

## PMP20682 REV B Bill of Materials

Designator	Quantity	Value	PartNumber	Manufacturer	Description	PackageReference
IPC B1	1		PMP20387	Any	PMP20387 REV A thermals optimized	N/A
C1	1	180uF	UCZ1J181MNU1MS	Nichicon	CAP, AL, 180 $\mu$ F, 63 V, +/- 20%, 0.2 ohm, AEC-Q200 Grade 1, SMD	D12.5xL13.5mm
C4, C6, C31	3	0.1uF	C0805C104K1RACTU	Kemet	CAP, CERM, 0.1 $\mu$ F, 100 V, +/- 10%, X7R, 0805	0805
C5, C27, C29, C32	4	0.01uF	C1608X7R2A103M	TDK	CAP, CERM, 0.01 $\mu$ F, 100 V, +/- 20%, X7R, 0603	0603
C7	1	10uF	C3225X7R1H106M250AC	TDK	CAP, CERM, 10 $\mu$ F, 50 V, +/- 20%, X7R, 1210	1210
C8, C9	2	1uF	C3216X7R2A105M160AA	TDK	CAP, CERM, 1 $\mu$ F, 100 V, +/- 20%, X7R, 1206	1206
C10, C11, C12, C33	4	4.7uF	UMK316AB7475KL-T	Taiyo Yuden	CAP, CERM, 4.7 $\mu$ F, 50 V, +/- 10%, X7R, 1206_190	1206_190
C14	1	0.1uF	C0603C104K5RACTU	Kemet	CAP, CERM, 0.1 $\mu$ F, 50 V, +/- 10%, X7R, 0603	0603
C15	1	0.47uF	GRM21BR72A474KA73L	MuRata	CAP, CERM, 0.47 $\mu$ F, 100 V, +/- 10%, X7R, 0805	0805
C16	1	4.7uF	GRM188R61C475KAAJ	MuRata	CAP, CERM, 4.7 $\mu$ F, 16 V, +/- 10%, X5R, 0603	0603
C17	1	0.47uF	CGA3E3X7R1H474K080AB	TDK	CAP, CERM, 0.47 $\mu$ F, 50 V, +/- 10%, X7R, AEC-Q200 Grade 1, 0603	0603
C20, C21	2	470uF	16SVPE470M	Panasonic	CAP, Aluminum Polymer, 470 $\mu$ F, 16 V, +/- 20%, 0.01 ohm, JC0 SMD	JC0
C23, C24	2	100uF	LMK325ABJ107MMHT	Taiyo Yuden	CAP, CERM, 100 $\mu$ F, 10 V, +/- 20%, X5R, AEC-Q200 Grade 3, 1210	1210
C25	1	33pF	06035A330JAT2A	AVX	CAP, CERM, 33 pF, 50 V, +/- 5%, C0G/NP0, 0603	0603
C26	1	0.068uF	GRM188R71E683KA01D	MuRata	CAP, CERM, 0.068 $\mu$ F, 25 V, +/- 10%, X7R, 0603	0603
C28	1	100pF	GRM1885C1H101JA01D	MuRata	CAP, CERM, 100 pF, 50 V, +/- 5%, C0G/NP0, 0603	0603
C30	1	0.01uF	GRM188R71E103KA01D	MuRata	CAP, CERM, 0.01 $\mu$ F, 25 V, +/- 10%, X7R, 0603	0603
D2	1	60V	PMEG6010CEJ,115	NXP Semiconductor	Diode, Schottky, 60 V, 1 A, SOD-323F	SOD-323F
D3	1	100V	SSA210	Fairchild Semiconductor	Diode, Schottky, 100 V, 2 A, AEC-Q101, SMA	SMA
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
H5, H6, H7, H8	4		1902C	Keystone	Standoff, Hex, 0.5"L #4-40 Nylon	Standoff
H9, H10	2		PMSSS 440 0025 PH	B&F Fastener Supply	MACHINE SCREW PAN PHILLIPS 4-40	Machine Screw, 4-40, 1/4 inch
J1	1		1729018	Phoenix Contact	TERM BLOCK 2POS 5mm, TH	10x10x8.1 mm
J2, J3, J5	3		61300211121	Würth Elektronik	Header, 2.54 mm, 2x1, Gold, TH	Header, 2.54mm, 2x1, TH
J4, J6	2		61300311121	Würth Elektronik	Header, 2.54 mm, 3x1, Gold, TH	Header, 2.54mm, 3x1, TH
L1	1	1.8uH	7447798180	Würth Elektronik	Inductor, Shielded, Metal Composite, 1.8 $\mu$ H, 12.8 A, 0.0038 ohm, SMD	10.2 x 6.4 x 10.2mm
L2, L3	2	100 ohm	74279224101	Würth Elektronik	Ferrite Bead, 100 ohm @ 100 MHz, 7 A, 2220 (H=1.8mm)	2220 (H=1.8mm)
L5	1	2.2uH	XAL1060-222MEB	Coilcraft	Inductor, Shielded, Composite, 2.2 $\mu$ H, 20 A, 0.0045 ohm, AEC-Q200 Grade 1, SMD	Inductor, 10x6x11.3mm
LBL1	1		THT-14-423-10	Brady	Thermal Transfer Printable Labels, 0.650" W x 0.200" H - 10,000 per roll	PCB Label 0.650"H x 0.200"W
Q1, Q2, Q3, Q4	4	40V	NVMFS5C468NLT1G	ON Semiconductor	MOSFET, N-CH, 40 V, 37 A, AEC-Q101, DFN5 5x6mm	DFN5 5x6mm
R2	1	0.1	WSL2010R1000FEA	Vishay-Dale	RES, 0.1, 1%, 0.5 W, 2010	2010
R4	1	10.0k	CRCW060310K0FKEA	Vishay-Dale	RES, 10.0 k, 1%, 0.1 W, 0603	0603
R6, R7, R8, R9, R12, R14, R19	7	0	CRCW06030000Z0EA	Vishay-Dale	RES, 0, 5%, 0.1 W, 0603	0603
R10	1	0.004	KRL6432E-M-R004-F-T1	Susumu Co Ltd	RES, 0.004, 1%, 3 W, 2512 WIDE	2512 WIDE
R11	1	100k	CRCW0603100K0FKEA	Vishay-Dale	RES, 100 k, 1%, 0.1 W, 0603	0603
R15	1	200	CRCW0603200R0FKEA	Vishay-Dale	RES, 200, 1%, 0.1 W, 0603	0603
R16	1	49.9	CRCW060349R9FKEA	Vishay-Dale	RES, 49.9, 1%, 0.1 W, 0603	0603
R17	1	20.0k	CRCW060320K0FKEA	Vishay-Dale	RES, 20.0 k, 1%, 0.1 W, 0603	0603
R18	1	21.0k	CRCW060321K0FKEA	Vishay-Dale	RES, 21.0 k, 1%, 0.1 W, 0603	0603

