

## PMP23253 REV A Bill of Materials



Designator	Quantity	Value	PartNumber	Manufacturer	Description	PackageReference	Alternate Part Number	Alternate Manufacturer
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, C9, C10, C19, C36	6	1000pF	C1608X7R2A102K080AA	TDK	CAP, CERM, 1000 pF, 100 V, +/- 10%, X7R, 0603	603		
C11	1	470pF	08051C471KAT2A	AVX	CAP, CERM, 470 pF, 100 V, +/- 10%, X7R, 0805	805		
C12, C13, C14, C15	4	330pF	8.85012E+11	Würth Elektronik	CAP, CERM, 330 pF, 50 V, +/- 5%, COG/NP0, 0603	603		
C16	1	2200pF	C4532X7R3D222K130KA	TDK	CAP, CERM, 2200 pF, 2000 V, +/- 10%, X7R, 1812	1812		
C17	1	0.047uF	CGA5H2X7R2A473K115AA	TDK	CAP, CERM, 0.047 uF, 100 V, +/- 10%, X7R, AEC-Q200 Grade 1, 1206	1206		
C20, C34	2	0.1uF	GRM319R72A104KA01D	MuRata	CAP, CERM, 0.1 uF, 100 V, +/- 10%, X7R, 1206	1206		
C21	1	68uF	EEV-FK1E380Q	Panasonic	CAP, AL, 68 uF, 100 V, +/- 20%, 0.32 ohm, AEC-Q200 Grade 2, SMD	SMT Radial H13		
C22, C23, C24	3	2.2uF	GRM32ER72A225KA35L	MuRata	CAP, CERM, 2.2 uF, 100 V, +/- 10%, X7R, 1210	1210		
C25	1	0.1uF	GRM21BR72A104KAC4L	MuRata	CAP, CERM, 0.1 uF, 100 V, +/- 10%, X7R, 0805	805		
C26, C31	2	100pF	GCM1885C2A101JA16D	MuRata	CAP, CERM, 100 pF, 100 V, +/- 5%, COG/NP0, AEC-Q200 Grade 1, 0603	603		
C27, C29	2	22uF	GMK325BJ226MM-P	Taiyo Yuden	CAP, CERM, 22 uF, 35 V, +/- 20%, X5R, 1210	1210		
C28	1	33uF	EEE-FK1E330P	Panasonic	CAP, AL, 33 uF, 25 V, +/- 20%, 0.36 ohm, AEC-Q200 Grade 2, SMD	SMT Radial D		
C30	1	560uF	EEEFPE561UAP	Panasonic	CAP, AL, 560 uF, 25 V, +/- 20%, 0.08 ohm, AEC-Q200 Grade 2, SMD	D10xL10.2mm		
C32	1	1uF	GRM21BR71E105KA99L	MuRata	CAP, CERM, 1 uF, 25 V, +/- 10%, X7R, 0805	805		
C33	1	0.047uF	GRM31CR72E473KW03L	MuRata	CAP, CERM, 0.047 uF, 250 V, +/- 10%, X7R, 1206	1206		
C35	1	0.047uF	GRM188R71H473KA61D	MuRata	CAP, CERM, 0.047 uF, 50 V, +/- 10%, X7R, 0603	603		
C38	1	0.1uF	GCM21BR71H104KA37K	MuRata	CAP, CERM, 0.1 uF, 50 V, +/- 10%, X7R, AEC-Q200 Grade 1, 0805	805		
C39	1	0.22uF	C2012X5R1H224K125AA	TDK	CAP, CERM, 0.22 uF, 50 V, +/- 10%, X5R, 0805	805		
C40, C42	2	0.1uF	CGA3E2X7R1E104K080AA	TDK	CAP, CERM, 0.1 uF, 25 V, +/- 10%, X7R, AEC-Q200 Grade 1, 0603	603		
C41	1	2200pF	C0603C222K5RAC	Kemet	CAP, CERM, 2200 pF, 50 V, +/- 10%, X7R, 0603	603		
C43	1	100pF	06033C101KAT2A	AVX	CAP, CERM, 100 pF, 25 V, +/- 10%, X7R, 0603	603		
C44	1	0.068uF	GRM188R71C683KA01D	MuRata	CAP, CERM, 0.068 uF, 16 V, +/- 10%, X7R, 0603	603		
C45	1	0.01uF	C0603X103K5RACTU	Kemet	CAP, CERM, 0.01 uF, 50 V, +/- 10%, X7R, 0603	603		
C47	1	1uF	C2012X7R1H105K125AB	TDK	CAP, CERM, 1 uF, 50 V, +/- 10%, X7R, 0805	805		
D1, D2, D3, D4, D5	5	100V	B2100-13-F	Diodes Inc.	Diode, Schottky, 100 V, 2 A, SMB	SMB		
