

PMP20371 REV A Bill of Materials

Designator	Quantity	Value	PartNumber	Manufacturer	Description	PackageReference
IPCB1	1		PMP20371	Any	Printed Circuit Board	
C1, C20	2	470pF	GRM2165C2A471JA01D	MuRata	CAP, CERM, 470pF, 100V, +/-5%, COG/NP0, 0805	0805
C2	1	47uF	EEV-TG2A470Q	Panasonic	CAP, AL, 47 µF, 100 V, +/- 20%, 0.42 ohm, AEC-Q200 Grade 1, SMD	12.5x13.5
C3	1	330uF	EMZR160ADA331MF80G	Chemi-Con	CAP, AL, 330 µF, 16 V, +/- 20%, 0.16 ohm, AEC-Q200 Grade 2, SMD	F80
C4, C5, C6, C7, C8, C23, C24	7	2.2uF	GRM32ER72A225KA35L	MuRata	CAP, CERM, 2.2 µF, 100 V, +/- 10%, X7R, 1210	1210
C9, C10, C11, C12	4	10uF	GRM32ER71H106KA12L	MuRata	CAP, CERM, 10 µF, 50 V, +/- 10%, X7R, 1210	1210
C13, C14, C15, C16, C18, C32	6	0.1uF	GRM188R72A104KA35D	MuRata	CAP, CERM, 0.1 µF, 100 V, +/- 10%, X7R, 0603	0603
C17	1	100pF	GRM1885C1H101JA01D	MuRata	CAP, CERM, 100pF, 50V, +/-5%, COG/NP0, 0603	0603
C19	1	0.47uF	GRM188R71E474KA12D	MuRata	CAP, CERM, 0.47 µF, 25 V, +/- 10%, X7R, 0603	0603
C21	1	0.22uF	GRM188R71E224KA88D	MuRata	CAP, CERM, 0.22 µF, 25 V, +/- 10%, X7R, 0603	0603
C22	1	4.7uF	GRM188R61C475KAAJ	MuRata	CAP, CERM, 4.7 µF, 16 V, +/- 10%, X5R, 0603	0603
C29, C33	2	100pF	GRM1885C1H101JA01D	MuRata	CAP, CERM, 100 pF, 50 V, +/- 5%, COG/NP0, 0603	0603
C30	1	0.047uF	GRM188R71E473KA01D	MuRata	CAP, CERM, 0.047uF, 25V, +/-10%, X7R, 0603	0603
C31	1	0.022uF	GRM188R71H223KA01D	MuRata	CAP, CERM, 0.022 µF, 50 V, +/- 10%, X7R, 0603	0603
C34	1	1uF	GRM188R71E105KA12D	MuRata	CAP, CERM, 1 µF, 25 V, +/- 10%, X7R, 0603	0603
C35	1	10pF	GRM1885C1H100JA01D	MuRata	CAP, CERM, 10 pF, 50 V, +/- 5%, COG/NP0, 0603	0603
D1, D3	2	100V	FSV20100V	Fairchild Semiconductor	Diode, Schottky, 100 V, 20 A, AEC-Q101, TO-277A	TO-277A
D2, R30	2	100V	BAV19WS-7-F	Diodes Inc.	Diode, Switching, 100 V, 0.2 A, 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
J1, J2, J4, J5	4		575-8	Keystone	Standard Banana Jack, Uninsulated, 8.9mm	Keystone575-8
L1	1	350nH	SPM5030T-R35M	TDK	Inductor, Shielded, Ferrite, 350 nH, 14.9 A, 0.0043 ohm, SMD	Inductor, 5.2x3x5mm
L2	1	10uH	B82559A7103A20	TDK	Inductor, Wirewound, Ferrite, 10 µH, 18.3 A, 0.0039 ohm, AEC-Q200 Grade 0, SMD	22x22.3mm
Q1	1	100V	FDMS86181	Fairchild Semiconductor	MOSFET, N-CH, 100 V, 17 A, 8-PQFN	8-PQFN
Q3, Q4	2	100V	BSC160N10NS3 G	Infineon Technologies	MOSFET, N-CH, 100 V, 42 A, PG-TDSON-8	PG-TDSON-8
Q8	1	20 V	FMMT718TA	Diodes Inc.	Transistor, PNP, 20 V, 1.5 A, SOT-23	SOT-23
R1, R15	2	7.5	ERJ-12ZYJ7R5U	Panasonic	RESISTOR 7.5 OHM 3/4W 5% 2010	2010
R2	1	0.003	KRL6432E-M-R003-F-T1	Susumu Co Ltd	RES, 0.003, 1%, 3 W, AEC-Q200 Grade 0, 2512 WIDE	2512 WIDE
R4, R5	2	221	CRCW0603221RFKEA	Vishay-Dale	RES, 221, 1%, 0.1 W, 0603	0603
R6, R17, R26	3	1.00k	CRCW06031K00FKEA	Vishay-Dale	RES, 1.00 k, 1%, 0.1 W, 0603	0603
R7, R8, R16, R29	4	0	CRCW06030000Z0EA	Vishay-Dale	RES, 0, 5%, 0.1 W, 0603	0603
R9	1	100k	CRCW0603100KFKEA	Vishay-Dale	RES, 100 k, 1%, 0.1 W, 0603	0603
R10	1	3.3	CRCW06033R30JNEA	Vishay-Dale	RES, 3.3 ohm, 5%, 0.1W, 0603	0603
R11, R14, R23	3	10.0	CRCW060310R0FKEA	Vishay-Dale	RES, 10.0, 1%, 0.1 W, 0603	0603
R13	1	3.83k	CRCW06033K83FKEA	Vishay-Dale	RES, 3.83 k, 1%, 0.1 W, 0603	0603
R18	1	137k	CRCW0603137KFKEA	Vishay-Dale	RES, 137 k, 1%, 0.1 W, 0603	0603
R19	1	60.4k	CRCW060360K4FKEA	Vishay-Dale	RES, 60.4 k, 1%, 0.1 W, 0603	0603
R20	1	5.11k	CRCW06035K11FKEA	Vishay-Dale	RES, 5.11 k, 1%, 0.1 W, 0603	0603
R21	1	49.9	CRCW060349R9FKEA	Vishay-Dale	RES, 49.9, 1%, 0.1 W, 0603	0603
R22, R24	2	200k	CRCW0603200KFKEA	Vishay-Dale	RES, 200 k, 1%, 0.1 W, 0603	0603
R25, R27	2	20.0k	CRCW060320K0FKEA	Vishay-Dale	RES, 20.0 k, 1%, 0.1 W, 0603	0603
R28	1	4.75k	CRCW06034K75FKEA	Vishay-Dale	RES, 4.75 k, 1%, 0.1 W, 0603	0603
TP1, TP4	2	Black	5011	Keystone	Test Point, Multipurpose, Black, TH	Black Multipurpose Testpoint

