

## PMP21278 REV A Bill of Materials

Designator	Quantity	Value	PartNumber	Manufacturer	Description	PackageReference
!PCB?	1		SV601348A	Any	Update Description to match PCB's description	N/A
C1, C31	2	100uF	PCR1J101MCL1GS	Nichicon	CAP, Aluminum Polymer, 100 µF, 63 V, +/- 20%, 0.024 ohm, SMD, 2-Leads, Dia 10.5mm, Pin Spacing 8mm SMD	SMD, 2-Leads, Dia 10.5mm, Pin Spacing 8mm
C2, C3, C4, C5, C32, C33, C34, Cx1, Cx2, Cx3, Cx4, Cx5, Cx6, Cx7	14	4.7uF	GRM32ER71K475KE14L	MuRata	CAP, CERM, 4.7 μF, 80 V, +/- 10%, X7R, 1210	1210
C6, C7, C8, C9, C10, C11	6	22uF	GRM32ER71E226KE15L	MuRata	CAP, CERM, 22 μF, 25 V, +/- 10%, X7R, 1210	1210
C12	1	1uF	GRM219R71E105KA88D	MuRata	CAP, CERM, 1 µF, 25 V, +/- 10%, X7R, 0805	0805
C13, C14, Cx8	3	330uF	16SVP330M	Sanyo	CAP, OS-CON, 330 µF, 16 V, +/- 20%, 0.016 ohm, 10x10.3 SMD	10x10.3
C15	1	47pF	GRM1885C1H470JA01D	MuRata	CAP, CERM, 47pF, 50V, +/-5%, C0G/NP0, 0603	0603L
C16	1	4.7uF	GRM21BR71C475KA73L	MuRata	CAP, CERM, 4.7 μF, 16 V, +/- 10%, X7R, 0805	0805
C17	1	0.1uF	GRM188R72A104KA35D	MuRata	CAP, CERM, 0.1uF, 100V, +/-10%, X7R, 0603	0603
C18, C19, C25	3	0.22uF	GRM188R71E224KA88D	MuRata	CAP, CERM, 0.22 μF, 25 V, +/- 10%, X7R, 0603	0603
C20, C30	2	100pF	GRM1885C2A101JA01D	MuRata	CAP, CERM, 100pF, 100V, +/-5%, C0G/NP0, 0603	0603L
C21	1	0.15uF	GRM188R71E154KA01D	MuRata	CAP, CERM, 0.15 μF, 25 V,+/- 10%, X7R, 0603	0603
C22	1	0.033uF	GRM188R71H333KA61D	MuRata	CAP, CERM, 0.033 µF, 50 V, +/- 10%, X7R, 0603	0603
C24	1	0.33uF	GRM188R71C334KA01D	MuRata	CAP, CERM, 0.33 µF, 16 V, +/- 10%, X7R, 0603	0603
C27	1	0.022uF	C0603C223K5RACTU	Kemet	CAP, CERM, 0.022uF, 50V, +/-10%, X7R, 0603	0603
C28	1	1200pF	GRM188R71E122KA01D	MuRata	CAP, CERM, 1200 pF, 25 V,+/- 10%, X7R, 0603	0603
C29	1	220pF	GRM1885C1H221JA01D	MuRata	CAP, CERM, 220 pF, 50 V,+/- 5%, C0G/NP0, 0603	0603
D1	1	20V	RSX501L-20TE25	Rohm	Diode, Schottky, 20 V, 5 A, SMA	SMA
D2	1	60V	RB050L-60TE25	Rohm	Diode, Schottky, 60 V, 3 A, SMA	SMA
D3	1	60V	PMEG6010CEJ,115	NXP Semiconductor	Diode, Schottky, 60 V, 1 A, SOD-323F	SOD-323F
D4. D5	2	100V	BAS316,115	NXP Semiconductor	Diode, Ultrafast, 100V, 0.25A, SOD-323	SOD-323
H1, H2, H3, H4	4		NY PMS 440 0025 PH	B&F Fastener Supply	Machine Screw, Round, #4-40 x 1/4, Nylon, Philips panhead	Screw
H5, H6, H7, H8	4		1902C	Keystone	Standoff, Hex, 0.5"L #4-40 Nylon	Standoff
J1, J2, J3, J4	4		575-8	Keystone	Standard Banana Jack, Uninsulated, 8.9mm	Keystone575-8
L1	1	2uH	XAL1580-202MEB	Coilcraft	Inductor, Shielded, Composite, 2 µH, 39.9 A, 0.001909 ohm, SMD	15.2x8x16.2mm
Q1, Q2, Q3, Q4	4	80V	CSD19502Q5B	Texas Instruments	MOSFET, N-CH, 80 V, 100 A, DNK0008A (VSON-CLIP-8)	DNK0008A
Q5, Q6, Q7, Q8	4	30V	CSD17573Q5B	Texas Instruments	MOSFET, N-CH, 30 V, 100 A, DNK0008A (VSON-CLIP-8)	DNK0008A
R1 1, R1 2	2	0.004	KRL6432E-M-R004-F-T1	Susumu Co Ltd	RES, 0.004, 1%, 3 W, 2512 WIDE	2512 WIDE
R2, R3, R4, R5, R12, R17, R24, R25, R26, R27	10	0	RC0603JR-070RL	Yageo America	RES, 0 ohm, 5%, 0.1W, 0603	0603L
R6, R8, R16, R21	4	100	RC0603FR-07100RL	Yageo America	RES, 100 ohm, 1%, 0.1W, 0603	0603L
R7_1, R7_2	2	0.005	FCSL64R005FER	Ohmite	RES, 0.005, 1%, 2 W, 2512 WIDE	2512 WIDE
R9, R11	2	10.0	RC0603FR-0710RL	Yageo America	RES, 10.0 ohm, 1%, 0.1W, 0603	0603L
R10	1	10.0k	RC0603FR-0710KL	Yageo America	RES, 10.0k ohm, 1%, 0.1W, 0603	0603L
R13	1	249k	RC0603FR-07249KL	Yageo America	RES, 249k ohm, 1%, 0.1W, 0603	0603
R14	1	280k	RC0603FR-07280KL	Yageo America	RES, 280k ohm, 1%, 0.1W, 0603	0603L
R15	1	2.00k	CRCW06032K00FKEA	Vishay-Dale	RES, 2.00 k, 1%, 0.1 W, 0603	0603
R18	1	37.4k	CRCW060337K4FKEA	Vishay-Dale	RES, 37.4 k, 1%, 0.1 W, 0603	0603
R19	1	93.1k	RC0603FR-0793K1L	Yageo America	RES, 93.1 k, 1%, 0.1 W, 0603	0603
R20	1	33.2k	CRCW060333K2FKEA	Vishay-Dale	RES, 33.2 k, 1%, 0.1 W, 0603	0603
R22	1	20.0k	RC0603FR-0720KL	Yageo America	RES, 20.0k ohm, 1%, 0.1W, 0603	0603L

