-	-	-	-	-
	if(luc_flg == M_ON)	-	○	-	-	○	-	-	-	-
	else	○	-	○	○	-	-	-	-	-
	else	-	-	-	-	-	-	○	-	-
	else	-	-	-	-	-	-	-	○	○
Input	Symbol	Range								
	puc_stop_flg	0~2	0	0	0	0	0	0	1	2
	stp_denst->uc_state_trb	0x00,0xFF	0x00	0x00	0x00	0x00	0x00	0x00	0xFF	0xFF
	stp_denst->uc_denst_minus_flg	0~2	1	1	1	0	0	0	2	1
	stp_denst->uc_pmin_flg	0~2	1	1	0	0	0	1	2	1
	stp_denst->ul_pmin	0x00000000,0xFFFFFFFF	0x00000000	0xFFFFFFFF	0x00000000	0xFFFFFFFF	0x00000000	0x00000000	0xFFFFFFFF	0x00000000
	stp_denst->ul_denst	0x00000000,0xFFFFFFFF	0xFFFFFFFF	0x00000000	0x00000000	0x00000000	0x00000000	0xFFFFFFFF	0xFFFFFFFF	0x00000000
	stp_denst->uc_pmax_flg	0~2	1	1	0	0	0	2	2	1
	stp_denst->ul_pmax	0x00000000,0xFFFFFFFF	0x00000000	0xFFFFFFFF	0xFFFFFFFF	0x00000000	0x00000000	0xFFFFFFFF	0xFFFFFFFF	0x00000000
	stp_denst->uc_pmin_flg	0~2	1	1	1	0	0	1	2	1
Output	stp_denst->uc_pmin_flg	0~2	1	1	1	0	0	1	2	1
	stp_denst->uc_pmax_flg	0~2	1	1	0	0	0	2	2	1
Judgment										

m_stel_op

	Responsible	Last update
Coding	Ikarashi	
Test	Taki	
Judgment	Ikarashi	

Infinite loop	None
Verification pass	3
Judgment	

		case1	case2	case3
Root	for(luc_i = 0 ; luc_i < 15 ; ++luc_i)	○	○	○
	if((stp_denst+puc_num)->ul_stel_point == luc_i)	○	-	-
	else	○	○	○
	if(++(stp_denst+puc_num)->ul_stel_point > 14)	-	○	○
	else	○	-	-
Input	Symbol	Range		
	(stp_denst+puc_num)->ul_stel_point	0~16	0	15
	(stp_denst+puc_num)->ul_60_ave	0x00000000,0xFFFFFFFF	0xFFFFFFFF	0x00000000
	(stp_denst+puc_num)->ul_60_cnt	0~61	60	0
	(stp_GasInfo_addr+puc_num)->ul_digit	1~501	1	500
Output	(stp_denst+puc_num)->ul_stel_point	0,1	1	0
	(stp_denst+puc_num)->ul_stel	0,4772185	4772185	0
Judgment				

m_twa_op

	Responsible	Last update
Coding	Ikarashi	
Test	Taki	
Judgment	Ikarashi	

Infinite loop	None
Verification pass	3
Judgment	

		case1	case2	case3
Root	None	-	-	-
	Symbol	Range		
Input	(stp_denst+puc_num)->ul_60_total	0x00000000,0xFFFFFFFF	0xFFFFFFFF	0x00000000
	(stp_GasInfo_addr+puc_num)->ul_digit	0~501	500	0
Output	(stp_denst+puc_num)->ul_twa	0	0	0
Judgment				

Unit Test Specification

Project name	GX-Force
File name	gas_calc_ec.c

GasCalcEC_Back_Linearize_Denst

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	4
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1	case2	case3	case4
Root	switch(puc_ch)		○	○	○	○
	case DataStructConst_O2_GAS_CH		○	-	-	-
	case DataStructConst_H2S_CH		-	○	-	-
	case DataStructConst_CO_CH		-	-	○	-
	default		-	-	-	○
	if(pfl_x_data > 100 pfl_x_data < 0)		○	○	-	-
	else		-	-	○	-
	for(luc_i = 0U; luc_i < 10U; luc_i++)		-	-	-	○
	if((pfl_x_data >= (float)*(lusp_x_data+luc_i)) && (pfl_x_data <= (float)*(lusp_x_data+luc_i+1)))		-	-	○	-
else		-	-	-	○	
	Symbol	Range				
Input	puc_ch	1~4	1	2	3	4
	pfl_x_data	0~110	110	110	100	0
Output	lfl_ret_ans	0~110	110	110	100	0
Judgment						

GasCalcEC_Get_ECChkStartFlg

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3	
Root	None		-	-	-
	Symbol	Range			
Input	puc_flg	0~2	0	1	2
Output	uc_m_ec_chk_flg[puc_flg]	0	0	0	0
Judgment					

GasCalcEC_Linearize_Denst

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	4
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1	case2	case3	case4
Root	switch(puc_ch)		○	○	○	○
	case DataStructConst_O2_GAS_CH		○	-	-	-
	case DataStructConst_H2S_CH		-	○	-	-
	case DataStructConst_CO_CH		-	-	○	-
	default		-	-	-	○
	if(pfl_y_data > 100)		○	○	-	-
	else		-	-	○	○
	for(luc_i = 0U; luc_i < 10U; luc_i++)		-	-	○	○
	if(((pfl_y_data >= (float)*(lusp_y_data+luc_i)) && (pfl_y_data <= (float)*(lusp_y_data+luc_i+1))))		-	-	-	○
else		-	-	○		
	Symbol	Range				
Input	puc_ch	1~4	1	2	3	4
	pfl_y_data	0~110	110	110	100	0
Output	lfl_ret_ans	4~110	110	110	100	4
Judgment						

GasCalcEC_Reset_Tracking

	Responsible	Last update
Coding	Ikarashi	
Test	Taki	
Judgment	Ikarashi	

Infinite loop	None
Verification pass	3
Judgment	

			case1	case2	case3
Root	None		-	-	-
	Symbol	Range			
Input	puc_ch	0~5	0	4	5
Output	stp_denst->fl_tracking_average	0	0	0	0
	stp_denst->uc_tracking_counter	0	0	0	0
	stp_denst->fl_tracking_offset	0	0	0	0
	stp_denst->fl_tracking_s_data[0]	100000000	100000000	100000000	100000000
	stp_denst->fl_tracking_s_data[1]	100000000	100000000	100000000	100000000
	stp_denst->fl_tracking_s_data[2]	100000000	100000000	100000000	100000000
	stp_denst->fl_tracking_s_data[3]	100000000	100000000	100000000	100000000
Judgment					

GasCalcEC_Set_ECChkStartFlg

	Responsible	Last update
Coding	Ikarashi	
Test	Taki	
Judgment	Ikarashi	

Infinite loop	None
Verification pass	3
Judgment	

			case1	case2	case3
Root	None		-	-	-
	Symbol	Range			
Input	puc_flg	0~2	1	0	2
	puc_chk_flg	0~2	1	0	2
Output	uc_m_ec_chk_flg[puc_flg]	0~2	0	0	0
Judgment					

m_Get_PlusTrackingDensit

	Responsible	Last update
Coding	Ikarashi	
Test	Taki	
Judgment	Ikarashi	

Infinite loop	None
Verification pass	5
Judgment	

			case1	case2	case3	case4	case5
Root	switch(puc_ch)		○	○	○	○	○
	case DataStructConst_H2S_CH		○	-	-	-	-
	case DataStructConst_CO_CH		-	○	-	-	-
	case DataStructConst_EXEC_CH		-	-	○	-	-
	default		-	-	-	○	○
	Symbol	Range					
Input	puc_ch	0~5	2	3	4	0	5
	puc_gas_num	0~30	0	0	0	29	30
Output	luc_ans	0	0	0	0	0	0
Judgment							

m_Get_PlusTrackingFlg

	Responsible	Last update
Coding	Ikarashi	
Test	Taki	
Judgment	Ikarashi	

Infinite loop	None
Verification pass	5
Judgment	

			case1	case2	case3	case4	case5
Root	switch(puc_ch)		○	○	○	○	○
	case DataStructConst_H2S_CH		○	-	-	-	-
	case DataStructConst_CO_CH		-	○	-	-	-
	case DataStructConst_EXEC_CH		-	-	○	-	-
	default		-	-	-	○	○
	Symbol	Range					
Input	puc_ch	0~5	2	3	4	0	5
	puc_gas_num	0~30	0	0	0	29	30
Output	luc_ans	0	0	0	0	0	0
Judgment							

GasCalcEC_Calc_Tracking

	Responsible	Last update
Coding	karashi	
Test	Taki	
Judgment	karashi	

[illegible]

Unit Test Specification

Project name	GX-Force
File name	gas_calc_ec_denst.c

GasCalcECDenst_AirCal_Denst

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	4
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1	case2	case3	case4
Root	if((stp_denst->fl_air_max >= lfl_sen_data) && (stp_denst->fl_air_min <= lfl_sen_data))		-	-	○	-
	else		○	○	-	○
	Symbol	Range				
Input	puc_gas_ch	0~5	0	2	4	5
	stp_denst->fl_air_max	0~9	0	0	8.6	9
	stp_denst->fl_air_min	-8.6~9	0	0	-8.6	9
	m_Get_SensorAD(puc_gas_ch, stp_GasInfo_addr->uc_gas_comb)	-800~801	-800	800	0	801
Output	stp_denst->fl_zero[0]	0	0	0	0	0
	stp_GasInfo_addr->fl_zero_buf[0]	0	0	0	0	0
	stp_GasInfo_addr->fl_zero_temp_data	0	0	0	0	0
	luc_ack	0,1	1	1	0	1
Judgment						

GasCalcECDenst_AutoCal_Denst

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	4
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1	case2	case3	case4
Root	if((puc_gas_ch == DataStructConst_EXEC_CH) && (stp_GasInfo_addr->uc_gas_direction))		○	-	-	-
	else		-	○	○	○
	if(lfl_temp3 > 0)		○	○	-	-
	if((stp_denst->fl_span_max[0] >= lfl_span_data) && (stp_denst->fl_span_min[0] <= lfl_span_data))		○	-	-	-
	else		-	○	-	-
	else		-	-	○	○
	Symbol	Range				
Input	puc_gas_ch	0~5	4	0	0	5
	stp_GasInfo_addr->uc_gas_direction	0~2	1	0	0	2
	pul_cal_denst	0x00000000~0xFFFFFFFF	0x00007D00	0xFFFFFFFF	0x00000000	0xFFFFFFFF
	m_Get_SensorAD(puc_gas_ch, stp_GasInfo_addr->uc_gas_comb)	-800~801	800	800	0	801
	stp_GasInfo_addr->ul_full_scale	0~2001	2000	2000	0	2001
	stp_GasInfo_addr->ul_digit	1~6	1	1	5	6
	GasCalcEC_Back_Linearize_Denst(puc_gas_ch, lfl_temp1)	0~101	0	0	100	101
	GasCalcEC_Back_Linearize_Denst(puc_gas_ch, lfl_temp2)	0~101	0	0	100	101
	stp_denst->fl_span_max[0]	503~521	503	520.98	520.98	521
	stp_denst->fl_span_min[0]	34.97~521	34.97	36.18	520.98	521
	stp_denst->fl_zero[0]	-800~801	-800	-800	0	801
	stp_denst->fl_span_fix	0~2	1	1	0	2
Output	luc_ack	1	1	1	1	1
Judgment						

GasCalcECDenst_Calc_Denst

	Responsible	Last update
Coding	Ikarashi	
Test	Taki	
Judgment	Ikarashi	

Infinite loop	None
Verification pass	4
Judgment	

		case1	case2	case3	case4	
Root	if(!((stp_denst->uc_m_denst_minus_flg)) && (lfl_temp < 100))	○	-	-	-	
	else	-	○	○	○	
	if((stp_GasInfo_addr->uc_suppress_onoff == M_ON) && (FlowMain_Get_ModeStatus() <= FlowMain_DISP_MODE_NUMBER))	○	○	-	-	
	if((lfl_denst < lul_z_sup2) && (stp_denst->uc_m_denst_minus_flg == M_OFF))	○	-	-	-	
	else	-	○	-	-	
	else	-	-	○	○	
	if(stp_denst->ul_m_denst > ((stp_GasInfo_addr->ul_full_scale * 120) / 100))	-	-	○	○	
	else	○	○	-	-	
if(stp_denst->uc_m_denst_minus_flg)	-	○	-	○		
else	○	-	○	-		
Symbol		Range				
Input	stp_denst->fl_span_fix	0~2	1	0	2	2
	stp_GasInfo_addr->fl_span_buf[0]	0~520.98	36.18	0	520.98	520.98
	stp_denst->uc_m_denst_minus_flg	0~2	0	1	0	2
	stp_denst->ul_digit	1~6	1	2	5	6
	stp_denst->ul_m_denst	0x00000000,0xFFFFFFFF	0x00000000	0xFFFFFFFF	0xFFFFFFFF	0xFFFFFFFF
	stp_GasInfo_addr->ul_upper_limit	0~10001	10000	10000	0	10001
	stp_GasInfo_addr->uc_suppress_onoff	0,2	1	1	0	2
	m_Get_SuppressNum()	2~31	1	2	30	31
	GasCalcEC_Linearize_Denst()	0~10001	0	0	100000	100001
	m_Get_SensorAD()	-800~900	800	900	-800	-800
	m_Get_SpanAD()	-800~900	800	900	-800	-800
	FlowMain_Get_ModeStatus()	0~8	0	0	7	8
stp_GasInfo_addr->ul_full_scale	0~2001	0	2000	2000	2001	
Output	stp_denst->ul_m_denst	0~2400	0	0	2400	0
	stp_denst->uc_m_over_flg	0,1	0	0	1	0
	stp_denst->uc_m_over_minus_flg	0,1	0	1	0	0
Judgment						

GasCalcECDenst_Set_SpanMargine

	Responsible	Last update
Coding	Ikarashi	
Test	Taki	
Judgment	Ikarashi	

Infinite loop	None
Verification pass	5
Judgment	

			case1	case2	case3	case4	case5
Root	if((puc_gas_ch == DataStructConst_EXEC_CH) && (stp_GasInfo_addr->uc_gas_direction))		○	○	-	-	-
	if(lfl_ad_data <= stp_denst->fl_zero[0])		○	-	-	-	-
	else		-	○	-	-	-
	else		-	-	○	○	○
	if(lfl_ad_data >= stp_denst->fl_zero[0])		-	-	○	-	○
	else		-	-	-	○	-
	if(!(luc_margin_minus_flg) && (lfl_temp < 100))		○	-	○	-	-
	else		-	○	-	○	○
	if(stp_GasInfo_addr->ul_span_margin > stp_GasInfo_addr->ul_full_scale)		○	-	○	-	-
	else		-	○	-	○	○
	if(stp_GasInfo_addr->ul_span_margin > (stp_GasInfo_addr->ul_cal_denst * M_EC_CALDENST_MAG))		○	-	○	-	-
	else		-	○	-	○	○
	if(luc_margin_minus_flg == M_ON)		-	○	-	○	-
	else		○	-	○	-	○
	Symbol	Range					
Input	m_Get_SensorAD (puc_gas_ch, stp_GasInfo_addr->uc_gas_comb)	-800~801	50	800	50	-800	801
	puc_gas_ch	0~5	4	4	0	0	5
	stp_GasInfo_addr->uc_gas_direction	0~2	1	1	0	0	2
	stp_denst->fl_zero[0]	-800~801	80	-800	80	800	801
	stp_denst->fl_span_fix	0~2	1	0	1	0	2
	stp_denst->fl_span_min[0]	34.97~37	34.97	34.97	36.18	36.18	37
	GasCalcEC_Linearize_Denst(puc_gas_ch, lfl_temp)	-10000~120001	120000	-10000	120000	-10000	120001
	stp_denst->ul_digit	1~6	1	5	1	5	6
	stp_GasInfo_addr->ul_full_scale	0~2001	2000	0	2000	0	2001
	stp_GasInfo_addr->ul_cal_denst	0x00000000~0xFFFFFFFF	0x00000000	0xFFFFFFFF	0x00000000	0xFFFFFFFF	0xFFFFFFFF
Output	stp_GasInfo_addr->ul_span_margin	0	0	0	0	0	
Judgment							

m_Calc_ECSpanTempComp

	Responsible	Last update
Coding	Ikarashi	
Test	Taki	
Judgment	Ikarashi	

Infinite loop	None
Verification pass	4
Judgment	

			case1	case2	case3	case4
Root	for(luc_i=0; luc_i<5; luc_i++)		○	○	○	○
	switch(puc_ch)		○	○	○	○
	case DataStructConst_H2S_CH		-	○	-	-
	case DataStructConst_CO_CH		-	-	○	-
	case DataStructConst_EXEC_CH		-	-	-	○
	default		○	-	-	-
	Symbol	Range				
Input	puc_ch	0~4	0	2	3	4
	puc_lin_num	0~7	7	0	1	6
	pdb_temp	-20~51	-20	50	50	51
Output	ldb_ans	0~1	0	0.8	1	0
Judgment						

m_Calc_ECZeroTempComp

	Responsible	Last update
Coding	Ikarashi	
Test	Taki	
Judgment	Ikarashi	

Infinite loop	None
Verification pass	4
Judgment	

		case1	case2	case3	case4
Root	for(luc_i=0; luc_i<5; luc_i++)	○	○	○	○
	switch(puc_ch)	○	○	○	○
	case DataStructConst_H2S_CH	○	-	-	-
	case DataStructConst_CO_CH	-	○	-	-
	case DataStructConst_EXEC_CH	-	-	○	-
	default	-	-	-	○
	Symbol	Range			
Input	puc_ch	2~5	3	4	5
	puc_lin_num	0~7	0	6	7
	pdb_temp	-55~86	-55	85	86
Output	ldb_ans	0	0	0	0
Judgment					

m_Get_SensorAD

	Responsible	Last update
Coding	Ikarashi	
Test	Taki	
Judgment	Ikarashi	

Infinite loop	None
Verification pass	5
Judgment	

		case1	case2	case3	case4	case5
Root	switch(puc_ch)	○	○	○	○	○
	case DataStructConst_H2S_CH	-	○	-	○	-
	if(puc_gas_num != DataStructConst_SINGLE_H2S_GAS_NUM)	-	○	-	-	-
	else	-	-	-	○	-
	case DataStructConst_CO_CH	-	-	○	-	-
	default	○	-	-	-	○
	Symbol	Range				
Input	puc_ch	2~5	1	2	3	2
	puc_gas_num	0~30	29	0	0	2
	stp_sub_ad->fl_ec_ad_data[2]	-801~800	-800	0	200	800
	stp_sub_ad->fl_ec_ad_data[1]	-801~800	-800	0	100	800
Output	lfl_ad_ans	0~800	0	0	200	800
Judgment						

m_Get_SpanAD

	Responsible	Last update
Coding	Ikarashi	
Test	Taki	
Judgment	Ikarashi	

Infinite loop	None
Verification pass	5
Judgment	

			case1	case2	case3	case4	case5
	if(pfl_sen_ad >= stp_denst->fl_zero[0])		○	-	-	-	-
	else		-	○	-	-	-
	Symbol	Range					
Input	puc_ch	0~5	4	4	2	0	5
	pfl_sen_ad	-800~801	-800	800	500	0	801
	stp_denst->fl_zero[0]	-801~800	800	-800	0	100	-801
Output	stp_denst->uc_m_denst_minus_flg	0,1	0	0	0	1	0
	lfl_span_ad	100~800	800	800	500	100	801
Judgment							

m_Get_SuppressNum

	Responsible	Last update
Coding	Ikarashi	
Test	Taki	
Judgment	Ikarashi	

Infinite loop	None
Verification pass	5
Judgment	

			case1	case2	case3	case4	case5
Root	switch(puc_ch)		○	○	○	○	○
	case DataStructConst_H2S_CH		○	-	-	-	-
	case DataStructConst_CO_CH		-	○	-	-	-
	default		-	-	○	○	○
	Symbol	Range					
Input	puc_ch	0~5	2	3	4	0	5
	puc_gas_num	0~30	0	0	0	29	30
	puc_flg	0~2	0	0	0	1	2
Output	lul_sup_ans	0~3	3	2	0	0	0
Judgment							

m_Get_ExportControlsNum

	Responsible	Last update
Coding	Ikarashi	
Test	Taki	
Judgment	Ikarashi	

Infinite loop	None
Verification pass	4
Judgment	

			case1	case2	case3	case4
Root	switch(puc_ch)		○	○	○	○
	case DataStructConst_H2S_CH		-	○	-	-
	case DataStructConst_CO_CH		-	-	○	-
	default		○	-	-	○
	Symbol	Range				
Input	puc_ch	0~4	0	2	3	4
	puc_gas_num	0	0	0	0	0
Output	lul_sup_ans	0	0	0	0	0
Judgment						

Unit Test Specification

Project name	GX-Force
File name	gas calc ec h2 cancel co.c

GasCalcECH2CancelCO Calc Denst

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	8
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3	case4	case5	case6	case7	case8	
Root	for(luc_col = 0U; luc_col < M_CANSEL_GAS_SENS_MAX; luc_col++)	○	○	○	○	○	○	○	○	
	for(luc_row = 0U; luc_row < M_CANSEL_GAS_SENS_MAX; luc_row++)	○	○	○	○	○	○	○	○	
	if(lfl_mmult < 0)	○	-	-	-	-	-	-	○	
	else	-	○	○	○	○	○	○	-	
	if(lfl_mmult < lfl_eps)	○	○	-	-	-	-	○	-	
	if(lfl_we_out_dens1[M_WE1_CH] > lfl_we_out_dens1[M_WE2_CH])	○	-	-	-	-	-	-	-	
	else	-	○	-	-	-	-	○	-	
	else if(lfl_temp_val < M_CO_H2_DENST_MIN_TEMP)	-	-	○	-	-	-	-	-	
	else	-	-	-	○	-	-	-	-	
	if(((stp_GasInfo_addr + M_CMB_CO)->uc_suppress_onoff == M_ON) && (FlowMain_Get_ModeStatus() <= FlowMain_DISP_MODE_NUMBER))	-	○	-	-	-	-	○	-	
	if(((lfl_co_denst < lfl_z_sup2) && (lfl_co_denst > 0.0f))	-	○	-	-	-	-	-	-	
	else	-	-	-	-	-	-	○	-	
	else	○	-	○	○	○	○	-	○	
	if(lsl_co_denst >= 0)	○	○	-	-	-	○	-	○	
	if(lsl_co_denst > (S_LNG)(((stp_GasInfo_addr+M_CMB_CO)->ul_full_scale * 120) / 100))	○	-	-	-	-	-	-	-	
	else	-	○	-	-	-	○	-	○	
	else	-	-	○	○	○	-	○	-	
	if(lsl_co_denst > (S_LNG)(((stp_GasInfo_addr+M_CMB_CO)->ul_full_scale * 120) / 100))	-	-	○	-	-	-	-	-	
	else	-	-	-	○	○	-	○	-	
	if((stp_denst+M_CMB_CO)->uc_m_denst_minus_flg == M_ON)	-	-	○	○	○	-	○	-	
	if(((stp_denst+M_CMB_CO)->ul_m_denst > ((stp_GasInfo_addr+M_CMB_CO)->ul_full_scale / 5UL))	-	-	○	-	-	-	-	-	
	else	-	-	-	○	○	-	○	-	
	if(lsl_h2_denst >= 0)	○	○	○	○	-	○	○	○	
	if(lsl_h2_denst > (S_LNG)(((stp_GasInfo_addr+M_CMB_H2)->ul_full_scale * 120) / 100))	-	-	-	-	-	○	-	○	
	else	○	○	○	-	-	-	○	-	
	else	-	-	-	○	○	-	-	-	
	if(lsl_h2_denst > (S_LNG)(((stp_GasInfo_addr+M_CMB_H2)->ul_full_scale * 120) / 100))	-	-	-	-	○	-	-	-	
	else	-	-	-	○	-	-	-	-	
	if((stp_denst+M_CMB_H2)->uc_m_denst_minus_flg == M_ON)	-	-	-	○	○	-	-	-	
	if(((stp_denst+M_CMB_H2)->ul_m_denst > ((stp_GasInfo_addr+M_CMB_H2)->ul_full_scale / 5UL))	-	-	-	-	○	-	-	-	
else	-	-	-	○	-	-	-	-		
else	○	○	○	-	-	-	○	○		
Symbol		Range								
Input	(stp_GasInfo_addr + M_CMB_CO)->uc_suppress_onoff	1	1	0	0	0	0	1	2	
	stp_sub_ad->fl_temp_data	85	85	-55	0	0	0	0	86	
	(stp_denst+M_CMB_CO)->fl_zero[0]	-800~900	0	0	800	10	800	-800	900	801
	(stp_denst+M_CMB_H2)->fl_zero[0]	-800~900	0	0	800	10	800	-800	900	801
	(stp_GasInfo_addr+M_CMB_CO)->fl_span_buf[0]	118.04,119	118.04	118.04	118.04	118.04	118.04	118.04	118.04	119
	(stp_GasInfo_addr+M_CMB_H2)->fl_span_buf[0]	1~34	1	33.8	33.8	33.8	33.8	33.8	33.8	34
	(stp_GasInfo_addr+M_CMB_CO)->fl_span_buf[1]	202.36,203	202.36	202.36	202.36	202.36	202.36	202.36	202.36	203
	(stp_GasInfo_addr+M_CMB_H2)->fl_span_buf[1]	37.8,38	37.8	37.8	1	37.8	37.8	37.8	37.8	38
	(stp_GasInfo_addr+M_CMB_CO)->ul_full_scale	100~4294967295	2000	2000	2000	2000	100	100	2000	4294967295
	(stp_GasInfo_addr+M_CMB_H2)->ul_full_scale	100~2001	2000	2000	2000	2000	100	100	2000	2001
	(stp_GasInfo_addr+M_CMB_CO)->ul_dgit	1.2	1	1	1	1	1	1	1	2
	(stp_GasInfo_addr+M_CMB_H2)->ul_dgit	1.2	1	1	1	1	1	1	1	2
	m_Chk_PresenceOfInverseMatrix()	-200~117854.89	-1.00E-10	0	1	-200	-154.785	117854.89	0	117855
	m_Get_AveAD(M_WE1_CH)	-900~800	800	0	0	0	-900	-800	0	-801
	m_Get_AveAD(M_WE2_CH)	-801~900	-800	1	0	0	800	900	0	-801
	m_Linearise_H2CancelCO()	1~2	1	1.152	1	1	1	1	2	2
	FlowMain_Get_ModeStatus()	0~8	7	0	4	4	0	0	0	8
Output	(stp_denst+M_CMB_CO)->uc_m_denst_minus_flg	0.1	0	0	1	0	0	1	1	
	(stp_denst+M_CMB_H2)->uc_m_denst_minus_flg	0.1	0	0	0	1	1	0	1	
	(stp_denst+M_CMB_CO)->ul_m_denst	0~400	135	0	79	0	12	0	177	400
	(stp_denst+M_CMB_H2)->ul_m_denst	0~640800	0	0	0	400	20	120	0	640800
	(stp_denst+M_CMB_CO)->uc_m_over_flg	0.1	0	0	0	0	1	0	0	0
	(stp_denst+M_CMB_H2)->uc_m_over_flg	0.1	0	0	0	0	0	1	0	0
Judgment										

GasCalcECH2CancelCO_Set_AirCal

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	5
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3	case4	case5	
Root	if(((stp_denst+M_CMB_CO)->fl_air_min <= flf_ex_adc_curr[M_WE1_CH]) && (flf_ex_adc_curr[M_WE1_CH] <= (stp_denst+M_CMB_CO)->flf_air_max))	-	-	-	○	○	
	if(((stp_denst+M_CMB_H2)->flf_air_min < flf_ex_adc_curr[M_WE2_CH]) && (flf_ex_adc_curr[M_WE2_CH] < (stp_denst+M_CMB_H2)->flf_air_max))	-	-	-	-	-	
	else	-	-	-	○	○	
	else	○	○	○	-	-	
Input	Symbol	Range					
	flf_air_max	-800~801	0	0	800	-800	801
	flf_air_min	-800~801	0	800	0	-800	801
	m_Correction_ZeroComp()	-8.6~9	-8.6	-8.6	8.6	0	9
	m_Get_AveAD()	-8.6~9	8.6	8.6	-8.6	0	9
	flf_temp_data	-55~86	-55	85	-55	85	86
Output	flf_zero	0	0	0	0	0	
	flf_zero_temp_data	0	0	0	0	0	
	flf_zero_buf	0	0	0	0	0	
	luc_ack	1	1	1	1	1	
Judgment							

GasCalcECH2CancelCO_Set_AutoCal

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	2
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	
Root	if(puc_gas == 0)	○	-	
	else	-	○	
	if(((flf_ex_adc_curr[M_WE1_CH] > 0) && (flf_ex_adc_curr[M_WE2_CH] > 0)))	-	-	
	if(puc_gas == 0)	-	-	
	else	-	-	
	if(((flf_we1_span_buf_tmp >= (stp_denst+luc_gas_select)->flf_span_min[0]) && (flf_we1_span_buf_tmp <= (stp_denst+luc_gas_select)->flf_span_max[0])))	-	○	
	if(((flf_we2_span_buf_tmp >= (stp_denst+luc_gas_select)->flf_span_min[1]) && (flf_we2_span_buf_tmp <= (stp_denst+luc_gas_select)->flf_span_max[1])))	-	-	
	else	-	-	
	else	-	-	
	else	○	○	
	Symbol	Range		
Input	puc_gas	0,1	0	1
	pul_cal_denst	0	0	0
	flf_span_max[0]	0	0	0
	flf_span_max[1]	0	0	0
	flf_span_min[0]	0	0	0
	flf_snpnan_min[1]	0	0	0
	flf_zero[0]	0	0	0
	ul_full_scale	0	0	0
	uc_cal_date[0]	0	0	0
	uc_cal_sdm[0]	0	0	0
	uc_bump_date[0]	0	0	0
	m_Correction_ZeroComp()	0	0	0
	m_Get_AveAD()	0	0	0
	m_Linearraise_H2CancelCO()	0	0	0
	flf_temp_data	0	0	0
Output	luc_ack	0,1	1	1
	flf_span_temp_data	0	0	0
	flf_span_buf	0	0	0
Judgment				

GasCalcECH2CancelCO_Set_SpanMargine

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3
Root	for(luc_i=0U; luc_i<M_CANSEL_GAS_SENS_MAX; luc_i++)	○	○	○
	for(luc_j=0U; luc_j<M_CANSEL_GAS_SENS_MAX; luc_j++)	○	○	○
	if(lul_tmp1 < lul_tmp2)	-	-	-
	else	○	○	○
	if((stp_GasInfo_addr+M_CMB_CO)->ul_span_margin > (stp_GasInfo_addr+M_CMB_CO)->ul_full_scale)	-	-	-
	if((stp_GasInfo_addr+M_CMB_CO)->ul_span_margin > ((stp_GasInfo_addr+M_CMB_CO)->ul_cal_denst * M_CO_H2_CALDENST_MAG))	-	-	-
	Symbol	Range		
Input	m_Get_AveAD()	-800~801		
	fl_span_min[0]	0	0	0
	fl_span_min[1]	0	0	0
	fl_zero[0]	0	0	0
	ul_full_scale	0	0	0
	ul_digit	0	0	0
	ul_cal_denst	0	0	0
	ul_span_margin	0	0	0
	m_Correction_ZeroComp()	0	0	0
	m_Linearraise_H2CancelCO()	0	0	0
	fl_temp_data	0	0	0
Output	ul_span_margin	0	0	0
Judgment				

m_Calc_InverseMatrix

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3	
Root	for(luc_i = 0U; luc_i < luc_Degree; luc_i++)	○	○	○	
	for(luc_j = 0U; luc_j < luc_Degree; luc_j++)	○	○	○	
	for(luc_i = 0U; luc_i < luc_Degree; luc_i++)	○	○	○	
	for(luc_j = 0U; luc_j < luc_Degree; luc_j++)	○	○	○	
	for(luc_j = 0U; luc_j < luc_Degree; luc_j++)	○	○	○	
	if(luc_i != luc_j)	○	○	○	
	for(luc_k = 0U; luc_k < luc_Degree; luc_k++)	○	○	○	
	else	○	○	○	
Symbol		Range			
Input	pfl_matrix[M_CANSEL_GAS_SENS_MAX] [M_CANSEL_GAS_SENS_MAX]	-0.008424819~0.3	-0.008424819	0.205383276	0.3
	pfl_inv_matrix[M_CANSEL_GAS_SENS_MAX] [M_CANSEL_GAS_SENS_MAX]	~-390.031853~582	-390.031853	581.275788	582
Output	None	-	-	-	-
Judgment					

m_Calc_TempComp

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1	case2	case3
Root	for(luc_i=0U; luc_j<M_CANSEL_GAS_SENS_MAX; luc_i++)		○	○	○
	for(luc_j=0U; luc_j<M_CANSEL_GAS_SENS_MAX; luc_j++)		○	○	○
	Symbol	Range			
Input	pfl_temp_val	-55~86	-55	85	86
	pfl_sens_ratio[0][0]	-0.49851~11	-0.49851	10.86684	11
Output	None	-	-	-	-
Judgment					

m_Chk_PresenceOfInverseMatrix

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	4
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3	case4	
Root	for(luc_i=0U; luc_i<M_CANSEL_GAS_SENS_MAX; luc_i++)	○	○	○	○	
	for(luc_j=0U; luc_j<M_CANSEL_GAS_SENS_MAX; luc_j++)	○	○	○	○	
	for(luc_i=0U; luc_i<luc_Degree; luc_i++)	○	○	○	○	
	for(luc_j = 0U; luc_j < luc_Degree; luc_j++)	○	○	○	○	
	if(luc_i < luc_j)	○	○	○	○	
	if(!fi_matrix[luc_i][luc_j] == 0)	-	-	○	-	
	else	○	○	-	○	
	for(luc_k = 0U; luc_k < luc_Degree; luc_k++)	-	-	-	-	
	else	○	○	○	○	
	if(luc_nan_chk_flg == M_ON)	-	-	○	-	
	else	○	○	-	○	
	for(luc_j=0U; luc_j<luc_Degree; luc_j++)	○	○	-	○	
	if(luc_nan_chk_flg == M_ON)	-	-	○	-	
	else	○	○	-	○	
	Symbol	Range				
Input	pfi_chk_matrix[M_CANSEL_GAS_SENS_MAX][M_CANSEL_GAS_SENS_MAX]	-0.008424819~0.205383276	-0.008424819	0.205383276	0	1
Output	ffi_ans	0	0	0	0	0
Judgment						

m_Correction_DenstValComp

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3	
Root	for(luc_i = 0U; luc_i < (luc_size - 1U); luc_i++)	○	○	○	
	for(luc_j = (luc_size - 1U); luc_j > luc_i; luc_j--)	○	○	○	
	if(!fi_sort_tmp[luc_j-1U] > fi_sort_tmp[luc_j])	○	-	○	
	else	○	○	-	
	if(pfi_denst_val_tmp > fi_sort_tmp[2])	-	-	-	
	else if(pfi_denst_val_tmp < fi_sort_tmp[0])	-	○	-	
	else	○	-	○	
Symbol		Range			
Input	pfi_denst_val_tmp	-2001~2000	2000	-2000	-2001
	pfi_we_out_denst[M_WE1_CH]	-36036~41512.81602	-36035.43058	41512.81602	-36036
	pfi_we_out_denst[M_WE2_CH]	-119133~137241.0882	-119132.889	137241.0882	-119133
Output	fi_denst	-2001~0	0	0	-2001
Judgment					

m_Correction_ZeroComp

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3	case3	
Root	if(pfl_temp_val > 90.0F)	-	-	○	-	
	else	○	○	-	○	
	if(pfl_temp_val < -50.0F)	○	-	-	-	
	else	-	○	○	○	
	for(luc_i = 0U; luc_i < 14U; luc_i++)	○	○	○	○	
	if(puc_ad_ch == M_WE1_CH)	○	-	-	○	
	if((pfl_temp_val >= fl_we1_temp_zeroth[0][luc_i]) && (pfl_temp_val <= fl_we1_temp_zeroth[0][luc_i + 1U]))	○	-	-	○	
	else	-	-	-	○	
	else	-	○	-	-	
	if((pfl_temp_val >= fl_we2_temp_zeroth[0][luc_i]) && (pfl_temp_val <= fl_we2_temp_zeroth[0][luc_i + 1U]))	-	○	-	-	
	else	-	-	○	-	
	if(puc_ad_ch == M_WE1_CH)	○	-	-	○	
	else if(puc_ad_ch == M_WE2_CH)	-	○	-	-	
	else	-	-	○	-	
	Symbol	Range				
Input	puc_ad_ch	0~2	0	1	2	0
	pfl_temp_val	-55~91	-55	85	91	85
Output	flf_zero_comp_val	0~0.892	0.026	0.042	0	0.892
Judgment						

m_Get_AveAD

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3
Root	if(puc_num == 0)	○	-	-
	else	-	○	○
	Symbol	Range		
Input	puc_num	0-2	0	1
Output	stp_sub_ad->fl_h2_cancel_co_ad[puc_num]	0	0	0
Judgment				

m_Linearise_H2CancelCO

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3
Root	if(pfl_per_fullscale > 100.0F)	○	○	-
	else	-	-	○
	if(pfl_per_fullscale < 0.0F)	-	-	○
	else	○	○	-
	for(luc_i = 0U; luc_i < 21U; luc_i++)	○	○	○
	if((pfl_per_fullscale >= (FLOAT)ssc_ec_we1_lineartbl[0][luc_i]) && (pfl_per_fullscale <= (FLOAT)ssc_ec_we1_lineartbl[0][luc_i + 1U]))	-	-	○
	else	○	○	-
	if(puc_ad_ch == M_WE1_CH)	○	-	-
	else if(puc_ad_ch == M_WE2_CH)	-	○	-
	else	-	-	○
	Symbol	Range		
Input	pfl_per_fullscale	-8916.227193~8917	8916.227193	8917
	puc_ad_ch	0-2	0	1
Output	fl_linear	0-1	0.2	1
Judgment				

Unit Test Specification

Project name	GX-Force
File name	gas_calc_ec_o2.c

GasCalcECO2_10msec_interrupt

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	8
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3	case4	case5	case6	case7	case8
Root	if(ucs_pressure_flg != M_P_FLG_OFF)	○	○	○	○	○	○	○	-
	if(uss_pressure_in_count)	○	○	○	○	○	-	○	-
	if(uss_pressure_in_count == 0)	○	○	○	○	○	-	-	-
	if(lsl_ad1 <= lsl_ad2)	○	○	-	-	-	-	-	-
	if(ucs_pressure_chk_flg == 1)	○	-	-	-	-	-	-	-
	else	-	○	-	-	-	-	-	-
	else if(lsl_ad3 >= lsl_ad2)	-	-	○	○	-	-	-	-
	if(ucs_pressure_chk_flg == 2)	-	-	○	-	-	-	-	-
	else	-	-	-	○	-	-	-	-
	else	-	-	-	-	○	-	-	-
	else	-	-	-	-	-	-	○	-
	if(uss_pressure_out_count)	-	○	-	○	○	-	○	-
	if(uss_pressure_out_count == 0)	-	○	-	○	○	-	-	-
	else	-	-	-	-	-	-	○	-
	else	○	-	○	-	-	○	-	-
	else	-	-	-	-	-	-	-	○
	Symbol	Range							
Input	ucs_pressure_chk_flg	0~3	1	0	2	1	1	1	3
	uss_pressure_in_count	0~301	1	1	1	1	1	0	300
	uss_pressure_out_count	0~501	1	1	1	1	1	0	500
	fl_pressure_pmax_ad	-800~801	801	0	-800	800	0	0	0
	fl_pressure_pmin_ad	-800~801	-800	0	800	801	2	0	0
	ucs_pressure_flg	0~3	2	1	1	1	1	1	3
	stp_sub_ad->fl_ec_ad_data[0]	-801~800	1	1	-801	800	1	0	-800
Output	uss_pressure_in_count	0~301	0	0	0	0	0	0	299
	uss_pressure_out_count	0~501	0	0	0	0	0	0	499
	ucs_pressure_flg	0~3	2	1	1	1	2	1	3
Judgment									

GasCalcECO2_AirCal_O2Denst

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	4
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3	case4
Root	if(((stp_denst->fl_air_max * fl_span_temp) >= flf_sen_data) && ((stp_denst->fl_air_min * flf_span_temp) <= flf_sen_data))	○	-	-	-
	else	-	○	○	○
	Symbol	Range			
Input	stp_sub_ad->fl_ec_ad_data[0]	-800~801	0	-800	800
	m_Calc_O2TempComp(stp_sub_ad->fl_temp_data)	0.774175~2	0	0.774175	1.0138
	stp_denst->fl_air_max	-105.8~1	0	-105.8	0
	stp_denst->fl_air_min	-30.9~1	0	-30.9	0
	stp_sub_ad->fl_temp_data	-55~86	-55	85	0
	stp_denst->fl_zero[0]	0	0	0	0
Output	stp_GasInfo_addr->fl_zero_buf[0]	0	0	0	0
	stp_GasInfo_addr->fl_zero_temp_data	0	0	0	0
	luc_ack	1	1	1	1
Judgment					

GasCalcECO2_AutoCal_O2Dens

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	4
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3	case4	
Root	if(!fl_temp4 < 0)	-	-	○	-	
	else	○	○	-	○	
	if(!fl_temp4 < (1E-10F))	○	-	○	○	
	else	-	○	-	-	
	if((stp_denst->fl_span_max[0] >= flf_span_data) && (stp_denst->fl_span_min[0] <= flf_span_data))	-	-	-	○	
	else	○	○	○	-	
	Symbol	Range				
Input	stp_GasInfo_addr->fl_zero_buf[0]	-800~801	-800	800	801	0
	stp_sub_ad->fl_ec_ad_data[0]	-800~801	800	-800	801	0
	pul_cal_denst	0x00000000~0xFFFFFFFF	0x00000000	0x00000000	0xFFFFFFFF	0xFFFFFFFF
	m_Calc_O2TempComp (stp_GasInfo_addr->fl_zero_temp_data)	0.774175~1.1	0.774175	10.138	1.1	1.1
	stp_GasInfo_addr->ul_ful_scale	0~401	0	400	401	401
	GasCalcEC_Back_Linearize_Denst(1, flf_air_point)	0~101	100	0	1	101
	GasCalcEC_Back_Linearize_Denst(1, flf_span_point)	0~101	1	0	100	101
	m_Calc_O2TempComp(stp_sub_ad->fl_temp_data)	0.774175~1.1	0.774175	10.138	1.1	1.1
	stp_denst->flf_span_max[0]	-7.83~1	-7.83	0	1	0
	stp_denst->flf_span_min[0]	0~3.75	3.75	0	1	0
Output	luc_ack	0	1	0	0	
Judgment						

GasCalcECO2 Calc O2Densit

	Responsible	Last update
Coding	Ikarashi	
Test	Taki	
Judgment	Ikarashi	

[illegible]

GasCalcECO2_Set_SpanMargine

	Responsible	Last update
Coding	Ikarashi	
Test	Taki	
Judgment	Ikarashi	

Infinite loop	None
Verification pass	4
Judgment	

		case1	case2	case3	case4	
Root	if(stp_GasInfo_addr->fl_zero_buf[0] <= stp_GasInfo_addr->fl_span_buf[0])	○	○	-	-	
	if(fl_temp2 < 100)	○	-	-	-	
	else	-	○	-	-	
	if(stp_GasInfo_addr->ul_span_margin > M_O2_SPANMARGIN_MAX)	○	-	-	-	
	else	-	○	-	-	
	else	-	-	○	○	
Symbol		Range				
Input	stp_GasInfo_addr->fl_zero_buf[0]	-800~801	-800	0	800	801
	stp_GasInfo_addr->fl_span_buf[0]	-0.45~1	-0.45	0	0	1
	m_Calc_O2TempComp (stp_GasInfo_addr->fl_zero_temp_data)	0.774175~1.1	0.774175	1.0138	1.0138	1.1
	stp_dens->fl_air_max	-105.8~1	0	-105.8	0	1
	stp_GasInfo_addr->ul_full_scale	0~401	400	0	400	401
	GasCalcEC_Back_Linearize_Denst(1, flf_temp2)	0~101	100	0	100	101
	GasCalcEC_Linearize_Denst(1, flf_temp2)	-10~481	480	-10	10	481
	stp_dens->ul_digit	1,2	1	1	1	2
Output	stp_GasInfo_addr->ul_span_margin	0	0	0	0	
Judgment						

m_Calc_O2TempComp

	Responsible	Last update
Coding	Ikarashi	
Test	Taki	
Judgment	Ikarashi	

Infinite loop	None
Verification pass	3
Judgment	

			case1	case2	case3
Root	None		-	-	-
	Symbol	Range			
Input	pfl_temp	-55~86	-55	85	86
Output	flf_ans	0.774175~1.007975	0.774175	1.007975	1.006684
Judgment					

m_Chk_PressureDenst

	Responsible	Last update
Coding	Ikarashi	
Test	Taki	
Judgment	Ikarashi	

Infinite loop	None
Verification pass	3
Judgment	

			case1	case2	case3
Root	if(puc_minus == 1)		○	-	-
	else		-	○	○
	if(!sls_back_denst >= M_PRESSURE_STAND_DENST && lsl_chk_denst < M_PRESSURE_STAND_DENST)		○	-	-
	else if(!sls_back_denst <= M_PRESSURE_STAND_DENST && lsl_chk_denst > M_PRESSURE_STAND_DENST)		-	○	-
	else		-	-	○
	if(FlowMain_Get_ModeStatus() > FlowMain_DISP_MODE_NUMBER)		○	-	○
	else		-	○	-
	Symbol	Range			
Input	pul_dens	16~400	16	400	0
	FlowMain_Get_ModeStatus()	0~8	7	0	8
	puc_minus	0~2	1	0	2
Output	luc_ans	0,2	0	2	0
Judgment					

m_ForcedStop_Pressure

	Responsible	Last update
Coding	Ikarashi	
Test	Taki	
Judgment	Ikarashi	

Infinite loop	None
Verification pass	5
Judgment	

		case1	case2	case3	case4	case5	
Root	if(ucs_pressure_flg == M_P_FLG_END)	○	○	○	○	-	
	if(ucs_pressure_chk_flg == 2)	○	-	○	-	-	
	if(fl_pressure_pmax_ad > stp_sub_ad->fl_ec_ad_data[0])	○	-	-	-	-	
	else	-	-	○	-	-	
	else	-	○	-	○	-	
	if(ucs_pressure_chk_flg == 1)	-	○	-	○	-	
	if(fl_pressure_pmin_ad < stp_sub_ad->fl_ec_ad_data[0])	-	○	-	-	-	
	else	-	-	-	○	-	
	else	○	-	○	-	-	
	else	-	-	-	-	○	
	Symbol	Range					
Input	ucs_pressure_chk_flg	0-3	2	1	2	3	
	fl_pressure_pmax_ad	-800~801	800	0	-800	0	801
	fl_pressure_pmin_ad	-800~800	0	-800	0	800	-801
	ucs_pressure_flg	0~3	2	2	2	3	
	stp_sub_ad->fl_ec_ad_data[0]	-800~801	0	0	801	-800	800
Output	None	-	-	-	-	-	
Judgment							

m_Peak_Pressure

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	5
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1	case2	case3	case4	case5
Root	if(ucs_pressure_flg == M_P_FLG_FIRST)		○	○	-	-	-
	if(fl_pressure_pmax_ad > stp_sub_ad->fl_ec_ad_data[0])		-	○	-	-	-
	else		○	-	-	-	-
	if(fl_pressure_pmin_ad < stp_sub_ad->fl_ec_ad_data[0])		○	-	-	-	-
	else		-	○	-	-	-
	else		-	-	○	○	○
	Symbol	Range					
Input	fl_pressure_pmax_ad	-800~801	800	-800	801	801	801
	fl_pressure_pmin_ad	-800~800	-800	-800	-801	800	800
	ucs_pressure_flg	0~3	1	1	0	2	3
	stp_sub_ad->fl_ec_ad_data[0]	-800~800	-800	800	800	-801	-801
Output	fl_pressure_pmax_ad	-800,801	-800	-800	801	801	801
	fl_pressure_pmin_ad	-801~800	-800	800	-801	800	800
Judgment							

m_Start_Pressure

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	4
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3	case4	
Root	if(puc_Pressure_flg == 1)	○	-	-	-	
	else	-	○	○	○	
	Symbol	Range				
Input	puc_Pressure_flg	0~3	1	0	2	3
	stp_sub_ad->fl_ec_ad_data[0]	-800~801	-800	800	0	801
Output	ucs_pressure_chk_flg	0~3	1	0	2	3
	uss_pressure_in_count	80,300	80	300	300	300
	uss_pressure_out_count	500	500	500	500	500
	fl_pressure_pmax_ad	-800~900	-800	800	0	801
	fl_pressure_pmin_ad	-800~900	-800	800	0	801
	ucs_pressure_flg	1	1	1	1	1
Judgment						

m_Stop_Pressure

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1
Root	None		-
	Symbol	Range	
Input	None	-	-
Output	uss_pressure_in_count	0	0
	uss_pressure_out_count	0	0
	ucs_pressure_flg	0	0
Judgment			

Unit Test Specification

Project name	GX-Force
File name	gas_calc_nc.c

GasCalcNC_10msec_interrupt

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3
Root	if(uss_m_nc_warm_count)	○	-	○
	else	-	○	-
	if(uss_m_over_wait_count)	○	-	○
	else	-	○	-
Symbol		Range		
Input	uss_m_nc_warm_count	0~1501	1500	0
	uss_m_over_wait_count	0~1001	1000	0
Output	uss_m_nc_warm_count	0~1500	1499	0
	uss_m_over_wait_count	0~1000	999	0
Judgment				

GasCalcNC_AirCal_HCDenst

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	5
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3	case4	case5
Root	if((stp_denst->fl_air_max >= fl_sen_data[0]) && (stp_denst->fl_air_min <= fl_sen_data[0]))	○	○	-	-	-
	if((stp_denst->fl_air_max >= fl_sen_data[1]) && (stp_denst->fl_air_min <= fl_sen_data[1]))	○	-	-	-	-
	else	-	○	-	-	-
	else	-	-	○	○	○
	else	-	-	○	○	○
Symbol		Range				
Input	m_Get_NC_ZeroTempComp()	-1.36~1.1	0	1.02	-1.36	1.02
	stp_sub_ad->fl_nc_ad_data[0][1]	-800~801	0	0	-800	800
	stp_sub_ad->fl_nc_ad_data[0][1][1]	-800~801	0	-800	-800	800
	stp_denst->fl_air_max	0~86	0	85	85	85
	stp_denst->fl_air_min	0~66	0	0	65	66
	stp_sub_ad->fl_temp_data	-55~86	-55	85	85	86
	stp_GasInfo_addr->fl_zero_temp_data	0	0	0	0	0
Output	luc_ack	1.248	248	1	1	1
Judgment						

GasCalcNC_AutoCal_HCDenst

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	7
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3	case4	case5	case6	case7
Root	if(fl_span[0] > 0 fl_span[1] > 0)	○	○	○	○	-	-	-
	if((stp_denst->fl_span_max[0] >= fl_span[0]) && (fl_span[0] >= stp_denst->fl_span_min[0]))	○	○	-	-	-	-	-
	else	-	-	○	○	-	-	-
	if((stp_denst->fl_span_max[0] >= fl_span[1]) && (fl_span[1] >= stp_denst->fl_span_min[0]))	○	-	○	-	-	-	-
	else	-	○	-	○	-	-	-
	if(((HCTableDefData[stp_GasInfo_addr->uc_gas_comb].uc_meas_group & 0x20) == 0x20) && (luc_ack_flg[0] == M_OK luc_ack_flg[1] == M_OK) (((HCTableDefData[stp_GasInfo_addr->uc_gas_comb].uc_meas_group & 0x10) == 0x10) && (luc_ack_flg[0] == M_OK) ((HCTableDefData[stp_GasInfo_addr->uc_gas_comb].uc_meas_group & 0x20) == 0x20) && (luc_ack_flg[1] == M_OK)))	○	○	○	-	-	-	-
	if(luc_ack_flg[0] == M_OK)	○	○	-	-	-	-	-
	else	-	-	○	-	-	-	-
	if(luc_ack_flg[1] == M_OK)	○	-	○	-	-	-	-
	else	-	○	-	-	-	-	-
	else	-	-	-	○	-	-	-
	else	-	-	-	-	○	-	-
	else	-	-	-	-	-	○	○
	else	-	-	-	-	○	○	○
Symbol		Range						
Input	pul_cal_denst	0x00000000.0xFFFFFFFF	0x00000000	0x00000000	0x00000000	0x00000000	0xFFFFFFFF	0xFFFFFFFF
	m_Get_NC_ZeroTempComp()	-1.36~1.1	0	0	0	-1.36	1.02	1.1
	m_Get_NC_SpanTempComp()	0.99825~1.03665	1	1	1	0.99825	1.03665	1
	stp_sub_ad->fl_nc_ad_data[0][1]	-800~801	770	770	800	770	-800	800
	stp_sub_ad->fl_nc_ad_data[0][1][1]	-800~801	770	800	770	770	-800	800
	stp_denst->fl_zero[0]	-800~801	800	800	-800	800	-800	800
	stp_denst->fl_zero[1]	-800~801	800	-800	800	-800	800	800
	m_Change_LinearRaiseBackOp (stp_GasInfo_addr->uc_in_number[0], fl_sp[0])	-50~601	600	600	600	600	-50	0
	m_Change_LinearRaiseBackOp (stp_GasInfo_addr->uc_in_number[0], fl_sp[1])	-50~601	600	600	600	600	-50	0
	stp_denst->fl_span_fix	0~2	1	1	1	1	0	2
	stp_GasInfo_addr->us_hc_rate[0]	0~106	100	100	100	100	0	106
	stp_denst->fl_span_max[0]	0~9	8	8	8	0	0	8
	stp_denst->fl_span_min[0]	0~2	1.6	1.6	1.6	0	0	2
	stp_GasInfo_addr->uc_gas_comb	0~30	0	4	4	29	0	0
	stp_sub_ad->fl_temp_data	-55~86	-55	85	85	-55	85	86
	stp_GasInfo_addr->fl_span_temp_data	0.85	0	85	0	0	0	0
	stp_data->uc_nc_mode_flg	0	0	0	0	0	0	0
	stp_GasInfo_addr->fl_span_buf[0]	0.2	0	0	2	0	0	0
	stp_GasInfo_addr->fl_span_buf[1]	0.5	0	0	5	0	0	0
	luc_ack	0.1	1	0	1	1	1	1
Judgment								