D6	1	58V	SMBJ58A-13-F	Diodes Inc.	Diode, TVS, Uni, 58 V, 93.6 Vc, SMB	SMB		
D12	1	100V	MURA110T3G	ON Semiconductor	Diode, Ultrafast, 100 V, 2 A, SMA	SMA		
D13, D14, D15, D16, D20, D22	6	100V	MMSD914T1G	ON Semiconductor	Diode, Switching, 100 V, 0.2 A, SOD-123	SOD-123		
D17, D18	2	12V	MMSZ5242B-7-F	Diodes Inc.	Diode, Zener, 12 V, 500 mW, SOD-123	SOD-123		
D23	1	30V	BAT54S-7-F	Diodes Inc.	Diode, Schottky, 30 V, 0.2 A, SOT-23	SOT-23		
D25, D26, D27	3	Yellow	150060YS75000	Würth Elektronik	LED, Yellow, SMD	LED_0603		
FID1, FID2, FID3	3		N/A	N/A	Fiducial mark. There is nothing to buy or mount.	N/A		
H1, H2, H3, H4	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, J6	2		ED555/2DS	On-Shore Technology	Terminal Block, 3.5mm Pitch, 2x1, TH	7.0x8.2x6.5mm		
J4, J8, J11	3		5-146278-3	TE Connectivity	Header, 100mil, 3x1, Tin, TH	Header, 3x1, 100mil, TH		
J5, J7, J9, J10	4		5-146278-2	TE Connectivity	Header, 100mil, 2x1, Tin, TH	Header, 2x1, 100mil, TH		
L1, L3, L6	3	300 ohm	742792641	Würth Elektronik	Ferrite Bead, 300 ohm @ 100 MHz, 2 A, 0603	603		
L5	1	250uH	744272251	Würth Elektronik	Coupled inductor, 250 uH, A, 0.035 ohm, SMD	8.7x10mm		
L7	1	5.5uH	744325550	Würth Elektronik	Inductor, Shielded Drum Core, Superflux, 5.5 uH, 10 A, 0.0112 ohm, SMD	WE-HC6		
L8	1	33uH	74435573300	Würth Elektronik	Inductor, Shielded Drum Core, Ferrite, 33 uH, 8.5 A, 0.0217 ohm, SMD	18.3x8.9x18.2mm		
L9	1	2.2mH	768775322	Würth Elektronik	Inductor, Unshielded Drum Core, Metal Composite, 2.2 mH, 0.15 A, 6 ohm, SMD	7x5x7.8mm		
Q1, Q2, Q3, Q4	4	100V	CSD19538Q2	Texas Instruments	MOSFET, N-CH, 100 V, 4.5 A, DQK0006C (WSON-6)	DQK0006C		
Q5, Q7	2	100 V	FCX493TA	Diodes Inc.	Transistor, NPN, 100 V, 1 A, SOT-89	SOT-89		
Q6, Q8	2	100V	FDMS86105	Fairchild Semiconductor	MOSFET, N-CH, 100 V, 26 A, PowerPAK SO-8	PowerPAK SO-8		
Q10	1	-150V	FDMC2523P	Fairchild Semiconductor	MOSFET, P-CH, -150 V, -3 A, QFN-8	QFN-8		
Q11	1	150V	FDMS86250	Fairchild Semiconductor	MOSFET, N-CH, 150 V, 6.7 A, PQFN08A	PQFN08A		

Designator	Quantity	Value	PartNumber	Manufacturer	Description	PackageReference	Alternate Part Number	Alternate Manufacturer
R1, R2, R3, R4, R5, R6, R7, R8	8	75	RC0603FR-0775RL	Yageo	RES, 75.0, 1%, 0.1 W, 0603	603		
R9, R12, R13, R24	4	0	PMR10E郑J000	Rohm	RES, 0, 0%, W, AEC-Q200 Grade 0, 0805	805		
R10, R14	2	100k	CRCW0603100KFKEA	Vishay-Dale	RES, 100 k, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	603		
R11	1	4.42k	CRCW06034K42FKEA	Vishay-Dale	RES, 4.42 k, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	603		
R15, R16, R17, R18	4	1.00Meg	CRCW06031M00FKEA	Vishay-Dale	RES, 1.00 M, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	603		