Designator	Quantity	Value	PartNumber	Manufacturer	Description	PackageReference
R23	1	6.04k	CRCW06036K04FKEA	Vishay-Dale	RES, 6.04 k, 1%, 0.1 W, 0603	0603
R28, Rx1	2	0.082	RLP73N3AR082FTDF	TE Connectivity	RES, 0.082, 1%, 2 W, AEC-Q200 Grade 0, 2512	2512
R29	1	0	RCL12250000Z0EG	Vishay Draloric	RES, 0, 5%, 2 W, 2512 WIDE	2512 WIDE
S1, S2, S3	3		CJS-1201TA	Copal Electronics	Slide SW, SPDT 0.1A 50VDC	SW, 3.1x2.5x6 mm
TP1, TP3	2	Red	5005	Keystone	Test Point, Compact, Red, TH	Red Compact Testpoint
TP2, TP4	2	Black	5006	Keystone	Test Point, Compact, Black, TH	Black Compact Testpoint
TP5	1	PGOOD	5007	Keystone	Test Point, Compact, White, TH	White Compact Testpoint
TP6, TP7	2	White	5007	Keystone	Test Point, Compact, White, TH	White Compact Testpoint
U1	1		LM5176PWPR	Texas Instruments	55 V Wide VIN Synchronous 4-Switch Buck-Boost Controller, PWP0028C (TSSOP-28)	PWP0028C
C23, C26	0	47pF	GRM1885C1H470JA01D	MuRata	CAP, CERM, 47pF, 50V, +/-5%, C0G/NP0, 0603	0603L
C35, C36, C37, C38, C39	0	4.7uF	GRM32ER71K475KE14L	MuRata	CAP, CERM, 4.7 μF, 80 V, +/- 10%, X7R, 1210	1210
FID1, FID2, FID3	0		N/A	N/A	Fiducial mark. There is nothing to buy or mount.	Fiducial
L2	0	2.2uH	XAL1010-222MEB	Coilcraft	Inductor, Shielded, Composite, 2.2 µH, 32 A, 0.00255 ohm, SMD	Inductor, 11.3x10x10mm

