

PMP23468 REV B Bill of Materials

Designator	Quantity	Value	PartNumber	Manufacturer	Description	PackageReference
C1	1	0.1uF	GCJ188L8EL104KA07D	MuRata	CAP, CERM, 0.1 uF, 100 V, +/- 10%, X8L, AEC-Q200 Grade 0, 0603	0603
C2, C3	2	56uF	EEHZC1J560P	Panasonic	CAP, Polymer Hybrid, 56 uF, 63 V, +/- 20%, 30 ohm, 10x10 SMD	10x10
C4, C6	2	0.1uF	C0805C104K1RACTU	Kemet	CAP, CERM, 0.1 uF, 100 V, +/- 10%, X7R, 0805	0805
C5, C7, C8, C20, C21, C22, C23, C26, C27, C28, C29	11	4.7uF	GCM32DC72A475KE02L	MuRata	CAP, CERM, 4.7 uF, 100 V, +/- 10%, X7S, AEC-Q200 Grade 1, 1210	1210
C9, C36, C37	3	0.1uF	CGA3E2X7R1E104K080AA	TDK	CAP, CERM, 0.1 uF, 25 V, +/- 10%, X7R, AEC-Q200 Grade 1, 0603	0603
C10	1	2.2uF	GCM21BR71E225KA73L	MuRata	CAP, CERM, 2.2 uF, 25 V, +/- 10%, X7R, AEC-Q200 Grade 1, 0805	0805
C11	1	1uF	GCM31CR72A105KA03	MuRata	CAP, CERM, 1 uF, 100 V, +/- 10%, X7R, AEC-Q200 Grade 1, 1206	1206
C12	1	3300pF	GRM188R71E332KA01D	MuRata	CAP, CERM, 3300 pF, 25 V, +/- 10%, X7R, 0603	0603
C13	1	0.01uF	GCM188R71H103KA37D	MuRata	CAP, CERM, 0.01 uF, 50 V, +/- 10%, X7R, AEC-Q200 Grade 1, 0603	0603
C14	1	0.022uF	C0603C223K3RACTU	Kemet	CAP, CERM, 0.022 uF, 25 V, +/- 10%, X7R, 0603	0603
C15	1	0.01uF	CGA3E2X7R2A103K080AA	TDK	CAP, CERM, 0.01 uF, 100 V, +/- 10%, X7R, AEC-Q200 Grade 1, 0603	0603
C16	1	0.047uF	CGA3E3X7S2A473K080AB	TDK	CAP, CERM, 0.047 uF, 100 V, +/- 10%, X7S, AEC-Q200 Grade 1, 0603	0603
C17	1	0.47uF	GRM21BR72A474KA73L	MuRata	CAP, CERM, 0.47 uF, 100 V, +/- 10%, X7R, 0805	0805
C18	1	0.47uF	GCM188R71C474KA55D	MuRata	CAP, CERM, 0.47 uF, 16 V, +/- 10%, X7R, AEC-Q200 Grade 1, 0603	0603
C19, C24, C25	3	2.2uF	GRM188R71A225KE15D	MuRata	CAP, CERM, 2.2 uF, 10 V, +/- 10%, X7R, 0603	0603
C30, C31, C32, C33, C34, C35	6	0.01uF	CGA2B3X7S2A103K050BB	TDK	CAP, CERM, 0.01 uF, 100 V, +/- 10%, X7S, AEC-Q200 Grade 1, 0402	0402
