

PMP10822 REV A Bill of Materials

Designator	Quantity	Value	PartNumber	Manufacturer	Description	PackageReference
I PCB1	1		PMP10822	Any	Printed Circuit Board	
C1	1	1uF	C2012X7R1H105K125AB	TDK	CAP, CERM, 1 μ F, 50 V, +/- 10%, X7R, 0805	0805
C2, C12, C22, C55	4	0.1uF	06035C104KAT2A	AVX	CAP, CERM, 0.1 μ F, 50 V, +/- 10%, X7R, 0603	0603
C3, C13, C23	3	0.01uF	06031C103KAT2A	AVX	CAP, CERM, 0.01 μ F, 100 V, +/- 10%, X7R, 0603	0603
C4, C5, C6	3	470uF	EKZE350ELL471MJ20S	United Chemi-Con	CAP ALUM 470UF 35V 20% RADIAL	CAPPR5-10x16
C7, C15	2	150uF	UPB2E151MHD	Nichicon	CAP ALUM 150UF 250V 20% RADIAL	18x20mm
C9	1	470uF	PLF1C471MDO1	Nichicon	CAP ALUM 470UF 16V 20% RADIAL	CAPPR5-10x16
C10	1	470uF	PLF1C471MDO1	Nichicon	CAP, AL, 470 μ F, 16 V, +/- 20%, 0.009 ohm, TH	THD, 2-Leads, 10 mm Dia, Height 13 mm, Pin Spacing 5 mm
C11, C53, C54	3	10uF	1210YD106KAT2A	AVX	CAP, CERM, 10 μ F, 16 V, +/- 10%, X5R, 1210	1210
C14, C20	2	470pF	VY2471K29Y5SS63V7	Vishay-Bccomponents	CAP, CERM, 470pF, 300V, +/-10%, VY2, 5x7.5 mm	5x7.5 mm
C16, C17	2	0.33uF	ECQ-U2A334ML	Panasonic	CAP, Film, 0.33uF, 275V, +/-20%, TH	RCAP, 17.5x17.5x9.5mm
C18, C29, C40, C50, C57, C60	6	0.1uF	GRM188R71H104KA93D	MuRata	CAP, CERM, 0.1 μ F, 50 V, +/- 10%, X7R, 0603	0603
C19	1	2200pF	CS11-E2GA222MYNS	TDK	CAP, CERM, 2200pF, 250V, +/-20%, E, Radial Disc D10.5x7mm	Radial Disc D10.5x7mm
C21, C104	2	4.7uF	GRM319R61H475KA12	MuRata	CAP, CERM, 4.7 μ F, 50 V, +/- 10%, X5R, 1206	1206
C24	1	0.01uF	C1608X8R1H103K	TDK	CAP, CERM, 0.01 μ F, 50 V, +/- 10%, X8R, 0603	0603
C26	1	10uF	TMK316BJ106KL-T	Taiyo Yuden	CAP, CERM, 10 μ F, 25 V, +/- 10%, X5R, 1206	1206
C27, C52	2	100pF	C1608C0G1H101J	TDK	CAP, CERM, 100pF, 50V, +/-5%, C0G/NP0, 0603	0603
C28, C39	2	22pF	06035A220JAT2A	AVX	CAP, CERM, 22 pF, 50 V, +/- 5%, C0G/NP0, 0603	0603
C30, C56	2	3300pF	06031C332KAT2A	AVX	CAP, CERM, 3300 pF, 100 V, +/- 10%, X7R, 0603	0603
C31, C58	2	1000pF	06031C102MAT2A	AVX	CAP, CERM, 1000pF, 100V, +/-20%, X7R, 0603	0603
C32, C45	2	10uF	GRM31CR71C106KAC7L	MuRata	CAP, CERM, 10 μ F, 16 V, +/- 10%, X7R, 1206	1206
C33, C34, C46, C47, C51, C59, C64, C65, C105, C106	10	22uF	C1608X5R0J226M080AC	TDK	CAP, CERM, 22 μ F, 6.3 V, +/- 20%, X5R, 0603	0603
C35, C48, C63	3	1uF	GRM185R60J105KE26D	MuRata	CAP, CERM, 1 μ F, 6.3 V, +/- 10%, X5R, 0603	0603
C36, C49	2	8200pF	C1608C0G1E822J	TDK	CAP, CERM, 8200 pF, 25 V, +/- 5%, C0G/NP0, 0603	0603
C37	1	10uF	UPW1V100MDD6	Nichicon	CAP, AL, 10 μ F, 35 V, +/- 20%, 0.95 ohm, TH	5x7mm
C38, C61	2	0.1uF	06035C104KAT2A	AVX	CAP, CERM, 0.1uF, 50V, +/-10%, X7R, 0603	0603
C41	1	39uF	PLV1H390MDL1TD	Nichicon	CAP ALUM 39UF 50V 20% RADIAL	CAPPR5-10x16
