

PMP40580 REV A Bill of Materials

Designator	Quantity	Value	PartNumber	Manufacturer	Description	PackageReference
!PCB	1		PMP40580	Any	Printed Circuit Board	
C100, C103	2	0.47µF	ECQ-UAAF474M	Panasonic	CAP, Film, 0.47 µF, 275 V,+/- 20%, TH	
C101, C102, C104, C105	4	1000pF	CD45-E2GA102M-NKA	TDK	CAP, CERM, 1000 pF, X1 440 VAC/Y1 400 VAC, +/- 20%, E, D7xT6mm	D7xT6mm
C108	1	1uF	450MPK105J	Rubycon	CAP, Film, 1 µF, 450 V,+/- 5%, TH	18x9.5mm
C109, C110	2	68uF	450BXW68MEFC12.5X45	Rubycon	CAP, AL, 68 µF, 450 V, +/- 20%, TH	D12.5xL45mm
C111	1	10pF	VJ1206A100JXGAT5Z	Vishay-Vitramon	CAP, CERM, 10 pF, 1000 V,+/- 5%, C0G/NP0, 1206	1206
C112	1	3300pF	GRM2165C1H332JA01D	MuRata	CAP, CERM, 3300 pF, 50 V,+/- 5%, C0G/NP0, 0805	0805
C113	1	470pF	08055A471JAT2A	AVX	CAP, CERM, 470 pF, 50 V,+/- 5%, C0G/NP0, 0805	0805
C115	1	0.18uF	GRM21BR71E184KA01L	MuRata	CAP, CERM, 0.18 µF, 25 V,+/- 10%, X7R, 0805	0805
C116	1	0.047uF	GRM219R71E473KA01D	MuRata	CAP, CERM, 0.047 µF, 25 V,+/- 10%, X7R, 0805	0805
C117	1	0.47uF	GRM21BR71H474KA88L	MuRata	CAP, CERM, 0.47 µF, 50 V,+/- 10%, X7R, 0805	0805
C118	1	10pF	08055A100JAT2A	AVX	CAP, CERM, 10 pF, 50 V, +/- 5%, C0G/NP0, 0805	0805
C119	1	2200pF	GRM2165C1H222JA01D	MuRata	CAP, CERM, 2200 pF, 50 V,+/- 5%, C0G/NP0, 0805	0805
C120	1	10uF	GRM21BZ71E106KE15L	MuRata	CAP, CERM, 10 µF, 25 V, +/- 10%, X7R, 0805	0805
C200	1	0.1uF	C1210C104KBRAC7800	Kemet	CAP, CERM, 0.1 µF, 630 V,+/- 10%, X7R, 1210	1210
C203, C204	2	15nF	B32642B0153J	TDK EPCOS	CAP FILM 0.015UF 5% 1KVDC RADIAL	
C205	1	150pF	GRM31A5C2J151JW01D	MuRata	CAP, CERM, 150 pF, 630 V,+/- 5%, C0G/NP0, 1206	1206
C206	1	47pF	VJ1206A470JXGAT5Z	Vishay-Vitramon	CAP, CERM, 47 pF, 1000 V,+/- 5%, C0G/NP0, 1206	1206
C207	1	4700pF	GRM3195C1H472JA01D	MuRata	CAP, CERM, 4700 pF, 50 V,+/- 5%, C0G/NP0, 1206	1206
C208	1	22uF	EKZE500ELL220ME11D	Chemi-Con	CAP, AL, 22 µF, 50 V, +/- 20%, TH	D5xL11mm
C211	1	330uF	UVR1V331MPD	Nichicon	CAP, AL, 330 µF, 35 V, +/- 20%, TH	Cap, 10x12.5mm
C212	1	2.2uF	C3216X7S2A225K160AB	TDK	CAP, CERM, 2.2 µF, 100 V,+/- 10%, X7S, 1206	1206
C213	1	0.068uF	C0805C683K1RACTU	Kemet	CAP, CERM, 0.068 µF, 100 V,+/- 10%, X7R, 0805	0805
C214, C215	2	10uF	GRM21BZ71E106KE15L	MuRata	CAP, CERM, 10 µF, 25 V,+/- 10%, X7R, 0805	0805
C216	1	100pF	GRM2165C1H101JA01D	MuRata	CAP, CERM, 100 pF, 50 V,+/- 5%, C0G/NP0, 0805	0805
C217	1	10pF	C0805C100J5GACTU	Kemet	CAP, CERM, 10 pF, 50 V,+/- 5%, C0G/NP0, 0805	0805
C218	1	2.2uF	GRM219R71C225KE15	MuRata	CAP, CERM, 2.2 µF, 16 V,+/- 10%, X7R, 0805	0805
