

PMP20946 REV A Bill of Materials

Designator	Quantity	Value	PartNumber	Manufacturer	Description	PackageReference
C100, C107	2	220pF	VY2221K29Y5SG6TV7	Vishay-Bccomponents	220pF ±10% 440VAC Ceramic Capacitor Y5S Radial, Disc	5x7.5 mm
C101, C108	2	470pF	VY2471K29Y5SS63V7	Vishay-Bccomponents	CAP, CERM, 470 pF, 300 V, +/- 10%, VY2, 5x7.5 mm	5x7.5 mm
C102	1	0.22uF	B32922C3224M	TDK	CAP, Film, 0.22 µF, 630 V, +/- 20%, TH	B32922_12.5mm
C103	1	0.47uF	B32922C3474K	TDK	CAP, Film, 0.47 µF, 630 V, +/- 10%, TH	B32922_17.5mm
C104	1	47uF	500VXG47MEFCSN22X25	Rubycon	CAP, AL, 47 µF, 500 V, +/- 20%, TH	D22xL25mm
C105	1	0.22uF	ECW-FD2W224KQ	Panasonic Electronic Compon	0.22µF ±10% Film Capacitor 450V Polypropylene (PP), Metallized Radial	18x6.5mm
C106	1	0.47uF	450MPK474J	Rubycon	CAP, Film, 0.47 µF, 450 V, +/- 5%, TH	18x6.5mm
C109	1	0.47uF	C0603C474K8RACTU	Kemet	CAP, CERM, 0.47 µF, 10 V, +/- 10%, X7R, 0603	0603
C110	1	680pF	GRM188R71H681KA01D	MuRata	CAP, CERM, 680 pF, 50 V, +/- 10%, X7R, 0603	0603
C111	1	1200pF	GRM1885C1H122JA01D	MuRata	CAP, CERM, 1200 pF, 50 V, +/- 5%, C0G/NP0, 0603	0603
C112	1	0.22uF	06033D224KAT2A	AVX	CAP, CERM, 0.22 µF, 25 V,+/- 10%, X5R, 0603	0603
C113	1	820pF	C0603C821J5GACTU	Kemet	CAP, CERM, 820 pF, 50 V, +/- 5%, C0G/NP0, 0603	0603
C114	1	2.2uF	12063D225KAT2A	AVX	CAP, CERM, 2.2 µF, 25 V,+/- 10%, X5R, 1206	1206
C200	1	2200pF	AY2222M35Y5US63L7	Vishay-Bccomponents	CAP, CERM, 2200 pF, 300 V, +/- 20%, Y5U, AEC-Q200 Grade 1, D9.5xT5mm	D9.5xT5mm
C201	1	47uF	UCS2E470MHD1TO	Nichicon	CAP, AL, 47 µF, 250 V, +/- 20%, TH	D12.5xL20mm
C205	1	0.022uF	GRM31BR72E223KW01L	MuRata	CAP, CERM, 0.022 µF, 250 V, +/- 10%, X7R, 1206	1206
C206	1		UCY2H100MHD	Nichicon	CAP, AL, 10 µF, 500 V, +/- 20%, TH	12.5x20mm
C207, C208	2	0.022uF	B32621A6223J000	TDK	CAP, Film, 0.022 µF, 400 VAC/630 VDC,+/- 5%, TH	13x6mm
C209	1	150pF	GRM31A5C2J151JW01D	MuRata	CAP, CERM, 150 pF, 630 V, +/- 5%, C0G/NP0, 1206	1206
C210	1	22pF	VJ1206A220JXGAT5Z	Vishay-Vitramon	CAP, CERM, 22 pF, 1000 V,+/- 5%, C0G/NP0, 1206	1206
C211, C218	2	2.2uF	C3216X5R1H225K160AB	TDK	CAP, CERM, 2.2 µF, 50 V,+/- 10%, X5R, 1206	1206
C212	1	22uF	25ML22MEFC5X5	Rubycon	CAP, AL, 22 µF, 25 V, +/- 20%, TH	RCAP, 5x5mm
C213	1	1uF	CGA5L3X7R1H105K160AB	TDK	CAP, CERM, 1 µF, 50 V, +/- 10%, X7R, AEC-Q200 Grade 1, 1206	1206
C214	1	0.1uF	C1206C104K5RACTU	Kemet	CAP, CERM, 0.1 µF, 50 V, +/- 10%, X7R, 1206	1206
C215	1	0.1uF	C0603C104J5RACTU	Kemet	CAP, CERM, 0.1 µF, 50 V, +/- 5%, X7R, 0603	0603
