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PMP9769 REV E3 Bill of Materials

Item #	Designator	Quantity	Value	PartNumber	Manufacturer	Description	PackageReference
1	PCB	1		PMP9769	Any	Printed Circuit Board	
2	C1, C25, C28, C31, C33, C64, C65	7	470pF	GCM155R71H471KA37D	MuRata	CAP, CERM, 470 pF, 50 V, +/- 10%, X7R, AEC-Q200 Grade 1, 0402	0402
3	C2, C8, C26, C29, C49, C52	6	2.2uF	GCM188C71A225K	MuRata	CAP, CERM, 2.2 µF, 10 V, +/- 10%, X7S, 0603	0603
4	C3	1	0.47uF	GCM188R71C474KA55D	MuRata	CAP, CERM, 0.47 µF, 16 V, +/- 10%, X7R, AEC-Q200 Grade 1, 0603	0603
5	C4, C54, C55	3	22uF	GCM31CR71A226KE02	MuRata	CAP, CERM, 22 µF, 10 V, +/- 10%, X7R, AEC-Q200 Grade 1, 1206_190	1206_190
6	C5	1	100pF	GCM033R71E101KA03D	MuRata	CAP, CERM, 100 pF, 25 V, +/- 10%, X7R, AEC-Q200 Grade 1, 0201	0201
7	C6	1	4.7uF	GCM21BR71C475KA73K	MuRata	CAP, CERM, 4.7 µF, 16 V, +/- 10%, X7R, AEC-Q200 Grade 1, 0805	0805
8	C7, C24	2	0.022uF	GCM155R71E223KA55D	MuRata	CAP, CERM, 0.022 µF, 25 V, +/- 10%, X7R, AEC-Q200 Grade 1, 0402	0402
9	C9, C10, C15, C16	4	22uF	GCM21BD70J226ME36L	MuRata	CAP, CERM, 22 µF, 6.3 V, +/- 20%, X7T, AEC-Q200 Grade 1, 0805	0805
10	C11, C17, C19, C22, C23, C27, C53	7	10uF	GCM21BR71A106KE22L	MuRata	CAP, CERM, 10 µF, 10 V, +/- 10%, X7R, 0805	0805
11	C12, C18, C20, C21, C36, C39, C40, C41, C42, C43, C45, C46, C47, C48, C50	15	0.1uF	GCM155R71C104KA55D	MuRata	CAP, CERM, 0.1 µF, 16 V, +/- 10%, X7R, 0402	0402
12	C13	1	0.1uF	GCM188R71H104KA57D	MuRata	CAP, CERM, 0.1 µF, 50 V, +/- 10%, X7R, 0603	0603
13	C14, C70, C71	3	33uF	T521X336M050ATE075	Kemet	CAP, Tantalum Polymer, 33 µF, 50 V, +/- 20%, 0.075 ohm, 7343-43 SMD	7343-43
14	C30, C62	2	10uF	GCM21BC71C106KE36L	MuRata	CAP, CERM, 10 µF, 16 V, +/- 10%, X7S, AEC-Q200 Grade 1, 0805	0805
15	C34, C44	2	1uF	GCM188R71C105KA64D	MuRata	CAP, CERM, 1 µF, 16 V, +/- 10%, X7R, AEC-Q200 Grade 1, 0603	0603
16	C35, C37	2	1uF	GCM155C71A105KE38D	MuRata	CAP, CERM, 1 µF, 10 V, +/- 10%, X7S, AEC-Q200 Grade 1, 0402	0402
17	C38	1	470000uF	DMF3Z5R5H474M3DTA0	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
18	C56, C57, C58	3	1uF	GCM188R71E105KA64D	MuRata	CAP, CERM, 1 µF, 25 V, +/- 10%, X7R, AEC-Q200 Grade 1, 0603	0603
19	C59, C60, C69	3	0.22uF	GCM188R71E224KA55D	MuRata	CAP, CERM, 0.22 µF, 25 V, +/- 10%, X7R, AEC-Q200 Grade 1, 0603	0603
