

PMP41114 REV A Bill of Materials      PMP41114 REV A Bill of Materials

Designator	Quantity	Value	PartNumber	Manufacturer	Alternative PartNumber	Manufacturer	Description	PackageReference
IPCB	1		PMP41114	Any	PMP41114	Any	Printed Circuit Board	
Brd1	1						3.6kW 400V to 54V FB LLC Module	
C1, C8, C10, C21	4	0.1uF	GRM188R71E104KA01D	MuRata	885012206071R	Würth Electronics	CAP, CERM, 0.1 uF, 25 V, +/- 10%, X7R, 0603	0603
C2, C3	2	1µF	B58031U5105M062	TDK	B58031U5105M062	TDK	TDK 1µF Multilayer Ceramic Capacitor MLCC 500V dc ±20% SMD	SMD2
C4, C4A, C5, C6	4	330uF	EKYB630ELL331MJ25S	Chemi-Con	EKYB630ELL331MJ25S	Chemi-Con	CAP, AL, 330 uF, 63 V, +/- 20%, 0.045 ohm, TH	D10xL25mm
C7, C13	2	220pF	GRM1885C1H221JA01D	MuRata	885012006059	Würth Electronics	CAP, CERM, 220 pF, 50 V, +/- 5%, COG/NP0, 0603	0603
C9	1	2200pF	GRM155R71E222KA01D	MuRata	885012205046	Würth Elektronik	CAP, CERM, 2200 pF, 25 V, +/- 10%, X7R, 0402	0402
C11, C34, C35, C36	4	22uF	GRM21BR61E226ME44L	MuRata	885012107019	Würth Electronics	CAP, CERM, 22 uF, 25 V, +/- 20%, X5R, 0805	0805
C14	1	100nF	8.85012E+11	Würth Electronics	885012206120	Würth Electronics	0.1 µF ±10% 100V Ceramic Capacitor X7R 0603 (1608 Metric)	0603
C15, C16, C22	3	1uF	GRM155R61A105KE15D	MuRata	885012105012	Würth Elektronik	CAP, CERM, 1 uF, 10 V, +/- 10%, X5R, 0402	0402
C17	1	2.2uF	GRM188Z71C225KE43	MuRata	885012106029	Würth Electronics	CAP, CERM, 2.2 uF, 16 V, +/- 10%, X7R, 0603	0603
C18	1	0.1uF	GRM155R71C104KA88D	MuRata	885012205037R	Würth Elektronik	CAP, CERM, 0.1 uF, 16 V, +/- 10%, X7R, 0402	0402
C19, C58, C68, C69	4	100pF	0402YC101KAT2A	AVX	885012205019	Würth Elektronik	CAP, CERM, 100 pF, 16 V, +/- 10%, X7R, 0402	0402
C20	1	1uF	KAF21KR72A105KU	AVX	KAF21KR72A105KU	AVX	CAP, CERM, 1 µF, 100 V, +/- 10%, X7R, AEC-Q200 Grade 1, 0805	0805
C23, C27, C28	3	470pF	GRM155R71H471KA01D	MuRata	885012205059	Würth Elektronik	CAP, CERM, 470 pF, 50 V, +/- 10%, X7R, 0402	0402
C24	1	2200pF	8.85012E+11	Würth Elektronik	885012205027	Würth Elektronik	CAP, CERM, 2200 pF, 16 V, +/- 10%, X7R, 0402	0402
C25	1	10nF	C0603C103J5RAC7867	KEMET	885012206089	Würth Electronics	10000 pF ±5% 50V Ceramic Capacitor X7R 0603 (1608 Metric)	0603
C26	1	1uF	LMK107B7105KA-T	Taiyo Yuden	885012206026	Würth Electronics	CAP, CERM, 1 µF, 10 V, +/- 10%, X7R, 0603	0603
C29, C30	2	0.1uF	GRM155R71E104KE14D	MuRata	885012205085R	Würth Electronics	CAP, CERM, 0.1 uF, 25 V, +/- 10%, X7R, 0402	0402
