

PMP9385 REV E1 Bill of Materials

Designator	Quantity	Value	PartNumber	Manufacturer	Description	PackageReference
!PCB	1		PMP7950 rev1	Any	PMP7950 rev1	N/A
C6	1	22uF	TMK325B7226MM	Taiyo Yuden	CAP, CERM, 22uF, 25V, X7R, 20%, 1210	1210
C7	1	330uF	UCD2A331MNQ1MS	Nichicon	CAP, Al Electrolytic, 330uF, 100V, +/-20%, SMT	
C8	1	3.3uF	GRM32DR71H335KA88L	MuRata	CAP, CERM, 3.3uF, 50V, +/-10%, X7R, 1210	1210
C15		0.1uF	08053C104KAT2A	AVX	CAP, CERM, 0.1uF, 25V, +/-10%, X7R, 0805	0805
C16, C20	2	100pF	GRM1885C1H101JA01D	MuRata	CAP, CERM, 100pF, 50V, +/-5%, C0G/NP0, 0603	0603
C17		4.7uF	GRM21BR71C475KA73L	MuRata	CAP, CERM, 4.7uF, 16V, +/-10%, X7R, 0805	0805
C19, C21		0.47uF	GRM188R71E474KA12D	MuRata	CAP, CERM, 0.47uF, 25V, +/-10%, X7R, 0603	0603
C22	1	1uF	GRM219R71E105KA88D	MuRata	CAP, CERM, 1uF, 25V, +/-10%, X7R, 0805	0805
C23	1	68pF	06035A680JAT2A	AVX	CAP, CERM, 68pF, 50V, +/-5%, C0G/NP0, 0603	0603
C24	1	2700pF	GRM188R71H272KA01D	MuRata	CAP, CERM, 2700pF, 50V, +/-10%, X7R, 0603	0603
C26	1	1uF	GRM188R71E105KA12D	MuRata	CAP, CERM, 1uF, 25V, +/-10%, X7R, 0603	0603
Cx1, Cx2	2	390uF	PCV1E391MCL2GS	Nichicon	CAP, Conductive Polymer Al Electrolytic, 390uF, 25V, +/-20%, 0.0210hm	Used in PnP output
CX1, CX2	2	390uF		Nichicon	ESR, SMT	·
D1	1	0.77V	DFLS1100-7	Diodes Inc.	Diode, Schottky, 100V, 1A, PowerDI123	PowerDI123
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
H5, H6, H7, H8	4		1902C	Keystone	Standoff, Hex, 0.5"L #4-40 Nylon	Standoff
J1	1	2x1	1715721	Phoenix Contact	Conn Term Block, 2POS, 5.08mm, TH	2POS Terminal Block
J2	1	2x1	1751248	Phoenix Contact	Conn Term Block, 2POS, 3.5mm, TH	11x8.5x7.3mm
<u>L1</u>	1	3uH	XAL1580-302MEB	Coilcraft	Inductor, Shielded, Composite, 3uH, 34.4A, 0.002619 ohm, SMD	15.2x8x16.2mm
LBL1	1	- Curr	THT-14-423-10	Brady	Thermal Transfer Printable Labels, 0.650" W x 0.200" H - 10,000 per roll	PCB Label 0.650"H x 0.200"W
Q1, Q3	2	60V	CSD18531Q5A	Texas Instruments	MOSFET, N-CH, 60V, 19A, SON 5x6mm	SON 5x6mm
Q6		0.2V	MMBT3904	Fairchild Semiconductor	Transistor, NPN, 40V, 0.2A, SOT-23	SOT-23
Q7		0.25V	MMBT3906	Fairchild Semiconductor	Transistor, PNP, 40V, 0.2A, SOT-23	SOT-23
R2		0.004	KRL7638-C-R004-F-T1	Susumu	RES 0.004 OHM 3W 1% 3015 WIDE	Wide 3015 (7638 Metric), 1530
R3, R4	2	100	CRCW0603100RFKEA	Vishay-Dale	RES, 100 ohm, 1%, 0.1W, 0603	0603
R5, R8, R9, R10, R14	5	0	ERJ-3GEY0R00V	Panasonic	RES, 0 ohm, 5%, 0.1W, 0603	0603
R11	1	49.9k	CRCW060349K9FKEA	Vishay-Dale	RES, 49.9k ohm, 1%, 0.1W, 0603	0603
R12		2.2	CRCW08052R20JNEA	Vishay-Dale	RES, 2.2 ohm, 5%, 0.125W, 0805	0805
R13		45.3k	CRCW060345K3FKEA	Vishay-Dale	RES, 45.3k ohm, 1%, 0.1W, 0603	0603
R15		6.49k	CRCW060345K3FKEA	Vishay-Dale Vishay-Dale	RES, 6.49k ohm, 1%, 0.1W, 0603	0603
R16	1	37.4k	CRCW060337K4FKEA	Vishay-Dale Vishay-Dale	RES, 37.4k ohm, 1%, 0.1W, 0603	0603
R18	1	44.2k	CRCW060337K4FKEA	Vishay-Dale Vishay-Dale	RES, 44.2k ohm, 1%, 0.1W, 0603	0603
R19	1	523	CRCW0603523RFKEA	Vishay-Dale Vishay-Dale	RES, 523 ohm, 1%, 0.1W, 0603	0603
R20	1	10.0k	CRCW0603323KFKEA	Vishay-Dale Vishay-Dale	RES, 10.0k ohm, 1%, 0.1W, 0603	0603
R21	1	48.7	CRCW080548R7FKEA	Vishay-Dale Vishay-Dale	RES, 48.7 ohm, 1%, 0.125W, 0805	0805
R24	1	0	CRCW060346K7FKEA	Vishay-Dale Vishay-Dale	RES, 0 ohm, 5%, 0.1W, 0603	0603
TP1, TP3	l l	Red	5010	Keystone	Test Point, Multipurpose, Red, TH	Red Multipurpose
						Testpoint
TP2, TP7, TP8	3	White	5012	Keystone	Test Point, Multipurpose, White, TH	White Multipurpose Testpoint
TP4, TP5	2	Black	5011	Keystone	Test Point, Multipurpose, Black, TH	Black Multipurpose Testpoint
U1	1		LM5122MHX/NOPB	Texas Instruments	Wide Input Synchronous Boost Controller with Multiple Phase Capability, PWP0020A	PWP0020A

