

Variant: 001
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PMP23611 REV A Bill of Materials

Item #	Designator	Quantity	Value	PartNumber	Manufacturer	Description	PackageReference
1	IPC81	1		PMP23611	Any	Printed Circuit Board	
2	AGND_CTRL1, GND1_PGND1	3		5011	Keystone Electronics, Keyston	Test Point, Multipurpose, Black, TH	Black Multipurpose Testpoint
3	BODE	1		5012	Keystone Electronics	Test Point, Multipurpose, White, TH	White Multipurpose Testpoint
4	C1	1	100uF	EEV-FK1K101Q	Panasonic	CAP, AL, 100 uF, 80 V, +/- 20%, 0.32 ohm, AEC-Q200 Grade 2, SMD	SMT Radial HL3
5	C2, C57	2	1000pF	CGA3E2X7R2A102K080AA	TDK	CAP, CERM, 1000 pF, 100 V, +/- 10%, X7R, AEC-Q200 Grade 1, 0603	0603
6	C3, C58	2	0.01uF	GRM188R72A103KAO1D	MuRata	CAP, CERM, 0.01 uF, 100 V, +/- 10%, X7R, 0603	0603
7	C4	1	0.1uF	C0805C104K1RACTU	Kemet	CAP, CERM, 0.1 uF, 100 V, +/- 10%, X7R, 0805	0805
8	C5, C6, C7, C8, C9, C10, C11, C12, C13, C14, C18, C19, C20, C21, C45, C46, C47, C48	18	4.7uF	GCJ32DC72A475KE01L	Murata	4.7uF ±10% 100V Ceramic Capacitor X7S 1210 (3225 Metric)	1210
9	C22, C53	2	4.7uF	GCM21BC71E475KE36L	MuRata	CAP, CERM, 4.7 uF, 25 V, +/- 10%, X7S, AEC-Q200 Grade 1, 0805	0805
10	C23, C28, C54, C56	4	0.1uF	GCM155R71C104JA5SD	MuRata	CAP, CERM, 0.1 uF, 16 V, +/- 5%, X7R, AEC-Q200 Grade 1, 0402	0402
11	C24, C25, C38, C42, C44, C49, C50, C55, C59, C75, C77, C78	12	0.1uF	CGA3E2X7R1E104K080AA	TDK	CAP, CERM, 0.1 uF, 25 V, +/- 10%, X7R, AEC-Q200 Grade 1, 0603	0603
12	C26, C27, C51, C52	4	0.22uF	CL21B224KCF5NWE	Samsung Electro-Mechanics	CAP, CERM, 0.22 uF, 100 V, +/- 10%, X7R, 0805	0805
13	C29, C30, C31, C32, C33, C60, C61, C62, C63, C64, C72, C73, C74, C76	14	22uF	CGA6P3X7R1E226M250AB	TDK	Cap Ceramic 22uF 25V X7R 20% Pad SMD 1210 +125°C Automotive T/R	1210
14	C34, C65, C66	3	220uF	T598D227M010ATE025	Kemet	CAP, Tantalum Polymer, 220 uF, 10 V, +/- 20%, 0.025 ohm, AEC-Q200 Grade 1, 7343-31 SMD	7343-31
15	C37, C68	2	1uF	UMK107AB7105KA-T	Taiyo Yuden	CAP, CERM, 1 uF, 50 V, +/- 10%, X7R, 0603	0603
16	C39	1	0.1uF	GRM188R72A104KA3SD	MuRata	CAP, CERM, 0.1 uF, 100 V, +/- 10%, X7R, 0603	0603
17	C40	1	4.7uF	GRM188Z71C475KE21D	MuRata	CAP, CERM, 4.7 uF, 16 V, +/- 10%, X7R, 0603	0603
18	C41	1	1uF	GCM188R71C105KA6AJ	MuRata	CAP, CERM, 1 uF, 16 V, +/- 10%, X7R, AEC-Q200 Grade 1, 0603	0603
19	C43, C69	2	100pF	GCM1885C2A101JA16D	MuRata	CAP, CERM, 100 pF, 100 V, +/- 5%, COG/NPO, AEC-Q200 Grade 1, 0603	0603
20	C70	1	150pF	06035A151JAT2A	AVX	CAP, CERM, 150 pF, 50 V, +/- 5%, COG/NPO, 0603	0603
