PMP10081 REV C Bill of Materials

Designator	Quantity	Value	PartNumber	Manufacturer	Description	PackageReference
C1	1	330pF	GRM188R71H331KA01D	MuRata	CAP, CERM, 330pF, 50V, +/-10%, X7R, 0603	0603
C2	1	0.22uF	GRM188R71E224KA88D	MuRata	CAP, CERM, 0.22uF, 25V, +/-10%, X7R, 0603	0603
C3, C19	2	1000pF	GRM188R71H102KA01D	MuRata	CAP, CERM, 1000pF, 50V, +/-10%, X7R, 0603	0603
C4, C6, C7, C20	4	0.1uF	GRM188R71H104KA93D	MuRata	CAP, CERM, 0.1 μF, 50 V, +/- 10%, X7R, 0603	0603
C5	1	220uF	EEE-FK1H221GP	Panasonic	CAP, AL, 220uF, 50V, +/-20%, 0.18 ohm, SMD	SMT Radial G
C8	1	1uF	GRM21BR71H105KA12L		CAP, CERM, 1uF, 50V, +/-10%, X7R, 0805	0805
C9	1	100pF	06033C101KAT2A	AVX	CAP, CERM, 100pF, 25V, +/-10%, X7R, 0603	0603
C10	1	1uF	GRM188R71E105KA12D	MuRata	CAP, CERM, 1uF, 25V, +/-10%, X7R, 0603	0603
C11, C12, C13, C14	4	10uF	GRM32ER71H106KA12L	MuRata	CAP, CERM, 10uF, 50V, +/-10%, X7R, 1210	1210
C15	1	330uF		Panasonic	CAP, Polymer, 330 µF, 25 V, +/- 20%, 0.014 ohm, F12,	F12, SMD, 2-Leads, Body
					SMD, 2-Leads, Body 10.5x10.5mm, Height 12.7mm SMD	10.5x10.5mm, Height 12.7mm
C16, C18	2	22uF	GRM32ER71E226KE15L	MuRata	CAP, CERM, 22uF, 25V, +/-10%, X7R, 1210	1210
C17	1	0.01uF	GRM188R71H103KA01D	MuRata	CAP, CERM, 0.01uF, 50V, +/-10%, X7R, 0603	0603
C21	1	0.1uF	GCM188R71H104KA57D	MuRata	CAP, CERM, 0.1uF, 50V, +/-10%, X7R, 0603	0603
D1, D2	2	6.8V	MMSZ5235BS-7-F	Diodes Inc.	Diode, Zener, 6.8V, 200mW, SOD-323	SOD-323
D3	1	60V	B560C-13-F	Diodes Inc.	Diode, Schottky, 60V, 5A, SMC	SMC
D4, D5	2	75V	BAS16-7-F	Diodes Inc.	Diode, Ultrafast, 75V, 0.3A, SOT-23	SOT-23
J1, J2	2		ED555/2DS	On-Shore Technology	Terminal Block, 6A, 3.5mm Pitch, 2-Pos, TH	7.0x8.2x6.5mm
L1	1	2.2uH	74408943022	Wurth Elektronik	Inductor, Shielded Drum Core, Ferrite, 2.2 µH, 3 A, 0.026 ohm, SMD	4.8x3.8x4.8mm
L2	1	22uH	MSD1583-223MEB	Coilcraft	Coupled inductor, 22uH, 2.44A, 0.033 ohm, +/-20%, SMD	IND_14.8x8.6x14.8mm, SMD
Q1	1	0.3V	MMBT2222A	Fairchild Semiconductor	Transistor, NPN, 40V, 0.15A, SOT-23	SOT-23
Q2	1	60V	CSD18563Q5A	Texas Instruments	MOSFET, N-CH, 60V, 15A, SON 5x6mm	SON 5x6mm
R1, R3	2	100k	CRCW0603100KFKEA	Vishay-Dale	RES, 100k ohm, 1%, 0.1W, 0603	0603
R2, R4, R19	3	20.0k	CRCW060320K0FKEA	Vishay-Dale	RES, 20.0k ohm, 1%, 0.1W, 0603	0603
R5, R8	2	10.0k	CRCW060310K0FKEA	Vishay-Dale	RES, 10.0k ohm, 1%, 0.1W, 0603	0603
R6	1	182k	CRCW0603182KFKEA	Vishay-Dale	RES, 182k ohm, 1%, 0.1W, 0603	0603
R7	1	3.92k		Vishay-Dale	RES, 3.92k ohm, 1%, 0.1W, 0603	0603
R9, R10	2	4.64		Vishay-Dale	RES, 4.64 ohm, 1%, 0.1W, 0603	0603
R11, R15	2	1.00k	CRCW06031K00FKEA	Vishay-Dale	RES, 1.00k ohm, 1%, 0.1W, 0603, RES, 1.00 k, 1%, 0.1 W, 0603	0603
R12	1	49.9	CRCW060349R9FKEA	Vishay-Dale	RES, 49.9 ohm, 1%, 0.1W, 0603	0603
R13, R14	2	0.025	CSRN2010FK25L0	Stackpole Electronics Inc	RES, 0.025 ohm, 1%, 1W, 2010	2010
R16	1	0		Vishay-Dale	RES, 0, 5%, 0.1 W, 0603	0603
R17	1	2M	3224W-1-205E	Bourns	TRIMMER 2M OHM 0.25W SMD	3.5x5.3x4.8mm
R18	1	90.9k	CRCW060390K9FKEA	Vishay-Dale	RES, 90.9k ohm, 1%, 0.1W, 0603	0603

