

## PMP12074 REV A Bill of Materials

Designator	Quantity	Value	PartNumber	Manufacturer	Description	PackageReference
C100, C101, C102		180uF	450HXG180MEFCSN22X45	Rubycon	CAP ALUM 180UF 450V 20% SNAP	Cap 22x25mm
, ,				, ,		1
C103	1	0.33uF	B32922C3334M	EPCOS Inc	CAP, Film, 0.33uF, 630V, +/-20%, TH	B32922_14.5mm
C104	1	1uF	450MPK105J	Rubycon	CAP FILM 1UF 450VDC RADIAL	
						m
C105, C106,	4	2200pF	DE6E3KJ222MN3A	MuRata	CAP, CERM, 2200 pF, 300 V, +/- 20%, E, TH, 2- Leads, Body 9x7mm, Pin	TH, 2- Leads, Body
C109, C110					Spacing 7.5mm	9x7mm, Pin Spacing
<i>,</i>						7.5mm
C107, C108	2	0.47uF	ECQ-U2A474ML	Panasonic	CAP, Film, 0.47 µF, 275 V, +/- 20%, TH	Radial 25x8.5x18.5
C111, C127	2	1uF	C3216X7R1H105K160AB	TDK	CAP, CERM, 1 µF, 50 V, +/- 10%, X7R, 1206	1206
C112, C117	2	0.47uF	C0603C474K8RACTU	Kemet	CAP, CERM, 0.47 μF, 10 V, +/- 10%, X7R, 0603	0603
C113	1	1uF	0805YD105KAT2A	AVX	CAP, CERM, 1uF, 16V, +/-10%, X5R, 0805	0805
C114	1	470pF	06031C471JAT2A	AVX	CAP, CERM, 470 pF, 100 V, +/- 5%, X7R, 0603	0603
C115	1	820pF	06035A821JAT2A	AVX	CAP, CERM, 820 pF, 50 V, +/- 5%, C0G/NP0, 0603	0603
C116	1	1uF	C0603C105K4PACTU	Kemet	CAP, CERM, 1 μF, 16 V, +/- 10%, X5R, 0603	0603
C118	1	1000pF	CL10C102JB8NNNC	Samsung Electro-Mechanics	CAP, CERM, 1000 pF, 50 V, +/- 5%, X7R, 0603	0603
C119	1	10uF	GRM31MR61A106KE19L	MuRata	CAP, CERM, 10 µF, 10 V, +/- 10%, X5R, 1206	1206
C120	1	10uF	UVR1V100MDD1TA	Nichicon	CAP, AL, 10uF, 35V, +/-20%, TH	CAPPR2-5x11
C121	1	22pF	06035A220JAT2A	AVX	CAP, CERM, 22pF, 50V, +/-5%, C0G/NP0, 0603	0603
C122	1	6800pF	GRM31BR72J682KW01L	MuRata	CAP, CERM, 6800 pF, 630 V, +/- 10%, X7R, 1206	1206
C123	1	150uF	EEU-FR1E151B	Panasonic	CAP ALUM 150UF 25V 20% RADIAL	6.3x11.2mm
C124	1	1uF	08055C105KAT2A	AVX	CAP, CERM, 1uF, 50V, +/-10%, X7R, 0805	0805
