

PMP20305 REV A Bill of Materials

Designator	Quantity	Value	PartNumber	Manufacturer	Description	PackageReference
I PCB1	1		PMP20305	Any	Printed Circuit Board	
C1, C10, C11, C16, C18	5	4.7uF	GRM31CR71H475KA12L	MuRata	CAP, CERM, 4.7 µF, 50 V, +/- 10%, X7R, 1206	1206
C2, C12, C23	3	0.1uF	08055C104JAT2A	AVX	CAP, CERM, 0.1 µF, 50 V, +/- 5%, X7R, 0805	0805
C3, C4, C5	3	1uF	CGA4J3X7S2A105K125AB	TDK	CAP, CERM, 1uF, 100V, X7S, 10%, 0805	0805
C6, C17	2	0.047uF	GRM188R71C473KA01D	MuRata	CAP, CERM, 0.047 µF, 16 V, +/- 10%, X7R, 0603	0603
C7	1	0.1uF	CGA4J2X7R2A104K125AA	TDK	CAP, CERM, 0.1 µF, 100 V, +/- 10%, X7R, AEC-Q200 Grade 1, 0805	0805
C8	1	0.1uF	GRM188R71H104KA93D	MuRata	CAP, CERM, 0.1 µF, 50 V, +/- 10%, X7R, 0603	0603
C9	1	1uF	UMK107AB7105KA-T	Taiyo Yuden	CAP, CERM, 1 µF, 50 V, +/- 10%, X7R, 0603	0603
C13	1	10uF	C3225X7R1H106M250AC	TDK	CAP, CERM, 10 µF, 50 V, +/- 20%, X7R, 1210	1210
C14, C25	2	100pF	06035A101JAT2A	AVX	CAP, CERM, 100 pF, 50 V, +/- 5%, C0G/NP0, 0603	0603
C15	1	47uF	EEE-FC1H470P	Panasonic	CAP, AL, 47 µF, 50 V, +/- 20%, 0.3 ohm, SMD	SMT Radial G
C19	1	2.2uF	C2012X7R1H225K125AC	TDK	CAP, CERM, 2.2 µF, 50 V, +/- 10%, X7R, 0805	0805
C20	1	560pF	GRM1885C1E561JA01D	MuRata	CAP, CERM, 560 pF, 25 V, +/- 5%, C0G/NP0, 0603	0603
C21	1	0.18uF	GRM188R71C184KA01D	MuRata	CAP, CERM, 0.18 µF, 16 V, +/- 10%, X7R, 0603	0603
C22	1	0.22uF	GCM155R71C224KE02	MuRata	CAP, CERM, 0.22 µF, 16 V, +/- 10%, X7R, AEC-Q200 Grade 1, 0603	0603
C24	1	0.1uF	885012206071	Wurth Elektronik	CAP, CERM, 0.1 µF, 25 V, +/- 10%, X7R, 0603	0603
C26	1	330pF	C0805C331J1GACTU	Kemet	CAP, CERM, 330 pF, 100 V, +/- 5%, C0G/NP0, 0805	0805
C27	1	0.1uF	CGA3E3X8R1H104K080AB	TDK	CAP, CERM, 0.1 µF, 50 V, +/- 10%, X8R, AEC-Q200 Grade 0, 0603	0603
C28, C29	2	4.7uF	C3216X7R1H475M160AC	TDK	CAP, CERM, 4.7 µF, 50 V, +/- 20%, X7R, 1206_190	1206_190
C30	1	220uF	EEE-FC1V221P	Panasonic	CAP, AL, 220 µF, 35 V, +/- 20%, 0.15 ohm, SMD	SMT Radial G
D2, D3, D4, D5, D6, D7	6	Yellow	LY-W5SM	OSRAM	LED, Yellow, SMD	goldendragon
D8	1	30V	BAT42WS-7-F	Diodes Inc.	Diode, Schottky, 30 V, 0.2 A, SOD-323	SOD-323
D9, D10, D11, D12, D15, D16, D17, D18, D19	9	Red	LH CP7P-2T3T-1	OSRAM	LED, Red, SMD	LED, Red, 3.0x2.23x3.0mm
D13, D14	2	85V	BAV116WSQ-7	Diodes Inc.	Diode, Standard, 85V, 215mA, SOD-323, AEC-Q101	SOD-323
D20, D21, D22, D23, D24, D25, D26, D27, D28, D30, D31, D32, D33, D34, D35, D36, D37, D38	18	Red	LR-E6SF	OSRAM	LED, Red, SMD	Power TOPLED
D29	1	40V	FSV340FP	Fairchild Semiconductor	Diode, Schottky, 40 V, 3 A, AEC-Q101, SOD-123HE	SOD-123HE
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
L1	1		ACM9070-701-2PL-TL01	TDK	Coupled inductor, 5 A, 0.01 ohm, SMD	9x7mm
L2	1	800 ohm	HR2220V801R-10	Laird-Signal Integrity Products	Ferrite Bead, 800 ohm @ 100 MHz, 8 A, 1206	1206
L3	1	1.5uH	7440620015	Wurth Elektronik	Inductor, Shielded Drum Core, Metal Composite, 1.5 µH, 4 A, 0.01 ohm, SMD	SMD, 2-Leads, Body 6.8x6.8mm
L4	1	15uH	MSS1246T-153MLB	Coilcraft	Inductor, Shielded Drum Core, Ferrite, 15 µH, 3.4 A, 0.05 ohm, SMD	MSS1246T
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	1	60V	STL7N6LF3	STMicroelectronics	MOSFET, N-CH, 60 V, 20 A, AEC-Q101, 8-PowerVDFN	8-PowerVDFN
Q2, Q3	2	40 V	PZT2222A	Fairchild Semiconductor	Transistor, NPN, 40 V, 1 A, SOT-223	SOT-223
R1, R3	2	10k	CRCW060310K0JNEA	Vishay-Dale	RES, 10 k, 5%, 0.1 W, 0603	0603
R2, R9	2	1.18	CRCW08051R18FKEA	Vishay-Dale	RES, 1.18, 1%, 0.125 W, 0805	0805
R4	1	0	CRCW12060000Z0EA	Vishay-Dale	RES, 0, 5%, 0.25 W, 1206	1206

