

PMP41038 REV C Bill of Materials

Item #	Designator	Quantity	Value	PartNumber	Manufacturer	Description	PackageReference
1	PCB	1		PMP41038	Any	Printed Circuit Board	
2	C1	1	100uF	EEHZA1H101P	Panasonic	CAP, Polymer Hybrid, 100 uF, 50 V, +/- 20%, 28 ohm, 10x10 SMD	10x10
3	C2, C3, C8, C9, C20	5	0.1uF	CGA3E2X7R1H104K080AA	TDK	CAP, CERM, 0.1 uF, 50 V, +/- 10%, X7R, AEC-Q200 Grade 1, 0603	0603
4	C4, C5, C7, C10, C11, C38	6	10uF	CGA5L1X7R1H106K160AC	TDK	CAP, CERM, 10 uF, 50 V, +/- 10%, X7R, AEC-Q200 Grade 1, 1206	1206
5	C6, C24, C29	3	1uF	CGA4J3X7R1H105K125AB	TDK	CAP, CERM, 1 uF, 50 V, +/- 10%, X7R, AEC-Q200 Grade 1, 0805	0805
6	C12, C13, C14, C33	4	0.22uF	GRM32DR7E224KW01L	MuRata	CAP, CERM, 0.22 uF, 250 V, +/- 10%, X7R, 1210	1210
7	C15, C16	2	22uF	UVK2D220MPD	Nichicon	22 uF 200 V Aluminum Electrolytic Capacitors Radial, Can 2000 Hrs @ 85°C	RADIAL
8	C17	1	0.1uF	CGA5L2X7R2A104K160AA	TDK	CAP, CERM, 0.1 uF, 100 V, +/- 10%, X7R, AEC-Q200 Grade 1, 1206	1206
9	C18	1	100pF	GRM31A5C2J101JW01D	MuRata	CAP, CERM, 100 pF, 630 V, +/- 5%, COG/NPO, 1206	1206
10	C19	1	100uF	EEH-ZA1E101XP	Panasonic	CAP, Aluminum Polymer, 100 uF, 25 V, +/- 20%, 0.03 ohm, AEC-Q200 Grade 2, D6.3xL7.7mm SMD	D6.3xL7.7mm
11	C21	1	10uF	CGA5L1X7R1E106K160AE	TDK	CAP, CERM, 10 uF, 25 V, +/- 10%, X7R, AEC-Q200 Grade 1, 1206	1206
12	C22	1	1uF	GCM188R71E105KAG64D	MuRata	CAP, CERM, 1 uF, 25 V, +/- 10%, X7R, AEC-Q200 Grade 1, 0603	0603
13	C23	1	680pF	GRM1885C2A681JA01D	MuRata	CAP, CERM, 680 pF, 100 V, +/- 5%, COG/NPO, 0603	0603
14	C25	1	220pF	CGA2B2X7R1H221K050BA	TDK	CAP, CERM, 220 pF, 50 V, +/- 10%, X7R, AEC-Q200 Grade 1, 0402	0402
15	C26	1	1000pF	GCM1885C2A102JA16D	MuRata	CAP, CERM, 1000 pF, 100 V, +/- 5%, COG/NPO, AEC-Q200 Grade 1, 0603	0603
16	C27, C30	2	1000pF	GCM155R71H102KA37D	MuRata	CAP, CERM, 1000 pF, 50 V, +/- 10%, X7R, AEC-Q200 Grade 1, 0402	0402
17	C28	1	0.1uF	GCM155R71C104JA55D	MuRata	CAP, CERM, 0.1 uF, 16 V, +/- 5%, X7R, AEC-Q200 Grade 1, 0402	0402
18	C31	1	0.068uF	CGA2B3X7R1H683K050BB	TDK	CAP, CERM, 0.068 uF, 50 V, +/- 10%, X7R, AEC-Q200 Grade 1, 0402	0402
19	C32	1	3300pF	CS95ZU2GA332MAGKA	TDK	CAP, CERM, 3300 pF, 2000 V, +/- 10%, R, 7x5mm	7x5mm
20	C34	1	0.47uF	GCM21BR71H474KA55L	MuRata	CAP, CERM, 0.47 uF, 50 V, +/- 10%, X7R, AEC-Q200 Grade 1, 0805	0805
21	C35	1	4.7uF	CGA4J1X7R1E475K125AC	TDK	CAP, CERM, 4.7 uF, 25 V, +/- 10%, X7R, AEC-Q200 Grade 1, 0805	0805
22	C36, C37	2	100pF	CGA2B2C0G1H101J050BA	TDK	CAP, CERM, 100 pF, 50 V, +/- 5%, COG/NPO, AEC-Q200 Grade 1, 0402	0402
23	D1	1	200V	BZD27C200P-E3-08	Vishay-Semiconductor	Diode, Zener, 200 V, 800 mW, AEC-Q101, DO-219AB	DO-219AB
24	D2	1	600V	ES1JAF	Fairchild Semiconductor	Diode, Ultrafast, 600 V, 1 A, AEC-Q101, SMAF	SMAF
25	D3, D8	2	100V	PMEG10010ELRX	Nexperia	Diode, Schottky, 100 V, 1 A, AEC-Q101, SOD-123W	SOD-123W
26	D4	1	200V	ES1D-E3/61T	Vishay-Semiconductor	Diode, Ultrafast, 200 V, 1 A, AEC-Q101, SMA	SMA
27	D6	1	100V	PDS3100Q-13	Diodes Inc.	Diode, Schottky, 100 V, 3 A, AEC-Q101, PowerDI5	PowerDI5
28	D7	1	18V	BZT52C18-7-F	Diodes Inc.	Diode, Zener, 18 V, 500 mW, AEC-Q101, SOD-123	SOD-123
29	D9, D11, D12	3	30V	BAT54WSQ-7-F	Diodes Inc.	Diode, Schottky, 30 V, 0.1 A, AEC-Q101, SOD-323	SOD-323
30	D10	1	200V	US1DFA	Fairchild Semiconductor	Diode, Superfast Rectifier, 200 V, 1 A, AEC-Q101, 2.8x1.8mm	2.8x1.8mm
31	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
32	H5, H6, H7, H8	4		1902C	Keystone	Standoff, Hex, 0.5"L #4-40 Nylon	Standoff
33	J1, J2, J3	3		1759017	Phoenix Contact	Header (Shrouded), 5.08mm, 2x1, Tin, R/A, TH	Header (Shrouded), 5.08mm, 2x1, R/A, TH
34	J4	1		PEC01DAAN	Sullins Connector Solutions	Header, 2.54mm, 1x2, Tin, Black, TH	Header, 2.54mm, 2x1, TH