GasCalcNC Calc NCDenst

	Responsible	Last update
Coding	Ikarashi	
Test	Taki	
Judgment	Ikarashi	

			case1	case2	case3	case4	case5	case6	case7	case8	case9	case10	case11	case10	
Root	if(((stp_denst+DataStructConst_NC_CH)->uc_state_trb & (DataStructConst_S_FAIL_INS DataStructConst_S_FAIL_SEN)) == 0U)		-	-	-	-	-	-	-	-	-	-	-	-	
	else		-	-	-	-	-	-	-	-	-	-	-	-	
	if(ucs_m_nc_mode == M_NC_MODE_OVER)		-	-	-	-	-	-	-	-	-	-	-	-	
	if(((stp_gasinfo_addr+DataStructConst_O2_GAS_CH)->uc_gas_comb != 0x00) && (!(stp_denst+DataStructConst_O2_GAS_CH)->uc_state_trb & (DataStructConst_S_FAIL_INS DataStructConst_S_FAIL_SEN))))		-	-	-	-	-	-	-	-	-	-	-	-	
	if((((stp_denst+DataStructConst_O2_GAS_CH)->uc_m_denst_minus_flg == M_OFF) && ((stp_denst+DataStructConst_O2_GAS_CH)->ul_m_denst >= M_NC_RESET_O2_DENST7))		-	-	-	-	-	-	-	-	-	-	-	-	
	if(ucs_m_over_extension_start_flg == M_OFF)		-	-	-	-	-	-	-	-	-	-	-	-	-
	else		-	-	-	-	-	-	-	-	-	-	-	-	-
	if((uss_m_over_wait_count == 0U) (uss_m_over_extension_count == 0U))		-	-	-	-	-	-	-	-	-	-	-	-	-
	else		-	-	-	-	-	-	-	-	-	-	-	-	-
	else		-	-	-	-	-	-	-	-	-	-	-	-	-
	else		-	-	-	-	-	-	-	-	-	-	-	-	-
	if((stp_sub_ad->uc_nc_count != lucs_nc_denst_count_bak) (stp_sub_ad->uc_nc_Protect_status == M_ON))		-	-	-	-	-	-	-	-	-	-	-	-	-
	if(ucs_m_nc_mode != M_NC_MODE_OVER)		-	-	-	-	-	-	-	-	-	-	-	-	-
	if(uss_m_nc_warm_count != 0)		-	-	-	-	-	-	-	-	-	-	-	-	-
	else		-	-	-	-	-	-	-	-	-	-	-	-	-
	if((FlowMain_Get_ModeStatus() == FlowMain_MEASURE_MODE_NUMBER) (FlowMain_Get_ModeStatus() == FlowMain_DISP_MODE_NUMBER))		-	-	-	-	-	-	-	-	-	-	-	-	-
	else		-	-	-	-	-	-	-	-	-	-	-	-	-
	if((luc_over_mainte_flg == M_OFF) && (stp_sub_ad->uc_nc_Protect_status == M_ON))		-	-	-	-	-	-	-	-	-	-	-	-	-
	else		-	-	-	-	-	-	-	-	-	-	-	-	-
	if(ucs_m_nc_output_count >= uc_nc_output_count_max) && (FlowMain_Get_ModeStatus() == FlowMain_DISP_MODE_NUMBER))		-	-	-	-	-	-	-	-	-	-	-	-	-
	if(!(diff_volt[0] >= flc_nc_diff_limit t_diff_volt[1] >= flc_nc_diff_limit t_diff_volt[2] >= flc_nc_diff_limit t_diff_volt[3] >= flc_nc_diff_limit))		-	-	-	-	-	-	-	-	-	-	-	-	-
	else		-	-	-	-	-	-	-	-	-	-	-	-	-
	if((stp_gasinfo_addr+DataStructConst_NC_CH)->uc_follower_onoff == M_ON)		-	-	-	-	-	-	-	-	-	-	-	-	-
	else		-	-	-	-	-	-	-	-	-	-	-	-	-
	else		-	-	-	-	-	-	-	-	-	-	-	-	-
	switch(ucs_m_nc_mode)		-	-	-	-	-	-	-	-	-	-	-	-	-
	case M_NC_MODE_DIFF		-	-	-	-	-	-	-	-	-	-	-	-	-
	case M_NC_MODE_WARM		-	-	-	-	-	-	-	-	-	-	-	-	-
	case M_NC_MODE_OUTPUT		-	-	-	-	-	-	-	-	-	-	-	-	-
	if(stp_denst->uc_m_over_flg == M_OFF !(FlowMain_Get_ModeStatus() == FlowMain_MEASURE_MODE_NUMBER) (FlowMain_Get_ModeStatus() == FlowMain_DISP_MODE_NUMBER))		-	-	-	-	-	-	-	-	-	-	-	-	-
	else		-	-	-	-	-	-	-	-	-	-	-	-	-
	if(GasFuncAir_Dispg_Get_AirCalFlg() == M_ON)		-	-	-	-	-	-	-	-	-	-	-	-	-
	else		-	-	-	-	-	-	-	-	-	-	-	-	-
	case M_NC_MODE_OVER		-	-	-	-	-	-	-	-	-	-	-	-	-
	default		-	-	-	-	-	-	-	-	-	-	-	-	-
	else		-	-	-	-	-	-	-	-	-	-	-	-	-
	else		-	-	-	-	-	-	-	-	-	-	-	-	-
	Input	Symbol	Range												
		(stp_denst+DataStructConst_NC_CH)->uc_state_trb	0x00-0xFF	0xFF	0x00	0x00	0x00	0x00	0x00	0x00	0x00	0x00	0x00	0x00	0x00
		(stp_denst+DataStructConst_O2_GAS_CH)->uc_state_trb	0x00-0xFF	0x00	0x00	0x00	0x00	0xFF	0x00	0x00	0x00	0x00	0x00	0x00	0x00
		(stp_gasinfo_addr+DataStructConst_O2_GAS_CH)->uc_gas_comb	1	1	1	1	1	1	1	1	1	1	1	1	1
		(stp_denst+DataStructConst_O2_GAS_CH)->uc_m_denst_minus_flg	0.1	0	0	1	0	0	0	0	0	0	0	0	0
		(stp_denst+DataStructConst_O2_GAS_CH)->ul_m_denst	200	200	200	199	200	200	200	200	200	200	200	200	200
		ucs_m_nc_mode	0.3	3	3	3	3	0	0	0	0	0	0	0	0
		ucs_m_over_extension_start_flg	0.1	0	1	0	0	0	0	0	0	0	0	0	0
		uss_m_over_wait_count	0.1	0	1	0	0	0	0	0	0	0	0	0	0
		uss_m_over_extension_count	0-2	0	1	0	0	2	2	2	2	2	2	2	2
		lucs_nc_denst_count_bak	0	0	0	0	0	0	0	0	0	0	0	0	0
		stp_sub_ad->uc_nc_count	0.1	0	1	1	1	1	1	1	1	1	1	1	1
		stp_sub_ad->uc_nc_Protect_status	0.1	0	1	1	1	1	1	1	0	1	1	0	0
uss_m_nc_warm_count		0	0	0	0	0	1	0	0	0	0	0	0	0	
(stp_denst+DataStructConst_NC_CH)->uc_m_over_flg		0.1	0	0	0	0	0	0	1	1	0	0	1	1	
FlowMain_Get_ModeStatus()		0-7	0	0	0	0	1	1	0	1	1	7	1	1	
ucs_m_nc_output_count		0-4	0	0	0	0	0	0	4	4	4	0	4	4	
ucc_nc_output_count_max		4	4	4	4	4	4	4	4	4	4	4	4	4	
stp_sub_ad->fl_nc_ad_data[1][0][1]		0.1	0	0	0	0	0	0	1	0	0	0	0	0	
stp_sub_ad->fl_nc_ad_data[0][0][1]		0	0	0	0	0	0	0	0	0	0	0	0	0	
stp_sub_ad->fl_nc_ad_data[1][0][2]	0.1	0	0	0	0	0	0	1	0	0	0	0	0		
stp_sub_ad->fl_nc_ad_data[0][0][2]	0	0	0	0	0	0	0	0	0	0	0	0	0		
stp_sub_ad->fl_nc_ad_data[1][1][1]	0.1	0	0	0	0	0	0	1	0	0	0	0	0		
stp_sub_ad->fl_nc_ad_data[0][1][1]	0	0	0	0	0	0	0	0	0	0	0	0	0		
stp_sub_ad->fl_nc_ad_data[1][1][2]	0.1	0	0	0	0	0	0	1	0	0	0	0	0		
stp_sub_ad->fl_nc_ad_data[0][1][2]	0	0	0	0	0	0	0	0	0	0	0	0	0		
flc_nc_diff_limit	0.0,0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	
GasFuncAir_Dispg_Get_AirCalFlg()	0.1	0	0	0	0	0	0	0	1	0	0	0	1		
(stp_gasinfo_addr+DataStructConst_NC_CH)->uc_follower_onoff	0.1	0	0	0	0	0	0	0	0	1	0	0	1		
Output Judgment	ucs_m_nc_mode	0-3	3	3	3	3	0	3	2	3	3	2	3	1	

GasCalcNC_Chk_OffncPower

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3
Root	!((stp_status->us_main_state & (DataStructConst_FAIL_BTA DataStructConst_FAIL_BTL)) != 0)	-	○	○
	else	○	-	-
	!((stp_dens->uc_state_trb & (DataStructConst_S_FAIL_INS DataStructConst_S_FAIL_SEN)) != 0)	-	○	○
	else	○	-	-
	!(luc_flg == M_ON)	-	○	○
	else	○	-	-
	Symbol	Range		
Input	stp_status->us_main_state	0x0000-0xFFFF	0x0000	0x0003
	stp_dens->uc_state_trb	0x00-0xFF	0x00	0x14
Output	PORT0.PODR.BIT.B3	0	0	0
Judgment				

GasCalcNC_Chk_SensorFail

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	5
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3	case4	case5
Root	!(uc_m_chk_start_flg == M_ON)	○	○	○	-	-
	!(stp_sub_ad->fl_nc_ad_data[0][1] > M_NC_SENSOR_CHK_VOLTAGE)	○	○	-	-	-
	!(stp_sub_ad->fl_nc_ad_data[0][1] > M_NC_SENSOR_CHK_VOLTAGE)	○	-	-	-	-
	else	-	○	-	-	-
	else	-	-	○	-	-
	else	-	-	-	○	○
	Symbol	Range				
Input	uc_m_chk_start_flg	0-2	1	1	0	2
	stp_sub_ad->fl_nc_ad_data[0][1]	-800-801	800	800	-800	-801
	stp_sub_ad->fl_nc_ad_data[0][1]	-800-801	800	-800	800	-801
Output	luc_ans	0,1	0	1	1	0
Judgment						

GasCalcNC_Get_LongEnergyFlg

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	4
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3	case4
Root	!(GasFuncAir_Disp_Get_AirCalFlg() == M_ON)	○	-	-	-
	else	-	○	○	○
	!((FlowMain_Get_ModeStatus() == FlowMain_MEASURE_MODE_NUMBER) (FlowMain_Get_ModeStatus() == FlowMain_DISP_MODE_NUMBER))	○	-	-	-
	else	-	○	○	○
	!(ucs_m_nc_mode == M_NC_MODE_WARM ucs_m_nc_mode == M_NC_MODE_OVER)	○	-	○	-
	else	-	○	-	○
	Symbol	Range			
Input	GasFuncAir_Disp_Get_AirCalFlg()	0-2	1	0	0
	FlowMain_Get_ModeStatus()	0-8	0	1	7
	ucs_m_nc_mode	0-4	0	2	3
Output	luc_ans	0	0	0	0
Judgment					

GasCalcNC_Get_NCPProtectionCount

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1
Root	None	-
	Symbol	Range
Input	None	-
Output	uss_m_nc_warm_count	0
Judgment		

GasCalcNC_Get_NCPProtectionFlg

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3
Root	!(ucs_m_nc_mode == M_NC_MODE_OVER)	○	-	-
	else	-	○	○
	Symbol	Range		
Input	ucs_m_nc_mode	0-4	3	0
Output	luc_ans	0,1	1	0
Judgment				

GasCalcNC_Get_NCWarmupFlg

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3
Root	! (ucs_m_nc_mode==M_NC_MODE_WARM)	-	○	-
	else	○	-	○
	Symbol	Range		
Input	ucs_m_nc_mode	0-2	1	0
Output	luc_ans	0,1	0	1
Judgment				

GasCalcNC_Set_NCProtectionFlgOff

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3
Root	if(ucs_m_nc_mode == M_NC_MODE_OVER)	○	-	-
	else	-	○	○
	Symbol	Range		
Input	ucs_m_nc_mode	0~4	3	0
Output	uss_m_nc_warm_count	0.1500	1500	0
	ucs_m_nc_mode	0.4	0	4
Judgment				

GasCalcNC_Set_SpanMargine

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	8
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3	case4	case5	case6	case7	case8
Root	for(luc_i=0; luc_i<2; luc_i++)	○	○	○	○	○	○	○	○
	if(!temp1[luc_i] < 0.0F)	○	-	○	○	○	○	○	-
	else	-	○	○	○	○	-	-	○
	if((HCTableDefData[stp_GasInfo_addr->uc_gas_comb]. uc_meas_group & 0xd0) == 0xd0)	-	○	○	○	○	-	-	-
	if(!temp1[0] >= !temp1[1]) && (luc_minus_flg[0] == M_OFF) && (luc_minus_flg[1] == M_OFF))	○	-	-	-	-	-	-	-
	else if(!temp1[0] <= !temp1[1]) && (luc_minus_flg[0] == M_ON) && (luc_minus_flg[1] == M_ON))	-	○	-	-	-	-	-	-
	else if((luc_minus_flg[0] == M_OFF) && (luc_minus_flg[1] == M_ON))	-	-	○	○	-	-	-	-
	else	-	-	-	-	○	-	-	-
	else if((HCTableDefData[stp_GasInfo_addr->uc_gas_comb]. uc_meas_group & 0x20) == 0x20)	-	-	-	-	-	○	-	-
	else	-	-	-	-	-	-	-	○
	if(FlowMain_Get_ModeStatus()) <= FlowMain_DISP_MODE_NUMBER)	○	-	○	-	-	-	-	○
	else	-	○	-	○	○	○	○	○
	if(!temp2 <= M_NC_LINEAR_MAX)	-	-	○	○	-	-	-	-
	if(FlowMain_Get_ModeStatus()) <= FlowMain_DISP_MODE_NUMBER)	-	-	○	-	-	-	-	-
	else	-	-	-	○	-	-	-	-
	else	○	○	-	-	○	○	○	○
	if(!fl_dens1 > stp_GasInfo_addr->ui_full_scale)	-	○	○	-	-	○	○	○
else	○	-	-	-	○	-	-	-	
if(!fl_dens1 > (stp_GasInfo_addr->ui_cal_dens1 * M_NC_CALDENST_MAG))	-	○	○	○	○	○	○	-	
else	○	-	-	-	○	-	-	○	
	Symbol	Range							
Input	m_Get_NC_ZeroTempComp()	1.36~1.1	0	0	0	0	-1.36	1.02	1.1
	m_Get_NC_SpanTempComp()	0.99825~1.1	1	1	1	1	0.99825	1.03665	1.1
	stp_sub_ad->fl_nc_ad_data[0][1][2]	-800~801	800	800	800	800	-800	-800	801
	stp_sub_ad->fl_nc_ad_data[0][1][2]	-800~801	800	800	800	800	-800	-800	801
	m_Get_NC_ZeroHumComp (stp_status->fl_absolute_humidity[0])	-800~801	800	-800	800	-800	800	800	801
	m_Get_NC_ZeroHumComp (stp_status->fl_absolute_humidity[1])	-800~801	800	-800	-800	-800	800	800	801
	stp_GasInfo_addr->uc_gas_comb	0~30	0	0	0	0	29	3	4
	FlowMain_Get_ModeStatus()	0~8	0	0	7	7	7	7	8
	stp_dens1->fl_span_min[luc_flg]	0~1.7	0	1.6	1.6	1.6	1.6	1.6	1.7
	stp_GasInfo_addr->us_hc_rate[0]	0~121	0	120	120	120	120	120	121
	stp_GasInfo_addr->us_hc_rate[1]	0~121	0	120	120	120	120	120	121
	m_Change_LinearRaiseOpt()	-50~601	0	600	600	600	600	600	601
	stp_GasInfo_addr->fl_lsl_max_ratio[0]	0~60001	0	60000	60000	60000	600000	600000	60001
	stp_GasInfo_addr->fl_lsl_ratio[0]	0~50001	0	50000	50000	50000	500000	500000	50001
	stp_dens1->fl_span_fix	0~2	0	1	0	0	1	1	2
	stp_GasInfo_addr->ui_full_scale	100~501	100	500	500	500	500	500	501
	stp_GasInfo_addr->ui_cal_dens1	0x00000000.0xFFFFFFFF	0xFFFFFFFF	0x00000000	0x00000000	0x00000000	0x00000000	0x00000000	0xFFFFFFFF
stp_GasInfo_addr->ui_digit	1~6	1	1	5	5	5	5	6	
Output	stp_GasInfo_addr->ui_span_margin	0~4294967295	4294967295	0	0	0	0	0	498
Judgment									

GasCalcNC_Start_ChkFlg

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1
Root	None	-
	Symbol	Range
Input	None	-
Output	uc_m_chk_start_flg	1
Judgment		

m. Calc_NC_DiffMode

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	2
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2
Root	if((ll_temp_diff < 0))	○	-
	else	-	○
	for(luc_i=0; luc_i<2; luc_i++)	○	○
	if((ll_sen_ad[0][luc_i] < (ll_vol_diff_lim[0] + stp_Gasinfo_addr->ll_zero_buf)[luc_i]))	○	○
	if((ll_sen_ad[0][luc_i] > (ll_vol_diff_lim[1] + stp_Gasinfo_addr->ll_zero_buf)[luc_i]))	○	○
	else	-	-
	else	-	-
	Symbol	Range	
Input	ll_absolute_humidity[0]	0	0
	ll_absolute_humidity[1]	0	0
	ll_zero_temp_data	0	0
	ll_zero_buf[0]	0	0
	m_Get_NC_ZeroHumComp0	0	0
	m_Get_NC_ZeroTempComp0	0	0
	ll_nc_ad_data[0][0][0]	0	0
	ll_nc_ad_data[0][1][0]	0	0
	ll_nc_ad_data[2][0][0]	0	0
	ll_nc_ad_data[2][1][0]	0	0
	ll_temp_data	-1.0	0
	ll_zero	0	0
Output	ll_zero	0	0
Judgment			

m. Calc_AbsoluteHumidity

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	5
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3	case4	case5
Root	for(luc_i=0U; luc_i<2U; luc_i++)	○	○	○	-	○
	if((stp_sub_ad->ll_temp_data < ll_nc_temp_ref (stp_Gasinfo_addr->ll_zero_temp_data < ll_nc_temp_ref))	○	-	-	-	-
	else if((ll_humidity < M_NC_HUMIDITY_MIN)	-	-	-	-	-
	else if((ll_humidity > M_NC_HUMIDITY_MAX)	-	○	○	○	○
	else	-	-	-	-	-
	Symbol	Range				
Input	ll_zero_temp_data	0	65535	100	200	300
	ll_zero_humidity_voltage[0]	0~65535	0	65535	100	200
	m_Get_NC_1000msTempComp()	0	65535	100	200	300
	ll_nc_ad_data[0][0][0]	0	65535	100	200	300
	ll_nc_ad_data[0][1][0]	0	65535	100	200	300
	ll_temp_data	0	65535	100	200	300
	ll_absolute_humidity	0.100	0	100	100	100
Output						
Judgment						

m. Calc_NC_OutPutMode

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	4
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3	case4
Root	if((ll_sen_ad[0] <= M_NC_RETURN_DIFF) && (ll_sen_ad[1] <= M_NC_RETURN_DIFF))	-	-	○	○
	if(++ucs_m_nc_output_count > M_NC_OUTPUT_COUNT_MAX)	-	-	○	-
	else	-	-	-	○
	else	○	○	-	-
	Symbol	Range			
Input	stp_sub_ad->ll_nc_ad_data[0][0][1]	-800~801	-800	800	801
	stp_sub_ad->ll_nc_ad_data[0][1][1]	-800~801	-800	800	801
	stp_densst->ll_zero[0]	65~86	65	85	64
	stp_densst->ll_zero[1]	65~86	65	85	64
	ucs_m_nc_output_count	0~6	5	6	4
	ucs_m_nc_output_count	0,4	0	0	4
	ucs_m_nc_output_count	0,4	0	0	4
Output					
Judgment					

m. Change_LinearRaiseBackOp

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3
Root	if((pfl_x_data > 10000))	○	-	-
	else	-	○	○
	for(luc_i = 0; luc_i < 10; luc_i++)	-	○	○
	if((pfl_x_data >= (FLOAT)(luc_i * 1000)) && (pfl_x_data <= (FLOAT)(luc_i+1 * 1000)))	-	○	-
	else	-	○	○
	Symbol	Range		
Input	pfl_x_data	-1~101	101	100
	puc_num	0~7	0	6
Output	ll_ret_ans	0~1110	101	100
Judgment				

m_Change_LinearRaiseOp

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

Root	for(luc_i = 0; luc_i < 9; luc_i++) if((pfl_y_data >= (FLOAT)usc_GasCalc_HC_inearize_y_data[puc_num][luc_i]) && (pfl_y_data <= (FLOAT)usc_GasCalc_HC_inearize_y_data[puc_num][luc_i + 1])) else		case1	case2	case3
			○	○	○
			○	-	-
			-	○	○
Symbol	Range				
Input	puc_num	0~7	0	6	7
	pfl_y_data	0~101	0	100	101
Output	#_ret_ans	0~101	0	100	101
Judgment					

m_Get_NC_100msTempComp

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	4
Test	Taki			
Judgment	Ikarashi		Judgment	

Root	None		case1	case2	case3	case4
			-	-	-	-
Symbol	Range					
Input	#_temp_data	-55~85	0	85	-55	-56
Output	#_ans_num	-21.2171~0.996	-4.1125	0.996	-20.816	-21.2171
Judgment						

m_Get_NC_SpanHumComp

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	4
Test	Taki			
Judgment	Ikarashi		Judgment	

Root	None		case1	case2	case3	case4
			○	-	-	-
Symbol	Range					
Input	pfl_absolute_humidity	-55~85	0	85	-55	-56
Output	#_ans_num	-0.168~0.255	0	0.255	-0.165	-0.168
Judgment						

m_Get_NC_SpanTempComp

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	4
Test	Taki			
Judgment	Ikarashi		Judgment	

Root	if((#_ans_num < 2E-10F) && (#_ans_num > -2E-10F)) else		case1	case2	case3	case4
			○	-	-	-
			-	○	○	○
Symbol	Range					
Input	stp_sub_ad->#_temp_data	-55~85	0	85	-55	-56
Output	#_ans_num	0.99905~1.2765	0.99905	1.27625	1.20625	1.2128
Judgment						

m_Get_NC_ZeroHumComp

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

Root	None		case1	case2	case3
			-	-	-
Symbol	Range				
Input	stp_sub_ad->#_temp_data	-55~86	-55	85	86
Output	#_ans_num	-0.46182~0.29535	0.29535	-0.45645	-0.46182
Judgment					

m_Get_NC_ZeroTempComp

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

Root	None		case1	case2	case3
			-	-	-
Symbol	Range				
Input	stp_sub_ad->#_temp_data	-55~85	-55	85	86
Output	#_ans_num	-0.9567999~1.701473	-0.9567999	1.6668	1.701473
Judgment					

m_Set_NC_Denst

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification point	9
Test	Taki			
Judgment	Ikarashi		Judgment	

Root		case1	case2	case3	case4	case5	case6	case7	case8	case9
	if((stp_GasInfo_addr->uc_suppress_onoff == M_ON) && (FlowMain_Get_ModeStatus() <= FlowMain_DISP_MODE_NUMBER))	○	-	-	-	-	-	-	-	-
	else	-	○	○	○	○	○	○	○	○
	for(luc_i=0; luc_i<2; luc_i++)	○	○	○	○	○	○	○	○	○
	if(!luc_temp1[luc_i] < 0.0F)	○	-	-	○	○	-	○	-	-
	else	-	○	○	○	○	○	-	○	○
	if((HCTableDefData[stp_GasInfo_addr->uc_gas_comb]. uc_meas_group & 0x20) == 0x00)	○	○	○	○	○	-	○	○	○
	if((HCTableDefData[stp_GasInfo_addr-> uc_sub_comb].uc_meas_group & 0x20) == 0x20)	-	-	-	-	-	-	-	○	-
	else	○	○	○	○	○	-	-	-	-
	if(!luc_temp1[0] >= luc_temp1[1] && (luc_minus_flg[0] == M_OFF) && (luc_minus_flg[1] == M_OFF))	○	-	-	-	-	-	-	-	-
	else if(!luc_temp1[0] <= luc_temp1[1] && (luc_minus_flg[0] == M_ON) && (luc_minus_flg[1] == M_ON))	-	○	○	-	-	-	-	-	-
	else if((luc_minus_flg[0] == M_OFF) && (luc_minus_flg[1] == M_ON))	-	-	-	○	-	-	-	-	-
	else	-	-	-	-	○	-	-	-	-
	else if((HCTableDefData[stp_GasInfo_addr->uc_gas_comb]. uc_meas_group & 0x20) == 0x20)	-	-	-	-	-	-	○	-	○
	else	-	-	-	-	-	○	-	-	-
	if(FlowMain_Get_ModeStatus() <= FlowMain_DISP_MODE_NUMBER)	○	-	-	-	-	-	-	-	-
	else	-	○	○	○	○	○	○	○	○
	if(!luc_temp2 <= M_NC_LINEAR_MAX)	○	-	○	-	-	○	-	○	-
	if(FlowMain_Get_ModeStatus() <= FlowMain_DISP_MODE_NUMBER)	○	-	-	-	-	-	-	-	-
	else	-	-	○	-	-	○	-	○	-
	else	-	○	-	○	○	-	○	-	○
	if(FlowMain_Get_ModeStatus() <= FlowMain_DISP_MODE_NUMBER)	○	-	-	-	-	-	-	-	-
	else	-	○	○	○	○	○	○	○	○
	if(!luc_denst > (stp_GasInfo_addr->ul_full_scale * M_NC_CALC_MAX / 100))	-	○	-	○	-	-	-	-	-
	else	○	-	○	-	○	○	○	○	○
	if(!luc_denst < (luc_x_sup2) && (luc_minus_flg[luc_flg] == M_OFF))	○	-	-	-	-	-	-	-	-
	else	-	○	○	○	○	○	○	○	○
	if(luc_minus_flg[luc_flg] == M_ON)	-	○	○	-	-	○	-	○	○
	if(stp_data->uc_long_energy_flg == M_ON)	-	○	○	-	-	-	-	○	-
	if(luc_minus_over_flg == M_ON)	-	○	-	-	-	-	-	○	-
	if(!luc_denst > (stp_GasInfo_addr->ul_full_scale * M_NC_CALC_MAX / 100))	-	○	-	-	-	-	-	-	-
	else	-	-	○	-	-	-	-	○	-
	else	-	-	-	-	-	○	-	-	-
	if(luc_minus_flg[luc_flg] == M_ON) && (!luc_denst > (stp_GasInfo_addr->ul_full_scale / 5UL))	-	-	○	○	○	○	○	-	○
	else	○	○	-	-	-	-	-	○	-
	if(luc_minus_over_flg == M_ON)	-	-	-	-	-	○	-	-	○
	else	-	-	-	-	-	-	-	-	-
	else	-	-	-	-	-	○	-	-	-
	else	○	-	-	○	○	-	○	-	-
		○	-	-	○	○	-	○	-	-
Input	Symbol	Range								
	stp_GasInfo_addr->uc_suppress_onoff	0~2	1	0	0	0	0	0	0	2
	stp_GasInfo_addr->ul_full_scale	100~501	100	100	100	100	100	100	500	501
	stp_GasInfo_addr->ul_upper_limit	0~501	0	100	100	100	100	100	500	501
	stp_sub_ad->fl_nc_ad_data[0][0][2]	-800~801	99	800	1	0	130	1	-800	100
	stp_sub_ad->fl_nc_ad_data[0][1][2]	-800~801	99	800	1	130	0	1	-800	100
	m_Get_NC_ZeroHumComp (stp_status->fl_absolute_humidity[0])	0~130	100	0	0	130	0	0	85	65
	m_Get_NC_ZeroHumComp (stp_status->fl_absolute_humidity[1])	0~130	100	0	0	130	0	65	85	64
	stp_GasInfo_addr->uc_gas_comb	0~29	29	29	1	1	1	4	3	0
	stp_GasInfo_addr->uc_sub_comb	0~30	0	0	0	0	0	29	3	30
	stp_denst->fl_span_fix	1~6.7	1	1	1	1	1	6.7	1.2	6.7
	stp_GasInfo_addr->fl_span_buf[0]	4.2,4.3	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.3
	stp_GasInfo_addr->fl_span_buf[1]	4.2,4.3	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.3
	stp_GasInfo_addr->us_hc_rate[0]	0~10000	120	120	120	120	120	0	10000	121
	stp_GasInfo_addr->us_hc_rate[1]	0~10000	120	120	120	120	120	0	10000	121
	stp_GasInfo_addr->fl_lsl_max_ratio[0]	0~50001	0	50000	50000	50000	50000	50000	1000	50001
	stp_GasInfo_addr->fl_lsl_max_ratio[1]	0~50001	0	50000	50000	50000	50000	50000	1000	50001
	stp_GasInfo_addr->fl_lsl_ratio[0]	0~44001	100	0	44000	44000	44000	44000	100	44001
	stp_GasInfo_addr->fl_lsl_ratio[1]	0~44001	100	0	44000	44000	44000	44000	100	44001
	stp_GasInfo_addr->ul_digit	1~6	5	1	1	1	1	1	1	6
	stp_data->uc_long_energy_flg	0~2	0	1	1	1	0	0	1	2
	m_Change_LinearRaiseOpt	0~130	0	100	0	130	130	0	5	0
	m_Get_NC_SpanTempComp0	0.99825~1.04	0.99825	1.03865	1	1	1	1	1	1.04
	m_Get_NC_ZeroTempComp0	-1.36~-1.03	-1.36	1.02	0	0	0	0	0	1.03
	FlowMain_Get_ModeStatus()	0~8	0	3	3	3	3	3	7	8
	stp_denst->ul_m_denst	0~500	0	120	0	120	0	120	500	100
Output	stp_denst->uc_m_over_flg	0.1	0	1	0	1	0	1	0	0
	stp_denst->uc_m_over_minus_flg	0.1	0	0	0	0	0	0	0	1
	stp_denst->uc_m_denst_minus_flg	0.1	0	0	1	0	0	0	0	1
	stp_denst->ul_m_denst		0	0	1	0	0	1	0	1
Judgment										

m_Set_NC_OffMode

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification point	3
Test	Taki			
Judgment	Ikarashi		Judgment	

Root	None	case1	case2	case3
		-	-	-
Input	Symbol	Range		
	stp_GasInfo_addr->ul_full_scale	100~501	100	500
Output	stp_GasInfo_addr->ul_digit	1~6	1	5
	uss_m_over_wait_count	3000	3000	3000
	uss_m_nc_warm_count	0	0	0
	stp_denst->uc_m_over_flg	1	1	1
	stp_denst->uc_m_over_minus_flg	0	0	0
	stp_denst->uc_m_denst_minus_flg	0	0	0
	stp_denst->ul_m_denst	101~507	101	505
Judgment				

Unit Test Specification

Project name	GX-Force
File name	gas_calc_tbl.c

GasCalcTbl_Get_RomNum

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1
Root	None		-
	Symbol	Range	
Input	None	-	-
Output	uss_m_gas_table_rom_num[0]	7328	7328
Judgment			

GasCalcTbl_Get_SumNum

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1
Root	None		-
	Symbol	Range	
Input	None	-	-
Output	uss_m_gas_table_sum_num[0]	38394	38394
Judgment			

Unit Test Specification

Project name	GX-Force
File name	gas_func_air.c

GasFuncAir Calc 1sec AirCal

	Responsible	Last update
Coding	Ikarashi	
Test	Taki	
Judgment	Ikarashi	

Root		case1	case2	case3	case4	case5	case6	case7	case8	case9	case10	case11	case12	case13	case4
	if(uc_air_calc_on_flg != M_OFF)	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	if(GasCalcNC_Get_NCProtectionFlg() == M_ON)	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	else if(GasCalcNC_Get_NCProtectionCount() == 0)	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	if(uc_nc_air_re_count == 0)	0	-	-	-	-	0	0	0	0	0	0	0	-	0
	if(uc_ack == M_NG)	0	-	-	-	-	-	0	0	0	0	0	0	-	0
	if(uc_air_re_count[0] == 0)	0	-	-	-	-	-	0	0	0	0	0	0	-	0
	else	-	-	-	-	-	0	-	-	-	-	-	-	-	-
	if(uc_air_re_count[1])	-	-	0	0	0	0	0	-	-	-	-	-	0	0
	if(uc_ack == M_NG)	0	-	-	-	-	0	0	-	-	-	-	0	0	0
	if(uc_air_re_count[2] == 0)	0	-	0	0	0	0	0	-	-	-	-	-	0	-
	else	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	if(uc_air_re_count[3])	-	-	0	0	0	0	0	-	-	-	-	-	0	-
	if((tmp_GasInfo.addr+3)>uc_gas_comb == DataStructConst_CO_CAN_H2_GAS_NUM)	0	-	-	-	-	-	-	-	-	-	-	-	-	-
	else	0	-	0	0	0	0	0	-	-	-	-	0	0	0
	if(uc_ack == M_NG)	0	-	-	-	-	0	0	-	-	-	-	0	0	0
	if(uc_air_re_count[3] == 0)	-	-	-	-	-	0	0	-	-	-	-	-	0	0
	else	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	if((uc_air_re_count[0] == 0) && (uc_air_re_count[1] == 0) && (uc_air_re_count[2] == 0) && (uc_air_re_count[3] == 0) && (uc_air_re_count[4] == 0))	0	-	0	0	0	0	0	0	0	0	0	-	0	0
	if(uc_air_end_count == 0)	0	-	0	-	-	0	-	0	0	0	-	-	-	0
	if(uc_air_end_count != 0)	-	-	-	-	-	-	-	-	-	-	0	-	-	-
Input	Symbol	range													
	uc_air_calc_on_flg	0-1	1	0	1	1	1	1	1	1	1	1	1	1	1
	uc_air_re_count[0]	0-2	1	1	0	1	1	1	2	1	1	1	2	1	1
	uc_air_re_count[1]	0-2	1	1	1	1	1	1	1	0	0	0	2	1	1
	uc_air_re_count[2]	0-2	1	1	1	1	1	1	1	0	0	0	2	1	1
	uc_air_re_count[3]	0-2	1	1	1	1	1	1	1	0	0	0	2	1	1
	GasCalcNC_Get_NCProtectionFlg()	0-2	2	2	2	1	2	2	2	2	2	2	2	2	2
	GasCalcNC_Get_NCProtectionCount()	0,1	0	0	0	0	0	0	0	0	0	0	0	1	0
	uc_nc_air_re_count	0-1	0	0	0	0	0	0	0	0	0	0	0	0	0
	GasCalcNC_AirCal_HCDenst()	0-4	1	1	1	1	1	2	1	1	1	1	1	1	1
	uc_gas_comb	1,2	3	3	3	3	3	3	3	3	4	4	4	3	3
	GasCalcECDenst_AirCal_Denst()	0-2	1	1	1	1	1	1	1	2	2	1	2	1	1
	GasCalcECDenstCancelCO_Set_AirCal()	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	GasCalcECDenst_AirCal_O2Denst()	0-2	1	1	1	1	1	1	1	2	2	2	2	1	1
Output	uc_air_end_count	0,1	0	0	0	0	0	0	0	0	0	1	0	0	0
	uc_air_calc_on_flg	0,1	0	0	0	1	1	0	1	0	0	1	1	1	0
	uc_air_end_count	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	uc_air_re_count[0]	0,1	0	1	0	1	1	0	1	0	0	0	1	1	0
	uc_nc_air_re_count	0-5	5	0	0	0	0	0	5	5	5	5	5	0	5
Subelement															

GasFuncAir_Calc_Get_AirCalFlg

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1
Root	None	-
	Symbol	Range
Input	None	-
Output	uc_air_calc_on_flg	32
Judgment		

GasFuncAir_Calc_Set_AirCalFlg

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	4
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3	case4
Root	for(luc_i=0; luc_i<HDEF_GAS_MAX; luc_i++)	○	○	○	○
	if(((stp_GasInfo_addr+luc_i)->uc_gas_comb != 0x00) && (((stp_denst+luc_i)->uc_state_trb & (DataStructConst_S_FAIL_INS DataStructConst_S_FAIL_SEN)) == 0))	○	○	○	○
	iff((luc_i == DataStructConst_CO_CAN_H2_H2_CH) && ((stp_GasInfo_addr+luc_i)->uc_gas_comb == DataStructConst_CO_CAN_H2_GAS_NUM))	-	-	-	-
	else	○	○	○	○
	if(uc_air_re_count[luc_i] != 0) uc_air_calc_on_flg = (0x01 << luc_i)	○	○	○	○
	Symbol	Range			
Input	(stp_GasInfo_addr+luc_i)->uc_gas_comb	0~30	3	0	29
	(stp_denst+luc_i)->uc_state_trb	0x00,0xFF	0x00	0xFF	0x00
	stp_data->uc_ir_air_onoff	0	0	0	0
Output	uc_air_calc_on_flg	6,7	7	6	7
	uc_air_re_count[luc_i]	0,4	4	0	4
	uc_nc_air_re_count	0	0	0	0
	uc_air_end_count	5	5	5	5
Judgment					

GasFuncAir_Disp_Get_AirCalFlg

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1
Root	None	-
	Symbol	Range
Input	None	-
Output	uc_air_disp_on_flg	0
Judgment		

GasFuncAir_Dispatch_Set_AirCalFlg

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1	case2	case3
Root	None		-	-	-
	Symbol	Range			
Input	puc_flg	0~2	0	1	2
Output	uc_air_disp_on_flg	0~2	0	1	2
Judgment					

GasFuncAir_Set_AirCalErrorOff

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1
Root	for(luc_i = 0U; luc_i < HDDEF_GAS_MAX; luc_i++)		○
	Symbol	Range	
Input	None	-	-
Output	None	-	-
Judgment			

Unit Test Specification

Project name	GX-Force
File name	gas_func_autocal.c

GasFuncAutoCal_Calc_1sec_AutoCal

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	13
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3	case4	case5	case6	case7	case8	case9	case10	case11	case12	case13
Root	if(uc_auto_calc_on_flg != M_OFF)	○	-	○	○	○	○	○	○	○	○	○	○	○
	if(uc_auto_re_count[0] == M_ON)	○	-	-	○	○	○	○	○	○	○	○	○	○
	if(ul_auto_cal_dens[0] != M_OFF_VAL)	○	-	-	-	○	○	○	○	○	○	○	○	○
	if(uc_ack == M_NG)	○	-	-	-	-	-	-	-	-	-	-	-	-
	else	-	-	-	-	○	○	○	○	○	○	○	○	○
	if(uc_auto_re_count[1] == M_ON)	○	-	○	○	○	-	○	○	○	○	○	○	-
	if(ul_auto_cal_dens[1] != M_OFF_VAL)	○	-	○	○	○	-	○	○	○	○	○	○	-
	if(uc_ack == M_NG)	○	-	○	○	○	-	-	-	-	-	-	-	-
	else	-	-	-	-	-	-	○	○	○	○	○	○	-
	if(uc_auto_re_count[2] == M_ON)	○	-	○	○	○	○	○	○	○	○	○	○	-
	if(ul_auto_cal_dens[2] != M_OFF_VAL)	○	-	○	○	○	○	○	-	○	○	○	○	-
	if((stp_GasInfo_addr+DataStructConst_CO_CAN_H2_H2_CH)->uc_gas_comb == DataStructConst_CO_CAN_H2_GAS_NUM)	-	-	-	-	-	-	-	-	-	-	-	-	-
	else	○	-	○	○	○	○	○	-	○	○	○	○	-
	if(uc_ack == M_NG)	○	-	○	○	○	○	○	-	○	-	-	-	-
	else	-	-	-	-	-	-	-	-	-	○	○	○	-
	if(uc_auto_re_count[3] == M_ON)	○	-	○	○	○	○	○	○	○	○	○	○	-
	if(ul_auto_cal_dens[3] != M_OFF_VAL)	○	-	○	○	○	○	○	○	○	○	-	○	-
	if((stp_GasInfo_addr+DataStructConst_CO_CAN_H2_CO_CH)->uc_gas_comb == DataStructConst_CO_CAN_H2_GAS_NUM)	-	-	-	-	-	-	-	-	-	-	-	-	-
	else	○	-	○	○	○	○	○	○	○	○	-	○	-
	if(uc_ack == M_NG)	○	-	○	○	○	○	○	○	○	-	-	-	-
	else	-	-	-	-	-	-	-	-	-	○	-	○	-
	if((uc_auto_re_count[0] == M_OFF) && (uc_auto_re_count[1] == M_OFF) && (uc_auto_re_count[2] == M_OFF) && (uc_auto_re_count[3] == M_OFF))	○	-	-	-	○	-	○	-	○	○	-	○	○
Input	Symbol	Range												
	uc_gas_comb	3,4	3	3	3	3	3	3	3	4	4	4	3	3
	GasCalcECI_Dens(AutoCal_Dens)	1,2	1	1	1	1	1	1	1	1	2	2	2	2
	GasCalcECH2CarboxCO_Set(AutoCal)	0	0	0	0	0	0	0	0	0	0	0	0	0
	GasCalcECO2_AutoCal_O2Dens()	1,2	1	1	1	1	1	2	2	2	2	2	2	2
	gasCalcNC_AutoCal_HC_Dens()	1,2	1	1	1	1	2	2	2	2	2	2	2	2
	uc_auto_calc_on_flg	0,1	1	0	1	1	1	1	1	1	1	1	1	1
	uc_auto_re_count[0]	1,2	1	1	2	1	1	1	1	1	1	1	1	1
	uc_auto_re_count[1]	0,1	1	1	1	1	1	1	1	1	1	1	1	0
	uc_auto_re_count[2]	0,1	1	1	1	1	1	1	1	1	1	1	1	0
	uc_auto_re_count[3]	0,1	1	1	1	1	1	1	1	1	1	1	1	0
	ul_auto_cal_dens[0]	0x00000000,0x0000000E	0x0000000E	0x0000000E	0x0000000E	0x0000000E	0x0000000E	0x0000000E	0x0000000E	0x0000000E	0x0000000E	0x0000000E	0x0000000E	0x0000000E
	ul_auto_cal_dens[1]	0x00000000,0x0000000E	0x0000000E	0x0000000E	0x0000000E	0x0000000E	0x0000000E	0x0000000E	0x0000000E	0x0000000E	0x0000000E	0x0000000E	0x0000000E	0x0000000E
	ul_auto_cal_dens[2]	0x00000000,0x0000000E	0x0000000E	0x0000000E	0x0000000E	0x0000000E	0x0000000E	0x0000000E	0x0000000E	0x0000000E	0x0000000E	0x0000000E	0x0000000E	0x0000000E
	ul_auto_cal_dens[3]	0x00000000,0x0000000E	0x0000000E	0x0000000E	0x0000000E	0x0000000E	0x0000000E	0x0000000E	0x0000000E	0x0000000E	0x0000000E	0x0000000E	0x0000000E	0x0000000E
	uc_auto_calc_on_flg	0,1	0	0	1	1	0	1	0	1	0	0	1	0
	uc_auto_re_count[0]	0-2	0	1	2	1	0	0	0	0	0	0	0	0
	Judgment													

GasFuncAutoCal_Calc_Get_AutoCalFlg

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1
Root	None	-
Input	Symbol	Range
Output	None	-
Output	uc_auto_calc_on_flg	32
Judgment		

GasFuncAutoCal_Calc_Set_AutoCalFlg

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	4
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3	case4
Root	for(uc_i=0; uc_i<HIDDEF_GAS_MAX; uc_i++)	○	○	○	○
	if((stp_GasInfo_addr+uc_i)->uc_gas_comb != 0x00) && ((stp_GasInfo_addr+uc_i)->ul_cal_dens != M_OFF_VAL)	○	○	○	-
	if((stp_GasInfo_addr+uc_i)->uc_cal_group == puc_group)	○	○	-	-
	if(!((stp_dens+uc_i)->uc_state_trb & (DataStructConst_S_FAIL_INS DataStructConst_S_FAIL_SEN)))	○	-	-	-
	else	-	○	-	-
	else	-	-	○	-
	else	-	-	-	○
	if(uc_auto_re_count[uc_i] == M_ON)	○	-	-	-
	else	-	○	○	○
	Symbol	Range			
Input	puc_group	0x00,0xFF	0x00	0xFF	0x00
	(stp_GasInfo_addr+uc_i)->uc_gas_comb	0~30	29	29	30
	(stp_GasInfo_addr+uc_i)->ul_cal_dens	0~0x00000000	0	50000	50001
	(stp_GasInfo_addr+uc_i)->uc_cal_group	0x00,0xFF	0x00	0xFF	0xFF
	(stp_dens+uc_i)->uc_state_trb	0x00,0xFF	0x00	0xFF	0xFF
Output	stp_data->uc_up_cal_flg	0	0	0	0
	uc_auto_re_count[uc_i]	1	1	1	1
	uc_auto_calc_on_flg	3	3	3	3
Judgment					

GasFuncAutoCal_Calc_Set_BumpCalFig

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	5
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3	case4	case5
Root	for(luc_i=0; luc_i<HDDDEF_GAS_MAX; luc_i++)	O	O	O	O	O
	if((stp_GasInfo_addr+luc_i)>uc_gas_comb != 0x00) && ((stp_GasInfo_addr+luc_i)>ul_cal_denst != M_OFF_VAL))	O	O	O	O	-
	if((stp_GasInfo_addr+luc_i)>uc_cal_group == puc_group)	O	O	O	-	-
	if((stp_denst+luc_i)>uc_state_trb & (DataStructConst_S_FAIL_INS DataStructConst_S_FAIL_SEN))	O	O	-	-	-
	if((stp_denst+luc_i)>uc_state_trb & DataStructConst_S_FAIL_BMP)	O	-	-	-	-
	else	-	O	-	-	-
	else	-	-	O	-	-
	else	-	-	-	O	-
	else	-	-	-	-	O
	if(uc_auto_re_count(luc_i) == M_ON)	O	-	-	-	-
	else	-	O	O	O	O
	Symbol	Range				
Input	puc_group	0x00-0xFF	0x00	0xFF	0x00	0x00
	(stp_GasInfo_addr+luc_i)>uc_gas_comb	0~30	29	29	30	29
	(stp_GasInfo_addr+luc_i)>ul_cal_denst	0~0xDDDDDDDD	0	50000	50001	0
	(stp_GasInfo_addr+luc_i)>uc_cal_group	0x00,0xFF	0x00	0xFF	0x00	0xFF
	(stp_denst+luc_i)>uc_state_trb	0x00,0xFF	0x00	0x00	0xFF	0x00
Output	uc_auto_calc_on_flg	1	1	1	1	1
	uc_auto_re_count(luc_i)	1	1	1	1	1
Judgment						

GasFuncAutoCal_Calc_Set_ComAutoCalFig

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	4
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3	case4
Root	for(luc_i=0; luc_i<HDDDEF_GAS_MAX; luc_i++)	O	O	O	O
	if((stp_GasInfo_addr+luc_i)>uc_gas_comb != 0x00) && ((stp_GasInfo_addr+luc_i)>ul_cal_denst != M_OFF_VAL))	O	O	O	-
	if(puc_flg & (0x01 << luc_i))	O	O	-	-
	if((stp_denst+luc_i)>uc_state_trb & (DataStructConst_S_FAIL_INS DataStructConst_S_FAIL_SEN))	O	-	-	-
	if(uc_auto_re_count(luc_i) == M_ON)	O	-	-	-
	Symbol	Range			
Input	puc_flg	0x00,0xFF	0x00	0xFF	0x00
	*pucp_serial_p	0~2	1	1	0
	(stp_GasInfo_addr+luc_i)>uc_gas_comb	0~30	29	29	30
	(stp_GasInfo_addr+luc_i)>ul_cal_denst	0~0xDDDDDDDD	0	50000	50001
	(stp_GasInfo_addr+luc_i)>uc_cal_group	0x00,0xFF	0x00	0xFF	0xFF
	(stp_denst+luc_i)>uc_state_trb	0x00,0xFF	0x00	0xFF	0x00
Output	stp_data+uc_up_cal_flg	0,253	0	253	253
	uc_auto_re_count(luc_i)	1	1	1	1
Judgment					

GasFuncAutoCal_Get_AutoCalGroup

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1
Root	None	-
	Symbol	Range
Input	None	-
Output	uc_auto_cal_group	0
Judgment		

GasFuncAutoCal_Get_AutoCalSDMSelear

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1
Root	None	-
	Symbol	Range
Input	None	-
Output	None	-
Judgment		

GasFuncAutoCal_Set_AutoCalErrorOff

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1
Root	for(luc_i = 0U; luc_i < HDDEF_GAS_MAX; luc_i++)	O
	Symbol	Range
Input	None	-
Output	None	-
Judgment		-

GasFuncAutoCal_Set_AutoCalGroup

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	2
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2
Root	None	-	-
	Symbol	Range	
Input	pvc_group	0x00,0xFF	0x00 0xFF
Output	uc_auto_cal_group	0x00,0xFF	0x00 0xFF
Judgment			

GasFuncAutoCal_Set_AutoCalSDMSelect

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1
Root	None	-
	Symbol	Range
Input	None	-
Output	None	-
Judgment		-

GasFuncAutoCal_Set_ComAutoCalDenst

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3
Root	None	-	-	-
	Symbol	Range		
Input	pvc_flg	0-5	0 4 5	
	pul_denst	0-50001	0 50000 50001	
Output	ul_com_auto_cal_denst[pvc_flg]	0	0 0	0
Judgment				

m_Set_AutoCalDenst

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	4
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3	case4
Root	if(pvc_flg == 0)	O	O	-	-
	if((stp_GasInfo_addr+2)>uc_gas_comb == DataStructConst_CO_CAN_H2_GAS_NUM)	O	-	-	-
	else	-	O	-	-
	if((stp_GasInfo_addr+3)>uc_gas_comb == DataStructConst_CO_CAN_H2_GAS_NUM)	O	-	-	-
	else	-	O	-	-
	else	-	-	O	O
	Symbol	Range			
Input	pvc_flg	0-2	0 0 1 2		
	(stp_GasInfo_addr+2)>uc_gas_comb	0-30	4 0 29 30		
	(stp_GasInfo_addr+3)>uc_gas_comb	0-30	4 0 29 30		
	(stp_GasInfo_addr+0)>ul_cal_denst	0-251	250 0 0 251		
	(stp_GasInfo_addr+1)>ul_cal_denst	0-121	120 0 0 121		
	(stp_GasInfo_addr+2)>ul_cal_denst	0-501	500 0 0 501		
	(stp_GasInfo_addr+3)>ul_cal_denst	0-801	800 0 0 801		
Output	ul_auto_cal_denst[0]	0	0 0 0 0		
	ul_auto_cal_denst[1]	0	0 0 0 0		
	ul_auto_cal_denst[2]	0	0 0 0 0		
	ul_auto_cal_denst[3]	0	0 0 0 0		
Judgment					

Unit Test Specification

Project name	GX-Force
File name	interval_timer.c

IntervalTimer_Flag_Acquisition_100msec

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1
Root	None		-
	Symbol	Range	
Input	None	-	-
Output	uc_m_100msec_flag_time	0	0
Judgment			

IntervalTimer_Flag_Acquisition_250msec

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1
Root	None		-
	Symbol	Range	
Input	None	-	-
Output	uc_m_250msec_flag_time	0	0
Judgment			

IntervalTimer_Flag_Set_100msec

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1	case2	case3
Root	None		-	-	-
	Symbol	Range			
Input	puc_num	0~2	0	1	2
Output	uc_m_100msec_flag_time	0~2	0	1	2
Judgment					

IntervalTimer_Flag_Set_250msec

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1	case2	case3
Root	None		-	-	-
	Symbol	Range			
Input	puc_num	0~2	0	1	2
Output	uc_m_250msec_flag_time	0~2	0	1	2
Judgment					

IntervalTimer_Int_CMT_Start

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1
Root	None	-
	Symbol	Range
Input	None	-
Output	None	-
Judgment		

IntervalTimer_Int_CMT_Stop

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1
Root	None	-
	Symbol	Range
Input	None	-
Output	None	-
Judgment		

IntervalTimer_Int_Timer_CMT0_Op

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	5
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1	case2	case3	case4	case5
Root	if(--lucs_t250m == 0)		-	○	-	-	-
	else		○	-	○	○	○
	if(--lucs_t100m == 0)		-	○	-	-	-
	else		○	-	○	○	○
	if(--lucs_t1000m == 0)		-	○	-	-	-
	else		○	-	○	○	○
	Symbol	Range					
Input	lucs_t250m	0~26	0	1	2	25	26
	lucs_t100m	0~11	0	1	2	10	11
	lucs_t1000m	0~101	0	1	2	100	101
Output	lucs_t250m	1~255	255	25	1	24	24
	lucs_t100m	1~255	255	10	1	9	10
	lucs_t1000m	1~255	255	100	1	99	100
	uc_m_250msec_flag_time	0,1	0	1	1	1	1
	uc_m_100msec_flag_time	0,1	0	1	1	1	1
Judgment							

Unit Test Specification

Project name	GX-Force
File name	key_event.c

KeyEvent_Chk_DispPowerOff

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	4
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1	case2	case3	case4
Root	if(uc_turn_off_flg == M_ON)		○	○	-	-
	if(uc_turn_off_stop_flg == M_ON)		○	-	-	-
	else		-	○	-	-
	else		-	-	○	○
	Symbol	Range				
Input	uc_turn_off_flg	0~2	1	1	0	2
	uc_turn_off_stop_flg	0~2	1	0	0	2
Output	luc_ans	0,1	0	1	0	0
Judgment						

KeyEvent_Chk_KeyPowerOff

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	4
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1	case2	case3	case4
Root	if(uc_m_switch_buffer != M_MODE_KEY)		○	-	-	○
	else		-	○	○	-
	if(uc_off_disp_count > 3)		-	○	-	-
	else		-	-	○	-
	Symbol	Range				
Input	uc_m_switch_buffer	0x00~0xFF	0x00	0x01	0x01	0xFF
	uc_off_disp_count	0~4	0	3	0	4
Output	uc_off_disp_count	0~4	0	4	1	0
	uc_turn_off_flg	0,1	0	1	0	0
Judgment						

KeyEvent_Get_ForcedPowerOff

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1
Root	None		-
	Symbol	Range	
Input	None	-	-
Output	uc_turn_off_stop_flg	2	2
Judgment			

KeyEvent_Get_KeyEvent

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1
Root	None		-
	Symbol	Range	
Input	None	-	-
Output	ss_event_zipc	0	0
Judgment			

KeyEvent_Get_KeyPort

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1
Root	None		-
	Symbol	Range	
Input	None	-	-
Output	None	-	-
Judgment			