C31, C32, C33, C39, C40	5	0.1uF	06033C104JAT2A	AVX	885012206071	Würth Electronics	CAP, CERM, 0.1 uF, 25 V, +/- 5%, X7R, 0603	0603
C41, C42, C48, C49	4	2200pF	DE6E3KJ222MN3A	MuRata	DE6E3KJ222MN3A	MuRata	CAP, CERM, 2200 pF, 300 V, +/- 20%, E, TH, 2- Leads, Body 9x7mm, Pin Spacing 7.5mm	TH, 2- Leads, Body 9x7mm, Pin Spacing 7.5mm
C44	1	470nF	F862BY474K310Z	Kemet	F862BY474K310Z	Kemet	0.47µF Film Capacitor 310V 630V Polypropylene (PP), Metallized Radial	RADIAL
C45	1	1.5µF	8.90334E+11	Würth Electronics	8.90334E+11	Würth Electronics	1.5 µF Film Capacitor 310V - Polypropylene (PP), Metallized Radial	RADIAL
C52, C53	2	0.022uF	GRM32QR72J223KW01L	MuRata	GRM32QR72J223KW01L	MuRata	CAP, CERM, 0.022 uF, 630 V, +/- 10%, X7R, 1210	1210
C54	1	1uF	GRM155R70J105KA12D	MuRata	885012105006	Würth Electronics	CAP, CERM, 1 uF, 6.3 V, +/- 10%, X7R, 0402	0402
C55, C62, C63, C981, C982	5	0.1uF	GRM155R70J104KA01D	MuRata	885012105001	Würth Electronics	CAP, CERM, 0.1 uF, 6.3 V, +/- 10%, X7R, 0402	0402
C56	1	1000pF	GRM155R60J102KA01D	MuRata	885012205006	Würth Electronics	CAP, CERM, 1000 pF, 6.3 V, +/- 10%, X5R, 0402	0402
C57, C59	2	10uF	0805YD106MAT2A	AVX	885012107014	Würth Electronics	CAP, CERM, 10 uF, 16 V, +/- 20%, X5R, 0805	0805
C60, C74	2	1uF	C3216X7R1E105K085AA	TDK	885012208064	Würth Electronics	CAP, CERM, 1 uF, 25 V, +/- 10%, X7R, 1206	1206
C61	1	1uF	C1608X7R1E105K080AB	TDK	885012206076	Würth Electronics	CAP, CERM, 1 uF, 25 V, +/- 10%, X7R, 0603	0603
C64, C65	2	1000pF	06035A102KAT2A	AVX	885012006063	Würth Electronics	CAP, CERM, 1000 pF, 50 V, +/- 10%, COG/NP0, 0603	0603
C66	1	0.01uF	C0603X103K5RACTU	Kemet	885012206089	Würth Electronics	CAP, CERM, 0.01 uF, 50 V, +/- 10%, X7R, 0603	0603
C67	1	0.1uF	C1206H104J3GACTU	Kemet	C1206H104J3GACTU	Kemet	CAP, CERM, 0.1 uF, 25 V, +/- 5%, COG/NP0, 1206_190	1206_190
C70	1	10uF	C3216X7R1A106M160AC	TDK	885012208018	Würth Electronics	CAP, CERM, 10 uF, 10 V, +/- 20%, X7R, 1206	1206
C71	1	1uF	C0805C105K3RACTU	Kemet	885012207078	Würth Electronics	CAP, CERM, 1 uF, 25 V, +/- 10%, X7R, 0805	0805
C73	1	22uF	CL21A226KQQNNNE	Samsung Electro-Mechanics	885012107005	Würth Electronics	CAP, CERM, 22 uF, 6.3 V, +/- 10%, X5R, 0805	0805
C75	1	1000pF	GRM188R71E102KA01D	MuRata	885012206059	Würth Electronics	CAP, CERM, 1000 pF, 25 V, +/- 10%, X7R, 0603	0603
C76	1	0.1uF	0402YC104KAT2A	AVX	885012205037R	Würth Electronics	CAP, CERM, 0.1 uF, 16 V, +/- 10%, X7R, 0402	0402
