

Fast Prototyping Board for RL78/L23 (FPB-RL78L23): MP
RTK7RLL230S00001BJ Board BOM Litst

D020662_02
Rev.0100
Mar 24, 2025

No.	Reference	Description	PartsNumber	Manufacturer	Qty	Fitted	Remarks
1	C1, C15, C16, C18	Capacitor,EIA0201,0.1u,16V,X7S (0603mm)	GRM033C71C104KE14D	MURATA	4	Fitted	-
2	C2, C3, C4, C5, C6, C7	Capacitor,EIA0402,470n,50V,X5R (1005mm)	GRM155R61H474KE11D	MURATA	6	Fitted	-
3	C8, C9	Capacitor,EIA0201,4p,50V,C0G (0603mm)	GRM0335C1H4R0BA01D	MURATA	2	Fitted	-
4	C10, C11	Capacitor,4mm,15p,50V,C0G dip	RDE5C1H150J0K1H03B	MURATA	0	Not Fitted	-
5	C12	Capacitor,EIA0201,0.01u,16V,B (0603mm)	GRM033B31C103KA12D	MURATA	1	Fitted	-
6	C13, C21	Capacitor,EIA0603,1u,16V,X7R(1608mm)	GRT188R71C105KE13D	MURATA	2	Fitted	-
7	C14	Capacitor,EIA0603,10u,16V,X6S (1608mm)	GRM188C81C106MA73D	MURATA	1	Fitted	-
8	C17	Capacitor,EIA0603,4.7u,16V,X5R (1608mm)	GRM188R61C475KE11D	MURATA	1	Fitted	-
9	C19, C20	Capacitor,EIA0201,47p,50V,C0G (0603mm)	GRM0335C1H470JA01D	MURATA	2	Fitted	-
10	D1, D2	SMD Schottky Barrier Diode	RBR1MM40ATR	ROHM	2	Fitted	-
11	FB1	Ferrite Chip, 3A, 25mOhm DCR, 10Ohm @100MHz	MPZ1005S100CT000	TDK	1	Fitted	-
12	J1	Header,60way,2row,vertical,2.54mm,THT	61306021121	Wuerth Elektronik	0	Not Fitted	-
13	J2	Header,40way,2row,vertical,2.54mm,THT	61304021121	Wuerth Elektronik	0	Not Fitted	-
14	J3, J4	Pmod connector, 16way, 2row, right-angle, SMT	SMH-106-02-T-D	Samtec	2	Fitted	-
15	J5, J6	Socket,18way,1row,vertical,2.54mm,SMD	NPTC181KFXC-RC	SULLINS	2	Fitted	-
16	J7, J9	Socket,8way,1row,vertical,2.54mm,SMD	NPTC081KFXC-RC	SULLINS	2	Fitted	-
17	J8	Socket,6way,1row,vertical,2.54mm,SMD	NPTC061KFXC-RC	SULLINS	1	Fitted	-
18	J10	Socket,10way,1row,vertical,2.54mm,SMD	NPTC101KFXC-RC	SULLINS	1	Fitted	-
19	J11	Header,4way,1row	SKU110990030	SEED	0	Not Fitted	-
20	J12, J13, J17, J18	Header,2way,1row,vertical,2.54mm,THT	61300211121	Wuerth Elektronik	0	Not Fitted	-
21	J14, J21, J23	Header,3way,1row,vertical,2.54mm,THT	TSM-103-04-L-SV-P-TR	Samtec	3	Fitted	-
22	J15	Emulator connector,14way,2row, THT	7614-6002	3M	0	Not Fitted	-
23	J16, J20, J22	Header,3way,1row,vertical,2.54mm,THT	61300311121	Wuerth Elektronik	0	Not Fitted	-
24	J19	Connector USB 2.0 Type C Horizontal SMT	USB4105-GF-A-120	GCT	1	Fitted	-
25	LED1, LED2, LED3	LED(Green) (1608 Metric) SMT	SML-D12P8WT86	ROHM	3	Fitted	-
26	R1, R2, R3, R4	Resistor,EIA0402,1.5k,0.0625W	RC0402FR-071.5KRL	KOA	0	Not Fitted	-
27	R10, R14, R19, R24	Resistor,EIA0402,10k,0.0625W	RC0402FR-0710KL	KOA	4	Fitted	-
28	R5	Resistor,EIA0402,10k,0.0625W	RC0402FR-0710KL	KOA	0	Not Fitted	-
29	R6, R7	Resistor,EIA0402,560,0.0625W	RC0402FR-07560RL	KOA	2	Fitted	-
30	R8, R9, R11, R12, R15, R18, R25	Resistor,EIA0402,1k,0.0625W	RC0402FR-071KL	KOA	7	Fitted	-

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31	R13	Resistor,EIA0402,2k,0.0625W	RC0402FR-072KL	KOA	1	Fitted	-
32	R20	Resistor,EIA0402,100k,0.0625W	RC0402FR-07100KL	KOA	1	Fitted	-
33	R21, R22	Resistor,EIA0402,5.1k,0.0625W	RC0402FR-075.1KRL	KOA	2	Fitted	-
34	R23	Resistor,EIA0402,0,0.0625W	RC0402FR-070RL	KOA	1	Fitted	-
35	S1, S2	Push button switch	SKRPANE010	ALPS	2	Fitted	-
36	U1	RL78/L23 MCU 100-pin LFQFP (0.5mm) 32MHz, ROM 512KB(256KBx2BANK), RAM 32KB, Data Flash 8KB	R7F100LPL3CFB	RENESAS	1	Fitted	-
37	U2	High Performance 300mA LDO High PSRR	ISL9005AIRNZ-T	RENESAS	1	Fitted	-
38	U3	UART Interface IC USB Full Speed to Serial UART IC, Includes Oscillator and EEPROM	FT232RNQ-REEL	FTDI	1	Fitted	-
39	U4	Logic IC SMD	SN74LVC1G126DCK	TI	1	Fitted	-
40	X1	SMD	CSTNE20M0V530000R0	MURATA	0	Not Fitted	-
41	X2	32.768kHz SMD	SSP-T7-FL 4.4pF	SII	1	Fitted	-
42	X3	DIP	CSTLS20M0X51-B0	MURATA	0	Not Fitted	-
43	JMP21, JMP23, JMP24	Shunt jumper 2.54mm, black,open top	XJ8A-0241	ROHM	3	Fitted	Normal: JP14: 1-2 short JP21: 1-2 short JP23: 1-2 short
44	Button1, Button2	Touch PAD 8mm*8mm	PAD_8*8	-	2	Not Fitted	-
45	E1, E11, E12, E13, E23, E24, E25, E26, E33, E34, E37, E38, E39, E45, E47, E53, E55	Solder Bridge, SMD, 0805 size	Jumper Solder Bridge	-	17	Not Fitted	-

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46	E2, E3, E4, E5, E6, E7, E8, E9, E10, E14, E15, E16, E17, E18, E19, E20, E21, E22, E27, E28, E29, E30, E31, E32, E35, E36, E40, E41, E42, E43, E44, E46, E48, E49, E50, E51, E52, E54, E56, E57, E58	Trace Cut, SMD, 0805 size	Jumper Trace Cut	-	41	Not Fitted	-
47	TP1, TP2, TP3, TP4, TP5, TP6, TP7, TP8, TP9, TP10, TP11, TP12, TP13, TP14, TP15, TP16	Testpoint,THT,1mm PTH	TP_VIA	-	16	Not Fitted	-

REVISION HISTORY	RTK7RLL230S00001BJ Board BOM Litst
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Rev	Date	Description
0100	2025/3/11	New