35	L1	1	4.7uH	XAL5030-472MEB	Coilcraft	Inductor, Shielded, Composite, 4.7 uH, 5.9 A, 0.04 ohm, AEC-Q200 Grade 1, SMD	5.3x31.x5.5mm
36	L2, L3, L5	3	100 ohm	74279226101	Würth Elektronik	Ferrite Bead, 100 ohm @ 100 MHz, 8 A, 1812	1812
37	L4	1		ACM1211-701-2PL-TL01	TDK	Coupled inductor, 8 A, 0.006 ohm, SMD	SMD, 12x11mm
38	LBL1	1		TH14-423-10	Brady	Thermal Transfer Printable Labels, 0.650" W x 0.200" H - 10,000 per roll	PCB Label 0.650 x 0.200 inch
39	Q1	1	60V	NVMF55C670NLWFAFT1G	ON Semiconductor	MOSFET, N-CH, 60 V, 17 A, AEC-Q101, SO-8FL	SO-8FL
40	Q2	1	40 V	MMBT3906	Fairchild Semiconductor	Transistor, PNP, 40 V, 0.2 A, SOT-23	SOT-23
41	Q3, Q4	2	200V	SQJ454EP-T1_GE3	Vishay-Siliconix	MOSFET, N-CH, 200 V, 13 A, AEC-Q101, PowerPAK_SO-8L	PowerPAK_SO-8L
42	R1	1	1.0	RC0805JR-071RL	Yageo America	RES, 1.0, 0.5%, 0.125 W, 0805	0805
43	R2, R3	2	56k	CRCW120656K0JNEA	Vishay-Dale	RES, 56 k, 5%, 0.25 W, AEC-Q200 Grade 0, 1206	1206
44	R4	1	10	CRCW120610R0JNEA	Vishay-Dale	RES, 10, 5%, 0.25 W, AEC-Q200 Grade 0, 1206	1206
45	R5, R7	2	DNP	CRCW120630R0JNEA	Vishay-Dale	RES, 30, 5%, 0.25 W, AEC-Q200 Grade 0, 1206	1206
46	R6, R9	2	10.0	CRCW060310R0FKEA	Vishay-Dale	RES, 10.0, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
47	R8	1	66.5k	CRCW040266K5FKED	Vishay-Dale	RES, 66.5 k, 1%, 0.063 W, AEC-Q200 Grade 0, 0402	0402
48	R10	1	20	CRCW120620R0JNEA	Vishay-Dale	RES, 20, 5%, 0.25 W, AEC-Q200 Grade 0, 1206	1206
49	R11	1	0	CRCW06030000Z0EA	Vishay-Dale	RES, 0, 5%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
50	R12	1	15.4k	CRCW040215K4FKED	Vishay-Dale	RES, 15.4 k, 1%, 0.063 W, AEC-Q200 Grade 0, 0402	0402
51	R13	1	100k	CRCW0402100KJNED	Vishay-Dale	RES, 100 k, 5%, 0.063 W, AEC-Q200 Grade 0, 0402	0402
52	R14, R21	2	1.0k	ERJ-2GEJ102X	Panasonic	RES, 1.0 k, 5%, 0.1 W, AEC-Q200 Grade 0, 0402	0402
53	R15, R16	2	100	CRCW0402100RFKED	Vishay-Dale	RES, 100, 1%, 0.063 W, AEC-Q200 Grade 0, 0402	0402
54	R17, R18	2	0.007	PE1206FRF470R007L	Yageo America	RES, 0.007, 1%, 1 W, AEC-Q200 Grade 0, 1206	1206
55	R19	1	3.92k	CRCW04023K92FKED	Vishay-Dale	RES, 3.92 k, 1%, 0.063 W, 0402	0402
56	R20	1	0	CRCW04020000Z0ED	Vishay-Dale	RES, 0, 5%, 0.063 W, AEC-Q200 Grade 0, 0402	0402
57	R22	1	2.7k	CRCW04022K70JNED	Vishay-Dale	RES, 2.7 k, 5%, 0.063 W, AEC-Q200 Grade 0, 0402	0402
58	R23, R26, R29	3	10.0	CRCW060310R0FKEAHP	Vishay-Dale	RES, 10.0, 1%, 0.25 W, AEC-Q200 Grade 0, 0603	0603
59	R24	1	3.3	CRCW06033R30JNEA	Vishay-Dale	RES, 3.3, 5%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
60	R25, R30	2	10.0k	RMCF0402F10K0	Stackpole Electronics Inc	RES, 10.0 k, 1%, 0.063 W, AEC-Q200 Grade 0, 0402	0402
61	R27, R28	2	10.0	CRCW040210R0FKED	Vishay-Dale	RES, 10.0, 1%, 0.063 W, AEC-Q200 Grade 0, 0402	0402
62	R31, R34	2	300	RC1206FR-07300RL	Yageo America	RES, 300, 1%, 0.25 W, 1206	1206
63	R32	1	DNP	CRCW04020000Z0ED	Vishay-Dale	RES, 0, 5%, 0.063 W, AEC-Q200 Grade 0, 0402	0402
64	R33	1	71.5k	CRCW040271K5FKED	Vishay-Dale	RES, 71.5 k, 1%, 0.063 W, AEC-Q200 Grade 0, 0402	0402
65	R35, R36	2	1.00k	RP73D2B1K0BTG	TE Connectivity	RES, 1.00 k, 0.1%, 0.25 W, 1206	1206
66	R37, R38	2	200k	CRCW1206200KFKEA	Vishay-Dale	RES, 200 k, 1%, 0.25 W, AEC-Q200 Grade 0, 1206	1206
67	T1	1		ZB1399-BL	Coilcraft	EFD20 12PIN SMD FLYBACK TRANSFORMER	SMT_TRANSFORMER_30MM00_21MM13
68	TP1, TP2, TP3	3		5015	Keystone	Test Point, Miniature, SMT	Testpoint_Keystone_Miniature
69	U1	1		LM51561QDSSRQ1	Texas Instruments	2.2-MHz Wide VIN 65-V Non-synchronous Boost/SEPIC/Flyback Controller with Dual Random Spread Spectrum	WS0N12
70	U2	1		UCC27712QDRQ1	Texas Instruments	620-V High-Side Low-Side Gate Driver with 2.5A Peak Output and RobustDrive, D0008A (SOIC-8)	D0008A
71	FID1, FID2, FID3	0		N/A	N/A	Fiducial mark. There is nothing to buy or mount.	N/A