C114, C120, C123, C130	4	180µF	450HXW180MEFR16X50	Rubycon	450HXW180MEFR16X50	Rubycon	180 µF 450 V Aluminum Electrolytic Capacitors Radial, Can 3000 Hrs @ 105°C	RADIAL
C215	1	3300pF	GRM155R72A332KA01D	MuRata	GRM155R72A332KA01D	MuRata	CAP, CERM, 3300 pF, 100 V, +/- 10%, X7R, 0402	0402
D1, D2	2		VS-15EVL06-M3/I	Vishay		Vishay	DIODE GEN PURPOSE 600V SLIMPAK	
D3	1	80V	B180B-13-F	Diodes Inc.	B180B-13-F	Diodes Inc.	Diode, Schottky, 80 V, 1 A, SMB	SMB
D4	1	100V	BAS516,115	Nexperia	BAS516,115	Nexperia	Diode, Switching, 100 V, 0.25 A, SOD-523	SOD-523
D8, D10	2	40V	MBR140SFT1G	ON Semiconductor	MBR140SFT1G	ON Semiconductor	Diode, Schottky, 40 V, 1 A, SOD-123FL	SOD-123FL
D9, D12, D15	3	600V	DFLR1600-7	Diodes Inc.	DFLR1600-7	Diodes Inc.	Diode, Standard Recovery Rectifier, 600 V, 1 A, PowerDI123	PowerDI123
D11	1		FFA60UA60DN	ON Semiconductor	FFA60UA60DN	ON Semiconductor	Diode Array 1 Pair Common Cathode Standard 600V 30A Through Hole TO-3P-3, SC-65-3	SC-65
J1, J2, J21A, J21M, J22M	5		LPPB102CFFN-RC	Sullins Connector Solutions	62202021121	Würth Electronics	Receptacle, 1.27mm, 10x2, Gold, TH	Receptacle, 1.27 mm, TH
J4	1		951214-8622-AR	3M	951214-8622-AR	3M	Connector Header Through Hole 14 position 0.079" (2.00mm)	HDR14
J5	1		4793.8	Schurter	4793.8	Schurter	Power Entry Connector Receptacle, Male Blades IEC 320-C20 Panel Mount, Snap-In	RCPT_IEC320-C20
J22A	1		20021111-00008T4LF	FCI	62200821121	Würth Electronics	Header, 1.27mm, 4x2, Gold, TH	Header, 1.27mm, 4x2, TH
L1	1	100uH	PAL6598.104NLT	Pulse Electronics	PAL6598.104NLT	Pulse Electronics	Inductor Buck/Boost, Toroid, TH, 100uH 15% 8A	PTH_20MM5_11MM0
L2	1		PAC6596NL	Pulse Electronics	PAC6596NL	Pulse Electronics	IND, CUR-SENSE, 4MH, 20A, TOR, TH	PTH_TRANSFORMER_30MM0_19MM0

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L3	1	8.3mH	PAC6597NL	Pulse Electronics	PAC6597NL	Pulse Electronics	INDUCTOR CUR-SENSE 8.3mH TOR TH	PTH_25MM0_12MM5
L4	1	300uH	PAL6585	Pulse Electronics	PAL6585	Pulse Electronics	Inductor Power 300uH	PTH_32MM0_27MM8
L5	1		74438336022	Würth Electronics	74438336022	Würth Electronics	2.2µH Shielded Molded Inductor 2.4A 67mOhm Max 2-SMD	SMD2
L6	1	10uH	74438323100	Würth Elektronik	74438323100	Würth Elektronik	Inductor, Wirewound, Ferrite, 10 uH, 0.68 A, 0.46 ohm, SMD	2.5x1x2mm
L7	1	110nH	SLC1480-111MLB	Coilcraft	744309012	Würth Elektronik	Inductor, Shielded, Ferrite, 110 nH, 55 A, 0.00015 ohm, SMD	SMD 13.46x8.0x12.95mm
