

PMP23300 REV B Bill of Materials



Item #	Designator	Quantity	Value	PartNumber	Manufacturer	Description	PackageReference
1	PCB1	1		PMP23300	Any	Printed Circuit Board	
2	C1	1	2.2uF	GRM188R1A222K10D	MuRata	CAP. CERM. 2.2 uF, 10 V, +/- 10%, X7R, 0603	0603
3	C2, C3, C4, C5	4	22uF	C121022K2RAC1R00	Kemet	CAP. CERM. 22 uF, 25 V, +/- 10%, X7R, 1210	1210
4	C6	1	1uF	C1608NR1H106K080AB	TDK	CAP. CERM. 1 uF, 50 V, +/- 10%, X5R, 0603	0603
5	C8, C9, C10, C11	4	4.7uF	CN05P107R2A475K250AE	TDK	4.7 uF +/-10% 100V Ceramic Capacitor XGR 1210 (S25 Metric)	1210
6	C12	1	0.047uF	C1608NR2A220K0401D	TDK	CAP. CERM. 0.047 uF, 10 V, +/- 10%, X5S, 0603	0603
7	C13	1	0.047uF	GRM155R71E473K480D	MuRata	CAP. CERM. 0.047 uF, 25 V, +/- 10%, X7R, 0402	0402
8	C14	1	1uF	C1608NR1V106K030AC	TDK	CAP. CERM. 1 uF, 35 V, +/- 10%, X7R, 0603	0603
9	C15	1	0.01uF	GRM155R71C010K401D	MuRata	CAP. CERM. 0.01 uF, 16 V, +/- 10%, X7R, 0603	0603
10	C16	1	0.1uF	CC0402KX7R8BB104	Yageo	CAP. CERM. 0.1 uF, 25 V, +/- 10%, X7R, 0402	0402
11	C17	1	2.2uF	GRM31CR72A225K473L	MuRata	CAP. CERM. 2.2 uF, 100 V, +/- 10%, X7R, 1206, 190	1206, 190
12	C18	1	1uF	CL15081080B9FN3C	Samsung Electro-Mechanics	CAP. CERM. 1 uF, 16 V, +/- 10%, X7R, 0603	0603
13	C19, C20	2	22uF	GRM21BZ71A220ME15L	MuRata	CAP. CERM. 22 uF, 10 V, +/- 20%, X7R, 0605	0605
14	C21	1	4.7uF	GRM188R9V475K15D	MuRata	CAP. CERM. 4.7 uF, 35 V, +/- 10%, X5R, 0603	0603
15	C22, C23, C49, C54, C55	5	0.01uF	GC155R71H103KA55D	MuRata	CAP. CERM. 0.01 uF, 50 V, +/- 10%, COG/NPO, 0402	0402
16	C23, C24	2	220pF	CC0402KX7R8BB221	Yageo	CAP. CERM. 220 pF, 50 V, +/- 10%, X7R, 0402	0402
17	C26	1	0.1uF	8.85012E+11	Würth Elektronik	CAP. CERM. 0.1 uF, 16 V, +/- 10%, X7R, 0402	0402
18	C27, C28, C29, C30, C32, C34, C43, C53	8	0.1uF	GC155R71H104KE02D	MuRata	CAP. CERM. 0.1 uF, 50 V, +/- 10%, X7R, AEC-Q200 Grade 1, 0402	0402
19	C31, C33	2	4.7uF	C1005NR1A475M050BC	TDK	CAP. CERM. 4.7 uF, 10 V, +/- 20%, X5R, 0402	0402
20	C35, C37	2	10pF	CGA3E20G1100D080AA	TDK	CAP. CERM. 10 pF, 50 V, +/- 5%, COG/NPO, AEC-Q200 Grade 1, 0603	0603
21	C38	1	180pF	9602SA181JA12A	AVX	CAP. CERM. 180 pF, 50 V, +/- 5%, COG/NPO, 0603	0603
22	C42	1	0.01uF	CO402C103SRACTU	Kemet	CAP. CERM. 0.01 uF, 50 V, +/- 5%, X7R, 0402	0402
