

PMP9768 REV E2 Bill of Materials

Item #	Designator	Quantity	Value	PartNumber	Manufacturer	Description	PackageReference
1	PCB	1		PMP9768	Any	Printed Circuit Board	
2	C2, C25	2	0.022uF	GCM155R71E223KA55D	MuRata	CAP, CERM, 0.022 uF, 25 V, +/- 10%, X7R, AEC-Q200 Grade 1, 0402	0402
3	C3, C8, C22, C34	4	0.1uF	GCM155R71H104KE02D	MuRata	CAP, CERM, 0.1 uF, 50 V, +/- 10%, X7R, AEC-Q200 Grade 1, 0402	0402
4	C4, C37, C38, C47	4	0.22uF	GCM188R71E224KA55D	MuRata	CAP, CERM, 0.22 uF, 25 V, +/- 10%, X7R, AEC-Q200 Grade 1, 0603	0603
5	C5	1	1uF	GCM31MR71H105KA55L	MuRata	CAP, CERM, 1 uF, 50 V, +/- 10%, X7R, AEC-Q200 Grade 1, 1206	1206
6	C6, C11, C15, C19	4	2.2uF	GCM188C71A225K	MuRata	CAP, CERM, 2.2 uF, 10 V, +/- 10%, X7S, 0603	0603
7	C7, C13, C17, C21, C28, C29	6	10uF	GCM31CC71E106KA03L	MuRata	CAP, CERM, 10 uF, 25 V, +/- 10%, X7S, AEC-Q200 Grade 1, 1206_190	1206_190
8	C9	1	4700pF	GCM155R71H472KA37D	MuRata	CAP, CERM, 4700 pF, 50 V, +/- 10%, X7R, AEC-Q200 Grade 1, 0402	0402
9	C10, C14, C18, C26, C39, C40	6	470pF	GCM155R71H471KA37D	MuRata	CAP, CERM, 470 pF, 50 V, +/- 10%, X7R, AEC-Q200 Grade 1, 0402	0402
10	C12, C16, C20	3	22uF	GCM21BD70J226ME36L	MuRata	CAP, CERM, 22 uF, 6.3 V, +/- 20%, XT, AEC-Q200 Grade 1, 0805	0805
11	C23	1	0.47uF	GCM219R71E474KA55D	MuRata	CAP, CERM, 0.47 uF, 25 V, +/- 10%, X7R, AEC-Q200 Grade 1, 0805	0805
12	C24	1	0.1uF	GCM155R71C104KA55D	MuRata	CAP, CERM, 0.1 uF, 16 V, +/- 10%, X7R, 0402	0402
13	C27	1	1uF	GCM188R71C105KA64D	MuRata	CAP, CERM, 1 uF, 16 V, +/- 10%, X7R, AEC-Q200 Grade 1, 0603	0603
14	C30, C44	2	47000uF	DMF3Z5R5H474M3D1A0	MuRata	CAP, Electric Double Layer, 0.47F, 4.2 V, +/- 20%, 0.045 ohm, Electrical Double Layer Capacitor, Body 21.5x14.5mm, Pitch 3.5mm SMD	Electrical Double Layer Capacitor, Body 21.5x14.5mm, Pitch 3.5mm
15	C31, C32, C33	3	1uF	GCM188R71E105KA64D	MuRata	CAP, CERM, 1 uF, 25 V, +/- 10%, X7R, AEC-Q200 Grade 1, 0603	0603
16	C35	1	10uF	GCM21BC71C106KE36L	MuRata	CAP, CERM, 10 uF, 16 V, +/- 10%, X7S, AEC-Q200 Grade 1, 0805	0805
17	C36	1	330uF	TS21X37M016ATE050	Kemet	CAP, Tantalum Polymer, 330 uF, 16 V, +/- 20%, 0.05 ohm, 7343-43 SMD	7343-43
18	C41, C42	2	4.7uF	GCM21BC71E475KE36L	MuRata	CAP, CERM, 4.7 uF, 25 V, +/- 10%, X7S, AEC-Q200 Grade 1, 0805	0805
19	C43	1	1000pF	GCM155R71H102KA37D	MuRata	CAP, CERM, 1000 pF, 50 V, +/- 10%, X7R, AEC-Q200 Grade 1, 0402	0402
20	C69, C70, C71	3	100uF	TS21D107M020ATE055	Kemet	CAP, Tantalum Polymer, 100 uF, 20 V, +/- 20%, 0.055 ohm, 7343-31 SMD	7343-31
21	D1	1	6.2V	MMS25234BS-7-F	Diodes Inc.	Diode, Zener, 6.2 V, 200 mW, SOD-323	SOD-323
22	D2	1	Red	LTS1-C190CKT	Lite-On	LED, Red, SMD	Red LED, 1.6x0.8x0.8mm
23	D4	1	30V	B530C-13-F	Diodes Inc.	Diode, Schottky, 30 V, 5 A, SMC	SMC