C199	1	15pF	06035A150JAT2A	AVX	CAP, CERM, 15 pF, 50 V, +/- 5%, C0G/NP0, 0603	0603
D100	1	600V	D25XB60-7000	Shindengen	Diode, Switching-Bridge, 600 V, 3.5 A, TH	5S
D101	1	650V	CVFD20065A	Cree	DIODE SCHKY SIC 650V 20A TO-220	TO-220-2
D104	1	12V	MMSZ4699T1G	ON Semiconductor	Diode, Zener, 12 V, 500 mW, SOD-123	SOD-123
D105	1	100V	BAS316,115	NXP Semiconductor	Diode, Ultrafast, 100 V, 0.25 A, SOD-323	SOD-323
D106	1	30V	BAT54HT1G	ON Semiconductor	Diode, Schottky, 30 V, 0.2 A, SOD-323	SOD-323
D107	1	100V	1N4148W-7-F	Diodes Inc.	Diode, Ultrafast, 100V, 0.15A, SOD-123	SOD-123
D108	1	600V	ES1J-TP	Diodes Inc.	DIODE FAST REC 600V 1A DO214AC	SMA
D109	1	600V	MURS160-13-F	Diodes Inc.	Diode, Ultrafast, 600V, 1A, SMB	SMB
F100	1		0325020.MXP		Fuse, 20 A, 60 V, TH	3AB
H26, H27, H28,	5		MAX01NG	Aavid Thermalloy	MAX Clip	Clip
H29, H30						
HS100, HS101	2		782653B04250G	Aavid	HEATSINK VERT MAX CLIP, BLACK, 4.25 INCHES	4.25 INCH
						EXTRUDED HEAT
						SINK
J100, J101	2		691214310002	Wurth Elektronik eiSos	Terminal Block, 2x1, 3.81mm, 24-16 AWG, 10A, 300VAC, TH	2x1 Terminal Block
J102	1		703W-00/54		AC Receptacle, 10A 250VAC	20X50X28.7mm
K100	1		875B-1CC-F-S-12VDC		Relay, SPDT ( 1 Form C), 16A, 12 VDC, TH	21x16mm
L101, L102	2	5mH	7448062105	Wurth Elektronik	Coupled inductor, 5 mH, A, 0.0065 ohm, +/- 50%, TH	48x27mm
L103	1	220uH	RFS1113-224ME	Coilcraft	Inductor, Shielded, Ferrite, 220 µH, 1 A, 0.281 ohm, TH	D11xL12.3mm
L104	1	300uH	G154021LF	GCI Technologies	Inductor, 300 µH, 7 A, 0.194 ohm, TH	43x31mm
Q101	1	650V	IPW65R095C7	Infineon Technologies	MOSFET N-CH 650V 24A TO247	TO-247
Q104	1		STN2580		MOSF NPN 400V 1A SOT-223	SOT-223
R100, R101	2	330k	CRCW2512330KJNEG			2512
R102, R103	2	20k	CRCW120620K0JNEA	Vishay-Dale	RES, 20 k, 5%, 0.25 W, 1206	1206