Designator	Quantity	Value	PartNumber	Manufacturer	Description	PackageReference
C1	0	470pF	GRM2165C2A471JA01D	MuRata	CAP, CERM, 470pF, 100V, +/-5%, C0G/NP0, 0805	0805
C2, C13, C14	0	330uF	EEV-FK2A331M	Panasonic	CAP, AL, 330uF, 100V, +/-20%, 0.153 ohm, SMD	SMT Radial K16
C3, C4, C5	0	3.3uF	GRM32DR71H335KA88L	MuRata	CAP, CERM, 3.3uF, 50V, +/-10%, X7R, 1210	1210
C9, C10, C11, C12, C27	0	1uF	GRM32CR72A105KA35L	MuRata	CAP, CERM, 1uF, 100V, +/-10%, X7R, 1210	1210
C18	0	100pF	GRM1885C1H101JA01D	MuRata	CAP, CERM, 100pF, 50V, +/-5%, C0G/NP0, 0603	0603
C25	0	1uF	GRM188R71E105KA12D	MuRata	CAP, CERM, 1uF, 25V, +/-10%, X7R, 0603	0603
D2	0	0.57V	PMEG6010CEH,115	NXP Semiconductor	Diode, Schottky, 60V, 1A, SOD-123F	SOD-123F
FID1, FID2, FID3	0		N/A	N/A	Fiducial mark. There is nothing to buy or mount.	Fiducial
Q2	0	60V	CSD18531Q5A	Texas Instruments	MOSFET, N-CH, 60V, 19A, SON 5x6mm	SON 5x6mm
Q4, Q8	0	0.2V	MMBT3904	Fairchild Semiconductor	Transistor, NPN, 40V, 0.2A, SOT-23	SOT-23
Q5, Q9	0	0.25V	MMBT3906	Fairchild Semiconductor	Transistor, PNP, 40V, 0.2A, SOT-23	SOT-23
R1	0	8.2	CRCW20108R20JNEF	Vishay Dale	RES 8.2 OHM 3/4W 5% 2010 SMD	2010 (5025 Metric)
R6, R7, R17	0	0	ERJ-3GEY0R00V	Panasonic	RES, 0 ohm, 5%, 0.1W, 0603	0603
TP6	0	Yellow	5009	Keystone	Test Point, Compact, Yellow, TH	Yellow Compact Testpoint

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.