



PMP10129 REV B Bill of Materials

Designator	Quantity	Value	PartNumber	Manufacturer	Description	PackageReference
C1, C4, C10	3	0.1uF	B32921C3104M	EPCOS Inc	CAP, Film, 0.1 µF, 305 V, +/- 20%, TH	13x6x12mm
C2	1	0.22uF	B32653A224J	EPCOS Inc	CAP, Film, 0.22 µF, 1000 V, +/- 5%, TH	26.50x20.50x11mm
C3, C9	2	68uF	EKXG401ELL680MM25S	Chemi-Con	CAP, AL, 68 µF, 400 V, +/- 20%, ohm, TH	D18xL31.5mm
C5	1	1500pF	C3216C0G2J152J	TDK	CAP, CERM, 1500 pF, 630 V, +/- 5%, C0G/NP0, 1206	1206
C6	1	100uF	EEE-FK1H101P	Panasonic	CAP, AL, 100 µF, 50 V, +/- 20%, 0.34 ohm, SMD	SMT Radial F
C7, C8	2	10uF	C3225X7R1H106M250AC	TDK	CAP, CERM, 10 µF, 50 V, +/- 20%, X7R, 1210	1210
C11	1	470uF	EEE-FK1A471P	Panasonic	CAP, AL, 470 µF, 10 V, +/- 20%, 0.16 ohm, SMD	SMT Radial F
C12	1	22uF	C3225X7R1C226K250AC	TDK	CAP, CERM, 22 µF, 16 V, +/- 10%, X7R, 1210	1210
C13	1	10uF	EEE-FC1H100P	Panasonic	CAP, AL, 10 µF, 50 V, +/- 20%, 2 ohm, SMD	SMT Radial D
C14, C20, R22, R24, R26, R29, R31, R34	8	DNP	Used in BOM report	Used in BOM report	CAP, CERM, xxxF, xxV, [TempCo], xx%, [PackageReference], CAP, CERM, xxxF, xxV, [TempCo], xx%, [PackageReference], RES, xxx ohm, x%, xW, [PackageReference]	Used in PnP output and some BOM reports
C15	1	0.1uF	C1608X7R1H104K	TDK	CAP, CERM, 0.1 µF, 50 V, +/- 10%, X7R, 0603	0603
C16	1	680pF	C0603C681K5RACTU	Kemet	CAP, CERM, 680 pF, 50 V, +/- 10%, X7R, 0603	0603
C17	1	0.047uF	C1608X7R1H473K	TDK	CAP, CERM, 0.047 µF, 50 V, +/- 10%, X7R, 0603	0603
C18	1	1uF	08055C105KAT2A	AVX	CAP, CERM, 1 µF, 50 V, +/- 10%, X7R, 0805	0805
C19	1	560pF	GRM1885C1H561JA01D	MuRata	CAP, CERM, 560 pF, 50 V, +/- 5%, C0G/NP0, 0603	0603
C21, C22	2	4700pF	VY2472M49Y5US63V7	Vishay-Bccomponents	CAP, CERM, 4700 pF, 440 V, +/- 20%, Y5U, TH, 12.5x5mm	TH, 12.5x5mm
D1, D3	2	800V	MB8S-TP	Micro Commercial Component	Diode, Switching-Bridge, 800 V, 0.5 A, 4-Pin TO269AA, Body 4.95 x 4.2 mm, Pitch 2.555 mm	4-Pin TO269AA, Body 4.95 x 4.2 mm, Pitch 2.555 mm
D2	1	400V	MURS140-13-F	Diodes Inc.	Diode, Ultrafast, 400 V, 1 A, SMB	SMB
D4	1	28V	MMSZ5255B-7-F	Diodes Inc.	Diode, Zener, 28 V, 500 mW, SOD-123	SOD-123
D5	1	800V	US1K-13-F	Diodes Inc.	Diode, Fast Rectifier, 800 V, 1 A, SMA	SMA
D6	1	100V	MBRS3100T3G	ON Semiconductor	Diode, Schottky, 100 V, 3 A, SMC	SMC
D7	1	200V	BAS21-7-F	Diodes Inc.	Diode, Switching, 200 V, 0.2 A, SOT-23	SOT-23
L1, L2, L3, L4, L5, L6	6	1000uH	7447480102	Würth Elektronik	Inductor, Wirewound, Ferrite, 470 µH, 1.15 A, 0.47 ohm, TH	TH, Dia 10.5mm
Q1	1		IPD90R1K2C3	Used in BOM report	MOSFET, N-CH, xxV, xxxA, DPAK	Used in PnP output and some BOM reports
R1, R6, R9, R12, R14, R17	6	DNP	Used in BOM report	Used in BOM report	RES, xxx ohm, x%, xW, [PackageReference]	0805
R2, R3, R11, R16, R18, R20	6	10.0k	CRCW080510K0FKEA	Vishay-Dale	RES, 10.0 k, 1%, 0.125 W, 0805	0805
R4, R8, R13, R15	4	499k	CRCW1206499KFKEA	Vishay-Dale	RES, 499 k, 1%, 0.25 W, 1206	1206
R5	1	68	CRCW201068R0JNEF	Vishay-Dale	RES, 68, 5%, 0.75 W, 2010	2010
R7	1	100k	CRCW2010100KFKEF	Vishay-Dale	RES, 100 k, 1%, 0.75 W, 2010	2010
R10	1	0	CRCW08050000Z0EAHP	Vishay-Dale	RES, 0, 5%, 0.333 W, 0805	0805
R19	1	10.0	CRCW080510R0FKEA	Vishay-Dale	RES, 10.0, 1%, 0.125 W, 0805	0805
R21	1	0	CRCW06030000Z0EA	Vishay-Dale	RES, 0, 5%, 0.1 W, 0603	0603
R23	1	49.9	CRCW060349R9FKEA	Vishay-Dale	RES, 49.9, 1%, 0.1 W, 0603	0603
R25	1	0	CRCW08050000Z0EA	Vishay-Dale	RES, 0, 5%, 0.125 W, 0805	0805