C42, C43	2	330uF	UVR1H331MPD	Nichicon	CAP ALUM 330UF 50V 20% RADIAL	CAPPR5-10x16
C44	1	10uF	GRM32ER71H106KA12L	MuRata	CAP, CERM, 10 μ F, 50 V, +/- 10%, X7R, 1210	1210
C62	1	2.2uF	GRM31CR61H225KA88L	MuRata	CAP, CERM, 2.2uF, 50V, +/-10%, X5R, 1206	1206
C66	1	22uF	25ML22MEFC5X5	Rubycon	CAP, AL, 22 μ F, 25 V, +/- 20%, TH	RCAP, 5x5mm
C67	1	4.7uF	GRM319R61E475KA12D	MuRata	CAP, CERM, 4.7 μ F, 25 V, +/- 10%, X5R, 1206	1206
C68, C69	2	4.7pF	06035A4R7CAT2A	AVX	CAP, CERM, 4.7 pF, 50 V, +/- 5%, C0G/NP0, 0603	0603
C70	1	1uF	ECQ-E2W105KH	Panasonic	CAP, Film, 1 μ F, 450 V, +/- 10%, TH	Radial 18.2x8.5x17.9
C101	1	100pF	CGA3E2NP01H101J080AA	TDK	CAP, CERM, 100 pF, 50 V, +/- 5%, C0G/NP0, 0603	0603
C102	1	33uF	35ZL33MEFC5X11	Rubycon	CAP ALUM 33UF 35V 20% RADIAL	5.0mmx11mm
C103	1	2200pF	C3216C0G2J222J	TDK	CAP, CERM, 2200 pF, 630 V, +/- 5%, C0G/NP0, 1206	1206
D1	1	100V	30WQ10FNPBF	Vishay-Semiconductor	Diode, Schottky, 100V, 3.5A, DPAK	DPAK
D2, D4	2	85V	SMCJ85A	Fairchild Semiconductor	TVS DIODE 85VWM 137VC SMC	SMC

Designator	Quantity	Value	PartNumber	Manufacturer	Description	PackageReference
D3	1	60V	MBRD360T4G	ON Semiconductor	Diode, Schottky, 60 V, 3 A, DPAK	DPAK
D5	1	GBU6J	GBU6J	Micro Commercial Component	RECT BRIDGE GPP 6A 600V GBU	GBU
D6, D10	2	1.7V	US1M-13-F	Diodes Inc.	Diode, Ultrafast, 1000V, 1A, SMA	SMA
D7, D12	2		BAS20HT1G		DIODE SWITCH 200V 200MA SOD323	SOD-323
D8	1	150V	STPS3150U	Diodes Inc.	DIODE SCHOTTKY 150V 3A SMB	SMB
D9	1	150V	SMCJ150A	Fairchild Semiconductor	TVS DIODE 150VWM 243VC SMC	SMC
D11	1	24V	MMSZ4709-V	Vishay-Semiconductor	Diode, Zener, 24 V, 500 mW, SOD-123	SOD-123
D13	1	100V	B1100-13-F	Diodes Inc.	Diode, Schottky, 100 V, 1 A, SMA	SMA
D101	1	40V	CDBA140-G	Comchip Technology	DIODE SCHOTTKY 40V 1A DO214AC	SMA
F1	1		37213150001	Littelfuse	Fuse, 3.15 A, 250 V, TH	TR5 fuse 8.5mm DIA
HS1	1		530614B00000G	Aavid	Heat Sink, TO-220, TH	TO-220 Heat Sink
HS2	1		576012B00000G	Aavid	Heat Sink, TO-220, TH	TO-220 Heat Sink
HS3	1		530714B00000G	Aavid	Heat Sink, TO-220, TH	TO-220 Heat Sink
J1	1		1-1318301-3	TE Connectivity	Header, 312mil, 3x1, Tin, TH	19.7x10.7 x8.5 mm
J2, J3, J4, J5	4		TSW-102-07-G-S	Samtec	Header, 100mil, 2x1, Gold, TH	2x1 Header
L1	1	180uH	RFS1317-184KL	Coilcraft	Inductor, Shielded, Ferrite, 180 µH, 2.65 A, 0.17 ohm, TH	13.3mm DIA
L2, L6	2	1uH	744028001	Würth Elektronik eiSos	Inductor, Shielded Drum Core, Ferrite, 1 µH, 1.5 A, 0.065 ohm, SMD	WE-TPC-T
L3	1	100uH	74408943101	Würth Elektronik eiSos	Inductor, Shielded Drum Core, Ferrite, 100 µH, 0.52 A, 0.77 ohm, SMD	4.8x3.8x4.8mm
