

MB2K2-v1b BOM

Item	Qty	Reference(s)	Value	Footprint	Manufacturer	Manufacturer PN	Description
1	1	BT1	KS3001	CR1216 through hole	Keystone	3001	Battery Holder: THM, 1 Coin Cell, 12mm, PhosBronze/Tin-Nickel
2	3	C1, C3, C5	4u7	C0805	Generic		
3	24	C2, C7, C9, C10, C13, C14, C17, C18, C19, C20, C21, C22, C23, C24, C25, C26, C27, C28, C29, C30, C32, C33, C34, C36	100n	C0805	Generic		
4	1	C4	2u2	C0805	Generic		
5	1	C6	22u	C0805	Generic		
6	1	C8	10n	C0805	Generic		
7	2	C11, C12	4p7	C0805	Generic		
8	2	C15, C16	1n	C0805	Generic		
9	1	C31	1u	C0805	Generic		
10	1	C35	100p	C0805	Generic		
11	1	CN1	70246-2004	20 pin box HDR, 2 row, 2.54mm pitch	Molex	70246-2004	Conn Shrouded Header (4 Sides) HDR 20 POS 2.54mm Solder ST Thru-Hole
12	1	D1	WH	LED0805	Generic		
13	3	D2, D4, D6	R	LED0805	Generic		
14	3	D3, D5, D7	G	LED0805	Generic		
15	1	D8	B	LED0805	Generic		
16	1	D9	PRTR5V0U2X,215	SOT-143B	Nexperia	PRTR5V0U2X,215	Ultra low capacitance double rail-to-rail ESD protection diode
17	1	D10	DGS14U	SOD-123F	Nexperia	PMEG4010EH,115	Diode Schottky 50V, 1A
18	1	J1	634-015-274-992	D-Sub, 15pin, 1.52mm pitch, RA	EDAC	634-015-274-992	D-Subminiature SKT 15 POS 1.52mm Solder RA Thru-Hole 15 Terminal
19	1	J2	5749180-1	Mini DIN Connector, 6pin	TE	5749180-1	DIN Connector, 6 Contact(s), Female, Board Mount, Solder Terminal
20	1	J3	70246-3404	34 pin box HDR, 2 row, 2.54mm pitch	Molex	70246-3404	Conn Shrouded Header (4 Sides) HDR 34 POS 2.54mm Solder ST Top Entry Thru-Hole
21	1	J4	USB Type B	USB Type B	Multicomp	USB-B-S-RA	USB Connector, 4 Contact(s), Female, Right Angle, Solder Terminal, Locking
22	2	J5, J6	61300311121	3 pin HDR, 2.54mm pitch	Würth Elektronik	61300311121	THT Vertical Pin Header WR-PHD, Pitch 2.54 mm, Single Row, 3 pins
23	1	L1	2u2	Ind 3.8x3.8	Vishay Dale	IFSC1515AHER2R2M01	Inductor Power Shielded Wirewound 2.2uH 20% 100KHz 2.8A 0.045Ohm DCR 1515 T/R
24	1	LS1	3V buzzer	12mm dia, 9mm pitch	CMI	CMI-1295IC-0385T	Audio Buzzer Magnetic 2VDC 5VDC 30mA 3VDC 85dB 2300Hz to 2500Hz Through Hole
25	2	P1, P2	61300511121	5 pin HDR, 2.54mm pitch	Würth Elektronik	61300511121	THT Vertical Pin Header WR-PHD, Pitch 2.54 mm, Single Row, 5 pins
26	9	R1, R2, R3, R4, R17, R27, R35, R36, R39	330R	R0805	Generic		
27	5	R5, R9, R14, R40, R42	4K7	R0805	Generic		
28	1	R6	17K8	R0805	Generic		
29	1	R7	3K0	R0805	Generic		
30	16	R8, R13, R15, R16, R19, R21, R22, R23, R24, R25, R26, R38, R43, R44, R45, R48	10K	R0805	Generic		
31	2	R10, R41	100K	R0805	Generic		
32	5	R11, R12, R18, R20, R28	1K0	R0805	Generic		
34	6	R29, R31, R33, R49, R58, R59	33R	R0805	Generic		
35	3	R30, R32, R34	100R	R0805	Generic		
36	6	R37, R46, R55, R56, R57	0R	R0805	Generic		
37	1	R47	4R7	R0805	Generic		
38	1	R50	43R	R0805	Generic		
38	1	SW1	210-4MS	8 pin DIP	CTS	210-4MS	Switch DIP ON OFF SPST 4 Raised Slide 0.1A 20VDC 2.54mm Thru-Hole
39	1	SW2	TL1014AF220QG	TL1014AF220QG	E-Switch	TL1014AF220QG	Switch Tactile N.O. SPST Rectangular Button Gull Wing 0.05A 12VDC 1.57N SMD
40	3	TR1, TR2, TR3	TSM2302CX	SOT23	Taiwan Semiconductors	TSM2302CX	Transistor MOSFET N-CH 20V 3.9A 3-Pin SOT-23 Plastic T/R
41	1	U1	SP6205EM5-L-3.3	SOT23_5	Exar	SP6205EM5-L-3-3/TR	SP6205 Series 3.3 V 500 mA SMT Low Noise CMOS LDO Regulator - SOT-23-5
42	1	U2	ST1S09IPUR	DFN6D_N	STMicroelectronics	ST1S09IPUR	Switching Regulator, Current-mode, 1.5A, 1800kHz Switching Freq-Max
43	1	U3	XU216-512-TQ128-C20	TQFP128_XMOS	XMOS	XU216-512-TQ128-C20	XCore XU Microcontroller IC 32-Bit 16-Core 2000MIPS ROMless 128-TQFP (14x14)
44	1	U4	IS25LP032D-JNLE	SOIC-8N	ISSI	IS25LP032D-JNLE	NOR Flash Serial (SPI, Dual SPI, Quad SPI) 2.5V/3V/3.3V 32M-bit 4M x 8 8ns 8-Pin SOIC N
45	1	U5	TLV840MADL08DBVR	SOT23_5	TI	TLV840MADL08DBVR	Low-voltage supervisor with adjustable-reset time delay and manual reset 5-SOT-23 -40 to 125
46	1	U6	MCP79410-I/SN	SOIC-8N	Microchip	MCP79410-I/SN	Real Time Clock Serial 64byte Clock/Calendar/Alarm/Battery Backup Automotive 8-Pin SOIC N
47	2	U7, U8	SN74LVC07AD	SOIC-14N	Texas Instruments	SN74LVC07AD	Non Inverting Buffer, CMOS SOIC-14
48	1	U9	SN74LVC125AD	SOIC-14N	Texas Instruments	SN74LVC125AD	Buffer/Line Driver 4-CH Non-Inverting 3-ST CMOS SOIC-14
49	1	U10	MB85RC1MTPNF-G-JNERE1	SOIC-8	Fujitsu		1Mbit FRAM with I2C serial interface, 1.8V, 3V
50	1	X1	FC-135 32.7680KA-A	XTAL_3215	Epson Toyocom	FC-135 32.7680KA-A	Mini SMD Xtl Khz +/-20PPM, -40~85C 9PF
51	1	X2	ASE-24.000MHZ-LC-T	SMD 3.2mm x 2.5mm	Abracon LLC	ASE-24.000MHZ-LC-T	Oscillator 24MHz +/-50ppm 15pF CMOS 55% 2.5V 4-Pin SMD