24	D5, D6, D7	3	75V	1N448WX-TP	Micro Commercial Components	Diode, Switching, 75 V, 0.25 A, SOD-323	SOD-323
25	D8	1	40V	MBRA340T3G	ON Semiconductor	Diode, Schottky, 40 V, 3 A, SMA	SMA
26	D9	1	30V	B130L-13-F	Diodes Inc.	Diode, Schottky, 30 V, 1 A, SMA	SMA
27	J1, J2, J3, J4, J8	5		TSW-106-07-G-S	Samtec	Header, 100mil, 6x1, Gold, TH	6x1 Header
28	J5, J6	2		SJ-3523-SMT	CUI Inc.	Audio Jack, 3.5mm, Stereo, R/A, SMT	Audio Jack SMD
29	J7, J9, J10	3		TSW-102-07-G-S	Samtec	Header, 100mil, 2x1, Gold, TH	2x1 Header
30	J11	1		TSW-104-07-G-S	Samtec	Header, 100mil, 4x1, Gold, TH	4x1 Header
31	L1	1	2.2uH	IHLP2020C2ER2R2M1A	Vishay-Dale	Inductor, Shielded Drum Core, Powdered Iron, 2.2 uH, 5.5 A, 0.0225 ohm, SMD	5.18x3x5.5mm
32	L2	1	3.3uH	LPS3015-332MLB	Coilcraft	Inductor, Shielded Drum Core, Ferrite, 3.3 uH, 1.4 A, 0.13 ohm, SMD	LPS3015
33	L3	1	3.3uH	LPS3015-332MLB	Coilcraft	Inductor, Shielded Drum Core, Ferrite, 3.3uH, 1.4A, 0.13 ohm, SMD	LPS3015
34	L4	1	6.6uH	PF0552 6R2NL	Pulse Engineering	Coupled inductor, 6.6 uH, 4.4 A, 0.024 ohm, +/- 20%, SMD	PF055X
35	L5	1	22uH	7G08B-220M-R	Sagami Elec Co Ltd	Coupled inductor, 22 uH, 3 A, 69 ohm, +/- 20%, SMD	SMD, 8x9x8mm
36	L6	1	220 ohm	MP1808S221A	TDK	Ferrite Bead, 220 ohm @ 100 MHz, 2.2 A, 0603	0603
37	Q1	1	40V	SI4401DDY-T1-GE3	Vishay-Siliconix	MOSFET, P-CH, -40 V, -16.1 A, SO-8	SO-8
38	Q2, Q6	2	-20V	CSD25402Q3A	Texas Instruments	MOSFET, P-CH, -20 V, -15 A, DNH0008A	DNH0008A
39	Q3	1	40 V	MMB13906T11G	ON Semiconductor	Transistor, PNP, 40 V, 0.2 A, SOT-416	SOT-416
40	Q4, Q5, Q7, Q9	4	40 V	MMB13904T11G	ON Semiconductor	Transistor, NPN, 40 V, 0.2 A, SOT-416	SOT-416
41	Q8	1	20 V	PBSS302NZ, 135	NXP Semiconductor	Transistor, NPN, 20 V, 5.8 A, SOT-223	SOT-223
42	R1, R5	2	8.20k	RC0603FR-078K2L	Yageo America	RES, 8.20 k, 1%, 0.1 W, 0603	0603
43	R2, R3, R4, R13, R17, R22, R23, R40, R55	9	100k	RC0603100KFKEA	Vishay-Dale	RES, 100 k, 1%, 0.1 W, 0603	0603
44	R11, R12, R14, R24	4	10.0k	RC0603FR-0710KL	Yageo America	RES, 10.0 k, 1%, 0.1 W, 0603	0603
45	R18	1	36.1k	RT0603BRD0736K1L	Yageo America	RES, 36.1 k, 0.1%, 0.1 W, 0603	0603
46	R19, R45, R46	3	49.9k	CRCW0603499KFKEA	Vishay-Dale	RES, 49.9 k, 1%, 0.1 W, 0603	0603
47	R20	1	18.2k	RC0603FR-0718K2L	Yageo America	RES, 18.2 k, 1%, 0.1 W, 0603	0603
48	R21	1	2.37Meg	CRCW06032M37FKEA	Vishay-Dale	RES, 2.37 M, 1%, 0.1 W, 0603	0603
49	R25	1	5.1k	CRCW06035K10JNEA	Vishay-Dale	RES, 5.1 k, 5%, 0.1 W, 0603	0603
50	R26	1	20k	CRCW060320K0JNEA	Vishay-Dale	RES, 20 k, 5%, 0.1 W, 0603	0603
51	R27, R31	2	97.6k	CRCW060397K6FKEA	Vishay-Dale	RES, 97.6 k, 1%, 0.1 W, 0603	0603
52	R28	1	25.8k	RT0603DRE0725K8L	Yageo America	RES, 25.8 k, 0.5%, 0.1 W, 0603	0603