C219	1	470pF	GRM216R71E471KA01D	MuRata	CAP, CERM, 470 pF, 25 V,+/- 10%, X7R, 0805	0805
C220	1	0.22uF	08053C224JAT2A	AVX	CAP, CERM, 0.22 µF, 25 V,+/- 5%, X7R, 0805	0805
C222, C223, C224	3	6.8uF	EKXG401ELL6R8MJ16S	Chemi-Con	CAP, AL, 6.8 µF, 400 V, +/- 20%, TH	D10xL16mm
C225, C226, C227, C228	4	470uF	ELXZ250ELL471MJ16S	Chemi-Con	CAP, AL, 470 µF, 25 V, +/- 20%, AEC-Q200 Grade 2, TH	D10xL16mm
C229	1	10uF	GRM21BC71E106KE11L	MuRata	CAP, CERM, 10 µF, 25 V,+/- 10%, X7S, 0805	0805
C230	1	0.1uF	GRM21BR71E104KA01L	MuRata	CAP, CERM, 0.1 µF, 25 V,+/- 10%, X7R, 0805	0805
C232	1	0.1uF	C0805C104J5RACTU	Kemet	CAP, CERM, 0.1 µF, 50 V,+/- 5%, X7R, 0805	0805
C234	1	1000pF		MuRata	CAP, CERM, 470 pF, 250 V, +/- 20%, E, Disc, 8x12mm	Disc, 8x12mm
D100	1	600V	TS15P05G	Taiwan Semiconductor Corpor	Diode, P-N-Bridge, 600 V, 15 A, TH	
D101	1	600V	MURS360T3G	ON Semiconductor	Diode, Ultrafast, 600 V, 3 A, SMC	SMC
D102	1	600V	MURHD560T4G	ON Semiconductor	Diode, Ultrafast, 600 V, 5 A, DPAK	DPAK
D103, D201, D202	3	100V	1N4148W-7-F	Diodes Inc.	Diode, Ultrafast, 100 V, 0.15 A, SOD-123	SOD-123
D104, D105	2	600V	MURA160T3G	ON Semiconductor	Diode, Ultrafast, 600 V, 1 A, AEC-Q101, SMA	SMA

Designator	Quantity	Value	PartNumber	Manufacturer	Description	PackageReference
D203	1	100V	PMEG10020ELRX	Nexperia	Diode, Schottky, 100 V, 2 A, AEC-Q101, SOD-123W	SOD-123W
D205	1	60V	PMEG6010CEH,115	Nexperia	Diode, Schottky, 60 V, 1 A, SOD-123F	SOD-123F
D207	1	600V	ES1JAF	Fairchild Semiconductor	Diode, Ultrafast, 600 V, 1 A, AEC-Q101, SMAF	SMAF
D208, D209, D210, D211	4	200V	STTH1R02	STMicroelectronics	Diode, Ultrafast, 200 V, 1.5 A, TH	DO-41
D212, D213	2	45V	STPS40L45CT	STMicroelectronics	Diode, Schottky, 45 V, 20 A, TH	TO-220AB
F100	1		02153.15MXEP	Littelfuse	Fuse, 3.15 A, 250 VAC, TH	TH, Dia 5.8mm, Lead Spacing 26.4mm
H1, H2, H3, H4	4		4820	Keystone	Standoff, Hex, 1"L #6-32 Nylon, M-F	1 inch Nylon Hex Standoff
H5, H6, H7, H8	4		1903C	Keystone		6-32 HEX Nylon standoff 0.500 mil
H13, H14, H15, H16	4		MPMS 003 0005 PH	B&F Fastener Supply	MACHINE SCREW PAN PHILLIPS M3 5mm	Screw M3 Phillips head
H17, H18, H19	3		RM3X8MM 2701	APM HEXSEAL	MACHINE SCREW PAN PHILLIPS M3	M3 Screw
H20, H21, H22	3		9080032809	InStock Fasteners	Hex Nuts: M3 X .5MM pitch DIN 934 A2 - 304 Stainless	Hex Nut, M3
H100	1		SK443100SA	Texas Instruments	Extruded Heatsink, 100mm, CUSTOM	
H200	1		SK44375SA	Texas Instruments	Extruded Heatsink, 75mm, CUSTOM	
