PMP10110 REV D Bill of Materials

Designator	Quantity	Value	PartNumber	Manufacturer	Description	PackageReference
C1, C2	2	4700pF	GA355DR7GF472KW01L	Murata	CAP, CERM, 4700pF, 250VAC, +10/%, C0G/NP0, 2220	2220
C3	1	0.047uF	C3216X7R2E473K	TDK	CAP, CERM, 0.047 µF, 250 V, +/- 10%, X7R, 1206	1206
C4, C27, C31, C32, C101	5	1uF	GRM188R71E105KA12D	MuRata	CAP, CERM, 1uF, 25V, +/-10%, X7R, 0603	0603
C5, C11	2	1uF	BFC233920105	Vishay	CAP, Film, 1 µF, 630 V, +/- 10%, TH	B32923_16.5mm_10.5
C6, C14	2	0.1uF	0603YC104JAT2A	AVX	CAP, CERM, 0.1uF, 16V, +/-5%, X7R, 0603	0603
C7, C8	2	470uF	EEU-FR1V471LB	Panasonic	CAP, AL, 470 µF, 35 V, +/- 20%, 0.03 ohm, TH	RCAP, 8x20mm
C9	1	4.7uF	GRM32ER71H475KA88L	MuRata	CAP, CERM, 4.7 µF, 50 V, +/- 10%, X7R, 1210	1210
C10	1	1uF	GRM31MR71H105KA88L	MuRata	CAP, CERM, 1uF, 50V, +/-10%, X7R, 1206	1206
C12	1	330pF	C1608C0G1H331J	TDK	CAP, CERM, 330 pF, 50 V, +/- 5%, C0G/NP0, 0603	0603
C13	1	0.033uF	GRM188R71H333KA61D	MuRata	CAP, CERM, 0.033 µF, 50 V, +/- 10%, X7R, 0603	0603
C15	1	1uF	C1608X7R1E105K080AB	TDK	CAP, CERM, 1uF, 25V, +/-10%, X7R, 0603	0603
C16	1	4700pF	C1608C0G1E472J	TDK	CAP, CERM, 4700 pF, 25 V, +/- 5%, C0G/NP0, 0603	0603
C17	1	100pF	06035A101JAT2A	AVX	CAP, CERM, 100pF, 50V, +/-5%, C0G/NP0, 0603	0603
C18, C29, R40	3	DNP	DNP	Kemet, TDK, Vishay-Dale	DNP	0603
C19	1	0.22uF	C0603C224K4RACTU	Kemet	CAP, CERM, 0.22uF, 16V, +/-10%, X7R, 0603	0603
C20	1	0.22uF	C1608X7R1C224K	TDK	CAP, CERM, 0.22uF, 16V, +/-10%, X7R, 0603	0603
C21, C26, C33, C44	4	0.1uF	C1608X7R1H104K	TDK	CAP, CERM, 0.1uF, 50V, +/-10%, X7R, 0603	0603
C22	1	SHORT	SHORT	STD	SHORT	0603
C23	1	470pF	06035A471JAT2A	AVX	CAP, CERM, 470pF, 50V, +/-5%, C0G/NP0, 0603	0603
C24	1	0.01uF	C0603C103J5RACTU	Kemet	CAP, CERM, 0.01uF, 50V, +/-5%, X7R, 0603	0603
C25	1	560pF	C1608C0G1H561J	TDK	CAP, CERM, 560pF, 50V, +/-5%, C0G/NP0, 0603	0603
C28	1	2.2uF	GRM188R71A225KE15D	MuRata	CAP, CERM, 2.2uF, 10V, +/-10%, X7R, 0603	0603
C30	1	0.068uF	GRM188R71H683KA93D	MuRata	CAP, CERM, 0.068 µF, 50 V, +/- 10%, X7R, 0603	0603
C34, C39	2	4.7nF	C961U472MYWDBA7317	Kemet	Capacitor, Ceramic Disk X1Y2, 250Vac	0.394 X 0.315 inch Max.