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R5	1	7.23k	RT0603DRE077K23L	Yageo America	RES, 7.23 k, 0.5%, 0.1 W, 0603	0603
R6	1	10.0k	CRCW060310K0FKEA	Vishay-Dale	RES, 10.0 k, 1%, 0.1 W, 0603	0603
R7	1	49.9k	CRCW060349K9FKEA	Vishay-Dale	RES, 49.9 k, 1%, 0.1 W, 0603	0603
R8	1	11.8k	CRCW060311K8FKEA	Vishay-Dale	RES, 11.8 k, 1%, 0.1 W, 0603	0603
R10	1	10	CRCW060310R0JNEA	Vishay-Dale	RES, 10, 5%, 0.1 W, 0603	0603
R11, R20	2	3.3k	RC0603JR-073K3L	Yageo America	RES, 3.3 k, 5%, 0.1 W, 0603	0603
R12	1	0	CRCW06030000Z0EA	Vishay-Dale	RES, 0, 5%, 0.1 W, 0603	0603
R13	1	3.65k	CRCW06033K65FKEA	Vishay-Dale	RES, 3.65 k, 1%, 0.1 W, 0603	0603
R14	1	100	CRCW0603100RJNEA	Vishay-Dale	RES, 100, 5%, 0.1 W, 0603	0603
R15	1	0.08	CRA2512-FZ-R080ELF	Bourns	RES, 0.08, 1%, 3 W, 2512	2512
R16, R21	2	49.9	CRCW201049R9FKEF	Vishay-Dale	RES, 49.9, 1%, 0.75 W, AEC-Q200 Grade 0, 2010	2010
R17	1	8.2	CRCW25128R20JNEG	Vishay-Dale	RES, 8.2, 5%, 1 W, AEC-Q200 Grade 0, 2512	2512
R18	1	20.0k	RC0603FR-0720KL	Yageo America	RES, 20.0 k, 1%, 0.1 W, 0603	0603
R19	1	976	RT0603DRE07976RL	Yageo America	RES, 976, 0.5%, 0.1 W, 0603	0603
TP1, TP3, TP5	3		5012	Keystone	Test Point, Multipurpose, White, TH	White Multipurpose Testpoint
TP2, TP4, TP6	3	Black	5011	Keystone	Test Point, Multipurpose, Black, TH	Black Multipurpose Testpoint
U1, U2	2		TL4242TDRJRQ1	Texas Instruments	ADJUSTABLE LED DRIVER, DRJ0008A	DRJ0008A
U3	1		LM5022QDGSRQ1	Texas Instruments	60V Low Side Controller for Boost and SEPIC, DGS0010A	DGS0010A
U4, U5	2		TL431AQDBZRQ1	Texas Instruments	Automotive Catalog Adjustable Precision Shunt Regulator, 34 ppm / degC, 100 mA, -40 to 125 degC, 3-pin SOT-23 (DBZ), Green (RoHS & no Sb/Br)	DBZ0003A
D1	0	22V	SMBJ22A-13-F	Diodes Inc.	Diode, TVS, Uni, 22 V, 600 W, SMB	SMB
FID1, FID2, FID3	0		N/A	N/A	Fiducial mark. There is nothing to buy or mount.	Fiducial

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