KeyEvent_Get_KeyPowerOff

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1
Root	None		-
	Symbol	Range	
Input	None	-	-
Output	uc_turn_off_flg	0	0
Judgment			

KeyEvent_Get_ReleaseKeyFlg

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1
Root	None		-
	Symbol	Range	
Input	None	-	-
Output	uc_key_release_on_flg	0	0
Judgment			

KeyEvent_Get_TimeNum

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1
Root	None		-
	Symbol	Range	
Input	None	-	-
Output	us_timer_count	0	0
Judgment			

KeyEvent_no_op_time_set

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	2
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1	case2
Root	if(us_no_op_timer_count != 0)		-	○
	else		○	-
	Symbol	Range		
Input	us_no_op_timer_count	0x0000,0xFFFF	0x0000	0xFFFF
Output	uc_no_op_timer_count_flg	0,1	0	1
Judgment				

KeyEvent_Reset_KeyTime

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1
Root	None		-
	Symbol	Range	
Input	None	-	-
Output	us_m_switch_on_time	0	0
Judgment			

KeyEvent_Scan_KeyPort

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	4
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1	case2	case3	case4
Root	if(us_timer_count)		○	-	-	○
	if(lucs_1sec_counter == 0)		○	○	-	-
	if(us_no_op_timer_count)		○	-	-	-
	else		-	-	○	○
	if(luc_KeyBuf != luc_KeyState)		○	-	-	○
	else		-	○	○	-
	Symbol	Range				
Input	us_timer_count	0x0000,0xFFFF	0xFFFF	0x0000	0x0000	0xFFFF
	luc_KeyState	0,1	1	0	0	0
	lucs_1sec_counter	0~101	0	0	100	101
	us_no_op_timer_count	0x0000,0xFFFF	0xFFFF	0x0000	0x0000	0xFFFF
	m_Get_KeyIo()	0~3	2	0	0	3
Output	uc_m_key_data	0,32	32	0	32	32
	us_no_op_timer_count	0~65535	65534	0	0	65535
	us_timer_count	0,65534	65534	0	0	65534
	luc_KeyState	0~3	2	0	0	3
	lucs_1sec_counter	99,100	100	100	99	100
	uc_m_switch_buffer	128	128	128	128	128
Judgment						

KeyEvent_Set_ForcedPowerOff

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1	case2	case3
Root	if(luc_onoff == 0)		○	-	-
	else		-	○	○
	Symbol	Range			
Input	luc_onoff	0~2	0	1	2
Output	uc_turn_off_stop_flg	0,1	0	1	1
Judgment					

KeyEvent_time_set

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	2
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1	case2
Root	if(pus_count != 0)		○	-
	else		-	○
	Symbol	Range		
Input	pus_count	0x0000,0xFFFF	0xFFFF	0x0000
Output	uc_timer_count_flg	0,1	1	0
Judgment				

m_Get_Keylo

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	2
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1	case2
Root	None		-	-
	Symbol	Range		
Input	PORT1.PIDR.BIT.B4	0,1	0	1
	PORT1.PIDR.BIT.B5	0,1	0	1
Output	luc_dummy	0~3	3	0
Judgment				

Unit Test Specification

Project name	GX-Force
File name	lcd_main.c

LCDMAIN_10msec_interrupt

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	6
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1	case2	case3
Root	if(uss_m_back_light_timer)		-	○	○
	else		○	-	-
	if(uss_m_lrdA_disconnect_count)		-	○	○
	else		○	-	-
	Symbol	Range			
Input	uss_m_back_light_timer	0~25501	0	25500	25501
	uss_m_lrdA_disconnect_count	0~18001	0	18000	18001
Output	None	-	-	-	-
Judgment					

LCDMAIN_Clr_DispData

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1
Root	None		-
	Symbol	Range	
Input	None	-	-
Output	None	-	-
Judgment			

LCDMAIN_Set_BackLightTimer

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1	case2	case3
Root	None		-	-	-
	Symbol	Range			
Input	stp_data->us_back_light_time	0~256	0	255	256
Output	uss_m_back_light_timer	0~25600	0	25500	25600
Judgment					

LCDMAIN_Set_BattIconDisp

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1	case2	case3
Root	None		-	-	-
	Symbol	Range			
Input	puc_num	0~5	0	4	5
Output	None	-	-	-	-
Judgment					

LCDMAIN_Set_BumpChkIconDisp

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	4
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1	case2	case3	case4
Root	if(stp_data->uc_bump_lmt_set == M_ON)		○	○	-	-
	if(FuncBumpLimit_Get_ChkBumpLimitExpired() == M_OFF)		○	-	-	-
	else		-	○	-	-
	else		-	-	○	○
	Symbol	Range				
Input	stp_data->uc_bump_lmt_set	0~2	1	1	0	2
	FuncBumpLimit_Get_ChkBumpLimitExpired()	0~2	0	1	0	2
Output	None	-	-	-	-	-
Judgment						

LCDMAIN_Set_Com_Discon_count

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1	case2	case3
Root	if(puc_onoff == M_ON)		○	-	-
	else		-	○	○
	Symbol	Range			
Input	puc_onof	0~2	1	0	2
Output	uss_m_lrDA_disconnect_count	0,18000	18000	0	0
Judgment					

LCDMAIN_set_data

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1
Root	None		-
	Symbol	Range	
Input	None	-	-
Output	None	-	-
Judgment			

LCDMAIN_Set_HartIconDisp

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1
Root	None		-
	Symbol	Range	
Input	None	-	-
Output	None	-	-
Judgment			

LCDMAIN_Set_PumplconDisp

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1	case2	case3
Root	if(PumpFlow_Get_MotionFlag_isMove() == true)		-	○	-
	else		○	-	○
	Symbol	Range			
Input	PumpFlow_Get_MotionFlag_isMove()	0~2	0	1	2
Output	None	-	-	-	-
Judgment					

LCDMAIN_Set_LonglconDisp

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1
Root	None		-
	Symbol	Range	
Input	None	-	-
Output	None	-	-
Judgment			

LCDMAIN_Set_ModelconDisp

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1
Root	None		-
	Symbol	Range	
Input	None	-	-
Output	None	-	-
Judgment			

LCDMAIN_Set_OffBackLight

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1	case2	case3
Root	None		-	-	-
	Symbol	Range			
Input	puc_onoff	0~2	0	1	2
Output	ucs_m_back_light_off	0~2	0	1	2
Judgment					

LCDMAIN_Set_OnSdmBackLight

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1
Root	None		-
	Symbol	Range	
Input	None	-	-
Output	ucs_m_back_liget_sdm	1	1
Judgment			

LCDMAIN_Set_TimelconDisp

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1
Root	None		-
	Symbol	Range	
Input	None	-	-
Output	None	-	-
Judgment			

LCDMAIN_start

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1
Root	None		-
	Symbol	Range	
Input	None	-	-
Output	None	-	-
Judgment			

LCDMAIN_stop

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1
Root	None		-
	Symbol	Range	
Input	None	-	-
Output	None	-	-
Judgment			

LCDMAIN Set BackLight

	Responsible	Last update
Coding	Ikarashi	
Test	Taki	
Judgment	Ikarashi	

[illegible]

Unit Test Specification

Project name	GX-Force
File name	lcd_normal_drv.c

LCDNORMAL_all_display_ram

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	2
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1	case2
Root	for(luc_i=0; luc_i<4; luc_i++)		○	○
	if(stp_data->uc_ble_onoff == M_OFF)		○	-
	for(luc_i=0; luc_i<2; luc_i++)		○	○
	for(luc_j=0; luc_j<8; luc_j++)		○	○
	for(luc_i=0; luc_i<8; luc_i++)		○	○
	Symbol	Range		
Input	uc_ble_onoff	0,1	0	1
	uc_lcd_icon[0]	0	0	0
Output	uc_lcd_icon_blink	0	0	0
	uc_lcd_time	126	126	126
	uc_lcd_time_blink	0	0	0
	uc_lcd_time_dot	255	255	255
	uc_lcd_time_dot_blink	0	0	0
	uc_lcd_mes[0]	126	126	126
	uc_lcd_mes_blink	0	0	0
	uc_lcd_mes_dot	255	255	255
	uc_lcd_mes_dot_blink	0	0	0
	uc_lcd_com	126	126	126
	uc_lcd_com_blink	0	0	0
	uc_lcd_com_dot	255	255	255
	uc_lcd_com_dot_blink	0	0	0
Judgment				

LCDNORMAL_clr_display_ram

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1
Root	for(luc_i=0; luc_i<4; luc_i++)		○
	for(luc_i=0; luc_i<2; luc_i++)		○
	for(luc_j=0; luc_j<8; luc_j++)		○
	for(luc_i=0; luc_i<8; luc_i++)		○
	Symbol	Range	
Input	None	-	-
Output	st_normal_disp.uc_lcd_icon[luc_i]	0x00	0x00
	st_normal_disp.uc_lcd_icon_blink[luc_i]	0x00	0x00
	st_normal_disp.uc_lcd_time[luc_i]	0x20	0x20
	st_normal_disp.uc_lcd_mes[luc_i][luc_j]	0x20	0x20
	st_normal_disp.uc_lcd_mes_blink[luc_i]	0x00	0x00
	st_normal_disp.uc_lcd_mes_dot[luc_i]	0x00	0x00
	st_normal_disp.uc_lcd_mes_dot_blink[luc_i]	0x00	0x00
	st_normal_disp.uc_lcd_com[luc_i]	0x20	0x20
	st_normal_disp.uc_lcd_time_blink	0x00	0x00
	st_normal_disp.uc_lcd_time_dot	0x00	0x00
	st_normal_disp.uc_lcd_time_dot_blink	0x00	0x00
	st_normal_disp.uc_lcd_com_dot	0x00	0x00
	st_normal_disp.uc_lcd_com_blink	0x00	0x00
	st_normal_disp.uc_lcd_com_dot_blink	0x00	0x00
Judgment			

LCDNORMAL_int_10msec

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1	case2	case3
Root	if(ucs_m_timer)		-	○	○
	else		○	-	-
	Symbol	Range			
Input	ucs_m_timer	0~26	0	25	26
Output	None	-	-	-	-
Judgment					

LCDNORMAL_Set_BackLight

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1	case2	case3
Root	if(puc_onoff == M_ON)		○	-	-
	else		-	○	○
	Symbol	Range			
Input	puc_onoff	0~2	1	0	2
Output	PORTA.PODR.BIT.B6	0,1	1	0	0
Judgment					

LCDNORMAL_set_data

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1	case2	case3
Root	if(KeyEvent_Chk_DispPowerOff() == M_OFF)		○	-	-
	else		-	○	○
	Symbol	Range			
Input	KeyEvent_Chk_DispPowerOff()	0~2	1	0	2
Output	None	-	-	-	-
Judgment					

LCDNORMAL_Set_DispDataUpDATA

	Responsible	Last update	Infinite loop	Yes
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1
Root	while(ucs_m_timer)		○
	Symbol	Range	
Input	None	-	-
Output	None	-	-
Judgment			

LCDNORMAL_Set_Display_point

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	0
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1
Root	None		-
	Symbol	Range	
Input	None	-	-
Output	&st_normal_disp	-	Indefinite value
Judgment			

LCDNORMAL_start

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1
Root	None		-
	Symbol	Range	
Input	None	-	-
Output	None	-	-
Judgment			

LCDNORMAL_stop

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1
Root	None		-
	Symbol	Range	
Input	None	-	-
Output	None	-	-
Judgment			

```
m_write_normal_disp_data
```

	Responsible	Last update
Coding	Ikarashi	
Test	Taki	
Judgment	Ikarashi	

[illegible]

Unit Test Specification

Project name	GX-Force
File name	lcd_normal_font.c

LCDNormalFont_seg_conv7

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1	case2	case3
Root	for(lus_i = 0 ; lus_i < (sizeof(uc_7seg_table)/sizeof(uc_7seg_table[0])) ; lus_i++)		○	○	○
	if(puc_code == uc_7seg_table[lus_i].uc_asc)		○	○	-
	else		○	○	○
	Symbol	Range			
Input	puc_code	0~68	0	67	68
Output	lucp_ans_pnt	-	Indefinite value	Indefinite value	Indefinite value
Judgment					

LCDNormalFont_seg_conv14

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1	case2	case3
Root	for(lus_i = 0 ; lus_i < (sizeof(uc_14seg_table)/sizeof(uc_14seg_table[0])) ; lus_i++)		○	○	○
	if(puc_code == uc_14seg_table[lus_i].uc_asc)		○	○	-
	else		○	○	○
	Symbol	Range			
Input	puc_code	0~43	0	42	43
Output	lucp_ans_pnt	-	Indefinite value	Indefinite value	Indefinite value
Judgment					

Unit Test Specification

Project name	GX-Force
File name	lcd_normal_show.c

LCDNormalShow_Set_7segGasNameDisp

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	7
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3	case4	case5	case6	case7
Root	switch(puc_pos)	○	○	○	○	○	○	○
	case 0	○	○	○	-	-	-	-
	case 1	-	-	-	○	-	-	-
	case 2	-	-	-	-	○	-	-
	case 3	-	-	-	-	-	○	-
	default	-	-	-	-	-	-	○
	switch(puc_pos)	○	○	○	○	○	○	○
	case 0	○	○	○	-	-	-	-
	if((stp_GasInfo_addr+puc_pos)->uc_gas_comb != (stp_GasInfo_addr+puc_pos)->uc_sub_comb)	○	-	-	-	-	-	-
	else	-	○	○	-	-	-	-
	if((Tool_Comp_Pnt(&stp_GasInfo_addr+puc_pos)->uc_name[0][0], (U_CHR *)&uc_CH4[0], 10) == 0 Tool_Comp_Pnt(&stp_GasInfo_addr+puc_pos)->uc_name[0][0], (U_CHR *)&uc_H2[0], 10) == 0)	-	○	-	-	-	-	-
	else	-	-	○	-	-	-	-
	case 1	-	-	-	○	-	-	-
	case 2	-	-	-	○	○	-	-
	case 3	-	-	-	○	○	○	-
	default	-	-	-	-	-	-	○
	Symbol	Range						
Input	puc_pos	0-4	0	0	1	2	3	4
	(stp_GasInfo_addr+puc_pos)->uc_gas_comb	0-30	0	0	0	0	29	30
	(stp_GasInfo_addr+puc_pos)->uc_sub_comb	0-30	29	0	0	0	0	30
	Tool_Comp_Pnt()	0-2	0	0	1	0	0	2
Output	None	-	-	-	-	-	-	-
Judgment								

LCDNormalShow_Set_AlarmCommentDisp

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	10
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3	case4	case5	case6	case7	case8	case9	case10
Root	if((puc_alarm_event & ALARMEVENT_ALM_STL) == ALARMEVENT_ALM_STL)	○	-	-	-	-	-	-	-	-	-
	else if((puc_alarm_event & ALARMEVENT_ALM_TWA) == ALARMEVENT_ALM_TWA)	-	○	-	-	-	-	-	-	-	-
	else if((puc_alarm_event & ALARMEVENT_ALM_1H) == ALARMEVENT_ALM_1H)	-	-	○	-	-	-	-	-	-	-
	else if((puc_alarm_event & ALARMEVENT_ALM_OVR) == ALARMEVENT_ALM_OVR)	-	-	-	○	-	-	-	-	-	-
	else if((puc_alarm_event & ALARMEVENT_ALM_MIN) == ALARMEVENT_ALM_MIN)	-	-	-	-	○	-	-	-	-	-
	else if((puc_alarm_event & ALARMEVENT_ALM_3RD) == ALARMEVENT_ALM_3RD)	-	-	-	-	-	○	-	-	-	-
	else if((puc_alarm_event & ALARMEVENT_ALM_2ND) == ALARMEVENT_ALM_2ND)	-	-	-	-	-	-	○	-	-	-
	else if((puc_alarm_event & ALARMEVENT_ALM_1ST) == ALARMEVENT_ALM_1ST)	-	-	-	-	-	-	-	○	-	-
	else	-	-	-	-	-	-	-	-	○	○
	Symbol	Range									
	puc_alarm_event	0x00-0xFF	0x08	0x10	0x40	0x80	0x20	0x04	0x02	0x01	0x00
Input	puc_alarm_event		0x08	0x10	0x40	0x80	0x20	0x04	0x02	0x01	0x00
Output	None	-	-	-	-	-	-	-	-	-	-
Judgment											

LCDNormalShow_Set_BattIconDisp

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	6
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3	case4	case5	case6
Root	switch(puc_num)	○	○	○	○	○	○
	case 0	○	-	-	-	-	-
	case 1	-	○	-	-	-	-
	case 2	-	-	○	-	-	-
	case 3	-	-	-	○	-	-
	case 4	-	-	-	-	○	-
	default	-	-	-	-	-	○
Input	Symbol	Range					
	puc_num	0-5	0	1	2	3	4
Output	stp_ni_disp->puc_lcd_icon[3]	0x80-0xF0	0x80	0x90	0x90	0x80	0xF0
	stp_ni_disp->puc_lcd_icon_blink[3]	0x80,0x90	0x80	0x90	0x90	0x90	0x90
Judgment							

LCDNormalShow_Set_BumpChkIconDisp

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1
Root	None	-
	Symbol	Range
Input	None	-
Output	stp_ni_disp->uc_lcd_icon[0]	0x42
Judgment		0x42

LCDNormalShow_Set_CharacterDisp

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	5
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3	case4	case5
Root	switch(puc_pos)	○	○	○	○	○
	case 0	○	-	-	-	-
	case 1	-	○	-	-	-
	case 2	-	-	○	-	-
	case 3	-	-	-	○	-
	default	-	-	-	-	○
	if(puc_blink == M_ON)	○	-	-	-	-
	else	-	○	○	○	○
	Symbol	Range				
Input	puc_pos	0-4	0	1	2	3
	*pucp_data	0x00-0xFF	0x00	0x00	0x00	0x00
	puc_blink	0-2	1	0	0	0
Output	stp_ni_disp->uc_lcd_mes_blink[luc_y]	0xF0	0	0	0	0
	stp_ni_disp->uc_lcd_mes_dot_blink[luc_y]	0xE0	0xE0	0	0	0
Judgment						

LCDNormalShow_Set_DenstDisp

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	7
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3	case4	case5	case6	case7
Root	switch(puc_pos)	○	○	○	○	○	○	○
	case 0	○	-	-	-	-	-	-
	case 1	-	○	-	-	-	-	-
	case 2	-	-	○	-	-	-	-
	case 3	-	-	-	○	-	-	-
	default	-	-	-	-	○	○	○
	if(pul_val == M_OFF_VAL)	○	-	-	-	-	-	-
	else if(pul_val == M_NA_VAL)	-	○	-	-	-	-	-
	else if(puc_fail == M_ON)	-	-	○	-	-	-	-
	else if(puc_over == M_ON)	-	-	-	○	-	-	-
	else if(puc_m_over == M_ON)	-	-	-	-	○	-	-
	else	-	-	-	-	-	○	○
	if(puc_dec_pos != 0)	-	-	-	-	-	○	-
	else	-	-	-	-	-	-	○
	if(puc_minus == M_ON)	-	-	-	-	-	○	-
	else	-	-	-	-	-	-	○
	if(puc_blink == M_ON)	○	-	-	-	-	-	-
	else	-	○	○	○	○	○	○
	Symbol	Range						
Input	puc_pos	0-4	0	1	2	3	4	4
	pul_val	0x00000000-0xFFFFFFFF	0xDDDDDDDD	0xFFFFFFFF	0x00000000	0x00000000	0x00000000	0x00000000
	puc_over	0-2	0	0	0	1	0	2
	puc_m_over	0-2	0	0	0	0	1	0
	puc_minus	0-2	0	0	0	0	0	1
	puc_fail	0-2	0	0	1	0	0	2
	puc_dec_pos	0-4	0	0	0	0	4	3
	puc_blink	0-2	1	0	0	0	0	2
Output	stp_ni_disp->uc_lcd_mes_dot[luc_y]	0x00-0x80	0x00	0x00	0x00	0x00	0x80	0x00
	stp_ni_disp->uc_lcd_mes[luc_y][luc_x]	0x00-0x2D	0x00	0x00	0x00	0x00	0x2D	0x00
	stp_ni_disp->uc_lcd_mes_blink[luc_y]	0xF0	0xF0	0x00	0x00	0x00	0x00	0x00
	stp_ni_disp->uc_lcd_mes_dot_blink[luc_y]	0xE0	0xE0	0x00	0x00	0x00	0x00	0xE0
Judgment								

LCDNormalShow_Set_HartIconDisp

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1
Root	None	-
	Symbol	Range
Input	None	-
Output	stp_ni_disp->uc_lcd_icon[0]	0xC2
	stp_ni_disp->uc_lcd_icon_blink[0]	0x82
Judgment		

LCDNormalShow_Set_LongIconDisp

	Responsible	Last update
Coding	Ikarashi	
Test	Taki	
Judgment	Ikarashi	

		case1	case2	case3	case4
Root	if(FlowMain_Get_ModeStatus() == FlowMain_INITIAL_MODE_NUMBER FlowMain_Get_ModeStatus() == FlowMain_MEASURE_MODE_NUMBER FlowMain_Get_ModeStatus() == FlowMain_DISP_MODE_NUMBER)	O	O	-	-
	if(stp_data->uc_long_energy_flg == M_ON)	O	-	-	-
	else	-	O	-	-
	else	-	-	O	O
	Symbol	Range			
Input	FlowMain_Get_ModeStatus()	0-7	0	7	8
	stp_data->uc_long_energy_flg	1	0	0	2
Output	stp_ni_disp->uc_lcd_icon[0]	0xE2	0xE2	0xE2	0xE2
Judgment					

LCDNormalShow_Set_MeasurementDisp

	Responsible	Last update
Coding	Ikarashi	
Test	Taki	
Judgment	Ikarashi	

[illegible]

LCDNormalShow_Set_ModelconDisp

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3
Root	if(FlowMain_Get_ModeStatus() == FlowMain_INITIAL_MODE_NUMBER FlowMain_Get_ModeStatus() == FlowMain_MEASURE_MODE_NUMBER FlowMain_Get_ModeStatus() == FlowMain_DISP_MODE_NUMBER) else	O	-	-
	Symbol	-	O	O
	Range			
Input	FlowMain_Get_ModeStatus()	0	7	8
Output	stp_ni_disp->uc_lcd_icon[0]	0xE2	0xF2	0xF2
Judgment				

LCDNormalShow_Set_NoALARMIconDisp

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	4
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3	case4
Root	if(FlowMain_Get_ModeStatus() == FlowMain_INITIAL_MODE_NUMBER FlowMain_Get_ModeStatus() == FlowMain_MEASURE_MODE_NUMBER FlowMain_Get_ModeStatus() == FlowMain_DISP_MODE_NUMBER) if(stp_data->uc_stealth_on == M_ON) else if(stp_data->uc_alarm_on == M_OFF) else else	O	O	-	-
	Symbol	O	-	-	-
	Range	-	O	-	-
	Symbol	O	-	-	-
	Range	-	O	-	-
	Symbol	-	O	-	-
	Range	-	-	O	O
Input	FlowMain_Get_ModeStatus()	0	0	7	8
	stp_data->uc_stealth_on	1	0	0	2
	stp_data->uc_alarm_on	1	0	0	2
Output	stp_ni_disp->uc_lcd_icon[0]	0xFA	0xFE	0xFE	0xFE
Judgment					

LCDNormalShow_Set_TimelconDisp

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1
Root	None	-
	Symbol	
	Range	
Input	None	-
Output	stp_ni_disp->uc_lcd_time_dot	0x05
	stp_ni_disp->uc_lcd_time_dot_blink	0x05
Judgment		

LCDNormalShow_Set_PumpIconDisp

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	4
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3	case4
Root	if(puc_icon_onoff == M_ON) else if(luc_toggle_cnt >= 4U) else	O	-	-	O
	Symbol	-	O	O	-
	Range	O	O	-	-
	Symbol	-	-	O	O
	Range				
Input	None	-	-	-	-
Output	puc_icon_onoff	1	2	2	1
	luc_toggle_cnt	3	3	3	0
Judgment					

LCDNormalShow_Set_GasNameDisp

	Responsible	Last update
Coding	Ikazuchi	
Test	Taki	
Judgment	Ikazuchi	

[illegible]

Unit Test Specification

Project name	GX-Force
File name	led.c

LED_Control_Led_Port

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	4
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1	case2	case3	case4
Root	if(puc_on == M_ON)		○	-	-	-
	else		-	○	○	○
	switch(puc_port)		○	○	○	○
	case LED_LED1		○	-	-	-
	case LED_LED2		-	○	-	-
	case LED_LED3		-	-	○	-
	default		-	-	-	○
	Symbol	Range				
Input	puc_port	1~4	1	2	3	4
	puc_on	0~2	1	0	0	2
Output	None	-	-	-	-	-
Judgment						

LED_10msec_Interrupt

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1	case2	case3
Root	if(uss_led_light_on_time != 0U)		-	○	○
	else		○	-	-
	Symbol	Range			
Input	uss_led_light_on_time	0~2	1	0	2
Output	uss_led_light_on_time	0,1	0	0	1
Judgment					

LED_Get_LightOnOffStatus

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3	
Root	if(uss_led_light_on_time != 0U)	-	○	○	
	else	○	-	-	
	Symbol	Range			
Input	uss_led_light_on_time	0~2	1	0	2
Output	luc_onoff	0,1	1	0	1
Judgment					

LED_Set_InitRAM

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1
Root	None		-
	Symbol	Range	
Input	None	-	-
Output	uss_led_light_on_time	0	0
Judgment			

LED_Set_LightOff

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1
Root	None		-
	Symbol	Range	
Input	None	-	-
Output	uss_led_light_on_time	0	0
Judgment			

LED_Set_LightOnTime

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1	case2	case3
Root	if(uss_led_light_on_time != 0U)		○	-	○
	else		-	○	-
	Symbol	Range			
Input	uss_led_light_on_time	0~2	1	0	2
Output	uss_led_light_on_time	0,12000	0	12000	0
Judgment					

LED_Test_Command

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1	case2	case3
Root	if(puc_led_onoff == M_OFF)		-	○	-
	else		○	-	○
	Symbol	Range			
Input	puc_led_onoff	0~2	1	0	2
Output	uss_led_light_on_time	0,12000	12000	0	12000
Judgment					

m_Set_LedLightPort

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1	case2	case3
Root	if(puc_led_onoff == M_OFF)		-	○	-
	else		○	-	○
	Symbol	Range			
Input	puc_led_onoff	0~2	1	0	2
Output	PORT5.PODR.BIT.B4	0,1	1	0	1
Judgment					

Unit Test Specification

Project name	GX-Force
File name	logger_GXForce.c

LoggerGXForce_Chk_1secLoggerRun

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	6
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3	case4	case5	case6	
Root	for(luc_j = 0; luc_j < HDEF_GAS_MAX; luc_j++)	○	○	○	-	-	-	
	if((FlowMain_Get_ModeStatus() == FlowMain_MEASURE_MODE_NUMBER) (FlowMain_Get_ModeStatus() == FlowMain_DISP_MODE_NUMBER))	○	○	○	-	-	-	
	if((st_datalogger_control.uc_state & DATALOGGER_RUN) (luc_sensor_status != 0) (luc_main_status != 0))	○	-	-	-	-	-	
	else if(st_datalogger_control.uc_state & DATALOGGER_OVERWRITE)	-	○	-	-	-	-	
	else	-	-	○	-	-	-	
	else	-	-	-	○	○	○	
	if(lus_timer >= M_RUN_ERR_TIMER)	-	-	○	-	-	-	
	for(luc_i=0; luc_i<HDEF_GAS_MAX; luc_i++)	-	-	○	-	-	-	
	for(luc_j=0; luc_j<15; luc_j++)	-	-	○	-	-	-	
else	○	○	-	○	○	○		
	Symbol	Range						
Input	FlowMain_Get_ModeStatus()	0~8	1	1	1	0	7	8
	lus_timer	0~181	0	0	180	0	0	181
	(stp_denst + luc_i)->uc_state_trb	0x00,0xFF	0xFF	0x00	0x00	0x00	0x00	0xFF
	stp_status->us_main_state	0x0000,0xFFFF	0xFFFF	0x00	0x00	0x00	0x00	0xFFFF
	st_datalogger_control.uc_state	0x00,0xFF	0x01	0x08	0x00	0x00	0x00	0xFF
Output	(stp_denst+luc_i)->ul_60_total	0	0	0	0	0	0	0
	(stp_denst+luc_i)->ul_ave	0	0	0	0	0	0	0
	(stp_denst+luc_i)->ul_ave_total_cnt	0	0	0	0	0	0	0
	(stp_denst+luc_i)->ul_twa	0	0	0	0	0	0	0
	(stp_denst+luc_i)->ul_stel	0	0	0	0	0	0	0
	(stp_denst+luc_i)->ul_stel_point	0	0	0	0	0	0	0
Judgment								

LoggerGXForce_Chk_LoggerDataClear

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

-		case1
Root	None	-
	Symbol	Range
Input	None	-
Output	ucs_m_logger_data_clear	0
Judgment		

LoggerGXForce_Chk_LoggerPowerClear

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1
Root	None	-
	Symbol	Range
Input	None	-
Output	ucs_m_logger_power_clear	0
Judgment		

LoggerGXForce_Clear_LoggerDataClear

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	4
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3	case4
Root	switch(ucs_m_logger_data_clear)	○	○	○	○
	case M_OFF	○	-	-	-
	case M_ON	-	○	○	-
	if(DataLogger_clear() == 0x00){	-	○	-	-
	else	-	-	○	-
	default	-	-	-	○
	Symbol	Range			
Input	ucs_m_logger_data_clear	0-2	1	1	2
	DataLogger_clear()	0-3	2	0	1
Output	ucs_m_logger_data_clear	0-2	0	0	1
Judgment					

LoggerGXForce_Clear_LoggerPowerClear

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	4
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3	case4
Root	switch(ucs_m_logger_power_clear)	○	○	○	○
	case M_OFF	○	-	-	-
	case M_ON	-	○	○	-
	if(DataLogger_clearPower() == 0x00)	-	○	-	-
	else	-	-	○	-
	default	-	-	-	○
	Symbol	Range			
Input	ucs_m_logger_power_clear	0-2	0	1	1
	DataLogger_clearPower()	0-3	2	0	1
Output	ucs_m_logger_power_clear	0-2	0	0	1
Judgment					

LoggerGXForce_Clear_PeakClear

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1
Root	None	-
	Symbol	Range
Input	None	-
Output	None	-
Judgment		

LoggerGXForce_Get_FastBumpDenst

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3
Root	if(puc_denst_flg == 0)	○	-	-
	else	-	○	○
	Symbol	Range		
Input	puc_denst_flg	0-2	0	1
	puc_gas_num	0-6	0	5
	uls_logger_fast_bump_cal_denst[puc_gas_num]	0x00000000,0xFFFFFFFF	0x00000000	0xFFFFFFFF
Output	lul_ans	0x00000000	0x00000000	0x00000000
Judgment				

LoggerGXForce_Get_LoggerRun

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1	case2	case3
Root	if(st_datalogger_control.uc_state & DATALOGGER_RUN)		○	-	-
	else		-	○	○
	Symbol	Range			
Input	st_datalogger_control.uc_state	0x00~0xFF	0x01	0x00	0xFF
Output	luc_ans	0,1	1	0	1
Judgment					

LoggerGXForce_Init_Logger

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1
Root	None		-
	Symbol	Range	
Input	None	-	-
Output	st_datalogger_control.uc_error_state	0x80	0x80
Judgment			

LoggerGXForce_Periodic_1secConfirm

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1
Root	None		-
	Symbol	Range	
Input	None	-	-
Output	None	-	-
Judgment			

LoggerGXForce_Set_AirEvent

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1	case2	case3
Root	None		-	-	-
	Symbol	Range			
Input	puc_gas_num	0-2	0	1	2
Output	None	-	-	-	-
Judgment					

LoggerGXForce_Set BUMPEvent

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1	case2	case3
Root	None		-	-	-
	Symbol	Range			
Input	puc_gas_num	0-17	0	16	17
	puc_pass_num	0-17	0	16	17
	puc_fast_flg	0-2	0	1	2
Output	None	-	-	-	-
Judgment					

LoggerGXForce_Set_FastBumpDenst

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1	case2	case3
Root	None		-	-	-
	Symbol	Range			
Input	puc_gas_num	0~6	0	5	6
	puc_denst_flg	0~2	0	1	2
	pul_denst	0x00000000,0xFFFFFFFF	0x00000000	0xFFFFFFFF	0x00000000
Output	uls_logger_fast_bump_cal_denst[puc_gas_num]	0x00000000	0x00000000	0x00000000	0x00000000
Judgment					

LoggerGXForce_Set_LoggerDefault

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1	case2	case3
Root	if(DataLogger_default() == 0x00)		○	-	-
	else		-	○	○
	Symbol	Range			
Input	DataLogger_default()	0~12	0	11	12
Output	luc_ans	0,1	0	1	1
Judgment					

LoggerGXForce_Set_LunchFlg

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1	case2	case3
Root	if(puc_flg == M_ON)		○	-	-
	else		-	○	○
	Symbol	Range			
Input	puc_flg	0~2	1	0	2
Output	st_datalogger_control.uc_lunch_break	0,1	1	0	0
Judgment					

LoggerGXForce_Set_PowerOff

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1	case2	case3
Root	if(DataLogger_power_off() != 0x0 && (st_datalogger_control.uc_state & DATALOGGER_FATAL) != DATALOGGER_FATAL)		○	-	○
	else		-	○	-
	Symbol	Range			
Input	DataLogger_power_off()	0~15	15	0	14
	st_datalogger_control.uc_state	0x00~0xFF	0x00	0xFF	0x01
Output	luc_ans	0,1	1	0	1
Judgment					

LoggerGXForce_Set_PowerOn

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1
Root	None	-
	Symbol	Range
Input	None	-
Output	None	-
Judgment		

LoggerGXForce_Set_SettingCheck

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1
Root	None		-
	Symbol	Range	
Input	None	-	-
Output	None	-	-
Judgment			

LoggerGXForce_Set_SpanEvent

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

			case3
Root	None		-
	Symbol	Range	
Input	puc_gas_num	0	0
Output	None	-	-
Judgment			

LoggerGXForce_Set_SnapShot

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1
Root	None		-
	Symbol	Range	
Input	None	-	-
Output	None	-	-
Judgment			

LoggerGXForce_Set_StartLoggerInterval

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1
Root	None		-
	Symbol	Range	
Input	None	-	-
Output	None	-	-
Judgment			

LoggerGXForce_Set_StopLoggerInterval

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3
Root	if(DataLogger_stop() == 0x00)	○	-	-
	else	-	○	○
	Symbol	Range		
Input	DataLogger_stop()	0-5	0	4
Output	luc_ans	0,1	0	1
Judgment				

LoggerGXForce_Set_TestData

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1
Root	None	-
	Symbol	Range
Input	None	-
Output	None	-
Judgment		

LoggerGXForce_Start_LoggerDataClear

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1
Root	None	-
	Symbol	Range
Input	None	-
Output	ucs_m_logger_data_clear	1
Judgment		

LoggerGXForce_Start_LoggerPowerClear

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1
Root	None	-
	Symbol	Range
Input	None	-
Output	ucs_m_logger_power_clear	1
Judgment		

Unit Test Specification

Project name	GX-Force
File name	lvd.c

Lvd_Cyclic_250msecProcess

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1	case2	case3
Root	if(SYSTEM.LVD1SR.BIT.LVD1MON == 1U)		○	-	○
	else		-	○	-
	if(fuc_lvd_count >= M_LVD_COUNT_MAX)		-	○	-
	else		○	-	○
	Symbol	Range			
Input	fuc_lvd_count	0~21	0	20	21
	SYSTEM.LVD1SR.BIT.LVD1MON	0,1	1	0	1
Output	fuc_lvd_count	0,20	0	20	0
Judgment					

Lvd_Init_Setting

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1
Root			-
	Symbol	Range	
Input	None	-	-
Output	fuc_lvd_count	0	0
Judgment			

Lvd_Stop_Setting

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1
Root			-
	Symbol	Range	
Input	None	-	-
Output	None	-	-
Judgment			

Unit Test Specification

Project name	GX-Force
File name	main.c

m_Every_1000msec_Task_A

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1
Root	None	-
	Symbol	Range
Input	None	-
Output	None	-
Judgment		

m_Every_1000msec_Task_B

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3
Root	if(RTC_Read_DateAndTime() == M_NG)	○	-	-
	else	-	○	○
	Symbol	Range		
Input	RTC_Read_DateAndTime()	0~2	0	1
Output	None	-	-	-
Judgment				

m_Every_1000msec_Task_C

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1
Root	None	-
	Symbol	Range
Input	None	-
Output	None	-
Judgment		

m_Every_1000msec_Task_D

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1
Root	None	-
	Symbol	Range
Input	None	-
Output	None	-
Judgment		

m_Every_250msec_TaskA

	Responsible	Last update
Coding	Ikarashi	
Test	Taki	
Judgment	Ikarashi	

Infinite loop	None
Verification pass	3
Judgment	

			case1	case2	case3
Root	if(Battery_Chk_Battery() == M_NG)		○	-	-
	else		-	○	○
	if(FuncSDM_Get_ExCommandFlg() == M_ON)		○	-	-
	else		-	○	○
	if(KeyEvent_Chk_DispPowerOff() != M_OFF)		○	-	○
	else		-	○	-
	Symbol	Range			
Input	Battery_Chk_Battery()	0~2	1	0	2
	FuncSDM_Get_ExCommandFlg()	0~2	1	0	2
	KeyEvent_Chk_DispPowerOff()	0~2	1	0	2
Output	None	-	-	-	-
Judgment					

m_Every_250msec_TaskB

	Responsible	Last update
Coding	Ikarashi	
Test	Taki	
Judgment	Ikarashi	

Infinite loop	None
Verification pass	1
Judgment	

		case1
Root	None	-
	Symbol	Range
Input	None	-
Output	None	-
Judgment		

m_Every_Time_Task

	Responsible	Last update
Coding	Ikarashi	
Test	Taki	
Judgment	Ikarashi	

Infinite loop	None
Verification pass	1
Judgment	

		case1
Root	None	-
	Symbol	Range
Input	None	-
Output	None	-
Judgment		

MAIN_Get_PowerOffFlg

	Responsible	Last update
Coding	Ikarashi	
Test	Taki	
Judgment	Ikarashi	

Infinite loop	None
Verification pass	3
Judgment	

		case1
Root	None	-
	Symbol	Range
Input	None	-
Output	uc_m_power_off_flg	0
Judgment		

MAIN_Get_RomNum

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1
Root	None		-
	Symbol	Range	
Input	None	-	-
Output	us_m_sum_adr[0][0]	7328	7328
Judgment			

MAIN_Get_SumNum

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1
Root	None		-
	Symbol	Range	
Input	None	-	-
Output	us_m_sum_adr[1][0]	30582	30582
Judgment			

Main_Process

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1
Root	None		-
	Symbol	Range	
Input	None	-	-
Output	None	-	-
Judgment			

MAIN_Set_ForcedPowerOffFlg

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1
Root			
	Symbol	Range	
Input	None	-	-
Output	uc_m_forced_power_off_flg	1	1
Judgment			

Main_Set_Power_OFF

	Responsible	Last update	Infinite loop	Yes
Coding	Ikarashi		Verification pass	5
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3	case4	case5
Root	if(uc_m_power_off_flg == M_ON)	○	○	○	○	-
	if((LoggerGXForce_Set_PowerOff() != ZIPC_NG) (uc_m_forced_power_off_flg == M_ON))	○	○	○	-	-
	if((FRAM_Get_flg() != M_ON) (uc_m_forced_power_off_flg == M_ON))	○	○	-	-	-
	if(uc_m_update_flg == M_ON)	○	-	-	-	-
	while(IntervalTimer_Flag_Acquisition_250msec() == M_OFF)	○	-	-	-	-
	else	-	○	-	-	-
	if((uc_m_update_flg == M_ON) && (ComCommand_Get_DeviceTransmitEnable() == false))	○	-	-	-	-
	else	-	○	-	-	-
	while(1U)	-	○	-	-	-
	else	-	-	○	-	-
	else	-	-	-	○	-
	else	-	-	-	-	○
	Symbol	Range				
Input	uc_m_power_off_flg	0,1	1	1	1	0
	LoggerGXForce_Set_PowerOff()	0,1	0	0	0	0
	uc_m_forced_power_off_flg	0,1	1	1	0	0
	FRAM_Get_flg()	0,1	0	0	1	0
	IntervalTimer_Flag_Acquisition_250msec()	0,1	0	0	1	1
	uc_m_update_flg	0,1	1	0	1	0
	ComCommand_Get_DeviceTransmitEnable()	0,1	0	0	0	1
Output	None	-	-	-	-	-
Judgment						

Main_Set_Power_ON

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1
Root	None	-
	Symbol	Range
Input	None	-
Output	PORT0.PODR.BIT.B5	1
Judgment		

MAIN_Set_PowerOffFlg

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1
Root	None	-
	Symbol	Range
Input	None	-
Output	uc_m_power_off_flg	1
Judgment		

MAIN_Set_UpdateFlg

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1
Root	None		-
	Symbol	Range	
Input	None	-	-
Output	uc_m_update_flg	1	1
Judgment			

MAIN_Get_UpdateModeFlg

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1
Root	None		-
	Symbol	Range	
Input	None	-	-
Output	uc_m_update_mode_flg	0,1	0
Judgment			

MAIN_Set_UpdateModeFlg

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1
Root	None		-
	Symbol	Range	
Input	None	-	-
Output	uc_m_update_mode_flg	0,1	1
Judgment			

Unit Test Specification

Project name	GX-Force
File name	Port.c

Port_Get_UsbPort_isOn

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1	case2	case3
Root	None		-	-	-
	Symbol	Range			
Input	PORT3.PIDR.BIT.B5	0~2	0	1	2
Output	lbl_ans	0~2	0	1	0
Judgment					

Port_Init_Setting

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1
Root	None		-
	Symbol	Range	
Input	None	-	-
Output	None	-	-
Judgment			

Unit Test Specification

Project name	GX-Force
File name	Pressure.c

Pressure_Change_Device0OutPut

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1
Root	None		-
	Symbol	Range	
Input	pus_output	0	0
	f_Check_DacOutPutPer()	0	0
Output	None	-	-
Judgment			

Pressure_Get_FlowValue

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1
Root	None		-
	Symbol	Range	
Input	Ad12bit_Get_Ad_Data()	0	0
Output	lfl_ans	0	0
Judgment			

Pressure_Init_Process

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1
Root	None		-
	Symbol	Range	
Input	None	-	-
Output	None	-	-
Judgment			

Pressure_Start_Device

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1
Root	None		-
	Symbol	Range	
Input	pus_output	0	0
	f_Check_DacOutPutPer()	0	0
Output	None	-	-
Judgment			

Pressure_Stop_Device

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1
Root	None		-
	Symbol	Range	
Input	None	-	-
Output	None	-	-
Judgment			

f_Check_DacOutPutPer

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	5
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1	case2	case3	case4	case5
Root	if(lus_ans < PRESSURE_OUTPUT_MIN_PER)		○	○	-	-	-
	else		-	-	○	○	○
	if(lus_ans > PRESSURE_OUTPUT_MAX_PER)		-	-	-	-	○
	else		○	○	○	○	-
	Symbol	Range					
Input	pus_output	0~991	0	9	10	990	991
Output	lus_ans	10~991	10	10	10	990	991
Judgment							

Unit Test Specification

Project name	GX-Force
File name	pump.c

Pump_Control_PumpMove

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	9
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3	case4	case5	case6	case7	case8	case9
Root	if(tbl_back_active != pbl_active)	○	-	○	-	○	-	-	○	○
	else	-	○	-	○	-	○	○	-	-
	if((fuc_1000msec_count >= F_1000MSEC_COUNT_MAX) (tbl_change_flag == true))	○	○	○	○	○	○	-	○	○
	if(tbl_change_flag == true)	○	-	○	-	○	-	-	○	○
	if(pbl_active == true)	-	-	-	-	-	-	-	○	○
	if(stp_sub_ad->fl_temp_data < F_PUMP_CHK_BOOST_TEMP)	-	-	-	-	-	-	-	-	○
	else	-	-	-	-	-	-	-	○	-
	else	○	-	○	-	○	-	-	-	-
	else	-	○	-	○	-	○	-	-	-
	else	-	-	-	-	-	-	○	-	-
	Symbol	Range								
Input	pbl_active	0~2	0	0	0	1	2	1	0	1
	pbl_lohi	0	0	0	0	0	0	0	0	0
	fl_temp_data	-1,0	-1	-1	-1	-1	-1	0	-1	0
	tbl_back_active	0,1	1	0	1	1	1	1	0	0
	fuc_1000msec_count	0~3	3	3	2	3	3	3	0	3
Output	tbl_back_active	0~2	0	0	0	1	2	1	0	1
	fuc_1000msec_count	0,1	0	0	0	0	0	0	1	0
	fuc_start_phase_flag	0~17	0	0	0	0	0	0	0	4
Judgment										

Pump_Get_Phase_IsNormalOrEnd

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3
Root	if((fuc_start_phase_flag == FEN_PUMP_START_PHASE_NORMAL) (fuc_start_phase_flag == FEN_PUMP_START_PHASE_END))	○	○	-
	else	-	-	○
	Symbol	Range		
Input	fuc_start_phase_flag	0~2	0	1
Output	tbl_phase_flag	0,1	1	1
Judgment				

Pump_Init_Process

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1
Root	None	-
	Symbol	Range
Input	None	-
Output	tbl_back_active	0
	fuc_1000msec_count	0
	fuc_start_phase_flag	0
Judgment		

f_Drive_Set

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3
Root	if(pbl_onoff == true)	-	○	-
	else	○	-	○
	Symbol	Range		
Input	pbl_onoff	0~2	0	1
Output	PORTA.PODR.BIT.B3	0,1	0	1
Judgment				

f. LoHi_Set

	Responsible	Last update
Coding	Ikarashi	
Test	Taki	
Judgment	Ikarashi	

Infinite loop	None
Verification pass	3
Judgment	

		case1	case2	case3
Root	if(pbl_lohi == true)	-	○	-
	else	○	-	○
	Symbol	Range		
Input	pbl_lohi	0~2	0	1
Output	PORTA.PODR.BIT.B4	0,1	0	1
Judgment				

f. Power_Set

	Responsible	Last update
Coding	Ikarashi	
Test	Taki	
Judgment	Ikarashi	

Infinite loop	None
Verification pass	3
Judgment	

		case1	case2	case3
Root	if(pbl_onoff == true)	-	○	-
	else	○	-	○
	Symbol	Range		
Input	pbl_onof	0~2	0	1
Output	PORTA.PODR.BIT.B7	0,1	0	1
Judgment				

f. Set_PumpOperation

	Responsible	Last update
Coding	Ikarashi	
Test	Taki	
Judgment	Ikarashi	

Infinite loop	None
Verification pass	1
Judgment	

		case1	case2	case3
Root	if(pbl_onoff == true)	-	○	-
	else	○	-	○
	Symbol	Range		
Input	pbl_onof	0~2	0	1
	pbl_lohi	0	0	0
Output	None	-	-	-
Judgment				

f Phase_PumpMove

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	20
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3	case4	case5	case6	
Root	if(fuc_start_phase_flag != (U8_CHR)FEN_PUMP_START_PHASE_END)	○	○	○	○	○	○	
	switch(fuc_start_phase_flag)	○	-	○	○	○	○	
	case FEN_PUMP_START_PHASE_NORMAL:	○	-	-	-	-	-	
	case FEN_PUMP_START_PHASE_STOP3_2:	-	-	○	-	-	-	
	case FEN_PUMP_START_PHASE_STOP3_1:	-	-	-	○	-	-	
	case FEN_PUMP_START_PHASE_STOP3_0:	-	-	-	-	○	-	
	case FEN_PUMP_START_PHASE_STOP2_2:	-	-	-	-	-	○	
	case FEN_PUMP_START_PHASE_STOP2_1:	-	-	-	-	-	-	
	case FEN_PUMP_START_PHASE_STOP2_0:	-	-	-	-	-	-	
	case FEN_PUMP_START_PHASE_STOP1_2:	-	-	-	-	-	-	
	case FEN_PUMP_START_PHASE_STOP1_1:	-	-	-	-	-	-	
	case FEN_PUMP_START_PHASE_STOP1_0:	-	-	-	-	-	-	
	case FEN_PUMP_START_PHASE_STOP0_2:	-	-	-	-	-	-	
	case FEN_PUMP_START_PHASE_STOP0_1:	-	-	-	-	-	-	
	case FEN_PUMP_START_PHASE_STOP0_0:	-	-	-	-	-	-	
	case FEN_PUMP_START_PHASE_MOVE3:	-	-	-	-	-	-	
	case FEN_PUMP_START_PHASE_MOVE2:	-	-	-	-	-	-	
	case FEN_PUMP_START_PHASE_MOVE1:	-	-	-	-	-	-	
	if(PumpFlow_Get_BoostCheck_IsRetry() == true){	-	-	-	-	-	-	
	else	-	-	-	-	-	-	
	case FEN_PUMP_START_PHASE_START:	-	-	-	-	-	-	
	default:	-	-	-	-	-	-	
	Symbol	Range						
Input	plb_lohi	0	0	0	0	0	0	
	PumpFlow_Get_BoostCheck_Is_Retry()	1,2	1	1	1	1	1	
	fuc_start_phase_flag	0-18	1	0	2	3	4	6
Output	fuc_start_phase_flag	0-17	0	0	1	2	3	5
Judgment								

case7	case8	case9	case10	case11	case12	case13	case14	case15	case16	case17	case18	case19	case20
○	○	○	○	○	○	○	○	○	○	○	○	○	○
○	○	○	○	○	○	○	○	○	○	○	○	○	○
-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-
○	-	-	-	-	-	-	-	-	-	-	-	-	-
-	○	-	-	-	-	-	-	-	-	-	-	-	-
-	-	○	-	-	-	-	-	-	-	-	-	-	-
-	-	-	○	-	-	-	-	-	-	-	-	-	-
-	-	-	-	○	-	-	-	-	-	-	-	-	-
-	-	-	-	-	○	-	-	-	-	-	-	-	-
-	-	-	-	-	-	○	-	-	-	-	-	-	-
-	-	-	-	-	-	-	○	-	-	-	-	-	-
-	-	-	-	-	-	-	-	○	-	-	-	-	-
-	-	-	-	-	-	-	-	-	○	-	-	-	-
-	-	-	-	-	-	-	-	-	-	○	-	-	○
-	-	-	-	-	-	-	-	○	○	○	-	-	-
-	-	-	-	-	-	-	-	-	-	-	○	-	○
-	-	-	-	-	-	-	-	-	-	-	-	○	-
-	-	-	-	-	-	-	-	-	-	-	-	○	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-
0	0	0	0	0	0	0	0	0	0	0	0	0	0
1	1	1	1	1	1	1	1	1	1	1	1	1	2
7	8	10	11	12	14	15	16	5	9	13	17	18	5
6	7	9	10	11	13	14	15	4	8	12	16	17	0

Unit Test Specification

Project name	GX-Force
File name	PumpFlow.c

PumpFlow_Check_FlowTest

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3
Root	if(fbl_pump_move_flag == true)	○	-	○
	if(Pump_Get_Phase_isNormalOrEnd() == true)	○	-	-
	else	-	-	○
	else	-	○	-
	Symbol	Range		
Input	f_Check_FlowFailInPsSensor()	0	0	0
	Pump_Get_Phase_isNormalOrEnd()	1,2	1	2
	fbl_pump_move_flag	1,2	1	2
Output	fbl_result	0	0	0
Judgment				

PumpFlow_Check_PumpTest

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3
Root	None	-	-	-
	Symbol	Range		
Input	fbl_pump_test_result	0x0000~0xFFFF	0	1
Output	fbl_pump_test_result	0x0000~0xFFFF	0	1
Judgment				

PumpFlow_Check_PurgeActive

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	4
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3	case4
Root	for(luc_ch=F_INIT_VAL; luc_ch<F_GAS_NUM_MAX; luc_ch++)	○	○	○	○
	if(((stp_GasInfo_addr+luc_ch)->uc_gas_comb != 0x00U) && (((stp_denst+luc_ch)->uc_state_trb & (DataStructConst_S_FAIL_INS DataStructConst_S_FAIL_SEN)) == 0x00U))	○	○	○	○
	if(f_Check_PurgeLimitCheck_isNeed(luc_ch) == true)	○	○	○	-
	else	-	-	-	○
	else	-	-	-	-
	Symbol	Range			
Input	uc_state_trb[0]	0,4	0	4	0
	f_Check_PurgeLimitCheck_isNeed()	1,2	1	1	2
	uc_gas_comb[0]	0,1	1	0	1
Output	fbl_ans	0	0	0	0
Judgment					

PumpFlow_Control_DriveMode

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	5
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3	case4	case5
Root	if(fbl_pump_move_flag != fbl_req_move_flag)	○	-	-	-	○
	else	-	-	○	○	-
	if(fbl_req_move_flag == true)	-	-	○	○	-
	if(fbl_pump_lohi_flag != fbl_req_lohi_flag)	-	-	○	-	-
	else	-	-	-	○	-
	else	-	-	-	-	-
	if(fbl_change_flag == true)	○	-	○	-	○
	if(fbl_pump_move_flag == true)	-	-	○	-	-
	else	-	-	-	-	○
	else	○	-	-	-	-
	Symbol	Range				
Input	fbl_pump_lohi_flag	0,1	1	1	0	1
	fbl_pump_move_flag	0,1	1	0	1	1
	fbl_req_lohi_flag	0	0	0	0	0
	fbl_req_move_flag	0~2	0	0	1	2
Output	fbl_pump_lohi_flag	0,1	0	1	0	0
	fbl_pump_move_flag	0~2	0	0	1	2
Judgment						

PumpFlow_Cyclic_250msec

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3
Root	if(lbl_flag == true)	○	-	-
	else	-	○	○
	if(lbl_flag == true)	-	○	-
	else	-	-	○
	Symbol	Range		
Input	f_Check_FlowFail()	1,2	1	2
	f_Check_PumpFail()	1,2	2	2
Output	None	-	-	-
Judgment				

PumpFlow_Default_Device

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3
Root	None	-	-	-
	Symbol	Range		
	us_flow_output[0]	0-2	1	2
Output	None	-	-	-
Judgment				

PumpFlow_Get_BoostCheck_isRetry

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	2
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2
Root	None	-	-
	Symbol	Range	
Input	lbl_boost_check_ans	0x0000,0xFFFF	0x0000 0xFFFF
Output	lbl_boost_check_ans	0x0000,0xFFFF	0x0000 0xFFFF
Judgment			

PumpFlow_Get_DropOutPut

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	2
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2
Root	None	-	-
	Symbol	Range	
Input	stp_data->us_flow_rate_drop_output	0x0000,0xFFFF	0x0000 0xFFFF
Output	stp_data->us_flow_rate_drop_output	0x0000,0xFFFF	0x0000 0xFFFF
Judgment			

