

PMP23278 REV B Bill of Materials

Designator	Quantity	Value	PartNumber	Manufacturer	Description	PackageReference
!PCB	1		PMP23278	Any	Printed Circuit Board	
C1, C2, C3, C4	4	0.01uF	CGA3E2X7R2A103K080AA	TDK	CAP, CERM, 0.01 uF, 100 V, +/- 10%, X7R, AEC-Q200 Grade 1, 0603	603
C5, C6	2	1000pF	GR442QR73D102KW01L	MuRata	CAP, CERM, 1000 pF, 2000 V, +/- 10%, X7R, 1808	1808
C7, C8, C13, C14	4	1000pF	C1608X7R2A102K080AA	TDK	CAP, CERM, 1000 pF, 100 V, +/- 10%, X7R, 0603	603
C15	1	100uF	EEE-FC1E101P	Panasonic	CAP, AL, 100 uF, 25 V, +/- 20%, 0.3 ohm, SMD	SMT Radial F
C16	1	2200pF	C4532X7R3D222K130KA	TDK	CAP, CERM, 2200 pF, 2000 V, +/- 10%, X7R, 1812	1812
C18, C22	2	10uF	C3225X7R1E106M250AC	TDK	CAP, CERM, 10 uF, 25 V, +/- 20%, X7R, 1210	1210
C19	1	47uF	EEE-FK1J470P	Panasonic	CAP, AL, 47 uF, 63 V, +/- 20%, 0.65 ohm, AEC-Q200 Grade 2, SMD	SMT Radial F
C20, C21	2	2.2uF	GRM32ER72A225KA35L	MuRata	CAP, CERM, 2.2 uF, 100 V, +/- 10%, X7R, 1210	1210
C23, C24, C39	3	100pF	06033C101KAT2A	AVX	CAP, CERM, 100 pF, 25 V, +/- 10%, X7R, 0603	603
C25	1	0.01uF	C0603X103K5RACTU	Kemet	CAP, CERM, 0.01 uF, 50 V, +/- 10%, X7R, 0603	603
C27	1	1uF	C3216X7R1E105K085AA	TDK	CAP, CERM, 1 uF, 25 V, +/- 10%, X7R, 1206	1206
C28	1	0.047uF	GRM31CR72E473KW03L	MuRata	CAP, CERM, 0.047 uF, 250 V, +/- 10%, X7R, 1206	1206
C29	1	0.047uF	C1608X7R1H473K080AA	TDK	CAP, CERM, 0.047 uF, 50 V, +/- 10%, X7R, 0603	603
C30	1	0.1uF	GCM21BR71H104KA37K	MuRata	CAP, CERM, 0.1 uF, 50 V, +/- 10%, X7R, AEC-Q200 Grade 1, 0805	805
C31	1	0.1uF	C2012X5R1H104M085AA	TDK	CAP, CERM, 0.1 uF, 50 V, +/- 20%, X5R, 0805	805
C32	1	0.1uF	CGA3E2X7R1E104K080AA	TDK	CAP, CERM, 0.1 uF, 25 V, +/- 10%, X7R, AEC-Q200 Grade 1, 0603	603
C33	1	2200pF	C0603C222K5RAC	Kemet	CAP, CERM, 2200 pF, 50 V, +/- 10%, X7R, 0603	603
C34	1	0.1uF	C0603C104J3RACTU	Kemet	CAP, CERM, 0.1 uF, 25 V, +/- 5%, X7R, 0603	603
C35	1	47pF	GRM1885C1H470JA01D	MuRata	CAP, CERM, 47 pF, 50 V, +/- 5%, C0G/NPO, 0603	603
C38, C42	2	0.1uF	GRM319R72A104KA01D	MuRata	CAP, CERM, 0.1 uF, 100 V, +/- 10%, X7R, 1206	1206
C40	1	0.022uF	C0603C223K5RACTU	Kemet	CAP, CERM, 0.022 uF, 50 V, +/- 10%, X7R, 0603	603
C41	1	1uF	C2012X7R1H105K125AB	TDK	CAP, CERM, 1 uF, 50 V, +/- 10%, X7R, 0805	805
D1, D2, D3, D4, D6, D19, D20, D21, D22	9	100V	B2100-13-F	Diodes Inc.	Diode, Schottky, 100 V, 2 A, SMB	SMB
D5	1	58V	SMBJ58A-13-F	Diodes Inc.	Diode, TVS, Uni, 58 V, 93.6 Vc, SMB	SMB
D8	1	Yellow	150060YS75000	Würth Elektronik	LED, Yellow, SMD	LED_0603
D10, D11, D12, D13, D16	5	100V	MMSD914T1G	ON Semiconductor	Diode, Switching, 100 V, 0.2 A, SOD-123	SOD-123