PGND	1		5001	Keystone	5001	Keystone	Test Point, Miniature, Black, TH	Black Miniature Testpoint
Q1, Q2, Q3, Q6	4		IQD016N08NM5CGATMA1	Infineon	IQD016N08NM5CGATMA1	Infineon	N-Channel 80 V 31A (Ta), 323A (Tc) 3W (Ta), 333W (Tc) Surface Mount PG-TTFN-9-U02	TTFN-9
Q4, Q5	2		IPT60R022S7XTMA1	Infineon	IPT60R022S7XTMA1	Infineon	N-Channel 600V 23A (Tc) 390W (Tc) Surface Mount PG-HSOF-8-2	HSOF-8
Q7	1		IPP60R060P7XKSA1	Infineon Technologies	IPP60R060P7XKSA1	Infineon Technologies	MOSFET N-CH 600V 48A TO220-3	TO-220AB
Q8	1	-60V	SMMBT2907ALT3G	On Semiconductor	SMMBT2907ALT3G	On Semiconductor	Bipolar (BJT) Transistor PNP 60 V 600 mA 200MHz 300 mW Surface Mount SOT-23-3 (TO-236)	SOT23
Q9	1	-60V	NDS0605	Fairchild Semiconductor	NDS0605	Fairchild Semiconductor	MOSFET, P-CH, -60 V, -0.18 A, SOT-23	SOT-23
Q10	1	60V	2N7002DW	Fairchild Semiconductor	2N7002DW	Fairchild Semiconductor	MOSFET, 2-CH, N-CH, 60 V, 0.115 A, SOT-363	SOT-363
R1, R9	2	120k	CRCW0402120KFKED	Vishay-Dale	CRCW0402120KFKED	Vishay-Dale	RES, 120 k, 1%, 0.063 W, AEC-Q200 Grade 0, 0402	0402
R2, R3, R4, R5	4	500µ	CSS2H-2512R-L500F	Bourns	CSS2H-2512R-L500F	Bourns	500 µOhms ±1% 6W Chip Resistor 2512 (6432 Metric) Automotive AEC-Q200, Current Sense Metal Element	2512
R6, R8, R10, R17	4	1.00k	MCR01MZPF1001	Rohm	MCR01MZPF1001	Rohm	RES, 1.00 k, 1%, 0.063 W, 0402	0402
R7	1	5.1k	CRCW04025K10JNED	Vishay-Dale	CRCW04025K10JNED	Vishay-Dale	RES, 5.1 k, 5%, 0.063 W, AEC-Q200 Grade 0, 0402	0402
R11	1	100	RMCF0402FT100R	Stackpole Electronics	RMCF0402FT100R	Stackpole Electronics	100Q ±1% 0.063W 0402 Thick Film Chip Resistor AEC-Q200 compliant	0402
R12	1	240	ERJ-2RKF2400X	Panasonic	ERJ-2RKF2400X	Panasonic	RES, 240, 1%, 0.1 W, AEC-Q200 Grade 0, 0402	0402
R13	1	15	CRCW040215R0FKED	Vishay-Dale	CRCW040215R0FKED	Vishay-Dale	RES, 15.0, 1%, 0.063 W, AEC-Q200 Grade 0, 0402	0402
R14	1	30.0k	CRCW040230K0FKED	Vishay-Dale	CRCW040230K0FKED	Vishay-Dale	RES, 30.0 k, 1%, 0.063 W, AEC-Q200 Grade 0, 0402	0402
R15, R18, R19	3	100	RC0402FR-07100RL	Yageo America	RC0402FR-07100RL	Yageo America	RES, 100, 1%, 0.063 W, 0402	0402
R16	1	15.0k	RC0402FR-0715KL	Yageo America	RC0402FR-0715KL	Yageo America	RES, 15.0 k, 1%, 0.063 W, 0402	0402
R20, R23	2	10.0k	ERJ-2RKF1002X	Panasonic	ERJ-2RKF1002X	Panasonic	RES, 10.0 k, 1%, 0.1 W, 0402	0402
R21, R24, R82, R86	4	0	RC0402JR-070RL	Yageo America	RC0402JR-070RL	Yageo America	RES, 0, 5%, 0.063 W, 0402	0402