PumpFlow_Get_FlowOutPut

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	2
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2
Root	None	-	-
	Symbol	Range	
Input	stp_data->us_flow_output	0x0000,0xFFFF	0x0000 0xFFFF
Output	stp_data->us_flow_output	0x0000,0xFFFF	0x0000 0xFFFF
Judgment			

PumpFlow_Get_LoHiFlag_isHi

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3
Root	None	-	-	-
	Symbol	Range		
Input	lbl_req_lohi_flag	0-2	1	2
Output	lbl_req_lohi_flag	0-2	1	2
Judgment				

PumpFlow_Get_MotionFlag_isMove

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1	case2	case3
Root	None		-	-	-
	Symbol	Range			
Input	fbl_req_move_flag	0~2	0	1	2
Output	fbl_req_move_flag	0~2	0	1	2
Judgment					

PumpFlow_Get_PumpFailPressValue

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1	case2	case3
Root	None		-	-	-
	Symbol	Range			
Input	ffls_pump_fail_val	0~2	0	1	2
Output	ffls_pump_fail_val	0~2	0	1	2
Judgment					

PumpFlow_Get_PumpOffPressValue

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1	case2	case3
Root	None		-	-	-
	Symbol	Range			
Input	ffls_pump_off_flow_val	0~2	0	1	2
Output	ffls_pump_off_flow_val	0~2	0	1	2
Judgment					

PumpFlow_Get_SettingData

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1
Root	None		-
	Symbol	Range	
Input	*pstp_data	1	1
Output	None	-	-
Judgment			

PumpFlow_Init_Process

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1
Root	None		
	Symbol	Range	
Input	-	-	-
Output	fbl_boost_check_ans	0	0
	fbl_pump_lohi_flag	0	0
	fbl_pump_move_first	0	0
	fbl_pump_move_flag	0	0
	fbl_pump_test_result	0	0
	fbl_req_lohi_flag	0	0
	fbl_req_move_flag	0	0
	ffls_pump_fail_val	0	0
	ffls_pump_off_flow_val	0	0
Judgment			

PumpFlow_Set_FlowOutPut

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	2
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1	case1
Root	None		-	-
	Symbol	Range		
Input	pus_num	0x0000,0xFFFF	0x0000	0xFFFF
Output	stp_data->us_flow_output	0x0000,0xFFFF	0x0000	0xFFFF
Judgment				

PumpFlow_Set_LoHiRequest_isHi

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1	case2	case3
Root	if(pbl_lohi == true)		-	○	-
	else		○	-	○
	Symbol	Range			
Input	pbl_lohi	0~2	0	1	2
Output	fbl_req_lohi_flag	0,1	0	1	0
Judgment					

PumpFlow_Set_MotionRequest_isMove

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1	case2	case3
Root	if(pbl_move == true)		-	○	-
	else		○	-	○
	Symbol	Range			
Input	pbl_move	0~2	0	1	2
Output	fbl_req_move_flag	0,1	0	1	0
Judgment					

PumpFlow_Set_SettingData

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1
Root	None		-
	Symbol	Range	
Input	None	-	-
Output	None	-	-
Judgment			

PumpFlow_Set_SettingDefaultData

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1
Root	None		-
	Symbol	Range	
Input	None	-	-
Output	None	-	-
Judgment			

PumpFlow_Start_Device

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1
Root	None		-
	Symbol	Range	
Input	stp_data->us_flow_output	0	0
Output	None	-	-
Judgment			

PumpFlow_Stop_Device

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1
Root	None		-
	Symbol	Range	
Input	None	-	-
Output	None	-	-
Judgment			

f_Check_FlowFail

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	5
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1	case2	case3	case4	case5	case6	case7
Root	if(fbl_pump_move_flag == true)		○	-	○	○	○	○	○
	if(Pump_Get_Phase_isNormalOrEnd() == true)		○	-	-	○	○	○	○
	if((FlowMain_Get_ModeStatus() == FlowMain_INITIAL_MODE_NUMBER) (FlowMain_Get_ModeStatus() == FlowMain_MEASURE_MODE_NUMBER) (FlowMain_Get_ModeStatus() == FlowMain_DISP_MODE_NUMBER))		○	-	-	○	○	-	○
	if(lbl_h2_meas == false)		○	-	-	○	○	-	-
	else		-	-	-	-	-	-	○
	else		-	-	-	-	-	○	-
	else		-	-	○	-	-	-	-
	if(FlowProcesDisplay_Get_PurgeFlag() == true)		○	○	○	○	○	○	○
	else		-	-	-	-	-	-	-
	Symbol	Range							
Input	f_Check_FlowFailInPsSensor()	0	0	0	0	0	0	0	0
	FlowMain_Get_ModeStatus()	0~3	0	0	0	1	2	3	0
	FlowProcesDisplay_Get_PurgeFlag()	1,2	1	1	1	1	1	1	1
	GasCalc_Get_H2MeasurementFlag()	0,1	0	0	0	0	0	0	1
	Pump_Get_Phase_isNormalOrEnd()	1,2	1	1	2	1	1	1	1
	fbl_pump_move_flag	1,2	1	2	1	1	1	1	1
Output	lbl_ans	0	0	0	0	0	0	0	0
Judgment									

f_Check_FlowFailInPsSensor

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	2
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1	case2
Root	if(lfi_ps_ad > (FLOAT32)stp_data->us_flow_rate_drop_output)		○	-
	else		-	○
	Symbol	Range		
Input	stp_data->us_flow_rate_drop_output	0	0	0
	Pressure_Get_FlowValue()	0	0	0
	ffls_pump_off_flow_val	0,1	1	0
Output	lbl_ans	0,1	1	0
	ffls_pump_fail_val	1	1	1
Judgment				

f. Check_PumpFail

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	7
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1	case2	case3	case4	case5	case6	case7
Root	if(fbl_pump_move_flag == true)		○	-	○	○	○	○	○
	if(Pump_Get_Phase_isNormalOrEnd() == true)		○	-	-	○	○	-	○
	if(fbl_pump_move_first == true)		○	-	-	-	○	-	○
	if(fbl_boost_check_ans == true)		○	-	-	-	-	-	-
	else		-	-	-	-	○	-	○
	else		-	-	-	○	-	-	-
	else		-	-	○	-	-	○	-
	if(lfl_ps_ad < F_PUMP_CHK_MIN)		○	-	○	-	-	-	-
	else		-	-	-	-	-	○	-
	if(FlowProcesDisplay_Get_PurgeFlag() == true)		○	○	○	○	○	○	-
	else		-	-	-	-	-	-	○
	Symbol	Range							
Input	Pressure_Get_FlowValue()	0	0	0	0	0	0	0	0
	FlowProcesDisplay_Get_PurgeFlag()	1,2	1	1	1	1	1	1	2
	Pump_Get_Phase_isNormalOrEnd()	1,2	1	1	2	1	1	2	1
	fbl_boost_check_ans	1,2	1	1	1	1	2	1	2
	fbl_pump_move_first	1,2	1	1	1	2	1	1	1
	fbl_pump_move_flag	1,2	1	2	1	1	1	1	1
	ffls_pump_off_flow_val	4,5	4	4	4	4	4	5	4
Output	lfl_ans	0	0	0	0	0	0	0	0
	fbl_boost_check_ans	0,1	0	1	1	1	0	0	0
	fbl_pump_move_first	0,1	0	1	1	0	0	1	0
	fbl_pump_test_result	1	1	1	1	1	1	1	1
	ffls_pump_fail_val	0,4	0	0	4	4	4	4	4
Judgment									

f. Check_PurgeLimitCheck_isNeed

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	6
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1	case2	case3	case4	case5	case6
Root	if(stp_denst->ul_denst != M_OFF_VAL)		○	-	○	○	○	○
	if(stp_denst->uc_denst_minus_flg == M_OFF)		○	-	-	○	○	○
	else		○	-	-	-	○	○
	if(puc_ch == DataStructConst_O2_GAS_CH)		○	-	-	-	-	-
	else		-	-	-	-	○	○
	if((lul_purge_threshold < lul_denst) && (lfl_denst_minus_flg == false))		-	-	-	○	-	-
	else		-	-	○	-	-	-
	else		○	-	○	-	-	-
	Symbol	Range						
Input	puc_ch	1,2	2	2	2	1	2	2
	stp_denst->ul_denst	1~3722305990	3722304990	3722304989	3722304990	3722304990	1	2
	stp_denst->uc_denst_minus_flg	0,1	0	0	1	1	0	0
	stp_GasInfo_addr->ul_full_scale	20	20	20	20	20	20	20
Output	lfl_ans	0	0	0	0	0	0	0
Judgment								

f. Get_OffFlowValue

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1	case2	case3
Root	None		-	-	-
	Symbol	Range			
Input	Pressure_Get_FlowValue()	0-2	0	1	2
Output	fbl_pump_move_first	1	1	1	1
	fbl_pump_test_result	0	0	0	0
	ffls_pump_off_flow_val	0-2	0	1	2
Judgment					

f_Set_FlowFail

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1
Root	None		-
	Symbol	Range	
Input	None	-	-
Output	None	-	-
Judgment			

f_Set_PumpFail

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1
Root	None		-
	Symbol	Range	
Input	None	-	-
Output	None	-	-
Judgment			

Unit Test Specification

Project name	GX-Force
File name	r_cg_cgc.c

R_CGC_Create

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1
Root	None		-
	Symbol	Range	
Input	None	-	-
Output	None	-	-
Judgment			

Unit Test Specification

Project name	GX-Force
File name	r_cg_cmt.c

R_CMT0_Create

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki		Judgment	
Judgment	Ikarashi			

			case1
Root	None		-
	Symbol	Range	
Input	None	-	-
Output	None	-	-
Judgment			

R_CMT0_Start

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki		Judgment	
Judgment	Ikarashi			

			case1
Root	None		-
	Symbol	Range	
Input	None	-	-
Output	None	-	-
Judgment			

R_CMT0_Stop

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki		Judgment	
Judgment	Ikarashi			

			case1
Root	None		-
	Symbol	Range	
Input	None	-	-
Output	None	-	-
Judgment			

Unit Test Specification

Project name	GX-Force
File name	r_cg_cmt_user.c

r_cmt_cmi0_interrupt

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1	case2	case3
Root	if(SelfSubProg_Get_10msecChgFlg() == M_OFF)		○	-	-
	else		-	○	○
	Symbol	Range			
Input	SelfSubProg_Get_10msecChgFlg()	0~2	0	1	2
Output	None	-	-	-	-
Judgment					

Unit Test Specification

Project name	GX-Force
File name	r_cg_hardware_setup.c

HardwareSetup

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1
Root	None		-
	Symbol	Range	
Input	None	-	-
Output	None	-	-
Judgment			

R_Systeminit

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1
Root	None		-
	Symbol	Range	
Input	None	-	-
Output	None	-	-
Judgment			

Unit Test Specification

Project name	GX-Force
File name	r_cg_intprg.c

r_access_exception

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1
Root	None		-
	Symbol	Range	
Input	None	-	-
Output	None	-	-
Judgment			

r_brk_exception

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1
Root	None		-
	Symbol	Range	
Input	None	-	-
Output	None	-	-
Judgment			

r_floatingpoint_exception

	Responsible	Last update
Coding	Ikarashi	
Test	Taki	
Judgment	Ikarashi	

Infinite loop	None
Verification pass	1

Judgment	

			case1
Root	None		-
	Symbol	Range	
Input	None	-	-
Output	None	-	-
Judgment			

r_nmi_exception

	Responsible	Last update
Coding	Ikarashi	
Test	Taki	
Judgment	Ikarashi	

Infinite loop	None
Verification pass	1

Judgment	

			case1
Root	None		-
	Symbol	Range	
Input	None	-	-
Output	None	-	-
Judgment			

r_privileged_exception

	Responsible	Last update
Coding	Ikarashi	
Test	Taki	
Judgment	Ikarashi	

Infinite loop	None
Verification pass	1

Judgment	

			case1
Root	None		-
	Symbol	Range	
Input	None	-	-
Output	None	-	-
Judgment			

r_reserved_exception

	Responsible	Last update
Coding	Ikarashi	
Test	Taki	
Judgment	Ikarashi	

Infinite loop	None
Verification pass	1

Judgment	

			case1
Root	None		-
	Symbol	Range	
Input	None	-	-
Output	None	-	-
Judgment			

r_undefined_exception

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1
Root	None		-
	Symbol	Range	
Input	None	-	-
Output	None	-	-
Judgment			

Unit Test Specification

Project name	GX-Force
File name	r_cg_lvd.c

R_LVD1_Create

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1
Root			-
	Symbol	Range	
Input	None	-	-
Output	None	-	-
Judgment			

R_LVD1_Start

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1
Root			-
	Symbol	Range	
Input	None	-	-
Output	None	-	-
Judgment			

R_LVD1_Stop

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1
Root			-
	Symbol	Range	
Input	None	-	-
Output	None	-	-
Judgment			

Unit Test Specification

Project name	GX-Force
File name	r_cg_main.c

main

	Responsible	Last update	Infinite loop	Yes
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1
Root	while(1U)		○
	Symbol	Range	
Input	None	-	-
Output	None	-	-
Judgment			

R_MAIN_UserInit

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1
Root	None		-
	Symbol	Range	
Input	None	-	-
Output	None	-	-
Judgment			

Unit Test Specification

Project name	GX-Force
File name	r_cg_mtu2.c

R_MTU2_C2_Start

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki		Judgment	
Judgment	Ikarashi			

			case1
Root	None		-
	Symbol	Range	
Input	None	-	-
Output	None	-	-
Judgment			

R_MTU2_C2_Stop

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki		Judgment	
Judgment	Ikarashi			

			case1
Root	None		-
	Symbol	Range	
Input	None	-	-
Output	None	-	-
Judgment			

R_MTU2_Create

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki		Judgment	
Judgment	Ikarashi			

			case1
Root	None		-
	Symbol	Range	
Input	None	-	-
Output	None	-	-
Judgment			

Unit Test Specification

Project name	GX-Force
File name	r_cg_mtu2_user.c

r_mtu2_tgia2_interrupt

	Responsible	Last update
Coding	Ikarashi	
Test	Taki	
Judgment	Ikarashi	

Infinite loop	None
Verification pass	1

Judgment	

			case1
Root	None		-
	Symbol	Range	
Input	None	-	-
Output	None	-	-
Judgment			

Unit Test Specification

Project name	GX-Force
File name	r_cg_port.c

R_PORT_Create

	Responsible	Last update
Coding	Ikarashi	
Test	Taki	
Judgment	Ikarashi	

Infinite loop	None
Verification pass	1

Judgment	

			case1
Root	None		-
	Symbol	Range	
Input	None	-	-
Output	None	-	-
Judgment			

Unit Test Specification

Project name	GX-Force
File name	r_cg_r12da.c

R_R12DA_Create

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1
Root	None		-
	Symbol	Range	
Input	None	-	-
Output	None	-	-
Judgment			

R_R12DA0_Set_ConversionValue

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1
Root	None		-
	Symbol	Range	
Input	None	-	-
Output	None	-	-
Judgment			

R_R12DA0_Start

	Responsible	Last update
Coding	Ikarashi	
Test	Taki	
Judgment	Ikarashi	

Infinite loop	None
Verification pass	1

Judgment	

			case1
Root	None		-
	Symbol	Range	
Input	None	-	-
Output	None	-	-
Judgment			

R_R12DA0_Stop

	Responsible	Last update
Coding	Ikarashi	
Test	Taki	
Judgment	Ikarashi	

Infinite loop	None
Verification pass	1

Judgment	

			case1
Root	None		-
	Symbol	Range	
Input	None	-	-
Output	None	-	-
Judgment			

Unit Test Specification

Project name	GX-Force
File name	r_cg_resetprg.c

PowerON_Reset_PC

	Responsible	Last update
Coding	Ikarashi	
Test	Taki	
Judgment	Ikarashi	

Infinite loop	None
Verification pass	1

Judgment	

			case1
Root	None		-
	Symbol	Range	
Input	None	-	-
Output	None	-	-
Judgment			

Unit Test Specification

Project name	GX-Force
File name	r_cg_rspi.c

R_RSPI0_Create

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1
Root	None		-
	Symbol	Range	
Input	None	-	-
Output	None	-	-
Judgment			

R_RSPI0_Send_Receive

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1	case2
Root	if(tx_num < 1U)		○	-
	else		-	○
	Symbol	Range		
Input	tx_num	0x0000~0xFFFF	0x0000	0xFFFF
	tx_buf	0x00000000,0xFFFFFFFF	0x00000000	0xFFFFFFFF
	rx_buf	0x00000000,0xFFFFFFFF	0x00000000	0xFFFFFFFF
Output	gp_rspi0_tx_address	0x00000000,0xFFFFFFFF	0x00000000	0xFFFFFFFF
	g_rspi0_tx_count	0x0000,0xFFFF	0x0000	0xFFFF
	gp_rspi0_rx_address	0x00000000,0xFFFFFFFF	0x00000000	0xFFFFFFFF
	g_rspi0_rx_length	0x0000,0xFFFF	0x0000	0xFFFF
	g_rspi0_rx_count	0x0000	0x0000	0x0000
	status	0x00,0x81	0x81	0x00
Judgment				

R_RSPI0_Send_Receive_Copy

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	4
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1	case2	case3	case4
Root	if(RSPI0.SPCR.BIT.SPE == 1U)		○	-	-	-
	else		-	○	○	○
	if(tx_num < 1U)		-	○	-	-
	else		-	-	○	○
	if(ch_num == 0)		-	-	○	-
	else		-	-	-	○
	Symbol	Range				
Input	tx_num	0x0000,0xFFFF	0x0000	0x0000	0xFFFF	0xFFFF
	tx_buf	0x00,0xFF	0x00	0xFF	0x00	0x00
	rx_buf	0x0000,0xFFFF	0x0000	0xFFFF	0x0000	0x0000
	rx_num	0x00,0xFF	0x00	0xFF	0x00	0x00
	ch_num	0~2	2	0	0	1
	RSPI0.SPCR.BIT.SPE	0~2	1	0	2	2
Output	puc_copy_rspi_tx_address	0x00	0x00	0x00	0x00	0x00
	g_rspi0_tx_count	0xFFFF	0xFFFF	0xFFFF	0xFFFF	0xFFFF
	puc_copy_rspi_rx_address	0x0000,0xFFFF	0xFFFF	0xFFFF	0x0000	0x0000
	g_rspi0_rx_length	0x00	0x00	0x00	0x00	0x00
	g_rspi0_rx_count	0x0000	0x0000	0x0000	0x0000	0x0000
	status	0x00,0x81	0x81	0x81	0x00	0x00
Judgment						

R_RSPI0_Start

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1
Root	None	-
	Symbol	Range
Input	None	-
Output	None	-
Judgment		

R_RSPI0_Stop

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1
Root	None	-
	Symbol	Range
Input	None	-
Output	None	-
Judgment		

Unit Test Specification

Project name	GX-Force
File name	r_cg_rspi_user.c

r_rspi0_callback_error

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1	case2	case3
Root	None		-	-	-
	Symbol	Range			
Input	err_type	0~2	0	1	2
Output	None	-	-	-	-
Judgment					

r_rspi0_callback_receiveend

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1
Root	None		-
	Symbol	Range	
Input	None	-	-
Output	None	-	-
Judgment			

r_rspi0_callback_transmitend

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1
Root	None		-
	Symbol	Range	
Input	None	-	-
Output	None	-	-
Judgment			

r_rspi0_error_interrupt

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1	case2	case3
Root	if(1U == RSPi0.SPSR.BIT.MODF)		○	-	-
	while(1U != PORTC.PIDR.BIT.B4)		○	-	-
	else		-	○	○
	if(0U != err_type)		○	-	○
	else		-	○	-
	Symbol	Range			
Input	RSPi0.SPSR.BIT.MODF	0~2	1	0	2
	PORTC.PIDR.BIT.B4	0~2	0	1	2
	RSPi0.SPSR.BYTE	0x00~0xA1	0xA0	0	0xA1
Output	None	-	-	-	-
Judgment					

r_rspi0_idle_interrupt

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1
Root	None		-
	Symbol	Range	
Input	None	-	-
Output	None	-	-
Judgment			

r_rspi0_receive_interrupt

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3
Root	for (frame_cnt = 0U; frame_cnt < (_00_RSPI_FRAMES_1 + 1U); frame_cnt++)	○	○	-
	if(g_rspi0_rx_length > g_rspi0_rx_count)	○	○	-
	if(g_rspi0_rx_length == g_rspi0_rx_count)	○	-	-
	else	-	○	-
	else	-	-	○
	Symbol	Range		
Input	g_rspi0_rx_length	0x0000~0xFFFF	0x0001	0xFFFF
	g_rspi0_rx_count	0x0000,0xFFFF	0x0000	0x0000
Output	puc_copy_rspi_rx_address	1,2	0	0
Judgment				

r_rspi0_transmit_interrupt

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	2
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2
Root	for (frame_cnt = 0U; frame_cnt < (_00_RSPI_FRAMES_1 + 1U); frame_cnt++)	○	○
	if(g_rspi0_tx_count > 0U)	○	-
	else	-	○
	Symbol	Range	
Input	g_rspi0_tx_count	0x0000,0xFFFF	0xFFFF
Output	None	-	-
Judgment			

Unit Test Specification

Project name	GX-Force
File name	r_cg_s12ad.c

R_S12AD_Create

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1
Root	None		-
	Symbol	Range	
Input	None	-	-
Output	None	-	-
Judgment			

R_S12AD_Start

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1
Root	None		-
	Symbol	Range	
Input	None	-	-
Output	None	-	-
Judgment			

R_S12AD_Stop

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1
Root	None		-
	Symbol	Range	
Input	None	-	-
Output	None	-	-
Judgment			

[illegible]

Unit Test Specification

Project name	GX-Force
File name	r_cg_s12ad_user.c

r_s12ad_interrupt

	Responsible	Last update
Coding	Ikarashi	
Test	Taki	
Judgment	Ikarashi	

Infinite loop	None
Verification pass	1

Judgment	

			case1
Root	None		-
	Symbol	Range	
Input	None	-	-
Output	None	-	-
Judgment			

Unit Test Specification

Project name	GX-Force
File name	r_cg_sci.c

R_SCI5_Create

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1
Root	None		-
	Symbol	Range	
Input	None	-	-
Output	None	-	-
Judgment			

R_SCI5_Serial_Receive

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1	case2	case3
Root	if(1U > rx_num)		○	-	-
	else		-	○	○
	Symbol	Range			
Input	rx_num	0~2	0	1	2
	rx_buf	0x00,0xFF	0x00	0x00	0xFF
Output	g_sci5_rx_count	0	0	0	0
	g_sci5_rx_length	0~2	0	1	2
	gp_sci5_rx_address	0x00,0xFF	0x00	0x00	0xFF
	status	0x00,0x81	0x81	0x00	0x00
Judgment					

R_SCI5_Serial_Send

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1	case2	case3
Root	if(1U > tx_num)		○	-	-
	else		-	○	○
	Symbol	Range			
Input	tx_num	0~3	0	2	3
	tx_buf	0x00,0xFF	0x00	0x00	0xFF
Output	g_sci5_tx_count	0~3	0	2	3
	gp_sci5_tx_address	0x00,0xFF	0x00	0x00	0xFF
	status	0x00,0x81	0x81	0x00	0x00
Judgment					

R_SCI5_Start

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1
Root	None	-
	Symbol	Range
Input	None	-
Output	None	-
Judgment		

R_SCI5_Stop

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1
Root	None	-
	Symbol	Range
Input	None	-
Output	None	-
Judgment		

R_SCI6_Create

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1
Root	None		-
	Symbol	Range	
Input	None	-	-
Output	None	-	-
Judgment			

R_SCI6_IIC_Master_Receive

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1	case2	case3
Root	if(1U > rx_num)		○	-	-
	else		-	○	○
	Symbol	Range			
Input	adr	0x00,0xFF	0x00	0x00	0xFF
	rx_buf	0x00,0xFF	0x00	0x00	0xFF
	rx_num	0~8	0	7	8
Output	g_sci6_rx_length	0~8	0	7	8
	g_sci6_rx_count	0	0	0	0
	gp_sci6_rx_address	0x00,0xFF	0x00	0x00	0xFF
	g_sci6_iic_transmit_receive_flag	0x00	0x00	0x00	0x00
	g_sci6_iic_cycle_flag	0x00,0x80	0x00	0x80	0x80
Judgment					

R_SCI6_IIC_Master_Send

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1	case2	case3
Root	if(1U > tx_num)		○	-	-
	else		-	○	○
	Symbol	Range			
Input	adr	0x00,0xFF	0x00	0x00	0xFF
	tx_buf	0x00,0xFF	0x00	0x00	0xFF
	tx_num	0~4324	0	4323	4324
Output	gp_sci6_tx_address	0x00,0xFF	0x00	0x00	0xFF
	g_sci6_tx_count	0~4324	0	4323	4324
	g_sci6_slave_address	0x00,0xFF	0x00	0x00	0xFF
	g_sci6_iic_transmit_receive_flag	0x00,0x80	0x00	0x80	0x80
	g_sci6_iic_cycle_flag	0x00,0x80	0x00	0x80	0x80
Judgment					

R_SCI6_IIC_StartCondition

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1
Root	None		-
	Symbol	Range	
Input	None	-	-
Output	None	-	-
Judgment			

R_SCI6_IIC_StopCondition

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1
Root	None		-
	Symbol	Range	
Input	None	-	-
Output	None	-	-
Judgment			

R_SCI6_Start

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1
Root	None		-
	Symbol	Range	
Input	None	-	-
Output	None	-	-
Judgment			

R_SCI6_Stop

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1
Root	None		-
	Symbol	Range	
Input	None	-	-
Output	None	-	-
Judgment			

R_SCI9_Create

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1
Root	None		-
	Symbol	Range	
Input	None	-	-
Output	None	-	-
Judgment			

R_SCI9_Serial_Receive

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1	case2	case3
Root	if(1U > rx_num)		○	-	-
	else		-	○	○
	Symbol	Range			
Input	rx_buf	0x00,0xFF	0x00	0x00	0xFF
	rx_num	0~2	0	1	2
Output	g_sci9_rx_count	0	0	0	0
	g_sci9_rx_length	0~2	0	1	2
	gp_sci9_rx_address	0x00,0xFF	0x00	0x00	0xFF
	status	0x00,0x81	0x81	0x00	0x00
Judgment					

R_SCI9_Serial_Send

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1	case2	case3
Root	if(1U > tx_num)		○	-	-
	else		-	○	○
	Symbol	Range			
Input	tx_buf	0x00,0xFF	0x00	0x00	0xFF
	tx_num	0~22	0	21	22
Output	gp_sci9_tx_address	-	Indefinite value	Indefinite value	Indefinite value
	g_sci9_tx_count	0~22	0	21	22
	status	0x00,0x81	0x81	0x00	0x00
Judgment					

R_SCI9_Start

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1
Root	None		-
	Symbol	Range	
Input	None	-	-
Output	None	-	-
Judgment			

R_SCI9_Stop

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1
Root	None		-
	Symbol	Range	
Input	None	-	-
Output	None	-	-
Judgment			

Unit Test Specification

Project name	GX-Force
File name	r_cg_sci_user.c

r_sci5_callback_receiveend

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1
Root	None		-
	Symbol	Range	
Input	None	-	-
Output	None	-	-
Judgment			

r_sci5_callback_receiveerror

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1
Root	None		-
	Symbol	Range	
Input	None	-	-
Output	None	-	-
Judgment			

r_sci5_callback_transmitend

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1
Root	None		-
	Symbol	Range	
Input	None	-	-
Output	None	-	-
Judgment			

r_sci5_receive_interrupt

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1	case2	case3
Root	if(g_sci5_rx_length > g_sci5_rx_count)		○	○	-
	if(g_sci5_rx_length <= g_sci5_rx_count)		○	-	-
	else		-	○	-
	else		-	-	○
	Symbol	Range			
Input	g_sci5_rx_length	0x0000~0xFFFF	0x0001	0xFFFF	0x0000
	g_sci5_rx_count	0x0000,0xFFFF	0x0000	0x0000	0xFFFF
Output	None	-	-	-	
Judgment					

r_sci5_receiveerror_interrupt

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1
Root	None		-
	Symbol	Range	
Input	None	-	-
Output	None	-	-
Judgment			

r_sci5_transmit_interrupt

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1	case2
Root	if(0U < g_sci5_tx_count)		○	-
	else		-	○
	Symbol	Range		
Input	g_sci5_tx_count	0x0000~0xFFFF	0xFFFF	0x0000
Output	None	-	-	-
Judgment				

r_sci5_transmitend_interrupt

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1
Root	None		-
	Symbol	Range	
Input	None	-	-
Output	None	-	-
Judgment			

r_sci6_callback_receiveend

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1
Root	None		-
	Symbol	Range	
Input	None	-	-
Output	None	-	-
Judgment			

r_sci6_callback_transmitend

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1
Root	None		-
	Symbol	Range	
Input	None	-	-
Output	None	-	-
Judgment			

r_sci6_receive_interrupt

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	2
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1	case2
Root	if(g_sci6_rx_length > g_sci6_rx_count)		○	-
	else		-	○
	Symbol	Range		
Input	g_sci6_rx_length	0x0000~0xFFFF	0xFFFF	0x0000
	g_sci6_rx_count	0x0000~0xFFFF	0x0000	0xFFFF
Output	None	-	-	-
Judgment				

r_sci6_transmit_interrupt

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	7
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3	case4	case5	case6	case7
Root	if(0U == SCI6.SISR.BIT.IICACKR)	○	○	○	○	○	-	-
	if(_80_SCI_IIC_TRANSMISSION == g_sci6_iic_transmit_receive_flag)	○	○	-	-	-	-	-
	if(0U < g_sci6_tx_count)	○	-	-	-	-	-	-
	else	-	○	-	-	-	-	-
	else if(_00_SCI_IIC_RECEPTION == g_sci6_iic_transmit_receive_flag)	-	-	○	○	-	-	-
	if(g_sci6_rx_length == (g_sci6_rx_count + 1))	-	-	○	-	-	-	-
	else	-	-	-	○	-	-	-
	else	-	-	-	-	○	-	-
	Symbol	Range						
Input	SCI6.SISR.BIT.IICACKR	0~2	0	0	0	0	1	2
	g_sci6_iic_transmit_receive_flag	0x00~0x81	0x80	0x80	0x00	0x00	0x81	0x00
	g_sci6_tx_count	0x0000~0xFFFF	0xFFFF	0x0000	0x0000	0xFFFF	0x0000	0x0000
	g_sci6_rx_count	0x0000~0xFFFF	0xFFFF	0x0000	0x0001	0xFFFF	0x0000	0x0000
	g_sci6_rx_length	0x0000~0xFFFF	0xFFFF	0x0000	0x0001	0x0000	0x0000	0x0000
Output	g_sci6_iic_cycle_flag	0	0	0	0	0	0	0
Judgment								

r_sci6_transmitend_interrupt

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	4
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3	case4
Root	if(_80_SCI_IIC_START_CYCLE == g_sci6_iic_cycle_flag)	○	-	-	-
	else if(_00_SCI_IIC_STOP_CYCLE == g_sci6_iic_cycle_flag)	-	○	○	-
	if(_80_SCI_IIC_TRANSMISSION == g_sci6_iic_transmit_receive_flag)	-	○	-	-
	else	-	-	○	-
	if(_00_SCI_IIC_RECEPTION == g_sci6_iic_transmit_receive_flag)	-	-	○	-
	else	-	○	-	-
	else	-	-	-	○
	Symbol	Range			
Input	g_sci6_iic_cycle_flag	0x00~0x81	0x80	0x00	0x00
	g_sci6_iic_transmit_receive_flag	0x00~0x81	0x81	0x80	0x00
	g_sci6_slave_address	0x00~0xFF	0xFF	0x00	0x00
Output	None	-	-	-	-
Judgment					

r_sci9_callback_receiveend

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3
Root	if(uc_use_sci_rx_for_r178prog == TRUE)	○	-	-
	else	-	○	○
	Symbol	Range		
Input	uc_use_sci_rx_for_r178prog	0~2	1	0
Output	uc_use_sci_rx_for_r178prog	0,2	0	2
Judgment				

r_sci9_callback_receiveerror

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1
Root	None	-
	Symbol	Range
Input	None	-
Output	None	-
Judgment		

r_sci9_callback_transmitend

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1	case2	case3
Root	if(uc_use_sci_rx_for_r178prog == TRUE)		○	-	-
	else		-	○	○
	Symbol	Range			
Input	uc_use_sci_tx_for_r178prog	0~2	1	0	2
Output	uc_use_sci_tx_for_r178prog	0,2	0	0	2
Judgment					

r_sci9_receive_interrupt

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1	case2	case3
Root	if(g_sci9_rx_length > g_sci9_rx_count)		○	○	-
	if(g_sci9_rx_length <= g_sci9_rx_count)		○	-	-
	else		-	○	-
	else		-	-	○
	Symbol	Range			
Input	g_sci9_rx_length	0x0000~0xFFFF	0xFFFF	0x0001	0x0000
	g_sci9_rx_count	0x0000,0xFFFF	0x0000	0x0000	0xFFFF
Output	None	-	-	-	-
Judgment					

r_sci9_receiveerror_interrupt

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1
Root	None	-
	Symbol	Range
Input	None	-
Output	None	-
Judgment		

r_sci9_transmit_interrupt

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	2
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1	case2
Root	if(0U < g_sci9_tx_count)		○	-
	else		-	○
	Symbol	Range		
Input	g_sci9_tx_count	0x0000~0xFFFF	0xFFFF	0x0000
Output	None	-	-	-
Judgment				

r_sci9_transmitend_interrupt

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1
Root	None	-
	Symbol	Range
Input	None	-
Output	None	-
Judgment		

Unit Test Specification

Project name	GX-Force
File name	r_cg_wdt.c

R_WDT_Restart

	Responsible	Last update
Coding	Ikarashi	
Test	Taki	
Judgment	Ikarashi	

Infinite loop	None
Verification pass	1

Judgment	

			case1
Root	None		-
	Symbol	Range	
Input	None	-	-
Output	None	-	-
Judgment			

Unit Test Specification

Project name	GX-Force
File name	r_spi.c

m_Wait_Spi_Send_Time

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3
Root	while(uc_m_spi_read_flg == 1)	○	-	-
	if(uc_m_time_busy == 0)	○	-	-
	else	-	-	-
	Symbol	Range		
Input	uc_m_spi_read_flg	0~2	1	0
Output	luc_ack	0,1	1	0
Judgment				

RSPI_count_down

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3
Root	if(uc_m_time_busy)	○	-	○
	else	-	○	-
	Symbol	Range		
Input	uc_m_time_busy	0~6	5	0
Output	uc_m_time_busy	0~5	4	0
Judgment				

RSPI_Int_Start

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1
Root	None	-
	Symbol	Range
Input	None	-
Output	None	-
Judgment		

RSPI_Int_Stop

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1
Root	None		-
	Symbol	Range	
Input	None	-	-
Output	None	-	-
Judgment			

RSPI_Send_Receive

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	4
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1	case2	case3	case4
Root	if(((0 < pus_send_size) && (pus_send_size < M_DATA_SIZE+1))		○	-	○	○
	if(luc_ack[0] != RSPI_ACK luc_ack[1] != RSPI_ACK)		○	-	-	-
	else		-	-	○	○
	else		-	○	-	-
	Symbol	Range				
Input	pus_send_size	0x0000~0xFFFF	0x0001	0x0001	0xFFFF	0x0000
	ppuc_receive	0x00~0xFF	0x00	0xFF	0x00	0x00
	puc_ch	0~2	0	1	2	0
	pus_send	0x0000,0xFFFF	0x0000	0x0000	0x0000	0xFFFF
	R_RSPI0_Send_Receive_Copy(ppuc_send, pus_send_size, ppuc_receive, pus_send_size, puc_ch)	0~0x82	0x81	0x00	0x82	0x00
	m_Wait_Spi_Send_Time()	0~2	1	0	2	0
Output	luc_ack[0]	0,1	1	0	1	1
	uc_m_spi_read_flg	1	1	1	1	1
Judgment						

RSPI_write_chk_off

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1
Root	None		-
	Symbol	Range	
Input	None	-	-
Output	uc_m_spi_read_flg	0	0
Judgment			

Unit Test Specification

Project name	GX-Force
File name	ref_volt.c

RefVolt_Cyclic_250msec

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case1	case1
Root	if(lbl_flag == true)	○	-	-
	else	-	○	○
	Symbol	Range		
Input	f_Check_RefVoltFail()	0~2	1	0
Output	None	-	-	-
Judgment				

RefVolt_Init_HcvCheckDisableFlg

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1
Root	None	-
	Symbol	Range
Input	None	-
Output	bl_hcv_check_disable_flg	0
Judgment		

RefVolt_Set_HcvCheckDisableFlg

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1
Root	None	-
	Symbol	Range
Input	None	-
Output	bl_hcv_check_disable_flg	1
Judgment		

f_Set_RefVoltFail

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1
Root	None		-
	Symbol	Range	
Input	None	-	-
Output	None	-	-
Judgment			

f_Check_RefVoltFail

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	4
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1	case2	case3	case4
Root	if(lbl_ad_init_flag == false)		○	-	○	○
	if((luc_ad_port == AD12BIT_AN025) && (bl_hcv_check_disable_flg == true))		-	-	-	-
	else		○	-	○	○
	if((lfl_refv_ad < flc_refv_threshold[0][luc_ch]) (lfl_refv_ad > flc_refv_threshold[1][luc_ch]))		○	-	○	○
	else		-	-	-	-
	else		-	○	-	-
	Symbol	Range				
Input	Ad12bit_Check_InitialProcessFlag()	0,1	0	1	0	0
	ucc_refv_ad_port[0]	0	0	0	0	0
	Ad12bit_Get_Ad_Data()	13,191,320	1320	1320	1320	1319
	bl_hcv_check_disable_flg	1,2	1	1	2	1
	flc_refv_threshold[0][0]	0	0	0	0	0
Output	lbl_ans	0,1	1	0	1	1
Judgment						

Unit Test Specification

Project name	GX-Force
File name	rl781e_control.c

RL781EControl_10msec_interrupt

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3
Root	if(uc_m_com_delay_time)	O	O	-
	else	-	-	O
	Symbol	Range		
Input	uc_m_com_delay_time	0~6	5	6
Output	None	-	-	-
Judgment				

RL781EControl_Calc_H2CancelCOAdAverage

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3
Root	for(luc_i=0; luc_i<2; luc_i++)	O	O	O
	for(luc_j=0; luc_j<M_H2_CANCEL_CO_AVE_SEC; luc_j++)	O	O	O
	Symbol	Range		
Input	fl_m_h2cancelco_ave_ad[luc_i][luc_j]	-800~801	-800	801
Output	RL78DATA.RL78_AD_DATA.fl_h2_cancel_co_ad[luc_i]	-12.5~12.51563	-12.5	12.51563
Judgment				

RL781EControl_Calc_H2CancelCOAdSUB

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3
Root	if(++uc_m_h2cancelcoave_num>=M_H2_CANCEL_CO_AVE_SEC)	O	-	O
	else	-	O	-
	Symbol	Range		
Input	pfl_ad_data_1	-800~800	800	-800
	pfl_ad_data_2	-800~800	-800	800
	uc_m_h2cancelcoave_num	0~64	63	0
Output	uc_m_h2cancelcoave_num	0,1	0	1
	fl_m_h2cancelco_ave_ad	800,801	800	800
	[0][uc_m_h2cancelcoave_num]			
	fl_m_h2cancelco_ave_ad	-801,-800	-800	-800
	[1][uc_m_h2cancelcoave_num]			
Judgment				

RL781EControl_Calc_Temp

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	7
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3	case4	case5	case6	case7
Root	if(fl_num == 0)	O	-	-	-	-	-	-
	else	-	O	O	O	O	O	O
	if(fl_num > M_TEMP_MAX)	-	O	-	O	-	-	-
	else	-	-	O	-	-	O	-
	if(fl_num < M_TEMP_MIN)	-	-	O	O	O	O	O
	else	-	O	-	-	-	-	-
	if((stp_GasInfo_addr+0)	-	O	-	-	-	-	-
	else	-	-	O	O	O	O	O
	if((stp_GasInfo_addr+4)	-	O	-	-	-	-	-
	else	-	-	O	O	O	O	O
	Symbol	Range						
Input	RL78DATA.RL78_AD_DATA.fl_temp_ad_data	164.5~272.5	207.5	261.5	183.5	165.92	271.76	164.5
	(stp_GasInfo_addr+0)->uc_gas_comb	0~3	3	2	0	0	0	0
	(stp_GasInfo_addr+4)->uc_gas_comb	0~3	3	1	0	0	0	0
Output	RL78DATA.RL78_AD_DATA.fl_temp_data	-50~70	0	70	-31.74	-50	70	-50
	RL78DATA.RL78_AD_DATA.fl_disp_temp	-50~70	0	68	-31.74	-50	70	-50
Judgment								

RL78I1EControl Chk_TempError

	Responsible	Last update
Coding	Ikarashi	
Test	Taki	
Judgment	Ikarashi	

		case1	case2	case3	case4
Root	if(uc_m_temp_chk_start_flg == M_ON)	○	-	○	-
	if(RL78DATA.RL78_AD_DATA.fl_temp_ad_data > M_TEMP_ERR_MAX_mV RL78DATA.RL78_AD_DATA.fl_temp_ad_data < M_TEMP_ERR_MIN_mV)	○	-	-	-
	else	-	-	○	-
	else	-	○	-	○
	Symbol	Range			
Input	uc_m_temp_chk_start_flg	0.1	0	1	0
	RL78DATA.RL78_AD_DATA.fl_temp_ad_data	-55~170	-55	85	170
Output	luc_ans	0.1	0	0	0
Judgment					

RL78I1EControl Command 250 Loop

	Responsible	Last update
Coding	Ikarashi	
Test	Taki	
Judgment	Ikarashi	

[illegible]

RL78I1EControl Command Control

	Responsible	Last update
Coding	Ikarashi	
Test	Taki	
Judgment	Ikarashi	

[illegible]

RL781EControl_Command_ReSet

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1
Root	None		-
	Symbol	Range	
Input	None	-	-
Output	uc_m_com_status	0	0
	uc_m_sub_err_count	0	0
Judgment			

RL781EControl_Get_Data_point

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1
Root	None		-
	Symbol	Range	
Input	None	-	-
Output	RL78DATA.RL78_AD_DATA	-	Indefinite value
Judgment			

RL781EControl_Get_MainData_point

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1
Root	None		-
	Symbol	Range	
Input	None	-	-
Output	RL78DATA	-	Indefinite value
Judgment			

RL781EControl_Set_Control_Status

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	4
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1	case2	case3	case4
Root	if(uc_m_com_status >= RL781ECONTROL_CODE_HA)		○	○	-	-
	if(puc_num >= RL781ECONTROL_CODE_HA)		○	-	-	-
	else		-	○	-	-
	else		-	-	○	○
	for(luc_i=0; luc_i<RL781ECONTROL_CODE_HA; luc_i++)		-	-	○	○
	if((uc_m_com_status == luc_i) && (puc_num == (luc_i + 1)))		-	-	○	-
	else		-	-	-	○
	Symbol	Range				
Input	uc_m_com_status	0~7	7	6	5	0
	puc_num	5~7	7	5	6	6
Output	uc_m_sub_err_count	0	0	0	0	0
	uc_m_com_delay_time	0	0	0	0	0
	uc_m_com_status	0~7	7	6	6	0
Judgment						

RL781EControl_Set_Gas_Status

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1	case1	case1
Root	None		-	-	-
	Symbol	Range			
Input	pucp_data	0~2	0	1	2
Output	None	-	-	-	-
Judgment					

RL781EControl_Set_ROM_NUM

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3
Root	None	-	-	-
	Symbol	Range		
Input	pucp_data	0~2	0	1
Output	None	-	-	-
Judgment				

RL781EControl_Set_ROM_SUM

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	2
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2
Root	None	-	-
	Symbol	Range	
Input	pus_num	0x0000,0xFFFF	0x0000
Output	RL78DATA.us_rom_sum	0x0000,0xFFFF	0x0000
Judgment			

RL781EControl_Set_ROM_VER

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	2
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2
Root	None	-	-
	Symbol	Range	
Input	pucsp_data	0x0000,0xFFFF	0x0000
Output	None	-	-
Judgment			

RL781EControl_Start_ChkFlg

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1
Root	None	-
	Symbol	Range
Input	None	-
Output	uc_m_temp_chk_start_flg	1
Judgment		

Unit Test Specification

Project name	GX-Force
File name	rl78i1e_sum_chk.c

RL78I1ESumChk_10msec_interrupt

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1	case2	case3
Root	if(ucs_m_sum_phase != RL78i1eSumChk_SUM_PHASE_OFF)		○	○	-
	if(uss_m_wait_count)		○	-	-
	else		-	○	-
	else		-	-	○
	Symbol	Range			
Input	uss_m_wait_count	0~1001	1000	0	1001
	ucs_m_sum_phase	0~4	3	4	0
Output	ucs_m_sum_phase	0,3	3	0	0
Judgment					

RL78I1ESumChk_Chk_4Count

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1	case2	case3
Root	if(ucs_m_sum_phase != RL78i1eSumChk_SUM_PHASE_OFF){		○	○	-
	if(++ucs_m_4count >= M_4COUNT_MAX)		○	-	-
	else		-	○	-
	else		-	-	○
	Symbol	Range			
Input	ucs_m_sum_phase	0~4	3	4	0
	ucs_m_4count	0~5	4	0	5
Output	luc_ans	0,1	1	0	0
Judgment					

RL78I1ESumChk_Get_PhaseFlg

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1
Root	None	-
	Symbol	Range
Input	None	-
Output	ucs_m_sum_phase	0
Judgment		

RL78I1ESumChk_Set_PhaseEnd

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki		Judgment	
Judgment	Ikarashi			

			case1
Root	None		-
	Symbol	Range	
Input	None	-	-
Output	ucs_m_sum_phase	3	3
Judgment			

RL78I1ESumChk_Set_PhaseOFF

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki		Judgment	
Judgment	Ikarashi			

			case1
Root	None		-
	Symbol	Range	
Input	None	-	-
Output	ucs_m_sum_phase	0	0
Judgment			

RL78I1ESumChk_Set_PhaseWait

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki		Judgment	
Judgment	Ikarashi			

			case1
Root	None		-
	Symbol	Range	
Input	None	-	-
Output	ucs_m_sum_phase	2	2
Judgment			

RL78I1ESumChk_Set_Start

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki		Judgment	
Judgment	Ikarashi			

			case1	case2	case3
Root	if(ucs_m_sum_phase == RL78I1eSumChk_SUM_PHASE_OFF)		○	-	-
	else		-	○	○
	Symbol	Range			
Input	ucs_m_sum_phase	0~4	0	3	4
Output	uss_m_wait_count	1000	1000	1000	1000
	ucs_m_sum_phase	1~4	1	3	4
Judgment					

Unit Test Specification

Project name	GX-Force
File name	rtc.c

m_data_check

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1	case2	case3
Root	if(M_YEAR_MAX < puc_year)		-	○	-
	else		○	-	○
	if(M_MONTH_MAX < puc_month puc_month < M_MONTH_MIN)		-	○	-
	else		○	-	○
	if(M_DAY_MAX < puc_day puc_day < M_DAY_MIN)		-	○	-
	else		○	-	○
	if(M_HOUR_MAX < puc_hour)		-	○	-
	else		○	-	○
	if(M_MINUTE_MAX < puc_minute)		-	○	-
	else		○	-	○
	if(M_SEC_MAX < puc_sec)		-	○	-
	else		○	-	○
	Symbol	Range			
Input	puc_year	0~100	0	100	99
	puc_month	1~13	1	13	12
	puc_day	1~32	1	32	31
	puc_hour	0~24	0	24	23
	puc_minute	0~60	0	60	59
	puc_sec	0~60	0	60	59
Output	luc_err	0,1	0	1	0
Judgment					

m_Get_Oscillation_Stop

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	4
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1	case2	case3	case4
Root	if((luc_err != M_NG) && ((luc_data & M_REG_FLAG_VLF_BIT) == M_REG_FLAG_VLF_BIT))		○	○	-	○
	for(luc_i=0; luc_i<5; luc_i++)		○	○	-	○
	if(luc_err != M_NG)		○	-	-	-
	else		-	○	-	○
	if(luc_err == M_NG (luc_data & M_REG_FLAG_VLF_BIT) == 0x00)			○	-	○
	else		○	-	-	-
	if(luc_i == 5 luc_err == M_NG)			○	-	-
	else		○	-	-	○
	else		-	-	○	
	Symbol	Range				
Input	m_Get_RegisterData1	0~2	1	1	1	2
	m_Get_RegisterData2	0~2	1	0	0	2
	m_Set_RegisterData	0~2	1	0	1	2
Output	luc_err	1,2	1	2	1	2
Judgment						

m_Get_RegisterData

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	2
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1	case2
Root	None		-	-
	Symbol	Range		
Input	puc_reg_adr	0x00,0xFF	0x00	0xFF
	pucp_data	0x00,0xFF	0x00	0xFF
	puc_size	0x00,0xFF	0x00	0xFF
Output	luc_err	0	0	0
Judgment				

m_Read_DataAndTime

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	4
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1	case2	case3	case4
Root	if(luc_err == M_OK)		○	○	-	-
	else		-	-	○	○
	if(luc_err == M_OK)		○	○	-	-
	if(RTCTime_Chk_Time_Error(luc_time_data[0], luc_time_data[1]) == M_OK)		○	-	-	-
	else		-	○	-	-
	else		-	-	○	○
	Symbol	Range				
Input	m_Get_RegisterData(M_REG_ADDRESS_SEC, (U_CHR*)&luc_reg_data[0][0], 7)	0~2	0	0	1	2
	RTCTime_Chk_Time_Error(luc_time_data[0], luc_time_data[1])	0~2	0	1	2	2
Output	luc_err	0~2	0	2	1	1
Judgment						

m_Rtc_Writ_VerifyCheck

	Responsible	Last update
Coding	Ikarashi	
Test	Taki	
Judgment	Ikarashi	

Infinite loop	None
Verification pass	3
Judgment	

			case1	case2	case3
Root	for(luc_j = 0 ; luc_i < 2 ; luc_j++)		○	○	○
	if(m_Writ_DateAndTime() == M_NG)		○	-	-
	else		-	○	○
	if(m_Read_DateAndTime() == M_NG)		○	-	-
	else		-	○	○
	if(puc_year != uc_year)		○	-	-
	else		-	○	○
	if(puc_month != uc_month)		○	○	-
	else		-	-	○
	if(puc_day != uc_day)		○	○	-
	else		-	-	○
	if(puc_hour != uc_hour)		○	○	-
	else		-	-	○
	if(puc_minute != uc_minute)		○	○	-
	else		-	-	○
	if(luc_rtc_err == 0)		-	○	○
	else		○	-	-
if(luc_rtc_err != 0)		○	-	-	
else		-	○	○	
	Symbol	Range			
Input	puc_year	0~100	99	0	100
	puc_month	1~13	12	1	13
	puc_day	1~32	31	1	32
	puc_hour	0~24	23	0	24
	puc_minute	0~60	59	0	60
	puc_sec	0~60	59	0	60
	uc_year	0~100	0	0	100
	uc_month	1~13	1	12	13
	uc_day	1~32	1	31	32
	uc_hour	0~24	0	23	24
	uc_minute	0~60	0	59	60
	uc_sec	0~60	0	59	60
	m_Writ_DateAndTime()	0~2	1	0	2
	m_Read_DateAndTime()	0~2	1	0	2
Output	uc_year	0,100	0	0	100
	uc_month	1,13	1	1	13
	uc_day	1,32	1	1	32
	uc_hour	0,24	0	0	24
	uc_minute	0,60	0	0	60
	uc_sec	0,60	0	0	60
	luc_err	0,1	1	0	0
Judgment					

m_Set_RegisterData

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	2
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1	case2
Root	None		-	-
	Symbol	Range		
Input	puc_reg_adr	0x00,0xFF	0x00	0xFF
	pucp_data	0x00,0xFF	0x00	0xFF
	puc_size	0x00,0xFF	0x00	0xFF
Output	luc_err	0	0	0
Judgment				

m_Writ_CircuitSetting

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1
Root	None		-
	Symbol	Range	
Input	None	-	-
Output	luc_err	0	0
Judgment			

m_Writ_DateAndTime

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1	case2	case3
Root	if(m_Set_RegisterData(M_REG_ADDRESS_CONTROL0, (U_CHR*)&luc_data[0], 1) == M_NG)		-	○	○
	else		○	-	-
	if(m_Set_RegisterData(M_REG_ADDRESS_SEC, (U_CHR*)&luc_data[0], 7) == M_NG)		○	-	-
	else		-	○	○
	if(m_Set_RegisterData(M_REG_ADDRESS_CONTROL0, (U_CHR*)&luc_data[0], 1) == M_NG)		○	-	-
	else		-	○	○
	if(luc_rtc_err != 0)		○	-	-
	else		-	○	○
	Symbol	Range			
Input	m_Set_RegisterData(M_REG_ADDRESS_CONTROL0, (U_CHR*)&luc_data[0], 1)	0~2	1	0	2
	m_Set_RegisterData(M_REG_ADDRESS_SEC, (U_CHR*)&luc_data[0], 7)	0~2	1	0	2
	uc_sec	0~60	0	59	60
	uc_minute	0~60	0	59	60
	uc_hour	0~24	0	23	24
	uc_day	1~32	1	31	32
	uc_month	1~13	1	12	13
	uc_year	0~100	0	99	100
Output	luc_err	0,1	1	0	0
Judgment					

RTC_DateAndTime_Config

	Responsible	Last update
Coding	Ikarashi	
Test	Taki	
Judgment	Ikarashi	

Infinite loop	None
Verification pass	3
Judgment	

			case1	case2	case3
Root	if(luc_err == M_OK)		O	-	-
	else		-	O	O
	Symbol	Range			
Input	puc_year	0~100	0	99	100
	puc_month	0~13	0	12	13
	puc_day	0~32	0	31	32
	puc_hour	0~24	0	23	24
	puc_minute	0~60	0	59	60
	puc_sec	0~60	0	59	60
	m_Rtc_Writ_VerifyCheck(puc_year, puc_month, puc_day, puc_hour, puc_minute, puc_sec)	0~2	0	1	2
	m_data_check(puc_year, puc_month, puc_day, puc_hour, puc_minute, puc_sec)	0~2	0	1	2
Output	luc_err	0~2	0	1	2
Judgment					

RTC_DateAndTime_Set_OnOffFlg

	Responsible	Last update
Coding	Ikarashi	
Test	Taki	
Judgment	Ikarashi	

Infinite loop	None
Verification pass	3
Judgment	

			case1	case2	case3
Root	None		-	-	-
	Symbol	Range			
Input	puc_onoff	0~2	0	1	2
Output	None	-	-	-	-
Judgment					