D14, D15	2	12V	MMSZ5242B-7-F	Diodes Inc.	Diode, Zener, 12 V, 500 mW, SOD-123	SOD-123
D18	1	30V	BAT54S-7-F	Diodes Inc.	Diode, Schottky, 30 V, 0.2 A, SOT-23	SOT-23
H9, H10, H11, H12	4		SJ-5303 (CLEAR)	3M	Bumpon, Hemisphere, 0.44 X 0.20, Clear	Transparent Bumpon
J1, J2	2		1-406541-1	TE Connectivity	RJ45, No LED, tab up, R/A, TH	16.26x14.54x15.75
J3	1		39357-0002	Molex	Terminal Block, 3.5 mm, 2x1, Tin, TH	Terminal Block, 3.5 mm, 2x1, TH
J6, J12, J15	3		5-146278-3	TE Connectivity	Header, 100mil, 3x1, Tin, TH	Header, 3x1, 100mil, TH
J9	1		ED555/2DS	On-Shore Technology	Terminal Block, 3.5mm Pitch, 2x1, TH	7.0x8.2x6.5mm
J13	1		5-146278-2	TE Connectivity	Header, 100mil, 2x1, Tin, TH	Header, 2x1, 100mil, TH
L1, L3, L4, L6	4	300 ohm	742792641	Würth Elektronik	Ferrite Bead, 300 ohm @ 100 MHz, 2 A, 0603	603
L7	1	3.3uH	MSS5131-332MLB	Coilcraft	Inductor, Shielded Drum Core, Ferrite, 3.3 uH, 1.73 A, 0.03 ohm, SMD	MSS5131
L8	1	22uH	MSS1278-223MLB	Coilcraft	Inductor, Shielded Drum Core, Ferrite, 22 uH, 4 A, 0.04 ohm, SMD	MSS1278
L9	1	2.2mH	768775322	Würth Elektronik	Inductor, Unshielded Drum Core, Metal Composite, 2.2 mH, 0.15 A, 6 ohm, SMD	7x5x7.8mm

Designator	Quantity	Value	PartNumber	Manufacturer	Description	PackageReference
Q5, Q7	2	100 V	FCX493TA	Diodes Inc.	Transistor, NPN, 100 V, 1 A, SOT-89	SOT-89
Q6, Q8	2	100V	CSD19534Q5A	Texas Instruments	MOSFET, N-CH, 100 V, 10 A, DQJ0008A (VSONP-8)	DQJ0008A
Q9	1	-150V	FDMC2523P	Fairchild Semiconductor	MOSFET, P-CH, -150 V, -3 A, QFN-8	QFN-8
Q10	1	150V	FDMS86252	Fairchild Semiconductor	MOSFET, N-CH, 150 V, 4.6 A, PQFN08A	PQFN08A
R1, R2, R3, R4, R6, R7, R8	7	75	CRCW060375R0FKEA	Vishay-Dale	RES, 75.0, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	603
R5	1	75	CRCW060375R0FKEA	Vishay-Dale	RES, 75.0, 1%, 0.1 W, 0603	603
R17	1	100k	CRCW0603100KFKEA	Vishay-Dale	RES, 100 k, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	603
R18	1	4.42k	CRCW06034K42FKEA	Vishay-Dale	RES, 4.42 k, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	603
R19, R47	2	2.00k	CRCW06032K00FKEA	Vishay-Dale	RES, 2.00 k, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	603
R20	1	110k	CRCW0603110KFKEA	Vishay-Dale	RES, 110 k, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	603
R21, R22, R24, R29, R49, R50, R55	7	10.0k	CRCW060310K0FKEA	Vishay-Dale	RES, 10.0 k, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	603
R23, R25	2	2.0k	CRCW12062K00JNEA	Vishay-Dale	RES, 2.0 k, 5%, 0.25 W, AEC-Q200 Grade 0, 1206	1206
R26	1	0.05	CSR1206FK50L0	Stackpole Electronics Inc	RES, 0.05, 1%, 0.5 W, 1206	1206
R27	1	237k	RC0603FR-07237KL	Yageo	RES, 237 k, 1%, 0.1 W, 0603	603