R19	1	15.0k	CRCW060315K0FKEA	Vishay-Dale	RES, 15.0 k, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	603		
R20, R21, R22, R23	4	232k	CRCW0603232KFKEA	Vishay-Dale	RES, 232 k, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	603		
R25	1	110k	CRCW0603110KFKEA	Vishay-Dale	RES, 110 k, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	603		
R26, R36, R44, R59, R60, R61, R62, R63, R64	9	10.0k	CRCW060310K0FKEA	Vishay-Dale	RES, 10.0 k, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	603		
R27	1	10k	CRCW251210K0JNEG	Vishay-Dale	RES, 10 k, 5%, 1 W, AEC-Q200 Grade 0, 2512	2512		
R28, R33	2	15	ERJ-8ENF15R0V	Panasonic	RES, 15.0, 1%, 0.25 W, AEC-Q200 Grade 0, 1206	1206		
R29, R31	2	2.00k	CRCW12062K00FKEA	Vishay-Dale	RES, 2.00 k, 1%, 0.25 W, AEC-Q200 Grade 0, 1206	1206		
R34	1	237k	RC0603FR-07237KL	Yageo	RES, 237 k, 1%, 0.1 W, 0603	603		
R37	1	60.4k	CRCW060360K4FKEA	Vishay-Dale	RES, 60.4 k, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	603		
R38	1	10	CRCW060310R0JNEA	Vishay-Dale	RES, 10, 5%, 0.1 W, AEC-Q200 Grade 0, 0603	603		
R39	1	49.9	RC0603FR-0749R9L	Yageo	RES, 49.9, 1%, 0.1 W, 0603	603		
R40	1	49.9k	CRCW060349K9FKEA	Vishay-Dale	RES, 49.9 k, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	603		
R41, R42, R46	3	2.00k	CRCW06032K00FKEA	Vishay-Dale	RES, 2.00 k, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	603		
R43, R48	2	1.00k	CRCW06031K00FKEA	Vishay-Dale	RES, 1.00 k, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	603		
R45	1	40.2k	CRCW060340K2FKEA	Vishay-Dale	RES, 40.2 k, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	603		
R47	1	31.6	CRCW080531R6FKEA	Vishay-Dale	RES, 31.6, 1%, 0.125 W, AEC-Q200 Grade 0, 0805	805		
R49	1	121	CRCW0805121RFKEA	Vishay-Dale	RES, 121, 1%, 0.125 W, AEC-Q200 Grade 0, 0805	805		
R50	1	3.00k	RC0603FR-073KL	Yageo	RES, 3.00 k, 1%, 0.1 W, 0603	603		
R51	1	27.4k	RC0603FR-0727K4L	Yageo	RES, 27.4 k, 1%, 0.1 W, 0603	603		
R52	1	0.05	ERJ-8CWFR050V	Panasonic	RES, 0.05, 1%, 1 W, AEC-Q200 Grade 0, 1206	1206		
R53	1	8.06k	CRCW06038K06FKEA	Vishay-Dale	RES, 8.06 k, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	603		
R54	1	64.9k	CRCW060364K9FKEA	Vishay-Dale	RES, 64.9 k, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	603		
R55	1	499k	CRCW0603499KFKEA	Vishay-Dale	RES, 499 k, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	603		
SH-J1, SH-J2, SH-J3, SH-J4, SH-J5, SH-J6, SH-J7	7		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		750320145	Würth Electronics	Transformer 1.33:1 250kHz 1500VAC 29.65x21.80x11.43mm	SMT_XFRMR_29MM65_21MM80	PK5015-001SR	Linkcom