C35, C38	2	470nF	ECQU2A474ML	Panasonic	Capacitor, Metallized Polyester, ±20%	0.335 X 1.004 inch
C37	1	150uF	SLP151M450C3P3	CDE	CAP, AL, 150 µF, 450 V, +/- 20%, TH	RCAP 25x30mm
C40	1	1000pF	C1608X7R1H102K	TDK	CAP, CERM, 1000 pF, 50 V, +/- 10%, X7R, 0603	0603
C41, C52	2	4.7uF	C2012X5R1E475K125AB	TDK	CAP, CERM, 4.7 µF, 25 V, +/- 10%, X5R, 0805	0805
C42	1	0.22uF	C1608X7R1H224K080AB	TDK	CAP, CERM, 0.22 µF, 50 V, +/- 10%, X7R, 0603	0603
C43	1	820pF	C1608C0G1H821J	TDK	CAP, CERM, 820pF, 50V, +/-5%, C0G/NP0, 0603	0603
C45	1	2700pF	C1608C0G1H272J	TDK	CAP, CERM, 2700pF, 50V, +/-5%, C0G/NP0, 0603	0603
C46	1	0.1uF	C3225X7T2J104K160AC	TDK	CAP, CERM, 0.1 µF, 630 V, +/- 10%, X7T 1210	1210
C47	1	470uF	ESY477M016AG8AA	Kemet	CAP, AL, 470uF, 16V, +/-20%, TH	CAPPR3p5-8x16
C48, C53, C54, C55	4	10uF	C2012X5R1E106K125AB	TDK	CAP, CERM, 10uF, 25V, +/-10%, X5R, 0805	0805
C49, C50	2	1uF	C1608X7R1C105K	TDK	CAP, CERM, 1uF, 16V, +/-10%, X7R, 0603	0603
C51	1	47uF	EEE-FC1V470P	Panasonic	CAP, AL, 47 µF, 35 V, +/- 20%, 0.4 ohm, SMD	SMT Radial E
C100	1	680pF	C1608C0G1H681J	TDK	CAP, CERM, 680 pF, 50 V, +/- 5%, C0G/NP0, 0603	0603
C102	1	4.7pF	06035A4R7CAT2A	AVX	CAP, CERM, 4.7 pF, 50 V, +/- 5%, C0G/NP0, 0603	0603

Designator	Quantity	Value	PartNumber	Manufacturer	Description	PackageReference
Chs1, Chs2, Chs5, Chs6	4	1000pF	C0805C102JBRACTU	Kemet	CAP, CERM, 1000 pF, 630 V, +/- 5%, X7R, 0805_140	0805_140
D1	1	STTH1R06A	STTH1R06A	ST Microelectronics	Diode, Ultrafast, 600 V, 1 A, SMA	SMA
D2, D3, D16	3	STPS1150A	STPS1150A	ST Microelectronics	Diode, Schottky, 150 V, 1 A, SMA	SMA
D4, D8	2	MBR10H150CT	MBR10H150CT	Vishay	Diode, Schottky, 150 V, 10 A, TH	TO-220AB
D5, D6	2	43V	MMSZ4717T1G	ON Semiconductor	Diode, Zener, 43 V, 500 mW, SOD-123	SOD-123
D7	1	BAT54A-7-F	BAT54A-7-F	Diodes Inc.	Diode, Schottky, 30V, 0.2A, SOT-23	SOT-23
D9	1	BAT54C-7-F	BAT54C-7-F	Diodes Inc.	Diode, Schottky, 30V, 0.2A, SOT-23	SOT-23
D10, D11, D19	3	BAS21	BAS21-7-F	Diodes Inc.	Diode, Switching, 200 V, 0.2 A, SOT-23	SOT-23
D12	1	1N5406	1N5406	Vishay-Semiconductor	Diode, Switching-Bridge, 600V, 3A, TH	DO-201AD
D13	1	KBU6J	KBU6J	Vishay	Diode, Bridge Rectifier, 6 A, 420 Vrms	0.935 X 0.280 inch
D14	1	LXA04T600	LXA04T600	Power Integrations	Diode, QSpeed Family, 4-A, 600-V	TO220AC
D15	1	120V	SMAJ120A	Littelfuse	Diode, TVS, Uni, 120 V, 400 W, SMA	SMA
D17	1	US1K-13-F	US1K-13-F	Diodes Inc.	Diode, Fast Rectifier, 800 V, 1 A, SMA	SMA
D18	1	RF071M2S	RF071M2S	Rohm	Diode, Ultrafast, 200 V, 1 A, SOD-123	SOD-123
D20	1	13V	MMSZ5243BS-7-F	Diodes Inc.	Diode, Zener, 13 V, 200 mW, SOD-323	SOD-323
