

Mark of drawing		Kind of parts	Rating/Model of parts	Remarks
IC1		IC (Power MUX)	TPS2121RUX [TI]	
IC2		IC (LDO)	S-1200B33-M5T1 [ABLIC]	
IC3, IC4		IC (Schmitt-Trigger Inverter)	SN74AHC1G14DBVR [TI]	
IC5		IC (Positive-OR)	SN74AHC1G32DBVT [TI]	
IC7		IC (Lithium Charge Management Controller)	MCP73841-410I/UN [Microchip]	
IC8		IC (USB Interface)	CP2102N-A02-GQFN24 [Silicon Labs]	
IC9, IC10		IC (LDO)	S-1335J28-M5T1 [ABLIC]	
IC11		IC (Magneto Resistive Sensor)	SM351LT [Honeywell]	
IC12		IC (CPU)	R5F5651EDDFC [RENESAS]	
IC13		IC (RTC)	RX8130CE [EPSON]	
IC15		IC (FRAM)	MB85RS512TPNF [FUJITSU]	
IC16		IC (Serial Flash Memory)	AT25SF641B-MHB [ADESTO]	
IC18, IC20		IC (OPAMP)	TLV2333IDGK [TI]	
IC19		IC (OPAMP)	S-89431ACNC [ABLIC]	
IC21		IC (LDO)	LT3021ES8#PBF [AD]	
IC22		IC (OPAMP)	MAX4037EUT+T [MAXIM]	
IC23		IC (OPAMP)	LT1490AIMS8 [AD]	
IC25, IC26		IC (Step up DC/DC Converter)	TPS61020DRC [TI]	**
IC27, IC29		IC (OPAMP)	TLV333IDCK [TI]	
IC28, IC30		IC (instrumentation amplifier)	INA317IDGK [TI]	
IC31, IC33		IC (Schmitt-Trigger buffer)	SN74LVC1G17DCK [TI]	
IC32		IC (Schmitt-Trigger buffer)	SN74LVC3G17DCUR [TI]	
NOTE	* marked parts are Safety Components. ** When IC25 is not mounted, do not mount ZD1 and ZD2. ** When IC26 is not mounted, do not mount ZD3 and ZD4. Non-Safety Components may be replaced with equivalent components or may not be mounted.			
REV.	0	NAME	PARTS LIST OF MAIN PCB EAGLE3	
DATE	2024.2.20	DWG.No.	PLT-6991-6514-20 (1/4)	
RIKEN KEIKI CO., LTD.			機密情報 / CONFIDENTIAL	

Mark of drawing	Kind of parts	Rating/Model of parts	Remarks
PS1,PS2	Pressure sensor	2SMPP-03 [OMRON]	
Q1, Q2	Pch MOS FET	RS1E260AT [ROHM]	
Q3, Q4, Q34, Q35	Nch MOS FET	RQ5E040AJ [ROHM]	
Q7, Q10, Q17, Q20, Q22, Q32, Q33	Nch MOS FET	RU1C001UN [ROHM]	
Q8, Q9, Q48	Pch MOS FET	RAF040P01 [ROHM]	
Q11, Q12, Q13	NPN Transistor	DTC114YU3T106 [ROHM]	
Q19, Q25, Q27	P+Pch MOS FET	QS8J13 [ROHM]	
Q36, Q37	N+Pch MOS FET	US6M11 [ROHM]	
Q46	PNP Transistor	DTA014YUB [ROHM]	
Q47	PNP Transistor	DTA023JUB [ROHM]	
D1, D2, D3	Schottky Barrier Diode	RBR20BM30A [ROHM] If = 20A, Vr = 30V	*
D4,D5,D6,D10	Schottky Barrier Diode	RB751VM-40 [ROHM]	
D9, D11, D12	Schottky Barrier Diode	MMSD301T1G [ON Semiconductor] If = 0.2A, Vr = 30V	*
ZD1, ZD2, ZD3, ZD4	Zener Diode	1N5338BG [ON Semiconductor] Vz = 4.85 - 5.36V, 5W, Tj = 200°C	* **
ZD5, ZD6	Zener Diode	TFZV 6.8B [ROHM]	
TVS1	TVS Diode Arrays	SP0503BAHT [Littelfuse]	
TVS2	TVS Diode	SD12-01FTG [Littelfuse]	
TH2	Thermistor or Chip metal film fixed resistor or Chip jumper	Rt25 = 1k - 470k ohm / 5%, B = 3000K - 5000K or 10 - 10M ohm / 1%,0.063W or 50m ohm max,1A(1608)	