20	C61	1	0.1uF	GCM155R71H104KE02D	MuRata	CAP, CERM, 0.1 µF, 50 V, +/- 10%, X7R, AEC-Q200 Grade 1, 0402	0402
21	C63	1	330uF	T521X337M016ATE050	Kemet	CAP, Tantalum Polymer, 330 µF, 16 V, +/- 20%, 0.05 ohm, 7343-43 SMD	7343-43
22	C66, C67	2	4.7uF	GCM21BC71E475KE36L	MuRata	CAP, CERM, 4.7 µF, 25 V, +/- 10%, X7S, AEC-Q200 Grade 1, 0805	0805
23	C68	1	1000pF	GCM155R71H102KA37D	MuRata	CAP, CERM, 1000 pF, 50 V, +/- 10%, X7R, AEC-Q200 Grade 1, 0402	0402
24	C74	1	22pF	GCM1555C1H220JA16D	MuRata	CAP, CERM, 22 pF, 50 V, +/- 5%, C0G/NP0, AEC-Q200 Grade 1, 0402	0402
25	D1	1	15V	30BQ015TRPBF	International Rectifier	Diode, Schottky, 15 V, 3 A, SMC	SMC
26	D2, D3	2	Red	LTST-C190CKT	Lite-On	LED, Red, SMD	Red LED, 1.6x0.8x0.8mm
27	D4, D5	2	5.6V	MMSZ4690-V	Vishay-Semiconductor	Diode, Zener, 5.6 V, 500 mW, SOD-123	SOD-123
28	D6	1	BAV70-V	BAV70-V	Zetex	Diode, Switching, Dual, 70-V, 250-mA	SOT23
29	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
30	H5, H6, H7, H8	4		1902C	Keystone	Standoff, Hex, 0.5"L #4-40 Nylon	Standoff
31	J1, J2, J3, J4, J5	5		TSW-106-07-G-S	Samtec	Header, 100mil, 6x1, Gold, TH	6x1 Header
32	J6, J7, J8, J11, J13, J14, J15	7		TSW-102-07-G-S	Samtec	Header, 100mil, 2x1, Gold, TH	2x1 Header
33	J9, J10	2		SJ-3523-SMT	CUI Inc.	Audio Jack, 3.5mm, Stereo, R/A, SMT	Audio Jack SMD
34	J12	1		TSW-104-07-G-S	Samtec	Header, 100mil, 4x1, Gold, TH	4x1 Header
35	L1	1	2.2uH	XAL5030-222MEB	Coilcraft	Inductor, Shielded, Composite, 2.2uH, 9.2A, 0.01 ohm, SMD	5.3x31.x5.5mm
36	L2, L4	2	1uH	IHLP1616BZER1R0M1A	Vishay-Dale	Inductor, Shielded Drum Core, Powdered Iron, 1 µH, 4.5 A, 0.024 ohm, SMD	4.7x2.0x4.3mm
37	L3	1	2.2uH	LPS3015-222MLB	Coilcraft	Inductor, Shielded Drum Core, Ferrite, 2.2 µH, 1.4 A, 0.11 ohm, SMD	LPS3015
38	L5	1	1.5uH	VLF504015MT-1R5N-CA	TDK	Inductor, Shielded, Ferrite, 1.5 µH, 3.27 A, 0.032 ohm, SMD	IND_5x1.5x4mm
39	L6	1	22uH	7G08B-220M-R	Sagami Elec Co Ltd	Coupled inductor, 22 µH, 3 A, 69 ohm, +/- 20%, SMD	SMD, 8x9x8mm
40	L7	1	220 ohm	MPZ1608S221A	TDK	Ferrite Bead, 220 ohm @ 100 MHz, 2.2 A, 0603	0603
41	Q1, Q2, Q7	3	-20V	CSD25402Q3A	Texas Instruments	MOSFET, P-CH, -20 V, -15 A, DNH0008A	DNH0008A
42	Q3	1	60V	2N7002KW	Fairchild Semiconductor	MOSFET, N-CH, 60 V, 0.31 A, SOT-323	SOT-323
43	Q4, Q5	2	25V	CSD16412Q5A	Texas Instruments	MOSFET, N-CH, 25 V, 52 A, SON 5x6mm	SON 5x6mm