Designator	Quantity	Value	PartNumber	Manufacturer	Description	PackageReference
TP1, TP7, TP9	3	Red	5000	Keystone	Test Point, Miniature, Red, TH	Red Miniature Testpoint
TP2, TP4, TP8	3	Black	5001	Keystone	Test Point, Miniature, Black, TH	Black Miniature Testpoint
TP3	1	Orange	5003	Keystone	Test Point, Miniature, Orange, TH	Orange Miniature Testpoint
TP5, TP6	2	White	5002	Keystone	Test Point, Miniature, White, TH	White Miniature Testpoint
U1	1		TPS40210DGQR	Texas Instruments	4.5-V TO 52-V INPUT CURRENT MODE BOOST	DGQ0010D
					CONTROLLER, DGQ0010D	
U2	1	TLC272CD	TLC272CD	TI	IC, Precision Dual Operational Amplifiers	SO8

IMPORTANT NOTICE FOR TI REFERENCE DESIGNS

Texas Instruments Incorporated ("TI") reference designs are solely intended to assist designers ("Buyers") who are developing systems that incorporate TI semiconductor products (also referred to herein as "components"). Buyer understands and agrees that Buyer remains responsible for using its independent analysis, evaluation and judgment in designing Buyer's systems and products.

TI reference designs have been created using standard laboratory conditions and engineering practices. TI has not conducted any testing other than that specifically described in the published documentation for a particular reference design. TI may make corrections, enhancements, improvements and other changes to its reference designs.