R1-R10, R12-R15, R17, R19-R21, R23-R35, R37, R40-R44, R46-R64, R66, R70-R72, R74, R76-R84, R87, R89, R92-R199, R201, R206, R217-R220, R222, R223, R225, R228, R230-R232, R234-R236, R240, R247-R252, R256-R258, R270-R277	Chip metal film fixed resistor or Chip jumper	10 - 10M ohm / 1%, 0.1W or 50m ohm max, 1A (1608)	
NOTE	* marked parts are Safety Components. ** When IC25 is not mounted, do not mount ZD1 and ZD2. ** When IC26 is not mounted, do not mount ZD3 and ZD4. Non-Safety Components may be replaced with equivalent components or may not be mounted.		
REV.	0	NAME	PARTS LIST OF MAIN PCB EAGLE3
DATE	2024.2.20	DWG.No.	PLT-6991-6514-20 (2/4)
RIKEN KEIKI CO., LTD.		機密情報 / CONFIDENTIAL	

Mark of drawing	Kind of parts	Rating/Model of parts	Remarks
R11	Chip metal film fixed resistor	0.1 - 10 ohm / 1%, 0.33W or 50m ohm max, 2A (3216)	
R16	Chip metal film fixed resistor	0.03 - 10 ohm / 5%, 0.33W or 50m ohm max, 2A (3216)	
RC1, RC2	Chip metal film fixed resistor	RK73HW3A2_33R0 [KOA] 33 ohm / 1%, 2.0W, 200V	*
RC3	Chip metal film fixed resistor	ESR18EZP_4700 [ROHM] 470 ohm / 1%, 0.5W, 200V	*
RC4	Chip metal film fixed resistor	ESR18EZP_1500 [ROHM] 470 ohm / 1%, 0.5W, 200V	*
RF11,RF21,RF31, RN13,RN15,RN16,RN17, RP11,RP12,RP13, RP21,RP22,RP23, RS9	Chip metal film fixed resistor	ESR18EZP_1002 [ROHM] 10k ohm / 5%, 0.5W, 200V	*
RF12,RF13,RF22,RF23, RF32,RF33,RN12,RN14, RS5,RS6,RS7,RS8, RS19,RS29, RS39,RM1	Chip metal film fixed resistor	ESR18EZP_1001 [ROHM] 1k ohm / 1%, 0.5W, 200V	*
RN11,RS50,RS87	Chip metal film fixed resistor	ESR18EZP_1003 [ROHM] 100k ohm / 1%, 0.5W, 200V	*
RS10,RS11,RS12,RS13, RS14,RS15,RS20,RS21, RS22,RS23,RS24,RS25, RS30,RS31,RS32,RS33, RS34,RS35	Chip metal film fixed resistor	RK73HW3A2_1R10 [KOA] 1.1 ohm / 1%, 2.0W, 200V	*
RS16,RS17,RS18, RS26,RS27,RS28, RS36,RS37,RS38	Chip metal film fixed resistor	RK73HW3A2_5R10 [KOA] 5.1 ohm / 1%, 2.0W, 200V	*
RS40,RS41,RS42,RS43, RS44,RS45,RS46,RS47, RS48,RS49	Chip metal film fixed resistor	SR73W3A2_R390 [KOA] 0.39 ohm / 1%, 2.0W, 200V	*
RS60,RS61,RS62,RS63, RS64,RS65,RS66,RS67, RS68,RS69,RS70,RS71, RS72,RS73,RS74,RS75, RS76,RS77,RS78,RS79	Chip metal film fixed resistor	SR73W3A2_R470 [KOA] 0.47 ohm / 1%, 2.0W, 200V	*
RS80,RS81	Chip metal film fixed resistor	RK73HW3A2_10R0 [KOA] 10 ohm / 1%, 2.0W, 200V	*
RS82,RS83,RS84,RS85, RS86	Chip metal film fixed resistor	RK73HW3A2_1R30 [KOA] 1.3 ohm / 1%, 2.0W, 200V	*
NOTE	* marked parts are Safety Components. Non-Safety Components may be replaced with equivalent components or may not be mounted.		