23	C44	1	100uF	293D106R010B2T3	Vishay-Sprague	CAP. TA. 100 uF, 10 V, +/- 10%, 2.5 ohm, SMD	SS28-21
24	C45	1	10uF	94022108MA72A	AVX	CAP. CERM. 10 uF, 16 V, +/- 20%, X5R, 0402	0402
25	C46	1	1uF	1JK107AB1709KA-T	Taiyo Yuden	CAP. CERM. 1 uF, 50 V, +/- 10%, X7R, 0603	0603
26	C47	1	4.7uF	1JK107BB476MA-T	Taiyo Yuden	CAP. CERM. 4.7 uF, 6.3 V, +/- 10%, X7R, 0603	0603
27	C48, C52	2	10uF	GRM155R71A100R473D	MuRata	CAP. CERM. 10 uF, 10 V, +/- 20%, X7R, 0603	0603
28	C50	1	1uF	EMK105B105K9VHF	Taiyo Yuden	CAP. CERM. 1 uF, 16 V, +/- 10%, X5R, 0402	0402
29	C51	1	10uF	GRM188R1E106MA73D	MuRata	CAP. CERM. 10 uF, 25 V, +/- 20%, X5R, 0603	0603
30	C56, C58, C59, C60	4	0.047uF			CAP. CERM. 0.047 uF, 630 V, +/- 10%, X71, 1206	1206
31	C57	1	100pF	96031C101JA12A	KYOCERA AVX	100 pF 25% 100V Ceramic Capacitor X7R 0603 (1608 Metric)	0603
32	C62	1	0.47uF	1MK105B747K4VH	Taiyo Yuden	CAP. CERM. 0.47 uF, 6.3 V, +/- 10%, X7R, 0402	0402
33	C1, C2, C3, C4, C6, C8	1	White	WLP-Q1969-0252-3KSL-1	OSRAM	LED, White, SMD	0402, White
34	D6, D6	2		TPD1E10B04DPLR	Texas Instruments	1-Channel ESD Protection Diode for USB Type-C and Thunderbolt 3, DPI000A (Q200A2)	DPI000A
35	D7	1	30V	NSR20F30N0T5G	ON Semiconductor	Diode, Schottky, 30 V, 2 A, 2-WDFN	2-WDFN
36	H1, H2, H3, H4	4		NY PMS 44 0025 PH	B&F Fastener Supply	Machine Screw, Round, #4-40 x 1/4, Nylon, Philips panhead	Screw
37	J1	1		436500301	Molex	Conn Power HDR 3 POS 3mm Solder RA Thru-Hole 3 Terminal 1 Post Micro-Fit 3.0™ Frame	CONN_HDR3
38	J2	1		Z662RD-AB-5P(30)	Hirose	USB - micro AB USB 2.0 Receptacle Connector 5 Position Surface Mount, Right Angle, Through Hole	CONN_USB
39	J3	1		12402054M611A	Amphenol IFC	USB-C (USB TYPE-C) USB 2.0 Receptacle Connector 24 (14+10 Dummy) Position Through Hole, Right Angle	CONN_USB
40	J4	1		RHSW-102-09-G-S	Samtec	Header, 100mil, 2x1, G06, TH	Header, 2x1, 2.54mm, TH
41	J5	1		PEC05DAAN	Sullins Connector Solutions	Header, 100mil, 5x2, Tin, TH	Header, 5x2, 100mil, Tin
42	L1	1	33uH	7447709330	Würth Elektronik	Inductor, Shielded Drum Core, Ferrite, 33 uH, 4.2 A, 0.0368 ohm, SMD	SMD
43	L2	1	18uH	74493180	Würth Elektronik	Inductor, Shielded Drum Core, Ferrite, 18 uH, 1.1 A, 0.088 ohm, SMD	WE-TPC-LH
44	L3	1	20 ohm	W175C020TNTD	Würth Elektronik	Ferrite Bead, 20 ohm @ 100 MHz, 8 A, 0603	0603
