

PMP10215 REV D Bill of Materials

Designator	Quantity	Value	PartNumber	Manufacturer	Description	PackageReference
C1, C2, C37	3	0.1uF	C3225X7T2J104K160AC	TDK	CAP, CERM, 0.1 μ F, 630 V, +/- 10%, X7T 1210	1210
C3, C13, C14, C17	4	1uF	GRM188R71E105KA12D	MuRata	CAP, CERM, 1uF, 25V, +/-10%, X7R, 0603	0603
C4	1	1000pF	C0805C102JBRACU	Kemet	CAP, CERM, 1000 pF, 630 V, +/- 5%, X7R, 0805	0805
C5, C6, C18, C35, C45	5	0.1uF	C1608X7R1H104K	TDK	CAP, CERM, 0.1uF, 50V, +/-10%, X7R, 0603	0603
C7, C8, C9	3	1000uF	EKZM500ELL102ML25S	Nippon Chemi-Con	CAP, AL, 1000 μ F, 50 V, +/- 20%, TH	RCAP, 16x25mm
C10, C52	2	1uF	C1608X7R1E105K080AB	TDK	CAP, CERM, 1uF, 25V, +/-10%, X7R, 0603	0603
C11	1	10uF	C3225X7R1H106M250AC	TDK	CAP, CERM, 10 μ F, 50 V, +/- 20%, X7R, 1210	1210
C12	1	0.1uF	C1812C104KARACTU	Kemet	CAP, CERM, 0.1 μ F, 250 V, +/- 10%, X7R, 1812	1812
C15, C46	2	0.33uF	C0603C334K4RACTU	Kemet	CAP, CERM, 0.33 μ F, 16 V, +/- 10%, X7R, 0603	0603
C16, C51, C53	3	100pF	C1608C0G1H101J	TDK	CAP, CERM, 100 pF, 50 V, +/- 5%, C0G/NP0, 0603	0603
C19, C100	2	1000pF	C1608X8R1H102K	TDK	CAP, CERM, 1000 pF, 50 V, +/- 10%, X8R, 0603	0603
C20	1	0.33uF	GRM219R71H334KA88D	MuRata	CAP, CERM, 0.33 μ F, 50 V, +/- 10%, X7R, 0805	0805
C21, C27, C29	3	4700pF	VY2472M49Y5US63V7	Vishay-Bccomponents	CAP, CERM, 4700 pF, 440 V, +/- 20%, Y5U, TH, 12.5x5mm	TH, 12.5x5mm
C22	1	0.47uF	ECQ-U2A474ML	Panasonic	CAP, Film, 0.47 μ F, 275 V, +/- 20%, TH	Radial 25x8.5x18.5
C23	1	220pF	C3216C0G2J221J	TDK	CAP, CERM, 220 pF, 630 V, +/- 5%, C0G/NP0, 1206	1206
C24, C25	2	150uF	450MXK150MEFCSN22X30	Rubycon	CAP, AL, 150 μ F, 450 V, +/- 20%, TH	Cap 22x32mm
C26	1	1000pF	C3216X7R2J102K115AA	TDK	CAP, CERM, 1000 pF, 630 V, +/- 10%, X7R, 1206	1206
C28	1	1uF	R46KN410000P1M	Kemet	CAP, Film, 1 μ F, 275 V, +/- 20%, TH	Radial 26.5x8.5x17mm
C30, C48	2	1000pF	C1608X7R1H102K	TDK	CAP, CERM, 1000 pF, 50 V, +/- 10%, X7R, 0603	0603
C31, C41	2	4.7uF	C2012X5R1E475K125AB	TDK	CAP, CERM, 4.7 μ F, 25 V, +/- 10%, X5R, 0805	0805
C32	1	2.2uF	C2012X7R1C225K	TDK	CAP, CERM, 2.2 μ F, 16 V, +/- 10%, X7R, 0805	0805
C33	1	0.22uF	C1608X7R1C224K	TDK	CAP, CERM, 0.22 μ F, 16 V, +/- 10%, X7R, 0603	0603
