

PMP10098 REV C Bill of Materials

Item #	Designator	Quantity	Value	PartNumber	Manufacturer	Description	PackageReference
1	C1, C3	2	1000pF	C907U102MYVDBA7317	Kemet	CAP, CERM, 1000pF, 300V, +/-20%, Y5V, Radial Disc 7mm, ls=7.5	Radial Disc 7.5mm, ls=7.5
2	C2	1	0.1uF	B32922C3104M	EPCOS Inc	CAP, Film, 0.1uF, 630V, +/-20%, TH	B32922 10.5mm
3	C4	1	2200pF	C907U222MZVDBA7317	Kemet	CAP, CERM, 2200 pF, 300 V, +/- 20%, Y5V	Radial Disc 7.5mm, ls=7.5
4	C5, C6, C7, C13, C21	5	1uF	GRM188R71E105KA12D	MuRata	CAP, CERM, 1 uF, 25 V, +/- 10%, X7R, 0603	0603
5	C8	1	2200pF	GRM21AR72E222KW01D	MuRata	CAP, CERM, 2200 pF, 250 V, +/- 10%, X7R, 0805	0805
6	C9, C10	2	6.8uF	EKXG401ELL6R8MJ16S	United Chemi-Con	CAP, AL, 6.8uF, 400V, 20%, 100mA	10x16
7	C11, C12	2	470uF	EEE-FK1C471P	Panasonic	CAP, AL, 470 uF, 16 V, +/- 20%, 0.16 ohm, SMD	SMT Radial F
8	C14, C15, C17, C20	4	0.1uF	GCM188R71H104KA57D	MuRata	CAP, CERM, 0.1 uF, 50 V, +/- 10%, X7R, 0603	0603
9	C16	1	47uF	EEE-FK1E470P	Panasonic	CAP, AL, 47 uF, 25 V, +/- 20%, 0.36 ohm, SMD	SMT Radial D
10	C18	1	0.01uF	GRM188R71H103KA01D	MuRata	CAP, CERM, 0.01 uF, 50 V, +/- 10%, X7R, 0603	0603
11	C19	1	1000pF	GRM188R71H102KA01D	MuRata	CAP, CERM, 1000 pF, 50 V, +/- 10%, X7R, 0603	0603
12	C22	1	100pF	GRM1885C1H101JA01D	MuRata	CAP, CERM, 100 pF, 50 V, +/- 5%, C0G/NP0, 0603	0603
13	C23	1	470pF	GRM188R71H471KA01D	MuRata	CAP, CERM, 470 pF, 50 V, +/- 10%, X7R, 0603	0603
14	D1	1	1.15V	RH06-T	Diodes Inc.	Diode, Switching-Bridge, 600V, 0.5A, MiniDIP	MiniDIP
15	D2	1	MURA160	MURA160T3G	ON Semiconductor	Diode, Ultrafast, 600V, 1A, SMA	SMA
16	D3	1	6.8V	MMSZ5235B-7-F	Diodes Inc.	Diode, Zener, 6.8 V, 500 mW, SOD-123	SOD-123
17	D4	1	200V	RF071M2S	Rohm	Diode, Ultrafast, 200 V, 1 A, SOD-123	SOD-123
18	D6, D7, D8	3	200V	BAS21-7-F	Diodes Inc.	Diode, Switching, 200 V, 0.2 A, SOT-23	SOT-23
19	FID1, FID2, FID3, FID4	4		N/A	N/A	Fiducial mark. There is nothing to buy or mount.	N/A
20	J1	1		OSTTA034163	On-Shore Technology	Terminal Block, 3x1, 5.08 mm, TH	3x1 Terminal Block
21	J2, J3	2		ED555/2DS	On-Shore Technology	Terminal Block, 6A, 3.5mm Pitch, 2-Pos, TH	7.0x8.2x6.5mm
22	L1	1	20mH	744821120	Würth Elektronik eiSos	Coupled inductor, 20 mH, 0.5 A, 1.0 ohm, +/- 30%, TH	15 x 18 x 7.5mm
23	L2	1	1mH	744772102	Würth Elektronik eiSos	Inductor, Shielded Drum Core, Metal Composite, 1 mH, 0.3 A, 1.7 ohm	Dia 8x10mm
24	Q1	1	SI2309DS	SI2309DS	Vishay-Siliconix	MOSFET, P-CH, -60V, -1.0A, SOT-23	SOT-23
25	Q2	1	FMMT560	FMMT560	Diodes Inc.	Transistor, PNP, -500V, -500mA, SOT-23	SOT-23