C217	1	47pF	C0603C470J5GACTU	Kemet	CAP, CERM, 47 pF, 50 V, +/- 5%, C0G/NP0, 0603	0603
C219	1	100uF	EEU-FC1V101	Panasonic	CAP, AL, 100 µF, 35 V, +/- 20%, 0.117 ohm, AEC-Q200 Grade 2, TH	Cap 8x11.5mm
C220	1	470pF	GRM1885C1H471JA01D	MuRata	CAP, CERM, 470 pF, 50 V,+/- 5%, C0G/NP0, 0603	0603
C221	1	47pF	GRM1885C1H470FA01J	MuRata	CAP, CERM, 47 pF, 50 V, +/- 1%, C0G/NP0, 0603	0603
C222	1	0.1uF	GRM155R61E104KA87D	MuRata	CAP, CERM, 0.1 µF, 25 V, +/- 10%, X5R, 0402	0402
C223	1	2.2uF	C1206C225K4RACTU	Kemet	CAP, CERM, 2.2 µF, 16 V, +/- 10%, X7R, 1206	1206
C225	1	430pF	GRM1885C1H431JA01D	MuRata	CAP, CERM, 430 pF, 50 V, +/- 5%, C0G/NP0, 0603	0603
C226	1	2200pF	GRM21AR72E222KW01D	MuRata	CAP, CERM, 2200 pF, 250 V,+/- 10%, X7R, 0805	0805
C228	1	0.1uF	GRM319R72A104KA01D	MuRata	CAP, CERM, 0.1 µF, 100 V,+/- 10%, X7R, 1206	1206
C229	1	2.2uF	GRM188R6YA225KA12D	MuRata	CAP, CERM, 2.2 µF, 35 V, +/- 10%, X5R, 0603	0603
C230, C233, C234, C235, C236	5	4.7uF	GRM188R61C475KAAJ	MuRata	CAP, CERM, 4.7 µF, 16 V, +/- 10%, X5R, 0603	0603
C231	1		EKY-350ELL681MJ30S	United Chemi-Con	CAP ALUM 680UF 20% 35V RADIAL	D10xL22mm
C232	1	22pF	06035A220JAT2A	AVX	CAP, CERM, 22 pF, 50 V,+/- 5%, C0G/NP0, 0603	0603
C237	1	0.22uF	C1608X7R1E224K080AC	TDK	CAP, CERM, 0.22 µF, 25 V,+/- 10%, X7R, 0603	0603
C238	1	2700pF	GRM188R71E272KA01D	MuRata	CAP, CERM, 2700 pF, 25 V,+/- 10%, X7R, 0603	0603
C239	1	2.2pF	06035A2R2CAT2A	AVX	CAP, CERM, 2.2 pF, 50 V, +/- 11%, C0G/NP0, 0603	0603
C240	1	220pF	GRM188R71H221KA01D	MuRata	CAP, CERM, 220 pF, 50 V, +/- 10%, X7R, 0603	0603
C241	1	0.01uF	0402ZC103KAT2A	AVX	CAP, CERM, 0.01 µF, 10 V,+/- 10%, X7R, 0402	0402
Cp	1	8200pF	ECW-H12822JV	Panasonic	CAP, Film, 8200 pF, 1250 V,+/- 5%, TH	18x7.5mm
D100, D101	2	600V	CGRM4005-G	Comchip Technology	Diode, P-N, 600 V, 1 A, MINI-SMA	MINI-SMA

Designator	Quantity	Value	PartNumber	Manufacturer	Description	PackageReference
D102	1	600V	C3D02060F	Cree	Diode Silicon Carbide Schottky 600V 4A (DC) Through Hole TO-220-F2	TO-220-F2
D103, D106, D107, D202, D205, D218	6	100V	MMDL914-TP	Micro Commercial Component	Diode, Switching, 100 V, 0.2 A, SOD-323	SOD-323
D104	1	600V	GBU4J-BP	Micro Commercial Component	Diode, P-N-Bridge, 600 V, 4 A, TH	GBU
D200, D201, D203, D204	4	600V	MURS360T3G	ON Semiconductor	Diode, Ultrafast, 600 V, 3 A, SMC	SMC
D206, D207	2	150V	ES1C-13-F	Diodes Inc.	Diode, Superfast Rectifier, 150 V, 1 A, SMA	SMA
