

## PMP23420 REV -1 Bill of Materials

Designator	Quantity	Value	PartNumber	Manufacturer	Description	PackageReference
IPCB1	1		PMP23420	Any	Printed Circuit Board	
C1	1	390µF	EEE-TP1K391V	Panasonic	Cap Aluminum Lytic 390uF 80V 20% (16 X 16.5mm) SMD 0.1 Ohm 1900mA 3000h 125°C Automotive T/R	SMT_CAP_17MM0_17MM0
C2, C3, C7, C8, C9	5	0.01uF	GCM188R72A103KA37J	MuRata	CAP, CERM, 0.01 µF, 100 V,+/- 10%, X7R, AEC-Q200 Grade 1, 0603	0603
C4	1	2.2uF	CGA5L3X7S2A225K160AB	TDK	CAP, CERM, 2.2 uF, 100 V, +/- 10%, X7S, AEC-Q200 Grade 1, 1206	1206
C5	1	4.7uF	C3225X7S2A475K200AB	TDK	CAP, CERM, 4.7 uF, 100 V, +/- 10%, X7S, 1210	1210
C6	1	4.7uF	CGA6M3X7S2A475K200AB	TDK	CAP, CERM, 4.7 uF, 100 V, +/- 10%, X7S, AEC-Q200 Grade 1, 1210	1210
C10, C11	2	1uF	08051C105K4Z2A	AVX	CAP, CERM, 1 µF, 100 V,+/- 10%, X7R, AEC-Q200 Grade 1, 0805	0805
C12, C13, C14, C15, C16, C54, C55, C56, C57, C58, C100, C101	12	4.7µF	GCJ32DC72A475KE01L	Murata	4.7uF ±10% 100V Ceramic Capacitor X7S 1210 (3225 Metric)	1210
C17, C18, C19, C20, C59, C60, C61, C62	8	0.1uF	GCJ188R72A104KA01D	MuRata	CAP, CERM, 0.1 uF, 100 V,+/- 10%, X7R, AEC-Q200 Grade 1, 0603	0603
C30, C72	2	0.47uF	KAF21KR72A474KU	Kyocera AVX	CAP, CERM, xxxF, xxV, [TempCo], xx%, [PackageReference]	0805
C32, C74	2	0.22uF	CGA2B1X7R1V224K050BC	TDK	CAP, CERM, 0.22uF, 35V, X7R, 10%, 0402	0402
C33, C48, C75, C90	4	0.1uF	C0402C104K8RACAUTO	Kemet	CAP, CERM, 0.1 µF, 10 V,+/- 10%, X7R, AEC-Q200 Grade 1, 0402	0402
C34, C76	2	4.7uF	GRM188Z71A475ME15D	MuRata	CAP, CERM, 4.7 uF, 10 V, +/- 20%, X7R, 0603	0603
C36, C37, C78, C79	4	100µF	GRT32EC70J107ME13K	Murata	CAP, CERM, 100uF, 6.3V, X7S, 20%, 1210	1210
C38, C39, C40, C41, C43, C44, C45, C46, C80, C81, C82, C83, C85, C86, C87, C88	16	100uF	GRT32EC70J107ME13K	Murata	CAP, CERM, 100uF, 6.3V, X7S, 20%, 1210	1210
C42, C47, C84, C89	4	0.1uF	C0603C104K5RACTU	Kemet	CAP, CERM, 0.1 uF, 50 V, +/- 10%, X7R, 0603	0603
C49, C91	2	0.033uF	CGA2B1X7R1E333K050BC	TDK	CAP, CERM, 0.033 uF, 25 V, +/- 10%, X7R, AEC-Q200 Grade 1, 0402	0402
C51, C93	2	22pF	CGA2B2NP01H220J050BA	TDK	CAP, CERM, 22 pF, 50 V, +/- 5%, C0G/NP0, AEC-Q200 Grade 1, 0402	0402
C52	1	0.022uF	GCM155R71E223KA55D	MuRata	CAP, CERM, 0.022 uF, 25 V, +/- 10%, X7R, AEC-Q200 Grade 1, 0402	0402
C53, C95	2	270pF	GRM155R72A271KA01D	MuRata	CAP, CERM, 270 pF, 100 V, +/- 10%, X7R, 0402	0402
D1, D5	2	100V	BAT46WJ,115	Nexperia	Diode, Schottky, 100 V, 0.25 A, SOD-323F	SOD-323F
D2, D6	2	100V	PDS5100HQ-13	Diodes Inc.	Diode, Schottky, 100 V, 5 A, AEC-Q101, PowerDI5	PowerDI5
D3, D7	2	40V	SS10P4HM3_A/H	Vishay	Diode 40 V 10A Surface Mount TO-277A (SMPC)	SMPC
H1, H2, H3, H4	4		NY PMS 440 0025 PH	B&F Fastener Supply	Machine Screw, Round, #4-40 x 1/4, Nylon, Philips panhead	Screw
H5, H6, H7, H8	4		1902C	Keystone	Standoff, Hex, 0.5"L #4-40 Nylon	Standoff
J1, J2, J7, J9, J10, J11	6		5102	Keystone	Shorting Jumper, 5.375mm, 2 Position, Tin, SMT	Shorting Jumper, 5.375mm, 2 Position, SMT
J3, J4	2		108-0902-001	Cinch Connectivity	Banana Jack Insul Nylon Red, TH	Banana Jack Insul Nylon Red, TH