## IMPORTANT NOTICE FOR TI DESIGN INFORMATION AND RESOURCES

Texas Instruments Incorporated ("TI") technical, application or other design advice, services or information, including, but not limited to, reference designs and materials relating to evaluation modules, (collectively, "TI Resources") are intended to assist designers who are developing applications that incorporate TI products; by downloading, accessing or using any particular TI Resource in any way, you (individually or, if you are acting on behalf of a company, your company) agree to use it solely for this purpose and subject to the terms of this Notice.

TI's provision of TI Resources 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 TI Resources. TI reserves the right to make corrections, enhancements, improvements and other changes to its TI Resources.

You understand and agree that you remain responsible for using your independent analysis, evaluation and judgment in designing your applications and that you have full and exclusive responsibility to assure the safety of your applications and compliance of your applications (and of all TI products used in or for your applications) with all applicable regulations, laws and other applicable requirements. You represent that, with respect to your applications, you have 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. You agree that prior to using or distributing any applications that include TI products, you will thoroughly test such applications and the functionality of such TI products as used in such applications. TI has not conducted any testing other than that specifically described in the published documentation for a particular TI Resource.

You are authorized to use, copy and modify any individual TI Resource only in connection with the development of applications that include the TI product(s) identified in such TI Resource. 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 regarding or referencing third-party products or services does not constitute a license to use such products or services, or a warranty or endorsement thereof. Use of TI Resources may require a license from a third party under the patents or other intellectual property of TI.

TI RESOURCES ARE PROVIDED "AS IS" AND WITH ALL FAULTS. TI DISCLAIMS ALL OTHER WARRANTIES OR REPRESENTATIONS, EXPRESS OR IMPLIED, REGARDING TI RESOURCES OR USE THEREOF, 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 YOU AGAINST ANY CLAIM, INCLUDING BUT NOT LIMITED TO ANY INFRINGEMENT CLAIM THAT RELATES TO OR IS BASED ON ANY COMBINATION OF PRODUCTS EVEN IF DESCRIBED IN TI RESOURCES 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 TI RESOURCES OR USE THEREOF, AND REGARDLESS OF WHETHER TI HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.

You agree to fully indemnify TI and its representatives against any damages, costs, losses, and/or liabilities arising out of your non-compliance with the terms and provisions of this Notice.

This Notice applies to TI Resources. Additional terms apply to the use and purchase of certain types of materials, TI products and services. These include; without limitation, TI's standard terms for semiconductor products <a href="http://www.ti.com/sc/docs/stdterms.htm">http://www.ti.com/sc/docs/stdterms.htm</a>), evaluation modules, and samples (<a href="http://www.ti.com/sc/docs/sampterms.htm">http://www.ti.com/sc/docs/sampterms.htm</a>).

Mailing Address: Texas Instruments, Post Office Box 655303, Dallas, Texas 75265 Copyright © 2018, Texas Instruments Incorporated