C34	1	820pF	C1608C0G1H821J	TDK	CAP, CERM, 820pF, 50V, +/-5%, C0G/NP0, 0603	0603
C36	1	2200pF	C1608X7R1H222K	TDK	CAP, CERM, 2200 pF, 50 V, +/- 10%, X7R, 0603	0603
C38	1	470uF	EKZM160ELL471MHB5D	Nippon Chemi-Con	CAP, AL, 470uF, 16V, +/-20%, TH	8mm x 11.5mm
C39	1	100uF	EKZM160ELL101ME11D	Nippon Chemi-Con	CAP, AL, 100 μ F, 16 V, +/- 20%, TH	RCAP, 5x11mm
C40, C47	2	1uF	C1608X7R1C105K	TDK	CAP, CERM, 1uF, 16V, +/-10%, X7R, 0603	0603
C42	1	22uF	C2012X5R0J226M	TDK	CAP, CERM, 22 μ F, 6.3 V, +/- 20%, X5R, 0805	0805
C43	1	47uF	UPW1V470MED1TD	Nichicon	CAP, AL, 47 μ F, 35 V, +/- 20%, 0.25 ohm, TH	6.3x12.5mm, TH
C44	1	10uF	UPW1H100MDD	Nichicon	CAP, AL, 10 μ F, 50 V, +/- 20%, 1.4 ohm, TH	D5xL11mm
C49	1	56pF	C1608C0G1H560J	TDK	CAP, CERM, 56pF, 50V, +/-5%, C0G/NP0, 0603	0603
C50	1	0.047uF	C1608X8R1H473K	TDK	CAP, CERM, 0.047 μ F, 50 V, +/- 10%, X8R, 0603	0603
C54	1	1uF	885012207103	Wurth Elektronik	CAP, CERM, 1 μ F, 50 V, +/- 10%, X7R, 0805	0805
C55	1	0.01uF	C3216X7R2J103K	TDK	CAP, CERM, 0.01 μ F, 630 V, +/- 10%, X7R, 1206	1206
C56	1	330pF	GRM188R72E331KW07D	MuRata	CAP, CERM, 330 pF, 250 V, +/- 10%, X7R, 0603	0603
D1, D21	2	600V	MURA160T3G	ON Semiconductor	Diode, Ultrafast, 600 V, 1 A, AEC-Q101, SMA	SMA
D2, D5	2	600V	MURS160T3G	ON Semiconductor	Diode, Ultrafast, 600 V, 2 A, SMB	SMB
D3, D6	2	MBR20200CTG	MBR20200CTG	Microsemi	Diode, Schottky, 200 V, 20 A, TH	TO-220AB
D4, D31	2	200V	MBRS3200T3G	ON Semiconductor	Diode, Schottky, 200 V, 3 A, SMB	SMB
D7, D16	2	13V	MMSZ5243BS-7-F	Diodes Inc.	Diode, Zener, 13 V, 200 mW, SOD-323	SOD-323
D8, D9, D13, D19, D22	5	BAS21	BAS21-7-F	Diodes Inc.	Diode, Switching, 200 V, 0.2 A, SOT-23	SOT-23
D10	1	1N5406	1N5406	Vishay-Semiconductor	Diode, Switching-Bridge, 600V, 3A, TH	DO-201AD
D11	1	GBU806	GBU806	Diodes Inc.	Diode, Switching-Bridge, 600 V, 8 A, TH	GBU
D12	1	LXA06T600	LXA06T600	Power Integrations	Diode, X-Series PFC, 600 V, 6 A, TH	TO-220-F2
D14	1	120V	SMAJ120A	Littelfuse	Diode, TVS, Uni, 120 V, 400 W, SMA	SMA

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D15	1	STPS1150A	STPS1150A	ST Microelectronics	Diode, Schottky, 150 V, 1 A, SMA	SMA
D17	1	US1K-13-F	US1K-13-F	Diodes Inc.	Diode, Fast Rectifier, 800 V, 1 A, SMA	SMA