RTC_Get_Data

	Responsible	Last update
Coding	Ikarashi	
Test	Taki	
Judgment	Ikarashi	

Infinite loop	None
Verification pass	3
Judgment	

			case1	case2	case3
Root	None		-	-	-
	Symbol	Range			
Input	pucp_data	0x00,0xFF	0x00	0xFF	0xFF
	uc_year	0~100	0	99	100
	uc_month	0~13	0	12	13
	uc_day	0~32	0	31	32
	uc_hour	0~24	0	23	24
	uc_minute	0~60	0	59	60
	uc_sec	0~60	0	59	60
Output	None	-	-	-	-
Judgment					

RTC_Read_DateAndTime

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1
Root	None		-
	Symbol	Range	
Input	None	-	
Output	luc_err	0	0
Judgment			

RTC_Start_Up

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	5
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1	case2	case3	case4	case5
Root	if(luc_flg == M_YES)		○	-	-	-	-
	else		-	○	○	○	○
	if(luc_flg != M_NG)		○	○	○	-	○
	else		-	-	-	○	-
	if(luc_flg != M_NG)		○	-	-	-	○
	else		-	○	○	○	-
	if(luc_flg == M_OK)		○	○	○	-	-
	if(luc_flg == M_OK)		○	○	-	-	-
	if(luc_first_flg == M_ON)		○	-	-	-	-
	else		-	○	-	-	-
	else		-	-	○	-	-
	else		-	-	○	○	○
	Symbol	Range					
Input	m_Get_Oscillation_Stop()	0~2	2	0	0	1	3
	m_Rtc_Writ_VerifyCheck(cuc_def_data[0], cuc_def_data[1], cuc_def_data[2], cuc_def_data[3], cuc_def_data[4], cuc_def_data[5])	0,1	0	1	1	1	2
	m_Read_DateAndTime()	0,1	0	0	1	1	2
	m_Writ_CircuitSetting()	0,1	0	0	0	1	2
	m_data_check(uc_year, uc_month, uc_day, uc_hour, uc_minute, uc_sec)	0,1	0	0	1	1	2
Output	luc_flg	0~2	2	0	1	1	2
Judgment							

Unit Test Specification

Project name	GX-Force
File name	rtc_time.c

m_Chg_Time

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1	case2	case3
Root	None		-	-	-
Input	Symbol	Range			
	puc_bc[0]	0-60	0	59	60
	puc_bc[1]	0-60	0	59	60
	puc_bc[2]	0-24	0	23	24
Output	(lul_sec + lul_mins + lul_hours)	0-90060	0	86399	90060
Judgment					

m_Chg_Time_Value

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1	case2	case3
Root	None		-	-	-
Input	Symbol	Range			
	puc_bc[0]	0~60	0	59	60
	puc_bc[1]	0~60	0	59	60
	puc_bc[2]	0~24	0	23	24
	puc_bc[3]	1~32	1	31	32
	puc_bc[4]	1~13	1	12	13
	puc_bc[5]	0~100	0	99	100
Output	RTTime_Chg_Day(puc_bc) * (U_LNG)86400 + m_Chg_Time(puc_bc)		0	0	0
Judgment					

RTTime_Chg_Day

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3	
Root	if(luc_bc0 > 99)	○	-	-	
	else	-	○	○	
	if((luc_bc1 <= 0) (luc_bc1 > 12))	○	-	○	
	else	-	○	○	
	if((luc_bc2 <= 0) (luc_bc2 > 31))	○	-	-	
	else	-	○	-	
	for (luc_i=1; luc_i<= (luc_bc1 - 1) ;luc_i++)	-	○	-	
	switch (luc_i)	-	○	-	
	case 1	-	○	-	
	case 3	-	○	-	
	case 5	-	○	-	
	case 7	-	○	-	
	case 8	-	○	-	
	case 10	-	○	-	
	case 12	-	○	-	
	case 2	-	○	-	
	default	-	○	-	
if(luc_bc0 > 0)	-	○	-		
for(luc_i=1; luc_i<= (luc_bc0 - 1) ;luc_i++)	-	○	-		
else	○	-	○		
	Symbol	Range			
Input	puc_bc[3]	0-32	0	31	32
	puc_bc[4]	0-13	0	12	13
	puc_bc[5]	0-100	0	99	100
Output	lul_ans_day	0,36134	0	36134	0
Judgment					

RTCTime_Chk_Day

	Responsible	Last update
Coding	Ikarashi	
Test	Taki	
Judgment	Ikarashi	

Infinite loop	None
Verification pass	9
Judgment	

			case1	case2	case3	case4	case5	case6	case7	case8	case9
Root	switch (puc_month)		○	○	○	○	○	○	○	○	○
	case 1		○	-	-	-	-	-	-	-	-
	case 3		-	○	-	-	-	-	-	-	-
	case 5		-	-	○	-	-	-	-	-	-
	case 7		-	-	-	○	-	-	-	-	-
	case 8		-	-	-	-	○	-	-	-	-
	case 10		-	-	-	-	-	○	-	-	-
	case 12		-	-	-	-	-	-	○	-	-
	case 2		-	-	-	-	-	-	-	○	-
	default		-	-	-	-	-	-	-	-	○
Symbol		Range									
Input	puc_month	1~13	1	3	5	7	8	10	12	2	13
	pus_year	0~2099	0	2098	2099	0	0	0	0	0	0
Output	luc_ans_day	28~31	31	31	31	31	31	31	31	28	30
Judgment											

RTCTime_Chk_LeapYear

	Responsible	Last update
Coding	Ikarashi	
Test	Taki	
Judgment	Ikarashi	

Infinite loop	None
Verification pass	5
Judgment	

			case1	case2	case3	case4	case5
Root	if((pus_year % 4) == 0x00)		-	○	○	○	-
	if((pus_year % 100) == 0x00)		-	○	○	-	-
	if((pus_year % 400) == 0x00)		-	○	-	-	-
	else		-	-	○	-	-
	else		-	-	-	○	-
	else		○	-	-	-	○
	Symbol	Range					
Input	pus_year	0~2099	2098	0	100	4	2099
Output	luc_ans	0,1	0	1	0	1	0
Judgment							

RTCTime_Chk_Time_Error

	Responsible	Last update
Coding	Ikarashi	
Test	Taki	
Judgment	Ikarashi	

Infinite loop	None
Verification pass	3
Judgment	

Root			case1	case2	case3
	if(lul_time[1] >= lul_time[0])		○	○	-
	if((lul_time[1] - lul_time[0]) < 60)		○	-	-
	else		-	○	-
	else		-	-	○
	Symbol	Range			
Input	puc_bc1[6]	0x00,0xFF	0x00	0x00	0xFF
	puc_bc2[6]	0x00,0xFF	0x00	0xFF	0x00
Output	luc_err	0,1	0	1	1
Judgment					

Unit Test Specification

Project name	GX-Force
File name	sci5_uart.c

SCI5UartMain_Comu_Op

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3
Root	if(uc_rxd_chk_flg == M_ON)	○	-	-
	else	-	○	○
	Symbol	Range		
Input	uc_m_rxd_chk_flg	-	-	-
Output	None	-	-	-
Judgment				

UartSci5_Get_Rxd_Data

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1	case2	case3
Root	if(us_m_rxd_cnt >= lus_buf_limit)		○	-	-
	else		-	○	○
	if(luc_rxd_one_data == M_C_CR)		○	-	-
	else		-	○	○
	Symbol	Range			
Input	uc_m_one_char_receive[0]	0x00~0xFF	0x0D	0x00	0xFF
Output	None	-	-	-	-
Judgment					

UartSci5_Get_TransmitEnable

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1
Root	None		-
	Symbol	Range	
Input	None	-	-
Output	SCI5.SCR.BIT.TE	0	0
Judgment			

UartSci5_Init_Setting

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1
Root	None		-
	Symbol	Range	
Input	None	-	-
Output	None	-	-
Judgment			

m_Txd_Busy

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1
Root	None		-
	Symbol	Range	
Input	None	-	-
Output	uc_m_rxd_chk_flg	0	0
	us_m_rxd_cnt	0	0
Judgment			

UartSci5_Int_Sci5_Start

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1
Root	None		-
	Symbol	Range	
Input	None	-	-
Output	None	-	-
Judgment			

UartSci5_Start_Driver

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1
Root	None		-
	Symbol	Range	
Input	None	-	-
Output	None	-	-
Judgment			

UartSci5_Int_Sci5_Stop

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1
Root	None		-
	Symbol	Range	
Input	None	-	-
Output	None	-	-
Judgment			

UartSci5_Interrupt_Sci5Error

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1
Root	None		-
	Symbol	Range	
Input	None	-	-
Output	None	-	-
Judgment			

UartSci5_Interrupt_Sci5SendEnd

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1
Root	None		-
	Symbol	Range	
Input	None	-	-
Output	None	-	-
Judgment			

UartSci5_Set_Rxd_Next_Buf

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1
Root	None		-
	Symbol	Range	
Input	R_SCI5_Serial_Receive	0	0
Output	None	-	-
Judgment			

UartSci5_Send_Data

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1	case2	case2
Root	if(fuss_uart5_tx_count == 0U)		○	○	-
	if(pus_size >= F_SEND_MIN_SIZE)		-	○	-
	else		○	-	-
	else		-	-	○
	Symbol	Range			
Input	pncp_data	0x00,0xFF	0x00	0x00	0xFF
	fuss_uart5_tx_count	0x0000,0xFFFF	0x0000	0x0000	0xFFFF
	pus_size	0x0000,0xFFFF	0x0000	0xFFFF	0xFFFF
Output	None	-	-	-	-
Judgment					

Unit Test Specification

Project name	GX-Force
File name	sci6_iic.c

m_set_send_receive_delay

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	4
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3	case4
Root	while(uc_m_send_receive_end_flg == M_ON)	○	○	-	-
	if(us_m_end_timer == 0)	○	-	-	-
	else	-	○	-	-
	Symbol	Range			
Input	uc_m_send_receive_end_flg	1	1	0	2
	us_m_end_timer	0	20	21	21
Output	luc_err	1	0	0	0
Judgment					

m_set_send_receive_flg

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1
Root	None	-
	Symbol	Range
Input	None	-
Output	uc_m_send_receive_end_flg	1
	us_m_end_timer	2
Judgment		

m_set_send_receive_init_flg

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1
Root	None	-
	Symbol	Range
Input	None	-
Output	uc_m_send_receive_end_flg	1
	us_m_end_timer	20
Judgment		

SCI6IIC_count_delay_time

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3
Root	if(us_m_end_timer)	○	-	○
	else	-	○	-
	Symbol	Range		
Input	us_m_end_timer	0~21	20	0
Output	None	-	-	-
Judgment				

SCI6IIC_Int_Sci6_Receive

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1	case2	case3
Root	if(luc_err != M_NG)		○	-	○
	else		-	○	-
	Symbol	Range			
Input	m_set_send_receive_delay()	0~2	1	0	2
	luc_rx_add	0x00,0xFF	0x00	0xFF	0x00
	luc_tx_add	0x00,0xFF	0x00	0xFF	0x00
	pucc_tx_buf	0x00,0xFF	0x00	0xFF	0x00
	pucc_rx_buf	0x00,0xFF	0x00	0xFF	0x00
	lus_tx_num	0x00,0xFF	0x00	0xFF	0x00
	lus_rx_num	0x00,0xFF	0x00	0xFF	0x00
Output	luc_err	0~2	1	0	2
Judgment					

SCI6IIC_Int_Sci6_Send

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1	case2	case3
Root	if(uc_m_send_lcd_end_flg == M_OFF)		○	-	-
	else		-	○	○
	Symbol	Range			
Input	uc_m_send_lcd_end_flg	0~2	0	1	2
	luc_address	0x00,0xFF	0x00	0x00	0xFF
	pucc_tx_buf	0x00,0xFF	0x00	0x00	0xFF
	lus_num	0~4324	0	4323	4324
	m_set_send_receive_delay()	0~2	0	1	2
Output	luc_err	0,1	0	1	1
Judgment					

SCI6IIC_Int_Sci6_Send_Init_LCD

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1	case2	case3
Root	if(uc_m_send_lcd_end_flg == M_OFF)		○	-	-
	else		-	○	○
	Symbol	Range			
Input	uc_m_send_lcd_end_flg	0~2	0	1	2
	luc_address	0x00,0xFF	0x00	0x00	0xFF
	pucc_tx_buf	0x00,0xFF	0x00	0x00	0xFF
	lus_num	0~4324	0	4323	4324
	m_set_send_receive_delay()	0~2	0	1	2
Output	luc_err	0,1	0	1	1
Judgment					

SCI6IIC_Int_Sci6_Send_LCD

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1	case2	case3
Root	None		-	-	-
	Symbol	Range			
Input	luc_address	0x00,0xFF	0x00	0x00	0xFF
	pucc_tx_buf	0x00,0xFF	0x00	0x00	0xFF
	lus_num	0~4324	0	4323	4324
Output	luc_err	0	0	0	0
	uc_m_send_lcd_end_flg	1	1	1	1
Judgment					

SCI6IIC_Int_Sci6_Start

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1
Root	None		-
	Symbol	Range	
Input	None	-	-
Output	None	-	-
Judgment			

SCI6IIC_Int_Sci6_Stop

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1
Root	None		-
	Symbol	Range	
Input	None	-	-
Output	None	-	-
Judgment			

SCI6IIC_set_send_receive_end_flg

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1
Root	None		-
	Symbol	Range	
Input	None	-	-
Output	uc_m_send_receive_end_flg	0	0
	uc_m_send_lcd_end_flg	0	0
Judgment			

Unit Test Specification

Project name	GX-Force
File name	sci9_uart_command.c

m_SCI9_Code_DU

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1	case2	case3
Root	if("pucp_rxd + M_PC_SUB_COM_POS) == 'W' ("pucp_rxd + M_PC_SUB_COM_POS) == 'R')		○	○	-
	if("pucp_rxd + M_PC_DATA_POS) != C_NAK)		○	-	-
	else		-	○	-
	else		-	-	○
	Symbol	Range			
Input	("pucp_rxd + M_PC_SUB_COM_POS)	0x52~0xFF	0x57	0x52	0xFF
	("pucp_rxd + M_PC_DATA_POS)	0x00~0xFF	0x15	0x00	0xFF
	pucp_bcd	0x00,0xFF	0x00	0x00	0xFF
Output	None	-	-	-	-
Judgment					

m_SCI9_Code_HA

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	5
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3	case4	case5	
Root	if("*(pucp_rxd + M_PC_SUB_COM_POS) == 'W' *(pucp_rxd + M_PC_SUB_COM_POS) == 'R') if("*(pucp_rxd + M_PC_DATA_POS) != C_NAK) if(stp_sub_ad->uc_nc_count != luc8_nu_count_bak) else for(luc_i=0; luc_i<11; luc_i++) if(stp_sub_ad->uc_status_data != 0x00) else else else	○ ○ ○ - ○ ○ - - -	○ - - - - - - ○ ○	○ - - ○ - - - ○ -	- - - - - - - ○ ○	- - - - - - - ○ ○	
	Symbol	Range					
	*(pucp_rxd + M_PC_SUB_COM_POS)	0x00~0xFF	0x57	0x52	0x57	0xFF	0x00
	*(pucp_rxd + M_PC_DATA_POS)	0x00~0xFF	0x00	0x15	0x00	0xFF	0xFF
	pucp_bcd	0x00,0xFF	0x00	0x00	0x00	0xFF	0xFF
	stp_sub_ad->uc_nc_count	0x00,0xFF	0xFF	0x00	0x00	0xFF	0xFF
	stp_sub_ad->uc_status_data	0x00~0xFF	0xFF	0xFF	0x00	0xFF	0xFF
	stp_sub_ad->fl_nc_ad_data[1][0][0]	-800~801	-800	800	0	0	801
	stp_sub_ad->fl_nc_ad_data[1][0][1]	-800~801	-800	800	0	0	801
Input	stp_sub_ad->fl_nc_ad_data[1][1][0]	-800~801	-800	800	0	0	801
	stp_sub_ad->fl_nc_ad_data[1][1][1]	-800~801	-800	800	0	0	801
	stp_sub_ad->fl_nc_ad_data[0][0][0]	-800~801	-800	800	0	0	801
	stp_sub_ad->fl_nc_ad_data[0][0][1]	-800~801	-800	800	0	0	801
	stp_sub_ad->fl_nc_ad_data[0][1][0]	-800~801	-800	800	0	0	801
	stp_sub_ad->fl_nc_ad_data[0][1][1]	-800~801	-800	800	0	0	801
	stp_sub_ad->fl_nc_ad_data[0][0][0]	-800~801	-800	800	0	0	801
	stp_sub_ad->fl_nc_ad_data[0][0][1]	-800~801	-800	800	0	0	801
	stp_sub_ad->fl_nc_ad_data[0][1][0]	-800~801	-800	800	0	0	801
	stp_sub_ad->fl_nc_ad_data[0][1][1]	-800~801	-800	800	0	0	801
	stp_sub_ad->fl_nc_ad_data[0][0][0]	-107374176~801	-107374176	800	-107374176	0	801
	stp_sub_ad->fl_nc_ad_data[0][0][1]	-107374176~801	-107374176	800	-107374176	0	801
	stp_sub_ad->fl_nc_ad_data[0][1][0]	-107374176~801	-107374176	800	-107374176	0	801
	stp_sub_ad->fl_nc_ad_data[0][1][1]	-107374176~801	-107374176	800	-107374176	0	801
	stp_sub_ad->fl_ec_ad_data[0]	-107374176	-107374176	-107374176	-107374176	-107374176	-107374176
Output	stp_sub_ad->fl_ec_ad_data[1]	-107374176	-107374176	-107374176	-107374176	-107374176	-107374176
	stp_sub_ad->fl_ec_ad_data[2]	-107374176	-107374176	-107374176	-107374176	-107374176	-107374176
	stp_sub_ad->fl_temp_ad_data	-107374176	-107374176	-107374176	-107374176	-107374176	-107374176
	stp_sub_ad->fl_ec_chk_data[0]	-107374176	-107374176	-107374176	-107374176	-107374176	-107374176
	stp_sub_ad->fl_ec_chk_data[1]	-107374176	-107374176	-107374176	-107374176	-107374176	-107374176
	stp_sub_ad->fl_ec_chk_data[2]	-107374176	-107374176	-107374176	-107374176	-107374176	-107374176
	Judgment						

m_SCI9_Code_RC

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	4
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3	case4		
Root	if("*(pucp_rxd + M_PC_SUB_COM_POS) == 'R') if(Tool_Comp_Pnti((pucp_rxd + M_PC_DATA_POS), (U_CHR *)&lucc_chk_asc, sizeof(lucc_chk_asc-1)) != 0) else else	○ ○ - -	○ ○ ○ -	- - ○ ○	- - - ○		
	Symbol	Range					
	Input	*(pucp_rxd + M_PC_SUB_COM_POS) pucp_bcd Tool_Comp_Pnti((pucp_rxd + M_PC_DATA_POS), (U_CHR *)&lucc_chk_asc, sizeof(lucc_chk_asc-1))	0x00~0xFF 0x00,0xFF 0-2	0x52 0x00 0	0x52 0x00 0	0x00 0x00 2	0xFF 0xFF 2
	Output	None	-	-	-	-	
Judgment							

m_SCI9_Code_VP

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	4
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3	case4	
Root	if(("pucp_rxd + M_PC_SUB_COM_POS) == 'R')	○	○	-	-	
	if(("pucp_rxd + M_PC_DATA_POS) != C_NAK)	○	-	-	-	
	else	-	○	-	-	
	else	-	-	○	○	
Symbol		Range				
Input	("pucp_rxd + M_PC_SUB_COM_POS)	0x00~0xFF	0x52	0x52	0x00	0xFF
	("pucp_rxd + M_PC_DATA_POS)	0x00~0xFF	0x15	0x00	0xFF	0x00
	pucp_bdd	0x00,0xFF	0x00	0x00	0x00	0xFF
Output	None	-	-	-	-	
Judgment						

m_SCI9_Code_VS

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	10
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1	case2	case3	case4	case5	case6	case7	case8	case9	case10
Root	if(*(pucp_rxd + M_PC_SUB_COM_POS) == 'R')		○	○	○	-	-	-	-	-	-	-
	if(*(pucp_rxd + M_PC_DATA_POS) != C_NAK)		○	○	-	-	-	-	-	-	-	-
	if(RL781ESumChk_Get_PhaseFlg() == RL781eSumChk_SUM_PHASE_OFF)		○	-	-	-	-	-	-	-	-	-
	else		-	○	-	-	-	-	-	-	-	-
	else		-	-	○	-	-	-	-	-	-	-
	else if(*(pucp_rxd + M_PC_SUB_COM_POS) == 'W')		-	-	-	○	○	-	-	-	-	-
	if(*(pucp_rxd + M_PC_DATA_POS) != C_NAK)		-	-	-	○	-	-	-	-	-	-
	else		-	-	-	-	○	-	-	-	-	-
	else if(*(pucp_rxd + M_PC_SUB_COM_POS) == 'C')		-	-	-	-	-	○	○	○	○	-
	if(*(pucp_rxd + M_PC_DATA_POS) != C_NAK)		-	-	-	-	-	○	○	○	○	-
	if(*(pucp_rxd + M_PC_DATA_POS) == '0')		-	-	-	-	-	○	○	○	-	-
	if(RL781ESumChk_Get_PhaseFlg() == RL781eSumChk_SUM_PHASE_OFF)		-	-	-	-	-	-	○	-	-	-
	else		-	-	-	-	-	-	-	○	-	-
	else		-	-	-	-	-	-	-	-	○	-
else		-	-	-	-	-	-	-	-	-	○	
Symbol			Range									
Input	*(pucp_rxd + M_PC_SUB_COM_POS)	0x00~0xFF	0x52	0x52	0x52	0x57	0x57	0x43	0x43	0x43	0x43	0xFF
	*(pucp_rxd + M_PC_DATA_POS)	0x00~0xFF	0x00	0x00	0x15	0xFF	0x15	0x30	0x30	0x01	0x15	0xFF
	pucp_bdd	0x00~0xFF	0x00	0x00	0x00	0x00	0x00	0x00	0x00	0x00	0x00	0xFF
	RL781ESumChk_Get_PhaseFlg()	0x00~0xFF	0x00	0xFF	0x00	0x00	0x00	0x00	0x01	0x00	0x00	0xFF
Output	None	-	-	-	-	-	-	-	-	-	-	-
Judgment												

m_Set_Start_Command

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	2
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1	case2
Root	None		-	-
	Symbol	Range		
Input	*{pucp_main + 0}	0x00,0xFF	0x00	0xFF
	*{pucp_main + 1}	0x00,0xFF	0x00	0xFF
	*{puc_sub + 0}	0x00,0xFF	0x00	0xFF
Output	*{pucpd_bdd + 0}	0x02	0x02	0x02
	*{pucpd_bdd + 1}	0x30	0x30	0x30
	*{pucpd_bdd + 2}	0x30	0x30	0x30
	*{pucpd_bdd + 3}	0x30	0x30	0x30
	*{pucpd_bdd + 4}	0x30	0x30	0x30
	*{pucpd_bdd + 5}	0x00,0xFF	0x00	0xFF
	*{pucpd_bdd + 6}	0x00,0xFF	0x00	0xFF
	*{pucpd_bdd + 7}	0x2C	0x2C	0x2C
	*{pucpd_bdd + 8}	0x00,0xFF	0x00	0xFF
	*{pucpd_bdd + 9}	0x2C	0x2C	0x2C
	Judgment			

SCI9UartCommand Command Op

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	6
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1	case2	case3	case4	case5	case6
Root	switch(puc_com_mode)		○	○	○	○	○	○
	case Cmd_RC		○	-	-	-	-	-
	case Cmd_VP		-	○	-	-	-	-
	case Cmd_VS		-	-	○	-	-	-
	case Cmd_DU		-	-	-	○	-	-
	case Cmd_HA		-	-	-	-	○	-
	default		-	-	-	-	-	○
Symbol		Range						
Input	puc_com_mode	1~7	1	3	4	5	6	7
	pucp_rxd	0x00,0xFF	0x00	0x00	0x00	0x00	0x00	0xFF
	pucp_bxd	0x00,0xFF	0x00	0x00	0x00	0x00	0x00	0xFF
Output	None	-	-	-	-	-	-	-
Judgment								

SCI9UartCommand_Get_Cmd_NUM

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1
Root	None	-
	Symbol	Range
Input	None	-
Output	Cmd_NUM	8
Judgment		

SCI9UartCommand_Get_Comnd_Data

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3
Root	None	-	-	-
	Symbol	Range		
Input	luc_cmd_num	0-22	0	21
Output	uc_sci9_comnd_tbl[luc_cmd_num].uc_cmd_code	1-103	1	103
Judgment				

SCI9UartCommand_Get_Comnd_Pointer

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3
Root	None	-	-	-
	Symbol	Range		
Input	luc_cmd_num	0-8	0	8
Output	(U_CHR*)&uc_sci9_comnd_tbl[luc_cmd_num].uc_cmd_chr[0]	-	Indefinite value	Indefinite value
Judgment				

SCI9UartCommand_Send_DUW

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1
Root	None	-
	Symbol	Range
Input	None	-
Output	None	-
Judgment		

SCI9UartCommand_Send_HAW

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	5
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3	case4	case5
Root	if((GasCalcEC_Get_ECChkStartFlg(0) == 0) && (GasCalcEC_Get_ECChkStartFlg(1) == 0))	○	-	-	-	-
	else if(((GasCalcEC_Get_ECChkStartFlg(0) == 1) && (GasCalcEC_Get_ECChkStartFlg(1) == 0))	-	○	-	-	-
	else if(((GasCalcEC_Get_ECChkStartFlg(0) == 0) && (GasCalcEC_Get_ECChkStartFlg(1) == 1))	-	-	○	-	-
	else if(((GasCalcEC_Get_ECChkStartFlg(0) == 1) && (GasCalcEC_Get_ECChkStartFlg(1) == 1))	-	-	-	○	-
	else	-	-	-	-	○
	Symbol	Range				
Input	GasCalcEC_Get_ECChkStartFlg(0)	0,1	0	1	0	1
	GasCalcEC_Get_ECChkStartFlg(1)	0,1	0	0	1	1
Output	None	-	-	-	-	-
Judgment						

SCI9UartCommand_Send_RCR

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1
Root	None	-
	Symbol	Range
Input	None	-
Output	None	-
Judgment		

SCI9UartCommand_Send_VPR

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1
Root	None		-
	Symbol	Range	
Input	None	-	-
Output	None	-	-
Judgment			

SCI9UartCommand_Send_VSC

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1
Root	None		-
	Symbol	Range	
Input	None	-	-
Output	None	-	-
Judgment			

SCI9UartCommand_Send_VSR

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1
Root	None		-
	Symbol	Range	
Input	None	-	-
Output	None	-	-
Judgment			

SCI9UartCommand_Send_VSW

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1
Root	None		-
	Symbol	Range	
Input	None	-	-
Output	None	-	-
Judgment			

Unit Test Specification

Project name	GX-Force
File name	sci9_uart_main.c

m_Comand_Chk

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	4
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1	case2	case3	case4
Root	if(m_Rxd_Sum_Chk() == M_OK)		○	○	-	-
	while(luc_cmd_cnt <= SCI9UartCommand_Get_Cmd_NUM())		○	○	-	-
	if(Tool_Comp_Pnt((U_CHR*)&uc_m_rxd_buf[M_PC_COMMAND_POS], (U_CHR*)SCI9UartCommand_Get_Comnd_Pointer(luc_cmd_cnt), 2) == 0)		○	-	-	-
	else		-	○	-	-
	else		-	-	○	○
	Symbol	Range				
Input	m_Rxd_Sum_Chk()	0~2	0	0	1	2
	SCI9UartCommand_Get_Cmd_NUM()	8,9	8	8	8	9
	Tool_Comp_Pnt((U_CHR*)&uc_m_rxd_buf[M_PC_COMMAND_POS], (U_CHR*)SCI9UartCommand_Get_Comnd_Pointer(luc_cmd_cnt), 2)	0~2	0	1	0	2
Output	luc_com_mode	0x00,0xFF	0x00	0xFF	0xFF	0xFF
Judgment						

m_Comu_Op_Sub

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	2
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1	case2
Root	if(luc_com_mode != 0xff)		○	-
	else		-	○
	Symbol	Range		
Input	m_Comand_Chk()	0x00,0xFF	0x00	0xFF
Output	None	-	-	-
Judgment				

m_Rxd_Sum_Chk

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	2
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1	case2	case3	case4
Root	for(lus_i = 0; lus_i < sizeof(uc_m_rxd_buf); lus_i++)		○	○	○	○
	if(*lucp_pnt == M_C_STX)		○	-	-	-
	else		-	○	○	○
	if(luc_stx_flg == M_ON)		○	-	-	-
	else		-	-	○	○
	if(*lucp_pnt == M_C_ETX)		-	○	-	-
	else		○	-	○	○
	if(!(luc_sum_1_dat == luc_sum_ck_dat))		○	-	-	-
	else		-	○	○	○
	Symbol	Range				
Input	uc_m_rxd_buf[0]	0x00~0xFF	0x02	0x03	0x00	0xFF
Output	luc_ans	0,1	1	0	0	0
Judgment						

m_Txd_Busy

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1
Root	None		-
	Symbol	Range	
Input	None	-	
Output	us_m_rxd_cnt	0	0
	uc_rxd_chk_flg	0	0
Judgment			

m_Txd_Start

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1	case2	case3
Root	None		-	-	-
	Symbol	Range			
Input	pus_txd_size	14~22	14	21	22
Output	None	-	-	-	-
Judgment					

m_Txd_Sum_Calc

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	2
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1	case2	case3
Root	for(lus_i = 0; lus_i < (lus_txd_count); lus_i++)		-	○	○
	Symbol	Range			
Input	lus_txd_count	0~19	0	18	19
Output	luc_sum_1_dat	0	0	0	0
Judgment					

SCI9UartMain_Comu_Op

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1	case2	case3
Root	if(uc_rxd_chk_flg == M_ON)		○	-	-
	else		-	○	○
	Symbol	Range			
Input	uc_rxd_chk_flg	0~2	1	0	2
Output	None	-	-	-	-
Judgment					

SCI9UartMain_Err_Op

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1
Root	None		-
	Symbol	Range	
Input	None	-	-
Output	uc_m_txd_buf[M_PC_DATA_POS]	0x15	0x15
Judgment			

SCI9UartMain_Get_Rxd_Data

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1	case2	case3
Root	if(us_m_rxd_cnt >= lus_buf_limit)		○	-	○
	else		-	○	-
	if((luc_rxd_one_data == M_C_CR) (luc_rxd_one_data == M_C_EOT) (luc_rxd_one_data == M_C_ETB))		○	-	-
	else		-	○	○
	Symbol	Range			
Input	uc_m_one_char_receive[0]	0x00~0xFF	0x0D	0x00	0xFF
	us_m_rxd_cnt	0~301	300	0	301
Output	uc_m_rxd_buf[us_m_rxd_cnt]	0	0	0	0
	uc_rxd_chk_flg	1	1	1	1
Judgment					

SCI9UartMain_Head_Set

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	2
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1	case2
Root	for(luc_i = 0; luc_i < M_PC_DATA_POS; ++luc_i)		○	○
	Symbol	Range		
Input	uc_m_rxd_buf[luc_i]	0x00,0xFF	0x00	0xFF
Output	uc_m_txd_buf[luc_i]	0x00,0xFF	0x00	0xFF
Judgment				

SCI9UartMain_Int_Sci9_Start

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1
Root	None		-
	Symbol	Range	
Input	None	-	-
Output	None	-	-
Judgment			

SCI9UARTMain_Int_Sci9_Stop

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1
Root	None		-
	Symbol	Range	
Input	None	-	-
Output	None	-	-
Judgment			

SCI9UartMain_Set_Rxd_Next_Buf

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1
Root	None		-
	Symbol	Range	
Input	None	-	-
Output	None	-	-
Judgment			

SCI9UartMain_tx_nbyte

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1	case2	case3
Root	None		-	-	-
	Symbol	Range			
Input	pus_num	0~8	0	7	8
Output	uc_m_txd_buf[M_PC_DATA_POS + pus_num]	3	3	3	3
	uc_m_txd_buf[13 + pus_num]	4	4	4	4
Judgment					

SCI9UartMain_Txd_Buf_Pointre

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1
Root	None		
	Symbol	Range	
Input	None	-	-
Output	uc_m_txd_buf[0]	-	Indefinite value
Judgment			

Unit Test Specification

Project name	GX-Force
File name	self_sub_RL78FProg.c

m_cmdBaudRateSet

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	4
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3	case4
Root	if(!sc_state == COM_S_ERROR)	○	-	-	-
	else	-	○	○	○
	if(!sc_state == COM_S_TIMEOUT)	-	○	-	-
	else	-	-	○	○
	if(!m_isRxACK(0))	-	-	○	-
	else	-	-	-	○
Symbol		Range			
Input	m_reqRx_DataFram(lus_data_bytes)	-1,0	-1	0	1
	m_waitForRxComplete(TIM_CS6)	-2~0	0	-2	0
	m_isRxACK	0~2	1	1	0
	m_cmdBaudRateSet@@	-2~0	-1	-2	-1
Output					
Judgment					

m_cmdBlockBlankCheck

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	5
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3	case4	case5
Root	if(!sc_state == COM_S_ERROR)	○	-	-	-	-
	if(!sc_state == COM_S_TIMEOUT)	-	○	-	-	-
	if(!sc_state == COM_S_ERROR)	-	-	○	-	-
	if(!m_isRxACK(0))	-	-	-	○	-
Symbol		Range				
Input	pul_start_addr	0x00000000,0xFFFFFFFF	0x00000000	0x00000000	0x00000000	0x00000000
	pul_end_addr	0x00000000,0xFFFFFFFF	0x00000000	0x00000000	0x00000000	0xFFFFFFFF
	m_reqRx_DataFram(lus_data_bytes)	0~255	255	0	0	1
	m_waitForRxComplete(TIM_CS4)	0~255	0	254	255	0
	m_isRxACK(0)	0~2	1	1	1	2
	m_cmdBlockBlankCheck@@	-2~1	-1	-2	-1	1
Output						
Judgment						

m_cmdBlockErase

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	4
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3	case4
Root	if(!sc_state == COM_S_ERROR)	○	-	-	-
	else	-	○	○	○
	if(!sc_state == COM_S_TIMEOUT)	-	○	-	-
	else	-	-	○	○
	if(!m_isRxACK(0))	-	-	○	-
	else	-	-	-	○
Symbol		Range			
Input	pul_erase_addr	0x00000000,0xFFFFFFFF	0x00000000	0x00000000	0xFFFFFFFF
	m_reqRx_DataFram(lus_data_bytes)	-1~1	-1	0	1
	m_waitForRxComplete(TIM_CS3)	-2~1	0	-2	0
	m_isRxACK(0)	0~2	1	1	0
Output	m_cmdBlockErase@@	-2~0	-1	-2	-1
Judgment					

m_cmdChecksum

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	7
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3	case4	case5	case6	case7
Root	if(!sc_state == COM_S_ERROR)	○	-	-	-	-	-	-
	else	-	○	○	○	○	○	○
	if(!sc_state == COM_S_TIMEOUT)	-	○	-	-	-	-	-
	else	-	-	○	○	○	○	○
	if(!m_isRxACK(0))	-	-	○	-	-	-	-
	else	-	-	-	○	○	○	○
	if(!sc_state == COM_S_ERROR)	-	-	-	○	-	-	-
	else	-	-	-	-	○	○	○
	if(!sc_state == COM_S_TIMEOUT)	-	-	-	-	○	-	-
	else	-	-	-	-	-	○	○
	if(lus_sum != pus_sum)	-	-	-	-	-	○	-
	else	-	-	-	-	-	-	○
Symbol		Range						
Input	pul_block_head_addr	0x00000000~0xFFFFFFFF	0x00000000	0x00000000	0x00000000	0x00000000	0x00000000	0xFFFFFFFF
	pus_sum	0x0000~0xFFFF	0xFFFF	0xFFFF	0xFFFF	0xFFFF	0x0000	0x0000
	m_reqRx_DataFram(lus_data_bytes1)	-1,0	-1	0	0	0	0	1
	m_reqRx_DataFram(lus_data_bytes2)	-1,0	0	0	0	-1	0	1
	m_waitForRxComplete(TIM_CS10)	-2~0	0	-2	0	0	0	1
	m_waitForRxComplete(TIM_SD10)	-2~0	0	0	0	-2	0	1
	m_isRxACK(0)	0,1	1	1	0	1	1	2
	uc_rx_buf1[FSSTATE_POS_DATA]	0x00~0xFF	0xFF	0xFF	0xFF	0xFF	0xFF	0x00
	uc_rx_buf1[FSSTATE_POS_DATA + 1]	0x00~0xFF	0xFF	0xFF	0xFF	0xFF	0xFF	0x00
	m_cmdChecksum@@	-2~1	-1	-2	-1	1	1	0
Output								
Judgment								

m_cmdProgramming_step1

	Responsible	Last update
Coding	Ikarashi	
Test	Taki	
Judgment	Ikarashi	

Infinite loop	None
Verification pass	4
Judgment	

		case1	case2	case3	case4
Root	if(!sc_state == COM_S_ERROR)	○	-	-	-
	else	-	○	○	○
	if(!sc_state == COM_S_TIMEOUT)	-	○	-	-
	else	-	-	○	○
	if(!m_isRxACK(0))	-	-	○	-
	else	-	-	-	○
	Symbol	Range			
Input	pul_block_head_addr	0x00000000~0xFFFFFFFF	0x00000000	0x00000000	0x00000000
	m_reqRx_DataFram(lus_data_bytes)	-1~1	-1	0	0
	m_waitForRxComplete(TIM_CS5)	-2~1	-2	-2	0
	m_isRxACK(0)	0~2	1	1	0
	m_cmdProgramming_step1@@	-2~0	-1	-2	-1
Judgment					

m_cmdProgramming_step2

	Responsible	Last update
Coding	Ikarashi	
Test	Taki	
Judgment	Ikarashi	

Infinite loop	None
Verification pass	6
Judgment	

		case1	case2	case3	case4	case5	case6
Root	if(pus_data_size > 256)	○	-	-	-	-	-
	else	-	○	○	○	○	-
	if(pus_data_size == 256)	-	○	○	○	○	○
	else	○	-	-	-	-	-
	if(!sc_state == COM_S_ERROR)	-	○	-	-	-	-
	else	-	-	○	○	○	-
	if(!sc_state == COM_S_TIMEOUT)	-	-	○	-	-	-
	else	-	-	-	○	○	-
	if(!m_isRxACK(0))	-	-	-	○	-	-
	else	-	-	-	-	○	○
	if(!m_isRxACK(1))	-	-	-	-	○	-
	else	-	-	-	-	-	○
	Symbol	Range					
Input	pus_data_size	0x0000~0xFFFF	0xFFFF	0x0100	0x0100	0x0100	0x0000
	lucp_data	0x00,0xFF	0xFF	0x00	0x00	0x00	0x00
	puc_is_last_frame	0x00,0xFF	0xFF	0x00	0x00	0x00	0x00
	m_reqRx_DataFram(lus_data_bytes)	-1,0	1	-1	0	0	0
	m_waitForRxComplete(TIM_DS5)	-2~1	1	0	-2	0	0
	m_isRxACK(0)	0~2	2	1	1	0	1
	m_isRxACK(1)	0~2	2	1	1	0	1
	m_cmdProgramming_step2@@	-2~0	-1	-1	-2	-1	0
Judgment							

m_cmdProgramming_step3

	Responsible	Last update
Coding	Ikarashi	
Test	Taki	
Judgment	Ikarashi	

Infinite loop	None
Verification pass	4
Judgment	

		case1	case2	case3	case4
Root	if(!sc_state == COM_S_ERROR)	○	-	-	-
	else	-	○	○	○
	if(!sc_state == COM_S_TIMEOUT)	-	○	-	-
	else	-	-	○	○
	if(!m_isRxACK(0))	-	-	○	-
	else	-	-	-	○
	Symbol	Range			
Input	m_reqRx_DataFram(lus_data_bytes)	-1~1	-1	0	0
	m_waitForRxComplete(TIM_SS5)	-2~1	-2	-2	0
	m_isRxACK(0)	0~2	1	1	0
	m_cmdProgramming_step3@@	-2~0	-1	-2	-1
Judgment					

m_cmdReset

	Responsible	Last update
Coding	Ikarashi	
Test	Taki	
Judgment	Ikarashi	

Infinite loop	None
Verification pass	5
Judgment	

		case1	case2	case3	case4	case5
Root	if(!sc_state == COM_S_ERROR)	○	-	-	-	-
	else	-	○	○	○	○
	if(!sc_state == COM_S_TIMEOUT)	-	○	-	-	-
	else	-	-	○	○	○
	if(!sc_state == COM_S_ERROR)	-	-	○	-	-
	else	-	-	-	○	○
	if(!m_isRxACK(0))	-	-	-	○	-
	else	-	-	-	-	○
	Symbol	Range				
Input	m_reqRx_DataFram(lus_data_bytes)	-1~1	-1	0	0	1
	m_waitForRxComplete(TIM_CS1)	-2~1	0	-2	-1	0
	m_isRxACK(0)	0~2	1	1	1	0
	m_cmdReset@@	-2~0	-1	-2	-1	0
Judgment						

m_csum_ui16

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3	
Root	for(pus_bytes.pus_bytes-)	○	-	○	
	Symbol	Range			
Input	pus_bytes	0x0000~0xFFFF	0x0001	0x0000	0xFFFF
	pucp_data	0x00,0xFF	0xFF	0x00	0x00
Output	lus_sum	0x0000~0x00FF	0x00FF	0x0000	0x07F8
Judgment					

m_csum_ui8

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1	case2	case3
Root	for(pus_bytes.pus_bytes-)		○	-	○
	Symbol	Range			
Input	pus_bytes	0x0000~0xFFFF	0x0001	0x0000	0xFFFF
	pucp_data	0x00,0xFF	0xFF	0x00	0x00
Output	lus_sum	0x00~0xFF	0xFF	0x00	0x8
Judgment					

m_eraseUntilLastBlock

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3	
Root	for(; luc_retry; luc_retry--)	○	○	○	
	if(lsc_state < COM_S_SUCCESS)	○	-	-	
	else	-	○	○	
	if(lsc_state < COM_S_SUCCESS)	-	○	-	
	else	-	-	○	
	if(pul_address != USER_MAX_ADDRESS+1)	-	-	○	
	else	-	-	-	
	Symbol	Range			
Input	pul_address	0x00000000,0x0007400	0x00000000	0x00000000	0x0007400
	m_cmdBlockErase(pul_address)	-2~1	-2	0	1
	m_cmdBlockBlankCheck(pul_address,pul_address+MMC_BLOCK_SIZE-1)	-2~1	0	-2	1
Output	m_eraseUntilLastBlock@@	0,1	0	0	1
Judgment					

m_isRxAck

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

Root	if(uc_rx_buf[(FSTATE_POS_DATA + puc_data_num) == ASCII_ACK])	○	-	-	
	else	-	○	○	
	Symbol	Range			
Input	puc_data_num	0x00,0xFF	0x00	0xFF	0x00
	uc_rx_buf[(FSTATE_POS_DATA + puc_data_num)]	0x00,0xFF	0x06	0x00	0xFF
Output	m_isRXACK@@	0,1	1	0	0
Judgment					

m_reqRx

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1	case2	case3
Root	if(!U > rx_num)		○	-	-
	else		-	○	○
	if(uc_use_sci_rx_for_r178prog == TRUE)		-	○	-
	else		-	-	○
	Symbol	Range			
Input	rx_buf	0x00,0xFF	0xFF	0x00	0x00
	rx_num	0x0000,0xFFFF	0x0000	0xFFFF	0xFFFF
	uc_use_sci_rx_for_r178prog	0~2	0	1	2
Output	uc_use_sci_rx_for_r178prog	0,1	0	1	1
	g_sci9_rx_count	0	0	0	0
	g_sci9_rx_length	0x0000,0xFFFF	0x0000	0x0000	0xFFFF
	SCI9.SCR.BIT.RIE	0,1	0	0	1
	SCI9.SCR.BIT.RE	0,1	0	0	1
	m_reqRx@@	0,1	0	0	1
Judgment					

m_reqRx_DataFram

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3
Root	if(isc_result == FALSE)	○	-	-
	else	-	○	○
Symbol		Range		
Input	pus_data_bytes	1~4	3	4
	m_reqRx(uc_rx_buff, pus_data_bytes)	-1~2	-1	2
Output	us_rx_bytes	5~8	7	8
	m_reqRx_DataFram	-1,0	0	0
Judgment				

m_reqTx

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3	
Root	if(1U > tx_num)	○	-	-	
	else	-	○	○	
	if(uc_use_sci_tx_for_r178prog == TRUE)	-	○	-	
	else	○	-	○	
Input	Symbol	Range			
	tx_buf	0x00,0xFF	0x00	0xFF	0xFF
	tx_num	0x0000~0xFFFF	0x0000	0xFFFF	0xFFFF
Output	uc_use_sci_tx_for_r178prog	0~2	0	1	2
	uc_use_sci_tx_for_r178prog	0,1	0	1	1
	g_sci9_tx_count	0x0000,0xFFFF	0x0000	0x0000	0xFFFF
	PORTB.PMR.BYTE	227	227	227	227
	SCI9.SCR.BIT.TIE	0,1	0	0	1
	SCI9.SCR.BIT.TE	0,1	0	0	1
Judgment	m_reqTx@@	0,1	0	0	1

m_reqTx_CmdFrame

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1	case2	case3
Root	while(uc_use_sci_tx_for_r178prog)		○	-	○
	Symbol	Range			
Input	puc_com	0x00~0xB1	0x00	0xB	0xB1
	pus_info_bytes	0~8	0	7	8
	pucp_info_addr	0x00,0xFF	0xFF	0x00	0x00
	uc_use_sci_tx_for_r178prog	0~2	1	0	2
Output	uc_tx_buff[0]	1	1	1	1
	uc_tx_buff[1]	1~9	1	8	9
	uc_tx_buff[2]	0~177	0	11	177
Judgment					

m_reqTx_DataFrame

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3	
Root	if(pus_data_bytes == 0)	○	-	-	
	if(puc_is_last_frame == TRUE)	○	-	-	
	else	-	○	○	
	while(uc_use_sci_tx_for_r178prog)	○	-	○	
	Symbol	Range			
Input	pus_data_bytes	0x0000,0xFFFF	0x0000	0xFFFF	0xFFFF
	pucp_data_addr	0x00,0xFF	0x00	0xFF	0xFF
	puc_is_last_frame	0~2	1	0	2
	uc_use_sci_tx_for_r178prog	0~2	1	0	2
Output	None	-	-	-	
Judgment					

m_restartComDrv

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1
Root	None	-
	Symbol	Range
Input	None	-
Output	SCI9.SMR.BYTE	9
	SCI9.SEMR.BYTE	128
	SCI9.BRR	0
Judgment		

m_sendComMethodData

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1
Root	for(lul_wait_count;lul_wait_count--)	○
	Symbol	Range
Input	None	-
Output	None	-
Judgment		

m_updateWaitTime

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	4
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3	case4
Root	if(pfl_freq_mhz < 16.0)	○	○	○	-
	else	-	-	-	○
	for(lus_i = 0; lus_i < TIM_END_OF_NUM; lus_i++)	○	○	○	○
	if(lul_temp_time[lus_i] == 0)	○	○	○	○
	else	○	○	○	○
	Symbol	Range			
Input	pfl_freq_mhz	0.75~17	0.75	1	2
Output	ul_wait_time[0]	14	14	14	14
Judgment					

m_wait

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	2
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case2
Root	do	○	○	○
	while(lul_wait_count--)	○	-	-
	Symbol	Range		
Input	pus_wait_id	0~40	0	39
	ul_wait_time[pus_wait_id]	0x00,0xFF	0xFF	0x00
Output	None	-	-	-
Judgment				

m_waitForRxComplete

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3
Root	do	○	○	○
	if(uc_use_sci_rx_for_r178prog != TRUE)	○	-	-
	else	-	○	○
	while(lul_wait_count--)	○	○	-
	Symbol	Range		
Input	pus_timeout_id	7~38	7	37
	ul_wait_time[pus_timeout_id]	0~546214	0	546213
	us_rx_bytes	0x00,0xFF	0xFF	0xFF
	uc_use_sci_rx_for_r178prog	0~2	1	0
Output	prev_tx_delay_id	-2,0	-2	0
Judgment				

RL78FProg_execTargetPowerOff

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1
Root	None		-
	Symbol	Range	
Input	None	-	-
Output	MPC.PB7PFS.BYTE	0	0
	PORTB.PODR.BYTE	0	0
	PORTB.PMR.BYTE	0	0
Judgment			

RL78FProg_rewriteBlock

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	9
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1	case2	case3	case4	case5	case6	case7	case8	case9
Root	if(us_split_data_counter == 1)		○	○	-	-	-	-	-	-	-
	if(us_split_data_counter == SPLIT_BLOCK_MAX_NUM)		-	-	-	○	○	○	○	○	○
	if(ul_current_block_top_addr >= USER_MAX_ADDRESS)		-	-	○	-	-	-	-	-	-
	if(luc_is_first_frame == TRUE)		○	○	-	-	-	-	-	-	-
	if((lsc_state < COM_S_SUCCESS)		○	-	-	-	-	-	-	-	-
	if((lsc_state < COM_S_SUCCESS)		-	○	-	-	-	-	-	-	-
	if(luc_is_last_frame == TRUE)		-	-	-	○	○	○	○	○	-
	if((lsc_state < COM_S_SUCCESS)		-	-	-	○	-	-	-	-	-
	if((lsc_state < COM_S_SUCCESS)		-	-	-	-	○	-	-	-	-
	if((lsc_state == COM_R_UNMATCH)		-	-	-	-	-	○	-	-	-
	if(ul_current_block_top_addr > USER_MAX_ADDRESS)		-	-	-	-	-	-	○	-	-
	Symbol	Range									
Input	pucp_write_data	0x00~0xFF	0x00	0x00	0x00	0x00	0x00	0x00	0x00	0x00	0xFF
	us_split_data_counter	0~5	1	1	0	4	4	4	4	4	5
	m_cmdProgramming_step1()	0~1	-1	0	0	0	0	0	0	0	1
	m_cmdProgramming_step2()	0~1	0	-1	0	0	0	0	0	0	1
	m_cmdProgramming_step3()	0~1	0	0	0	0	-1	0	1	1	1
	m_cmdCheckSum()	0~1	0	0	0	0	-1	0	1	1	1
	ul_current_block_top_addr	0x00000000~0xFFFFFFFF	0x00000000	0x00000000	0xFFFFFFFF	0x00000000	0x00000000	0x00000000	0x00007E70	0x00000000	0x00000000
Output	RL78FProg_rewriteBlock@@	0~2	0	0	2	0	0	0	2	1	1
Judgment											

RL78FProg_setStartBlock

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1	case2	case3
Root	if(ul_block_chk != pul_address)		-	-	○
	else		○	○	-
	if(pul_address > USER_MAX_ADDRESS)		-	○	-
	else		○	-	-
	Symbol	Range			
Input	pul_address	0x00000000~0xFFFFFFFF	0x00000000	0x00008000	0xFFFFFFFF
Output	ul_current_block_top_addr	0x00000000	0x00000000	0x00000000	0x00000000
	us_split_data_counter	1	1	1	1
	RL78FProg_setStartBlock@@	0	0	0	0
Judgment					

RL78FProg_startRewritingProg

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1	case2	case3
Root	for(luc_retry; luc_retry--)		○	○	○
	if(lsc_state < COM_S_SUCCESS)		○	-	-
	else		-	○	○
	if(lsc_state < COM_S_SUCCESS)		-	○	-
	else		-	-	○
	Symbol	Range			
Input	m_cmdBaudRateSet()	-2~1	-2	0	1
	m_cmdReset()	-2~1	0	-2	1
Output	RL78FProg_startRewritingProg@@	0,1	0	0	1
Judgment					

Unit Test Specification

Project name	GX-Force
File name	self_sub_prog.c

SelfSubProg_Get_10msecChgFlg

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1
Root	-		-
	Symbol	Range	
Input	None	-	-
Output	ucs_m_10msec_chg_flg	0	0
Judgment			

SelfSubProg_Get_ModeOnFlg

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1
Root	-		-
	Symbol	Range	
Input	None	-	-
Output	fbl_mode_on_flg	0	0
Judgment			

SelfSubProg_Int_10msec

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1	case2	case3
Root	if(ucs_m_timer)		○	-	○
	else		-	○	-
	Symbol	Range			
Input	ucs_m_timer	0~26	25	0	26
Output	None	-	-	-	-
Judgment					

SelfSubProg_Main_RewriteProcessing

	Responsible	Last update	Infinite loop	Yes
Coding	Ikarashi		Verification pass	5
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1	case2	case3	case4	case5
Root	if(ucs_m_rewrite_op_flg == M_ON)		○	○	○	○	-
	if(LoggerGXForce_Set_PowerOff() != ZIPC_NG)		○	○	○	-	-
	if(FRAM_Get_flg() != M_ON)		○	○	-	-	-
	while(IntervalTimer_Flag_Acquisition_250msec() == M_OFF)		○	○	-	-	-
	while(ucs_m_timer)		○	○	-	-	-
	while(ucs_m_timer)		○	○	-	-	-
	while(ucs_m_rewrite_op_flg == M_ON)		○	○	-	-	-
	if((MAIN_Get_PowerOffFlg() == M_ON) && (ucs_m_End_op_flg == M_OFF))		○	-	-	-	-
	else		-	○	-	-	-
	if(ucs_m_End_op_flg KeyEvent_Get_KeyEvent() == EV_MODE_3s)		○	-	-	-	-
	else		-	○	-	-	-
	while(1)		○	○	-	-	-
	else		-	-	○	-	-
	else		-	-	-	○	-
	else		-	-	-	-	○
	Symbol	Range					
Input	ucs_m_rewrite_op_flg	0,1	1	1	1	1	0
	LoggerGXForce_Set_PowerOff()	0,1	0	0	0	1	1
	FRAM_Get_flg()	0,1	0	0	1	1	1
	IntervalTimer_Flag_Acquisition_250msec()	0,1	0	0	0	0	0
	MAIN_Get_PowerOffFlg()	0,1	1	0	0	0	0
	ucs_m_End_op_flg	0,1	0	1	0	0	0
	KeyEvent_Get_KeyEvent()	0-5	5	4	0	0	0
Output	ucs_m_10msec_chg_flg	1	1	1	1	1	1
	ucs_m_timer	0,99	99	0	0	0	0
	ucs_m_End_op_flg	0,1	1	0	0	0	0
	ucs_m_irda_chg_flg	1	1	1	1	1	1
Judgment							

SelfSubProg_Set_ModeOnFlg

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1
Root	-		-
	Symbol	Range	
Input	None	-	-
Output	fbl_mode_on_flg	0	0
Judgment			

SelfSubProg_Set_RewriteStart

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1
Root	-		-
	Symbol	Range	
Input	None	-	-
Output	ucs_m_rewrite_op_flg	1	1
Judgment			

