

## PMP20327 REV B Bill of Materials

Designator	Quantity	Value	PartNumber	Manufacturer	Description	PackageReference
IPCBoard	1		PMP20327	Any	Printed Circuit Board	
C1, C11	2	100pF	CC0402KRX7R9BB101	Yageo America	CAP, CERM, 100 pF, 50 V, +/- 10%, X7R, 0402	0402
C2, C5, C9	3	0.1uF	GCM155R71H104KE02D	MuRata	CAP, CERM, 0.1 μF, 50 V, +/- 10%, X7R, AEC-Q200 Grade 1, 0402	0402
C3, C6	2	0.22uF	C1005X5R1E224M050BC	TDK	CAP, CERM, 0.22 μF, 25 V, +/- 20%, X5R, 0402	0402
C4	1	1uF	C1005X5R1C105K050BC	TDK	CAP, CERM, 1 μF, 16 V, +/- 10%, X5R, 0402	0402
C7	1	0.047uF	GRM155R71E473KA88D	MuRata	CAP, CERM, 0.047 μF, 25 V, +/- 10%, X7R, 0402	0402
C8	1	0.022uF	GRM155R71E223KA61D	MuRata	CAP, CERM, 0.022 μF, 25 V, +/- 10%, X7R, 0402	0402
C10	1	220pF	GRM155R71H221KA01D	MuRata	CAP, CERM, 220 pF, 50 V, +/- 10%, X7R, 0402	0402
C13	1	68pF	GRM1555C1H680JA01D	MuRata	CAP, CERM, 68 pF, 50 V, +/- 5%, C0G/NP0, 0402	0402
C14	1	560pF	GRM155R71H561KA01D	MuRata	CAP, CERM, 560 pF, 50 V, +/- 10%, X7R, 0402	0402
Cin1, Cin2, Cin3, Co1, Co2, Co3, Co4	7	22uF	GRM32ER71E226KE15L	MuRata	CAP, CERM, 22 μF, 25 V, +/- 10%, X7R, 1210	1210
Cin4, Co6	2	4.7uF	GRM21BR71C475KA73L	MuRata	CAP, CERM, 4.7 μF, 16 V, +/- 10%, X7R, 0805	0805
D1	1	40V	CUS05S40,H3F	Toshiba	Diode, Schottky, 40 V, 0.5 A, SOD-323	SOD-323
D2, D3	2	100V	BAS516,115	NXP Semiconductor	Diode, Switching, 100V, 0.25A, SOD-523	SOD-523
D4	1	20V	MBR0520LT1G	ON Semiconductor	Diode, Schottky, 20 V, 0.5 A, SOD-123	SOD-123
J1, J2, J3, J4	4		1598-2	Keystone	Terminal, Turret, TH, Triple	Keystone1598-2
L2	1	680nH	IHLP5050FDERR68M01	Vishay-Dale	Inductor, Shielded, Powdered Iron, 680 nH, 35 A, 0.0016 ohm, SMD	IHLP-5050FD
L3	1	10uH	LQH3NPN100NG0	MuRata	Inductor, Wirewound, Ferrite, 10 μH, 0.5 A, 0.57 ohm, SMD	3.0x0.9x3.0mm
Q1, Q2, Q3, Q4, Q5, Q6, Q7, Q8	8	25V	BSC014NE2LSI	Infineon Technologies	MOSFET, N-CH, 25 V, 33 A, PG-TDSON-8	PG-TDSON-8
R1, R2, R3	3	10	CRCW040210R0JNED	Vishay-Dale	RES, 10, 5%, 0.063 W, 0402	0402
R4, R12	2	71.5k	CRCW040271K5FKED	Vishay-Dale	RES, 71.5 k, 1%, 0.063 W, 0402	0402
R5	1	1.50k	CRCW04021K50FKED	Vishay-Dale	RES, 1.50 k, 1%, 0.063 W, 0402	0402
R6	1	20.0k	CRCW040220K0FKED	Vishay-Dale	RES, 20.0 k, 1%, 0.063 W, 0402	0402
R7	1	0	CRCW04020000Z0ED	Vishay-Dale	RES, 0, 5%, 0.063 W, 0402	0402
R8	1	47	CRCW040247R0JNED	Vishay-Dale	RES, 47, 5%, 0.063 W, 0402	0402
R9, R11	2	100	CRCW0402100RFKED	Vishay-Dale	RES, 100, 1%, 0.063 W, 0402	0402
R10, R18	2	49.9k	CRCW040249K9FKED	Vishay-Dale	RES, 49.9 k, 1%, 0.063 W, 0402	0402
R13	1	130k	CRCW0402130KFKED	Vishay-Dale	RES, 130 k, 1%, 0.063 W, 0402	0402
R14	1	20k	CRCW040220K0JNED	Vishay-Dale	RES, 20 k, 5%, 0.063 W, 0402	0402
R15	1	5.49k	CRCW04025K49FKED	Vishay-Dale	RES, 5.49 k, 1%, 0.063 W, 0402	0402
R16	1	16.2k	CRCW040216K2FKED	Vishay-Dale	RES, 16.2 k, 1%, 0.063 W, 0402	0402
R17	1	30.9k	CRCW040230K9FKED	Vishay-Dale	RES, 30.9 k, 1%, 0.063 W, 0402	0402
R19	1	6.98k	CRCW04026K98FKED	Vishay-Dale	RES, 6.98 k, 1%, 0.063 W, 0402	0402
RS1	1	0.001	KRL7638-C-R001-J-T1	Susumu Co Ltd	RES, 0.001, 5%, 4 W, 3015_WIDE	3015_WIDE
TP3, TP4	2		5002	Keystone	Test Point, Miniature, White, TH	White Miniature Testpoint
U1	1		LM5175RHFR	Texas Instruments	42-V Wide VIN Synchronous 4-Switch Buck-Boost Controller, RHF0028A	RHF0028A
U2	1		LMR62014XMF/NOPB	Texas Instruments	LMR62014 SIMPLE SWITCHER® 20Vout, 1.4 A Step-Up Voltage Regulator, DBV0005A	DBV0005A
Co5	0	220uF	293D227X9016E2TE3	Vishay-Sprague	CAP, TA, 220 μF, 16 V, +/- 10%, 0.5 ohm, SMD	7343-43
L1	0	1uH	XAL1580-102MEB	Coilcraft	Inductor, Shielded, Composite, 1 μH, 57.5 A, 0.000929 ohm, SMD	15.2x8x16.2mm

## 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 equipment includes, without limitation, all medical devices identified by the U.S. Food and Drug Administration as Class III devices and 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 (<http://www.ti.com/sc/docs/stdterms.htm>) 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 non-compliance with the terms and provisions of this Notice.

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