D18	1	RF071M2S	RF071M2STR	Rohm	Diode, Ultrafast, 200 V, 1 A, SOD-123	SOD-123
D20, D23	2	150V	SMBJ150A-13-F	Diodes Inc.	Diode, TVS, Uni, 150 V, 600 W, SMB	SMB
D24	1	5.1V	BZT52C5V1T-7	Diodes Inc.	Diode, Zener, 5.1 V, 300 mW, SOD-523	SOD-523
D25, D28	2	58V	SMAJ58A	Diodes Inc.	Diode, TVS, Uni, 58 V, 400 W, SMA	SMA
D26	1	BAT42WS	BAT42WS-7-F	Diodes Inc.	Diode, Schottky, 30 V, 0.2 A, SOD-323	SOD-323
D27	1	200V	ES1D-13-F	Diodes Inc.	Diode, Ultrafast, 200 V, 1 A, SMA	SMA
D29	1	6.8V	BZT52C6V8T-7	Diodes Inc.	Diode, Zener, 6.8 V, 300 mW, SOD-523	SOD-523
D30	1	27V	MMSZ4711-T1G	Vishay-Semiconductor	Diode, Zener, 27 V, 500 mW, SOD-123	SOD-123
F1	1	10A	0216010.MXP	Littlefuse Inc	Fuse, 10 A, Fast Acting, 250 V, TH	
H1	1	3.5C/W	SK81, 30mm	Fischer	Heatsink, vertical, 100mm x 15mm, height 30mm, 3.5C/W	100mm x 15mm, height 30mm
H2	1	7C/W	SK178, 30mm	Fischer	Heatsink, vertical, 34.5mm x 16.5mm, height 30mm, 7C/W	34.5mm x 16.5mm, height 30mm
J1	1		1732720	Phoenix Contact	Terminal Block, 2x1, 7.62mm, TH	15.21x18x12.8mm
J2	1		703W-00/54	Qualtek Electronics	AC Receptacle, 10A 250VAC	20X50X28.7mm
J3, J4	2		39357-0003	Molex	Terminal Block, 3.5 mm, 3x1, Tin, TH	Terminal Block, 3.5 mm, 3x1, TH
J5	1		923345-01-C	3M	Jumper Wire, 100mil spacing, pkg of 200, TH	Wire Jumper
K1	1	G5LE-1A4 DC24	G5LE-1A4 DC24	Omron Electronic	Relay, SPST-NO (1 Form A)	22.5x19x16.5 mm
L1	1	22uH	750315814	Wurth Elektronik	Inductor, Toroid, 22 µH, 20.5 ohm, TH	D1160xT537mil
L2, L5	2	29uH	7447016	Wurth Elektronik	Inductor, Toroid, Powdered Iron, 29 µH, 5 A, 0.015 ohm, TH	19x10.5mm
L3	1	350uH	750315797	Wurth Elektronik	Inductor, 0.16 ohm, TH	37.34x35.56mm
L4	1	3.3mH	744824433	Wurth Elektronik eiSos	Coupled inductor, 3.3 mH, 4 A, 0.035 ohm, +/- 30%, TH	18.5x33x27.5 mm
L6	1	4.7uH	744773047	Wurth Elektronik	Inductor, Shielded Drum Core, Ferrite, 4.7 µH, 1.82 A, 0.11 ohm, SMD	4.5x3.2x4.0mm
L7	1	22uH	74408943220	Wurth Elektronik	Inductor, Shielded Drum Core, Ferrite, 22 µH, 1.1 A, 0.185 ohm, SMD	4.8x3.8x4.8mm
L8, L9	2	10uH	744741101	Wurth Elektronik	Rod Inductor, Wirewound, Ferrite, 10 µH, 5 A, 15mOhm, TH	Dia 6.9x22.5mm
L10	1	1mH	MSS1260-105KLB	Coilcraft	Inductor, Shielded Drum Core, Ferrite, 1 mH, 0.68 A, 1.27 ohm, SMD	MSS1260