Unit Test Specification

Project name	GX-Force
File name	tool.c

Tool_Asc_BinL

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

Root	if(puc_num == 8) && (Tool_Comp_Pnt(&ucc_off_val_data[0], pucp_pnt, 8) == 0))		case1	case2	case3			
	else		○	-	-			
	if("pucp_pnt == '' "pucp_pnt == '-')		-	○	○			
	else		-	-	○			
	for(luc_i, luc_j < puc_num; luc_i++)		-	○	○			
Input	for(luc_i(puc_num-3), luc_i > 0; luc_i--)		-	○	○			
	Symbol		Range					
	puc_num		0-9	8	0	9		
	Tool_Comp_Pnt(&ucc_off_val_data[0], pucp_pnt, 8)		0-2	0	1	2		
	"pucp_pnt		0x00-0xFF	0x00	0x2B	0xFF		
Output	lul_ars		0x615AB054-0xDDDDDDDD			0xDDDDDDDD	0x00000000	0x635750A2
Judgment								

Tool_Asc_Dec

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	4
Test	Taki			
Judgment	Ikarashi		Judgment	

Root	for(luc_j = 0; luc_j < puc_col; luc_j++)		case1	case2	case3	case4
	if('C' == "pucp_str") 'C' == "pucp_str")		○	○	○	-
	else if(' ' == "pucp_str")		-	○	-	-
	else		-	○	-	-
Input	Symbol	Range				
	"pucp_str"	0x00-0xFF				
	pucp_col_dot	0x00,0xFF	0x2E	0x20	0xFF	0x00
	puc_col	0-9	8	8	0x00	0xFF
Output	lul_ars	0x00000000-0x5AE835E9	0x0DB58569	0x0DB58569	0x5AE825E9	0x00000000
Judgment						

Tool_Asc_Hex

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	4
Test	Taki			
Judgment	Ikarashi		Judgment	

Root	for(i = 0; i < puc_num; i++)		case1	case2	case3	case4
	for(luc_loop = 0; luc_loop < 2; luc_loop++)		○	○	-	○
	if(("pucp_pnt1 >= 0") && ("pucp_pnt1 <= 9"))		○	-	-	-
	if(luc_loop == 0)		○	-	-	-
	else		○	-	-	-
	else		-	○	-	○
	if(("pucp_pnt1 >= A") && ("pucp_pnt1 <= F"))		-	○	-	-
	if(luc_loop == 0)		-	○	-	-
	else		-	○	-	-
	else		-	-	-	○
	if(puc_num == 2)		○	-	-	-
	else		-	○	-	○
	if(puc_num == 4)		-	○	-	-
	else		○	-	-	○
Input	Symbol	Range				
	"pucp_pnt1	0x00-0xFF	0x00	0x1	0x00	0xFF
	"pucp_pnt2	0x00,0xFF	0x00	0x00	0xFF	0x00
Output	puc_num	0-5	2	4	0	5
	None	-	-	-	-	-
Judgment						

Tool_Bin_Asc

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	2
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1	case2
Root	-		-	-
	Symbol	Range		
Input	puc_num	0x0000,0xFFFF	0x0000	0xFFFF
	ppuc_asc	0x00,0xFF	0x00	0xFF
Output	ppuc_asc[0]	48,54	48	54
	ppuc_asc[1]	48,53	48	53
Judgment				

Tool_CHR_Chg_OnOff

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

Root	if(puc_pnt == M_ON)		case1	case2	case3
	else		○	-	-
			-	○	○
	Symbol		Range		
Input	puc_pnt	0-2	0	1	2
Output	luc_ars	0.1	1	0	1
Judgment					

Tool_Comp_Pnt

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	4
Test	Taki			
Judgment	Ikarashi		Judgment	

Root	for(lul_num=0; lul_num<pul_size; lul_num++)		case1	case2	case3	case4
	if("ppuc_add1 != "ppuc_add2)		○	○	○	○
	else		○	○	-	-
Input	Symbol		Range			
	ppuc_add1	0x00-0xFF	0x00	0x00	0x00	0xFF
	ppuc_add2	0x00-0xFF	0x00	0x01	0x01	0xFF
	pul_size	0-11	10	10	0	11
Output	luc_ACK		1	1	0	1
Judgment						

Tool Copy Pnt

	Responsible	Last update
Coding	Ikarashi	
Test	Taki	
Judgment	Ikarashi	

		case1	case2	case3
Root	for(lul_loop = 0; lul_loop < put_num; ++lul_loop)	O	O	O
Input	Symbol	Range		
	ppuc_ptr1	0x00, 0xFF		
	ppuc_ptr2	0x00, 0xFF	0xFF	0xFF
	put_num	0 - 257	0xFF	0xFF
Output	None	0	256	257
Looping	-	-	-	-

Tool Copy Reverse Pnt

	Responsible	Last update
Coding	Ikarashi	
Test	Taki	
Judgment	Ikarashi	

			case1	case2	case3
Root	for(lul_loop = 0; lul_loop < put_num; ++lul_loop)				
	Symbol	Range			
Input	ppuc_ptr1	0x0, 0xFF	0x0	0xFF	0xFF
	ppuc_ptr2	0x0, 0xFF	0x0	0xFF	0xFF
	put_num	0-257	0	256	257
Output	None	-	-	-	-
Judgment					

Tool_Copy_SHORT_CHR

	Responsible	Last update
Coding	Ikarashi	
Test	Taki	
Judgment	Ikarashi	

		case1	case2	case3
Root	for(lul_loop = 0; lul_loop < put_num; ++lul_loop)	O	O	O
Input	Symbol	Range		
	pinu_pin1	0x000,0xFFFF	0x0000	0xFFFF
	pinu_pin2	0x00,0xFF	0x00	0xFF
	put_num	0-257	0	257
Output	None	-	-	-
Logicport	-	-	-	-

Tool Copy SHORT Pnt

	Responsible	Last update
Coding	Ikarashi	
Test	Taki	
Judgment	Ikarashi	

Root	for(lul_loop = 0; lul_loop < pul_num; ++lul_loop)		case1	case2	case3
	Symbol	Range	0x000	0x0	0x0
Input	ppsw_pnt1	0x0000,0xFFFF	0x000	0xFFFF	0xFFFF
	ppcw_pnt2	0x00,0xFF	0x00	0xFF	0xFF
	pul_num	0-257	0	256	257
Output	None	-	-	-	-
Judgment			-	-	-

Tool Disp OnOff Menu

	Responsible	Last update
Coding	Ikarashi	
Test	Taki	
Judgment	Ikarashi	

Root		case1	case2	case3
	switch(puc_sel_num)	○	○	○
	case M_OFF	○	-	-
	case M_ON	-	○	-
	default	-	○	○
	Symbol			
Input	puc_sel_num	0-2		
	puc_dsp_num	0-16		
Output				
Judgment	None	-	-	-

Tool Dump Hex Asc

	Responsible	Last update
Coding	Ikarashi	
Test	Taki	
Judgment	Ikarashi	

[illegible]

Tool_Hex_Asc

	Responsible	Last update	Infinite loop	None
Coding	Karashi		Verification pass	10
Test	Taki			
Judgment	Karashi		Judgment	

		case1	case2	case3	case4	case5	case6	case7	case8	case9	case10
Root	for(luc_i = 0; luc_i < puc_num; luc_i++)	○	○	○	○	○	○	-	-	○	○
	for(luc_loop = 0; luc_loop < 2; luc_loop++)	○	○	○	○	○	○	-	-	○	○
	switch(*pucp_ptr2)	○	○	○	○	○	-	-	-	○	○
	case 10	○	-	-	-	-	-	-	-	-	-
	case 11	-	○	-	-	-	-	-	-	-	-
	case 12	-	-	-	-	○	-	-	-	○	○
	case 13	-	-	○	-	-	-	-	-	-	-
	case 14	-	-	-	-	-	○	-	-	-	-
	case 15	-	-	-	-	-	-	○	-	○	○
	default	○	-	-	○	-	-	-	-	○	○
Symbol		Range									
Input	pucp_ptr1	0xA0-0xFF	0xA0	0xB0	0xC0	0xFF	0xC0	0xE0	0xF0	0xF0	0xF0
	pucp_ptr2	0x00	0x00	0x00	0x00	0x00	0x00	0x00	0x00	0x00	0x00
	pul_num	0-257	256	256	256	256	256	256	0	256	257
Output	luc_conv	0,2	0	0	0	0	0	0	0	0	2
Judgment											

Tool_Hex_ShortAsc

	Responsible	Last update	Infinite loop	None
Coding	Karashi		Verification pass	10
Test	Taki			
Judgment	Karashi		Judgment	

		case1	case2	case3	case4	case5	case6	case7	case8	case9	case10
Root	for(luc_i = 0; luc_i < puc_num; luc_i++)	○	○	○	○	○	○	-	-	○	○
	for(luc_loop = 0; luc_loop < 2; luc_loop++)	○	○	○	○	○	○	-	-	○	○
	switch(*pucp_ptr2)	○	○	○	○	○	-	-	-	○	○
	case 10	○	-	-	-	-	-	-	-	-	-
	case 11	-	○	-	-	-	-	-	-	-	-
	case 12	-	-	-	-	○	-	-	-	○	○
	case 13	-	-	○	-	-	-	-	-	-	-
	case 14	-	-	-	-	-	○	-	-	-	-
	case 15	-	-	-	-	-	-	○	-	○	○
	default	○	-	-	○	-	-	-	-	○	○
Symbol		Range									
Input	pucp_ptr1	0xA0-0xFF	0xA0	0xB0	0xC0	0xFF	0xC0	0xE0	0xF0	0xF0	0xF0
	pucp_ptr2	0x0000-0xFFFF	0x00	0x00	0x00	0x00	0x00	0x00	0x00	0x00	0xFFFF
	puc_num	0x00-0xFF	0x01	0x01	0x01	0x01	0x01	0x01	0x01	0x00	0xFF
Output	luc_conv	0-254	2	2	2	2	2	2	0	4	254
Judgment											

Tool_OneCount

	Responsible	Last update	Infinite loop	None
Coding	Karashi		Verification pass	13
Test	Taki			
Judgment	Karashi		Judgment	

		case1	case2	case3	case4	case5	case6	case7	case8	case9	case10	case11	case12	case13
Root	if(puc_off_val == M_ON)	○	○	○	○	○	○	○	-	-	-	-	-	-
	if(puc_flg == 0)	○	○	○	-	-	-	-	-	-	-	-	-	-
	if(pul_set_value == M_OFF_VAL)	○	-	-	-	-	-	-	-	-	-	-	-	-
	else	-	○	○	-	-	-	-	-	-	-	-	-	-
	if(pul_set_value > pul_max_value)	-	○	-	-	-	-	-	-	-	-	-	-	-
	else	-	-	○	-	-	-	-	-	-	-	-	-	-
	else	-	-	-	○	○	○	○	-	-	-	-	-	-
	if(pul_set_value == M_OFF_VAL)	-	-	-	○	-	-	-	-	-	-	-	-	-
	else	-	-	-	-	○	○	○	-	-	-	-	-	-
	if(pul_set_value < pul_digit)	-	-	-	-	○	-	-	-	-	-	-	-	-
	else	-	-	-	-	-	○	-	-	-	-	-	-	-
	if(pul_set_value - pul_digit < pul_min_value)	-	-	-	-	-	○	-	-	-	-	-	-	-
	else	-	-	-	-	-	-	○	-	-	-	-	-	-
	else	-	-	-	-	-	-	-	○	○	○	○	○	○
	if(puc_flg == 0)	-	-	-	-	-	-	-	○	○	○	-	-	-
	if(pul_set_value > pul_max_value)	-	-	-	-	-	-	-	○	-	-	-	-	-
	else	-	-	-	-	-	-	-	-	○	-	-	-	-
	else	-	-	-	-	-	-	-	-	-	○	○	○	○
	if(pul_set_value < pul_digit)	-	-	-	-	-	-	-	-	-	○	-	-	-
	else	-	-	-	-	-	-	-	-	-	-	○	○	○
	if(pul_set_value - pul_digit < pul_min_value)	-	-	-	-	-	-	-	-	-	-	○	-	-
	else	-	-	-	-	-	-	-	-	-	-	-	○	○
Symbol		Range												
Input	pul_set_value	0x00000000-0xFFFFFFFF	0x00000000	0x00000001	0x00000000	0x00000000	0x00000000	0x00000001	0x00000000	0x00000000	0x00000000	0x00000000	0x00000001	0xFFFFFFFF
	pul_digit	0x00000000-0xFFFFFFFF	0x00000000	0x00000000	0x00000000	0x00000000	0x00000001	0x00000000	0x00000000	0x00000001	0x00000000	0x00000000	0x00000000	0xFFFFFFFF
	pul_max_value	0x00000000-0xFFFFFFFF	0x00000000	0x00000000	0x00000001	0x00000000	0x00000000	0x00000000	0x00000000	0x00000000	0x00000000	0x00000001	0x00000000	0xFFFFFFFF
	pul_min_value	0x00000000-0xFFFFFFFF	0x00000000	0x00000000	0x00000000	0x00000000	0x00000000	0x00000000	0x00000000	0x00000000	0x00000000	0x00000001	0x00000000	0xFFFFFFFF
	puc_flg	0-2	0	0	0	1	1	1	0	0	0	1	1	2
Output	puc_off_val	0-2	1	1	1	1	1	1	0	0	0	0	0	2
	pul_set_value	0x00000000-0xFFFFFFFF	0x00000000	0x00000000	0x00000000	0x00000000	0x00000000	0x00000001	0x00000000	0x00000000	0x00000001	0x00000000	0x00000001	0xFFFFFFFF
Judgment														

Tool_set_Dec_ChrAscii

	Responsible	Last update	Infinite loop	None
Coding	Karashi		Verification pass	6
Test	Taki			
Judgment	Karashi		Judgment	

		case1	case2	case3	case4	case5	case6
Root	for(luc_i = 0; luc_i < 16; luc_i++)	○	○	○	○	○	○
	for(luc_j = 0; luc_j < puc_col; luc_j++)	○	○	○	○	○	○
	if(luc_i != 0) && (puc_dot == luc_i)	-	-	○	-	-	-
	else	○	○	○	○	○	○
	if(pul_val > 0)	○	-	-	-	-	-
	else	-	○	○	○	○	○
	if(pul_val <= 0) && (luc_j > puc_dot) && (puc_app != 11)	○	-	-	-	-	-
	else	-	-	○	-	-	-
	if(pul_val <= 0) && (puc_dot == 0) && (puc_app != 11)	-	○	-	○	○	-
	else	-	-	○	-	-	○
	if(puc_app != 0)	○	○	○	○	○	○
	for(luc_i = 0; luc_i < puc_col; luc_i++)	○	○	○	-	-	○
	else	-	-	-	○	○	-
	for(luc_j = 0; luc_j < puc_col; luc_j++)	-	-	-	○	○	-
	if(luc_buf[luc_j] != 0x20)	-	-	-	○	-	-
	else	-	-	-	-	○	-
	for(luc_i; luc_i < puc_col; luc_i++)	-	-	-	○	○	-
Symbol		Range					
Input	pucp_ptr	0x00-0xFF	0x00	0x00	0x00	0x00	0xFF
	pul_val	0x00000000-0xFFFFFFFF	0x00000001	0x00000000	0x00000000	0x00000000	0xFFFFFFFF
	puc_col	0-9	5	5	8	8	9
	puc_dot	0-4	3	0	1	0	4
	puc_app	0-12	1	1	11	0	0
Output	None	-	-	-	-	-	-
Judgment							

Tool set Dec ChrSymbolAscii

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	4
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3	case4	
Root	if(pul_val == M_OFF_VAL)	○	-	-	-	
	else	-	○	○	○	
Symbol		Range				
Input	pucp_str	0x00,0xFF	0x00	0xFF	0x00	0xFF
	pul_val	0x00000000-0xFFFFFFFF	0xFFFFFFFF	0xFFFFFFFF	0x00000000	0xFFFFFFFF
	puc_col	0-9	0	8	8	9
	puc_dot	0-4	0	3	3	4
	puc_app	0-12	0	1	11	12
Output	None	-	-	-	-	
Judgment						

Tool set Dec DenstAscii

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3	
Root	for(luc_j = 0; luc_j < 16; luc_j++)	○	○	○	
	for(luc_i = 0; luc_i < puc_col; luc_i++)	○	○	○	
	if(pul_val > 0)	○	-	○	
	else	-	○	-	
	for(luc_i=(puc_col-(puc_dot+1))	○	○	○	
	if(luc_buf[luc_i] == '\n')	-	○	-	
	else	○	-	○	
	for(luc_j = 0; luc_j < puc_col; luc_j++)	○	○	○	
Symbol		Range			
Input	pucp_str	0x00~0xFF	0x00	0x00	0xFF
	pul_val	0x00000000~0xFFFFFFFF	0x00000001	0x00000000	0xFFFFFFFF
	puc_col	0~9	0	8	9
	puc_dot	0~4	0	3	4
Output	None	-	-	-	
Judgment					

Tool set Dec DenstShortAscii

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3	
Root	for(luc_j = 0; luc_j < 16; luc_j++)	○	○	○	
	for(luc_i = 0; luc_i < puc_col; luc_i++)	○	○	○	
	if(pul_val > 0)	○	-	○	
	else	-	○	-	
	for(luc_i=(puc_col-(puc_dot+1)); luc_i < puc_col; luc_i++)	○	○	○	
	if(luc_buf[luc_i] == '\n')	-	○	-	
	else	○	-	○	
	for(luc_j = 0; luc_j < puc_col; luc_j++)	○	○	○	
Symbol		Range			
Input	pucp_str	0x00~0xFF	0x00	0x00	0xFF
	pul_val	0x00000000~0xFFFFFFFF	0x00000001	0x00000000	0xFFFFFFFF
	puc_col	2~9	2	8	9
	puc_dot	1~4	1	3	4
Output	None	-	-	-	
Judgment					

Tool set Dec ShortAscii

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	6
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3	case4	case5	case6
Root	for(luc_j = 0; luc_j < 16; luc_j++)	○	○	○	○	○	○
	for(luc_i = 0; luc_i < puc_col; luc_i++)	○	○	○	○	-	○
	if((luc_i != 0) && (puc_dot == luc_i))	-	-	○	-	-	-
	else	○	○	○	○	-	○
	if(pul_val > 0)	○	-	-	-	-	-
	else	-	○	○	○	-	○
	if(pul_val <= 0) && (luc_j > puc_dot) && (puc_app != 11)	○	-	-	-	-	-
	else	-	-	○	-	-	○
	if(pul_val <= 0) && (puc_dot == 0) && (puc_app != 11)	-	○	-	○	-	-
	else	-	-	○	-	-	○
	if(puc_app != 0)	○	○	○	○	-	○
	for(luc_i = 0; luc_i < puc_col; luc_i++)	-	-	○	-	-	○
	else	-	-	-	○	○	○
	for(luc_i = 0; luc_i < puc_col; luc_i++)	-	-	-	○	-	-
	if(luc_buf[luc_i] != 0x0020)	-	-	-	○	-	-
	else	-	-	-	○	-	-
	for(luc_j = 0; luc_j < puc_col; luc_j++)	-	-	-	○	-	-
Symbol		Range					
Input	pucp_str	0x0000~0xFFFF	0x0000	0x0000	0x0000	0x0000	0xFFFF
	pul_val	0x00000000~0xFFFFFFFF	0x00000001	0x00000000	0x00000000	0x00000000	0xFFFFFFFF
	puc_col	0~9	5	0	8	0	9
	puc_dot	0~4	3	0	1	0	4
	puc_app	0~12	1	1	11	0	12
Output	None	-	-	-	-	-	-
Judgment							

Unit Test Specification

Project name	GX-Force
File name	usb_com.c

USBCom_Cmd_Proc

	Responsible	Last update	Infinite loop	None
Coding	Karashi		Verification pass	5
Test	Taki			
Judgment	Karashi		Judgment	

		case1	case2	case3	case4	case5
Root	if (m_Cmp_SUM(pucp_to_buff))	O	O	O	-	O
	while(lsb_tbit->uc_cmd[0])	O	O	O	-	O
	if((lsb_tbit->uc_cmd[0] == lpsst_cmd->command[0]) && (lsb_tbit->uc_cmd[1] == lpsst_cmd->command[1]))	-	-	-	-	O
	if(lsb_tbit->uc_cmd[0] == 0U)	O	O	O	-	O
	else	-	-	-	-	-
	else	-	-	-	O	-
	if (lss_result_data == -1)	O	O	O	O	O
	if(luc_error_num == 1U)	-	-	-	O	-
	else if(luc_error_num == 2U)	O	O	O	-	-
	else	-	-	-	-	-
Input	Symbol	Range				
	pucp_to_buff[0]	0-57	1	0	1	0
	pucp_to_buff[0]	0-51	1	1	0	0
	m_cmd_ResponsesTerm()	0	0	0	0	0
	m_Cmp_SUM()	0,1	1	1	1	0
Output	pucp_to_buff[0]	12,21	12	12	12	21
	lss_result_data	0	0	0	0	0
Judgment						

m_AsciiDenst_proc

	Responsible	Last update	Infinite loop	None
Coding	Karashi		Verification pass	2
Test	Taki			
Judgment	Karashi		Judgment	

		case1	case2
Root	if(Tool_Comp_Prit(pucp_data, &uc_m_non_data[0], 0) == 0)	O	-
	else	-	O
Input	Symbol	Range	
	*pucp_data	0	0
	Tool_Asc_Dec()	0	0
	Tool_Comp_Prit()	0,1	0
Output	lul_ars	0-3722304989	3722304989
			0
Judgment			

m_Calc_PCSum

	Responsible	Last update	Infinite loop	None
Coding	Karashi		Verification pass	3
Test	Taki			
Judgment	Karashi		Judgment	

		case1	case2	case3
Root	if(luc_j == 0U; luc_j < pucp_len; luc_j++)	O	-	-
	Symbol	Range		
Input	pucp_data[0]	0	0	0
	pucp_len	0-2	1	0
	luc_sum	0,1	0	1
Output				
Judgment				

m_Chk_AsciiOnOffDec

	Responsible	Last update	Infinite loop	None
Coding	Karashi		Verification pass	2
Test	Taki			
Judgment	Karashi		Judgment	

		case1	case2
Root	if(puc_data == 0)	O	-
	else	-	O
	Symbol	Range	
Input	puc_data	48,49	
Output	luc_ars	0	1
Judgment			

m_Chk_DecOnOffAscii

	Responsible	Last update	Infinite loop	None
Coding	Karashi		Verification pass	2
Test	Taki			
Judgment	Karashi		Judgment	

		case1	case2
Root	if(puc_data == M_OFF)	○	-
	else	-	○
Symbol		Range	
Input	puc_data	0	1
Output	luc_ars	48	49
Judgment			

m_Cmp_SUM

	Responsible	Last update	Infinite loop	None
Coding	Karashi		Verification pass	6
Test	Taki			
Judgment	Karashi		Judgment	

		case1	case2	case3	case4	case5	case6
Root	for(luc_j=0U;(luc_j<DaMain_TX_RX_BUFF_SIZE/sizeof(commTxRxBuffer)*7) && (luc_result_data == 0U);luc_j++)	O	O	O	O	O	O
	if((buff[luc_j] == IRDA_EOT) (buff[luc_j] == IRDA_CR) (buff[luc_j] == IRDA_ETX))	O	-	O	O	-	-
	switch(buff[luc_j])	O	-	O	O	-	-
	case IRDA_EOT:	O	-	-	-	-	-
	case IRDA_CR:	-	-	-	O	-	-
	case IRDA_ETX:	-	-	O	-	-	-
	default:	-	-	-	-	-	-
	if (luc_result_data == 0U)	-	O	-	-	O	O
	if(("0123456789ABCDEF"luc_sum>>4) == buff[luc_j] && ("0123456789ABCDEF"luc_sum&0xFU) == buff[luc_j+1U])	-	-	-	-	-	-
	Symbol	Range					
Input	buff[0]	2-14	4	5	3	13	14
	luc_result_data	0,1	1	0	0	1	0
Output							
Judgment							

m_DenstAscii_proc

	Responsible	Last update	Infinite loop	None
Coding	Karashi		Verification pass	2
Test	Taki			
Judgment	Karashi		Judgment	

		case1	case2
Root	if(pul_denst == M_OFF_VAL)	O	O
	else	O	-
Input	Symbol	Range	
	*pucp_data	0	0
	pul_denst	3722304989, 3722304990	3722304989
	puc_dnt	0	0
Output	None	-	-
Judgment			

m_Get_UnitPnt

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	2
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1	case2
Root	#put_densit == M_OFF_VAL)		○	○
	else		○	-
	Symbol	Range		
Input	*pucp_data	0x00~0xFF	0x00	0xFF
	puc_srl_code	0	0	0
Output	None	-	-	-
Judgment				

m_cmd_90_proc

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	4
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3	case4
Root	if(!tIDA_COMMAND_DATA["pucp_io_buf"]>sub_command[0] == 'S')	○	○	-	-
	if(MAIN_Get_UpdateModeFlag() == M_CN)	○	-	-	-
	else	-	○	-	-
	else	-	-	○	○
Symbol		Range			
Input	"pucp_io_buf"	0	0	0	0
	"pucp_io_buf[0]"	83,84	83	83	84
	m_cmd_ResponTerm)	0	0	1	0
	MAIN_Get_UpdateModeFlag()	1,2	1	2	1
Output	"pucp_io_buf"	0	0	0	0
	m_cmd_ResponTerm)	0	0	0	0
Judgment					

m_cmd_93_proc

	Responsible	Last update
Coding	Ikarashi	
Test	Taki	
Judgment	Ikarashi	

		case1	case1	case1	case2
Root	switch((irIDA_COMMAND_DATA *("pucp_io_buf"))->sub_command[0])	O	O	-	-
	case 'S':	O	O	-	-
	if(!bl_mode_on_flg == true) && (!bl_sensor_on_flg == false)	-	O	-	-
	else	O	-	-	-
	default	-	-	O	O
Symbol	Range				
Input	"pucp_io_buf"	0	0	0	0
	pucp_io_buf[0]	83	83	83	84
	m_cmd_ResponseTerm	0	0	0	0
	SetSisProg_Set_RewriteStart	0	1	0	1
	"pucp_io_buf"	0	0	0	0
Output	m_cmd_ResponseTerm	0	0	0	0
		0	0	0	0
Judgment					

m_cmd_94_proc

	Responsible	Last update
Coding	Ikarashi	
Test	Taki	
Judgment	Ikarashi	

[illegible]

m_cmd_A7_proc

	Responsible	Last update	Infinite loop	None
Coding	Karashi		Verification pass	4
Test	Taki			
Judgment	Karashi		Judgment	

		case1	case2	case3	case4
Root	switch(((irDA_COMMAND_DATA *jpucp_io_buff)->sub_command[0])	○	○	○	○
	case 'W':	○	○	-	-
	if(uc_ch >= HDDEF_GAS_MAX)	-	-	-	-
	else	○	○	-	-
	if(Tool_Comp_Pnt(&pucp_io_buff[lus_r_pos], &uc_m_non_data[0], 8) == 0)	○	-	-	-
	else	-	○	-	-
	if(Tool_Comp_Pnt(&pucp_io_buff[lus_r_pos], &uc_m_non_data[0], 8) == 0)	○	-	-	-
	else	-	○	-	-
	if(Tool_Comp_Pnt(&pucp_io_buff[lus_r_pos], &uc_m_non_data[0], 8) == 0)	○	-	-	-
	else	-	○	-	-
	if(Tool_Comp_Pnt(&pucp_io_buff[lus_r_pos], &uc_m_non_data[0], 8) == 0)	○	-	-	-
	else	-	○	-	-
	if(Tool_Comp_Pnt(&pucp_io_buff[lus_r_pos], &uc_m_non_data[0], 8) == 0)	○	-	-	-
	else	-	○	-	-
	case 'R':	○	○	○	-
	if(uc_ch >= HDDEF_GAS_MAX)	-	-	-	-
	else	-	○	○	-
	if(stp_GasInfo_addr+luc_ch->ul_1st_alarm == M_OFF_VAL)	○	-	○	-
	else	-	○	-	-
	if(stp_GasInfo_addr+luc_ch->ul_2nd_alarm == M_OFF_VAL)	○	-	○	-
	else	-	○	-	-
	if(stp_GasInfo_addr+luc_ch->ul_3rd_alarm == M_OFF_VAL)	○	-	○	-
	else	-	○	-	-
	if(stp_GasInfo_addr+luc_ch->ul_stel_alarm == M_OFF_VAL)	○	-	○	-
	else	-	○	-	-
	if(stp_GasInfo_addr+luc_ch->ul_bwa_alarm == M_OFF_VAL)	○	-	○	-
	else	-	○	-	-
	default	-	-	-	○
Input	Symbol	Range			
	pucp_io_buff[8]	32-42	87	82	32
	uc_unt_dec	0	0	0	0
	ul_1st_alarm	0x00000000	0x00000000	0x00000000	0x00000000
	ul_2nd_alarm	0x00000000	0x00000000	0x00000000	0x00000000
	ul_3rd_alarm	0x00000000	0x00000000	0x00000000	0x00000000
	ul_stel_alarm	0x00000000	0x00000000	0x00000000	0x00000000
	ul_bwa_alarm	0x00000000	0x00000000	0x00000000	0x00000000
	m_AsciiDenset_proc()	0	0	0	0
	m_cmd_ResponsTerm()	0	0	0	0
	Tool_Comp_Pnt()	0,1	0	1	1
	Tool_Hex_Asc()	0	0	0	0
	Tool_Hex_Dec()	0	0	0	0
Output	*pucp_io_buff	0	0	0	0
	m_cmd_ResponsTerm()	0	0	0	0
	ul_1st_alarm	0, 0x00000000	0	0x00000000	0x00000000
	ul_2nd_alarm	0, 0x00000000	0	0x00000000	0x00000000
	ul_3rd_alarm	0, 0x00000000	0	0x00000000	0x00000000
	ul_stel_alarm	0, 0x00000000	0	0x00000000	0x00000000
	ul_bwa_alarm	0, 0x00000000	0	0x00000000	0x00000000
Judgment					

m_cmd_AF_proc

	Responsible	Last update	Infinite loop	None
Coding	Karashi		Verification pass	3
Test	Taki			
Judgment	Karashi		Judgment	

		case1	case2	case3
Root	switch(((irDA_COMMAND_DATA *jpucp_io_buff)->sub_command[0])	○	○	○
	case 'W':	○	-	-
	case 'R':	○	○	-
	default	-	-	○
	Symbol	Range		
Input	pucp_io_buff[8]	32-47	87	82
	pucp_io_buff[0]	0	0	0
	pucp_io_buff[10]	0	0	0
	uc_alarm_on	0,1	0	0
	m_Chk_AsciiOnOffDec()	0,1	0	0
	m_Chk_DecOnOffAscii()	0,1	0	0
	micmd_ResponsTerm()	0,1	0	0
	*pucp_io_buff	0	0	0
	m_cmd_ResponsTerm()	0,1	0	0
	uc_alarm_on	0,1	0	0
Judgment				

m_cmd_AJ_proc

	Responsible	Last update	Infinite loop	None
Coding	Karashi		Verification pass	5
Test	Taki			
Judgment	Karashi		Judgment	

		case1	case2	case3	case4	case5
Root	switch(((irDA_COMMAND_DATA *jpucp_io_buff)->sub_command[0])	○	○	○	○	○
	case 'W':	○	○	-	-	-
	if(uc_ret == M_OK)	○	-	-	-	-
	else	-	○	-	-	-
	case 'R':	-	-	○	○	-
	if(uc_check == M_ON)	-	-	-	○	-
	else	-	-	-	-	-
	if(uc_ret == M_OK)	-	-	○	-	-
	if(uc_ret == M_OK)	-	-	○	-	-
	else	-	-	-	○	-
	default	-	-	-	-	○
	Symbol	Range				
Input	pucp_io_buff[8]	0-87	87	82	82	32
	DataFrom_AlarmReset_Load()	0,1	0	0	0	0
	DataFromFacky_AlarmPoint_Load()	0,1	0	0	0	0
	DataFromFacky_Chk_AlarmResetOnOffFig()	0,1	1	0	1	0
	FlowGasSelDisplay_End_ResetAlarmPoint()	0,1	0	1	1	0
	m_cmd_ResponsTerm()	0	0	0	0	0
	*pucp_io_buff	0	0	0	0	0
Output	*pucp_io_buff	0	0	0	0	0
	m_cmd_ResponsTerm()	0	0	0	0	0
Judgment						

m_cmd_AM_proc

	Responsible	Last update	Infinite loop	None
Coding	Karashi		Verification pass	3
Test	Taki			
Judgment	Karashi		Judgment	

			case1	case2	case3
Root	switch((((IRDA_COMMAND_DATA *jpucp_io_buff)->sub_command[0])		○	○	○
	case 'W':		○	-	-
	case 'R':		○	○	-
	default:		-	-	○
Symbol		Range			
Input	*pucp_io_buff[8]	0-87	87	82	32
	pucp_io_buff[10]	0	0	0	0
	Data_Detector_Set_DataAddress()	0	0	0	0
	uc_th_alarm_on	0	0	0	0
	m_Chk_AsciiOnOffDec()	0	0	0	0
	m_Chk_DecOnOffAscii()	0	0	0	0
	m_cmd_ResponsTerm()	0	0	0	0
	*pucp_io_buff	0	0	0	0
Output	uc_th_alarm_on	0	0	0	0
	m_cmd_ResponsTerm()	0	0	0	0
Judgment					

m_cmd_AP_proc

	Responsible	Last update	Infinite loop	None
Coding	Karashi		Verification pass	3
Test	Taki			
Judgment	Karashi		Judgment	

			case1	case2	case3
Root	switch((((IRDA_COMMAND_DATA *jpucp_io_buff)->sub_command[0])		○	○	○
	case 'W':		○	-	-
	case 'R':		○	○	-
	default:		-	-	○
Symbol		Range			
Input	*pucp_io_buff[8]	0-87	87	82	32
	pucp_io_buff[10]	0	0	0	0
	Data_Detector_Set_DataAddress()	0	0	0	0
	uc_alarm_pattern	0	0	0	0
	m_Chk_AsciiOnOffDec()	0	0	0	0
	m_Chk_DecOnOffAscii()	0	0	0	0
	m_cmd_ResponsTerm()	0	0	0	0
	*pucp_io_buff	0	0	0	0
Output	uc_alarm_pattern	0	0	0	0
	m_cmd_ResponsTerm()	0	0	0	0
Judgment					

m_cmd_B0_proc

	Responsible	Last update	Infinite loop	None
Coding	Karashi		Verification pass	3
Test	Taki			
Judgment	Karashi		Judgment	

			case1	case2	case3
Root	switch((((IRDA_COMMAND_DATA *jpucp_io_buff)->sub_command[0])		○	○	○
	case 'W':		○	-	-
	case 'R':		○	○	-
	default:		-	-	○
Symbol		Range			
Input	*pucp_io_buff[8]	0-87	87	82	32
	pucp_io_buff[10]	0	0	0	0
	pucp_io_buff[12]	0	0	0	0
	Data_Detector_Set_DataAddress()	0	0	0	0
	uc_stealth_on	0	0	0	0
	uc_stealth_motor_on	0	0	0	0
	m_Chk_AsciiOnOffDec()	0	0	0	0
	m_Chk_DecOnOffAscii()	0	0	0	0
Output	*pucp_io_buff	0	0	0	0
	uc_stealth_on	0	0	0	0
	uc_stealth_motor_on	0	0	0	0
	m_cmd_ResponsTerm()	0	0	0	0
Judgment					

m_cmd_B7_proc

	Responsible	Last update	Infinite loop	None
Coding	Karashi		Verification pass	4
Test	Taki			
Judgment	Karashi		Judgment	

			case1	case2	case3	case4
Root	switch((((IRDA_COMMAND_DATA *jpucp_io_buff)->sub_command[0])		○	○	○	○
	case "W":		○	○	-	-
	if(luc_ch >= HIDEF_GAS_MAX)		-	-	-	-
	else		○	○	-	-
	if(Tool_Comp_Pnt(&pucp_io_buff[lus_r_pos], &uc_m_non_data[0], 8) == 0)		-	○	-	-
	else		○	-	-	-
	if(Tool_Comp_Pnt(&pucp_io_buff[lus_r_pos], &uc_m_non_data[0], 8) == 0)		-	○	-	-
	else		○	-	-	-
	case 'R':		○	○	○	-
	if(luc_ch >= HIDEF_GAS_MAX)		-	-	-	-
	else		○	○	○	-
	if(stp_GasInfo_addr+luc_ch->ul_twa_alarm_min == M_OFF_VAL)		-	○	○	-
	else		○	-	-	-
	if(stp_GasInfo_addr+luc_ch->ul_twa_alarm_max == M_OFF_VAL)		-	○	○	-
	else		○	-	-	-
	default:		-	-	-	○
Symbol		Range				
Input	*pucp_io_buff[8]	0-87	87	82	32	
	*pucp_io_buff	0,1	1	1	1	1
	GasCalc_Get_GasData_Add()	0	0	0	0	0
	uc_uni_dec	0	0	0	0	0
	ul_twa_alarm_min	0	0	0	0	0
	ul_twa_alarm_max	0	0	0	0	0
	m_AsciiDens1_proc	0	0	0	0	0
	m_cmd_ResponsTerm()	0	0	0	0	0
	Tool_Comp_Pnt()	0	1	0	0	0
	Tool_Hex_Asc()	0	0	0	0	0
Output	*pucp_io_buff	0,1	1	1	1	1
	ul_twa_alarm_min	0	0	0	0	0
	ul_twa_alarm_max	0	0	0	0	0
	m_cmd_ResponsTerm()	0	0	0	0	0
Judgment						

m_cmd_B8_proc

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	4
Test	Taki			
Judgment	Ikarashi		Judgment	

Root	switch(((trDA_COMMAND_DATA *jpucp_io_buff)->sub_command[0])		case1	case2	case3	case4
	case 'W':		○	○	○	○
	if(luc_ch >= HDDEF_GAS_MAX)		○	○	-	-
	else		-	-	-	-
	if(Tool_Comp_Pnt(&pucp_io_buff[lus_r_pos], &luc_m_non_data[0], 8) == 0)		○	○	-	-
	else		-	○	-	-
	if(Tool_Comp_Pnt(&pucp_io_buff[lus_r_pos], &luc_m_non_data[0], 8) == 0)		○	○	-	-
	else		-	-	-	-
	case 'R':		○	○	○	-
	if(luc_ch >= HDDEF_GAS_MAX)		-	-	-	-
	else		○	○	○	-
	if((stp_GasInfo_addr+luc_ch)->ul_twa_alarm_min == M_OFF_VAL)		-	○	○	-
	else		○	-	-	-
	if((stp_GasInfo_addr+luc_ch)->ul_twa_alarm_max == M_OFF_VAL)		-	○	○	-
	else		○	-	-	-
	default		-	-	-	○
Input	Symbol	Range				
	pucp_io_buff[8]	0-87	87	87	82	32
	*pucp_io_buff	0,1	1	1	1	1
	GasCalc_Get_GasData_Addr()	0	0	0	0	0
	uc_unit_dec	0	0	0	0	0
	ul_twa_alarm_min	0	0	0	0	0
	ul_twa_alarm_max	0	0	0	0	0
	m_AsciiDenst_proc	0	0	0	0	0
	m_cmd_ResponsTerm()	0	0	0	0	0
	Tool_Comp_Pnt()	0	1	0	0	0
Output	Tool_Hex_Asc()	0	0	0	0	0
	*pucp_io_buff	0,1	1	1	1	1
	ul_twa_alarm_min	0	0	0	0	0
	ul_twa_alarm_max	0	0	0	0	0
	m_cmd_ResponsTerm()	0	0	0	0	0
Judgment						

m_cmd_B9_proc

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	4
Test	Taki			
Judgment	Ikarashi		Judgment	

Root	switch(((trDA_COMMAND_DATA *jpucp_io_buff)->sub_command[0])	case1	case2	case3	case4	
	case 'W':	○	○	○	○	
	if(luc_ch >= HDDEF_GAS_MAX)	○	○	-	-	
	else	-	-	-	-	
	if(Tool_Comp_Pnt(&pucp_io_buff[lus_r_pos], &luc_m_non_data[0], 8) == 0)	○	○	-	-	
	else	-	-	-	-	
	if(Tool_Comp_Pnt(&pucp_io_buff[lus_r_pos], &luc_m_non_data[0], 8) == 0)	-	○	-	-	
	else	○	-	-	-	
	case 'R':	○	○	○	-	
	if(luc_ch >= HDDEF_GAS_MAX)	-	-	-	-	
	else	○	○	○	-	
	if((stp_GasInfo_addr+luc_ch)->ul_twa_alarm_min == M_OFF_VAL)	-	○	-	-	
	else	○	-	○	-	
	if((stp_GasInfo_addr+luc_ch)->ul_twa_alarm_max == M_OFF_VAL)	-	-	-	-	
	else	-	○	-	-	
	default	-	-	-	○	
Symbol		Range				
Input	pucp_io_buff[8]	0-87	87	87	82	32
	*pucp_io_buff	0,1	1	1	1	1
	GasCalc_Get_GasData_Addr()	0,1	1	1	1	1
	uc_unit_dec	0	0	0	0	0
	ul_twa_alarm_min	0	0	0	0	0
	ul_twa_alarm_max	0	0	0	0	0
	m_AsciiDenst_proc	0	0	0	0	0
	m_cmd_ResponsTerm()	0	0	0	0	0
	Tool_Comp_Pnt()	0	1	0	0	0
	Tool_Hex_Asc()	0	0	0	0	0
Output	*pucp_io_buff	0,1	1	1	1	1
	ul_twa_alarm_min	0-0x00000000	0	0x00000000	0	0
	ul_twa_alarm_max	0-0x00000000	0	0x00000000	0	0
	m_cmd_ResponsTerm()	0	0	0	0	0
Judgment						

m_cmd_B3_proc

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

Root	switch(((trDA_COMMAND_DATA *jpucp_io_buff)->sub_command[0])		case1	case2	case3
	case 'W':		○	○	○
	case 'R':		○	-	-
	case 'U':		○	○	-
	default		-	-	○
	Symbol	Range			
Input	pucp_io_buff[8]	0-87	87	82	32
	pucp_io_buff[10]	0	0	0	0
	uc_bump_lmt_set	0	0	0	0
	m_Chk_AsciiOnOffDec()	0	0	0	0
	m_Chk_DecOnOffAscii()	0	0	0	0
	m_cmd_ResponsTerm()	0	0	0	0
Output	*pucp_io_buff	0	1	1	1
	uc_bump_lmt_set	0	0	0	0
	m_cmd_ResponsTerm()	0	0	0	0
Judgment					

m_cmd_BK_proc

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

Root	switch(((trDA_COMMAND_DATA *pucp_io_buff)->sub_command[0])		case1	case2	case3	
	case 'W':		○	-	-	
	case 'R':		○	○	-	
	default:		-	-	○	
			-	-	-	
Symbol			Range			
Input	pucp_io_buff[8]		0-87	87	82	32
	*pucp_io_buff		0	0	0	0
	us_bump_lmt_day		0	0	0	0
	Tool_Hex_Asc()		0	0	0	0
	m_cmd_ResponsTerm()		0	0	0	0
			0	0	0	0
Output	*pucp_io_buff		0	1	1	1
	m_cmd_ResponsTerm()		0	0	0	0
Judgment						

m_cmd.BL_proc

	Responsible	Last update	Infinite loop	None
Coding	Karashi		Verification pass	5
Test	Taki			
Judgment	Karashi		Judgment	

		case1	case2	case3	case4	case5
Root	switch(((irDA_COMMAND_DATA *jpucp_io_buff)->sub_command[0])	○	○	○	○	○
	case 'W':	○	○	○	-	-
	if(pucp_io_buff[us_r_pos] == '2')	○	-	-	-	-
	else if(pucp_io_buff[us_r_pos] == '1')	-	-	○	-	-
	else	-	○	-	-	-
	case 'R':	○	○	○	○	-
	if(stp_data->uc_bump_lmt_chk == 2)	○	-	-	○	-
	else if(stp_data->uc_bump_lmt_chk == 1)	-	-	○	-	-
Input	Symbol	Range				
	pucp_io_buff[8]	0-87	87	87	87	82
	pucp_io_buff[10]	0-51	50	51	49	48
	uc_bump_lmt_chk	0-2	1	2	1	2
	m_cmd_ResponsTerm()	0	0	0	0	0
	*pucp_io_buff	0	0	0	0	0
	uc_bump_lmt_chk	0-2	2	0	1	2
	m_cmd_ResponsTerm()	0	0	0	0	0
Output	*pucp_io_buff	0	0	0	0	0
	m_cmd_ResponsTerm()	0	0	0	0	0
Judgment						

m_cmd.BO_proc

	Responsible	Last update	Infinite loop	None
Coding	Karashi		Verification pass	2
Test	Taki			
Judgment	Karashi		Judgment	

		case1	case2
Root	if((irDA_COMMAND_DATA *jpucp_io_buff)->sub_command[0] == 'R')	○	-
	for(luc_i=0; luc_i<HIDEF_GAS_MAX; luc_i++)	○	-
	if(luc_i != 0U)	○	-
	else	○	-
	else	-	○
	else	-	○
Input	Symbol	Range	
	pucp_io_buff[8]	0-82	82
	*pucp_io_buff	1	1
	uc_cmt_def	0	0
	uc_bump_date[0]	0	0
	uc_bump_date[1]	0	0
	uc_bump_date[2]	0	0
	uc_bump_date[3]	0	0
	uc_bump_date[4]	0	0
	uc_bump_date[5]	0	0
	uf_bump_val	0	0
	uf_bump_test_val	0	0
	m_cmd_ResponsTerm()	0	0
	*pucp_io_buff	0	1
	m_cmd_ResponsTerm()	0	0
Output	*pucp_io_buff	0	1
	m_cmd_ResponsTerm()	0	0
Judgment			

m_cmd.BP_proc

	Responsible	Last update	Infinite loop	None
Coding	Karashi		Verification pass	5
Test	Taki			
Judgment	Karashi		Judgment	

		case1	case2	case3	case4	case5
Root	switch(((irDA_COMMAND_DATA *jpucp_io_buff)->sub_command[0])	○	○	○	○	○
	case 'W':	○	○	-	-	-
	if(pucp_io_buff[us_r_pos] == '0')	○	-	-	-	-
	else	-	○	-	-	-
	if(pucp_io_buff[us_r_pos+2U] == '0')	○	-	-	-	-
	else	-	○	-	-	-
	case 'R':	○	○	○	○	-
	if(PumpFlow_Get_LoHiFlag_IsHi() == true)	○	-	○	-	-
	else	-	○	-	○	-
	if(PumpFlow_Get_MotionFlag_IsMove() == true)	○	○	-	-	-
	else	-	-	-	○	-
	default	-	-	-	-	○
Input	Symbol	Range				
	pucp_io_buff[8]	0-87	87	87	82	32
	pucp_io_buff[10]	0-49	48	49	48	48
	pucp_io_buff[12]	48,49	48	49	49	48
	PumpFlow_Get_LoHiFlag_IsHi()	0-2	1	0	1	2
	Pump_Flow_Get_MotionFlag_IsMove()	0-2	1	1	1	0
	m_cmd_ResponsTerm()	0	0	0	0	0
	*pucp_io_buff	0	0	0	0	0
	m_cmd_ResponsTerm()	0	0	0	0	0
	m_cmd_ResponsTerm()	0	0	0	0	0
Judgment						

m_cmd.BS_proc

	Responsible	Last update	Infinite loop	None
Coding	Karashi		Verification pass	3
Test	Taki			
Judgment	Karashi		Judgment	

		case1	case2	case3
Root	switch(((irDA_COMMAND_DATA *jpucp_io_buff)->sub_command[0])	○	○	○
	case 'W':	○	-	-
	case 'R':	○	○	-
	default	-	-	○
	Symbol	Range		
Input	pucp_io_buff[8]	0-87	87	82
	*pucp_io_buff	0	0	0
	uc_sep_nd[0]	0	0	0
	m_cmd_ResponsTerm()	0	0	0
	*pucp_io_buff	0	0	0
Output	*pucp_io_buff	0	0	0
	m_cmd_ResponsTerm()	0	0	0
Judgment				

m_cmd_BU_proc

	Responsible	Last update	Infinite loop	None
Coding	Karashi		Verification pass	3
Test	Taki			
Judgment	Karashi		Judgment	

			case1	case2	case3
Root	switch(((RDA_COMMAND_DATA *pucp_io_buff)->sub_command[0])		○	○	○
	case 'W':		○	-	-
	case 'R':		○	○	-
	default:		-	-	○
Input	Symbol	Range			
	*pucp_io_buff[8]	0-87	87	82	32
	*pucp_io_buff[19]	0	0	0	0
	uc_bump_time	0	0	0	0
	uc_bump_limit	0	0	0	0
	uc_bump_cal_time	0	0	0	0
	uc_bump_cal_flg	0	0	0	0
	m_Chk_AscIcHrOffDec()	0	0	0	0
	m_Chk_DecOnOff(Ascii)	0	0	0	0
	Tool_Hex_Asc()	0	0	0	0
	m_cmd_ResponsTerm()	0	0	0	0
Output	*pucp_io_buff[12]	0-44	44	44	0
	uc_bump_cal_flg	0	0	0	0
	m_cmd_ResponsTerm()	0	0	0	0
Judgment					

m_cmd_CP_proc

	Responsible	Last update	Infinite loop	None
Coding	Karashi		Verification pass	3
Test	Taki			
Judgment	Karashi		Judgment	

			case1	case2	case3
Root	switch(((RDA_COMMAND_DATA *pucp_io_buff)->sub_command[0])		○	○	○
	case 'W':		○	-	-
	if((us_flow_fail_threshold >= PUMFLOW_FLOW_FAIL_SPAN_MIN) && (us_flow_fail_threshold <= PUMFLOW_FLOW_FAIL_SPAN_MAX))		○	-	-
	else		-	-	-
	case 'R':		○	○	-
	default:		-	-	○
Input	Symbol	Range			
	*pucp_io_buff[8]	0-87	87	82	32
	*pucp_io_buff	0,1	1	1	1
	us_flow_rate_drop_output	0	0	0	0
	Tool_Hex_Asc()	0	0	0	0
	m_cmd_ResponsTerm()	0	0	0	0
Output	*pucp_io_buff	1	1	1	1
	us_flow_rate_drop_output	0	0	0	0
	m_cmd_ResponsTerm()	0	0	0	0
Judgment					

m_cmd_D2_proc

	Responsible	Last update	Infinite loop	None
Coding	Karashi		Verification pass	5
Test	Taki			
Judgment	Karashi		Judgment	

			case1	case2	case3	case4	case5
Root	switch(((RDA_COMMAND_DATA *pucp_io_buff)->sub_command[0])		○	○	○	○	○
	case 'W':		○	○	○	○	-
	for(luc_i=0; luc_i<HDDEF_GAS_MAX; luc_i++)		○	○	○	○	-
	for(luc_i=0; luc_i<HDDEF_GAS_MAX; luc_i++)		○	○	○	○	-
	if((luc_result_temp & 0x01) == 0x0)		○	-	○	○	-
	else		-	○	-	-	-
	for(luc_i=0; luc_i<HDDEF_GAS_MAX; luc_i++)		○	○	○	○	-
	if(luc_bump_result[luc_i] == M_OK)		○	-	○	○	-
	if((top_densit + luc_i)>uc_state_tnb & (DataStrucConst_S_FAIL_INS DataStrucConst_S_FAIL_SEN)		○	-	-	-	-
	else		○	○	○	○	-
	else		-	○	-	-	-
	for(luc_i=0; luc_i<HDDEF_GAS_MAX; luc_i++)		○	-	○	○	-
	if(luc_bump_result_densit != M_OFF_VAL)		○	-	○	-	-
	else		-	-	-	○	-
	default:		-	-	-	-	○
Input	Symbol	Range					
	*pucp_io_buff[8]	0-87	87	87	87	87	32
	uc_bump_limit	0	0	0	0	0	0
	uc_state_tnb	0-255	255	255	0	0	0
	FlowBumpTestDisplay_Com_BumpTest()	0,1	0	1	0	0	0
	FlowBumpTestDisplay_Get_BumpResultDensit()	0x00000000-0x00000000	0x00000000	0x00000000	0x00000000	0x00000000	0x00000000
	uc_sen_dec	0	0	0	0	0	0
	uf_cal_densit	0	0	0	0	0	0
	m_AscIcDensit_proc	0	0	0	0	0	0
	Tool_Asc_Dec()	0	0	0	0	0	0
	m_cmd_ResponsTerm()	0	0	0	0	0	0
Output	*pucp_io_buff	0-50	50	49	48	48	12
	uc_bump_limit	0	0	0	0	0	0
	m_cmd_ResponsTerm()	0	0	0	0	0	0
Judgment							

m_cmd_D3_proc

	Responsible	Last update	Infinite loop	None
Coding	Karashi		Verification pass	5
Test	Taki			
Judgment	Karashi		Judgment	

			case1	case2	case3	case4	case5
Root	switch(((RDA_COMMAND_DATA *pucp_io_buff)->sub_command[0])		○	○	○	○	
	case 'W':		○	○	○	○	-
	for(luc_i=0; luc_i<HDDEF_GAS_MAX; luc_i++)		○	○	○	○	-
	if(pucp_io_buff[luc_i_pos] == '0')		○	○	-	-	-
	for(luc_i=0; luc_i<HDDEF_GAS_MAX; luc_i++)		○	○	○	○	-
	if(luc_test_cal_densit[luc_i] != M_OFF_VAL)		○	○	○	○	-
	if((luc_success_flg & (0x01 << luc_i)) != 0x00)		○	○	-	-	-
	default:		-	-	-	-	○
Input	Symbol	Range					
	*pucp_io_buff[8]	32,87	87	87	87	87	32
	*pucp_io_buff[49]	48-50	48	48	49	49	50
	uc_bump_densit[0]	0,1	0	1	0	1	0
	uc_bump_sdm[0]	0,1	0	1	0	1	0
	m_AscIcDensit_proc()	0,1	0	1	0	1	0
	m_cmd_ResponsTerm()	0	0	0	0	0	0
Output	*pucp_io_buff	0	0	1	0	0	0
	uf_bump_val	0,1	0	1	0	0	0
	uf_bump_test_val	0,1	0	1	0	0	0
Judgment	m_cmd_ResponsTerm()	0,1	0	1	0	1	0

m_cmd_OH_proc

	Responsible	Last update	Infinite loop	None
Coding	karashi		Verification pass	11
Test	Taki			
Judgment	karashi		Judgment	