L4	1	10mH	744824310	Würth Elektronik eiSos	Coupled inductor, 10000uH, 3A, 0.105 ohm, +/-30%, TH	18.5x33x27.5 mm
L5, L7	2	4.7uH	744028004	Würth Elektronik eiSos	Inductor, Shielded Drum Core, Ferrite, 4.7 µH, 0.7 A, 0.265 ohm, SMD	WE-TPC-T
L8, L9	2	4.7uH	744030004	Würth Elektronik eiSos	FIXED IND 4.7UH 480MA 290 MOHM	3.5x0.95x3.3mm
L10	1	3.3uH	744030003	Würth Elektronik eiSos	Inductor, Shielded Drum Core, Metal Composite, 3.3 µH, 0.65 A, 0.198 ohm, SMD	3.5x0.95x3.3mm
Q1	1	800V	SPA06N80C3	Infineon Technologies	MOSFET N-CH 800V 6A TO220FP	TO-220AB
Q2	1	650V	IPA65R600E6	Infineon Technologies	MOSFET N-CH 650V 7.3A TO220	TO-220AB
R1, R4, R13, R30, R43, R48, R52, R101	8	10.0k	CRCW060310K0FKEA	Vishay-Dale	RES, 10.0 k, 1%, 0.1 W, 0603	0603
R2, R3, R5, R6	4	1.0Meg	CRCW08051M00JNEA	Vishay-Dale	RES, 1.0 M, 5%, 0.125 W, 0805	0805
R7	1	54.9k	CRCW060354K9FKEA	Vishay-Dale	RES, 54.9 k, 1%, 0.1 W, 0603	0603
R8	1	51.1	CRCW120651R1FKEA	Vishay-Dale	RES, 51.1, 1%, 0.25 W, 1206	1206
R9	1	2.87k	CRCW06032K87FKEA	Vishay-Dale	RES, 2.87 k, 1%, 0.1 W, 0603	0603
R10	1	100k	CRCW0603100KFKEA	Vishay-Dale	RES, 100 k, 1%, 0.1 W, 0603	0603
R11	1	10.0k	CRCW080510K0FKEA	Vishay-Dale	RES, 10.0 k, 1%, 0.125 W, 0805	0805
R12, R37	2	4.7	CRCW12064R70JNEA	Vishay-Dale	RES, 4.7 ohm, 5%, 0.25W, 1206	1206
R14	1	4.99k	CRCW12064K99FKEA	Vishay-Dale	RES, 4.99 k, 1%, 0.25 W, 1206	1206
R15	1	133k	CRCW0603133KFKEA	Vishay-Dale	RES, 133 k, 1%, 0.1 W, 0603	0603
R16, R41	2	15	CRCW060315R0JNEA	Vishay-Dale	RES, 15 ohm, 5%, 0.1W, 0603	0603
R17, R31	2	124k	CRCW0603124KFKEA	Vishay-Dale	RES, 124 k, 1%, 0.1 W, 0603	0603
R18	1	19.1k	CRCW060319K1FKEA	Vishay-Dale	RES, 19.1 k, 1%, 0.1 W, 0603	0603
R19	1	43.2k	CRCW060343K2FKEA	Vishay-Dale	RES, 43.2 k, 1%, 0.1 W, 0603	0603
R20, R45	2	20.0k	CRCW060320K0FKEA	Vishay-Dale	RES, 20.0k ohm, 1%, 0.1W, 0603	0603
R21, R46	2	0	CRCW06030000Z0EA	Vishay-Dale	RES, 0 ohm, 5%, 0.1W, 0603	0603
R22, R47	2	10.0k	CRCW060310K0FKEA	Vishay-Dale	RES, 10.0k ohm, 1%, 0.1W, 0603	0603
R23, R51	2	698	CRCW0603698RFKEA	Vishay-Dale	RES, 698 ohm, 1%, 0.1W, 0603	0603
R24, R33	2	22.1k	CRCW060322K1FKEA	Vishay-Dale	RES, 22.1 k, 1%, 0.1 W, 0603	0603
R25, R26	2	0.68	ERJ-12ZJR68U	Panasonic	RES 0.68 OHM 1/2W 5% 2010 SMD	2010
R27, R55	2	2.49k	CRCW06032K49FKEA	Vishay-Dale	RES, 2.49k ohm, 1%, 0.1W, 0603	0603
R28	1	28.7k	CRCW060328K7FKEA	Vishay-Dale	RES, 28.7 k, 1%, 0.1 W, 0603	0603
R29, R57	2	49.9k	CRCW060349K9FKEA	Vishay-Dale	RES, 49.9k ohm, 1%, 0.1W, 0603	0603
R32	1	20.0k	CRCW120620K0FKEA	Vishay-Dale	RES, 20.0 k, 1%, 0.25 W, 1206	1206
R34	1	20.5	CRCW120620R5FKEA	Vishay-Dale	RES, 20.5, 1%, 0.25 W, 1206	1206