Q1, Q2	2	550V	IPP50R199CP	Infineon Technologies	MOSFET, N-CH, 550 V, 17 A, TO-220AB	TO-220AB
Q3, Q10	2	40 V	MMBT3904	Fairchild Semiconductor	Transistor, NPN, 40 V, 0.2 A, SOT-23	SOT-23
Q4	1	50V	BSS138	Fairchild Semiconductor	MOSFET, N-CH, 50 V, 0.22 A, SOT-23	SOT-23
Q5	1	60 V	MMBT2907A	Fairchild Semiconductor	Transistor, PNP, 60 V, 0.8 A, SOT-23	SOT-23
Q6	1	IPP50R140CP	IPP50R140CP	Infineon Technologies	MOSFET, N-CH, 550 V, 23 A, TO-220AB	TO-220AB
Q7	1	PZT2222A	PZT2222A	Fairchild Semiconductor	Transistor, NPN, 40 V, 0.5 A, SOT-223	SOT-223
Q8	1	SPD02N80C3	SPD02N80C3ATMA1	Infineon Technologies	MOSFET, N-CH, 800 V, 2 A, DPAK	DPAK
Q9	1	0.25V	MMBT3906	Fairchild Semiconductor	Transistor, PNP, 40V, 0.2A, SOT-23	SOT-23
Q11	1	STN1NK60Z	STN1NK60Z	ST	MOSFET, N-CH, 600 V, 300 mA, SOT-223	SOT-223
Q12, Q14	2	2N7002	2N7002E-T1-E3	Vishay-Siliconix	MOSFET, N-CH, 60 V, 0.24 A, SOT-23	SOT-23
Q13	1	-240V	ZVP4424GTA	Diodes Inc.	MOSFET, P-CH, -240 V, -0.48 A, SOT-223	SOT-223
R1, R29	2	2.21	CRCW08052R21FKEA	Vishay-Dale	RES, 2.21, 1%, 0.125 W, 0805, RES, 2.21 ohm, 1%, 0.125W, 0805	0805
R2	1	2.20	RC1206FR-072R2L	Yageo America	RES, 2.20 ohm, 1%, 0.25W, 1206	1206
R3	1	100	CRCW0603100RFKEA	Vishay-Dale	RES, 100, 1%, 0.1 W, 0603	0603
R4, R6	2	4.75	CRCW06034R75FKEA	Vishay-Dale	RES, 4.75, 1%, 0.1 W, 0603	0603
R5, R8, R20, R22, R27, R30, R40, R55, R75	9	10.0k	CRCW060310K0FKEA	Vishay-Dale	RES, 10.0k ohm, 1%, 0.1W, 0603	0603
R7	1	29.4k	CRCW060329K4FKEA	Vishay-Dale	RES, 29.4 k, 1%, 0.1 W, 0603	0603
R9, R10, R65, R67	4	68.1	CRCW251268R1FKEG	Vishay-Dale	RES, 68.1, 1%, 1 W, 2512	2512
R11	1	0.068	2-2176057-1	TE Connectivity	RES, 0.068, 1%, 2 W, 2512	2512
R12, R13, R26, R66, R70	5	1.00k	CRCW06031K00FKEA	Vishay-Dale	RES, 1.00 k, 1%, 0.1 W, 0603	0603
R14	1	23.7k	CRCW060323K7FKEA	Vishay-Dale	RES, 23.7 k, 1%, 0.1 W, 0603	0603
R15	1	16.5k	CRCW060316K5FKEA	Vishay-Dale	RES, 16.5 k, 1%, 0.1 W, 0603	0603

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R17, R19, R74	3	68.1k	CRCW060368K1FKEA	Vishay-Dale	RES, 68.1 k, 1%, 0.1 W, 0603	0603
R18, R46	2	49.9	CRCW060349R9FKEA	Vishay-Dale	RES, 49.9 ohm, 1%, 0.1W, 0603	0603