26	Q3	1	0.2V	MMBT3904	Diodes Inc.	Transistor, NPN, 40V, 0.2A, SOT-23	SOT-23
27	Q4	1	650V	SPD03N60C3	Infineon Technologies	MOSFET, N-CH, 650 V, 3.2 A, DPAK	DPAK
28	R1	1	47k	CRCW120647K0JNEA	Vishay-Dale	RES, 47 k, 5%, 0.25 W, 1206	1206
29	R2	1	40.2k	CRCW060340K2FKEA	Vishay-Dale	RES, 40.2 k, 1%, 0.1 W, 0603	0603
30	R3	1	6.8k	CRCW12066K80JNEA	Vishay-Dale	RES, 6.8 k, 5%, 0.25 W, 1206	1206
31	R4	1	100	CRCW0603100RFKEA	Vishay-Dale	RES, 100, 1%, 0.1 W, 0603	0603
32	R5, R6, R7	3	1.00Meg	CRCW06031M00FKEA	Vishay-Dale	RES, 1.00 M, 1%, 0.1 W, 0603	0603
33	R8, R12, R15	3	1.00Meg	CRCW08051M00FKEA	Vishay-Dale	RES, 1.00 M, 1%, 0.125 W, 0805	0805
34	R9, R21	2	10.0	CRCW060310R0FKEA	Vishay-Dale	RES, 10.0, 1%, 0.1 W, 0603, RES, 10.0 ohm, 1%, 0.1W, 0603	0603
35	R10	1	49.9	CRCW060349R9FKEA	Vishay-Dale	RES, 49.9, 1%, 0.1 W, 0603	0603
36	R11, R14, R19, R20, R28	5	100k	CRCW0603100KFKEA	Vishay-Dale	RES, 100 k, 1%, 0.1 W, 0603	0603
37	R13	1	37.4k	CRCW060337K4FKEA	Vishay-Dale	RES, 37.4 k, 1%, 0.1 W, 0603	0603
38	R16	1	470k	CRCW0603470KJNEA	Vishay-Dale	RES, 470k ohm, 5%, 0.1W, 0603	0603
39	R17, R101	2	0	CRCW06030000Z0EA	Vishay-Dale	RES, 0, 5%, 0.1 W, 0603	0603
40	R18	1	4.75k	CRCW06034K75FKEA	Vishay-Dale	RES, 4.75 k, 1%, 0.1 W, 0603	0603
41	R22, R23	2	2.21k	CRCW06032K21FKEA	Vishay-Dale	RES, 2.21k ohm, 1%, 0.1W, 0603, RES, 2.21 k, 1%, 0.1 W, 0603	0603
42	R24	1	0.47	ERJ-6RQFR47V	Panasonic	RES, 0.47, 1%, 0.125 W, 0805	0805
43	R25	1	35.7k	CRCW060335K7FKEA	Vishay-Dale	RES, 35.7 k, 1%, 0.1 W, 0603	0603
44	R26	1	165k	CRCW0603165KFKEA	Vishay-Dale	RES, 165 k, 1%, 0.1 W, 0603	0603
45	R27	1	11.5k	CRCW060311K5FKEA	Vishay-Dale	RES, 11.5 k, 1%, 0.1 W, 0603	0603
46	RV1	1	275V	S10K275E2	EPCOS Inc	Varistor 275V RMS 10MM Radial, TH	10mm Radial
47	T1	1	4 mH	750370271	Würth Elektronik eiSos	Transformer, 4 mH, SMT	SMT, 9-Leads, Body 22.74x13.1mm
48	TP1, TP3	2	White	5002	Keystone	Test Point, Miniature, White, TH	White Miniature Testpoint
49	TP2, TP5	2	Red	5000	Keystone	Test Point, Miniature, Red, TH	Red Miniature Testpoint
50	TP4, TP6	2	Black	5001	Keystone	Test Point, Miniature, Black, TH	Black Miniature Testpoint
51	U1	1		LP2980AIM5-5.0	Texas Instruments	Micropower 50 mA Ultra Low-Dropout Regulator, 5-pin SOT-23	MF05A
52	U2	1		LM3481MM	Texas Instruments	High Efficiency Low-Side N-Channel Controller for Switching Regulators	MUB10A
53	U3	1		LMV431AIMF/NOPB	Texas Instruments	Low-Voltage (1.24V) Adjustable Precision Shunt Regulators	MF03A
54	U4	1		TCMT1107	Vishay-Semiconductor	Optocoupler, 3.75kV RMS, SMT	SOP-4

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.