

PMP20692 REV A Bill of Materials

Designator	Quantity	Value	PartNumber	Manufacturer	Description	PackageReference
IPCBoard?	1		PMP20551 RevA	Any	PMP20551 RevA	N/A
C1	1	120pF	GRM2165C2A121JA01D	MuRata	CAP, CERM, 120 pF, 100 V, +/- 5%, COG/NPO, 0805	0805
C2	1	470uF	APSG160ELL471MH08S	Chemi-Con	CAP, Aluminum Polymer, 470 µF, 16 V, +/- 20%, 0.016 ohm, TH	D8xL8mm
C4, C5	2	22uF	GRM32ER71E226KE15L	MuRata	CAP, CERM, 22 µF, 25 V, +/- 10%, X7R, 1210	1210
C8, C9, C10	3	4.7uF	GRM32ER71K475KE14L	MuRata	CAP, CERM, 4.7 µF, 80 V, +/- 10%, X7R, 1210	1210
C12	1	0.1uF	GRM21BR72A104KAC4L	MuRata	CAP, CERM, 0.1 µF, 100 V, +/- 10%, X7R, 0805	0805
C13	1	2.2uF	GRM21BR71E225KA73L	MuRata	CAP, CERM, 2.2 µF, 25 V, +/- 10%, X7R, 0805	0805
C14	1	0.22uF	GRM21AR72A224KAC5L	MuRata	CAP, CERM, 0.22 µF, 100 V, +/- 10%, X7R, 0805	0805
C15	1	0.047uF	GRM188R71C473KA01D	MuRata	CAP, CERM, 0.047 µF, 16 V, +/- 10%, X7R, 0603	0603
C16	1	4700pF	GRM188R71H472KA01D	MuRata	CAP, CERM, 4700 pF, 50 V, +/- 10%, X7R, 0603	0603
C17	1	100pF	GRM1885C1H101JA01D	MuRata	CAP, CERM, 100 pF, 50 V, +/- 5%, COG/NPO, 0603	0603
C18	1	1uF	GRM188R71E105KA12D	MuRata	CAP, CERM, 1 µF, 25 V, +/- 10%, X7R, 0603	0603
C19	1	0.22uF	GRM188R71E224KA88D	MuRata	CAP, CERM, 0.22 µF, 25 V, +/- 10%, X7R, 0603	0603
C20	1	1000pF	GRM31BR73A102KW01L	MuRata	CAP, CERM, 1000 pF, 1000 V, +/- 10%, X7R, 1206	1206
D1	1	60V	MBRB30H60CTT4G	ON Semiconductor	Diode, Schottky, 60 V, 15 A, AEC-Q101, DDPACK	DDPAK
D2	1	1.25V	1N4148W-7-F	Diodes Inc.	Diode, Ultrafast, 100V, 0.15A, SOD-123	SOD-123
D3	1	30V	BAT54HT1G	ON Semiconductor	Diode, Schottky, 30 V, 0.2 A, SOD-323	SOD-323
D4	1	100V	MBRS1100T3G	ON Semiconductor	Diode, Schottky, 100 V, 1 A, SMB	SMB
D6	1	30V	BAT54S-7-F	Diodes Inc.	Diode, Schottky, 30 V, 0.2 A, SOT-23	SOT-23
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
Q1	1	200V	BSC12DN20NS3 G	Infineon Technologies	MOSFET, N-CH, 200 V, 11.3 A, PG-TDSON-8	PG-TDSON-8
R1	1	3.30	CRCW12103R30FKEAHP	Vishay-Dale	RES, 3.30, 1%, 0.75 W, AEC-Q200 Grade 0, 1210	1210
R3	1	3.3	CRCW08053R30JNEA	Vishay-Dale	RES, 3.3, 5%, 0.125 W, 0805	0805
R4	1	47	CRCW060347R0JNEA	Vishay-Dale	RES, 47, 5%, 0.1 W, 0603	0603
R5	1	357k	CRCW0603357KFKEA	Vishay-Dale	RES, 357 k, 1%, 0.1 W, 0603	0603
R6	1	10.0k	CRCW060310K0FKEA	Vishay-Dale	RES, 10.0k ohm, 1%, 0.1W, 0603	0603
R7	1	0	CRCW06030000Z0EA	Vishay-Dale	RES, 0, 5%, 0.1 W, 0603	0603
R8	1	68.1k	CRCW060368K1FKEA	Vishay-Dale	RES, 68.1 k, 1%, 0.1 W, 0603	0603
R9, R16	2	4.99k	CRCW06034K99FKEA	Vishay-Dale	RES, 4.99 k, 1%, 0.1 W, 0603	0603
R11	1	453k	CRCW0603453KFKEA	Vishay-Dale	RES, 453 k, 1%, 0.1 W, 0603	0603
R12	1	47.0k	CRCW060347K0FKEA	Vishay-Dale	RES, 47.0 k, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
R13	1	2.00k	CRCW06032K00FKEA	Vishay-Dale	RES, 2.00 k, 1%, 0.1 W, 0603	0603
R14	1	0.08	WSL2010R0800FEA18	Vishay-Dale	RES, 0.08, 1%, 1 W, AEC-Q200 Grade 0, 2010	2010
R17	1	10.7k	CRCW060310K7FKEA	Vishay-Dale	RES, 10.7 k, 1%, 0.1 W, 0603	0603
R18	1	1.24k	CRCW06031K24FKEA	Vishay-Dale	RES, 1.24 k, 1%, 0.1 W, 0603	0603
R19	1	39k	CRCW120639K0JNEA	Vishay-Dale	RES, 39 k, 5%, 0.25 W, 1206	1206
T1	1	85uH	TG-UT38748S	Universal Microelectronics	Transformer, 85 uH, SMT	22x20.5mm
TP1, TP2, TP7, TP11	4	Double	1502-2	Keystone	Terminal, Turret, TH, Double	Keystone1502-2
TP3, TP5	2	Red	5000	Keystone	Test Point, TH, Miniature, Red	Keystone5000
TP4, TP8, TP9	3	White	5002	Keystone	Test Point, TH, Miniature, White	Keystone5002
TP6, TP10	2	Black	5001	Keystone	Test Point, TH, Miniature, Black	Keystone5001
U1	1		LM5022MME/NOPB	Texas Instruments	60V Low Side Controller for Boost and SEPIC, 10-pin MSOP, Pb-Free	MUB10A
U3	1		PS2501L-1-F3-L-A	California Eastern Laboratories	Optocoupler, 5 kV, 200-400% CTR, SMT	PS2501L
U4	1		TLV431BCDBZR	Texas Instruments	Low-Voltage Adjustable Precision Shunt Regulator, 15 mA, 0 to 70 degC, 3-pin SOT-23 (DBZ), Green (RoHS & no Sb/Br)	DBZ0003A
C3	0	470uF	APSG160ELL471MH08S	Chemi-Con	CAP, Aluminum Polymer, 470 µF, 16 V, +/- 20%, 0.016 ohm, TH	D8xL8mm
C6, C7	0	22uF	GRM32ER71E226KE15L	MuRata	CAP, CERM, 22 µF, 25 V, +/- 10%, X7R, 1210	1210