R21, R23, R24, R54, R76	5	100k	CRCW0603100KFKEA	Vishay-Dale	RES, 100 k, 1%, 0.1 W, 0603	0603
R25, R36	2	33.2k	CRCW060333K2FKEA	Vishay-Dale	RES, 33.2 k, 1%, 0.1 W, 0603	0603
R28, R31, R33	3	1.00Meg	CRCW12061M00FKEA	Vishay-Dale	RES, 1.00 M, 1%, 0.25 W, 1206	1206
R32, R34	2	0.075	CSRN2512FK75L0	Stackpole Electronics	RES, 0.075, 1%, 2 W, 2512	2512
R35	1	221	CRCW0603221RFKEA	Vishay-Dale	RES, 221 ohm, 1%, 0.1W, 0603	0603
R37	1	38.3k	CRCW060338K3FKEA	Vishay-Dale	RES, 38.3 k, 1%, 0.1 W, 0603	0603
R38	1	17.8k	CRCW060317K8FKEA	Vishay-Dale	RES, 17.8 k, 1%, 0.1 W, 0603	0603
R39, R43, R44	3	332k	CRCW1206332KFKEA	Vishay-Dale	RES, 332k ohm, 1%, 0.25W, 1206	1206
R41	1	51	CRCW080551R0JNEA	Vishay-Dale	RES, 51 ohm, 5%, 0.125W, 0805	0805
R42	1	10.0	CRCW060310R0FKEA	Vishay-Dale	RES, 10.0, 1%, 0.1 W, 0603	0603
R45	1	22.1	CRCW060322R1FKEA	Vishay-Dale	RES, 22.1, 1%, 0.1 W, 0603	0603
R47	1	61.9k	CRCW060361K9FKEA	Vishay-Dale	RES, 61.9 k, 1%, 0.1 W, 0603	0603
R48	1	392	CRCW0603392RFKEA	Vishay-Dale	RES, 392, 1%, 0.1 W, 0603	0603
R49	1	20.0k	CRCW060320K0FKEA	Vishay-Dale	RES, 20.0 k, 1%, 0.1 W, 0603	0603
R50	1	1.82	CRCW12061R82FKEA	Vishay-Dale	RES, 1.82, 1%, 0.25 W, 1206	1206
R51	1	27.4k	CRCW060327K4FKEA	Vishay-Dale	RES, 27.4 k, 1%, 0.1 W, 0603	0603
R52	1	86.6k	CRCW060386K6FKEA	Vishay-Dale	RES, 86.6 k, 1%, 0.1 W, 0603	0603
R53, R71	2	2.21k	CRCW06032K21FKEA	Vishay-Dale	RES, 2.21k ohm, 1%, 0.1W, 0603	0603
R56	1	698k	CRCW1206698KFKEA	Vishay-Dale	RES, 698k ohm, 1%, 0.25W, 1206	1206
R57	1	3.32k	CRCW06033K32FKEA	Vishay-Dale	RES, 3.32 k, 1%, 0.1 W, 0603	0603
R58, R61	2	715k	CRCW1206715KFKEA	Vishay-Dale	RES, 715k ohm, 1%, 0.25W, 1206	1206
R59	1	1.21Meg	CRCW06031M21FKEA	Vishay-Dale	RES, 1.21 M, 1%, 0.1 W, 0603	0603
R60, R63, R77	3	47.5k	CRCW060347K5FKEA	Vishay-Dale	RES, 47.5 k, 1%, 0.1 W, 0603	0603
R62	1	221k	CRCW0603221KFKEA	Vishay-Dale	RES, 221 k, 1%, 0.1 W, 0603	0603
R64	1	6.81k	CRCW06036K81FKEA	Vishay-Dale	RES, 6.81k ohm, 1%, 0.1W, 0603	0603
R68	1	4.75k	CRCW06034K75FKEA	Vishay-Dale	RES, 4.75 k, 1%, 0.1 W, 0603	0603
R69	1	4.75k	CRCW12064K75FKEA	Vishay-Dale	RES, 4.75 k, 1%, 0.25 W, 1206	1206
R72	1	68.1k	CRCW201068K1FKEF	Vishay-Dale	RES, 68.1 k, 1%, 0.75 W, 2010	2010