Designator	Quantity	Value	PartNumber	Manufacturer	Description	PackageReference
TP2, TP5, TP6	3	Red	5010	Keystone	Test Point, Multipurpose, Red, TH	Red Multipurpose Testpoint
TP3, TP7	2	White	5012	Keystone	Test Point, Multipurpose, White, TH	White Multipurpose Testpoint
U1	1		LM5122MH/NOPB	Texas Instruments	Wide Input Synchronous Boost Controller with Multiple Phase Capability, PWP0020A	PWP0020A
U2	1		TLV271CD	Texas Instruments	550 uA/Ch, 3 MHz, Rail-to-Rail Output Operational Amplifier, 2.7 to 16 V, 0 to 70 degC, 8-pin SOIC (D0008A), Green (RoHS & no Sb/Br)	D0008A
C36, C37	0	0.1uF	GRM188R72A104KA35D	MuRata	CAP, CERM, 0.1 uF, 100 V, +/- 10%, X7R, 0603	0603
FID1, FID2, FID3	0		N/A	N/A	Fiducial mark. There is nothing to buy or mount.	Fiducial
L3	0	350nH	SPM5030T-R35M	TDK	Inductor, Shielded, Ferrite, 350 nH, 14.9 A, 0.0043 ohm, SMD	Inductor, 5.2x3x5mm
Q2	0	100V	FDMS86181	Fairchild Semiconductor	MOSFET, N-CH, 100 V, 17 A, 8-PQFN	8-PQFN
Q5, Q7	0	20 V	FMMT618TA	Diodes Inc.	Transistor, NPN, 20 V, 2.5 A, AEC-Q101, SOT-23	SOT-23
Q6	0	20 V	FMMT718TA	Diodes Inc.	Transistor, PNP, 20 V, 1.5 A, SOT-23	SOT-23
R12	0	0	ERJ-3GEY0R00V	Panasonic	RES, 0 ohm, 5%, 0.1W, 0603	0603

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