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J5, J6	2		108-0903-001	Cinch Connectivity	Banana Jack Insul Nylon Black, TH	Banana Jack Insul Nylon Black, TH
J8, J12	2		TSW-102-07-G-S	Samtec	Header, 100mil, 2x1, Gold, TH	2x1 Header
L4, L6	2	2.2uH	ZE2652-AE	Coilcraft	Inductor, Composite, 2.2uH, 1.5mOhm Max., 15.2mm x 13.6mm x 13.0mm, SMT	
LBL1	1		THT-14-423-10	Brady	Thermal Transfer Printable Labels, 0.650" W x 0.200" H - 10,000 per roll	PCB Label 0.650 x 0.200 inch
Q1, Q2, Q7, Q8	4		NVMFS6H848NLT1G	onsemi	MOSFET N-Channel 80 V 13A (Ta), 59A (Tc) 3.7W (Ta), 73W (Tc) Surface Mount 5-DFN (5x6) (8-SOFL)	DFN5-5x6
Q4, Q5, Q9, Q10	4		NVMFS6H801NLT1G	onsemi	N-Channel 80 V 24A (Ta), 160A (Tc) 3.8W (Ta), 167W (Tc) Surface Mount 5-DFN (5x6) (8-SOFL)	DFN5
R1, R2	2	1	CRCW25121R00JNEG	Vishay-Dale	RES, 1.0, 5%, 1 W, AEC-Q200 Grade 0, 2512	2512
R3, R4, R54, R56	4	0	RMCF0603ZT0R00	Stackpole Electronics Inc	RES, 0, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
R6	1	150k	CRCW0603150KFKEA	Vishay-Dale	RES, 150 k, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
R7, R20, R31, R32, R43, R49	6	0	CRCW04020000Z0EDHP	Vishay-Dale	RES, 0, 0%, 0.2 W, AEC-Q200 Grade 0, 0402	0402
R8, R33	2	1.2m	Y14830R00120F9R	Vishay Foil Resistors	1.2 mOhms ±1% 5W Chip Resistor 2512 (6432 Metric) Automotive AEC-Q200, Current Sense, Non-Inductive Metal Element	2512
R9	1	6.81k	CRCW04026K81FKED	Vishay-Dale	RES, 6.81 k, 1%, 0.063 W, AEC-Q200 Grade 0, 0402	0402
R12, R37	2	49.9	CRCW040249R9FKED	Vishay-Dale	RES, 49.9, 1%, 0.063 W, AEC-Q200 Grade 0, 0402	0402
R13, R38	2		RMCF0402ZT0R00	Stackpole	RMCF/RMCP Series General Purpose Thick Film Standard Power and High Power Chip Resistor	0402 (1005 metric)
R17	1	49.9	CRCW060349R9FKEA	Vishay-Dale	RES, 49.9, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
R18, R44	2	147k	CRCW0402147KFKED	Vishay-Dale	RES, 147 k, 1%, 0.063 W, AEC-Q200 Grade 0, 0402	0402
R23, R35	2	100k	RMCF0402FT100K	Stackpole Electronics Inc	RES, 100 k, 1%, 0.063 W, AEC-Q200 Grade 0, 0402	0402
R24	1	3.01k	CRCW04023K01FKED	Vishay-Dale	RES, 3.01 k, 1%, 0.063 W, AEC-Q200 Grade 0, 0402	0402
R25	1	54.9k	CRCW040254K9FKED	Vishay-Dale	RES, 54.9 k, 1%, 0.063 W, AEC-Q200 Grade 0, 0402	0402
R26	1	19.1k	CRCW040219K1FKED	Vishay-Dale	RES, 19.1 k, 1%, 0.063 W, AEC-Q200 Grade 0, 0402	0402
R52	1	90.9k	CRCW040290K9FKED	Vishay-Dale	RES, 90.9 k, 1%, 0.063 W, AEC-Q200 Grade 0, 0402	0402
R53	1	0	RMCF0402ZT0R00	Stackpole	RMCF/RMCP Series General Purpose Thick Film Standard Power and High Power Chip Resistor	0402 (1005 metric)
SH-J1, SH-J2	2		60900213421	Würth Elektronik	Shunt, 2.54mm, Gold, Black	Shunt, 2.54mm, Black
T1, T2, T3	3		CB70-14-CY	Panduit	Terminal 90A Lug	CB70-14-CY
TP1	1	+Vin_Main	5016	Keystone Electronics	Test Point, Compact, SMT	Testpoint_Keystone_Compact
TP2	1	GND_In	5016	Keystone Electronics	Test Point, Compact, SMT	Testpoint_Keystone_Compact
TP3, TP9	2		5010	Keystone	Test Point, Multipurpose, Red, TH	Red Multipurpose Testpoint
TP4, TP5, TP6, TP10, TP11, TP12	6		5012	Keystone	Test Point, Multipurpose, White, TH	White Multipurpose Testpoint
TP7, TP8	2		5011	Keystone	Test Point, Multipurpose, Black, TH	Black Multipurpose Testpoint
U2, U5	2		LM5148PSQRGYRQ1	Texas Instruments	80-V, Automotive, Synchronous, Buck DC/DC Controller with Ultra-Low IQ and Dual Random Spread Spectrum	VQFN20
C21, C22, C23, C24, C29, C63, C64, C65, C66, C67, C102, C103	0	4.7µF	GCJ32DC72A475KE01L	Murata	4.7uF ±10% 100V Ceramic Capacitor X7S 1210 (3225 Metric)	1210
C25, C26, C27, C28, C68, C69, C70, C71	0	0.1uF	GCJ188R72A104KA01D	MuRata	CAP, CERM, 0.1 uF, 100 V, +/- 10%, X7R, AEC-Q200 Grade 1, 0603	0603
C35, C77	0	330pF	GCM1885C2A331JA16D	Murata	CAP, CERM, 330F, 100V, COG, 5%, 0603	0603