R28	1	60.4k	CRCW060360K4FKEA	Vishay-Dale	RES, 60.4 k, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	603
R30	1	4.7	CRCW06034R70JNEA	Vishay-Dale	RES, 4.7, 5%, 0.1 W, AEC-Q200 Grade 0, 0603	603
R31	1	49.9k	CRCW060349K9FKEA	Vishay-Dale	RES, 49.9 k, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	603
R32, R34, R37, R40	4	0	PMR10EZPJ000	Rohm	RES, 0, 0%, W, AEC-Q200 Grade 0, 0805	805
R33	1	2.49k	RC0603FR-072K49L	Yageo	RES, 2.49 k, 1%, 0.1 W, 0603	603
R35	1	4.99k	CRCW06034K99FKEAC	Vishay-Dale	RES, 4.99 k, 1%, 0.1 W, 0603	603
R36	1	25.5k	CRCW060325K5FKEA	Vishay-Dale	RES, 25.5 k, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	603
R38	1	31.6	CRCW080531R6FKEA	Vishay-Dale	RES, 31.6, 1%, 0.125 W, AEC-Q200 Grade 0, 0805	805
R41	1	40.2k	CRCW060340K2FKEA	Vishay-Dale	RES, 40.2 k, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	603
R44	1	511	RC0603FR-07511RL	Yageo	RES, 511, 1%, 0.1 W, 0603	603
R45	1	0	ERJ-3GEY0R00V	Panasonic	RES, 0, 5%, 0.1 W, 0603	603
R46	1	499k	CRCW0603499KFKEA	Vishay-Dale	RES, 499 k, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	603
R51	1	1.00k	CRCW06031K00FKEA	Vishay-Dale	RES, 1.00 k, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	603
R53	1	2.61k	CRCW06032K61FKEA	Vishay-Dale	RES, 2.61 k, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	603
SH-J1, SH-J2, SH- J3, SH-J4, SH-J5	5		60900213421	Würth Elektronik	Shunt, 2.54mm, Gold, Black	Shunt, 2.54mm, Black
T1	1	350uH	7490220122	Würth Elektronik	Transformer, 350 uH, SMT	14.7x18.29mm
T2	1		FCT1-120M22SLD	Coilcraft	25 W Forward Mode Transformer for PoE applications	SMT10_13MM0_13M M46
TP1, TP2, TP3, TP4	4		5010	Keystone	Test Point, Multipurpose, Red, TH	Red Multipurpose Testpoint
TP5	1		5011	Keystone	Test Point, Multipurpose, Black, TH	Black Multipurpose Testpoint
TP6, TP13, TP14, TP15, TP16, TP18, TP19, TP20, TP23, TP24, TP25, TP28, TP31, TP35, TP45, TP46, TP48	17		5000	Keystone	Test Point, Miniature, Red, TH	Red Miniature Testpoint

Designator	Quantity	Value	PartNumber	Manufacturer	Description	PackageReference
TP7, TP17, TP22, TP26, TP27, TP29, TP36, TP38, TP39, TP40, TP41	11		5001	Keystone	Test Point, Miniature, Black, TH	Black Miniature Testpoint
TP9, TP21, TP30, TP32, TP33, TP34, TP37	7		5002	Keystone	Test Point, Miniature, White, TH	White Miniature Testpoint
TP11, TP43, TP47	3		5003	Keystone Electronics	Test Point, Miniature, Orange, TH	Orange Miniature Testpoint
U1	1		TPS23734RMT	Texas Instruments	IEEE 802.3bt Type 3 Class 1-4 PoE PD with High Efficiency DC-DC Controller	VQFN45
