

PMP7969 REV A Bill of Materials

Designator	Quantity	Value	PartNumber	Manufacturer	Description	PackageReference
!PCB	1		PMP10631	Any	Printed Circuit Board	.
C1, C2, C19, C20, C33, C34, C50, C51, C62	9	330uF	EEE-FP1V331AP	Panasonic	CAP ALUM 330UF 35V 20% SMD	SMT Radial G
C3, C4, C5, C6, C21, C22, C23, C24, C35, C36, C37, C38, C52, C53, C54, C55	16	4.7uF	GRM31CR71H475KA12L	MuRata	CAP, CERM, 4.7uF, 50V, +/-10%, X7R, 1206	1206
C7, C25, C39, C56	4	10uF	GRM32ER7YA106KA12L	MuRata	CAP, CERM, 10uF, 35V, +/-10%, X7R, 1210	1210
C8, C10, C26, C28, C40, C43, C57, C59	8	0.47uF	GRM188R71E474KA12D	MuRata	CAP, CERM, 0.47uF, 25V, +/-10%, X7R, 0603	0603
C9, C16, C27, C41, C58	5	100pF	GRM1885C1H101JA01D	MuRata	CAP, CERM, 100pF, 50V, +/-5%, C0G/NP0, 0603	0603
C11, C29, C44, C60	4	1uF	GRM188R71E105KA12D	MuRata	CAP, CERM, 1uF, 25V, +/-10%, X7R, 0603	0603
C12, C30, C45, C46	4	470pF	GRM2165C2A471JA01D	MuRata	CAP, CERM, 470pF, 100V, +/-5%, C0G/NP0, 0805	0805
C13, C47, C49	3	0.1uF	GRM188R71E104KA01D	MuRata	CAP, CERM, 0.1uF, 25V, +/-10%, X7R, 0603	0603
C14	1	0.047uF	GRM188R71E473KA01D	MuRata	CAP, CERM, 0.047uF, 25V, +/-10%, X7R, 0603	0603
C18	1	4700pF	C1608C0G1E472J	TDK	CAP, CERM, 4700pF, 25V, +/-5%, C0G/NP0, 0603	0603
C31	1	0.1uF	GCM188R71H104KA57D	MuRata	CAP, CERM, 0.1uF, 50V, +/-10%, X7R, 0603	0603
C32	1	10uF	GRM21BR71A106KE51L	MuRata	CAP, CERM, 10uF, 10V, +/-10%, X7R, 0805	0805
C42	1	220pF	C1608C0G1H221J	TDK	CAP, CERM, 220pF, 50V, +/-5%, C0G/NP0, 0603	0603
D1, D2, D3, D5	4	0.57V	PMEG6010CEH,115	NXP Semiconductor	Diode, Schottky, 60V, 1A, SOD-123F	SOD-123F
FID1, FID2, FID3, FID4, FID5, FID6	6		N/A	N/A	Fiducial mark. There is nothing to buy or mount.	Fiducial
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
IN1, OUT1, Sync In 1, Sync In 2, Sync In 3, Sync In 4	6	White	5007	Keystone	Test Point, TH, Compact, White	Keystone5007
J1, J2, J3, J5	4	50A	CB35-36-CY	Panduit	Terminal 50A Lug	CB35-36-CY
J4	1		TSW-105-07-G-S	Samtec	Header, TH, 100mil, 5x1, Gold plated, 230 mil above insulator	5x1 Header
L1, L2, L3, L4	4	4uH	SER2014-402MLB	Coilcraft	Inductor, Shielded E Core, Ferrite, 4uH, 25A, 0.00194 ohm, SMD	SER2014
LBL1	1		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, Q2, Q3, Q4, Q5, Q6, Q7, Q8	8	40V	CSD18501Q5A	Texas Instruments	MOSFET, N-CH, 40 V, 22 A, SON 5x6mm	SON 5x6mm
Q9, Q10, Q11, Q12	4	60V	2N7002E-T1-E3	Vishay-Siliconix	MOSFET, N-CH, 60V, 0.24A, SOT-23	SOT-23
Q13, Q14, Q15	3	0.2V	MMBT3904	Fairchild Semiconductor	Transistor, NPN, 40V, 0.2A, SOT-23	SOT-23
R1, R20, R31, R44	4	0.003	KRL7638-C-R003-F-T1	Susumu Co Ltd	RES 0.003 OHM 3W 1% 3015 WIDE	3015

