

PMP30192 REV A Bill of Materials

Designator	Quantity	Value	PartNumber	Manufacturer	Description	PackageReference
C1	1	4.7uF	GRM188R61A475ME15	MuRata	CAP, CERM, 4.7 μ F, 10 V, +/- 20%, X5R, 0603	0603
C2, C27, C40, C41, C45	5	1uF	UMK107AB7105KA-T	Taiyo Yuden	CAP, CERM, 1 μ F, 50 V, +/- 10%, X7R, 0603	0603
C3, C5, C8	3	0.01uF	06031C103JAT2A	AVX	CAP, CERM, 0.01 μ F, 100 V, +/- 5%, X7R, 0603	0603
C4, C6, C7, C16, C33, C43, C60	7	0.1uF	06035C104KAT2A	AVX	CAP, CERM, 0.1uF, 50V, +/-10%, X7R, 0603	0603
C9, C10, C32, C59	4	10uF	GMK316AB7106KL	Taiyo Yuden	CAP, CERM, 10uF, 35V, +/-10%, X7R, 1206	1206
C11	1	100pF	06033C101KAT2A	AVX	CAP, CERM, 100 pF, 25 V, +/- 10%, X7R, 0603	0603
C12, C13, C14	3	470pF	C0603C471K5RACTU	Kemet	CAP, CERM, 470pF, 50V, +/-10%, X7R, 0603	0603
C15	1	1000pF	C0603C102K5RACTU	Kemet	CAP, CERM, 1000pF, 50V, +/-10%, X7R, 0603	0603
C17	1	4700pF	GCM188R71H472KA37D	MuRata	CAP, CERM, 4700 pF, 50 V,+/- 10%, X7R, AEC-Q200 Grade 1, 0603	0603
C18, C23	2	100pF	DE6B3KJ101KN3A	MuRata	CAP CER 100PF 300VAC 10% RADIAL	TH, 2- Leads, Body 8x7mm, Pin Spacing 7.5mm
C19, C26	2	220pF	DE6B3KJ221KN3A	MuRata	CAP, CERM, 220 pF, 300 V, +/- 10%, B, TH, 2- Leads, Body 8x7mm, Pin Spacing 7.5mm	TH, 2- Leads, Body 8x7mm, Pin Spacing 7.5mm
C20, C38	2	1uF	C0603C105K8PACTU	Kemet	CAP, CERM, 1 μ F, 10 V, +/- 10%, X5R, 0603	0603
C21, C22	2	0.47uF	ECQ-U2A474ML	Panasonic	CAP, Film, 0.47uF, 275V, +/-20%, TH	Radial 25x8.5x18.5
C24	1	1uF	B32672Z4105K000	TDK	CAP, Film, 1 μ F, 277 450 VDC,+/- 10%, TH	18x11mm
C25, C39	2	47pF	C0603C470J5GACTU	Kemet	CAP, CERM, 47 pF, 50 V, +/- 5%, C0G/NP0, 0603	0603
C28, C29	2	150uF	450TXW150MEFC18X45	United-Chemicon	CAP, AL, 150 μ F, 450 V, +/- 20%, TH	D18xL45mm
C30, C31, C34	3	10uF	C3216X5R1H106K160AB	TDK	CAP, CERM, 10 μ F, 50 V, +/- 10%, X5R, 1206	1206
C35	1	2200pF	DE6E3KJ222MN3A	MuRata	CAP, CERM, 2200 pF, 300 V, +/- 20%, E, TH, 2- Leads, Body 9x7mm, Pin Spacing 7.5mm	TH, 2- Leads, Body 9x7mm, Pin Spacing 7.5mm
C42, C58	2	DNP	Used in BOM report	Used in BOM report	CAP, CERM, xxxF, xxV, [TempCo], xx%, [PackageReference]	Used in PnP output
C44a, C44b, C44c, C65	4	0.047uF	GRM32DR72J473KW01L	MuRata	CAP, CERM, 0.047 μ F, 630 V, +/- 10%, X7R, 1210	1210
C46, C47, C48, C49, C50	5	470uF	50ZLH470M12.5X20	Rubycon	CAP, AL, 470 μ F, 50 V, +/- 20%, 0.027 ohm, TH	12.5x20mm
C52, C54	2	100pF	06035A101FAT2A	AVX	CAP, CERM, 100pF, 50V, +/-1%, C0G/NP0, 0603	0603