U2	1		TCMT1107	Vishay-Semiconductor	Optocoupler, 3.75 kV, 80-160% CTR, SMT	SOP-4
U3	1		TL431LIAIDBZR	Texas Instruments	Programmable Shunt Regulator with Optimized Reference Current, DBZ0003A (SOT-23-3)	DBZ0003A
U5	1		FOD817DS	Fairchild Semiconductor	Optocoupler, 5 kV, 300-600% CTR, SMT	DIP-4L Gullwing
C9, C10, C11, C12	0	330pF	8.85012E+11	Würth Elektronik	CAP, CERM, 330 pF, 50 V, +/- 5%, C0G/NP0, 0603	603
C17	0	2200pF	C4532X7R3D222K130KA	TDK	CAP, CERM, 2200 pF, 2000 V, +/- 10%, X7R, 1812	1812
C44	0	1000pF	CGA3E2X7R2A102K080AA	TDK	CAP, CERM, 1000 pF, 100 V, +/- 10%, X7R, AEC-Q200 Grade 1, 0603	603
C46	0	4700pF	C0603X472K5RACTU	Kemet	CAP, CERM, 4700 pF, 50 V, +/- 10%, X7R, 0603	603
C47	0	470pF	08051C471KAT2A	AVX	CAP, CERM, 470 pF, 100 V, +/- 10%, X7R, 0805	805
D7	0	Yellow	150060YS75000	Würth Elektronik	LED, Yellow, SMD	LED_0603
D17	0	100V	MMSD914T1G	ON Semiconductor	Diode, Switching, 100 V, 0.2 A, SOD-123	SOD-123
D23	0	100V	B3100-13-F	Diodes Inc.	Diode, Schottky, 100 V, 3 A, SMC	SMC
FID1, FID2, FID3	0		N/A	N/A	Fiducial mark. There is nothing to buy or mount.	N/A
J5	0		PEC02SAAN	Sullins Connector Solutions	Header, 100mil, 2x1, Tin, TH	Header, 2 PIN, 100mil, Tin
L2, L5	0	250uH	744272251	Würth Elektronik	Coupled inductor, 250 uH, A, 0.035 ohm, SMD	8.7x10mm
Q1, Q2, Q3, Q4	0	100V	CSD19538Q2	Texas Instruments	MOSFET, N-CH, 100 V, 4.5 A, DQK0006C (WSON-6)	DQK0006C
R9, R10, R11, R12	0	1.00Meg	CRCW06031M00FKFA	Vishay-Dale	RES, 1.00 M, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	603
R13, R14, R15, R16	0	232k	CRCW0603232KFKEA	Vishay-Dale	RES, 232 k, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	603
R39	0	31.6	CRCW080531R6FKFA	Vishay-Dale	RES, 31.6, 1%, 0.125 W, AEC-Q200 Grade 0, 0805	805
R42, R54, R59	0	10.0k	CRCW060310K0FKFA	Vishay-Dale	RES, 10.0 k, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	603
R43	0	402k	CRCW0603402KFKEA	Vishay-Dale	RES, 402 k, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	603
R57	0	100k	CRCW0603100KFKEA	Vishay-Dale	RES, 100 k, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	603
R58	0	15.0k	CRCW060315K0FKFA	Vishay-Dale	RES, 15.0 k, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	603
R62, R65	0	5.1	CRCW12065R10JNEA	Vishay-Dale	RES, 5.1, 5%, 0.25 W, AEC-Q200 Grade 0, 1206	1206
TP8	0		5002	Keystone	Test Point, Miniature, White, TH	White Miniature Testpoint
TP10, TP42	0		5003	Keystone Electronics	Test Point, Miniature, Orange, TH	Orange Miniature Testpoint
U4	0		FOD817DS	Fairchild Semiconductor	Optocoupler, 5 kV, 300-600% CTR, SMT	DIP-4L Gullwing

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