

PMP15041C REV E3 Bill of Materials

Item #	Designator	Quantity	Value	PartNumber	Manufacturer	Description	PackageReference
1	PCB1	1		PMP15041C	Any	Printed Circuit Board	
2	C1	1	2200pF	GRM188R72A222KA01D	MuRata	CAP, CERM, 2200 pF, 100 V, +/- 10%, X7R, 0603	0603
3	C3, C4, C5, C6	4	10uF	CGA6P3X7S1H106K250AB	TDK	CAP, CERM, 10 uF, 50 V, +/- 10%, X7S, AEC-Q200 Grade 1, 1210	1210
4	C7	1	180uF	PCR1H181MCL1GS	Nichicon	CAP, Aluminum Polymer, 180 uF, 50 V, +/- 20%, 0.019 ohm, SMD, 2-Leads, Dia 10.5mm, Pin Spacing 8mm SMD	SMD, 2-Leads, Dia 10.5mm, Pin Spacing 8mm
5	C8, C9, C10	3	10uF	GRM32ER71H106KA12L	MuRata	CAP, CERM, 10 uF, 50 V, +/- 10%, X7R, 1210	1210
6	C11, C15	2	0.1uF	C0805C104K1RACTU	Kemet	CAP, CERM, 0.1 uF, 100 V, +/- 10%, X7R, 0805	0805
7	C12, C13, C14, C16	4	10uF	C3225X7R1H106M250AC	TDK	CAP, CERM, 10 uF, 50 V, +/- 20%, X7R, 1210	1210
8	C17	1	0.1uF	CGA2B3X7R1H104M050BB	TDK	CAP, CERM, 0.1 uF, 50 V, +/- 20%, X7R, AEC-Q200 Grade 1, 0402	0402
9	C18	1	1000pF	CGA2B2C0G1H102J050BA	TDK	CAP, CERM, 1000 pF, 50 V, +/- 5%, COG/NP0, AEC-Q200 Grade 1, 0402	0402
10	C19, C27, C38	3	0.1uF	GCM155R71H104KE02D	MuRata	CAP, CERM, 0.1 uF, 50 V, +/- 10%, X7R, AEC-Q200 Grade 1, 0402	0402
11	C20	1	4.7uF	GRM21BR71C475KA73L	MuRata	CAP, CERM, 4.7 uF, 16 V, +/- 10%, X7R, 0805	0805
12	C21	1	2.2uF	C2012X7R1H225K125AC	TDK	CAP, CERM, 2.2 uF, 50 V, +/- 10%, X7R, 0805	0805
13	C22	1	470pF	GCM155R71H471KA37D	MuRata	CAP, CERM, 470 pF, 50 V, +/- 10%, X7R, AEC-Q200 Grade 1, 0402	0402
14	C23	1	0.033uF	CGA2B3X7R1H33K050BB	TDK	CAP, CERM, 0.033 uF, 50 V, +/- 10%, X7R, AEC-Q200 Grade 1, 0402	0402
15	C24, C25, C26	3	2.2uF	CL31B225KCHSNN	Samsung Electro-Mechanics	CAP, CERM, 2.2 uF, 100 V, +/- 10%, X7R, 1206_190	1206_190
16	C28	1	0.47uF	CGA3E3X7R1H474M080AE	TDK	CAP, CERM, 0.47 uF, 50 V, +/- 20%, X7R, AEC-Q200 Grade 1, 0603	0603
17	C29	1	4.7uF	GRM188R61C475KAJ	MuRata	CAP, CERM, 4.7 uF, 16 V, +/- 10%, X5R, 0603	0603
18	C30, C34, C46	3	0.1uF	C0603C104K5RACTU	Kemet	CAP, CERM, 0.1 uF, 50 V, +/- 10%, X7R, 0603	0603
19	C31	1	330pF	GRM155R72A331KA01D	MuRata	CAP, CERM, 330 pF, 100 V, +/- 10%, X7R, 0402	0402
20	C32, C33	2	82uF	875105344009	Würth Elektronik	CAP, Aluminum Polymer, 82 uF, 16 V, +/- 20%, 0.03 ohm, D6.3xL5.8mm SMD	D6.3xL5.8mm
21	C35, C36	2	47uF	C3216XSR1C476M160AB	TDK	CAP, CERM, 47 uF, 16 V, +/- 15%, X5R, 1206	1206
22	C39, C41	2	0.01uF	CGA2B3X7R1H103K050BB	TDK	CAP, CERM, 0.01 uF, 50 V, +/- 10%, X7R, AEC-Q200 Grade 1, 0402	0402