C53	1	0.018uF	121MPE183J	Rubycon	CAP, Film, 0.018 μ F, 1250 V, +/- 5%, TH	18x8x13.5mm
C55	1	0.015uF	121MPE153J	Rubycon	CAP, Film, 0.015 μ F, 1250 V, +/- 5%, TH	18x7.5x13mm
C56	1	22uF	C3216X6S1A226M160AB	TDK	CAP, CERM, 22 μ F, 10 V, +/- 20%, X6S, 1206	1206
C57	1	47uF	C3216X5R1C476M160AB	TDK	CAP, CERM, 47 μ F, 16 V, +/- 15%, X5R, 1206	1206
C61	1	DNP	DNP	MuRata	DNP	0603
C62	1	470pF	GCM1885C1H471JA16D	MuRata	CAP, CERM, 470 pF, 50 V,+/- 5%, C0G/NP0, AEC-Q200 Grade 1, 0603	0603
C63	1	2200pF	C0603C222K5RACTU	Kemet	CAP, CERM, 2200 pF, 50 V, +/- 10%, X7R, 0603	0603
C64, C67	2	1000pF	GRM31BR72J102KW01L	MuRata	CAP, CERM, 1000 pF, 630 V, +/- 10%, X7R, 1206	1206
D1, D2, D5, D7, D8	5	BAS316,115	BAS316,115	NXP Semiconductor	Diode, Ultrafast, 100V, 0.25A, SOD-323	SOD-323
D3	1	600V	GBJL2006-BP	Micro Commercial Comp.	Diode, P-N-Bridge, 600 V, 15 A, TH	Diode Bridge, TH
D4	1	1N5406	1N5406	Vishay-Semiconductor	Diode, Switching-Bridge, 600V, 3A, TH	DO-201AD
D6	1	C3D04060A	C3D04060A	Cree	Diode, Schottky, 600V, 4A, TH	TO-220-F2
D9, D11	2	B0540WS-7	B0540WS-7	Diodes Inc.	Diode, Schottky, 40 V, 0.5 A, SOD-323	SOD-323
D10	1	MURA160T3G	MURA160T3G	ON Semiconductor	Diode, Ultrafast, 600 V, 1 A, SMA	SMA

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D12	1	18V	MMSZ5248B-7-F	Diodes Inc.	Diode, Zener, 18V, 500mW, SOD-123	SOD-123
D100, D102	2	B2100-13-F	B2100-13-F	Diodes Inc.	Diode, Schottky, 100 V, 2 A, SMB	SMB
D101, D103	2	75V	SMBJ75A-13-F	Diodes Inc.	Diode, TVS, Uni, 75 V, 121 Vc, SMB	SMB
F1	1	8A	0216008.MXESPP	Littelfuse	Fuse, 8A, 250V, TH	Fuse, 20x5.2mm
TP7	1	White	5012	Keystone	Test Point, Multipurpose, White, TH	White Multipurpose Testpoint
J1	1		1715721	Phoenix Contact	Terminal Block, 5.08 mm, 2x1, TH	2POS Terminal Block
J2, J3, J5	3		39357-0002	Molex	Terminal Block, 3.5 mm, 2x1, Tin, TH	Terminal Block, 3.5 mm, 2x1, TH
J4	1		800-10-002-10-001000	Mill-Max	Header, 100mil, 2x1, TH	Header, 2x1, 100mil, TH
J6	1		1-1318301-3	TE Connectivity	Header, 312mil, 3x1, Tin, TH	19.7x10.7 x8.5 mm
J7	1		923345-03-C	3M	Jumper Wire, 300mil spacing, Orange, pkg of 200	300 mil Jumper Wire
J8	1		1732720	Phoenix Contact	Terminal Block, 2x1, 7.62mm, TH	15.21x18x12.8mm
L1	1	1mH	744834101	Würth Elektronik	Coupled inductor, 1 mH, 10 A, 12.5mohm, TH	32.5x22x28mm
L2	1	3.3mH	744834433	Würth Elektronik	Coupled inductor, 3.3 mH, 5 A, 2 x 37mOhm, TH	32.5x22x28mm
L3	1	470uH	750316597	Würth Elektronik	Inductor, Toroid, 470 µH, 0.11 ohm, TH	Dia 45mm