R22	1	73.2k	CRCW040273K2FKED	Vishay-Dale	CRCW040273K2FKED	Vishay-Dale	RES, 73.2 k, 1%, 0.063 W, AEC-Q200 Grade 0, 0402	0402
R42, R45	2	787k	CRCW0402787KFKED	Vishay-Dale	CRCW0402787KFKED	Vishay-Dale	RES, 787 k, 1%, 0.063 W, AEC-Q200 Grade 0, 0402	0402
R43, R46	2	7.50k	CRCW04027K50FKED	Vishay-Dale	CRCW04027K50FKED	Vishay-Dale	RES, 7.50 k, 1%, 0.063 W, AEC-Q200 Grade 0, 0402	0402
R47, R48, R49, R50, R51, R52, R60, R61, R62, R84, R85, R87	12	348k	RC1206FR-07348KL	Yageo America	RC1206FR-07348KL	Yageo America	RES, 348 k, 1%, 0.25 W, 1206	1206
R57, R65, R77	3	10.0k	CRCW060310K0FKEA	Vishay-Dale	CRCW060310K0FKEA	Vishay-Dale	RES, 10.0 k, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
R58	1	5.11	CRCW06035R11FKEA	Vishay-Dale	CRCW06035R11FKEA	Vishay-Dale	RES, 5.11, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
R64	1	1.00k	ERJ-8ENF1001V	Panasonic	ERJ-8ENF1001V	Panasonic	RES, 1.00 k, 1%, 0.25 W, AEC-Q200 Grade 0, 1206	1206
R83	1	DNP	RC0402JR-070RL	Yageo America	RC0402JR-070RL	Yageo America		0402
R88	1	0	CRCW04020000Z0ED	Vishay-Dale	CRCW04020000Z0ED	Vishay-Dale	RES, 0, 5%, 0.063 W, AEC-Q200 Grade 0, 0402	0402
R89	1	200	CRCW0603200RFKEA	Vishay-Dale	CRCW0603200RFKEA	Vishay-Dale	RES, 200, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
R90	1	10	CRCW060310R0JNEAHP	Vishay-Dale	CRCW060310R0JNEAHP	Vishay-Dale	RES, 10, 5%, 0.25 W, AEC-Q200 Grade 0, 0603	0603
R91, R98	2	0	CRCW06030000Z0EA	Vishay-Dale	CRCW06030000Z0EA	Vishay-Dale	RES, 0, 5%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
R150	1	2.5m	WSP39212L500FEA	Vishay	WSP39212L500FEA	Vishay	RES 0.0025 OHM 1% 5W 3921	3921
R248	1	76.8k	CRCW040276K8FKED	Vishay-Dale	CRCW040276K8FKED	Vishay-Dale	RES, 76.8 k, 1%, 0.063 W, AEC-Q200 Grade 0, 0402	0402
R249	1	118k	CRCW0603118KFKEA	Vishay-Dale	CRCW0603118KFKEA	Vishay-Dale	RES, 118 k, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
R251	1	DNP	RC0402FR-07100KL	Yageo America	RC0402FR-07100KL	Yageo America	RES, 100 k, 1%, 0.0625 W, 0402	0402
R271	1	100k	RC0402FR-07100KL	Yageo America	RC0402FR-07100KL	Yageo America	RES, 100 k, 1%, 0.0625 W, 0402	0402
RJ01, RJ02	2	0	ERJ-2GE0R00X	Panasonic	ERJ-2GE0R00X	Panasonic	0 Ohms Jumper Chip Resistor 0402 (1005 Metric) Automotive AEC-Q200 Thick Film	0402
RT2	1	50	B59751B0120A070	TDK	B59751B0120A070	TDK	Thermistor NTC, 50 ohm, 25%, D12.5xH16.5mm	D12.5xH16.5mm
U1	1		SN74LVC2G07DCKT	Texas Instruments	SN74LVC2G07DCKT	Texas Instruments	Dual Buffer/Driver with Open-Drain Output, DCK0006A (SOT-SC70-6)	DCK0006A