C38, C39, C40, C41, C42, C47, C48, C49, C50, C51, C56, C57, C58, C59, C60, C61, C62, C63, C64, C65	20	10uF	UMJ325KB7106KMHT	Taiyo Yuden	CAP, CERM, 10 uF, 50 V, +/- 10%, X7R, AEC-Q200 Grade 1, 1210	1210
C43, C46	2	0.1uF	CGA3E2X7R1H104K080AA	TDK	CAP, CERM, 0.1 uF, 50 V, +/- 10%, X7R, AEC-Q200 Grade 1, 0603	0603
C44, C45	2	220pF	06031C221KAT2A	AVX	CAP, CERM, 220 pF, 100 V, +/- 10%, X7R, 0603	0603
C52, C53	2	0.22uF	CGA3E3X7R1H224K080AB	TDK	CAP, CERM, 0.22 uF, 50 V, +/- 10%, X7R, AEC-Q200 Grade 1, 0603	0603
C54, C55	2	33pF	06031A330JAT2A	AVX	CAP, CERM, 33 pF, 100 V, +/- 5%, C0G/NP0, 0603	0603
C66	1	1uF	CGA3E1X7R1E105K080AC	TDK	CAP, CERM, 1 uF, 25 V, +/- 10%, X7R, AEC-Q200 Grade 1, 0603	0603
C67, C68	2	0.22uF	CL10B224K08VPNC	Samsung	CAP, CERM, 0.22 uF, 16 V, +/- 10%, X7R, AEC-Q200 Grade 1, 0603	0603
C69	1	100pF	CGA3E2NP01H101J080AA	TDK	CAP, CERM, 100 pF, 50 V, +/- 5%, C0G/NP0, AEC-Q200 Grade 0, 0603	0603
C70	1	3300pF	GRM1885C1H332JA01D	MuRata	CAP, CERM, 3300 pF, 50 V, +/- 5%, C0G/NP0, 0603	0603
C71	1	0.01uF	GCM188R71H103KA37D	MuRata	CAP, CERM, 0.01 uF, 50 V, +/- 10%, X7R, AEC-Q200 Grade 1, 0603 (stack on top of R17 resistor)	0603
D1	1	150V	SMBJ150A-13-F	Diodes Inc.	Diode, TVS, Uni, 150 V, 243 Vc, SMB	SMB
D2, D5	2	75V	1N4148WS-7-F	Diodes Inc.	Diode, Switching, 75 V, 0.15 A, AEC-Q101, SOD-323	SOD-323
D3	1	33V	SMBJ33CA-13-F	Diodes Inc.	Diode, TVS, Bi, 33 V, SMB	SMB
D4	1	Green	LTST-C190GKT	Lite-On	LED, Green, SMD	1.6x0.8x0.8mm
D6	1	4.7V	MM3Z4V7ST1G	ON Semiconductor	Diode, Zener, 4.7 V, 300 mW, SOD-323	SOD-323
D7	1	56V	MMSZ5263BT1G	ON Semiconductor	Diode, Zener, 56 V, 500 mW, AEC-Q101, SOD-123	SOD-123
D8	1	Red	LTST-C170KRKT	Lite-On	LED, Red, SMD	Red 0805 LED
D9, D10, D11	3	100V	BAT46WJ,115	Nexperia	Diode, Schottky, 100 V, 0.25 A, SOD-323F	SOD-323F
J1	1		1714971	Phoenix Contact	Receptacle, 9.52mm, 2x1, TH	Receptacle, 9.52mm, 2x1, TH