D100	1	10V	MMSZ4697T1G	ON Semiconductor	Diode, Zener, 10 V, 500 mW, SOD-123	SOD-123
F1	1	6.3A	37216300411	Littelfuse	Fuse, 6.3 A, 250 V, TH	TR5 fuse 8.5mm DIA
HS1, HS2, HS5, HS6	4	7C/W	534202B03453G	Aavid	Heatsink, TO-220, Vertical-mount, 7*C/W @ 200LFM	25.4x30x12.7mm
HS3, HS4	2	7109D	7109D	Aavid	Heatsink, SMT	0.763 X 1.000 inch
J1, J2	2	15A	7693	Keystone	Terminal screw, vertical, snap-in	7693
J3	1	703W-00/54	703W-00/54	Qualtek Electronics Corporatio	AC Receptacle, 10A 250VAC	20X50X28.7mm
J4	1	39544-3004	39544-3004	Molex	Terminal Block, 4x1, 5.08mm, TH	4x1 Terminal Block
J5	1		39357-0003	Molex	Terminal Block, 3.5 mm, 3x1, Tin, TH	Terminal Block, 3.5 mm, 3x1, TH
L1	1	22uH	74435572200	Wurth Elektronik eiSos	Inductor, Shielded Drum Core, Ferrite, 22 µH, 11 A, 0.0146 ohm, SMD	18.3x8.9x18.2mm
L2	1	100µH	AIRD-02-101K	Abracon Corporation	Inductor, Wirewound unshielded, 100 µH, 4 A, 0.08 ohm, TH	IND_TORROID_20x20mm
L3	1	600µH	Custom	NKL	Inductor, Toroid, two cores in // type CM330060-B0858-00 from NKL, L=600µH, 80 turns, wire=0.7mm diam.	Toroid
L4	1	3.3mH	744824433	Wurth Elektronik eiSos	Coupled inductor, 3.3 mH, 4 A, 0.035 ohm, +/- 30%, TH	18.5x33x27.5 mm
L5	1	1mH	744743102	Wurth Elektronik eiSos	Inductor, Wirewound, Ferrite, 1 mH, 0.42 A, 2.2 ohm, TH	2-Pin Radial Leaded, Dia 8 mm, Height 12.5 mm, Pin Spacing 5 mm
L6	1	22uH	74408943220	Wurth Elektronik eiSos	Inductor, Shielded Drum Core, Ferrite, 22 µH, 1.1 A, 0.185 ohm, SMD	4.8x3.8x4.8mm
Q1	1	ZXTN4004K	ZXTN4004K	Diodes Inc. (Zetex)	Transistor, NPN, 150V, 1A, DPAK	DPAK
Q2, Q3	2	IPB60R600C6	IPB60R600C6	Infineon	MOSFET, N-ch, 650-V, 7.3A, 0.6 Ohms	D2-PAK
Q4, Q8	2	BSS138	BSS138	Fairchild Semiconductor	MOSFET, N-CH, 50V, 0.22A, SOT-23	SOT-23
Q5	1	STR2550	STR2550	ST	Transistor, PNP, 500 V, 0.5 A, SOT-23	SOT-23
Q6	1	BSS83P	BSS83P	Diodes Inc.	MOSFET, P-CH, -60 V, -0.33 A, SOT-23	SOT-23

Designator	Quantity	Value	PartNumber	Manufacturer	Description	PackageReference
Q7	1	BSS127S-7	BSS127S-7	Diodes Inc.	MOSFET, N-CH, 600 V, 0.05 A, SOT-23	SOT-23
Q9	1	IPP50R280CE	IPP50R280CE	Infineon Technologies	MOSFET, N-CH, 550 V, 13 A, TO-220AB	TO-220AB
Q10	1	PZT2222A	PZT2222A	Fairchild Semiconductor	Transistor, NPN, 40 V, 0.5 A, SOT-223	SOT-223
Q11	1	SPD02N80C3	SPD02N80C3	Infineon Technologies	MOSFET, N-CH, 800 V, 2 A, DPAK	DPAK
Q100	1	40 V	MMBT3904	Fairchild Semiconductor	Transistor, NPN, 40 V, 0.2 A, SOT-23	SOT-23
R1, R4	2	6.49k	CRCW25126K49FKEG	Vishay-Dale	RES, 6.49 k, 1%, 1 W, 2512	2512
R2	1	10.0	CRCW080510R0FKEA	Vishay-Dale	RES, 10.0 ohm, 1%, 0.125W, 0805	0805