45	LBL1	1		RHT-14-423-10	Brady	Thermal Transfer Printable Labels, 0.650" W x 0.200" H - 10,000 per roll	PCB Label 0.650 x 0.200 Inch
46	Q1, Q2, Q3, Q4, Q5, Q6, Q7	7	20V	BSH105.215	Nexperia	MOSFET, N-CH, 20 V, 1.05 A, SOT-23	SOT-23
47	R1	1	300k	CRCW0402300KFKE0	Vishay-Dale	RES, 300 k, 1%, 0.063 W, AEC-Q200 Grade 0, 0402	0402
48	R2, R4, R6, R14, R15, R16	6	0	CRCW04020000ZEDHP	Vishay-Dale	RES, 0, 0%, 0.2 W, AEC-Q200 Grade 0, 0402	0402
49	R3, R8, R11, R12, R13	5	100k	RC1005F104CS	Samsung Electro-Mechanics	RES, 100 k, 1%, 0.063 W, 0402	0402
50	R5	1	12.7k	CRCW040212K7KFE0	Vishay-Dale	RES, 12.7 k, 1%, 0.063 W, AEC-Q200 Grade 0, 0402	0402
51	R7, R17, R19, R23, R24, R25, R26, R30, R31, R34, R43, R47, R48, R49, R50, R51, R52, R53, R54, R62, R65, R66, R67, R76, R80, R81, R82, R83, R84	29	0	RC0402JR-070RL	Yageo America	RES, 0, 5%, 0.063 W, 0402	0402
52	R10	1	24.9k	CRCW040224K9KFE0	Vishay-Dale	RES, 24.9 k, 1%, 0.063 W, AEC-Q200 Grade 0, 0402	0402
53	R18, R32, R45, R46	4	100k	CRCW0402100KFKE0	Vishay-Dale	RES, 100 k, 1%, 0.063 W, AEC-Q200 Grade 0, 0402	0402
54	R50, R21, R27, R28	4	3.83k	CRCW04023K83KFE0	Vishay-Dale	RES, 3.83 k, 1%, 0.063 W, AEC-Q200 Grade 0, 0402	0402
55	R22, R26, R35, R36, R37, R38, R67	7	10.0k	ERJ-2RKF1002X	Panasonic	RES, 10.0 k, 1%, 0.1 W, 0402	0402
56	R39, R40, R41, R42	4	3.3k	CRCW04023K30JNE0	Vishay-Dale	RES, 3.3 k, 5%, 0.063 W, AEC-Q200 Grade 0, 0402	0402
57	R59	1	280k	CRCW0603280KFKEA	Vishay-Dale	RES, 280 k, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
58	R60, R69, R71	3	4.99k	RC0402FR-074K96	Vishay America	RES, 4.99 k, 1%, 0.063 W, 0402	0402
59	R81	1	0	CRCW04020000ZED	Vishay-Dale	RES, 0, 5%, 0.063 W, AEC-Q200 Grade 0, 0402	0402
60	R68	1	3.48	CRCW04023K48KFE0	Vishay-Dale	RES, 3.48 k, 1%, 0.063 W, AEC-Q200 Grade 0, 0402	0402
61	R70	1	1.65k	CRCW04021K65KFE0	Vishay-Dale	RES, 1.65 k, 1%, 0.063 W, AEC-Q200 Grade 0, 0402	0402
62	R79	1	20.0k	CRCW040220K0KFE0	Vishay-Dale	RES, 20.0 k, 1%, 0.063 W, AEC-Q200 Grade 0, 0402	0402
63	R85	1	10.0k	CRCW040210K0KFE0	Vishay-Dale	RES, 10.0 k, 1%, 0.063 W, AEC-Q200 Grade 0, 0402	0402
64	S1, S2, S3	3		8313-100P	Omron Electronic Component	SWITCH TACTILE SPST NO 0.5A 12V	0.1 x 0.25mm