Buyers are authorized to use TI reference designs with the TI component(s) identified in each particular reference design and to modify the reference design in the development of their end products. HOWEVER, NO OTHER LICENSE, EXPRESS OR IMPLIED, BY ESTOPPEL OR OTHERWISE TO ANY OTHER TI INTELLECTUAL PROPERTY RIGHT, AND NO LICENSE TO ANY THIRD PARTY TECHNOLOGY OR INTELLECTUAL PROPERTY RIGHT, 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 components 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 such information 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 ARE PROVIDED "AS IS". TI MAKES NO WARRANTIES OR REPRESENTATIONS WITH REGARD TO THE REFERENCE DESIGNS OR USE OF THE REFERENCE DESIGNS, EXPRESS, IMPLIED OR STATUTORY, INCLUDING ACCURACY OR COMPLETENESS. TI DISCLAIMS ANY WARRANTY OF TITLE AND ANY IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, QUIET ENJOYMENT, QUIET POSSESSION, AND NON-INFRINGEMENT OF ANY THIRD PARTY INTELLECTUAL PROPERTY RIGHTS WITH REGARD TO TI REFERENCE DESIGNS OR USE THEREOF. TI SHALL NOT BE LIABLE FOR AND SHALL NOT DEFEND OR INDEMNIFY BUYERS AGAINST ANY THIRD PARTY INFRINGEMENT CLAIM THAT RELATES TO OR IS BASED ON A COMBINATION OF COMPONENTS PROVIDED IN A TI REFERENCE DESIGN. IN NO EVENT SHALL TI BE LIABLE FOR ANY ACTUAL, SPECIAL, INCIDENTAL, CONSEQUENTIAL OR INDIRECT DAMAGES, HOWEVER CAUSED, ON ANY THEORY OF LIABILITY AND WHETHER OR NOT TI HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES, ARISING IN ANY WAY OUT OF TI REFERENCE DESIGNS OR BUYER'S USE OF TI REFERENCE DESIGNS.

TI reserves the right to make corrections, enhancements, improvements and other changes to its semiconductor products and services per JESD46, latest issue, and to discontinue any product or service per JESD48, latest issue. Buyers should obtain the latest relevant information before placing orders and should verify that such information is current and complete. All semiconductor products are sold subject to TI's terms and conditions of sale supplied at the time of order acknowledgment.

TI warrants performance of its components to the specifications applicable at the time of sale, in accordance with the warranty in TI's terms and conditions of sale of semiconductor products. Testing and other quality control techniques for TI components are used to the extent TI deems necessary to support this warranty. Except where mandated by applicable law, testing of all parameters of each component is not necessarily performed.

TI assumes no liability for applications assistance or the design of Buyers' products. Buyers are responsible for their products and applications using TI components. To minimize the risks associated with Buyers' products and applications, Buyers should provide adequate design and operating safeguards.

Reproduction of significant portions of TI information in TI data books, data sheets or reference designs is permissible only if reproduction is without alteration and is accompanied by all associated warranties, conditions, limitations, and notices. TI is not responsible or liable for such altered documentation. Information of third parties may be subject to additional restrictions.

Buyer acknowledges and agrees that it is solely responsible for compliance with all legal, regulatory and safety-related requirements concerning its products, and any use of TI components in its applications, notwithstanding any applications-related information or support that may be provided by TI. Buyer represents and agrees that it has all the necessary expertise to create and implement safeguards that anticipate dangerous failures, monitor failures and their consequences, lessen the likelihood of dangerous failures and take appropriate remedial actions. Buyer will fully indemnify TI and its representatives against any damages arising out of the use of any TI components in Buyer's safety-critical applications.

In some cases, TI components may be promoted specifically to facilitate safety-related applications. With such components, TI's goal is to help enable customers to design and create their own end-product solutions that meet applicable functional safety standards and requirements. Nonetheless, such components are subject to these terms.

No TI components are authorized for use in FDA Class III (or similar life-critical medical equipment) unless authorized officers of the parties have executed an agreement specifically governing such use.

Only those TI components that TI has specifically designated as military grade or "enhanced plastic" are designed and intended for use in military/aerospace applications or environments. Buyer acknowledges and agrees that any military or aerospace use of TI components that have *not* been so designated is solely at Buyer's risk, and Buyer is solely responsible for compliance with all legal and regulatory requirements in connection with such use.

TI has specifically designated certain components as meeting ISO/TS16949 requirements, mainly for automotive use. In any case of use of non-designated products, TI will not be responsible for any failure to meet ISO/TS16949.