R3, R7, R10	3	2.20	RC1206FR-072R2L	Yageo America	RES, 2.20 ohm, 1%, 0.25W, 1206	1206
R5, R12, R44, R46	4	1.0Meg	CRCW12061M00JNEA	Vishay-Dale	RES, 1.0 M, 5%, 0.25 W, 1206	1206
R6, R8, R24, R25	4	1.00k	CRCW06031K00FKEA	Vishay-Dale	RES, 1.00k ohm, 1%, 0.1W, 0603	0603
R9, R13, R15, R29, R34, R51, R57, R100	8	10.0k	CRCW060310K0FKEA	Vishay-Dale	RES, 10.0k ohm, 1%, 0.1W, 0603	0603
R11, R14	2	0.02	SHORT	Bourns	SHORT	2512
R16, R20, R26	3	634k	CRCW1206634KFKEA	Vishay-Dale	RES, 634 k, 1%, 0.25 W, 1206	1206
R17	1	140k	CRCW1206140KFKEA	Vishay-Dale	RES, 140 k, 1%, 0.25 W, 1206	1206
R18	1	1.30k	CRCW06031K30FKEA	Vishay-Dale	RES, 1.30 k, 1%, 0.1 W, 0603	0603
R19, R42	2	49.9	CRCW060349R9FKEA	Vishay-Dale	RES, 49.9 ohm, 1%, 0.1W, 0603	0603
R21, R27	2	147k	CRCW1206147KFKEA	Vishay-Dale	RES, 147 k, 1%, 0.25 W, 1206	1206
R22	1	33.2k	CRCW120633K2FKEA	Vishay-Dale	RES, 33.2 k, 1%, 0.25 W, 1206	1206
R23	1	2.37k	CRCW06032K37FKEA	Vishay-Dale	RES, 2.37k ohm, 1%, 0.1W, 0603	0603
R28	1	24.9	CRCW120624R9FKEA	Vishay-Dale	RES, 24.9, 1%, 0.25 W, 1206	1206
R30, R47	2	47.5k	CRCW060347K5FKEA	Vishay-Dale	RES, 47.5 k, 1%, 0.1 W, 0603	0603
R31, R35, R48, R54, R73	5	100k	CRCW0603100KFKEA	Vishay-Dale	RES, 100k ohm, 1%, 0.1W, 0603	0603
R32, R37, R43, R49, R53, R67	6	4.75k	CRCW06034K75FKEA	Vishay-Dale	RES, 4.75k ohm, 1%, 0.1W, 0603, RES, 4.75k ohm, 1%, 0.1W, 0603, RES, 4.75k ohm, 1%, 0.1W, 0603, RES, 4.75k ohm, 1%, 0.1W, 0603, RES, 4.75k ohm, 1%, 0.1W, 0603, RES, 4.75 k, 1%, 0.1 W, 0603	0603
R33	1	102k	CRCW0603102KFKEA	Vishay-Dale	RES, 102 k, 1%, 0.1 W, 0603	0603
R36	1	1.47k	CRCW06031K47FKEA	Vishay-Dale	RES, 1.47 k, 1%, 0.1 W, 0603	0603
R38, R39, R41, R50	4	49.9k	CRCW060349K9FKEA	Vishay-Dale	RES, 49.9k ohm, 1%, 0.1W, 0603	0603
R45, R69	2	82.5k	CRCW060382K5FKEA	Vishay-Dale	RES, 82.5 k, 1%, 0.1 W, 0603	0603
R52	1	232k	CRCW0603232KFKEA	Vishay-Dale	RES, 232 k, 1%, 0.1 W, 0603	0603
R55	1	2.21	CRCW08052R21FKEA	Vishay-Dale	RES, 2.21 ohm, 1%, 0.125W, 0805	0805
R56, R58, R60	3	332k	CRCW1206332KFKEA	Vishay-Dale	RES, 332k ohm, 1%, 0.25W, 1206	1206
R59	1	0.056	1-2176057-9	TE Connectivity	RES, 0.056, Thick Film, 1%, 2-W, 2512	2512
R61	1	221	CRCW0603221RFKEA	Vishay-Dale	RES, 221 ohm, 1%, 0.1W, 0603	0603
R62	1	22.6k	CRCW060322K6FKEA	Vishay-Dale	RES, 22.6 k, 1%, 0.1 W, 0603	0603
R63	1	12.4k	CRCW060312K4FKEA	Vishay-Dale	RES, 12.4 k, 1%, 0.1 W, 0603	0603
R64	1	17.8k	CRCW060317K8FKEA	Vishay-Dale	RES, 17.8 k, 1%, 0.1 W, 0603	0603
R65, R70	2	392	CRCW0603392RFKEA	Vishay-Dale	RES, 392, 1%, 0.1 W, 0603	0603
R66	1	51	CRCW080551R0JNEA	Vishay-Dale	RES, 51 ohm, 5%, 0.125W, 0805	0805