65	TP1, TP2, TP6, TP8	4		6010	Keystone Electronics	Test Point, Multipurpose, Red, TH	Red Multipurpose Testpoint
66	TP3, TP4, TP7, TP11	4		6011	Keystone Electronics	Test Point, Multipurpose, Black, TH	Black Multipurpose Testpoint
67	U1	1		LM7600SRNPR	Texas Instruments	3.5V to 60V 5A Synchronous Step-Down Voltage Regulator, RNP0030A (VOFN-30)	RNP0030A
68	U2	1		LMR3650R3RPET	Texas Instruments	LMR3650R3-Q1 Wide Input 60-V Synchronous, DC-DC Buck Converter, RPE0009A (VOFN-9)	RPE0009A
69	U3	1		TVS2200DRVR	Texas Instruments	22-V Precision Surge Protection Clamp, DRV0006A (WSON-6)	DRV0006A
70	U4	1		TPS36870DRSHR	Texas Instruments	USB Type-C and USB PD Controller with Integrated Power Switches, RSH0056E (VOFN-56)	RSH0056E
71	U5	1		W25Q64DV-SNAG	Winbond	3V, 64Kbit, Serial Flash Memory with Dual and Quad SPI, SOIC-8	SOIC-8
72	U6	1		NAC1233RHPNTR	Texas Instruments	Two-C-Serial Microcontroller, 236 8K Flash, 32 KB SRAM, 12-bit, 12 Channels, -40 to 105 degC, 64-Pin LQFP (PM), Green (RoHS & no Sulfur), Tape and Reel	PA00064A
73	U8, U8	1		TPD2E0090RTR	Texas Instruments	ESD Protection Array for High-Speed Data Interfaces, 2 Channels, -40 to +85 degC, 3-pin SOT (DRT), Green (RoHS & no Sulfur)	DRT0003A
74	U9	1		TPS768330D	Texas Instruments	Single Output Fast Transient Response LDO, 1 A, Fixed 3.3 V Output, 2.7 to 10 V Input, with Low IQ, 8-pin SOIC (D), -40 to 125 degC, Green (RoHS & no Sulfur)	00008A
75	U10	1		TPD6S300AUKR	Texas Instruments	USB Type-C Port Protector, Short-to-VBUS Overvoltage and IEC ESD Protection, RUK0020B (VOFN-20)	RUK0020B
76	Y1	1		NX0225G-16.000M-STD-CRG-1	NDK	Oscill, 16 MHz, SPT, SMD	3.2x0.75x2.5mm
77	Z7	0	100pF	040204101FA12A	AVX	CAP. CERM. 100 pF, 50 V, +/- 1%, COG/NPO, 0402	0402
78	Z8	0	100k	RC1005F104CS	Samsung Electro-Mechanics	RES, 100 k, 1%, 0.063 W, 0402	0402
79	R33	0	191k	CRCW0402191KFKED	Vishay-Dale	RES, 191 k, 1%, 0.063 W, AEC-Q200 Grade 0, 0402	0402
80	R44	0	0	RC0402JR-070RL	Yageo America	RES, 0, 5%, 0.063 W, 0402	0402
81	R72, R73, R74, R75, R76, R77	0	0	R973Z1ETTP	KOR Spier	RES, 0, 5%, 0.063 W, AEC-Q200 Grade 0, 0402	0402
82	TP5, TP9, TP10, TP12, TP15, TP18, TP19, TP20, TP21, TP22	0		S1751-46	Harwin	Test Lead clips and hooks, SMT	Test Point, Body 0.25x1.65mm

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