23	C40	1	22pF	GCM1555C1H220JA16D	MuRata	CAP, CERM, 22 pF, 50 V, +/- 5%, COG/NP0, AEC-Q200 Grade 1, 0402	0402
24	C42	1	2700pF	GRM155R71H272KA01D	MuRata	CAP, CERM, 2700 pF, 50 V, +/- 10%, X7R, 0402	0402
25	D1	1	16V	DDZ16Q-7	Diodes Inc.	Diode, Zener, 6.2 V, 500 mW, AEC-Q101, SOD-123	SOD-123
26	D3	1	60V	PMEG060V100EPDZ	Nexperia	Diode, Schottky, 60 V, 10 A, AEC-Q101, CFP15	CFP15
27	D4	1	60V	PMEG010CEJ,115	NXP Semiconductor	Diode, Schottky, 60 V, 1 A, SOD-323F	SOD-323F
28	D5	1	70V	B170-13-F	Diodes Inc.	Diode, Schottky, 70 V, 1 A, SMA	SMA
29	H1, H2, H3, H4	4		HMSS 440 0100	B&F Fastener Supply	MACHINE SCREW HEX 4-40	
30	J5	1		GBCO2SAAN	Sullins Connector Solutions	Header, 2.54 mm, 2x1, Gold, TH	Header, 2.54 mm, 2x1, TH
31	J6	1		PEC03DAAN	Sullins Connector Solutions	Header, 100mil, 3x2, Tin, TH	3x2 Header
32	J7, J8	2		ED555/2DS	On-Shore Technology	Terminal Block, 3.5mm Pitch, 2x1, TH	7.0x8.2x6.5mm
33	L1	1	330nH	XAL5030-331MEB	Coilcraft	Inductor, Shielded, Composite, 330 nH, 19.2 A, 0.0032 ohm, SMD	5.3x31.5x5.5mm
34	L2	1		PLT5BPH0513R1SNL	MuRata	Coupled inductor, A, 0.017 ohm, SMD	5x5mm
35	L3	1	1.8uH	XAL7070-182MEB	Coilcraft	Inductor, Shielded, Composite, 1.8 uH, 21 A, 0.00406 ohm, SMD	7.2x7x7.5mm
36	Q1	1	-60V	SQJ461EP	Vishay-Siliconix	MOSFET, P-CH, -60 V, -30 A, PowerPAK_SO-8L	PowerPAK_SO-8L
37	Q2	1		NVTF5S670NLTAG	Used in BOM report	MOSFET N-CH 60V 16A 70A 8WDFN	eg: 0603, used in PnP report
38	Q3, Q4	2		SQ7414AEN-T1-GE3	Vishay Siliconix	MOSFET N-CH 60V 5.6A PPAK 1212-8	PowerPAK® 1212-8
39	Q5	1	-60V	SI2309CDS-T1-E3	Vishay-Siliconix	MOSFET, P-CH, -60 V, -1.6 A, SOT-23	SOT-23
40	Q6	1	60 V	MMBTA05LT1G	ON Semiconductor	Transistor, NPN, 60 V, 0.5 A, AEC-Q101, SOT-23	SOT-23
41	R1	1	2.00	ERJ-14B0F2R0U	Panasonic	RES, 2.00, 1%, 0.5 W, AEC-Q200 Grade 0, 1210	1210
42	R2	1	20.0k	CRCW060320K0FKEA	Vishay-Dale	RES, 20.0 k, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
43	R3	1	0.18	ERJ-8RS1R18V	Panasonic	RES, 0.18, 5%, 0.25 W, 1206	1206
44	R4	1	49.9k	CRCW060349K9FKEA	Vishay-Dale	RES, 49.9 k, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
45	R5	1	100k	CRCW0603100KFKEA	Vishay-Dale	RES, 100 k, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
46	R6	1	1.00	CRCW04021R00FKED	Vishay-Dale	RES, 1.00, 1%, 0.063 W, 0402	0402
47	R7	1	0.005	KRL2012M-R005-F-T1	Susumu Co Ltd	RES, 0.005, 1%, 1 W, AEC-Q200 Grade 0, 0508	0508
48	R8	1	49.9	CRCW040249R9FKED	Vishay-Dale	RES, 49.9, 1%, 0.063 W, 0402	0402
49	R9, R15, R23	3	0	MCR01M2PJ000	Rohm	RES, 0, 5%, 0.063 W, 0402	0402