21	C71	1	4700pF	C0603C472J5RACTU	Kemet	CAP, CERM, 4700 pF, 50 V, +/- 5%, X7R, 0603	0603
22	H1, H2, H3, H4	4		NY PMS 440 0025 PH	B&F Fastener Supply	Machine Screw, Round, #4-40 x 1/4, Nylon, Philips panhead	Screw
23	H5, H6, H7, H8	4		1902C	Keystone	Standoff, Hex, 0.5" L, #4-40 Nylon	Standoff
24	J1, J2	2		EM292902-UL	Eaton	Terminal Block, 10.16mm, 2x1, Tin, R/A, TH	Terminal Block, 10.16mm 2x1, TH
25	J3	1		TSW-114-07-G-S	Samtec	Header, 100mil, 14x1, Gold, TH	14x1 Header
26	J4	1		5-146261-1	TE Connectivity	Header, 100mil, 2x1, Gold, TH	Header, 2x1, 100mil
27	J5, J6	2		MMCX-J-P-H-ST-TH1	Samtec	Connector, MMCX 50 ohm, TH	Connector, MMCX, TH
28	L1	1	1uH	VCHA105D-1R0MS6	Cyntec	Inductor, 1 uH, 30 A, 0.00276 ohm, AEC-Q200 Grade 0, SMD	10.85x10mm
29	L2	1	10uH	7448421016	Würth Elektronik	Coupled inductor, 16 uH, 0.0027 ohm, TH	18.5x14.5mm
30	L4, L6	2	2.5uH	VCLD128T-2R5MS8	CYNTREC	Power Choke Coil 2.5uH 20% 100kHz 32A AECQ200	SMT_IND_13MM3_12 MM8
31	LBL1	1		TH1-14-423-10	Brady	Thermal Transfer Printable Labels, 0.650" W x 0.200" H - 10,000 per roll	PCB Label 0.650 x 0.200 inch
32	Q1, Q2	2	30V	CSD17570Q5B	Texas Instruments	MOSFET, N-CH, 30 V, 51 A, DNK0008A (VSON-CLIP-8)	DNK0008A
33	R1	1	1	RCL12251R00FKEG	Vishay Dale	1 Ohms ±1% 2W Chip Resistor Wide 2512 (6432 Metric), 1225 Automotive AEC-Q200 Thick Film	2512
34	R2, R3, R21, R26	4	2.2	CRCW040022R20JNED	Vishay-Dale	RES, 2.2, 5%, 0.063 W, AEC-Q200 Grade 0, 0402	0402
35	R4, R27	2	2.49k	RC1210FR-072K49L	Yageo	RES, 2.49 k, 1%, 0.5 W, 1210	1210
36	R9, R33	2	47kΩ	NCU18WB473J6SRB	Murata	NTC Thermistor for Temperature Sensor, Automotive, 0603, 47kΩ, 5%, 0.046mA, 5V	0603
37	R10, R13, R20, R36	4	0	CRCW06030000Z0EA	Vishay-Dale	RES, 0, 5%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
38	R12, R35, R49	3	7.50k	CRCW06037K50FKEA	Vishay-Dale	RES, 7.50 k, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
39	R16, R19, R25, R28, R48, R50, R51, R54, R64, R65	10	10.0k	CRCW060310K0FKEA	Vishay-Dale	RES, 10.0 k, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
40	R17, R44	2	49.9	ERJ-3EKF49R9V	Panasonic	RES, 49.9, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
41	R18, R45	2	52.3k	RT0603DRE0752K3L	Yageo America	RES, 52.3 k, 0.5%, 0.1 W, 0603	0603
42	R22	1	41.2k	CRCW060341K2FKEA	Vishay-Dale	RES, 41.2 k, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
43	R23	1	20.0k	CRCW060320K0FKEA	Vishay-Dale	RES, 20.0 k, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