D208	1	13V	MMSZ5243BS-7-F	Diodes Inc.	Diode, Zener, 13 V, 200 mW, SOD-323	SOD-323
D209	1	24V	MM3Z24VC	Fairchild Semiconductor	DIODE ZENER 24V 200MW SOD323F	SOD-323F
D210	1	30V	BAT54A-7-F	Diodes Inc.	Diode, Schottky, 30 V, 0.2 A, SOT-23	SOT-23
D211	1	5.1V	MMSZ5231BS-7-F	Diodes Inc.	Diode, Zener, 5.1 V, 200 mW, SOD-323	SOD-323
D212	1	6.2V	MMSZ5234BS-7-F	Diodes Inc.	Diode, Zener, 6.2 V, 200 mW, SOD-323	SOD-323
D213	1	600V	ES1JAF	Fairchild Semiconductor	Diode, Ultrafast, 600 V, 1 A, AEC-Q101, SMAF	SMAF
D214	1	100V	1N4148W-7-F	Diodes Inc.	Diode, Ultrafast, 100 V, 0.15 A, SOD-123	SOD-123
D215, D216, D217	3	56V	MM3Z56VC	Texas Instruments	DIODE ZENER 56V 200MW SOD323F	SOD-323F
D299	1		SMAZ39-13-F	Diodes Inc.	DIODE ZENER 39V 1W SMA	SMA
F100	1		37213150001	Littelfuse	Fuse, 3.15 A, 250VAC/VDC, TH	TR5 fuse 8.5mm DIA
J100, J200	2		TSW-102-07-G-S	Samtec	Header, 100mil, 2x1, Gold, TH	2x1 Header
J101	1		1-1318301-3	TE Connectivity	Header, 312mil, 3x1, Tin, TH	19.7x10.7 x8.5 mm
J201	1		ED120/4DS	On-Shore Technology	Terminal Block, 5.08 mm, 4x1, Brass, TH	4x1 5.08 mm Terminal Block
J202	1		PEC03SAAN	Sullins Connector Solutions	Header, 100mil, 3x1, Tin, TH	Header, 3 PIN, 100mil, Tin
L100	1	1.6mH	4815838R	Mintronix	Inductor, 1.6 mH, 4.3 A, 0.525 ohm, TH	44.5x52mm
L101	1	100µH	7447021	Würth Elektronik	100µH Unshielded Toroidal Inductor 2A 80 mOhm Max Radial	IND_TORROID_15.8x7.5mm
L102	1	10mH	744824310	Würth Elektronik	Coupled inductor, 10 mH, 3 A, 0.105 ohm, TH	18.5x33x27.5 mm
L200	1	280µH	RLTI-1255	Renco Electronics	Inductor, 40 µH, 0.065 ohm, TH	18.288x16.51mm
Q100	1	600V	IPP60R180C7	Infineon Technologies	MOSFET N-CH 600V 13A TO220-3	TO-220AB
Q200, Q202	2	650V	IPA65R190CFD	Infineon Technologies	MOSFET, N-CH, 650 V, 17.5 A, TO-220FP	TO-220FP
Q201, Q203	2	100 V	FMMT493TA	Diodes Inc.	TRANS NPN 100V 1A SOT23-3	SOT-23
R101	1	10	CRCW060310R0JNEAHP	Vishay-Dale	RES, 10, 5%, 0.25 W, 0603	0603
R104	1	20k	CRCW120620K0JNEA	Vishay-Dale	RES, 20 k, 5%, 0.25 W, 1206	1206
R105, R106, R108	3	0.2	MCR25JZHFLR200	Rohm	RES, 0.2, 1%, 0.5 W, 1210	1210
R107, R109, R111	3	332k	CRCW1206332KFKEA	Vishay-Dale	RES, 332 k, 1%, 0.25 W, 1206	1206
R110	1	221	CRCW0603221RFKEA	Vishay-Dale	RES, 221, 1%, 0.1 W, 0603	0603
R112	1	10.0k	ERJ-3EKF1002V	Panasonic	RES, 10.0 k, 1%, 0.1 W, 0603	0603
R113	1	16.2k	CRCW060316K2FKEA	Vishay-Dale	RES, 16.2 k, 1%, 0.1 W, 0603	0603
R114	1	11.5k	CRCW060311K5FKEA	Vishay-Dale	RES, 11.5 k, 1%, 0.1 W, 0603	0603