Designator	Quantity	Value	PartNumber	Manufacturer	Description	PackageReference
C94	0	5600pF	GRM155R71E562KA01D	MuRata	CAP, CERM, 5600 pF, 25 V, +/- 10%, X7R, 0402	0402
D4, D8	0	100V	PMEG10020AELRX	Nexperia	Diode, Schottky, 100V, 2A, SOD-123	SOD-123W
FID1, FID2, FID3, FID4, FID5, FID6	0		N/A	N/A	Fiducial mark. There is nothing to buy or mount.	N/A
L1	0	1uH	XGL6060-102MEC	Coilcraft	1 µH Shielded Molded Inductor 22 A 2.9mOhm Max Nonstandard	SMT2_6MM51_6MM7 1
L2	0		ACM12V-701-2PL-TL00	TDK	Coupled inductor, ohm, AEC-Q200 Grade 1, SMD	12x11mm
L3	0	2uH	PLT10HH101150PNL	MuRata	Coupled inductor, 2 uH, A, 1.8 ohm, SMD	12.9x6.6mm
L5, L7	0	2.5uH	VCUD128T-2R5MS8	CYNTEC	Power Choke Coil 2.5uH 20% 100kHz 2.53mOhm 32A AECQ200 13.3x12.8x8.0mm SMT	SMT_IND_13MM3_12 MM8
R5, R30, R66, R67	0	500µ	PML100HZPJV0L5	Rohm Semiconductor	Res Current Sense Thick Film 1225 0.5m Ohm 5% 2W ±150ppm/°C Molded Emboss T/R	1225
R10, R19, R46, R50	0	100k	RMCF0402FT100K	Stackpole Electronics Inc	RES, 100 k, 1%, 0.063 W, AEC-Q200 Grade 0, 0402	0402
R11, R16, R36, R41	0		Used in BOM report	Used in BOM report	RES, xxx ohm, x%, xW, [PackageReference]	Used in PnP output and some BOM reports
R14, R39	0	1	RMCF1210JT4R70	Stackpole	RES, 1.0 ohm, 5%, 0.5W, 1210	1210
R15, R40, R45	0	0	CRCW04020000Z0EDHP	Vishay-Dale	RES, 0, 0%, 0.2 W, AEC-Q200 Grade 0, 0402	0402
R22	0	48.7k	CRCW040248K7FKED	Vishay-Dale	RES, 48.7 k, 1%, 0.063 W, AEC-Q200 Grade 0, 0402	0402
R29	0	100k	CRCW0603100KFKEA	Vishay-Dale	RES, 100 k, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
R34	0	4.75k	CRCW04024K75FKED	Vishay-Dale	RES, 4.75 k, 1%, 0.063 W, AEC-Q200 Grade 0, 0402	0402
R42	0	49.9	CRCW060349R9FKEA	Vishay-Dale	RES, 49.9, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
R48	0	7.50k	CRCW04027K50FKED	Vishay-Dale	RES, 7.50 k, 1%, 0.063 W, AEC-Q200 Grade 0, 0402	0402
R51	0		RMCF0402ZT0R00	Stackpole	RMCF/RMCP Series General Purpose Thick Film Standard Power and High Power Chip Resistor	0402 (1005 metric)
R64, R65	0	1.2m	Y14830R00120F9R	Vishay Foil Resistors	1.2 mOhms ±1% 5W Chip Resistor 2512 (6432 Metric) Automotive AEC- Q200, Current Sense, Non-Inductive Metal Element	2512

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