R35	1	12.4k	CRCW060312K4FKEA	Vishay-Dale	RES, 12.4 k, 1%, 0.1 W, 0603	0603
R36	1	4.99k	CRCW08054K99FKEA	Vishay-Dale	RES, 4.99k ohm, 1%, 0.125W, 0805	0805

Designator	Quantity	Value	PartNumber	Manufacturer	Description	PackageReference
R38	1	2.0k	CRCW12062K00JNEA	Vishay-Dale	RES, 2.0k ohm, 5%, 0.25W, 1206	1206
R39	1	301	CRCW0603301RFKEA	Vishay-Dale	RES, 301, 1%, 0.1 W, 0603	0603
R40	1	120k	RC0603FR-07120KL	Yageo America	RES, 120 k, 1%, 0.1 W, 0603	0603
R42, R53, R59	3	2.21k	CRCW06032K21FKEA	Vishay-Dale	RES, 2.21 k, 1%, 0.1 W, 0603	0603
R44	1	33.2k	CRCW120633K2FKEA	Vishay-Dale	RES, 33.2 k, 1%, 0.25 W, 1206	1206
R49	1	7.32k	CRCW06037K32FKEA	Vishay-Dale	RES, 7.32 k, 1%, 0.1 W, 0603	0603
R50	1	150	CRCW0603150RFKEA	Vishay-Dale	RES, 150, 1%, 0.1 W, 0603	0603
R54	1	0.62	CRL1206-FW-R620ELF	Panasonic	RES 0.62 OHM 1/4W 1% 1206 SMD	1206
R56	1	32.4k	CRCW060332K4FKEA	Vishay-Dale	RES, 32.4 k, 1%, 0.1 W, 0603	0603
R58	1	2.15k	CRCW06032K15FKEA	Vishay-Dale	RES, 2.15 k, 1%, 0.1 W, 0603	0603
RT1	1	10 ohm	B57236S0100M000	EPCOS Inc	Thermistor NTC, 10 ohm, 20%, Disc_11.5mmx6mm	Disc_11.5mmx6mm
T1	1	600uH	750315242	Würth Elektronik eiSos	Transformer, 1.1 uH, TH	32.25x27.05mm
T2	1	600 uH	750315241	Würth Elektronik eiSos	Transformer, 600 uH, TH	25x22.2mm
TP1, TP3, TP5, TP6, TP9, TP11, TP13, TP14, TP17, TP18, TP21, TP23	12	Red	5000	Keystone	Test Point, Miniature, Red, TH	Red Miniature Testpoint
TP2, TP4, TP7, TP8, TP10, TP12, TP15, TP16, TP19, TP20, TP22, TP24	12	Black	5001	Keystone	Test Point, Miniature, Black, TH	Black Miniature Testpoint
U1	1		TPS5402DR	Texas Instruments	Buck Step Down Regulator with 3.5 to 28 V Input and 0.8 to IC REG BUCK ADJ 1.7A 8SOIC	D0008A
U2, U7	2		PC817X4J000F		Opto-Isolator, 1 Channel, TH	DIP-4
U3, U9	2		UCC28740DR	Texas Instruments	Constant-Voltage, Constant-Current Flyback Controller Using Opto-Coupler Feedback, D0007A	D0007A
U4, U6	2		TPS54239DDA	Texas Instruments	4.5V to 23V Input, 2-A Synchronous Step-Down SWIFT Converter, DDA0008E	DDA0008E
U5, U10	2		ATL431A	Texas Instruments	Adjustable Precision Shunt Regulator, 34 ppm / degC, 100 mA, 0 to 70 degC, 3-pin SOT-23 (DBZ), Green (RoHS & no Sb/Br)	DBZ0003A
U8	1		TPS65581PWPR	Texas Instruments	IC REG BUCK SYNC ADJ TRPL 20HTSS	PWP0020B
C8	0	10pF	12062A100JAT2A	AVX	CAP, CERM, 10 pF, 200 V, +/- 5%, C0G/NP0, 1206	1206
C25	0	4.7uF	GRM31CR71E475KA88L	MuRata	CAP, CERM, 4.7 uF, 25 V, +/- 10%, X7R, 1206	1206
C71	0	22uF	C1608X5R0J226M080AC	TDK	CAP, CERM, 22 uF, 6.3 V, +/- 20%, X5R, 0603	0603
R60	0	0	CRCW06030000Z0EA	Vishay-Dale	RES, 0, 5%, 0.1 W, 0603	0603

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