44	R24	1	52.3k	CRCW060352K3FKEA	Vishay-Dale	RES, 52.3 k, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
45	R37, R55, R56	3	49.9	CRCW060349R9FKEA	Vishay-Dale	RES, 49.9, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
46	R40	1	191k	CRCW0603191KFKEA	Vishay-Dale	RES, 191 k, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
47	R41, R42, R43	3	100k	CRCW0603100KFKEA	Vishay-Dale	RES, 100 k, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
48	R47, R59	2	4.99k	CRCW06034K99FKEA	Vishay-Dale	RES, 4.99 k, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
49	R52, R53	2	1	CRCW06031R00JNEA	Vishay-Dale	RES, 1.0, 5%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
50	R57, R58	2	0.2	WK73S3ATTER200F	KOA Speer	200 mOhms ±1% 0.1 W Chip Resistor Wide 2512 (6432 Metric), 1225 Automotive AEC-Q200, Moisture Resistant Thick Film	1225
51	RT1, RT2	2	10kΩ	TMP6131QDYARQ1	Texas Instruments	Automotive ±1% tolerance 10kΩ linear thermistor available in an 0402 package option 2-SOT-5X3 -40 to 150	SOT-523
52	U1, U3	2		LMG2100R026VBNR	Texas Instruments	100-V, 53-A GaN Half-Bridge Power Stage	VQFN-FCRLF16
53	U2	1		LM5137FQQRHARQ1	Texas Instruments	Automotive, 4-V to 80-V, Functional Safety-Compliant, Dual Synchronous Buck Controller With Low IQ	VQFN36
54	VINL, VOUT_BODE, VOUT_PWR1	3		5010	Keystone	Test Point, Multipurpose, Red, TH	Red Multipurpose Testpoint
55	C15, C16, C17	0	4.7uF	GCJ32DC72A475KE01L	Murata	4.7uF ±10% 100V Ceramic Capacitor X7S 1210 (3225 Metric)	1210
56	C35, C36, C67	0	220uF	T598D227M010ATE025	Kemet	CAP, Tantalum Polymer, 220 uF, 10 V, +/- 20%, 0.025 ohm, AEC-Q200 Grade 1, 7343-31 SMD	7343-31
57	C79, C80, C81, C82, C83, C84	0	22uF	CGA6P3X7R1E226M250AB	TDK	Cap Ceramic 22uF 25V X7R 20% Pad SMD 1210 +125°C Automotive T/R	1210
58	FID1, FID2, FID3	0		N/A	N/A	Fiducial mark. There is nothing to buy or mount.	N/A
59	R5, R6, R7, R8, R11, R14, R29, R30, R31, R32, R34, R38	0	0	CRCW06030000Z0EAHP	Vishay	RES Thick Film, 0Ω, , 0.33W, , 0603	0603
60	R15, R39	0	4.7k	CRCW06034K70JNEA	Vishay-Dale	RES, 4.7 k, 5%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
61	R46	0	24.9k	RC0603FR-0724K9L	Yageo	RES, 24.9 k, 1%, 0.1 W, 0603	0603
62	R50	0	191k	CRCW0603191KFKEA	Vishay-Dale	RES, 191 k, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
63	R61	0	10.0k	CRCW060310K0FKEA	Vishay-Dale	RES, 10.0 k, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
64	R62, R63	0	2.00k	RC1210FR-072KL	Yageo	RES, 2.00 k, 1%, 0.5 W, 1210	1210

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