TP1, TP2, TP3, TP4, TP6, TP9, TP12, TP13, TP14, TP15, TP16, TP17, TP21, TP23, TP24, TP27, TP28, TP30, TP31, TP32, TP36	21		5000	Keystone Electronics	Test Point, Miniature, Red, TH	Red Miniature Testpoint		
TP5, TP8, TP11, TP18, TP19, TP20, TP29, TP35, TP38, TP39, TP40, TP42	12		5001	Keystone Electronics	Test Point, Miniature, Black, TH	Black Miniature Testpoint		
TP7, TP10, TP22, TP25, TP26, TP33, TP37, TP41	8		5002	Keystone Electronics	Test Point, Miniature, White, TH	White Miniature Testpoint		
TP34, TP43, TP44, TP45, TP46, TP47, TP48	7		5003	Keystone Electronics	Test Point, Miniature, Orange, TH	Orange Miniature Testpoint		
U1	1		TPS23730RMT	Texas Instruments	TPS23730RMT, RMT0045A (VQFN-45)	RMT0045A		
U2	1		TCMT1107	Vishay-Semiconductor	Optocoupler, 3.75 kV, 80-160% CTR, SMT	SOP-4		
U3	1		TL431IDBVR	Texas Instruments	Adjustable Precision Shunt Regulator, 34 ppm / degC, 100 mA, -40 to 85 degC, 5-pin SOT-23 (DBV), Green (RoHS & no Sb/Br)	DBV0005A		

Designator	Quantity	Value	PartNumber	Manufacturer	Description	PackageReference	Alternate Part Number	Alternate Manufacturer
U4, U5, U6	3		FOD817DS	Fairchild Semiconductor	Optocoupler, 5 kV, 300-600% CTR, SMT	DIP-4L Gullwing		
C18	0	2200pF	C4532X7R3D222K130KA	TDK	CAP, CERM, 2200 pF, 2000 V, +/- 10%, X7R, 1812	1812		
C37	0	0.047uF	CGA5H2X7R2A473K115AA	TDK	CAP, CERM, 0.047 uF, 100 V, +/- 10%, X7R, AEC-Q200 Grade 1, 1206	1206		
C46	0	47pF	GRM1885C1H470JA01D	MuRata	CAP, CERM, 47 pF, 50 V, +/- 5%, C0G/NP0, 0603	603		
D7, D8, D9, D10	0	100V	B2100-13-F	Diodes Inc.	Diode, Schottky, 100 V, 2 A, SMB	SMB		
D11, D21	0	60V	SMCJ60A	Fairchild Semiconductor	Diode, TVS, Uni, 60 V, SMC	SMC		
D19	0	100V	MURA110T3G	ON Semiconductor	Diode, Ultrafast, 100 V, 2 A, SMA	SMA		
D24	0	100V	B3100-13-F	Diodes Inc.	Diode, Schottky, 100 V, 3 A, SMC	SMC		
L2	0	250uH	744272251	Würth Elektronik	Coupled inductor, 250 uH, A, 0.035 ohm, SMD	8.7x10mm		
L4	0	300 ohm	742792641	Würth Elektronik	Ferrite Bead, 300 ohm @ 100 MHz, 2 A, 0603	603		
Q9	0	-80V	SQ2337ES-T1_GE3	Vishay-Siliconix	MOSFET, P-CH, -80 V, -2.2 A, AEC-Q101, SOT-23	SOT-23		
Q12	0	150V	SI4848DY-T1-E3	Vishay-Siliconix	MOSFET, N-CH, 150 V, 2.7 A, SOIC-8	SOIC-8		
R30	0	10	CRCW060310R0FKEAHP	Vishay-Dale	RES, 10.0, 1%, 0.25 W, AEC-Q200 Grade 0, 0603	603		
R32	0	8.06k	CRCW12068K06FKEA	Vishay-Dale	RES, 8.06 k, 1%, 0.25 W, AEC-Q200 Grade 0, 1206	1206		
R35	0	10k	CRCW251210K0JNEG	Vishay-Dale	RES, 10 k, 5%, 1 W, AEC-Q200 Grade 0, 2512	2512		
R56, R57, R58	0	10.0k	CRCW060310K0FKEA	Vishay-Dale	RES, 10.0 k, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	603		

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