50	R10	1	10.0	RMCF0402J10R0	Stackpole Electronics Inc	RES, 10.0, 1%, 0.063 W, AEC-Q200 Grade 0, 0402	0402
51	R11	1	4.64k	CRCW04024K64FKED	Vishay-Dale	RES, 4.64 k, 1%, 0.063 W, 0402	0402
52	R12	1	9.53k	CRCW04029K53FKED	Vishay-Dale	RES, 9.53 k, 1%, 0.063 W, 0402	0402
53	R13	1	29.4k	CRCW040229K4FKED	Vishay-Dale	RES, 29.4 k, 1%, 0.063 W, 0402	0402
54	R16	1	10k	ERJ-2GEJ103X	Panasonic	RES, 10 k, 5%, 0.1 W, AEC-Q200 Grade 0, 0402	0402
55	R17	1	4.99	CRCW04024R99FKED	Vishay-Dale	RES, 4.99, 1%, 0.063 W, AEC-Q200 Grade 0, 0402	0402
56	R19	1	0	CRCW0603000Z0EA	Vishay-Dale	RES, 0, 5%, 0.1 W, 0603	0603
57	R20, R26, R28, R30, R34, R35	6	0	RK73Z1ETTP	KOA Speer	RES, 0, 5%, 0.063 W, AEC-Q200 Grade 0, 0402	0402
58	R22	1	0.01	PRL1632-R010-F-T1	Susumu Co Ltd	RES, 0.01, 1%, 1 W, 0612	0612
59	R24	1	100k	CRCW0603100KFKEA	Vishay-Dale	RES, 100 k, 1%, 0.1 W, 0603	0603
60	R29	1	1.0	CRM1206-JW-1R0ELF	Bourns	RES, 1.0, 5%, 0.5 W, 1206	1206
61	R31	1	20.0k	CRCW040220K0FKED	Vishay-Dale	RES, 20.0 k, 1%, 0.063 W, AEC-Q200 Grade 0, 0402	0402
62	R32	1	49.9k	ERJ-2RFK4992X	Panasonic	RES, 49.9 k, 1%, 0.1 W, AEC-Q200 Grade 0, 0402	0402
63	TP1, TP7	2		5015	Keystone	Test Point, Miniature, SMT	Testpoint_Keystone_Miniature
64	TP4	1		5002	Keystone	Test Point, Miniature, White, TH	White Miniature Testpoint
65	TP5, TP6	2	White	5002	Keystone	Test Point, Miniature, White, TH	White Miniature Testpoint
66	U1	1		LM5150QRUMRQ1	Texas Instruments	Wide VIN Automotive Low IQ Boost Controller, RUM0016C (WQFN-16)	RUM0016C
67	U2	1		LM5141QRGERQ1	Texas Instruments	Wide Input 2.2MHz low Iq Synchronous Buck Controller, RGE0024J (VQFN-24)	RGE0024J
68	C37	0	33pF	C0402C330J5GAC	Kemet	CAP, CERM, 33 pF, 50 V, +/- 5%, COG/NP0, 0402	0402
69	C43	0	100pF	885012006057	Würth Elektronik	CAP, CERM, 100 pF, 50 V, +/- 5%, COG/NP0, 0603	0603
70	C44, C45	0	0.1uF	GCM155R71H104KE02D	MuRata	CAP, CERM, 0.1 uF, 50 V, +/- 10%, X7R, AEC-Q200 Grade 1, 0402	0402
71	FID1, FID2, FID3	0		N/A	N/A	Fiducial mark. There is nothing to buy or mount.	N/A
72	R18, R25	0	0	MCR01M2PJ000	Rohm	RES, 0, 5%, 0.063 W, 0402	0402
73	R27, R33	0	0	RK73Z1ETTP	KOA Speer	RES, 0, 5%, 0.063 W, AEC-Q200 Grade 0, 0402	0402
74	R36, R37	0	2.20k	RC0603FR-072K2L	Yageo America	RES, 2.20 k, 1%, 0.1 W, 0603	0603
75	U4	0			Texas Instruments	CMOS Timer, 8-pin Mini SOIC	DGK0008A
76	U5	0			Texas Instruments	Single Inverter, DBV0005A, LARGE T&R	DBV0005A

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