R73	1	33.2	CRCW251233R2FKEG	Vishay-Dale	RES, 33.2, 1%, 1 W, 2512	2512
RT1	1	10 ohm	B57237S100M	Epcos (TDK)	Thermistor NTC, 10 ohm, 20%, 15x7mm	15x7mm
RV1	1	275VAC	B72220S0271K101	TDK	Varistor 275 VAC, 100 A, TH	Disc_21.5mm
S1	1		200USP1T1A1M2RE	E-Switch	Switch, SPDT, On-On, 2 Pos, TH	Switch, 7x4.5mm
T1	1	2 mH	750315800	Würth Elektronik	Transformer, 2 mH, TH	37.34x35.56mm
T2	1	1.5mH	7508110338	Würth Elektronik eiSos	Transformer, Flyback 1.5mH, TH	Transformer, 24.4mm x 20.3mm
TP3, TP11, TP14, TP15, TP18, TP19, TP20, TP22, TP23, TP24, TP25	11	Red	5000	Keystone	Test Point, Miniature, Red, TH	Red Miniature Testpoint
TP6, TP16, TP21	3	Black	5001	Keystone	Test Point, Miniature, Black, TH	Black Miniature Testpoint
TP8, TP26	2	Orange	5003	Keystone	Test Point, Miniature, Orange, TH	Orange Miniature Testpoint
U1	1	UCC27714DR	UCC27714DR	Texas Instruments	High-Speed,4A, 600V High-side Low-side Gate Driver Device, D0014A	D0014A
U2, U8	2	LM5021MM-2	LM5021MM-2/NOPB	Texas Instruments	AC-DC Current Mode PWM Controller, 8-pin MSOP	MUA08A
U3, U5, U9	3	TCMT1107	TCMT1107	Vishay-Semiconductor	Optocoupler, 3.75 kV, 80-160% CTR, SMD-4	SOP-4
U4	1	TL431A	TL431AIDBZR	Texas Instruments	Adjustable Precision Shunt Regulator, 34 ppm / degC, 100 mA, -40 to 85 degC, 3-pin SOT-23 (DBZ), Green (RoHS & no Sb/Br)	DBZ0003A
U6	1	UCC28180D	UCC28180D	Texas Instruments	8-PIN CONTINUOUS CONDUCTION MODE (CCM) PFC CONTROLLER, D0008A	D0008A

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U7	1	TPS560200D	TPS560200DBVR	Texas Instruments	4.5V to 18V Input, 500mA Synchronous Step Down SWIFT Converter with Advanced Eco-mode, DBV0005A	DBV0005A
U10, U11	2	LMV431A	LMV431AIMFX/NOPB	Texas Instruments	Low-Voltage (1.24V) Adjustable Precision Shunt Regulators, 3-pin SOT-23, Low-Voltage (1.24V) Adjustable Precision Shunt Regulator, 3-pin SOT-23	MF03A
U12	1	TMP709	TMP709AIDBVR	Texas Instruments	Resistor-Programmable Temperature Switch, 5 pin SOT-23	MF05A
U13	1	SN74LVC1G17DCKR	SN74LVC1G17DCKR	Texas Instruments	SINGLE SCHMITT-TRIGGER BUFFER, DCK0005A	DCK0005A
XF1, XF2	2	10A	01000056Z	Littelfuse	Fuse Holder, 10A, TH	Fuse Holder, 4.5x10.6x5.94mm

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