Designator	Quantity	Value	PartNumber	Manufacturer	Description	PackageReference
R27	1	20.0k	CRCW060320K0FKEA	Vishay-Dale	RES, 20.0 k, 1%, 0.1 W, 0603	0603
R28	1	2.0k	CRCW06032K00JNEA	Vishay-Dale	RES, 2.0 k, 5%, 0.1 W, 0603	0603
R30	1	499	RT0603DRE07499RL	Yageo America	RES, 499, 0.5%, 0.1 W, 0603	0603
R32	1	60.4k	CRCW060360K4FKEA	Vishay-Dale	RES, 60.4 k, 1%, 0.1 W, 0603	0603
R33	1	0.39	ERJ-8RQFR39V	Panasonic	RES, 0.39, 1%, 0.25 W, 1206	1206
R35	1	5.23k	CRCW06035K23FKEA	Vishay-Dale	RES, 5.23 k, 1%, 0.1 W, 0603	0603
RF1, RF2, RF3	3	10	FW20A10R0JACT-ND	Bourns	RES, 10, 5%, 32W, Fusible, TH, RES, 10, 5%, 2 W, Fusible, TH, RES, 10, 5%, 2 W, Fusible, TH	Axial
RV1, RV2, RV3	3	DNP	S10K275E2	EPCOS Inc	Varistor 275V RMS 10MM Radial, TH	10mm Radial
T1	1	400 uH	750315315	Würth Elektronik	Transformer, 400 uH, TH	33x26.3mm
TP1, TP2, TP3, TP4, TP5, TP6, TP7	7	Double	1503-2	Keystone	Terminal, Turret, TH, Double	Keystone1503-2
TP8, TP9	2	Red	5000	Keystone	Test Point, Miniature, Red, TH	Red Miniature Testpoint
TP10	1	Black	5001	Keystone	Test Point, Miniature, Black, TH	Black Miniature Testpoint
U1	1		LM5021MM-1/NOPB	Texas Instruments	AC-DC Current Mode PWM Controller, 8-pin MSOP, Pb-Free	MUA08A
U2	1		TCMT1107	Vishay-Semiconductor	Optocoupler, 3.75kV RMS, SMT	SOP-4
U3	1		LMV431AIMF/NOPB	Texas Instruments	Low-Voltage (1.24V) Adjustable Precision Shunt Regulators, 3-pin SOT-23, Pb-Free	MF03A

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.