

PMP10282 REV B Bill of Materials

Designator	Quantity	Value	PartNumber	Manufacturer	Description	Package
C1, C2, C10, C13, C15	5	0.1uF	C1005X7R1H104K050BB	TDK	CAP, CERM, 0.1uF, 50V, +/-10%, X7R, 0402	0402
C3	1	4.7uF	GRM31CR71H475KA12L	MuRata	CAP, CERM, 4.7uF, 50V, +/-10%, X7R, 1206	1206
C4, C8	2	1uF	UMK107AB7105KA-T	Taiyo Yuden	CAP, CERM, 1uF, 50V, +/-10%, X7R, 0603	0603
C5, C11	2				CAP, open, 0402	0402
C6, C7	2	22uF	GRM21BR61A226ME44	MuRata	CAP, CERM, 22uF, 10V, +/-20%, X5R, 0805	0805
C9	1	1000pF	C1005C0G1E102J	TDK	CAP, CERM, 1000pF, 25V, +/-5%, C0G/NP0, 0402	0402
C12	1	10uF	GRM21BR71A106KE51L	MuRata	CAP, CERM, 10uF, 10V, +/-10%, X7R, 0805	0805
C14	1	150uF	10TPB150ML	Panasonic	CAP, 150uF, 10V, +/-20%, 0.04 ohm, SMD	Tant Cap, 7343_28
D1	1	40V	B340LA-13-F	Diodes Inc.	Diode, Schottky, 40V, 3A, SMA	SMA
D2	1	/FAULT	LTST-C190GKT	Lite-On	LED, Green, SMD	1.6x0.8x0.8mm
D3	1	/STATUS	LTST-C190GKT	Lite-On	LED, Green, SMD	1.6x0.8x0.8mm
J1	1		OST	ED555/2DS	Terminal Block, 6A, 3.5mm Pitch, 2-Pos, TH	7.0x8.2x6.5mm
J2	1		PEC02SAAN	Sullins	Header, 100mil, 2x1, Tin, TH	Header, 2 PIN, 100mil, Tin
J3	1		676430910	Molex	Connector, Receptacle, USB Standard, R/A, Top Mount TH	Standard USB Rcpt
J4	1		PEC05DAAN	Sullins	Header, 100mil, 5x2, Tin plated, TH	Header, 5x2, 100mil, Tin
J5	1		48037-1000	Molex	Connector, Plug, USB Type A, R/A, Top Mount SMT	USB Type A right angle
L1	1	3.3uH	SPM6530T-3R3M	TDK	Inductor, Shielded, Ferrite, 3.3uH, 6.8A, 0.0297 ohm, SMD	SMD 7.1x3.0x6.5mm
L2	1		985DH-1026	Toko	Coupled inductor, 0.28A, 0.36 ohm, SMD	2.2x1.3x1.4mm
R1	1	5.11	CRCW06035R11FKEA	Vishay-Dale	RES, 5.11 ohm, 1%, 0.1W, 0603	0603
R2	1	365k	CRCW0402365KFKED	Vishay-Dale	RES, 365k ohm, 1%, 0.063W, 0402	0402
R3	1	0.01	ERJ-M1WSF10MU	Panasonic	RES, 0.01 ohm, 1%, 1W, 2512	2512
R4	1	51.1	CRCW040251R1FKED	Vishay-Dale	RES, 51.1 ohm, 1%, 0.063W, 0402	0402
R5, R14	2	10.0k	CRCW040210K0FKED	Vishay-Dale	RES, 10.0k ohm, 1%, 0.063W, 0402	0402
R6	1	47.5k	CRCW040247K5FKED	Vishay-Dale	RES, 47.5k ohm, 1%, 0.063W, 0402	0402
R7	1	5.23k	CRCW04025K23FKED	Vishay-Dale	RES, 5.23k ohm, 1%, 0.063W, 0402	0402
R8	1	open			RES, open, 0805	0805
R9	1	8.25k	CRCW04028K25FKED	Vishay-Dale	RES, 8.25k ohm, 1%, 0.063W, 0402	0402
R10	1	13.0k	CRCW040213K0FKED	Vishay-Dale	RES, 13.0k ohm, 1%, 0.063W, 0402	0402
R11	1	86.6k	CRCW040286K6FKED	Vishay-Dale	RES, 86.6k ohm, 1%, 0.063W, 0402	0402
R12	1	0	CRCW04020000Z0ED	Vishay-Dale	RES, 0 ohm, 5%, 0.063W, 0402	0402
R13	1	1.21k	CRCW04021K21FKED	Vishay-Dale	RES, 1.21k ohm, 1%, 0.063W, 0402	0402

Designator	Quantity	Value	PartNumber	Manufacturer	Description	Package
R15, R16	2	2.2k	CRCW04022K20JNED	Vishay-Dale	RES, 2.2k ohm, 5%, 0.063W, 0402	0402
R17	1	48.7k	CRCW040248K7FKED	Vishay-Dale	RES, 48.7k ohm, 1%, 0.063W, 0402	0402
R18	1	22.1k	CRCW040222K1FKED	Vishay-Dale	RES, 22.1k ohm, 1%, 0.063W, 0402	0402
R19, R20, R21, R22, R23	5	100k	CRCW0402100KFKED	Vishay-Dale	RES, 100k ohm, 1%, 0.063W, 0402	0402
TP1	1	Red	5000	Keystone	Test Point, TH, Miniature, Red	Keystone5000
TP2	1	Black	5001	Keystone	Test Point, TH, Miniature, Black	Keystone5001
TP3, TP4, TP5	3	Red	5010	Keystone	Test Point, Multipurpose, Red, TH	Keystone5010
U1	1		TPS54340QDDAQ1	Texas Instruments	42 V Input, 3.5 A, Step Down DC-DC Converter with Eco-mode, DDA0008E	DDA0008E
U2	1		INA213AQDCKRQ1	Texas Instruments	Voltage Output, High or Low Side Measurement, Bi-Directional Zero-Drift Series Current-Shunt Monitor, DCK0006A	DCK0006A
U3	1		TPS2546QRTERQ1	Texas Instruments	USB Charging Port Controller and Power Switch with Load Detection, RTE0016C	RTE0016C
U4	1		TPD2E001IDRLRQ1	Texas Instruments	Automotive Catalog Low-Capacitance + / - 15 kV ESD-Protection Array for High-Speed Data Inter, 2 Channels, -40 to +85 degC, 5-pin SOT (DRL), Green (RoHS & no Sb/Br)	DRL0005A

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.