L4	1	54uH	750316600	Würth Elektronik	Inductor, 54 µH, 0.0372 ohm, TH	26.67x26.04mm
Q1, Q3	2	2N7002-7-F	2N7002-7-F	Diodes Inc.	MOSFET, N-CH, 60 V, 0.17 A, SOT-23	SOT-23
Q2	1	MMBT4403	MMBT4403	Fairchild Semiconductor	Transistor, PNP, 40 V, 0.6 A, SOT-23	SOT-23
Q4, Q9	2	BSS123	BSS123	Fairchild Semiconductor	MOSFET, N-CH, 100 V, 0.17 A, SOT-23	SOT-23
Q5	1	IPP60R180C7	IPP60R180C7	Infineon Technologies	MOSFET, N-CH, 600 V, 45 A, TO-220AB	TO-220AB
Q6	1	STB45N65M5	STB45N65M5	ST Microelectronics	MOSFET N CH 650V 35A D2PAK	DDPAK
Q7	1	50V	BSS138	Fairchild Semiconductor	MOSFET, N-CH, 50 V, 0.22 A, SOT-23	SOT-23
Q8, Q11	2	650V	IPP65R190CFD	Infineon Technologies	MOSFET, N-CH, 650 V, 17.5 A, TO-220AB	TO-220AB
Q10, Q12	2	IPP12CN10L-G	IPP12CN10L G	Infineon Technologies	MOSFET, N-CH, 100 V, 69 A, TO-220AB	TO-220AB
R1	1	100	RC0603FR-07100RL	Yageo America	RES, 100, 1%, 0.1 W, 0603	0603
R2, R6, R21, R32, R45	5	100k	CRCW0603100KFKEA	Vishay-Dale	RES, 100 k, 1%, 0.1 W, 0603	0603
R3, R10, R11, R15, R38, R50, R58, R63, R67, R69, R70	11	10.0k	CRCW060310K0FKEA	Vishay-Dale	RES, 10.0 k, 1%, 0.1 W, 0603	0603
R4	1	768k	RC0603FR-07768KL	Yageo America	RES, 768 k, 1%, 0.1 W, 0603	0603
R5	1	237k	RC0603FR-07237KL	Yageo America	RES, 237 k, 1%, 0.1 W, 0603	0603
R7, R8, R9, R12, R13, R14	6	3.09Meg	CRCW12063M09FKEA	Vishay-Dale	RES, 3.09Meg ohm, 1%, 0.25W, 1206	1206
R16	1	1.00k	CRCW06031K00FKEA	Vishay-Dale	RES, 1.00 k, 1%, 0.1 W, 0603	0603
R17, R18, R19	3	10.0Meg	CRCW120610M0FKEA	Vishay-Dale	RES, 10.0Meg ohm, 1%, 0.25W, 1206	1206
R20	1	1.0k	CRCW06031K00JNEA	Vishay-Dale	RES, 1.0 k, 5%, 0.1 W, 0603	0603
R22	1	75.0k	CRCW060375K0FKEA	Vishay-Dale	RES, 75.0k ohm, 1%, 0.1W, 0603	0603
R23	1	3.3Meg	CRCW06033M30JNEA	Vishay-Dale	RES, 3.3Meg ohm, 5%, 0.1W, 0603	0603
R24, R25	2	470	RC0603FR-07470RL	Yageo America	RES, 470 ohm, 1%, 0.1W, 0603	0603
R26	1	2.21k	CRCW06032K21FKEA	Vishay-Dale	RES, 2.21 k, 1%, 0.1 W, 0603	0603
R27	1	3.32k	CRCW06033K32FKEA	Vishay-Dale	RES, 3.32k ohm, 1%, 0.1W, 0603	0603
R28, R31	2	475k	ERJ-8ENF4753V	Panasonic	RES, 475 k, 1%, 0.25 W, 1206	1206
R29	1	3.3	CRCW06033R30JNEA	Vishay-Dale	RES, 3.3, 5%, 0.1 W, 0603	0603
R30, R36, R44, R49	4	10.0	RC0603FR-0710RL	Yageo America	RES, 10.0, 1%, 0.1 W, 0603	0603
R33, R46	2	221k	CRCW0603221KFKEA	Vishay-Dale	RES, 221k ohm, 1%, 0.1W, 0603	0603
R34	1	10	CRCW060310R0JNEA	Vishay-Dale	RES, 10, 5%, 0.1 W, 0603	0603
R35	1	1.00	CRCW06031R00FKEA	Vishay-Dale	RES, 1.00, 1%, 0.1 W, 0603	0603