H201, H202	2		4880SG	Aavid Thermalloy	TO-220 Mounting Kit	TO-220 Mounting Kit
J100	1				Serie 3124 - 7.62mm Open Horizontal PCB Header WR-TBL, 3 pin	
J101, J102, J103, J202, J209, J210	6		923345-08-C	3M		JUMPER2
J104, J106, J201, J203, J204, J211, J212, J213	8		923345-06-C	3M	Jumper Wire, 600mil spacing, Blue, pkg of 150, TH	600 mil Jumper Wire
J105, J200, J205, J207, J208	5		923345-04-C	3M	Jumper Wire, 400 mil Spacing, Yellow, Pkg of 200	Jumper Wire, 400 mil Spacing, Yellow, Pkg of 200
J214	1				THT Male Header WR-MPC4, Right Angled, Dual Row, pitch 4.2 mm, 8 pins	
L100, L101	2	20mH	JLB20213	Jewel	Coupled inductor, 20 mH, 3 A, 0.16 ohm, TH	30x35x21mm
L102	1		JLC42184	Jewel	Inductor, 200 µH, 0.235 ohm, TH	
L103	1	75 ohm	28L0138-10R-10	Laird-Signal Integrity Products	Ferrite Bead, 75 ohm @ 100 MHz, 5 A, D3.51xL4.45mm	D3.51xL4.45mm
Q100	1	600V	STF24N60DM2	STMicroelectronics	MOSFET, N-CH, 600 V, 18 A, TO-220FP	TO-220FP
Q200, Q201	2	650V	IPA65R190CFD	Infineon Technologies	MOSFET, N-CH, 650 V, 17.5 A, TO-220FP	TO-220FP
Q207	1	600V	STN1NK60Z	STMicroelectronics	MOSFET, N-CH, 600 V, 0.3 A, SOT-223	SOT-223
Q208	1	-60V	SI2309CDS-T1-E3	Vishay-Siliconix	MOSFET, P-CH, -60 V, -1.6 A, SOT-23	SOT-23
Q209	1	40 V	MMBT3904	Fairchild Semiconductor	Transistor, NPN, 40 V, 0.2 A, SOT-23	SOT-23
Q210	1	60V	2N7002K-T1-E3	Vishay-Siliconix	MOSFET, N-CH, 60 V, 0.3 A, SOT-23	SOT-23
R100	1		V300LA2P	Littelfuse	VARISTOR 490V 1.2KA DISC 7MM	Dia. 7mm
R102, R103, R104	3	1.65k	CRCW12061K65FKEA	Vishay-Dale	RES, 1.65 k, 1%, 0.25 W, AEC-Q200 Grade 0, 1206	1206
R105	1	4.70 ohm	B57237S0479M000	TDK	Thermistor NTC, 4.70 ohm, 20%, 15x7mm	15x7mm
R106	1	51	CRCW120651R0JNEA	Vishay-Dale	RES, 51, 5%, 0.25 W, 1206	1206
R107, R108, R109, R113, R114, R115	6	3.32Meg	CRCW12063M32FKEA	Vishay-Dale	RES, 3.32 M, 1%, 0.25 W, 1206	1206
R110	1	110k	CRCW0805110KFKEA	Vishay-Dale	RES, 110 k, 1%, 0.125 W, 0805	0805

Designator	Quantity	Value	PartNumber	Manufacturer	Description	PackageReference
R111	1	154k	CRCW0805154KFKEA	Vishay-Dale	RES, 154 k, 1%, 0.125 W, 0805	0805
R112	1	10.0	CRCW120610R0FKEA	Vishay-Dale	RES, 10.0, 1%, 0.25 W, 1206	1206
R116	1	24.9k	ERJ-6ENF2492V	Panasonic	RES, 24.9 k, 1%, 0.125 W, 0805	0805
R117, R118	2	0.12	ERJ-8RSJR12V	Panasonic	RES, 0.12, 5%, 0.25 W, 1206	1206
R119	1	3.0k	CRCW08053K00JNEA	Vishay-Dale	RES, 3.0 k, 5%, 0.125 W, 0805	0805
R120	1	270k	CRCW0805270KJNEA	Vishay-Dale	RES, 270 k, 5%, 0.125 W, 0805	0805
R121, R200, R203	3	47	CRCW080547R0JNEA	Vishay-Dale	RES, 47, 5%, 0.125 W, 0805	0805