Designator	Quantity	Value	PartNumber	Manufacturer	Description	PackageReference
J2	1		1040	Keystone	TEST POINT SLOTTED .118", TH	Test point, TH Slot Test point
J3	1		EM292902-UL	Eaton	Terminal Block, 10.16mm, 2x1, Tin, R/A, TH	Terminal Block, 10.16mm, 2x1, TH
J4	1		TSW-114-07-G-S	Samtec	Header, 100mil, 14x1, Gold, TH	14x1 Header
L1	1	1.2uH	XAL1060-122MEB	Coilcraft	Inductor, Shielded, Composite, 1.2 uH, 26.3 A, 0.0025 ohm, AEC-Q200 Grade 1, SMD	Inductor, 10x6x11.3mm
L2, L3	2	6.8uH	XGL1010-103MED	Coilcraft	6.8 uH Shielded Molded Inductor 21.2 A 7.0mOhm Max Nonstandard	SMT_IND_10MM0_11 MM3
Q1	1		NVMFS5C612NT1G	onsemi	Single N-Channel Power MOSFET 60V, 225A, 1.65ohm	DFN5
Q2	1	200V	IPB320N20N3 G	Infineon Technologies	MOSFET, N-CH, 200 V, 34 A, DDPK	DDPAK
Q3	1	60V	2N7002KW	Fairchild Semiconductor	MOSFET, N-CH, 60 V, 0.31 A, SOT-323	SOT-323
Q4	1	160 V	PMBT5551,215	Nexperia	Transistor, NPN, 160 V, 0.3 A, SOT-23	SOT-23
Q5, Q6, Q7, Q8	4	60V	NVMFS5C670NLWFAFT1G	ON Semiconductor	MOSFET, N-CH, 60 V, 17 A, AEC-Q101, SO-8FL	SO-8FL
R1	1	0.001	WSL20101L000FEA	Vishay-Dale	RES, 0.001, 1%, 0.5 W, 2010	2010
R2	1	12k	CRCW060312K0JNEA	Vishay-Dale	RES, 12 k, 5%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
R3, R5	2	0	ERJ-3GEY0R00V	Panasonic	RES, 0, 5%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
R4, R13, R25, R28, R35, R36, R44, R45, R46, R47	10	100k	CRCW0603100KFKEA	Vishay-Dale	RES, 100 k, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
R6, R7	2			KOA Speer	120 mOhms ±1% 2W Chip Resistor 2512 (6432 Metric) Automotive AEC-Q200, Current Sense Metal Element	2512
R8	1	20.0k	ERJ-6ENF2002V	Panasonic	RES, 20.0 k, 1%, 0.125 W, AEC-Q200 Grade 0, 0805	0805
R9	1	4.75k	CRCW06034K75FKEA	Vishay-Dale	RES, 4.75 k, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
R10, R16	2	10k	CRCW120610K0JNEA	Vishay-Dale	RES, 10 k, 5%, 0.25 W, AEC-Q200 Grade 0, 1206	1206
R11	1	1.82k	CRCW06031K82FKEA	Vishay-Dale	RES, 1.82 k, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
R12	1	50	CRCW060350R0FKEA	Vishay-Dale	RES, 50, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
R14	1	1.74k	CRCW06031K74FKEA	Vishay-Dale	RES, 1.74 k, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
R15, R19, R33, R34	4	10.0k	RMCF0603FT10K0	Stackpole Electronics Inc	RES, 10.0 k, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
R17	1	1.07k	CRCW06031K07FKEA	Vishay-Dale	RES, 1.07 k, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
R18	1	100	CRCW0603100RJNEA	Vishay-Dale	RES, 100, 5%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
R20	1	3.48k	CRCW06033K48FKEA	Vishay-Dale	RES, 3.48 k, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
R21	1	15.4k	CRCW060315K4FKEA	Vishay-Dale	RES, 15.4 k, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
R22	1	1	RC0603FR-071RL	Yageo	RES, 1.00, 1%, 0.1 W, 0603	0603
R23, R24, R26, R27	4	0	ERJ-2GE0R00X	Panasonic	RES, 0, 5%, 0.1 W, AEC-Q200 Grade 0, 0402	0402
R29, R30	2	10.5k	CRCW060310K5FKEA	Vishay-Dale	RES, 10.5 k, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
R31, R32	2	2.2	ERJ-6GEYJ2R2V	Panasonic	RES, 2.2, 5%, 0.125 W, AEC-Q200 Grade 0, 0805	0805
R37, R40	2	0	CRCW06030000Z0EA	Vishay-Dale	RES, 0, 5%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
R38, R39	2	100	CRCW0603100RFKEA	Vishay-Dale	RES, 100, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
R41	1	487k	CRCW0603487KFKEA	Vishay-Dale	RES, 487 k, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
R42	1	1.65k	RT0603DRE071K65L	Yageo America	RES, 1.65 k, 0.5%, 0.1 W, 0603	0603
R43	1	49.9k	CRCW060349K9FKEA	Vishay-Dale	RES, 49.9 k, 1%, 0.1 W, 0603	0603
R48	1	54.9k	CRCW060354K9FKEA	Vishay-Dale	RES, 54.9 k, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
R49	1	11.5k	CRCW060311K5FKEA	Vishay-Dale	RES, 11.5 k, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
R50	1	10.0k	TNPW060310K0BEEA	Vishay-Dale	RES, 10.0 k, 0.1%, 0.1 W, AEC-Q200 Grade 1, 0603	0603
R51	1	0	CRCW06030000Z0EA	Vishay-Dale	RES, 0, 5%, 0.1 W, AEC-Q200 Grade 0, 0603	0603L
SH-J1	1		M7582-05	Harwin	Single Operation 2.54mm Pitch Open Top Jumper Socket	Single Operation 2.54mm Pitch Open Top Jumper Socket
TP1, TP2, TP3, TP4, TP5	5		5015	Keystone Electronics	Test Point, Miniature, SMT	Testpoint_Keystone_ Miniature

Designator	Quantity	Value	PartNumber	Manufacturer	Description	PackageReference
U1	1		LM74930QRGEQ1	Texas Instruments	Ideal Diode Surge Stopper with Circuit breaker, overvoltage protection and fault output	VQFN24
U2	1		LM5143QRHARQ1	Texas Instruments	Automotive 3.5-V to 65-V Dual Synchronous Buck Controller With Low IQ	VQFNP40

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