		case1	case2	case3	case4	case5	case6	case7	case8	case9	case10	case11
Root	if((iIDA_COMMAND_DATA *jucp_io_buff)->sub_command[0] == 'R')	○	○	○	○	○	○	○	○	○	○	○
	if(FlowMain_Get_ModeStatus() == FlowMain_IRDA_MODE_NUMBER)	○	-	○	○	○	○	○	○	○	○	-
	else	-	○	-	-	-	-	-	-	-	-	-
	for(luc_i=0; luc_i<HIDDEF_GAS_MAX; luc_i++)	○	○	○	○	○	○	○	○	○	○	-
	switch(Battery_Get_ComBatteryIconAD())	○	○	○	○	○	○	○	○	○	○	-
	case BATTERY_BATT_STATUS_FULL:	○	○	○	○	○	○	○	○	○	○	-
	case BATTERY_BATT_STATUS_MANY:	-	-	○	-	-	-	-	-	-	-	-
	case BATTERY_BATT_STATUS_NORMAL:	-	-	-	○	-	-	-	-	-	-	-
	case BATTERY_BATT_STATUS_WARNING:	-	-	-	-	○	-	-	-	-	-	-
	case BATTERY_BATT_STATUS_ALARM:	-	-	-	-	-	○	-	-	-	-	-
	case BATTERY_BATT_STATUS_SHUT_DOWN:	-	-	-	-	-	-	○	-	-	-	-
	default:	-	-	-	-	-	-	-	○	○	-	-
	for(luc_i=0; luc_i<HIDDEF_GAS_MAX; luc_i++)	○	○	○	○	○	○	○	○	○	○	-
	if(luc_i != 0x0)	○	○	○	○	○	○	○	○	○	○	-
	else	○	○	○	○	○	○	○	○	○	○	-
	if((stp_GasInfo_addr+luc_i)->uc_gas_comb != 0x00) && ((stp_denst+luc_i) ->uc_denst != M_OFF_VAL)	○	○	○	○	○	○	○	○	○	○	-
	if(luc_i == DataStructConst_CO_CAN_H2_H2_CH) && ((stp_GasInfo_addr+luc_i) ->uc_gas_comb == DataStructConst_CO_CAN_H2_GAS_NUM)	-	-	-	-	-	-	-	-	-	-	-
	else	○	○	○	○	○	○	○	○	○	○	-
	if((stp_denst + luc_i)->uc_state_trb & (DataStructConst_S_FAIL_INS))	-	-	-	-	-	-	-	-	-	○	-
	else if((stp_denst + luc_i)->uc_state_trb & (DataStructConst_S_FAIL_SEN))	-	-	-	-	-	-	-	-	-	-	-
	else	○	○	○	○	○	○	○	○	○	○	-
	if((stp_denst+luc_i)->uc_denst_minus_flg == M_ON)	○	○	○	○	○	○	○	○	○	-	-
	else	○	○	○	○	○	○	○	○	○	○	-
	else	-	-	-	-	-	-	-	-	-	-	○
	Symbol	Range										
Input	jucp_io_buff[0]	32..87	87	87	87	87	87	87	87	87	87	32
	*jucp_io_buff	1	1	1	1	1	1	1	1	1	1	1
	Battery_Get_ComBatteryAD()	0	0	0	0	0	0	0	0	0	0	0
	Battery_Get_ComBatteryIconAD()	0-6	5	5	4	3	2	1	0	6	5	5
	uc_denst	0x00000000-0x0000000E	0x00000000E	0x00000000E	0x00000000E	0x00000000E	0x00000000E	0x00000000E	0x00000000E	0x00000000E	0x00000000E	0x00000000E
	uc_denst_minus_flg	1,2	1	1	1	1	1	1	1	1	1	2
	uc_state_trb	0,255	0	0	0	0	0	0	0	0	255	0
	uc_alarm_int	0	0	0	0	0	0	0	0	0	0	0
	us_main_state	0	0	0	0	0	0	0	0	0	0	0
	FlowMain_Get_ModeStatus()	7,8	7	8	7	7	7	7	7	7	7	7
	uc_gas_comb	1	1	1	1	1	1	1	1	1	1	1
	uc_uni_dec	0	0	0	0	0	0	0	0	0	0	0
	Tool_Hex_Asc()	0	0	0	0	0	0	0	0	0	0	0
	m_cmd_ResponsTerm()	0	0	0	0	0	0	0	0	0	0	0
Output	*jucp_io_buff	1	1	1	1	1	1	1	1	1	1	1
	m_cmd_ResponsTerm()	0	0	0	0	0	0	0	0	0	0	0
Judgment												

m_cmd_OP_proc

	Responsible	Last update	Infinite loop	None
Coding	karashi		Verification pass	5
Test	Taki			
Judgment	karashi		Judgment	

		case1	case2	case3	case4	case5
Root	if((iIDA_COMMAND_DATA *jucp_io_buff)->sub_command[0] == 'R')	○	○	○	○	-
	for(luc_i=0; luc_i<HIDDEF_GAS_MAX; luc_i++)	○	○	○	○	-
	if(luc_i != 0x0)	○	○	○	○	-
	else	-	-	-	-	-
	if(luc_i == DataStructConst_O2_GAS_CH)					
	else					
	if((stp_GasInfo_addr+luc_i)->uc_gas_comb != 0x00) && (lut_peak_denst != M_OFF_VAL)	○	○	○	○	-
	if((stp_denst + luc_i)->uc_state_trb & (DataStructConst_S_FAIL_INS DataStructConst_S_FAIL_SEN))	-	-	-	○	-
	else	○	○	○	○	-
	if(luc_peak_flg == M_ON)	○	-	-	-	-
	else	○	○	○	○	-
	else	○	○	○	○	-
	else	-	-	-	-	○
Input	Symbol	Range				
	jucp_io_buff[0]	0-82	82	82	82	32
	*jucp_io_buff	1	1	1	1	1
	uc_state_trb	0-255	0	0	255	0
	uf_pmin	0	0	0	0	0
	uf_pmax	0	0	0	0	0
	uc_pmin_flg	0	0	0	0	0
	uc_pmax_flg	0-2	1	1	1	2
	uc_gas_comb	0,1	0	1	0	0
	uc_uni_dec	0	0	0	0	0
	m_cmd_ResponsTerm()	0	0	0	0	0
Output	*jucp_io_buff	1	1	1	1	1
	m_cmd_ResponsTerm()	0	0	0	0	0
Judgment						

m_cmd_DW_proc

	Responsible	Last update	Infinite loop	None
Coding	karashi		Verification pass	2
Test	Taki			
Judgment	karashi		Judgment	

		case1	case2
Root	if((iIDA_COMMAND_DATA *jucp_io_buff)->sub_command[0] == 'W')	○	-
	else	-	○
Input	Symbol	Range	
	jucp_io_buff[0]	32..87	87
Output	*jucp_io_buff	1	1
	m_cmd_ResponsTerm()	0	0
Output	*jucp_io_buff	1	1
	m_cmd_ResponsTerm()	0	0
Judgment			

m_cmd_EF_proc

	Responsible	Last update	Infinite loop	None
Coding	karashi		Verification pass	3
Test	Taki			
Judgment	karashi		Judgment	

		case1	case2	case3
Root	if((iIDA_COMMAND_DATA *jucp_io_buff)->sub_command[0] == 'R')	○	○	-
	if(luc_aris == M_OK)	○	-	-
	else	-	○	-
	else	-	-	○
	Symbol	Range		
Input	jucp_io_buff[0]	82	82	32
	*jucp_io_buff	1	1	1
	DataFram_get_Dumpload()	0,1	0	0
	m_cmd_ResponsTerm()	0	0	0
Output	jucp_io_buff[14]	1	1	1
	m_cmd_ResponsTerm()	0	0	0
Judgment				

m_cmd_EP_proc

	Responsible	Last update	Infinite loop	None
Coding	Karashi		Verification pass	3
Test	Taki			
Judgment	Karashi		Judgment	

		case1	case2	case3
Root	switch(((IIDA_COMMAND_DATA *pucp_io_buff)->sub_command[0])	○	○	○
	case 'R':	○	○	-
	if ((0x00000 / M_TRANS_DUMP_SIZE) <= ius_block)	-	-	-
	else	○	○	-
	default	-	-	○
	Symbol	Range		
Input	pucp_io_buff[8]	32,82		32
	fash_read()	0,1	0	1
Output	pucp_io_buff[14]	0,44	44	44
	ius_w_pos	15, 275	275	15
Judgment				

m_cmd_EX_proc

	Responsible	Last update	Infinite loop	None
Coding	Karashi		Verification pass	2
Test	Taki			
Judgment	Karashi		Judgment	

		case1	case2
Root	if((IIDA_COMMAND_DATA *pucp_io_buff)->sub_command[0] == 'W')	○	-
	else	-	○
	Symbol	Range	
Input	pucp_io_buff[8]	32,87	87
	*pucp_io_buff	1	1
	m_cmd_ResponsTerm()	0,1	0
			1
Output	*pucp_io_buff	1	1
	m_cmd_ResponsTerm()	0,1	0
Judgment			

m_cmd_FB_proc

	Responsible	Last update	Infinite loop	None
Coding	Karashi		Verification pass	5
Test	Taki			
Judgment	Karashi		Judgment	

		case1	case2	case3	case4	case5
Root	switch(((IIDA_COMMAND_DATA *pucp_io_buff)->sub_command[0])	○	○	○	○	○
	case 'W':	○	○	-	-	-
	if(iuc_ret == M_OK)	○	-	-	-	-
	if(iuc_ret == M_OK)	○	-	-	-	-
	else	-	○	-	-	-
	case 'R':	-	-	○	-	-
	if(iuc_ret == M_OK)	-	-	○	-	-
	if(iuc_ret == M_OK)	-	-	-	-	-
	else	-	-	-	○	-
	default	-	-	-	-	○
	Symbol	Range				
Input	pucp_io_buff[8]	32-87	87	87	82	32
	*pucp_io_buff	1	1	1	1	1
	DataFramFactory_Ali_load()	0,1	0	1	0	1
	DataFramFactory_write_op()	0,1	0	1	0	1
	FlowGasSetDisplay_End_ResetAlarmPoint()	0,1	0	1	0	1
	m_cmd_ResponsTerm()	0,1	0	1	0	1
			1	1	1	1
			1	1	1	1
Output	*pucp_io_buff	1	1	1	1	1
	m_cmd_ResponsTerm()	0,1	0	1	0	1
Judgment						

m_cmd_G0_proc

	Responsible	Last update	Infinite loop	None
Coding	Karashi		Verification pass	6
Test	Taki			
Judgment	Karashi		Judgment	

		case1	case2	case3	case4	case5	case6
Root	if(FlowMain_Get_ModeStatus() == FlowMain_MEASURE_MODE_NUMBER) (FlowMain_Get_ModeStatus() == FlowMain_DISP_MODE_NUMBER))	○	○	○	○	-	○
	switch((IIDA_COMMAND_DATA *pucp_io_buff)->sub_command[0])	○	○	○	○	-	○
	case 'W':	○	○	-	-	-	-
	if(pucp_io_buff[ius_r_pos] == '1')	○	○	-	-	-	-
	for(iuc_j=0; iuc_j<HDDDEF_GAS_MAX; iuc_j++)	○	-	-	-	-	-
	for(iuc_j=0; iuc_j<15; iuc_j++)	○	-	-	-	-	-
	for(iuc_j=0; iuc_j<9; iuc_j++)	○	-	-	-	-	-
	else	-	○	-	-	-	-
	case 'R':	-	-	○	○	-	-
	if(LoggerGXForce_Get_LoggerRun() == M_ON)	-	-	-	○	-	-
	else	-	-	○	-	-	-
	default:	-	-	-	-	-	○
	else	-	-	-	-	○	-
	Symbol	Range					
Input	pucp_io_buff[8]	32-87	87	87	82	82	32
	pucp_io_buff[10]	48,50	49	50	50	50	49
	FlowMain_Get_ModeStatus()	1-3	1	2	1	1	1
	LoggerGXForce_Get_LoggerRun()	0-2	1	1	0	1	0
	LoggerGXForce_Set(StopLoggerInterval())	0	0	0	0	0	0
	m_cmd_ResponsTerm()	0	0	0	0	0	0
			0	0	0	0	0
			0	0	0	0	0
			0	0	0	0	0
			0	0	0	0	0
Output	*pucp_io_buff	0	0	0	0	0	0
	uf_60_total	0	0	0	0	0	0
	uf_ave	0	0	0	0	0	0
	uf_ave_total_cnt	0	0	0	0	0	0
	uf_stel_point	0	0	0	0	0	0
	uf_stel_buf	0	0	0	0	0	0
	uf_stel	0	0	0	0	0	0
	uf_hwa	0	0	0	0	0	0
	uf_60min_buf	0	0	0	0	0	0
	uc_60min_count	0	0	0	0	0	0
Judgment	m_cmd_ResponsTerm()	0	0	0	0	0	0

m_cmd_GJ_proc

	Responsible	Last update	Infinite loop	None
Coding	Karashi		Verification pass	4
Test	Taki			
Judgment	Karashi		Judgment	

		case1	case2	case3	case4		
Root	switch(((tDA_COMMAND_DATA *pucp_io_buff)->sub_command[0])	○	○	○	○		
	case 'W':	○	○	-	-		
	for(luc_i=0; luc_i<HDDDEF_GAS_MAX; luc_i++)	○	○	-	-		
	if(Tool_Comp_Pnt(&pucp_io_buff[luc_r_pos+(luc_i*3)], &luc_m_non_data[0], 2) != 0)	○	-	-	-		
	if((luc_gas < HDDDEF_GAS_TABLE_MAX) && ((stp_GasInfo_addr+luc_i-> uc_gas_comb != luc_gas))	○	-	-	-		
	if(Tool_Comp_Pnt(&GasTableDefData[luc_j][luc_gas] uc_name[0], &luc_m_non_data[0], 10) != 0)	○	-	-	-		
	for(luc_i=0; luc_i<HDDDEF_GAS_MAX; luc_i++)	○	○	-	-		
	if(luc_i != 0u)	○	○	-	-		
	else	○	○	-	-		
	case 'R':	-	-	○	-		
	for(luc_i=0; luc_i<HDDDEF_GAS_MAX; luc_i++)	-	-	○	-		
	if(luc_i != 0u)	-	-	○	-		
	else	-	-	○	-		
	if(stp_GasInfo_addr+luc_i->uc_gas_comb != 0x00)	-	-	○	-		
	else	-	-	○	-		
	default:	-	-	-	○		
	Input	Symbol	Range				
		pucp_io_buff[8]	32-87	87	87	82	32
		*pucp_io_buff	1	1	1	1	1
		uc_gas_comb	0,1	1	0	0	1
uc_disp_name[0][0]		0,1	0	0	0	1	
uc_name[0][0]		0,1	0	0	0	1	
ul_buff_scale		0,1	0	0	0	1	
ul_digt		0,1	0	0	0	1	
uc_uni_dec		0,1	0	0	0	1	
Tool_Comp_Pnt()		0,1	1	1	0	1	
Tool_Hex_Asc()		0,1	0	0	0	1	
m_cmd_ResponsTerm()		0,1	0	0	0	1	
Output		*pucp_io_buff	1	1	1	1	
	m_cmd_ResponsTerm()	0,1	0	0	1		
Judgment							

m_cmd_GT_proc

	Responsible	Last update	Infinite loop	None
Coding	Karashi		Verification pass	3
Test	Taki			
Judgment	Karashi		Judgment	

Root	switch(((tRDA_COMMAND_DATA *pucp_io_buff)->sub_command[0])	case1	case2	case3
	case 'W':	○	○	○
	case 'R':	○	-	-
	default:	○	○	-
		-	-	○
	Symbol	Range		
Input	pucp_io_buff[8]	32-87		
	pucp_io_buff[10]	0	87	82
	uc_long_energy_flg	0	0	0
	m_CHK_AscOrDec()	0	0	0
	m_CHK_DecOrAsc()	0	0	0
	m_cmd_ResponseTerm()	0	0	0
		0	0	0
Output	*pucp_io_buff	0	0	0
	uc_long_energy_flg	0	0	0
	m_cmd_ResponseTerm()	0	0	0
Judgment				

m_cmd_GY_proc

	Responsible	Last update	Infinite loop	None
Coding	Karashi		Verification pass	5
Test	Taki			
Judgment	Karashi		Judgment	

Root			case1	case2	case3	case4	case5
	switch(((tIDA_COMMAND_DATA *pucp_io_buff)->sub_command[0])		○	○	○	○	○
	case 'W':		○	○	-	-	-
	if(pucp_io_buff[luc_r_pos] == '0')		○	-	-	-	-
	else		-	-	-	-	-
	case 'R':		○	○	○	○	-
	if(stp_data->uc_disp_long_e_flg == GAS_CALC_NC_DISP_LONG_OFF)		○	-	-	○	-
	else		-	-	○	-	-
	default:		-	-	-	-	○
Input	Symbol	Range					
	pucp_io_buff[8]	32-87	87	87	82	82	32
	pucp_io_buff[10]	48-50	48	49	50	50	50
	uc_disp_long_e_flg	0,1	0	0	0	1	1
	m_cmd_ResponsTerm()	0	0	0	0	0	0
Output	*pucp_io_buff	0	0	0	0	0	0
	uc_disp_long_e_flg	0,1	1	0	0	1	1
	m_cmd_ResponsTerm()	0	0	0	0	0	0
Judgment							

m_cmd_H1_proc

	Responsible	Last update	Infinite loop	None
Coding	Karashi		Verification pass	2
Test	Taki			
Judgment	Karashi		Judgment	

		case1	case2	
Root	if((tIDA_COMMAND_DATA *pucp_io_buff)->sub_command[0] == 'R')	○	-	
	for(luc_i=0; luc_i<HDDDEF_GAS_MAX; luc_i++)	○	-	
	if(luc_i != 0U)	○	-	
	else	○	-	
	else	-	○	
Input	Symbol	Range		
	pucp_io_buff[8]	32-82	82	32
	*pucp_io_buff	1	1	1
	uc_disp_long_e_flg	1	1	1
	uc_cal_sdm[0]	0,1	0	1
	m_cmd_ResponsTerm()	1	1	1
	Output	1	1	1
Output	*pucp_io_buff	1	1	1
	m_cmd_ResponsTerm()	0,1	0	1
Judgment				

m_cmd_H3_proc

	Responsible	Last update	Infinite loop	None
Coding	Karashi		Verification pass	2
Test	Taki			
Judgment	Karashi		Judgment	

		case1	case2	
Root	if((tDA_COMMAND_DATA *pucp_io_buff)->sub_command[0] == 'R')	○	-	
	for(luc_i=0; luc_i<HDDDEF_GAS_MAX; luc_i++)	○	-	
	if(luc_i != 0U)	○	-	
	else	○	-	
	else	-	○	
	Symbol	Range		
Input	pucp_io_buff[8]	32-82	82	32
	*pucp_io_buff	1	1	1
	uc_buinp_sdm[0]	0	0	0
	m_cmd_ResponsTerm()	0	0	0
Output	*pucp_io_buff	1	1	1
	m_cmd_ResponsTerm()	0	0	0
Judgment				

m_cmd_HA_proc

	Responsible	Last update	Infinite loop	None
Coding	Karashi		Verification pass	2
Test	Taki			
Judgment	Karashi		Judgment	

			case1	case2
Root	R(((IRDA_COMMAND_DATA *jpucp_io_buff)->sub_command[0] == 'R')		O	-
	for(luc_i=0U; luc_i<AD12BIT_CH_MAX; luc_i++)		O	-
	for(luc_j=0U; luc_j<2U; luc_j++)		O	-
	for(luc_k=0U; luc_k<3U; luc_k++)		O	-
	for(luc_l=0U; luc_l<3U; luc_l++)		O	-
	else		-	O
	Symbol	Range		
Input	jpucp_io_buff[0]	32-82	82	32
	*jpucp_io_buff	1	1	1
	Ad12bit_Get_Ad_Data()	0	0	0
	!_nc_ad_data[0][0]	0	0	0
	!_sc_ad_data[0]	0	0	0
	!_temp_ad_data	0	0	0
	!_temp_data	0	0	0
	Tool_Hex_Asc()	0	0	0
	m_cmd_ResponsTerm()	0	0	0
	jpucp_io_buff[18]	0-44	0	44
	m_cmd_ResponsTerm()	0	0	0
Output				
Judgment				

m_cmd_HC_proc

	Responsible	Last update	Infinite loop	None
Coding	Karashi		Verification pass	3
Test	Taki			
Judgment	Karashi		Judgment	

			case1	case2	case3
Root	switch(((IRDA_COMMAND_DATA *jpucp_io_buff)->sub_command[0])		O	O	O
	case 'W':		O	-	-
	case 'R':		O	O	-
	default:		-	-	O
	Symbol	Range			
Input	jpucp_io_buff[0]	32-87	87	82	32
	*jpucp_io_buff	1	1	1	1
	RTC_DataAndTime_Config()	0	0	0	0
	Tool_Pac_Diec()	0	0	0	0
	m_cmd_ResponsTerm()	0	0	0	0
	jpucp_io_buff	1	1	1	1
	m_cmd_ResponsTerm()	0	0	0	0
Output					
Judgment					

m_cmd_HF_proc

	Responsible	Last update	Infinite loop	None
Coding	Karashi		Verification pass	3
Test	Taki			
Judgment	Karashi		Judgment	

			case1	case2	case3
Root	switch(((IRDA_COMMAND_DATA *jpucp_io_buff)->sub_command[0])		O	O	O
	case 'W':		O	-	-
	R((!us_dac_output >= PRESSURE_OUTPUT_MIN_PER) && (!us_dac_output <= PRESSURE_OUTPUT_MAX_PER))		-	-	-
	else:		O	-	-
	case 'R':		O	O	-
	default:		-	-	O
	Symbol	Range			
Input	jpucp_io_buff[0]	32-87	87	82	32
	*jpucp_io_buff	1	1	1	1
	us_flow_output	0	0	0	0
	Tool_Hex_Asc()	0	0	0	0
	m_cmd_ResponsTerm()	0	0	0	0
	jpucp_io_buff	1	1	1	1
	us_flow_output	0	0	0	0
Output					
Judgment					

m_cmd_HN_proc

	Responsible	Last update	Infinite loop	None
Coding	Karashi		Verification pass	3
Test	Taki			
Judgment	Karashi		Judgment	

			case1	case2	case3
Root	switch(((IRDA_COMMAND_DATA *jpucp_io_buff)->sub_command[0])		O	O	O
	case 'W':		O	-	-
	case 'R':		O	O	-
	default:		-	-	O
	Symbol	Range			
Input	jpucp_io_buff[0]	32-87	87	82	32
	*jpucp_io_buff	1	1	1	1
	uc_1_serial[0]	0	0	0	0
	m_cmd_ResponsTerm()	0	0	0	0
	jpucp_io_buff	1	1	1	1
	m_cmd_ResponsTerm()	0	0	0	0
Output					
Judgment					

m_cmd_IN_proc

	Responsible	Last update	Infinite loop	None
Coding	Karashi		Verification pass	3
Test	Taki			
Judgment	Karashi		Judgment	

			case1	case2	case3
Root	switch(((IRDA_COMMAND_DATA *jpucp_io_buff)->sub_command[0])		O	O	O
	case 'W':		O	-	-
	case 'R':		O	O	-
	default:		-	-	O
	Symbol	Range			
Input	jpucp_io_buff[0]	32-87	87	82	32
	*jpucp_io_buff	1	1	1	1
	uc_1_serial[0]	0	0	0	0
	m_cmd_ResponsTerm()	0	0	0	0
	jpucp_io_buff	1	1	1	1
Output					
Judgment					

m_cmd_JZ_proc

	Responsible	Last update	Infinite loop	None
Coding	Karashi		Verification pass	4
Test	Taki			
Judgment	Karashi		Judgment	

			case1	case2	case3	case4
Root	switch(((irDA_COMMAND_DATA *jpucp_io_buff)->sub_command[0])		○	○	○	○
	case 'W':		○	○	-	-
	if(pucp_io_buff[bus_r_pos] == '0')		○	-	-	-
	else		-	○	-	-
	case 'R':		○	○	○	-
	if(stp_data->uc_key_tone_onoff == M_OFF)		○	-	○	-
	else		-	○	-	-
default:			-	-	-	○
Input	Symbol	Range				
	pucp_io_buff[8]	32-87	87	82	82	32
	pucp_io_buff[10]	0,48	48	0	0	0
	uc_key_tone_onoff	0,1	1	0	0	0
	m_cmd_ResponsTerm()	0,1	1	0	0	0
Output	*pucp_io_buff	0	0	0	0	0
	uc_key_tone_onoff	0,1	0	1	0	0
	m_cmd_ResponsTerm()	0,1	1	0	0	0
Judgment						

m_cmd_KW_proc

	Responsible	Last update	Infinite loop	None
Coding	Karashi		Verification pass	2
Test	Taki			
Judgment	Karashi		Judgment	

			case1	case2
Root	if(((irDA_COMMAND_DATA *jpucp_io_buff)->sub_command[0] == 'R')		○	-
	else		-	○
			-	-
Symbol		Range		
			82	32
Input	pucp_io_buff[8]	32-82	82	32
	*pucp_io_buff	1	1	1
	KeyEvent_Get_KeyPort()	0	0	0
	m_cmd_ResponsTerm()	0	0	0
Output	*pucp_io_buff	1	1	1
	m_cmd_ResponsTerm()	0	0	0
Judgment				

m_cmd_LB_proc

	Responsible	Last update	Infinite loop	None
Coding	Karashi		Verification pass	5
Test	Taki			
Judgment	Karashi		Judgment	

			case1	case2	case3	case4	case5
Root	switch(((irDA_COMMAND_DATA *jpucp_io_buff)->sub_command[0])		○	○	○	○	○
	case 'W':		○	○	-	-	-
	if(uc_ret == M_OK)		○	-	-	-	-
	else		-	○	-	-	-
	case 'R':		-	-	○	○	-
	if(uc_ret == M_OK)		-	-	○	○	-
	else		-	-	-	-	-
default:			-	-	-	-	○
Symbol		Range					
			87	87	82	82	32
Input	pucp_io_buff[8]	32-87	87	82	82	32	32
	*pucp_io_buff	1	1	1	1	1	1
	FuncLunchBreak_Get_LunchBreakFramData()	0,1	0	1	0	1	0
	FuncLunchBreak_Set_LunchBreakFramData()	0,1	0	1	0	1	0
	m_cmd_ResponsTerm()	0	0	0	0	0	0
Output	*pucp_io_buff	1	1	1	1	1	1
	m_cmd_ResponsTerm()	0	0	0	0	0	0
Judgment							

m_cmd_LI_proc

	Responsible	Last update	Infinite loop	None
Coding	Karashi		Verification pass	3
Test	Taki			
Judgment	Karashi		Judgment	

			case1	case2	case3
Root	if(((irDA_COMMAND_DATA *jpucp_io_buff)->sub_command[0] == 'R')		○	○	-
	if(uc_gas < HDEF_GAS_MAX && uc_list < HDEF_GAS_TABLE_MAX)		○	○	-
	else		-	-	-
	else		-	-	○
			-	-	-
Symbol		Range			
			82	82	32
Input	pucp_io_buff[8]	32-82	82	82	32
	*pucp_io_buff	1	1	1	1
	Tool_Hex_Asc()	0,1	0	1	0
	m_cmd_ResponsTerm()	0,1	0	1	0
Output	*pucp_io_buff	1	1	1	1
	m_cmd_ResponsTerm()	0,1	0	1	0
Judgment					

m_cmd_LJ_proc

	Responsible	Last update	Infinite loop	None
Coding	Karashi		Verification pass	5
Test	Taki			
Judgment	Karashi		Judgment	

			case1	case2	case3	case4	case5
Root	switch(((irDA_COMMAND_DATA *jpucp_io_buff)->sub_command[0])		○	○	○	○	○
	case 'W':		○	○	○	-	-
	if(pucp_io_buff[bus_r_pos] == '2')		○	-	-	-	-
	else if(pucp_io_buff[bus_r_pos] == '1')		-	○	-	-	-
	else		-	-	○	-	-
	case 'R':		○	○	○	○	-
	if(stp_data->uc_sel_sel_flg == 2)		○	-	-	○	-
else if(stp_data->uc_sel_sel_flg == 1)			-	○	-	-	-
	else		-	-	○	-	-
default:			-	-	-	-	○
Symbol		Range					
			87	87	87	82	32
Input	pucp_io_buff[8]	32-87	50	49	48	0	0
	pucp_io_buff[10]	0-50	2	1	0	2	0
	uc_sel_sel_flg	0-2	0	0	0	0	0
	uc_gas_comb	0	0	0	0	0	0
	uc_sub_comb	0	0	0	0	0	0
	m_cmd_ResponsTerm()	0	0	0	0	0	0
Output	*pucp_io_buff	0	0	0	0	0	0
	uc_sel_sel_flg	0-2	2	1	0	2	0
	fl_sel_ratio	0	0	0	0	0	0
	m_cmd_ResponsTerm()	0	0	0	0	0	0
Judgment							

m_cmd_LK_proc

	Responsible	Last update	Infinite loop	None
Coding	Karashi		Verification pass	2
Test	Taki			
Judgment	Karashi		Judgment	

		case1	case2
Root	if((irDA_COMMAND_DATA *jpucp_io_buff)->sub_command[0] == 'R')	○	○
	else	-	○
	Symbol	Range	
Input	jpucp_io_buff[8]	32-82	
	*jpucp_io_buff	1	1
	uc_rc_mode_flg	0	0
	m_Chk_DecOnOffAscii()	0	0
	m_cmd_ResponsTerm()	0	0
Output	*jpucp_io_buff	1	1
	m_cmd_ResponsTerm()	0	0
Judgment			

m_cmd_LP_proc

	Responsible	Last update	Infinite loop	None
Coding	Karashi		Verification pass	4
Test	Taki			
Judgment	Karashi		Judgment	

		case1	case2	case3	case4
Root	switch((irDA_COMMAND_DATA *jpucp_io_buff)->sub_command[0])	○	○	○	○
	case 'W':	○	-	-	-
	if(luc_data != 0 && luc_data < HDDEF_GAS_TABLE_MAX)	-	-	-	-
	else	○	-	-	-
	case 'R':	○	○	-	-
	case 'G':	-	-	○	-
	if(luc_data < HDDEF_GAS_TABLE_MAX && (GasTableDefData[0][luc_data] uc_uni_dec & 0x0f) == 0x10)	-	-	-	-
	if(!NCTableDefData[luc_data] uc_mesa_group & 0x01) == 0x01)	-	-	-	-
	else	-	-	-	-
	else	-	-	○	-
	default:	-	-	-	○
	Symbol	Range			
Input	jpucp_io_buff[8]	32-87			
	*jpucp_io_buff	1	1	1	1
	Tool_Hex_Asc()	0	0	0	0
	uc_sub_comb	0	0	0	0
	m_cmd_ResponsTerm()	0	0	0	0
Output	*jpucp_io_buff	1	1	1	1
	uc_sub_comb	0	0	0	0
	m_cmd_ResponsTerm()	0	0	0	0
Judgment					

m_cmd_LQ_proc

	Responsible	Last update	Infinite loop	None
Coding	Karashi		Verification pass	3
Test	Taki			
Judgment	Karashi		Judgment	

		case1	case2	case3
Root	switch((irDA_COMMAND_DATA *jpucp_io_buff)->sub_command[0])	○	○	○
	case 'W':	○	-	-
	for(luc_i=0; luc_i<HDDEF_GAS_MAX; luc_i++)	○	-	-
	case 'R':	○	○	-
	for(luc_i=0; luc_i<HDDEF_GAS_MAX; luc_i++)	○	○	-
	if(luc_i != 0x0)	○	○	-
	else	○	○	-
	default:	-	-	○
	Symbol	Range		
Input	jpucp_io_buff[8]	32-87		
	*jpucp_io_buff	1	1	1
	uc_cal_group	0	0	0
	Tool_Asc_Dec()	0	0	0
	m_cmd_ResponsTerm()	0	0	0
Output	*jpucp_io_buff	1	1	1
	uc_cal_group	0	0	0
	m_cmd_ResponsTerm()	0	0	0
Judgment				

m_cmd_MO_proc

	Responsible	Last update	Infinite loop	None
Coding	Karashi		Verification pass	4
Test	Taki			
Judgment	Karashi		Judgment	

		case1	case2	case3	case4
Root	switch((irDA_COMMAND_DATA *jpucp_io_buff)->sub_command[0])	○	○	○	○
	case 'W':	○	○	-	-
	if(jpucp_io_buff[lus_r_pos] == 'r')	○	-	-	-
	else	-	○	-	-
	case 'R':	○	○	-	-
	if(stp_data->uc_user_pass_onoff == M_OFF)	○	-	○	-
	else	-	○	-	-
	default:	-	-	-	○
	Symbol	Range			
Input	jpucp_io_buff[8]	32-87			
	jpucp_io_buff[10]	0-50	48	49	50
	uc_user_pass_onoff	0,1	1	0	0
	us_user_pass_num	0	0	0	0
	Tool_Asc_Dec()	0	0	0	0
	m_cmd_ResponsTerm()	0	0	0	0
Output	*jpucp_io_buff	0	0	0	0
	uc_user_pass_onoff	0,1	0	1	0
	us_user_pass_num	0	0	0	0
	m_cmd_ResponsTerm()	0	0	0	0
Judgment					

m_cmd_MP_proc

	Responsible	Last update	Infinite loop	None
Coding	Karashi		Verification pass	4
Test	Taki			
Judgment	Karashi		Judgment	

		case1	case2	case3	case4
Root	switch((irDA_COMMAND_DATA *jpucp_io_buff)->sub_command[0])	○	○	○	○
	case 'W':	○	○	-	-
	if(jpucp_io_buff[lus_r_pos] == 'r')	○	-	-	-
	else	-	○	-	-
	case 'R':	○	○	-	-
	if(stp_data->uc_user_pass_onoff == M_OFF)	○	-	○	-
	else	-	○	-	-
	default:	-	-	-	○
	Symbol	Range			
Input	jpucp_io_buff[8]	32-87			
	jpucp_io_buff[10]	0-50	48	49	50
	uc_mainte_pass_onoff	0,1	1	0	0
	us_mainte_pass_num	0	0	0	0
	Tool_Asc_Dec()	0	0	0	0
	m_cmd_ResponsTerm()	0	0	0	0
Output	*jpucp_io_buff	0	0	0	0
	uc_mainte_pass_onoff	0,1	0	1	0
	us_mainte_pass_num	0	0	0	0
	m_cmd_ResponsTerm()	0	0	0	0
Judgment					

m_cmd_MR_proc

	Responsible	Last update	Infinite loop	None
Coding	Karashi		Verification pass	5
Test	Taki			
Judgment	Karashi		Judgment	

		case1	case2	case3	case4	case5
Root	switch(((tIDA_COMMAND_DATA *jpucp_io_buff)->sub_command[0])	○	○	○	○	○
	case 'W':	○	○	-	-	-
	if(pucp_io_buff[lus_r_pos+7] == '2')	○	-	-	-	-
	else if(pucp_io_buff[lus_r_pos+7] == '1')	-	○	-	-	-
	else	○	○	-	-	-
	case 'R':	○	-	○	○	-
	if(stp_data->uc_mainte_lmt_chk == 2)	○	-	○	○	-
	else if(stp_data->uc_mainte_lmt_chk == 1)	-	○	-	-	-
	else	-	○	-	-	-
	default:	-	-	-	-	○
Input	Symbol	Range				
	pucp_io_buff[6]	32-67	87	87	82	82
	pucp_io_buff[10]	0,1	0	0	0	0
	pucp_io_buff[17]	0-50	50	49	49	0
	uc_mainte_notice_onoff	0	0	0	0	0
	us_mainte_lmt_chk	0-2	2	1	0	2
	us_mainte_notice_delay	0	0	0	0	0
	m_Chk_AscIOnOffDec()	0	0	0	0	0
	m_Chk_DecOnOffAsc()	0	0	0	0	0
	Tool_Hex_Asc()	0	0	0	0	0
	m_cmd_ResponsTerm()	0	0	0	0	0
	*pucp_io_buff	1	1	1	1	1
	uc_mainte_notice_onoff	0	0	0	0	0
	us_mainte_lmt_chk	0-2	2	1	0	2
	m_cmd_ResponsTerm()	0	0	0	0	0
Output	*pucp_io_buff	1	1	1	1	1
	m_cmd_ResponsTerm()	0	0	0	0	0
Judgment						

m_cmd_MX_proc

	Responsible	Last update	Infinite loop	None
Coding	Karashi		Verification pass	2
Test	Taki			
Judgment	Karashi		Judgment	

		case1	case2
Root	if(((tIDA_COMMAND_DATA *jpucp_io_buff)->sub_command[0] == 'R')	○	-
	else	-	○
Input	Symbol	Range	
	pucp_io_buff[6]	32-82	82
	*pucp_io_buff	1	1
	m_cmd_ResponsTerm()	0	0
Output	*pucp_io_buff	1	1
	m_cmd_ResponsTerm()	0	0
Judgment			

m_cmd_MY_proc

	Responsible	Last update	Infinite loop	None
Coding	Karashi		Verification pass	4
Test	Taki			
Judgment	Karashi		Judgment	

		case1	case2	case3	case4
Root	switch(((tIDA_COMMAND_DATA *jpucp_io_buff)->sub_command[0])	○	○	○	○
	case 'W':	○	○	-	-
	if(stp_data->uc_nci_download_flg == M_OFF)	○	-	-	-
	case 'R':	○	○	○	-
	default:	-	-	-	○
Input	Symbol	Range			
	pucp_io_buff[6]	32-67	87	87	82
	pucp_io_buff[10]	0,1	0	0	0
	uc_nci_download_flg	0,1	0	1	0
	m_Chk_AscIOnOffDec()	0,1	0	1	0
	m_Chk_DecOnOffAsc()	0,1	0	1	0
	m_cmd_ResponsTerm()	0,1	0	1	0
	*pucp_io_buff	1	1	1	1
Output	uc_nci_download_flg	0,1	0	1	0
	m_cmd_ResponsTerm()	0	0	0	0
Judgment					

m_cmd_MZ_proc

	Responsible	Last update	Infinite loop	None
Coding	Karashi		Verification pass	5
Test	Taki			
Judgment	Karashi		Judgment	

		case1	case2	case3	case4	case5
Root	switch(((tIDA_COMMAND_DATA *jpucp_io_buff)->sub_command[0])	○	○	○	○	○
	case 'W':	○	○	○	-	-
	for(luc_i=0; luc_i<HDDDEF_GAS_MAX; luc_i++)	○	○	○	-	-
	if(pucp_io_buff[lus_r_pos+luc_i] == '1')	○	-	-	-	-
	else if(pucp_io_buff[lus_r_pos+luc_i] == '2')	-	○	○	-	-
	else	○	○	-	-	-
	case 'R':	○	○	○	○	-
	for(luc_i=0; luc_i<HDDDEF_GAS_MAX; luc_i++)	○	○	○	○	-
	if((stp_GasIntrb_addr+luc_i)->uc_nci_active_flg == FUNC_BEEP_NCI_FLG_ON)	○	-	-	-	-
	else if((stp_GasIntrb_addr+luc_i)->uc_nci_active_flg == FUNC_BEEP_NCI_FLG_DL)	-	○	○	○	-
	else	○	○	-	○	-
	default:	-	-	-	-	○
Input	Symbol	Range				
	pucp_io_buff[6]	32-67	87	87	87	82
	pucp_io_buff[10]	0-51	49	50	51	0
	uc_nci_active_flg	0-2	0	1	2	2
	m_cmd_ResponsTerm()	0	0	0	0	0
	*pucp_io_buff	0	0	0	0	0
Output	uc_nci_active_flg	0-2	1	2	0	2
	m_cmd_ResponsTerm()	0	0	0	0	0
Judgment						

m_cmd_OI_proc

	Responsible	Last update	Infinite loop	None
Coding	Karashi		Verification pass	4
Test	Taki			
Judgment	Karashi		Judgment	

		case1	case2	case3	case4	
Root	switch(((tDA_COMMAND_DATA *pucp_io_buff)->sub_command[0])	O	O	O	O	
	case 'W':	O	O	-	-	
	if(pucp_io_buff[bus_r_pos] == '0')	O	-	-	-	
	else	-	O	-	-	
	if(pucp_io_buff[bus_r_pos+2] == '0'){	O	-	-	-	
	else	-	O	-	-	
	case 'R':	O	O	O	-	
	if(stp_data->uc_bump_end_initial == M_OFF)	O	-	O	-	
	else	-	O	-	-	
	if(stp_data->uc_cal_end_initial == M_OFF)	O	-	O	-	
	else	-	O	-	-	
	default:	-	-	-	O	
Input	Symbol	Range				
	pucp_io_buff[8]	32-87	87	87	82	32
	pucp_io_buff[10]	0-49	48	49	0	0
	pucp_io_buff[12]	0-49	48	49	0	0
	uc_bump_end_initial	0,1	1	0	0	0
	uc_cal_end_initial	0,1	1	0	0	0
	m_cmd_ResponsTerm()	0	0	0	0	0
Output	*pucp_io_buff	0	0	0	0	0
	uc_bump_end_initial	0,1	0	1	0	0
	uc_cal_end_initial	0,1	0	1	0	0
	m_cmd_ResponsTerm()	0	0	0	0	0
Judgment						

m_cmd_PG_proc

	Responsible	Last update	Infinite loop	None
Coding	Karashi		Verification pass	4
Test	Taki			
Judgment	Karashi		Judgment	

		case1	case2	case3	case4	
Root	switch(((tDA_COMMAND_DATA *pucp_io_buff)->sub_command[0])	O	O	O	O	
	case 'W':	O	O	-	-	
	if(pucp_io_buff[bus_r_pos] == '0')	O	-	-	-	
	else	-	O	-	-	
	case 'R':	O	O	O	-	
	if(stp_data->uc_protect_pword_onoff == M_OFF)	O	-	O	-	
	else	-	O	-	-	
	default:	-	-	-	O	
Symbol		Range				
Input	pucp_io_buff[8]	32-87				
	pucp_io_buff[10]	0-49	87	87	82	32
	uc_protect_pword_onoff	0,1	48	49	0	0
Output	m_cmd_ResponsTerm()	0	1	0	0	0
	*pucp_io_buff	0	0	0	0	0
	uc_protect_pword_onoff	0,1	0	1	0	0
Judgment	m_cmd_ResponsTerm()	0	0	0	0	0

m_cmd_PN_proc

	Responsible	Last update	Infinite loop	None
Coding	Karashi		Verification pass	3
Test	Taki			
Judgment	Karashi		Judgment	

		case1	case2	case3	
Root	switch(((tDA_COMMAND_DATA *pucp_io_buff)->sub_command[0])	O	O	O	
	case 'W':	O	-	-	
	case 'R':	O	-	-	
	default:	-	-	O	
	Symbol	Range			
Input	pucp_io_buff[8]	32-87	87	82	32
	pucp_io_buff[10]	0	0	0	0
	uc_margin_disp_onoff	0	0	0	0
	m_Chk_AsciiOnOffDec()	0	0	0	0
	m_Chk_DescOnOffAscii()	0	0	0	0
Output	m_cmd_ResponsTerm()	0	0	0	0
	*pucp_io_buff	0	0	0	0
	uc_margin_disp_onoff	0	0	0	0
	m_cmd_ResponsTerm()	0	0	0	0
Judgment					

m_cmd_PS_proc

	Responsible	Last update	Infinite loop	None
Coding	karashi		Verification pass	3
Test	Taki			
Judgment	karashi		Judgment	

		case1	case2	case3
Root	switch(((rDA_COMMAND_DATA *pucp_io_buff)->sub_command[0])	O	O	O
	case 'W':	O	-	-
	for(luc_i:=0; luc_i<HDDDEF_GAS_MAX; luc_i++)	O	-	-
	case 'R':	O	O	-
	for(luc_i:=0; luc_i<HDDDEF_GAS_MAX; luc_i++)	O	O	-
	if(luc_i != 0x)	O	O	-
	else	O	O	-
	default:	-	-	O
Input	Symbol	Range		
	pucp_io_buff[8]	32-87	87	82
	*pucp_io_buff	1	1	1
	uc_notice_date	0	0	0
	Tool_Asc_Desc()	0	0	0
	m_cmd_ResponsTerm()	0	0	0
Output	*pucp_io_buff	0	0	0
	uc_notice_date	0	0	0
	m_cmd_ResponsTerm()	0	0	0
Judgment				

m_cmd_RA_proc

	Responsible	Last update	Infinite loop	None
Coding	karashi	2021/7/6	Verification pass	4
Test	Taki			
Judgment	karashi		Judgment	

		case1	case2	case3	case4
Root	switch(((rDA_COMMAND_DATA *pucp_io_buff)->sub_command[0])	O	O	O	O
	case 'W':	O	O	-	-
	if(pucp_io_buff[lus_r_pos] == '0')	O	O	-	-
	else	-	O	-	-
	if(luc_buzzer_fg > 2)	-	-	-	-
	case 'R':	O	O	O	-
	default:	-	-	-	O
Input	Symbol	Range			
	pucp_io_buff[8]	32-87	87	87	82
	pucp_io_buff[10]	0-49	48	49	0
	Buzzer_Clk_TestFlag()	0	0	0	0
	Tool_Asc_Desc()	0-2	0	2	0
	m_cmd_ResponsTerm()	0	0	0	0
Output	*pucp_io_buff	0	0	0	0
	m_cmd_ResponsTerm()	0	0	0	0
Judgment					

m_cmd_RC_proc

	Responsible	Last update	Infinite loop	None
Coding	karashi		Verification pass	2
Test	Taki			
Judgment	karashi		Judgment	

		case1	case2
Root	if(((rDA_COMMAND_DATA *pucp_io_buff)->sub_command[0] == 'R')	O	-
	else	-	O
Input	Symbol	Range	
	pucp_io_buff[8]	32-82	82
Output	*pucp_io_buff	1	1
	m_cmd_ResponsTerm()	0	0
Output	*pucp_io_buff	1	1
	m_cmd_ResponsTerm()	0	0
Judgment			

m_cmd_RL_proc

	Responsible	Last update	Infinite loop	None
Coding	karashi		Verification pass	3
Test	Taki			
Judgment	karashi		Judgment	

		case1	case2	case3
Root	switch(((rDA_COMMAND_DATA *pucp_io_buff)->sub_command[0])	O	O	-
	case 'S':	O	-	-
	case 'E':	-	O	-
	default:	-	-	O
Input	Symbol	Range		
	pucp_io_buff[8]	32-83	83	69
Output	*pucp_io_buff	1	1	1
	m_cmd_ResponsTerm()	0	0	0
	*pucp_io_buff	1	1	1
	m_cmd_ResponsTerm()	0	0	0
Judgment				

m_cmd_RM_proc

	Responsible	Last update	Infinite loop	None
Coding	karashi		Verification pass	3
Test	Taki			
Judgment	karashi		Judgment	

		case1	case2	case3
Root	switch(((rDA_COMMAND_DATA *pucp_io_buff)->sub_command[0])	O	O	O
	case 'S':	O	-	-
	case 'E':	-	O	-
	default:	-	-	O
Input	Symbol	Range		
	pucp_io_buff[8]	32-83	83	69
Output	*pucp_io_buff	1	1	1
	m_cmd_ResponsTerm()	0	0	0
	*pucp_io_buff	0	0	0
	m_cmd_ResponsTerm()	0	0	0
Judgment				

m_cmd_RO_proc

	Responsible	Last update	Infinite loop	None
Coding	karashi		Verification pass	2
Test	Taki			
Judgment	karashi		Judgment	

		case1	case2
Root	if(((rDA_COMMAND_DATA *pucp_io_buff)->sub_command[0] == 'W')	O	
	else	-	O
Input	Symbol	Range	
	pucp_io_buff[8]	32.87	87
Output	*pucp_io_buff	1	1
	m_cmd_ResponsTerm()	0	0
Output	*pucp_io_buff	1	1
	m_cmd_ResponsTerm()	0	0
Judgment			

m_cmd_ResponsTerm

	Responsible	Last update	Infinite loop	None
Coding	Karashi		Verification pass	2
Test	Taki			
Judgment	Karashi		Judgment	

		case1	case2
Root	None	-	-
	Symbol	Range	
Input	*pucp_io_buff	0,255	0 255
	*pucp_io_buff	0,65535	0 65535
	m_calc_PCSum()	0	0 1
	str_set_uw_hex	0,1	0 1
Output	avr_w_pos	2	2 2
	*pucp_io_buff	3,255	3 255
Judgment			

m_cmd_S2_proc

	Responsible	Last update	Infinite loop	None
Coding	Karashi		Verification pass	14
Test	Taki			
Judgment	Karashi		Judgment	

		case1	case2	case3	case4	case5	case6	case7	case8	case9	case10	case11	case12	case13	case14
Root	switch(((IDA_COMMAND_DATA *pucp_io_buff)->sub_command[0]))	O	O	O	O	O	O	O	O	O	O	O	O	O	O
	case 'W':	O	O	O	-	-	-	-	-	-	-	-	-	-	-
	for(luc_i = 0; luc_i < HDDEF_GAS_MAX; luc_i++)	O	O	O	-	-	-	-	-	-	-	-	-	-	-
	if(GasFuncAutoCal_Calc_Get_AutoCalFlag() == M_OFF)	O	-	O	-	-	-	-	-	-	-	-	-	-	-
	for(luc_i=0; luc_i<HDDEF_GAS_MAX; luc_i++)	O	-	O	-	-	-	-	-	-	-	-	-	-	-
	if(uj_denst != M_OFF_VAL)	O	-	-	-	-	-	-	-	-	-	-	-	-	-
	else	-	O	-	-	-	-	-	-	-	-	-	-	-	-
	case 'D':	-	-	-	-	O	O	O	O	O	-	-	-	-	-
	if((stp_data->uc_up_cal_flg & 0x01))	-	-	-	-	-	O	O	O	O	-	-	-	-	-
	else	-	-	-	-	O	-	-	-	-	-	-	-	-	-
	if((stp_data->uc_up_cal_flg & 0x02))	-	-	-	-	O	-	O	O	O	-	-	-	-	-
	else	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	if((stp_data->uc_up_cal_flg & 0x04))	-	-	-	-	O	O	-	O	O	-	-	-	-	-
	else	-	-	-	-	-	-	O	-	-	-	-	-	-	-
	if((stp_data->uc_up_cal_flg & 0x08))	-	-	-	-	O	O	O	-	O	-	-	-	-	-
	else	-	-	-	-	-	-	-	O	-	-	-	-	-	-
	case 'R':	-	-	-	O	O	O	O	O	O	-	-	-	-	-
	case 'C':	-	-	-	-	-	-	-	-	-	O	O	O	O	-
	if(GasFuncAutoCal_Calc_Get_AutoCalFlag() == M_OFF)	-	-	-	-	-	-	-	-	-	O	O	O	O	-
	for(luc_i=0; luc_i<HDDEF_GAS_MAX; luc_i++)	-	-	-	-	-	-	-	-	-	O	O	O	O	-
	if(lucs_cal_flg == M_ON)	-	-	-	-	-	-	-	-	-	O	O	O	O	-
	if(stp_gasinfo_addr + luc_i->uc_gas_comb != 0x00)	-	-	-	-	-	-	-	-	-	-	O	O	-	-
	if(stp_denst + luc_i->uc_state_trb & DataStructConst_S_FAIL_SPN)	-	-	-	-	-	-	-	-	-	-	O	-	-	-
	else	-	-	-	-	-	-	-	-	-	-	O	O	-	-
	if((stp_denst + luc_i->uc_state_trb & (DataStructConst_S_FAIL_INS DataStructConst_S_FAIL_SEN))	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	else	-	-	-	-	-	-	-	-	-	-	O	O	-	-
	else	-	-	-	-	-	-	-	-	-	-	O	O	-	-
	else	-	-	-	-	-	-	-	-	-	O	-	-	-	-
	else	-	-	-	-	-	-	-	-	-	-	-	-	O	-
	default:	-	-	-	-	-	-	-	-	-	-	-	-	-	O
	Symbol	Range													
Input	*pucp_io_buff[8]	32-87	87	87	87	82	68	68	68	68	68	67	67	67	32
	*pucp_io_buff	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	uc_up_cal_flg	0-8	0	0	0	0	1	2	4	8	0	0	0	0	1
	uc_state_trb	0,255	255	255	255	255	255	255	255	255	255	255	255	255	0
	uc_gas_comb	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	uc_cal_sdm[0]	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	f_span_temp_data	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	f_span_buf[0]	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	f_span_buf[1]	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	GasFuncAutoCal_Calc_Get_AutoCalFlag()	0,1	0	1	0	0	0	0	0	0	0	0	0	0	1
	m_AscIDenst_proc()	0x00000000,0x0000000E	0x0000000E	0x0000000E	0x00000000	0x0000000E	0x0000000E	0x0000000E	0x0000000E	0x0000000E	0x0000000E	0x0000000E	0x0000000E	0x0000000E	0x0000000E
	m_cmd_ResponsTerm()	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Tool_Asc_Dec()	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Tool_Hex_Asc()	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	lucs_cal_flg	1,2	1	1	1	1	1	1	1	1	2	1	1	1	1
	lucs_cal_result[0]	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Output	*pucp_io_buff	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	uc_cup_cal_flg	0-15	0	0	0	0	15	15	15	15	15	0	0	0	1
	f_span_temp_data	0	1	1	1	1	0	0	0	0	0	0	0	0	1
	lucs_cal_flg	0,1	1	1	1	1	1	1	1	1	0	0	0	1	1
	lucs_cal_result[0]	0-49	49	49	49	0	0	0	0	0	0	49	0	0	0
	m_cmd_ResponsTerm()	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Judgment															

m_cmd_S4_proc

	Responsible	Last update	Infinite loop	None
Coding	Karashi		Verification pass	4
Test	Taki			
Judgment	Karashi		Judgment	

		case1	case2	case3	case4
Root	switch(((IDA_COMMAND_DATA *pucp_io_buff)->sub_command[0]))	O	O	O	O
	case 'W':	O	O	-	-
	if(luc_ch >= HDDEF_GAS_MAX)	-	-	-	-
	else	O	O	-	-
	if(Tool_Comp_Pnt(&pucp_io_buff[luc_r_pos], &uc_m_non_data[0], 8) == 0)	O	-	-	-
	else	O	-	-	-
	if(Tool_Comp_Pnt(&pucp_io_buff[luc_r_pos], &uc_m_non_data[0], 8) == 0)	-	O	-	-
	else	O	-	-	-
	case 'R':	O	O	O	-
	if(luc_ch >= HDDEF_GAS_MAX)	-	O	-	-
	else	O	-	O	-
	if(stp_gasinfo_addr+luc_ch->u_cal_denst_min == M_OFF_VAL)	-	O	-	-
	else	O	-	O	-
	if(stp_gasinfo_addr+luc_ch->u_cal_denst_max == M_OFF_VAL)	-	O	-	-
	else	O	-	O	-
	default:	-	-	-	O
	Symbol	Range			
Input	*pucp_io_buff[8]	32-87	87	87	82
	*pucp_io_buff	1	1	1	1
	uc_cal_dec	0	0	0	0
	u_cal_denst_min	0x00000000,0x0000000E	0x0000000E	0x00000000	0x0000000E
	u_cal_denst_max	0x00000000,0x0000000E	0x0000000E	0x00000000	0x0000000E
	0	0	0	0	0
	m_AscIDenst_proc()	0	0	0	0
	m_cmd_ResponsTerm()	0	0	0	0
	Tool_Comp_Pnt()	0,1	1	0	0
	Tool_Hex_Asc()	0	0	0	0
Output	*pucp_io_buff	1	1	1	1
	u_cal_denst_min	0x00000000,0x0000000E	0x0000000E	0x00000000	0x0000000E
	u_cal_denst_max	0x00000000,0x0000000E	0x0000000E	0x00000000	0x0000000E
	m_cmd_ResponsTerm()	0	0	0	0
Judgment					

m_cmd_SA proc

	Responsible	Last update	Infinite loop	None
Coding	karashi		Verification pass	4
Test	Taki			
Judgment	karashi		Judgment	