R122, R201, R204, R236, R247	5	22	CRCW080522R0JNEA	Vishay-Dale	RES, 22, 5%, 0.125 W, 0805	0805
R123	1	82.5k	CRCW080582K5FKEA	Vishay-Dale	RES, 82.5 k, 1%, 0.125 W, 0805	0805
R124	1	0	CRCW12060000Z0EA	Vishay-Dale	RES, 0, 5%, 0.25 W, 1206	1206
R202, R205	2	51k	CRCW080551K0JNEA	Vishay-Dale	RES, 51 k, 5%, 0.125 W, 0805	0805
R207, R213, R215, R234	4	0	CRCW08050000Z0EA	Vishay-Dale	RES, 0, 5%, 0.125 W, 0805	0805
R216	1	220k	CRCW0805220KJNEA	Vishay-Dale	RES, 220 k, 5%, 0.125 W, 0805	0805
R217	1	120k	CRCW0805120KJNEA	Vishay-Dale	RES, 120 k, 5%, 0.125 W, 0805	0805
R218	1	133	CRCW1206133RFKEA	Vishay-Dale	RES, 133, 1%, 0.25 W, 1206	1206
R219	1	2.2	CRCW08052R20JNEA	Vishay-Dale	RES, 2.2, 5%, 0.125 W, 0805	0805
R220	1	44.2k	CRCW080544K2FKEA	Vishay-Dale	RES, 44.2 k, 1%, 0.125 W, 0805	0805
R221	1	8.06k	CRCW08058K06FKEA	Vishay-Dale	RES, 8.06 k, 1%, 0.125 W, 0805	0805
R222, R223, R224	3	4.99Meg	CRCW12064M99FKEA	Vishay-Dale	RES, 4.99 M, 1%, 0.25 W, AEC-Q200 Grade 0, 1206	1206
R225	1	180k	CRCW0805180KJNEA	Vishay-Dale	RES, 180 k, 5%, 0.125 W, 0805	0805
R230	1	6.04k	CRCW08056K04FKEA	Vishay-Dale	RES, 6.04 k, 1%, 0.125 W, 0805	0805
R231	1	10k	CRCW080510K0JNEA	Vishay-Dale	RES, 10 k, 5%, 0.125 W, 0805	0805
R233	1	15k	CRCW080515K0JNEA	Vishay-Dale	RES, 15 k, 5%, 0.125 W, 0805	0805
R235	1	0	ERJ-6GEY0R00V	Panasonic	RES, 0, 5%, 0.125 W, 0805	0805
R237	1	147k	CRCW0805147KFKEA	Vishay-Dale	RES, 147 k, 1%, 0.125 W, 0805	0805
R240	1	80.6k	CRCW080580K6FKEA	Vishay-Dale	RES, 80.6 k, 1%, 0.125 W, 0805	0805
R241	1	21.5k	CRCW080521K5FKEA	Vishay-Dale	RES, 21.5 k, 1%, 0.125 W, 0805	0805
R244, R245	2	100k	PR02000201003JR500	Vishay-Bccomponents	RES, 100 k, 5%, 2 W, AEC-Q200 Grade 0, Axial resistor	Axial resistor
R248, R249	2	100k	CRCW0805100KJNEA	Vishay-Dale	RES, 100 k, 5%, 0.125 W, 0805	0805
R250	1	4.7k	CRCW08054K70JNEA	Vishay-Dale	RES, 4.7 k, 5%, 0.125 W, 0805	0805
R251	1	20k	CRCW080520K0JNEA	Vishay-Dale	RES, 20 k, 5%, 0.125 W, 0805	0805
T100	1	400uH	BCK-50-722D	Jewel	Transformer, 400uH, 14-pin, TH, EE49	48x46mm
TP200, TP202, TP204, TP206	4	Black	5011	Keystone	Test Point, Multipurpose, Black, TH	Black Multipurpose Testpoint
TP201, TP203, TP205	3	Red	5010	Keystone	Test Point, Multipurpose, Red, TH	Red Multipurpose Testpoint
U100	1		UCC28056DBV	Texas Instruments	6-Pin Single-Phase Transition-Mode PFC Controller, DBV0006A (SOT-23-6)	DBV0006A
U200	1		UCC25640-4DDBR	Texas Instruments	Wide Vin LLC Resonant Controller With High-Voltage Start Up Enabling Low Standby Power, DDB0014A (SOIC-14)	DDB0014A