R68	1	22.1	CRCW060322R1FKEA	Vishay-Dale	RES, 22.1, 1%, 0.1 W, 0603	0603
R71	1	1.82	CRCW12061R82FKEA	Vishay-Dale	RES, 1.82, 1%, 0.25 W, 1206	1206

Designator	Quantity	Value	PartNumber	Manufacturer	Description	PackageReference
R72	1	22.1k	CRCW060322K1FKEA	Vishay-Dale	RES, 22.1 k, 1%, 0.1 W, 0603	0603
R74	1	19.1k	CRCW060319K1FKEA	Vishay-Dale	RES, 19.1 k, 1%, 0.1 W, 0603	0603
R101, R102	2	0.02	CRA2512-FZ-R020ELF	Bourns	RES, 0.02, 1%, 3 W, 2512	2512
RT1	1	2.5 Ohm	B57364S0259M000	Epcos	Thermistor, 2.5Ohms, 11A, ±20%	7x21 mm
RV1	1	275V	SIOV-S20K275	Epcos	Varistor, Disk, 350V, 1W, TA @ 85C°	D Size
S1	1		MHSS1105	APEM	Switch, Slide, SPDT, R/A, TH	8.5x5.1x5.5mm
T1	1	1.5mH, 5.3:1	TBD	TBD	Transformer, Half Bridge, ±8%	24.50 X 31.50 mm
T2	1	PA1005.100NL	PA1005.100NL	Pulse Engineering	SMT Current Sense Tranformer	P82xx
T3	1	1.5mH	7508110325r00	Wurth Elektronik eiSos	Transformer, Flyback 1.5mH, TH	Transformer, 24.4mm x 20.3mm
TP1, TP2, TP3, TP6, TP7, TP10, TP15, TP16, TP17, TP27, TP30, TP31, TP32	13	Red	5000	Keystone	Test Point, TH, Miniature, Red	Keystone5000
TP11, TP12	2	Single	1562-2	Keystone	Terminal, Turret, TH, Hollow, Single	Keystone_1562-2
TP13	1	Black	5001	Keystone	Test Point, TH, Miniature, Black	Keystone5001
TP18, TP23, TP28, TP38, TP39, TP40	6	Black	5006	Keystone	Test Point, Compact, Black, TH	Black Compact Testpoint
TP19, TP24	2	Orange	5008	Keystone	Test Point, Compact, Orange, TH	Orange Compact Testpoint
TP20, TP25	2	Red	5005	Keystone	Test Point, Compact, Red, TH	Red Compact Testpoint
U1	1		UCC27714D14	Texas Instruments	High-Speed Low-side Gate Driver Device, D0014A	D0014A
U2	1	LM5039MH	LM5039MH/NOPB	Texas Instruments	Half-Bridge PWM Controller with Advanced Current Limit, 20-pin TSSOP-EP, Pb-Free	MXA20A
U3	1	TLC272CD	TLC272CD	TI	IC, Precision Dual Operational Amplifiers	SO8
U4, U6	2	FOD817DS	FOD817DS	Fairchild Semiconductor	Optocoupler, 5kV RMS, SMT	DIP-4L Gullwing
U5	1	TL431AIDBZ	TL431AIDBZ	Texas Instruments	PRECISION PROGRAMMABLE REFERENCE, DBZ0003A	DBZ0003A
U7	1	UCC28180D	UCC28180D	Texas Instruments	8-PIN CONTINUOUS CONDUCTION MODE (CCM) PFC CONTROLLER, D0008A	D0008A
U8	1	UCC28710D	UCC28710D	Texas Instruments	Constant-Voltage, Constant-Current Controller With Primary-Side Regulation, D0007A	D0007A
U9	1	TPS560200DBV	TPS560200DBV	Texas Instruments	4.5V to 18V Input, 500mA Synchronous Step Down SWIFT Converter, DBV0005A	DBV0005A
U100	1	INA194AIDBVR	INA194AIDBVR	TI	CURRENT SHUNT MONITOR -16V to +80V Common-Mode Range, DBV0005A	DBV0005A

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