Designator	Quantity	Value	PartNumber	Manufacturer	Description	PackageReference
C11	0	120pF	GRM2165C2A121JA01D	MuRata	CAP, CERM, 120 pF, 100 V, +/- 5%, COG/NPO, 0805	0805
FID1, FID2, FID3	0		N/A	N/A	Fiducial mark. There is nothing to buy or mount.	Fiducial
R2, R20	0	39k	CRCW120639K0JNEA	Vishay-Dale	RES, 39 k, 5%, 0.25 W, 1206	1206
R10	0	523k	CRCW0603523KFKEA	Vishay-Dale	RES, 523 k, 1%, 0.1 W, 0603	0603
R15	0	10.2k	CRCW060310K2FKEA	Vishay-Dale	RES, 10.2 k, 1%, 0.1 W, 0603	0603
R21, R22	0	3.30	CRCW12103R30FKEAHP	Vishay-Dale	RES, 3.30, 1%, 0.75 W, AEC-Q200 Grade 0, 1210	1210
U2	0		LMV431BIMFX/NOPB	Texas Instruments	Low-Voltage (1.24V) Adjustable Precision Shunt Regulators, 3-pin SOT-23, Pb-Free	MF03A

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 the third party, or a license from TI 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 (<http://www.ti.com/sc/docs/stdterms.htm>), [evaluation modules](#), and [samples](http://www.ti.com/sc/docs/sampterm.htm) (<http://www.ti.com/sc/docs/sampterm.htm>).

Mailing Address: Texas Instruments, Post Office Box 655303, Dallas, Texas 75265
Copyright © 2017, Texas Instruments Incorporated