U202	1		VO618A	Vishay-Semiconductor	Optocoupler, 5.3 kV, 50-600% CTR, TH	DIP, 4-Leads, Body 6.86x4.83mm, Pitch 2.54mm
U203	1		TLVH432AIDBZR	Texas Instruments	Low-Voltage Adjustable Precision Shunt Regulator, 129 ppm / degC, 80 mA, -40 to 85 degC, 3-pin SOT-23 (DBZ), Green (RoHS & no Sb/Br)	DBZ0003A

Designator	Quantity	Value	PartNumber	Manufacturer	Description	PackageReference
C106, C107, C114, C201, C202	0	220pF	CC45SL3AD221JYNNA	TDK	CAP, CERM, 220 pF, 1000 V,+/- 5%, SL, D8.5xT5mm	D8.5xT5mm
C209, C210	0	0.1uF	08055C104JAT2A	AVX	CAP, CERM, 0.1 μF, 50 V, +/- 5%, X7R, 0805	0805
C221	0	470pF	GRM216R71E471KA01D	MuRata	CAP, CERM, 470 pF, 25 V,+/- 10%, X7R, 0805	0805
C231	0	3300pF	08055C332KAT2A	AVX	CAP, CERM, 3300 pF, 50 V,+/- 10%, X7R, 0805	0805
C233	0	1000pF		MuRata	CAP, CERM, 470 pF, 250 V, +/- 20%, E, Disc, 8x12mm	Disc, 8x12mm
D204	0	12V	MMSZ4699T1G	ON Semiconductor	Diode, Zener, 12 V, 500 mW, SOD-123	SOD-123
D206	0	15V	BZT52C15-7-F	Diodes Inc.	Diode, Zener, 15 V, 370 mW, AEC-Q101, SOD-123	SOD-123
D214	0	11V	1SMA5926BT3G	ON Semiconductor	Diode, Zener, 11 V, 1.5 W, SMA	SMA
FID1, FID2, FID3	0		N/A	N/A	Fiducial mark. There is nothing to buy or mount.	N/A
H9, H10, H11, H12	0				GND connector	
J206	0		923345-08-C	3M		JUMPER2
Q202, Q203	0	40 V	MMBT3904	Fairchild Semiconductor	Transistor, NPN, 40 V, 0.2 A, SOT-23	SOT-23
Q204	0	65 V	BC856B-7-F	Diodes Inc.	Transistor, PNP, 65 V, 0.1 A, SOT-23	SOT-23
Q205	0	80 V	BCX56-16,115	Nexperia	Transistor, NPN, 80 V, 1 A, AEC-Q101, SOT-89	SOT-89
Q206	0	60 V	MMBT2907A	Fairchild Semiconductor	Transistor, PNP, 60 V, 0.8 A, SOT-23	SOT-23
R208, R214	0	2.0k	CRCW08052K00JNEA	Vishay-Dale	RES, 2.0 k, 5%, 0.125 W, 0805	0805
R209, R212, R227, R228, R229	0	10k	CRCW080510K0JNEA	Vishay-Dale	RES, 10 k, 5%, 0.125 W, 0805	0805
R210, R211, R226	0	100k	CRCW0805100KJNEA	Vishay-Dale	RES, 100 k, 5%, 0.125 W, 0805	0805
R232	0	330	CRCW0805330RJNEA	Vishay-Dale	RES, 330, 5%, 0.125 W, 0805	0805
R238, R239	0	499k	CRCW0805499KFKEA	Vishay-Dale	RES, 499 k, 1%, 0.125 W, 0805	0805
R242, R243	0	3.3Meg	ERJ-6GEYJ335V	Panasonic	RES, 3.3 M, 5%, 0.125 W, 0805	0805
R246	0	100k	PR02000201003JR500	Vishay-Bccomponents	RES, 100 k, 5%, 2 W, AEC-Q200 Grade 0, Axial resistor	Axial resistor
U201	0		VO618A	Vishay-Semiconductor	Optocoupler, 5.3 kV, 50-600% CTR, TH	DIP, 4-Leads, Body 6.86x4.83mm, Pitch 2.54mm

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