R37	1	0	CRCW12060000Z0EA	Vishay-Dale	RES, 0, 5%, 0.25 W, 1206	1206
R39, R40, R41	3	0.08	CRA2512-FZ-R080ELF	Bourns	RES, 0.08, 1%, 3 W, 2512	2512

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R42	1	18.2k	RC0603FR-0718K2L	Yageo America	RES, 18.2 k, 1%, 0.1 W, 0603	0603
R43	1	1.00Meg	RC0603FR-071ML	Yageo America	RES, 1.00 M, 1%, 0.1 W, 0603	0603
R47, R56	2	10.0	RC1206FR-0710RL	Yageo America	RES, 10.0, 1%, 0.25 W, 1206	1206
R48	1	2.2	CRCW08052R20JNEA	Vishay-Dale	RES, 2.2, 5%, 0.125 W, 0805	0805
R51	1	1.00	ERJ-6RQF1R0V	Panasonic	RES, 1.00 ohm, 1%, 0.125W, 0805	0805
R52, R62	2	10	ERJ-1TYJ100U	Panasonic	DNP	2512
R53, R55	2	51.1	CRCW060351R1FKEA	Vishay-Dale	RES, 51.1, 1%, 0.1 W, 0603	0603
R54, R57, R65	3	0	CRCW06030000Z0EA	Vishay-Dale	RES, 0, 5%, 0.1 W, 0603	0603
R59, R60, R61	3	1.00	ERJ-1TRQF1R0U	Panasonic	RES, 1.00, 1%, 1 W, 2512	2512
R64	1	49.9	RC0603FR-0749R9L	Yageo America	RES, 49.9, 1%, 0.1 W, 0603	0603
R66	1	1.21k	RC0603FR-071K21L	Yageo America	RES, 1.21 k, 1%, 0.1 W, 0603	0603
R68	1	107k	RC0603FR-07107KL	Yageo America	RES, 107 k, 1%, 0.1 W, 0603	0603
RT1	1	22 ohm	B57237S220M	TDK	Thermistor NTC, 22 ohm, 20%, 15x7mm	15x7mm
RV1	1	275VAC	B72214S0271K101	TDK	Varistor, 430V, 4.5KA, TH	Disc, 14x5mm
T1	1	280uH	750316599	Würth Elektronik	Transformer, 280 uH, TH	62x49mm
TP1, TP5	2	Red	5010	Keystone	Test Point, Multipurpose, Red, TH	Red Multipurpose Testpoint
TP6	1	Black	5011	Keystone	Test Point, Multipurpose, Black, TH	Black Multipurpose Testpoint
U1	1	TPS7A4201DGNR	TPS7A4201DGNR	Texas Instruments	Single Output LDO, 50 mA, Adjustable 1.175 to 26 V Output, 7 to 28 V Input, 8-pin MSOP (DGN), -40 to 125 degC, Green (RoHS & no Sb/Br)	DGN0008B
U2, U8	2	PC817X4NSZ0F	PC817X4NSZ0F	Sharp Electronics	Opto-Isolator, 1 Channel, TH	DIP-4
U3	1	UCC29950DR	UCC29950DR	Texas Instruments	CCM PFC and LLC Combo Controller, D0016A	D0016A
U4, U6	2	UCC24610DR	UCC24610DR	Texas Instruments	GREEN Rectifier Controller Device, D0008A	D0008A
U5	1	UCC27532DBVR	UCC27532DBVR	Texas Instruments	2.5-A and 5-A, 35-VMAX VDD FET and IGBT Single-Gate Driver, DBV0006A	DBV0006A
U7	1	UCC27714DR	UCC27714DR	Texas Instruments	High-Speed,4A, 600V High-side Low-side Gate Driver Device, D0014A (SOIC-14)	D0014A
U9	1	TL431AIDBZR	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
HS1-HS3	2	Thermal block	SFP074-70x20x10mm	Fischer	Thermal blocks + screw + sil-pads	

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