

PMP10215 REV E Bill of Materials

Designator	Quantity	Value	PartNumber	Manufacturer	Description	PackageReference
C1, C2, C37	3	0.1uF	C3225X7T2J104K160AC	TDK	CAP, CERM, 0.1 uF, 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 uF, 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 uF, 50 V, +/- 20%, X7R, 1210	1210
C12	1	0.1uF	C1812C104KARACTU	Kemet	CAP, CERM, 0.1 uF, 250 V, +/- 10%, X7R, 1812	1812
C15, C46	2	0.33uF	C0603C334K4RACTU	Kemet	CAP, CERM, 0.33 uF, 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 uF, 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 uF, 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 uF, 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 uF, 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 uF, 25 V, +/- 10%, X5R, 0805	0805
C32	1	2.2uF	C2012X7R1C225K	TDK	CAP, CERM, 2.2 uF, 16 V, +/- 10%, X7R, 0805	0805
C33	1	0.22uF	C1608X7R1C224K	TDK	CAP, CERM, 0.22 uF, 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 uF, 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 uF, 6.3 V, +/- 20%, X5R, 0805	0805
C43	1	47uF	UPW1V470MED1TD	Nichicon	CAP, AL, 47 uF, 35 V, +/- 20%, 0.25 ohm, TH	6.3x12.5mm, TH
C44	1	10uF	UPW1H100MDD	Nichicon	CAP, AL, 10 uF, 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 uF, 50 V, +/- 10%, X8R, 0603	0603
C54	1	1uF	885012207103	Wurth Elektronik	CAP, CERM, 1 uF, 50 V, +/- 10%, X7R, 0805	0805
C55	1	0.01uF	C3216X7R2J103K	TDK	CAP, CERM, 0.01 uF, 630 V, +/- 10%, X7R, 1206	1206
C56	1	330pF	GRM188R72E331KW07D	MuRata	CAP, CERM, 330 pF, 250 V, +/- 10%, X7R, 0603	0603
C101	1	4.7uF	C2012X7R1E474K125AA	TDK	CAP, CERM, 4.7 uF, 25 V, +/- 10%, X7R, 0805	0805
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, D103	6	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

Designator	Quantity	Value	PartNumber	Manufacturer	Description	PackageReference
D14	1	120V	SMAJ120A	Littelfuse	Diode, TVS, Uni, 120 V, 400 W, SMA	SMA
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
D100	1	Yellow	LTST-C170KSKT	Lite-On	LED, Yellow, SMD	0805 LED
D101, D102	2	Green	LTST-C170KGKT	Lite-On	LED, Green, SMD	LED_0805
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 Corporation	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 Components	Relay, SPST-NO (1 Form A)	22.5x19x16.5 mm
L1	1	52uH	750315814r01	Würth Elektronik	Inductor, Toroid, 52 µH, 0.052 ohm, TH	13.65mm x 30.75mm, height 32.75mm
L2, L5	2	29uH	7447016	Würth Elektronik	Inductor, Toroid, Powdered Iron, 29 µH, 5 A, 0.015 ohm, TH	19x10.5mm
L3	1	500uH	750316373r00	Wuerth	Inductor, 500uH, TH	35mm x 35mm, Height = 32mm
L4	1	3.3mH	744824433	Würth Elektronik eiSos	Coupled inductor, 3.3 mH, 4 A, 0.035 ohm, +/- 30%, TH	18.5x33x27.5 mm
L6	1	4.7uH	744773047	Würth Elektronik	Inductor, Shielded Drum Core, Ferrite, 4.7 µH, 1.82 A, 0.11 ohm, SMD	4.5x3.2x4.0mm
L7	1	22uH	74408943220	Würth Elektronik	Inductor, Shielded Drum Core, Ferrite, 22 µH, 1.1 A, 0.185 ohm, SMD	4.8x3.8x4.8mm
L8, L9	2	10uH	744711005	Würth 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, Q100, Q101, Q103	4	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, Q102	2	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, R100, R101, R102	4	100	CRCW0603100RFKEA	Vishay-Dale	RES, 100, 1%, 0.1 W, 0603	0603

Designator	Quantity	Value	PartNumber	Manufacturer	Description	PackageReference
R4, R6	2	4.75	CRCW06034R75FKEA	Vishay-Dale	RES, 4.75, 1%, 0.1 W, 0603	0603
R5, R8, R20, R27, R30, R40, R55, R75, R105, R107	10	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
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, R104	6	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 Inc	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
R103	1	15.0k	RC0603FR-0715KL	Yageo America	RES, 15.0 k, 1%, 0.1 W, 0603	0603
R106	1	47.5k	RC0603FR-0747K5L	Yageo America	RES, 47.5 k, 1%, 0.1 W, 0603	0603
R108	1	475k	RC0603FR-07475KL	Yageo America	RES, 475 k, 1%, 0.1 W, 0603	0603
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	2mH	750315800-r02	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

Designator	Quantity	Value	PartNumber	Manufacturer	Description	PackageReference
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
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	MF03A
U12	1	TMP709	TMP709AIDBVR	Texas Instruments	Resistor-Programmable Temperature Switch, 5 pin SOT-23	MF05A
U13	1		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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