44	Q6	1	40 V	MMBT3904TT1G	ON Semiconductor	Transistor, NPN, 40 V, 0.2 A, SOT-416	SOT-416
45	Q8	1	40 V	MMBT3906TT1G	ON Semiconductor	Transistor, PNP, 40 V, 0.2 A, SOT-416	SOT-416
46	R1, R16, R18, R21, R23, R49, R72	7	100k	CRCW0603100KFKEA	Vishay-Dale	RES, 100 k, 1%, 0.1 W, 0603	0603
47	R2	1	100k	RC0603FR-07100KL	Yageo America	RES, 100 k, 1%, 0.1 W, 0603	0603
48	R3	1	25.5k	RC0603FR-0725K5L	Yageo America	RES, 25.5 k, 1%, 0.1 W, 0603	0603
49	R4, R6, R8	3	97.6k	CRCW060397K6FKEA	Vishay-Dale	RES, 97.6 k, 1%, 0.1 W, 0603	0603
50	R5	1	14.7k	RC0603FR-0714K7L	Yageo America	RES, 14.7 k, 1%, 0.1 W, 0603	0603
51	R7	1	48.7k	RC0603FR-0748K7L	Yageo America	RES, 48.7 k, 1%, 0.1 W, 0603	0603
52	R9	1	19.6k	CRCW060319K6FKEA	Vishay-Dale	RES, 19.6 k, 1%, 0.1 W, 0603	0603
53	R10	1	63.4k	CRCW06363K4FKEA	Vishay-Dale	RES, 63.4 k, 1%, 0.1 W, 0603	0603
54	R11	1	51.0k	RC0603FR-0751KL	Yageo America	RES, 51.0 k, 1%, 0.1 W, 0603	0603
55	R12	1	3.83k	CRCW06033K83FKEA	Vishay-Dale	RES, 3.83 k, 1%, 0.1 W, 0603	0603
56	R13	1	10.0k	ERJ-3EKF1002V	Panasonic	RES, 10.0 k, 1%, 0.1 W, 0603	0603
57	R14	1	30.0k	RC0603FR-0730KL	Yageo America	RES, 30.0 k, 1%, 0.1 W, 0603	0603
58	R15, R20, R28	3	10.0k	RC0603FR-0710KL	Yageo America	RES, 10.0 k, 1%, 0.1 W, 0603	0603
59	R17, R22	2	1.00k	CRCW06031K00FKEA	Vishay-Dale	RES, 1.00 k, 1%, 0.1 W, 0603	0603
60	R19	1	78.7k	CRCW06378K7FKEA	Vishay-Dale	RES, 78.7 k, 1%, 0.1 W, 0603	0603
61	R24	1	68.0k	RC0603FR-0768KL	Yageo America	RES, 68.0 k, 1%, 0.1 W, 0603	0603
62	R25	1	10.7k	RC0603FR-0710K7L	Yageo America	RES, 10.7 k, 1%, 0.1 W, 0603	0603
63	R26	1	1.5k	RC0603JR-071K5L	Yageo America	RES, 1.5 k, 5%, 0.1 W, 0603	0603
64	R27, R30	2	220k	RC0603FR-07220KL	Yageo America	RES, 220 k, 1%, 0.1 W, 0603	0603
65	R29	1	24.3k	CRCW060324K3FKEA	Vishay-Dale	RES, 24.3 k, 1%, 0.1 W, 0603	0603
66	R31	1	11.3k	CRCW060311K3FKEA	Vishay-Dale	RES, 11.3 k, 1%, 0.1 W, 0603	0603
67	R32	1	100k	3266W-1-104LF	Bourns	Trimmer, 100k ohm, 0.25W, TH	4.5x8x6.7mm
68	R33	1	10k	RC1608J103CS	Samsung Electro-Mechanics	RES, 10 k, 5%, 0.1 W, 0603	0603
69	R34, R36	2	10.0Meg	RC0603FR-0710ML	Yageo America	RES, 10.0 M, 1%, 0.1 W, 0603	0603
70	R35	1	4.99	CRCW06034R99FKEA	Vishay-Dale	RES, 4.99, 1%, 0.1 W, 0603	0603
71	R37	1	10.0	RC0603FR-0710RL	Yageo America	RES, 10.0, 1%, 0.1 W, 0603	0603