Designator	Quantity	Value	PartNumber	Manufacturer	Description	PackageReference
R104, R105,	6	432k	CRCW1206432KFKEA	Vishay-Dale	RES, 432 k, 1%, 0.25 W, 1206	1206
R108, R109,						
R111, R112						
R106	1	0.04	CSRN2512FK40L0	Stackpole Electronics Inc	RES, 0.04, 1%, 2 W, 2512	2512
R107	1	0.033	4-1625827-5	TE Connectivity	RES SMD 0.033 OHM 1% 1W 2512	2512
R113	1	10	TWW10J10RE	Ohmite	RES, 10, 5%, 10 W, TH	12.5x9mm
R114, R117	2	10	CRCW060310R0JNEAHP	Vishay-Dale	RES, 10, 5%, 0.25 W, 0603	0603
R115	1	0	CRCW06030000Z0EA	Vishay-Dale	RES, 0, 5%, 0.1 W, 0603	0603
R116	1	221	CRCW0603221RFKEA	Vishay-Dale	RES, 221, 1%, 0.1 W, 0603	0603
R118, R120	2	499k	CRCW1206499KFKEA	Vishay-Dale	RES, 499k ohm, 1%, 0.25W, 1206	1206
R119, R121	2	150	CRCW1206150RJNEA	Vishay-Dale	RES, 150, 5%, 0.25 W, 1206	1206
R122	1	5.90k	CRCW06035K90FKEA	Vishay-Dale	RES, 5.90 k, 1%, 0.1 W, 0603	0603
R123	1	10.5k	CRCW060310K5FKEA	Vishay-Dale	RES, 10.5 k, 1%, 0.1 W, 0603	0603
R124	1	13.3k	CRCW060313K3FKEA	Vishay-Dale	RES, 13.3 k, 1%, 0.1 W, 0603	0603
R125, R126	2	3.3Meg	CRCW12063M30JNEA	Vishay-Dale	RES, 3.3Meg ohm, 5%, 0.25W, 1206	1206
R127	1	49.9k	CRCW060349K9FKEA	Vishay-Dale	RES, 49.9 k, 1%, 0.1 W, 0603	0603
R128	1	475k	CRCW1206475KFKEA	Vishay-Dale	RES, 475k ohm, 1%, 0.25W, 1206	1206
R129	1	17.8k	CRCW060317K8FKEA	Vishay-Dale	RES, 17.8k ohm, 1%, 0.1W, 0603	0603
R130	1	511	CRCW0603511RFKEA	Vishay-Dale	RES, 511 ohm, 1%, 0.1W, 0603	0603
R131, R132	2	1.2	CRCW08051R20JNEA	Vishay-Dale	RES, 1.2 ohm, 5%, 0.125W, 0805	0805
R135	1	12k	CRCW120612K0JNEA	Vishay-Dale	RES, 12k ohm, 5%, 0.25W, 1206	1206
RV100	1		S10K275E2	EPCOS Inc	Varistor 275V RMS 10MM Radial, TH	10mm Radial
TP100	1	Red	5000	Keystone	Test Point, Miniature, Red, TH	Red Miniature
						Testpoint
TP102	1	Black	5001	Keystone	Test Point, Miniature, Black, TH	Black Miniature
						Testpoint
U100	1		UCC27511DBVR	Texas Instruments	Single-Channel High-Speed Low-Side Gate Driver (with 4-A Peak Source	DBV0006A
					and 8-A Peak Sink), DBV0006A	
U101	1		UCC28180D	Texas Instruments	8-PIN CONTINUOUS CONDUCTION MODE (CCM) PFC CONTROLLER,	D0008A
					D0008A	
U102	1		UCC28722DBV	Texas Instruments	Constant-Voltage, Constant-Current Controller With Primary-Side	DBV0006A
					Regulation, BJT Drive, DBV0006A	
D102	0	30V	BAT54HT1G	ON Semiconductor	Diode, Schottky, 30 V, 0.2 A, SOD-323	SOD-323
D103	0	600V	D25XB60-7000	Shindengen	Diode, Switching-Bridge, 600 V, 3.5 A, TH	5S
L100	0	570uH	G154015	GCI Technologies	Inductor, Toroid, Ferrite, 570uH, 13 A, 0.03 ohm, TH	D63xH35mm
L105	0	2.54mH	G154016	GCI Technologies	Inductor, Toroid, Ferrite, 2.54mH, 13 A, 0.091 ohm, TH	D79xH43mm
Q100	0	650V	IPW65R095C7	Infineon Technologies	MOSFET N-CH 650V 24A TO247	TO-247
Q102	0	80V	FMMT620TA	Diodes	TRANS NPN 80V 1.5A SOT23-3	SOT-23
Q103	0	20 V	FMMT718TA	Diodes Inc.	Transistor, PNP, 20 V, 1.5 A, SOT-23	SOT-23
R110	0	0.036	1-2176057-4	TE Connectivity	RES SMD 0.036 OHM 1% 2W 2512	2512