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R20	1	12.1k	CRCW060312K1FKEA	Vishay-Dale	RES, 12.1 k, 1%, 0.1 W, 0603	0603
SH-J1, SH-J2, SH-J3, SH-J4, SH-J5, SH-J6	6		60900213421	Würth Elektronik	Shunt, 2.54mm, Gold, Black	Shunt, 2.54mm, Black
TP1, TP5, TP6, TP8	4		5012	Keystone	Test Point, Multipurpose, White, TH	White Multipurpose Testpoint
TP2	1	White	5002	Keystone	Test Point, Miniature, White, TH	White Miniature Testpoint
TP3, TP4	2	Triple	1598-2	Keystone	Terminal, Turret, TH, Triple	Keystone1598-2
TP7	1		5011	Keystone	Test Point, Multipurpose, Black, TH	Black Multipurpose Testpoint
U2	1		LM5141QRGEQ1	Texas Instruments	IC, PWM, Buck Controller, w/ Dither	RGE0024H
C2	0	1uF	C3216X7R2A105M160AA	TDK	CAP, CERM, 1 µF, 100 V, +/- 20%, X7R, 1206	1206
C3	0	2.2uF	GRM188Z71C225KE43	MuRata	CAP, CERM, 2.2 µF, 16 V, +/- 10%, X7R, 0603	0603
C13	0	1000pF	GRM188R71E102KA01D	MuRata	CAP, CERM, 1000 pF, 25 V, +/- 10%, X7R, 0603	0603
C18, C19, C34	0	1000pF	GRM1885C2A102JA01D	MuRata	CAP, CERM, 1000 pF, 100 V, +/- 5%, C0G/NP0, 0603	0603
C22	0	0.1uF	C0603C104K5RACTU	Kemet	CAP, CERM, 0.1 µF, 50 V, +/- 10%, X7R, 0603	0603
D1	0	60V	PMEG6010CEJ,115	NXP Semiconductor	Diode, Schottky, 60 V, 1 A, SOD-323F	SOD-323F
FID1, FID2, FID3	0		N/A	N/A	Fiducial mark. There is nothing to buy or mount.	Fiducial
L4	0	2uH	IHLP4040DZER2R0M11	Vishay-Dale	Inductor, Shielded Drum Core, Powdered Iron, 2 µH, 14 A, 0.0058 ohm, SMD	IHLP-4040DZ
R1	0	10.0k	CRCW060310K0FKEA	Vishay-Dale	RES, 10.0 k, 1%, 0.1 W, 0603	0603
R3, R21	0	0	CRCW06030000Z0EA	Vishay-Dale	RES, 0, 5%, 0.1 W, 0603	0603
R5, R13, R23	0	1.0	CRM1206-JW-1R0ELF	Bourns	RES, 1.0, 5%, 0.5 W, 1206	1206
R22	0	49.9k	CRCW060349K9FKEA	Vishay-Dale	RES, 49.9 k, 1%, 0.1 W, 0603	0603
U1	0		TPS7A6650QDGNRQ1	Texas Instruments	High-Voltage Ultralow-Iq Low-Dropout Regulator, DGN0008D	DGN0008D

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