72	R38	1	100	CRCW0603100RFKEA	Vishay-Dale	RES, 100, 1%, 0.1 W, 0603	0603
73	R39, R40	2	5.1k	RC0603JR-075K1L	Yageo America	RES, 5.1 k, 5%, 0.1 W, 0603	0603
74	R42, R43, R44, R45, R46, R47	6	100	RC0603FR-07100RL	Yageo America	RES, 100, 1%, 0.1 W, 0603	0603
75	R48	1	0.003	PMR25HZPFV3L00	Rohm	RES, 0.003, 1%, 1 W, 1210	1210
76	R50, R51	2	49.9k	CRCW060349K9FKEA	Vishay-Dale	RES, 49.9 k, 1%, 0.1 W, 0603	0603
77	R52, R53	2	0	MCR03EZPJ000	Rohm	RES, 0, 5%, 0.1 W, 0603	0603
78	R54, R55	2	5.6	CRCW06035R60JNEA	Vishay-Dale	RES, 5.6, 5%, 0.1 W, 0603	0603
79	R56, R57, R69	3	4.70k	RC0603FR-074K7L	Yageo America	RES, 4.70 k, 1%, 0.1 W, 0603	0603
80	R58	1	560	RC0603FR-07560RL	Yageo America	RES, 560, 1%, 0.1 W, 0603	0603
81	R59, R60, R61, R62, R63, R64, R73	7	0	CRCW0603000Z0EA	Vishay-Dale	RES, 0, 5%, 0.1 W, 0603	0603
82	R65, R66	2	4.7k	CR0603-JW-472GLF	Bourns	RES, 4.7 k, 5%, 0.1 W, 0603	0603
83	R70	1	39k	RC0603JR-0739KL	Yageo America	RES, 39 k, 5%, 0.1 W, 0603	0603
84	R71	1	649k	RC0603FR-07649KL	Yageo America	RES, 649 k, 1%, 0.1 W, 0603	0603
85	RT1	1	10.0k ohm	103AT-2	SEMITEC Corporation	Thermistor NTC, 10.0k ohm, 1%, Disc, 5x8.4 mm	Disc, 5x8.4 mm
86	U1	1		LM43603QPWPRQ1	Texas Instruments	SIMPLE SWITCHER 3.5 V to 36 V 3-A Synchronous Step-Down Voltage Converter, PWP0016G	PWP0016G
87	U2	1		TL331IDBVR	Texas Instruments	SINGLE DIFFERENTIAL COMPARATOR, DBV0005A	DBV0005A
88	U3, U5	2		TPS63020DSJR	Texas Instruments	HIGH EFFICIENCY SINGLE INDUCTOR BUCK-BOOST CONVERTER WITH 4-A SWITCHES, DSJ0014A	DSJ0014A
89	U4	1		TPS62290IDRVRQ1	Texas Instruments	1-A Step Down Converter in 2 x 2 SON Package, DRV0006A	DRV0006A
90	U6	1		TPS61175QPWPRQ1	Texas Instruments	3-A High Voltage Boost Converter with Soft-start and Programmable Switching Frequency, PWP0014E	PWP0014E
91	U7	1		BQ25071DQCR	Texas Instruments	1 A, Single-Input, Single-Cell LiFePO4 Linear Battery Charger with 50 mA LDO, DQC0010A	DQC0010A
92	U8	1		bq28z610DRZ	Texas Instruments	1-Cell to 2-Series Cell Programmable Battery Manager, DRZ0012A	DRZ0012A
93	U9	1		TAS5421QPWPRQ1	Texas Instruments	10W Mono Automotive Digital Amplifier with Diagnostics, PWP0016B	PWP0016B
94	FID1, FID2, FID3	0		N/A	N/A	Fiducial mark. There is nothing to buy or mount.	Fiducial

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