53	R29	1	96.5k	RT0603DRE0796K5L	Yageo America	RES, 96.5 k, 0.5%, 0.1 W, 0603	0603
54	R30	1	76.8k	CRCW0603768KFKEA	Vishay-Dale	RES, 76.8 k, 1%, 0.1 W, 0603	0603
55	R32	1	18.7k	RC0603FR-0718K7L	Yageo America	RES, 18.7 k, 1%, 0.1 W, 0603	0603
56	R33	1	3.83k	CRCW06033K83FKEA	Vishay-Dale	RES, 3.83 k, 1%, 0.1 W, 0603	0603
57	R34	1	51.0k	RC0603FR-0751KL	Yageo America	RES, 51.0 k, 1%, 0.1 W, 0603	0603
58	R35	1	63.4k	CRCW060363K4FKEA	Vishay-Dale	RES, 63.4 k, 1%, 0.1 W, 0603	0603
59	R36	1	10.0k	ERJ-3EKF1002V	Panasonic	RES, 10.0 k, 1%, 0.1 W, 0603	0603
60	R37	1	453	CRCW1206453RFKEA	Vishay-Dale	RES, 453, 1%, 0.25 W, 1206	1206
61	R38	1	13.0	RC1206FR-0713RL	Yageo America	RES, 13.0, 1%, 0.25 W, 1206	1206
62	R39	1	33.0	RC0603FR-0733RL	Yageo America	RES, 33.0, 1%, 0.1 W, 0603	0603
63	R41, R42, R57, R58	4	220k	RC0603FR-07220KL	Yageo America	RES, 220 k, 1%, 0.1 W, 0603	0603
64	R43, R44	2	0	MCR03E2P-J000	Rohm	RES, 0, 5%, 0.1 W, 0603	0603
65	R48	1	560	RC0603FR-07560RL	Yageo America	RES, 560, 1%, 0.1 W, 0603	0603
66	R49, R59	2	4.70k	RC0603FR-0747KL	Yageo America	RES, 4.70 k, 1%, 0.1 W, 0603	0603
67	R50, R54	2	5.6	CRCW06035R60JNEA	Vishay-Dale	RES, 5.6, 5%, 0.1 W, 0603	0603
68	R51	1	510	CRCW1206510RJNEA	Vishay-Dale	RES, 510, 5%, 0.25 W, 1206	1206
69	R56	1	16.5k	RC0603FR-0716K5L	Yageo America	RES, 16.5 k, 1%, 0.1 W, 0603	0603
70	R65, R66	2	4.7k	CR0603-JW-47ZGLF	Bourns	RES, 4.7 k, 5%, 0.1 W, 0603	0603
71	U2	1	TL331DBV	TL331DBV	TI	IC, COMPARATOR, DIFFERENTIAL, SINGLE	SOT_23_5 (DBV)
72	U3, U10	2		TLV431AQDBVRQ1A	Texas Instruments	Automotive Catalog Low-Voltage Adjustable Precision Shunt Regulator, 80 mA, -40 to 125 degC, 5-pin SOT-23 (DBV), Green (RoHS & no Sb/Br)	DBV0005A
73	U5	1		TPS7B9950QDBVRQ1	Texas Instruments	High Voltage Ultra Low Iq - Low Drop Out Regulator, DBV0005A	DBV0005A
74	U6	1		TPS62130AQQSRTQ1	Texas Instruments	3V to 17-V 3A Step-Down Converter with DCS-Control™, RGT0016C	RGTO016C
75	U7, U8	2		TPS62160QDSRGQ1	Texas Instruments	3-A High Voltage Boost Converter with DCS-Control™, DSG0008A	DSG0008A
76	U9	1		TPS61175PVP	Texas Instruments	3-A High Voltage Boost Converter with Soft-start and Programmable Switching Frequency, PWP0014E	PWP0014E
77	U11	1		TAS5421QPWRQ1	Texas Instruments	10W Mono Automotive Digital Amplifier with Diagnostics, PWP0016B	PWP0016B
78	FID1, FID2, FID3	0	N/A	N/A	N/A	Fiducial mark. There is nothing to buy or mount.	Fiducial
79	H1, H2, H3, H4	0	N/A	NY PMS 440 0025 PH	B&F Fastener Supply	Machine Screw, Round, #4-40 x 1/4, Nylon, Philips panhead	Screw
80	H5, H6, H7, H8	0	N/A	1902C	Keystone	Standoff, Hex, 0.5" L #4-40 Nylon	Standoff
81	R47	0	4.70k	RC0603FR-074K7L	Yageo America	RES, 4.70 k, 1%, 0.1 W, 0603	0603

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