Root	switch(((rDA_COMMAND_DATA *pucp_io_buff)->sub_command[0])	case1	case2	case3	case4	
	case 'W':	O	O	O	O	
	if(uc_ch >= HDDEF_GAS_MAX)	O	-	-	-	
	else	O	O	-	-	
	if(Tool_Comp_Pnt(&pucp_io_buff[us_r_pos], &uc_m_non_data[0], 0) == 0)	-	O	-	-	
	else	O	-	-	-	
	case 'R':	O	O	O	-	
	if(uc_ch >= HDDEF_GAS_MAX)	-	O	-	-	
	else	O	-	O	-	
	if((sip_GasInfo_addr+uc_ch)->ul_cal_denst_min == M_OFF_VAL)	-	O	-	-	
else	O	-	-	-		
default:	-	-	-	O		
Input	Symbol	Range				
	pucp_io_buff[0]	32-87	87	87	82	32
	*pucp_io_buff	1	1	1	1	1
	uc_uni_dec	0	0	0	0	0
	ul_cal_denst	0x00000000,0x0000000E	0x0000000E	0x00000000	0x0000000E	0x00000000
	m_AscIDenst_proc()	0	0	0	0	0
	m_cmd_ReponsTerm()	0	0	0	0	0
	Tool_Comp_Pnt()	0,1	1	0	0	0
	Tool_Hex_Asc()	0	0	0	0	0
	*pucp_io_buff	1	1	1	1	1
Output	ul_cal_denst	0x00000000-0x0000000E	0	0x00000000	0x0000000E	0x00000000
	m_cmd_ReponsTerm()	0	0	0	0	0
Judgment						

m_cmd_SC proc

	Responsible	Last update	Infinite loop	None
Coding	karashi		Verification pass	3
Test	Taki			
Judgment	karashi		Judgment	

Root	switch(((rIDA_COMMAND_DATA *pucp_io_buff)->sub_command[0])	case1	case2	case3	
	case 'W':	O	O	O	
	case 'R':	O	-	-	
	default:	O	O	-	
		-	-	O	
Input	Symbol	Range			
	*pucp_io_buff[0]	32,87	87	82	32
	*pucp_io_buff	1	1	1	1
	us_cal_limt_day	0	0	0	0
	m_cmd_ReponsTerm()	0	0	0	0
	Tool_Hex_Asc()	0	0	0	0
	*pucp_io_buff	1	1	1	1
Output	*pucp_io_buff	1	1	1	1
	m_cmd_ReponsTerm()	0	0	0	0
Judgment					

m_cmd_SD proc

	Responsible	Last update	Infinite loop	None
Coding	karashi		Verification pass	3
Test	Taki			
Judgment	karashi		Judgment	

Root	switch(((rIDA_COMMAND_DATA *pucp_io_buff)->sub_command[0])		case1	case2	case3
	case 'W':		O	O	O
	case 'R':		O	-	-
	default:		O	O	-
			-	-	O
Input	Symbol	Range			
	*pucp_io_buff[0]	32,87	87	82	32
	*pucp_io_buff[10]	0	0	0	0
	us_cal_limt_set	0	0	0	0
	m_Chk_AscIDenst()	0	0	0	0
	m_Chk_DecIDenst()	0	0	0	0
	m_cmd_ReponsTerm()	0	0	0	0
	*pucp_io_buff	0	0	0	0
Output	*pucp_io_buff	0	0	0	0
	m_cmd_ReponsTerm()	0	0	0	0
Judgment					

m_cmd_SG proc

	Responsible	Last update	Infinite loop	None
Coding	karashi		Verification pass	4
Test	Taki			
Judgment	karashi		Judgment	

Root	switch(((rDA_COMMAND_DATA *pucp_io_buff)->sub_command[0])	case1	case2	case3	case4
	case 'W':	O	O	O	O
	if(pucp_io_buff[us_r_pos] == 'r')	O	-	-	-
	else	-	O	-	-
	case 'R':	O	O	O	-
	if(sip_data->uc_demand_zero_onoff == M_OFF)	-	O	O	-
	else	O	-	-	-
	default:	-	-	-	O
	Symbol	Range			
Input	pucp_io_buff[0]	32,87	82	82	32
	pucp_io_buff[10]	0-49	48	49	0
	uc_demand_zero_onoff	0,1	1	0	0
Output	m_cmd_ReponsTerm()	0	0	0	0
	*pucp_io_buff	0	0	0	0
	uc_demand_zero_onoff	0,1	0	1	0
Judgment	m_cmd_ReponsTerm()	0	0	0	0

m_cmd_SJ proc

	Responsible	Last update	Infinite loop	None
Coding	karashi		Verification pass	4
Test	Taki			
Judgment	karashi		Judgment	

Root	switch(((rDA_COMMAND_DATA *pucp_io_buff)->sub_command[0])	case1	case2	case3	case4	
	case 'W':	○	○	○	○	
	if(pucp_io_buff[us_r_pos] == 'r')	○	-	-	-	
	else	-	○	-	-	
	case 'R':	○	○	○	-	
	if(sip_data->uc_auto_zero_onoff == M_OFF)	-	○	○	-	
	else	○	-	-	-	
	default:	-	-	-	○	
	Symbol	Range				
	Input	pucp_io_buff[0]	32-87	87	82	82
	pucp_io_buff[10]	0-49	48	49	0	0
	uc_auto_zero_onoff	0,1	1	0	0	0
	m_cmd_ReponsTerm()	0	0	0	0	0
Output	*pucp_io_buff	0	0	0	0	0
	uc_auto_zero_onoff	0,1	0	1	0	0
	m_cmd_ReponsTerm()	0	0	0	0	0
Judgment						

m_cmd_SM_proc

	Responsible	Last update	Infinite loop	None
Coding	Karashi		Verification pass	5
Test	Taki			
Judgment	Karashi		Judgment	

		case1	case2	case3	case4	case5
Root	switch(((irDA_COMMAND_DATA *pucp_io_buff)->sub_command[0])	○	○	○	○	○
	case 'W':	○	○	○	-	-
	if(pucp_io_buff[luc_r_pos] == '2')	○	-	-	-	-
	else if(pucp_io_buff[luc_r_pos] == '1')	-	○	-	-	-
	else	-	-	○	-	-
	case 'R':	○	○	○	○	-
	if(stp_data->uc_cal_limt_chk == 2)	○	-	○	○	-
	else if(stp_data->uc_cal_limt_chk == 1)	-	○	-	-	-
Input	Symbol	Range				
	pucp_io_buff[6]	32-67	87	87	87	82
	pucp_io_buff[10]	0-50	50	49	0	0
	uc_cal_limt_chk	0-2	2	1	0	2
	m_cmd_ReponsTerm()	0	0	0	0	0
Output	*pucp_io_buff	0	0	0	0	0
	uc_cal_limt_chk	0-2	2	1	0	2
	m_cmd_ReponsTerm()	0	0	0	0	0
Judgment						

m_cmd_SO_proc

	Responsible	Last update	Infinite loop	None
Coding	Karashi		Verification pass	2
Test	Taki			
Judgment	Karashi		Judgment	

		case1	case2
Root	if((irDA_COMMAND_DATA *pucp_io_buff)->sub_command[0] == 'R')	○	-
	for(luc_i=0; luc_i<HDDDEF_GAS_MAX; luc_i++)	○	-
	if(luc_i != 0U)	○	-
	else	○	-
	else	-	○
	default:	-	○
Input	Symbol	Range	
	pucp_io_buff[6]	32-62	82
	*pucp_io_buff	1	1
	uc_cal_dec	0	0
	uc_cal_date[0]	0	0
	uc_cal_date[1]	0	0
	uc_cal_date[2]	0	0
	uc_cal_date[3]	0	0
	uc_cal_date[4]	0	0
	uc_cal_date[5]	0	0
	u_cal_before	0	0
	u_cal_after	0	0
	m_cmd_ReponsTerm()	0	0
Output	*pucp_io_buff	1	1
	m_cmd_ReponsTerm()	0	0
Judgment			

m_cmd_SZ_proc

	Responsible	Last update	Infinite loop	None
Coding	Karashi		Verification pass	7
Test	Taki			
Judgment	Karashi		Judgment	

		case1	case2	case3	case4	case5	case6	case7
Root	switch(((irDA_COMMAND_DATA *pucp_io_buff)->sub_command[0])	○	○	○	○	○	○	○
	case 'W':	○	○	-	○	-	-	-
	for(luc_i = 0U; luc_i < HDDDEF_GAS_MAX; luc_i++)	○	○	-	-	-	-	-
	if(GasFuncAir_Calc_Get_AirCalFig()) == M_OFF)	○	-	-	-	-	-	-
	else	-	○	-	-	-	-	-
	case 'R':	-	-	○	-	-	-	-
	for(luc_i=DataStrucConst_O2_GAS_CH; luc_i<HDDDEF_GAS_MAX; luc_i++)	-	-	○	-	-	-	-
	case 'C':	-	-	-	○	○	○	-
	if(GasFuncAir_Calc_Get_AirCalFig()) == M_OFF)	-	-	-	○	○	○	-
	for(luc_i=0; luc_i<HDDDEF_GAS_MAX; luc_i++)	-	-	-	○	○	-	-
	if(luc_i_cal_flg == M_ON)	-	-	-	○	○	-	-
	if((stp_densit + luc_i)->uc_gas_comb != b00)	-	-	-	○	-	-	-
	if(stp_densit + luc_i->uc_state_trb & DataStrucConst_S_FAIL_ZRO)	-	-	-	○	-	-	-
	else	-	-	-	○	-	-	-
	if((stp_densit + luc_i)->uc_state_trb & (DataStrucConst_S_FAIL_INS DataStrucConst_S_FAIL_SEN))	-	-	-	-	-	-	-
	else	-	-	-	○	-	-	-
	else	-	-	-	○	-	-	-
	else	-	-	-	○	○	-	-
	else	-	-	-	-	-	○	-
	default:	-	-	-	-	-	-	○
Input	Symbol	Range						
	pucp_io_buff[6]	32-87	87	87	82	67	67	32
	*pucp_io_buff	1	1	1	1	1	1	1
	uc_state_trb	0,255	255	255	255	255	255	0
	uc_gas_comb	1	1	1	1	1	1	1
	fl_zero_temp_data	0	0	0	0	0	0	0
	fl_zero_buff[0]	0	0	0	0	0	0	0
	fl_zero_buff[1]	0	0	0	0	0	0	0
	fl_zero_humidity_voltage[0]	0	0	0	0	0	0	0
	fl_zero_humidity_voltage[1]	0	0	0	0	0	0	0
	GasFuncAir_Calc_Get_AirCalFig()	0,1	0	1	1	0	1	0
	lucs_cal_flg	0,1	0	1	1	0	1	1
	lucs_cal_result[0]	0	0	0	0	0	0	0
	m_cmd_ReponsTerm()	0	0	0	0	0	0	0
Output	Tool_Ver_Asic()	0	0	0	0	0	0	0
	*pucp_io_buff	1	1	1	1	1	1	1
	lucs_cal_flg	0,1	1	1	1	0	1	1
	lucs_cal_result[0]	0-49	48	48	0	49	0	0
	m_cmd_ReponsTerm()	0	0	0	0	0	0	0
Judgment								

m_cmd_U8_proc

	Responsible	Last update	Infinite loop	None
Coding	Karashi		Verification pass	4
Test	Taki			
Judgment	Karashi		Judgment	

		case1	case2	case3	case4
Root	switch(((irDA_COMMAND_DATA *pucp_io_buff)->sub_command[0])	○	○	○	○
	case 'W':	○	○	-	-
	if(pucp_io_buff[luc_r_pos] == '0')	○	-	-	-
	else	-	-	-	-
	case 'R':	○	○	○	-
	if(stp_data->uc_disp_setting_item_onoff == M_OFF)	○	-	○	-
	else	-	-	-	-
	default:	-	-	-	○
Input	Symbol	Range			
	pucp_io_buff[6]	32-87	87	87	82
	pucp_io_buff[10]	0-49	48	49	0
	uc_disp_setting_item_onoff	0,1	1	0	0
	m_cmd_ReponsTerm()	0	0	0	0
Output	*pucp_io_buff	0	0	0	0
	uc_disp_setting_item_onoff	0,1	0	1	0
	m_cmd_ReponsTerm()	0	0	0	0
Judgment					

m_cmd UJ proc

	Responsible	Last update
Coding	Ikcarashi	
Test	Taki	
Judgment	Ikcarashi	

		case1	case2	case3	case4	case5	case6
Root	switch(!((IDA_COMMAND_DATA *pucp_io_buf) == sub_command(0))	0	0	0	0	0	0
	case 'W':	0	0	0	0	-	-
	if(pucp_io_buf[bus_r_pos] == 'V')	0	-	-	-	-	-
	else if(pucp_io_buf[bus_r_pos] == '1')	-	0	-	-	-	-
	else if(pucp_io_buf[bus_r_pos] == '2')	-	-	0	-	-	-
	else	-	-	-	0	-	-
	case 'R':	0	0	0	0	0	-
	if(stp_data->uc_exp_flg == DSC_TGT_JAPAN)	0	-	-	-	0	-
	else if(stp_data->uc_exp_flg == DSC_TGT_EXPORT)	-	0	-	-	-	-
	else if(stp_data->uc_exp_flg == DSC_TGT_OEM)	-	-	0	-	-	-
else	-	-	-	0	-	-	
default:	-	-	-	-	-	0	
	Symbol	Range					
Input	pucp_io_buf[0]	32-87					
	pucp_io_buf[10]	0-51	87	87	87	87	82
	uc_exp_flg	0-3	48	49	50	51	0
	m_cmd_ReponsTerm)	0-0	0	0	0	0	0
Output	"pucp_io_buf	0	0	0	0	0	0
	uc_exp_flg	0-3	0	1	2	3	0
	m_cmd_ReponsTerm)	0	0	0	0	0	0
		0	0	0	0	0	0
Subelement							

```
m cmd US_proc
```

	Responsible	Last update
Coding	Ikarashi	
Test	Taki	
Judgment	Ikarashi	

		case1	case2	case3	
Root	switch((IIDA_COMMAND_DATA *pucp_io_buf)->sub_command[0])	O	O	O	
	case 'W':	O	-	-	
	case 'R':	O	O	-	
	default:	-	-	O	
	Symbol	Range			
Input	pucp_io_buf[8]	32-87	87	82	32
	pucp_io_buf[10]	0	0	0	0
	pucp_io_buf[12]	0	0	0	0
	pucp_io_buf[14]	0	0	0	0
	pucp_io_buf[16]	0	0	0	0
	pucp_io_buf[18]	0	0	0	0
	uc_disp_suppress_val	0	0	0	0
	uc_suppress_onoff	0	0	0	0
	m_Chk_AsciiOnOffDec()	0	0	0	0
	m_Chk_DecOnOffAscii()	0	0	0	0
Output	m_cmd_ReponsTerm()	0	0	0	0
	"pucp_io_buf"	0	0	0	0
	uc_disp_suppress_val	0	0	0	0
	uc_suppress_onoff	0	0	0	0
Submodule	m_cmd_ReponsTerm()	0	0	0	0

```
m_cmd UX_proc
```

	Responsible	Last update
Coding	Ikarashi	
Test	Taki	
Judgment	Ikarashi	

		case1	case2	case3	case4
Root	switch((IIDA_COMMAND_DATA *pucp_io_buf)[sub_command[0])	○	○	○	○
	case 'W':	-	-	-	-
	case 'C':	-	○	○	-
	if (FRAM_Get_DefaultEndFlag) == M_OFF	-	-	○	-
	else	-	○	-	-
	default:	-	-	-	○
Input	Symbol	Range			
	pucp_io_buf[0]	32~87			
	*pucp_io_buf	1	87	67	67
	FRAM_Get_DefaultEndFlag()	0,1	1	1	1
	m_cmd_ReponsTerm()	0	0	1	0
	m_cmd_ReponsTerm()	0	0	0	0
Output	*pucp_io_buf	1	1	1	1
	m_cmd_ReponsTerm()	0	0	0	0
Argument					

m_cmd_UZ_proc

	Responsible	Last update	Infinite loop	None
Coding	Karashi		Verification pass	3
Test	Taki			
Judgment	Karashi		Judgment	

Root	switch(((HDA_COMMAND_DATA *jucp_io_buff)->sub_command[0])		case1	case2	case3
	case 'W':		O	O	O
	case 'R':		O	O	-
	default:		-	-	O
Input	Symbol	Range			
	*jucp_io_buff[8]	32-87	87	82	32
	*jucp_io_buff[10]	0	0	0	0
	*jucp_io_buff[12]	0	0	0	0
	m_Chk_DecOnOffAscii()	0	0	0	0
	m_cmd_ReponsTerm()	0	0	0	0
	*jucp_io_buff	0	0	0	0
Output	uc_disp_zero_flg	0	0	0	0
	uc_follower_onoff	0	0	0	0
	m_cmd_ReponsTerm()	0	0	0	0
Judgment					

m_cmd_VL_proc

	Responsible	Last update	Infinite loop	None
Coding	Karashi		Verification pass	2
Test	Taki			
Judgment	Karashi		Judgment	

Root	if(((HDA_COMMAND_DATA *jucp_io_buff)->sub_command[0] == 'R')		case1	case2
	else		O	-
Input	Symbol	Range		
	*jucp_io_buff[8]	32-82	82	32
	*jucp_io_buff	1	1	1
	GasCalcTbl_Get_RomNum()	0	0	0
	m_cmd_ReponsTerm()	0	0	0
	*jucp_io_buff	1	1	1
	m_cmd_ReponsTerm()	0	0	0
Output				
Judgment				

m_cmd_VP_proc

	Responsible	Last update	Infinite loop	None
Coding	Karashi		Verification pass	2
Test	Taki			
Judgment	Karashi		Judgment	

Root	if(((HDA_COMMAND_DATA *jucp_io_buff)->sub_command[0] == 'R')		case1	case2
	else		O	-
Input	Symbol	Range		
	*jucp_io_buff[8]	32-82	82	32
	*jucp_io_buff	1	1	1
	MAIN_Get_RomNum()	0	0	0
	m_cmd_ReponsTerm()	0	0	0
	*jucp_io_buff	1	1	1
	m_cmd_ReponsTerm()	0	0	0
Output				
Judgment				

m_cmd_VQ_proc

	Responsible	Last update	Infinite loop	None
Coding	karashi		Verification pass	2
Test	Taki			
Judgment	karashi		Judgment	

		case1	case2	
Root	if(!((iIDA_COMMAND_DATA)*pucp_io_buff)->sub_command[0] == 'R')	O	-	
	else	-	O	
Input	Symbol	Range		
	pucp_io_buff[0]	32,82	82	32
	*pucp_io_buff	1	1	1
	uc_rom_num[0]	0	0	0
	us_rom_sum	0	0	0
	uc_rom_ver[0]	0	0	0
	Tool_Hex_Asc()	0	0	0
	m_cmd_ReponsTerm()	0	0	0
Output	*pucp_io_buff	1	1	1
	m_cmd_ReponsTerm()	0	0	0
Judgment				

m_cmd_VS_proc

	Responsible	Last update	Infinite loop	None
Coding	karashi		Verification pass	2
Test	Taki			
Judgment	karashi		Judgment	

		case1	case2	
Root	if(!((iIDA_COMMAND_DATA)*pucp_io_buff)->sub_command[0] == 'R')	O	-	
	else	-	O	
Symbol		Range		
Input	pucp_io_buff[0]	32,82	82	32
	*pucp_io_buff	1	1	1
	FuncRomChk_Get_SumNum()	0	0	0
	Tool_Hex_Asc()	0	0	0
	m_cmd_ReponsTerm()	0	0	0
Output	*pucp_io_buff	1	1	1
	m_cmd_ReponsTerm()	0	0	0
Judgment				

m_cmd_VT_proc

	Responsible	Last update	Infinite loop	None
Coding	karashi		Verification pass	2
Test	Taki			
Judgment	karashi		Judgment	

		case1	case2	
Root	if(!((iIDA_COMMAND_DATA)*pucp_io_buff)->sub_command[0] == 'R')	O	-	
	else	-	O	
Symbol		Range		
Input	pucp_io_buff[0]	32,82	82	32
	*pucp_io_buff	1	1	1
	m_cmd_ReponsTerm()	0	0	0
		0	0	0
Output	*pucp_io_buff	1	1	1
	m_cmd_ReponsTerm()	0	0	0
Judgment				

m_cmd_VV_proc

	Responsible	Last update	Infinite loop	None
Coding	karashi		Verification pass	2
Test	Taki			
Judgment	karashi		Judgment	

		case1	case2	
Root	if(!((iIDA_COMMAND_DATA)*pucp_io_buff)->sub_command[0] == 'R')	O	-	
	else	-	O	
Symbol		Range		
Input	pucp_io_buff[0]	32,82	82	32
	*pucp_io_buff	1	1	1
	GasCalcTbl_Get_SumNum()	0	0	0
	Tool_Hex_Asc()	0	0	0
	m_cmd_ReponsTerm()	0	0	0
		0	0	0
Output	*pucp_io_buff	1	1	1
	m_cmd_ReponsTerm()	0	0	0
Judgment				

m_cmd_W0_proc

	Responsible	Last update	Infinite loop	None
Coding	karashi		Verification pass	2
Test	Taki			
Judgment	karashi		Judgment	

		case1	case2	
Root	if(!((iIDA_COMMAND_DATA)*pucp_io_buff)->sub_command[0] == 'R')	O	-	
	else	-	O	
Symbol		Range		
Input	pucp_io_buff[0]	32,82	82	32
	*pucp_io_buff	1	1	1
	m_cmd_ReponsTerm()	0	0	0
		0	0	0
Output	*pucp_io_buff	1	1	1
	m_cmd_ReponsTerm()	0	0	0
Judgment				

m_cmd_W8_proc

	Responsible	Last update		Infinite loop	None
Coding	karashi			Verification pass	5
Test	Taki				
Judgment	karashi			Judgment	

			case1	case2	case3	case4	case5
Root	switch(((tIDA_COMMAND_DATA *pucp_io_buff)->sub_command[0])		○	○	○	○	○
	case 'W':		○	○	-	-	-
	if(pucp_io_buff[lus_r_pos] == '0')		○	-	-	-	-
	else		-	○	-	-	-
	case 'R':		-	-	○	-	-
	if(blz_mode_on_flg == false)		-	-	-	○	-
	else		-	-	○	-	-
	default:		-	-	-	-	○
Symbol		Range					
Input	pucp_io_buff[8]	32-87	87	87	82	82	32
	pucp_io_buff[10]	0-49	48	49	0	0	0
	SelfSubProg_Get_ModeOnFlagj	0,1	0	0	1	0	0
	m_cmd_ResponsTermj	0	0	0	0	0	0
Output	*pucp_io_buff	0	0	0	0	0	0
	m_cmd_ResponsTermj	0	0	0	0	0	0
Judgment							

m_cmd_W9_proc

	Responsible	Last update		Infinite loop	None
Coding	karashi			Verification pass	3
Test	Taki				
Judgment	karashi			Judgment	

			case1	case2	case3
Root	switch(((tIDA_COMMAND_DATA *pucp_io_buff)->sub_command[0])		○	○	○
	case 'W':		○	-	-
	for(luc_i=0; luc_i<HDDDEF_GAS_MAX; luc_i++)		○	-	-
	case 'R':		-	○	-
	for(luc_i=0; luc_i<HDDDEF_GAS_MAX; luc_i++)		-	○	-
	default:		-	-	○
			-	-	-
Symbol		Range			
Input	pucp_io_buff[8]	32-87	87	82	32
	*pucp_io_buff	1	1	1	1
	uc_chg_batt_date	0	0	0	0
	uc_chg_pump_date	0	0	0	0
	uc_chg_sen_date	0	0	0	0
	Tool_Asc_Desc()	0	0	0	0
	m_cmd_ResponsTermj	0	0	0	0
Output	*pucp_io_buff	1	1	1	1
	uc_chg_batt_date	0	0	0	0
	uc_chg_pump_date	0	0	0	0
	uc_chg_sen_date	0	0	0	0
	m_cmd_ResponsTermj	0	0	0	0
Judgment					

m_cmd_WU_proc

	Responsible	Last update		Infinite loop	None
Coding	karashi			Verification pass	6
Test	Taki				
Judgment	karashi			Judgment	

			case1	case2	case3
Root	if(((tIDA_COMMAND_DATA *pucp_io_buff)->sub_command[0] == 'W')		○	○	○
	if(pucp_io_buff[lus_r_pos] == '1')		○	-	-
	else		○	-	-
	else		-	-	○
			-	-	-
Symbol		Range			
Input	pucp_io_buff[8]	32-87	87	87	32
	pucp_io_buff[10]	48,49	49	48	48
	m_cmd_ResponsTermj	0	0	0	0
Output	*pucp_io_buff	0	0	0	0
	m_cmd_ResponsTermj	0	0	0	0
Judgment					

m_cmd_X8_proc

	Responsible	Last update	Infinite loop	None
Coding	karashi		Verification pass	4
Test	Taki			
Judgment	karashi		Judgment	

		case1	case2	case3	case4
Root	switch(((IRDA_COMMAND_DATA *jpucp_io_buff)->sub_command[0])	○	○	○	○
	case 'W':	○	○	-	-
	if(pucp_io_buff[bus_r_pos] == '0')	○	-	-	-
	else	-	○	-	-
	case 'R':	○	○	○	-
	if(stp_data->uc_disp_pump_off == M_OFF)	○	-	○	-
	else	-	○	-	-
Input	Symbol	Range			
	pucp_io_buff[8]	32-87	87	87	82
Output	pucp_io_buff[10]	0-49	48	49	0
	uc_disp_pump_off	0,1	1	0	0
	m_cmd_ReponsTerm()	0	0	0	0
	*pucp_io_buff	0	0	0	0
	uc_disp_pump_off	0,1	0	1	0
	m_cmd_ReponsTerm()	0	0	0	0
Judgment					

m_cmd_XA_proc

	Responsible	Last update	Infinite loop	None
Coding	karashi		Verification pass	3
Test	Taki			
Judgment	karashi		Judgment	

		case1	case2	case3
Root	switch(((IRDA_COMMAND_DATA *jpucp_io_buff)->sub_command[0])	○	○	○
	case 'W':	○	-	-
	case 'R':	○	○	-
	default:	○	-	○
	Symbol	Range		
Input	pucp_io_buff[8]	32-87	87	82
	pucp_io_buff[10]	0	0	0
	uc_alarm_silence	0	0	0
	m_Chk_AsciOnOffDec()	0	0	0
	m_Chk_DescOnOffAsci()	0	0	0
	m_cmd_ReponsTerm()	0	0	0
	*pucp_io_buff	0	0	0
Output	uc_alarm_silence	0	0	0
	m_cmd_ReponsTerm()	0	0	0
Judgment				

m_cmd_XB_proc

	Responsible	Last update	Infinite loop	None
Coding	karashi		Verification pass	10
Test	Taki			
Judgment	karashi		Judgment	

		case1	case2	case3	case4	case5	case6	case7	case8	case9	case10
Root	switch(((IRDA_COMMAND_DATA *jpucp_io_buff)->sub_command[0])	○	○	○	○	○	○	○	○	○	○
	case 'W':	○	○	○	○	○	○	○	○	-	-
	if(pucp_io_buff[bus_r_pos] == '0')	○	-	-	-	-	-	-	○	-	-
	else if(pucp_io_buff[bus_r_pos] == '5')	-	○	-	-	-	-	-	-	-	-
	else if(pucp_io_buff[bus_r_pos] == '4')	-	-	○	-	-	-	-	-	-	-
	else if(pucp_io_buff[bus_r_pos] == '3')	-	-	-	○	-	-	-	-	-	-
	else if(pucp_io_buff[bus_r_pos] == '2')	-	-	-	-	○	-	-	-	-	-
	else if(pucp_io_buff[bus_r_pos] == '1')	-	-	-	-	-	○	-	-	-	-
	else	-	-	-	-	-	-	○	-	-	-
	if(uc_flg != stp_data->uc_beep_select)	○	○	○	○	○	○	○	-	-	-
	case 'R':	○	○	○	○	○	○	○	○	○	-
	if(stp_data->uc_beep_select == 6)	○	-	-	-	-	-	-	-	-	-
	else if(stp_data->uc_beep_select == 5)	-	○	-	-	-	-	-	-	-	-
	else if(stp_data->uc_beep_select == 4)	-	-	○	-	-	-	-	-	-	-
	else if(stp_data->uc_beep_select == 3)	-	-	-	○	-	-	-	-	-	-
	else if(stp_data->uc_beep_select == 2)	-	-	-	-	○	-	-	-	-	-
	else if(stp_data->uc_beep_select == 1)	-	-	-	-	-	○	-	-	-	-
	else	-	-	-	-	-	-	○	○	○	-
	default:	-	-	-	-	-	-	-	-	-	○
	Symbol	Range									
Input	pucp_io_buff[8]	32-87	87	87	87	87	87	87	87	82	32
	pucp_io_buff[10]	0-54	54	53	52	51	50	49	48	54	0
	uc_beep_select	0-6	6	5	4	3	2	1	0	0	0
	uc_beep_time	0	0	0	0	0	0	0	0	0	0
	Tool_Hex_Asci()	0	0	0	0	0	0	0	0	0	0
	m_cmd_ReponsTerm()	0	0	0	0	0	0	0	0	0	0
	*pucp_io_buff	0	0	0	0	0	0	0	0	0	0
	uc_beep_select	0-6	6	5	4	3	2	1	0	6	0
Output	m_cmd_ReponsTerm()	0	0	0	0	0	0	0	0	0	0
Judgment											

m_cmd_XC_proc

	Responsible	Last update	Infinite loop	None
Coding	karashi		Verification pass	4
Test	Taki			
Judgment	karashi		Judgment	

		case1	case2	case3	case4
Root	switch(((IRDA_COMMAND_DATA *jpucp_io_buff)->sub_command[0])	○	○	○	○
	case 'W':	○	-	-	-
	case 'C':	-	○	○	-
	if (LoggerGXForce_Chk_LoggerDataClear() == 0)	-	○	-	-
	else	-	-	○	-
	default:	-	-	-	○
Input	Symbol	Range			
	pucp_io_buff[8]	0-87	87	67	67
Output	*pucp_io_buff	1	1	1	1
	LoggerGXForce_Chk_LoggerDataClear()	0	0	0	1
	m_cmd_ReponsTerm()	0	0	0	0
	*pucp_io_buff	1	1	1	1
Judgment	m_cmd_ReponsTerm()	0	0	0	0

m_cmd_XH_proc

	Responsible	Last update	Infinite loop	None
Coding	karashi		Verification pass	2
Test	Taki			
Judgment	karashi		Judgment	

		case1	case2
Root	switch(((IRDA_COMMAND_DATA *jpucp_io_buff)->sub_command[0])	○	○
	case 'W':	○	-
	default:	-	○
Input	Symbol	Range	
	pucp_io_buff[8]	32,87	87
Output	*pucp_io_buff	1	1
	m_cmd_ReponsTerm()	0	0
	*pucp_io_buff	1	1
	m_cmd_ReponsTerm()	0	0
Judgment			

m_cmd_XI_proc

	Responsible	Last update	Infinite loop	None
Coding	karashi		Verification pass	4
Test	Taki			
Judgment	karashi		Judgment	

		case1	case2	case3	case4
Root	switch(((RDA_COMMAND_DATA *pucp_io_buff)->sub_command[0])	○	○	○	○
	case 'W':	○	○	-	-
	if(pucp_io_buff[lus_r_pos] == '0')	○	-	-	-
	else	-	○	-	-
	case 'R':	○	○	○	-
	if(stp_data->uc_id_disp_onoff == M_OFF)	-	○	-	-
	else	○	-	-	-
	default:	-	-	-	○
Input	Symbol	Range			
	pucp_io_buff[8]	32-87	87	87	82
	pucp_io_buff[10]	0-49	48	49	0
	uc_id_disp_onoff	0,1	1	0	0
Output	m_cmd_ReponsTerm()	0	0	0	0
	*pucp_io_buff	0	0	0	0
	uc_id_disp_onoff	0,1	0	1	0
	m_cmd_ReponsTerm()	0	0	0	0
Judgment					

m_cmd_XL_proc

	Responsible	Last update	Infinite loop	None
Coding	karashi		Verification pass	4
Test	Taki			
Judgment	karashi		Judgment	

		case1	case2	case3	case4
Root	switch(((RDA_COMMAND_DATA *pucp_io_buff)->sub_command[0])	○	○	○	○
	case 'W':	○	○	-	-
	if(pucp_io_buff[lus_r_pos] == '0')	○	-	-	-
	else	-	○	-	-
	case 'R':	○	○	○	-
	if(stp_data->uc_lunch_onoff == M_OFF)	-	○	-	-
	else	○	-	-	-
	default:	-	-	-	○
Input	Symbol	Range			
	pucp_io_buff[8]	32-87	87	87	82
	pucp_io_buff[10]	0-49	48	49	0
	uc_lunch_onoff	0,1	1	0	0
Output	m_cmd_ReponsTerm()	0	0	0	0
	*pucp_io_buff	0	0	0	0
	uc_lunch_onoff	0,1	0	1	0
	m_cmd_ReponsTerm()	0	0	0	0
Judgment					

m_cmd_XP_proc

	Responsible	Last update	Infinite loop	None
Coding	karashi		Verification pass	3
Test	Taki			
Judgment	karashi		Judgment	

		case1	case2	case3
Root	switch(((RDA_COMMAND_DATA *pucp_io_buff)->sub_command[0])	○	○	○
	case 'W':	○	-	-
	case 'R':	○	○	-
	default:	-	-	○
	Symbol	Range		
Input	pucp_io_buff[8]	32-87	87	82
	*pucp_io_buff	1	1	1
	us_interval_time	0	0	0
	Tool_Asc_Desc()	0	0	0
Output	m_cmd_ReponsTerm()	0	0	0
	*pucp_io_buff	1	1	1
	us_interval_time	0	0	0
	m_cmd_ReponsTerm()	0	0	0
Judgment				

m_cmd_XS_proc

	Responsible	Last update	Infinite loop	None
Coding	karashi		Verification pass	5
Test	Taki			
Judgment	karashi		Judgment	

		case1	case2	case3	case4	case5
Root	switch(((RDA_COMMAND_DATA *pucp_io_buff)->sub_command[0])	○	○	○	○	○
	case 'W':	○	○	-	-	-
	if(Tool_Comp_Pnt(&pucp_io_buff[lus_r_pos], &uc_m_non_data[0], 2) == 0)	○	-	-	-	-
	else	-	○	-	-	-
	if(HDDEF_STATION_ID_NUM <= luc_id)	-	-	-	-	-
	else	-	○	-	-	-
	case 'R':	○	○	○	○	-
	if(Tool_Comp_Pnt(&pucp_io_buff[lus_w_pos], &uc_m_non_data[0], 2) == 0)	○	-	○	-	-
	for(luc_j = 0; luc_j < HDDEF_STATION_ID_SIZE; luc_j++)	○	-	○	-	-
	if(stp_data->uc_st_id[luc_j] == NULL)	○	-	○	-	-
	else	○	-	○	-	-
	if(HDDEF_STATION_ID_NUM <= luc_id)	-	○	-	○	-
	else	-	-	-	-	-
	for(luc_j = 0; luc_j < HDDEF_STATION_ID_SIZE; luc_j++)	-	○	-	○	-
	if(stp_st_id_data_addr->uc_st_id[luc_id][luc_j] == NULL)	-	○	-	○	-
	else	-	-	-	○	-
	default:	-	-	-	-	○
Input	Symbol	Range				
	pucp_io_buff[8]	32-87	87	87	82	32
	*pucp_io_buff	1	1	1	1	1
	uc_st_id[0]	0,1	1	0	1	0
	uc_st_id[0][0]	0,1	0	0	0	1
	Tool_Comp_Pnt()	0,1	0	1	0	1
	Tool_Hex_Asc()	0	0	0	0	0
	m_cmd_ReponsTerm()	0	0	0	0	0
	*pucp_io_buff	1	1	1	1	1
	m_cmd_ReponsTerm()	0	0	0	0	0
Judgment						

m_cmd_XT_proc

	Responsible	Last update	Infinite loop	None
Coding	karashi		Verification pass	3
Test	Taki			
Judgment	karashi		Judgment	

		case1	case2	case3
Root	switch(((RDA_COMMAND_DATA *pucp_io_buff)->sub_command[0])	○	○	○
	case 'W':	○	-	-
	case 'R':	○	○	-
	default:	-	-	○
Input	Symbol	Range		
	pucp_io_buff[8]	32-87	87	82
	*pucp_io_buff	1	1	1
	us_back_light_time	0,1	1	0
Output	Tool_Hex_Asc()	0	0	0
	m_cmd_ReponsTerm()	0	0	0
	*pucp_io_buff	1	1	1
	us_back_light_time	0	0	0
Judgment				


```
m_cmd XW_proc
```

	Responsible	Last update
Coding	Ikarashi	
Test	Taki	
Judgment	Ikarashi	

		case1	case2	case3	case4
Root	switch((IIDA_COMMAND_DATA->isuc_io_buf[0]>sub_command[0])	0	0	-	0
	case 'W':	0	0	-	-
	if(isuc_io_buf[bus_r_pos] == 0)	0	-	-	-
	else	-	0	-	-
	case 'R':	0	0	0	-
	if(isuc_data->uc_over_write == M_OFF)	0	-	-	-
	else	-	0	0	-
default:	-	-	0	0	
	Symbol	Range			
Input	isuc_io_buf[0]	32-87			
	isuc_io_buf[10]	0-49	87	87	82
	uc_over_write	0.1	48	49	0
	m_cmd_ReponseTerm)	0	1	0	0
		0	0	0	0
Output	isuc_io_buf	0	0	0	0
	uc_over_write	0.1	0	1	0
	m_cmd_ReponseTerm)	0	0	0	0
Automaton		0	0	0	0

```
m_cmd XY_proc
```

	Responsible	Last update
Coding	Ikarashi	
Test	Taki	
Judgment	Ikarashi	

		case 1	case2	case3	case4
Root	switch(!((IDA_COMMAND_DATA *pucp_io_buf) == sub_command[0])	-	-	-	-
	case 'W':	-	-	-	-
	case 'C':	-	-	-	-
	if(LoggerGXForce_Chk_LoggerPowerClear) == M_OFF)	-	-	-	-
	else	-	-	-	-
default:	-	-	-	-	
	Symbol	Range			
Input	pucp_io_buf[8]	32-87			
	*pucp_io_buf	87	67	67	32
	*pucp_io_buf	1	1	1	1
	LoggerGXForce_Chk_LoggerPowerClear)	0.1			
	m_cmd_ResponsesTerm)	0	0	0	0
Output	*pucp_io_buf	1	1	1	1
	m_cmd_ResponsesTerm)	9			
Automount		0	0	0	0

```
m_cmd XZ proc
```

	Responsible	Last update
Coding	Ikarashi	
Test	Taki	
Judgment	Ikarashi	

		case1	case2	case3	case4	case5
Root	switch((!IDA_COMMAND_DATA *pucp_io_buf) > sub_command[0])	-	-	-	-	-
	case "W":	○	○	○	○	○
	if(Tool_Comp_Prt(!pucp_io_buf[!luc_r_pos] & luc_m_non_data[0], 2) == 0)	○	-	-	-	-
	else	-	○	-	-	-
	if(HDDEF_USER_ID_NUM <= luc_id_x)	-	-	-	-	-
	else	-	○	-	-	-
	case "R":	-	-	○	○	-
	if(Tool_Comp_Prt(!pucp_io_buf[!luc_w_pos] & luc_m_non_data[0], 2) == 0)	○	-	○	○	-
	for(luc_i = 0; luc_i < HDDEF_USER_ID_SIZE; luc_i++)	○	-	○	-	-
	if(stp_data->uc_ur_id[luc_i] == NULL)	○	-	○	-	-
	else	○	-	○	-	-
	if(HDDEF_USER_ID_NUM <= luc_id_x)	-	○	-	○	-
Input	Symbol	Range				
	pucp_io_buf[0]	32-87				
	uc_ur_id_buf	1	87	82	82	32
	uc_ur_id	0.1	1	1	1	1
	uc_ur_id[0][0]	0.1	0	0	0	0
	Tool_Comp_Prt	0.1	0	1	0	1
	Tool_Hex_Asc	0	0	0	0	0
	m_cmd_ReponsTerm	0	0	0	0	0
	*pucp_io_buf	1	1	1	1	1
	m_cmd_ReponsTerm	0	0	0	0	0
Subelement						

```
str set uw hex
```

	Responsible	Last update
Coding	Ikarashi	
Test	Taki	
Judgment	Ikarashi	

		case1	case2	case3	case4	case5	case6	case7	case8
Root	if (col < 10) if ((U_CHR)iszero(bufi < col))		○	○	○	○	○	○	○
	else		-	-	-	-	-	-	-
	for(i = 0; i < (S_SHORT)col; i++)		○	○	○	○	○	○	○
	if (wk < 10U)		○	○	○	○	○	○	○
	else		-	-	-	-	-	-	-
	for(i = 0; i < (S_SHORT)col; i++)		-	○	○	○	○	-	○
Input	Symbol	Range							
	val	9-10		9	9	9	10	10	10
Output	cat	0-1		0	1	8	9	2	1
	str[0]	0-85		0	57	48	0	48	65
	ret	0-8		0	1	8	0	1	0
Automaton				0	1	8	0	1	0

Unit Test Specification

Project name	GX-Force
File name	vibration.c

VIBRATION_Control_VIB_Port

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1	case2	case3
Root	if(puc_on == VIBRATION_SET_ON)		○	-	-
	else		-	○	○
	Symbol	Range			
Input	puc_on	0~2	0	1	2
Output	PORTC.PODR.BIT.B6	0,1	0	1	0
Judgment					

Unit Test Specification

Project name	GX-Force
File name	zipc_num_set.c

m_Get_SensorFailFlg

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	4
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1	case2	case3	case4
Root	for(luc_i=0; luc_i<HDEF_GAS_MAX; luc_i++)		○	○	○	○
	if((stp_GasInfo_addr+luc_i)->uc_gas_comb != 0x00)		-	○	○	○
	if(!((stp_denst+luc_i)->uc_state_trb & DataStructConst_S_FAIL_INS))		-	○	○	-
	if((stp_denst+luc_i)->uc_state_trb & DataStructConst_S_FAIL_SEN)		-	-	○	-
	else		-	○	-	-
	else		-	-	-	○
	else		○	-	-	-
	Symbol	Range				
Input	(stp_GasInfo_addr+luc_i)->uc_gas_comb	0-30	0	29	29	30
	(stp_denst+luc_i)->uc_state_trb	0x00-0xFF	0x00	0x00	0x04	0xFF
Output	luc_ans	0,1	0	0	1	0
Judgment						

ZIPNumSet_Chk_AirFail

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	2
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1	case2	case3
Root	for(luc_i=0; luc_i<HDEF_GAS_MAX; luc_i++)		○	○	○
	if((stp_denst + luc_i)->uc_state_trb & DataStructConst_S_FAIL_ZRO)		○	-	-
	else		-	○	○
	Symbol	Range			
Input	(stp_denst + luc_i)->uc_state_trb	0x00-0xFF	0x01	0x00	0xFF
Output	luc_ans	0,1	1	0	1
Judgment					

ZIPNumSet_Chk_AutoCal_EscNum

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1	case2	case3
Root	if(st_zipu_num.ul_item_select_num == HDEF_GAS_MAX)		○	-	-
	else		-	○	○
	Symbol	Range			
Input	st_zipu_num.ul_item_select_num	0x00000000-0xFFFFFFFF	0x00000004	0x00000000	0xFFFFFFFF
Output	luc_ans	0,1	1	0	0
Judgment					

ZIPNumSet_Chk_DemandZero_onoff

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1
Root	None		-
	Symbol	Range	
Input	None	-	-
Output	stp_data->uc_demand_zero_onoff	0	0
Judgment			

ZIPCNumSet_Chk_SensorAllInitFailFlg

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3
Root	for(luc_i=0; luc_i<HDDDEF_GAS_MAX; luc_i++)	○	○	○
	if((stp_GasInfo_addr + luc_i)->uc_gas_comb != 0x00 && !((stp_denst+luc_i)->uc_state_trb & DataStructConst_S_FAIL_INS))	○	-	-
	else	-	○	○
	if(stp_status->us_main_state & DataStructConst_FAIL_SUB)	-	○	○
	else	○	-	-
	Symbol	Range		
Input	(stp_GasInfo_addr + luc_i)->uc_gas_comb	0~30	0	30
	(stp_denst+luc_i)->uc_state_trb	0x00,0xFF	0x00	0xFF
	stp_status->us_main_state	0x0000,0xFFFF	0x0000	0xFFFF
Output	luc_ans	0	0	0
Judgment				

ZIPCNumSet_Chk_SpanCalFail

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3
Root	for(luc_i=0; luc_i<HDDDEF_GAS_MAX; luc_i++)	○	○	○
	if((stp_GasInfo_addr+luc_i)->uc_cal_group == GasFuncAutoCal_Get_AutoCalGroup())	○	○	-
	if((stp_denst + luc_i)->uc_state_trb & DataStructConst_S_FAIL_SPN)	○	-	-
	else	-	○	-
	else	-	-	○
	Symbol	Range		
Input	GasFuncAutoCal_Get_AutoCalGroup()	0x00,0xFF	0x00	0xFF
	stp_GasInfo_addr+luc_i)->uc_cal_group	0x00,0xFF	0x00	0xFF
	(stp_denst + luc_i)->uc_state_trb	0x00~0xFF	0x02	0x00
Output	luc_ans	0	0	0
Judgment				

ZIPCNumSet_Get_AlarmFlg

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3
Root	for(luc_i=0; luc_i<HDDDEF_GAS_MAX; luc_i++)	○	○	○
	if((stp_GasInfo_addr+luc_i)->uc_gas_comb != 0x00)	-	○	○
	if((stp_denst+luc_i)->uc_alarm_lat)	-	-	○
	break	-	-	○
	else	-	○	-
	else	○	-	-
	Symbol	Range		
Input	(stp_GasInfo_addr + luc_i)->uc_gas_comb	0~30	0	29
	(stp_denst+luc_i)->uc_alarm_lat	0x00,0xFF	0x00	0xFF
Output	luc_ans	0	0	0
Judgment				

ZIPCNumSet_Get_AlarmManDownFlg

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

		case1	case2	case3
Root	if((stp_status->uc_man_down != 0) (ZIPCNumSet_Get_AlarmFlg() == M_ON) (FuncTempWarning_Get_TempBuzzerFlg() == M_ON))	-	○	-
	else	○	-	○
	Symbol	Range		
Input	stp_status->uc_man_down	0x00~0x20	0x00	0x1F
	ZIPCNumSet_Get_AlarmFlg()	0~2	0	1
	FuncTempWarning_Get_TempBuzzerFlg()	0~2	0	1
Output	luc_ans	0,1	0	1
Judgment				

ZIPCNumSet_Get_AlarmPattern

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1
Root	None		-
	Symbol	Range	
Input	None	-	-
Output	stp_data->uc_alarm_pattern	0	0
Judgment			

ZIPCNumSet_Get_AutoZeroFlg

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1
Root	None		-
	Symbol	Range	
Input	None	-	-
Output	stp_data->uc_auto_zero_onoff	0	0
Judgment			

ZIPCNumSet_Get_DisFlicker2

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1
Root	None		-
	Symbol	Range	
Input	None	-	-
Output	uc_disp_flicker2sec2	0	0
Judgment			

ZIPCNumSet_Get_DisFlicker3

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1
Root	None		-
	Symbol	Range	
Input	None	-	-
Output	uc_disp_flicker2sec3	0	0
Judgment			

ZIPCNumSet_Get_DisFlicker4

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1
Root	None		-
	Symbol	Range	
Input	None	-	-
Output	uc_disp_flicker2sec4	0	0
Judgment			

ZIPCNumSet_Get_GasTestFlg

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

Root	None	case1
		-
	Symbol	Range
Input	None	-
Output	uc_m_gastest_mode	0
Judgment		0

ZIPCNumSet_Get_NotManDownFlg

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

Root	if((stp_status->us_main_state & DataStructConst_FAIL_SIS) m_Get_SensorFailFlg())	case1	case2	case3
	else	-	○	○
		○	-	-
	Symbol	Range		
Input	stp_status->us_main_state	0x0000~0xFFFF	0x0000	0x0001
	m_Get_SensorFailFlg()	0~2	0	1
Output	luc_ans	0,1	0	1
Judgment				

ZIPCNumSet_Get_SensorInitFailFlg

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

Root	if(stp_status->us_main_state & DataStructConst_FAIL_SUB)	case1	case2	case3
	else	○	-	○
	for(luc_i=0; luc_i<HDDDEF_GAS_MAX; luc_i++)	-	○	-
	if((stp_GasInfo_addr + luc_i)->uc_gas_comb != 0x00 && (stp_denst+luc_i)->uc_state_trb & DataStructConst_S_FAIL_INS)	○	○	○
	else	○	-	○
		-	○	-
	Symbol	Range		
Input	stp_status->us_main_state	0x0000~0xFFFF	0x0200	0x0000
	(stp_GasInfo_addr + luc_i)->uc_gas_comb	0~30	29	0
	(stp_denst+luc_i)->uc_state_trb	0x00~0xFF	0x10	0x00
Output	luc_ans	0,1	1	0
Judgment				

ZIPCNumSet_Get_ZipcModeNum

	Responsible	Last update
Coding	Ikarashi	
Test	Taki	
Judgment	Ikarashi	

Infinite loop	None
Verification pass	6
Judgment	

		case1	case2	case3	case4	case5	case6
Root	if(puc_type == 0)	○	-	-	-	-	-
	else if(puc_type == 1)	-	○	-	-	-	-
	else if(puc_type == 2)	-	-	○	-	-	-
	else if(puc_type == 3)	-	-	-	○	-	-
	else if(puc_type == 4)	-	-	-	-	○	-
	else	-	-	-	-	-	○
Input	Symbol	Range					
	puc_type	0~5					
	st_zipu_num.ul_mode_select_num	0x00000000,0xFFFFFFFF	0x00000000	0x00000000	0x00000000	0x00000000	0xFFFFFFFF
	st_zipu_num.ul_sub_mode_select_num	0x00000000,0xFFFFFFFF	0x00000000	0x00000000	0x00000000	0x00000000	0xFFFFFFFF
	st_zipu_num.ul_sub2_mode_select_num	0x00000000,0xFFFFFFFF	0x00000000	0x00000000	0x00000000	0x00000000	0xFFFFFFFF
	st_zipu_num.ul_item_select_num	0x00000000,0xFFFFFFFF	0x00000000	0x00000000	0x00000000	0x00000000	0xFFFFFFFF
	st_zipu_num.ul_sub_item_select_num	0x00000000,0xFFFFFFFF	0x00000000	0x00000000	0x00000000	0x00000000	0xFFFFFFFF
Output	luc_ans	0	0	0	0	0	0
Judgment							

ZIPCNumSet_Get_ZipcNumAddress

	Responsible	Last update
Coding	Ikarashi	
Test	Taki	
Judgment	Ikarashi	

Infinite loop	None
Verification pass	1
Judgment	

		case1
Root	None	-
	Symbol	Range
Input	None	-
Output	None	-
Judgment		

ZIPCNumSet_Int_1sec

	Responsible	Last update
Coding	Ikarashi	
Test	Taki	
Judgment	Ikarashi	

Infinite loop	None
Verification pass	5
Judgment	

		case1	case2	case3	case4	case5
Root	if(uc_num == M_ON)	○	○	○	-	-
	if(++uc_disp_flicker2sec2 == 2)	-	○	-	-	-
	else	○	-	○	-	-
	if(++uc_disp_flicker2sec3 == 3)	-	○	-	-	-
	else	○	-	○	-	-
	if(++uc_disp_flicker2sec4 == 4)	-	○	-	-	-
	else	○	-	○	-	-
	else	-	-	-	○	○
Input	Symbol	Range				
	uc_num	0~2				
	uc_disp_flicker2sec2	0~2				
	uc_disp_flicker2sec3	0~3				
	uc_disp_flicker2sec4	0~4				
Output	uc_disp_flicker2sec2	0,1	0	0	0	1
	uc_disp_flicker2sec3	0,2	1	0	0	2
	uc_disp_flicker2sec4	0~3	1	0	0	3
Judgment						

ZIPCNumSet_mainte_pass_onoff

	Responsible	Last update
Coding	Ikarashi	
Test	Taki	
Judgment	Ikarashi	

Infinite loop	None
Verification pass	1
Judgment	

		case1
Root	None	-
	Symbol	Range
Input	None	-
Output	stp_data->uc_mainte_pass_onoff	0
Judgment		

ZIPCNumSet_pass_protect_onoff

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1
Root	None		-
	Symbol	Range	
Input	None	-	-
Output	stp_data->uc_protect_pword_onoff	0	0
Judgment			

ZIPCNumSet_Reset_InitPossibleResetFailFlg

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1
Root	None		-
	Symbol	Range	
Input	None	-	-
Output	stp_status->us_main_state	0	0
Judgment			

ZIPCNumSet_Reset_PossibleResetFailFlg

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1
Root	None		-
	Symbol	Range	
Input	None	-	-
Output	stp_status->us_main_state	0	0
Judgment			

ZIPCNumSet_Set_GasTestFlg

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	3
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1	case2	case3
Root	None		-	-	-
	Symbol	Range			
Input	puc_flg	0-2	1	0	2
Output	uc_m_gastest_mode	0-2	1	0	2
Judgment					

ZIPCNumSet_user_pass_onoff

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	1
Test	Taki			
Judgment	Ikarashi		Judgment	

			case1
Root	None		-
	Symbol	Range	
Input	None	-	-
Output	stp_data->uc_user_pass_onoff	0	0
Judgment			

ZIPCNumSet_Get_FailFlg

	Responsible	Last update	Infinite loop	None
Coding	Ikarashi		Verification pass	12
Test	Taki			
Judgment	Ikarashi		Judgment	

[illegible]

ZIPCNumSet_Select_ZipcNumUpDown

	Responsible	Last update
Coding	Ikarashi	
Test	Taki	
Judgment	Ikarashi	

[illegible]