## **IMPORTANT NOTICE FOR TI REFERENCE DESIGNS**

Texas Instruments Incorporated ('TI') reference designs are solely intended to assist designers ("Designer(s)") who are developing systems that incorporate TI products. TI has not conducted any testing other than that specifically described in the published documentation for a particular reference design.

TI's provision of reference designs and any other technical, applications or design advice, quality characterization, reliability data or other information or services does not expand or otherwise alter TI's applicable published warranties or warranty disclaimers for TI products, and no additional obligations or liabilities arise from TI providing such reference designs or other items.

TI reserves the right to make corrections, enhancements, improvements and other changes to its reference designs and other items.

Designer understands and agrees that Designer remains responsible for using its independent analysis, evaluation and judgment in designing Designer's systems and products, and has full and exclusive responsibility to assure the safety of its products and compliance of its products (and of all TI products used in or for such Designer's products) with all applicable regulations, laws and other applicable requirements. Designer represents that, with respect to its applications, it has all the necessary expertise to create and implement safeguards that (1) anticipate dangerous consequences of failures, (2) monitor failures and their consequences, and (3) lessen the likelihood of failures that might cause harm and take appropriate actions. Designer agrees that prior to using or distributing any systems that include TI products, Designer will thoroughly test such systems and the functionality of such TI products as used in such systems. Designer may not use any TI products in life-critical medical equipment unless authorized officers of the parties have executed a special contract specifically governing such use. Life-critical medical equipment is medical equipment where failure of such equipment would cause serious bodily injury or death (e.g., life support, pacemakers, defibrillators, heart pumps, neurostimulators, and implantables). Such equivalent classifications outside the U.S.

Designers are authorized to use, copy and modify any individual TI reference design only in connection with the development of end products that include the TI product(s) identified in that reference design. HOWEVER, NO OTHER LICENSE, EXPRESS OR IMPLIED, BY ESTOPPEL OR OTHERWISE TO ANY OTHER TI INTELLECTUAL PROPERTY RIGHT, AND NO LICENSE TO ANY TECHNOLOGY OR INTELLECTUAL PROPERTY RIGHT OF TI OR ANY THIRD PARTY IS GRANTED HEREIN, including but not limited to any patent right, copyright, mask work right, or other intellectual property right relating to any combination, machine, or process in which TI products or services are used. Information published by TI regarding third-party products or services does not constitute a license to use such products or services, or a warranty or endorsement thereof. Use of the reference design or other items described above may require a license from a third party under the patents or other intellectual property of the third party, or a license from TI under the patents or other intellectual property of TI.

TI REFERENCE DESIGNS AND OTHER ITEMS DESCRIBED ABOVE ARE PROVIDED "AS IS" AND WITH ALL FAULTS. TI DISCLAIMS ALL OTHER WARRANTIES OR REPRESENTATIONS, EXPRESS OR IMPLIED, REGARDING THE REFERENCE DESIGNS OR USE OF THE REFERENCE DESIGNS, INCLUDING BUT NOT LIMITED TO ACCURACY OR COMPLETENESS, TITLE, ANY EPIDEMIC FAILURE WARRANTY AND ANY IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, AND NON-INFRINGEMENT OF ANY THIRD PARTY INTELLECTUAL PROPERTY RIGHTS.

TI SHALL NOT BE LIABLE FOR AND SHALL NOT DEFEND OR INDEMNIFY DESIGNERS AGAINST ANY CLAIM, INCLUDING BUT NOT LIMITED TO ANY INFRINGEMENT CLAIM THAT RELATES TO OR IS BASED ON ANY COMBINATION OF PRODUCTS AS DESCRIBED IN A TI REFERENCE DESIGN OR OTHERWISE. IN NO EVENT SHALL TI BE LIABLE FOR ANY ACTUAL, DIRECT, SPECIAL, COLLATERAL, INDIRECT, PUNITIVE, INCIDENTAL, CONSEQUENTIAL OR EXEMPLARY DAMAGES IN CONNECTION WITH OR ARISING OUT OF THE REFERENCE DESIGNS OR USE OF THE REFERENCE DESIGNS, AND REGARDLESS OF WHETHER TI HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.

TI's standard terms of sale for semiconductor products (<u>http://www.ti.com/sc/docs/stdterms.htm</u>) apply to the sale of packaged integrated circuit products. Additional terms may apply to the use or sale of other types of TI products and services.

Designer will fully indemnify TI and its representatives against any damages, costs, losses, and/or liabilities arising out of Designer's noncompliance with the terms and provisions of this Notice.

> Mailing Address: Texas Instruments, Post Office Box 655303, Dallas, Texas 75265 Copyright © 2016, Texas Instruments Incorporated