IMPORTANT NOTICE AND DISCLAIMER

TI PROVIDES TECHNICAL AND RELIABILITY DATA (INCLUDING DATA SHEETS), DESIGN RESOURCES (INCLUDING REFERENCE DESIGNS), APPLICATION OR OTHER DESIGN ADVICE, WEB TOOLS, SAFETY INFORMATION, AND OTHER RESOURCES "AS IS" AND WITH ALL FAULTS, AND DISCLAIMS ALL WARRANTIES, EXPRESS AND IMPLIED, INCLUDING WITHOUT LIMITATION ANY IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE OR NON-INFRINGEMENT OF THIRD PARTY INTELLECTUAL PROPERTY RIGHTS.

These resources are intended for skilled developers designing with TI products. You are solely responsible for (1) selecting the appropriate TI products for your application, (2) designing, validating and testing your application, and (3) ensuring your application meets applicable standards, and any other safety, security, regulatory or other requirements.

These resources are subject to change without notice. TI grants you permission to use these resources only for development of an application that uses the TI products described in the resource. Other reproduction and display of these resources is prohibited. No license is granted to any other TI intellectual property right or to any third party intellectual property right. TI disclaims responsibility for, and you will fully indemnify TI and its representatives against, any claims, damages, costs, losses, and liabilities arising out of your use of these resources.

TI's products are provided subject to [TI's Terms of Sale](#) or other applicable terms available either on [ti.com](https://www.ti.com) or provided in conjunction with such TI products. TI's provision of these resources does not expand or otherwise alter TI's applicable warranties or warranty disclaimers for TI products.

TI objects to and rejects any additional or different terms you may have proposed.

Mailing Address: Texas Instruments, Post Office Box 655303, Dallas, Texas 75265
Copyright © 2023, Texas Instruments Incorporated