R200	1	2.2Meg	CRCW12062M20JNEA	Vishay-Dale	RES, 2.2 M, 5%, 0.25 W, 1206	1206
R201, R206	2	10.0k	CRCW080510K0FKEA	Vishay-Dale	RES, 10.0 k, 1%, 0.125 W, 0805	0805
R202, R208	2	10.0	CRCW060310R0FKEA	Vishay-Dale	RES, 10.0, 1%, 0.1 W, 0603	0603
R203	1	0.02	WSLP1206R0200FEA	Vishay-Dale	RES, 0.02, 1%, 1 W, 1206	1206
R204	1	22.0	RC1206FR-0722RL	Yageo America	RES, 22.0, 1%, 0.25 W, 1206	1206
R205	1	20.5k	CRCW060320K5FKEA	Vishay-Dale	RES, 20.5 k, 1%, 0.1 W, 0603	0603
R207, R210, R213, R223, R226, R233	6	10.0k	CRCW060310K0FKEA	Vishay-Dale	RES, 10.0 k, 1%, 0.1 W, 0603	0603
R209	1	115k	CRCW0603115KFKEA	Vishay-Dale	RES, 115 k, 1%, 0.1 W, 0603	0603
R211, R212	2	49.9	CRCW120649R9FKEA	Vishay-Dale	RES, 49.9, 1%, 0.25 W, 1206	1206

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R214	1	7.5k	CRCW06037K50JNEA	Vishay-Dale	RES, 7.5 k, 5%, 0.1 W, 0603	0603
R215	1	2.49k	RC0603FR-072K49L	Yageo America	RES, 2.49 k, 1%, 0.1 W, 0603	0603
R216, R217	2	4.75	RC0603FR-074R75L	Yageo America	RES, 4.75, 1%, 0.1 W, 0603	0603
R219	1	45.3k	CRCW060345K3FKEA	Vishay-Dale	RES, 45.3 k, 1%, 0.1 W, 0603	0603
R220	1	10.0k	RC0603FR-0710KL	Yageo	RES, 10.0 k, 1%, 0.1 W, 0603	0603
R221	1	15	CRCW060315R0JNEA	Vishay-Dale	RES, 15 ohm, 5%, 0.1W, 0603	0603
R222	1	20.0k	CRCW060320K0FKEA	Vishay-Dale	RES, 20.0 k, 1%, 0.1 W, 0603	0603
R224	1	33.2k	CRCW040233K2FKED	Vishay-Dale	RES, 33.2 k, 1%, 0.063 W, 0402	0402
R225, R251	2	0	CRCW12060000Z0EA	Vishay-Dale	RES, 0, 5%, 0.25 W, 1206	1206
R227	1	2.2	CRCW06032R20JNEA	Vishay-Dale	RES, 2.2, 5%, 0.1 W, 0603	0603
R228, R229, R230	3	1.65k	CRCW12061K65FKEA	Vishay-Dale	RES, 1.65 k, 1%, 0.25 W, 1206	1206
R231, R234, R239	3	4.99Meg	CRCW12064M99FKEA	Vishay-Dale	RES, 4.99 M, 1%, 0.25 W, 1206	1206
R232	1	20.0	ERJ-8ENF20R0V	Panasonic	RES, 20.0, 1%, 0.25 W, 1206	1206
R235	1	330k	RC1206FR-07330KL	Yageo America	RES, 330 k, 1%, 0.25 W, 1206	1206
R236	1	221k	CRCW0603221KFKEA	Vishay-Dale	RES, 221 k, 1%, 0.1 W, 0603	0603
R240	1	64.9k	ERJ-8ENF6492V	Panasonic	RES, 64.9 k, 1%, 0.25 W, 1206	1206
R241	1	1.00Meg	CRCW12061M00FKEA	Vishay-Dale	RES, 1.00 M, 1%, 0.25 W, 1206	1206
R242	1	20.0k	CRCW060320K0FKEA	Vishay-Dale	RES, 20.0 k, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
R243	1	20.0k	RC0603FR-0720KL	Yageo America	RES, 20.0 k, 1%, 0.1 W, 0603	0603
R244	1	432k	CRCW0603432KFKEA	Vishay-Dale	RES, 432 k, 1%, 0.1 W, 0603	0603
R245	1	68.1	CRCW060368R1FKEA	Vishay-Dale	RES, 68.1, 1%, 0.1 W, 0603	0603
R246	1	205	CRCW0603205RFKEA	Vishay-Dale	RES, 205, 1%, 0.1 W, 0603	0603