REV.	0	NAME	PARTS LIST OF MAIN PCB EAGLE3
DATE	2024.2.20	DWG.No.	PLT-6991-6514-20 (3/4)
RIKEN KEIKI CO., LTD.		機密情報 / CONFIDENTIAL	

Mark of drawing	Kind of parts	Rating/Model of parts	Remarks
C1-C7,C9-C19,C124, C143,C174,C176	Chip multilayer capacitor inside C1.cir	Total capacitance 25uFmax	
C20-C28,C30-C42, C45-C48,C54-C72, C91-C94,C96-C107, C109-C115,C118-C120, C122,C123,C144, C146-C148,C152,C153, C156-C158,C160, C162-C173,C175	Chip multilayer capacitor inside M1.cir	Total capacitance 29.4uFmax	
C75,C76,C81,C84	Chip multilayer capacitor inside F1.cir	Total capacitance 7.05uFmax	
C79,C80,C82,C85	Chip multilayer capacitor inside F2.cir	Total capacitance 7.05uFmax	
C77,C78,C83,C86	Chip multilayer capacitor inside F3.cir	Total capacitance 7.05uFmax	
C90,C95,C108,C116, C117	Chip multilayer capacitor inside NC.cir	Total capacitance 16.7uFmax	
C125,C126,C128,C130, C131,C132,C141	Chip multilayer capacitor inside P1.cir	Total capacitance 5.795uFmax	
C133,C134,C135,C137, C139,C140,C142	Chip multilayer capacitor inside P2.cir	Total capacitance 5.795uFmax	
L2	Chip Common mode filter	DLW21HN900SQ2 (2012)	
L3,L4	Inductor	13u H max (3232)	
NF5,NF6,NF7,NF8,NF9, NF10,NF11,NF12,NF13, NF14,NF15,NF16,NF17, NF18,NF19,NF20	Chip Ferrite Beads or Chip metal film fixed resistor or Chip jumper	BLM18HD102 or 10 - 10M ohm / 1%, 0.1W or 50m ohm max, 1A (1608)	
NF21,NF22,NF23,NF24, NF25,NF26,NF27	Chip Ferrite Beads or Chip metal film fixed resistor or Chip jumper	BLM18PG331 or 10 - 10M ohm / 1%, 0.1W or 50m ohm max, 1A (1608)	
X1	Quartz Crystal	14.7456MHz	
BAT1	LITHIUM BUTTON CELL	CR1220 [Maxell] Vmax = 3.7V, Vtyp = 3.0V	*
F1	Cartridge Fuse	0218005.MXP [Littelfuse] In=5.0A, IBREAK =50 A @ 250 VAC	*
F1	Fuse Holder	111505 [Littelfuse]	
F2	Cartridge Fuse	0213001.MXP [Littelfuse] In=1A, IBREAK =35 A @ 250 VAC	*
F2	Fuse Holder	111505 [Littelfuse]	
P1,P2	DC Moter Pump	SP 550 EC [Schwarzer Precision] Lmax=207uH, Rmin=6.6ohm	
NOTE	* marked parts are Safety Components. Non-Safety Components may be replaced with equivalent components or may not be mounted.		
REV.	0	NAME	PARTS LIST OF MAIN PCB EAGLE3
DATE	2024.2.20	DWG.No.	PLT-6991-6514-20 (4/4)
RIKEN KEIKI CO., LTD.		機密情報 / CONFIDENTIAL	