U2	1		TLV376IDBVR	Texas Instruments	TLV376IDBVR	Texas Instruments	TLVx376, 5.5 MHz, Low-Noise, Low Quiescent Current, Precision Operational Amplifiers, DBV0005A (SOT-23-5)	DBV0005A
U3	1		LM5050MK-1/NOPB	Texas Instruments	LM5050MK-1/NOPB	Texas Instruments	High Side OR-ing FET Controller, DDC0006A (SOT-23-T-6)	DDC0006A
U4	1		LMP7717MF/NOPB	Texas Instruments	LMP7717MF/NOPB	Texas Instruments	88 MHz, Precision, Low Noise, 1.8V CMOS Input, Decompensated Operational Amplifier, DBV0005A (SOT-23-5)	DBV0005A
U5	1		REF2025AIDDCR	Texas Instruments	REF2025AIDDCR	Texas Instruments	8 ppm/degC Drift, Low-Power, Dual-Output Vref and Vref/2 Voltage Reference, DDC0005A (SOT-23-T-5)	DDC0005A
U6	1		XTR111AIDGQT	Texas Instruments	XTR111AIDGQT	Texas Instruments	Precision Voltage-to-Current Converter/Transmitter, DGQ0010D (VSSOP-10)	DGQ0010D
U7	1		TMCS1100A1DT	Texas Instruments	TMCS1100A1DT	Texas Instruments	TMCS1100A1DT, D0008A (SOIC-8)	D0008A
U8	1		UCC27511DBVR	Texas Instruments	UCC27511DBVR	Texas Instruments	4A/8A Single Channel High-speed Low-side Gate Driver, DBV0006A (SOT-23-6)	DBV0006A
U9	1		UCC27712DR	Texas Instruments	UCC27712DR	Texas Instruments	620-V High-Side Low-Side Gate Driver with 2.5A Peak Output and RobustDrive, D0008A (SOIC-8)	D0008A
U10, U20	2		TLV71333PDBVR	Texas Instruments	TLV71333PDBVR	Texas Instruments	150-mA, Low-Dropout Regulator with Foldback Current Limit for Portable Devices, DBV0005A (SOT-23-5)	DBV0005A

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U11	1		UCC21220DR	Texas Instruments	UCC21220DR	Texas Instruments	4-A, 6-A, 3.0-kVRMS Isolated Dual-Channel Gate Driver, D0016B (SOIC-16)	D0016B
U12	1		TPS62901RPJR	Texas Instruments	TPS62901RPJR	Texas Instruments	2.9-V to 18-V, 4-A Synchronous Buck Converters, RPJ0009A (VQFN-HR-9)	RPJ0009A
U13	1		ISO7762FDWR	Texas Instruments	ISO7762FDWR	Texas Instruments	General Purpose Digital Isolator 5000Vrms 6 Channel 100Mbps 85kV/μs CMTI 16-SOIC (0.295", 7.50mm Width)	SOIC16
U14	1		SN74LVC1G3208DCKR	Texas Instruments	SN74LVC1G3208DCKR	Texas Instruments	Single 3-Input Positive OR-AND Gate, DCK0006A (SOT-SC70-6)	DCK0006A
U15	1		TPS562211DRLR	Texas Instruments	TPS562211DRLR	Texas Instruments	4.2-V to 17-V Input, 2-A Synchronous Buck Converter, DRL0008A (SOT-5X3-8)	DRL0008A
U31	1		TMCS1133B8QDVGR	Texas Instruments	TMCS1133B8QDVGR	Texas Instruments	TMCS1133B8QDVGR	SOIC10