R247	1	127k	CRCW0603127KFKEA	Vishay-Dale	RES, 127 k, 1%, 0.1 W, 0603	0603
R248	1	4.99k	CR0603-FX-4991ELF	Bourns	RES, 4.99 k, 1%, 0.1 W, 0603	0603
R249	1	51.1k	CRCW060351K1FKEA	Vishay-Dale	RES, 51.1 k, 1%, 0.1 W, 0603	0603
R250	1	0	CRCW06030000Z0EA	Vishay-Dale	RES, 0, 5%, 0.1 W, 0603	0603
RT100	1	4.70	B57153S0479M000	TDK	Thermistor NTC, 4.70 ohm, 20%, 8.5mm Disc	8.5mm Disc
RV100	1		S10K275E2	EPCOS Inc	Varistor 275V RMS 10MM Radial, TH	10mm Radial
T200	1	1mH	RLTI-1252	Renco Electronics	Transformer, 1mH, TH	1627x1704.5mil
TP200	1		5000	Keystone	Test Point, Miniature, Red, TH	Red Miniature Testpoint
TP201	1		5001	Keystone	Test Point, Miniature, Black, TH	Black Miniature Testpoint
U100	1		UCC28180DR	Texas Instruments	8-PIN CONTINUOUS CONDUCTION MODE (CCM) PFC CONTROLLER, D0008A (SOIC-8)	D0008A
U200	1		LM4040C25IDBZR	Texas Instruments	Precision Micropower Shunt Voltage Reference, 0.5% accuracy, 2.5 V, 15 ppm / degC, 15 mA, -40 to 85 degC, 3-pin SOT-23 (DBZ), Green (RoHS & no Sb/Br)	DBZ0003A
U201	1		LM358M	Texas Instruments	Low Power Dual Op Amp, D0008A	D0008A
U202	1		INA180A2IDBV	Texas Instruments	Low- and High-Side Measurement, Multichannel, Voltage Output, Current-Sense Amplifier, DBV0005A (SOT-5)	DBV0005A
U203	1		VO618A-3	Vishay-Semiconductor	OPTOISOLATOR 5.3KV TRANS 4-DIP	DIP, 4-Leads, Body 6.86x4.83mm, Pitch 2.54mm
U204	1		UCC256301	Texas Instruments	Enhanced LLC Resonant Controller with Driver, DDB0014A	DDB0014A
C202	0	47uF	UCS2E470MHD1TO	Nichicon	CAP, AL, 47 µF, 250 V, +/- 20%, TH	D12.5xL20mm
C203, C204	0	220uF	UPT2E221MHD	Nichicon	220µF 250V Aluminum Capacitors Radial, Can 5000 Hrs @ 105°C	D16xL25mm
C216	0	0.33uF	C1608X5R1H334K080AB	TDK	CAP, CERM, 0.33 µF, 50 V, +/- 10%, X5R, 0603	0603
C224	0	0.01uF	GRM155R71H103KA88D	MuRata	CAP, CERM, 0.01 µF, 50 V, +/- 10%, X7R, 0402	0402
C227	0	1uF	GRM188R71C105KA12D	MuRata	CAP, CERM, 1 µF, 16 V, +/- 10%, X7R, 0603	0603
D105	0	12V	MMSZ5242BS-7-F	Diodes Inc.	Diode, Zener, 12 V, 200 mW, SOD-323	SOD-323
R100, R102, R103	0	432k	CRCW1206432KFKEA	Vishay-Dale	RES, 432 k, 1%, 0.25 W, 1206	1206

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R218	0	44.2k	CRCW060344K2FKEA	Vishay-Dale	RES, 44.2 k, 1%, 0.1 W, 0603	0603
R237	0	511	CRCW0603511RFKEA	Vishay-Dale	RES, 511, 1%, 0.1 W, 0603	0603
R238	0	787k	CRCW0603787KFKEA	Vishay-Dale	RES, 787 k, 1%, 0.1 W, 0603	0603

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