Designator	Quantity	Value	PartNumber	Manufacturer	Description	PackageReference
R2, R4, R5, R9,	20	0	ERJ-3GEY0R00V	Panasonic	RES, 0 ohm, 5%, 0.1W, 0603	0603
R10, R21, R22,						
R23, R27, R28,						
R32, R33, R34,						
R39, R41, R45,						
R46, R47, R51,						
R52						
R3, R13, R14,	4	100k	CRCW0805100KFKEA	Vishay-Dale	RES, 100k ohm, 1%, 0.125W, 0805	0805
R19						
R6, R59, R64,	4	49.9k	CRCW060349K9FKEA	Vishay-Dale	RES, 49.9k ohm, 1%, 0.1W, 0603	0603
R66						
R7, R25, R36,	4	3.3	CRCW06033R30JNEA	Vishay-Dale	RES, 3.3 ohm, 5%, 0.1W, 0603	0603
R49						
R8	1	15.0k	RC0603FR-0715KL	Yageo America	RES, 15.0k ohm, 1%, 0.1W, 0603	0603
R11, R24, R26,	4	0	CRCW06030000Z0EA	Vishay-Dale	RES, 0 ohm, 5%, 0.1W, 0603	0603
R29						
R12, R30, R43,	4	10.0k	CRCW060310K0FKEA	Vishay-Dale	RES, 10.0k ohm, 1%, 0.1W, 0603	0603
R54						
R15	1	121k	CRCW0603121KFKEA	Vishay-Dale	RES, 121k ohm, 1%, 0.1W, 0603	0603
R16	1	2.67k	CRCW06032K67FKEA	Vishay-Dale	RES, 2.67k ohm, 1%, 0.1W, 0603	0603
R17	1	49.9k	ERJ-6ENF4992V	Panasonic	RES, 49.9k ohm, 1%, 0.125W, 0805	0805
R18	1	604	CRCW0805604RFKEA	Vishay-Dale	RES, 604 ohm, 1%, 0.125W, 0805	0805
R35	1	1.0	CRCW06031R00JNEA	Vishay-Dale	RES, 1.0 ohm, 5%, 0.1W, 0603	0603
R37	1	8.66	CRCW06038R66FKEA	Vishay-Dale	RES, 8.66 ohm, 1%, 0.1W, 0603	0603
R40	1	1.50k	CRCW06031K50FKEA	Vishay-Dale	RES, 1.50k ohm, 1%, 0.1W, 0603	0603
R48, R50, R55,	4	7.5	ERJ-12ZYJ7R5U	Panasonic	RESISTOR 7.5 OHM 3/4W 5% 2010	2010
R56						
R58	1	158k	CRCW0603158KFKEA	Vishay-Dale	RES, 158k ohm, 1%, 0.1W, 0603	0603
R60, R65, R67	3	15.0k	CRCW060315K0FKEA	Vishay-Dale	RES, 15.0k ohm, 1%, 0.1W, 0603	0603
R61, R62, R63	3	10Meg	CRCW060310M0JNEA	Vishay-Dale	RES, 10Meg ohm, 5%, 0.1W, 0603	0603
R68, R69, R70	3	4.7k	CRCW06034K70JNEA	Vishay-Dale	RES, 4.7k ohm, 5%, 0.1W, 0603	0603
SW1, SW2, SW3,	4	White	5002	Keystone	Test Point, TH, Miniature, White	Keystone5002
SW4						
TP2	1	Black	5006	Keystone	Test Point, Compact, Black, TH	Black Compact
						Testpoint
U1, U3, U4, U7	4		LM5122MH/NOPB	Texas Instruments	Wide Input Synchronous Boost Controller with Multiple Phase Capability,	PWP0020A
					PWP0020A	
U5	1		LMC555CMX	Texas Instruments	CMOS Timer, 8-pin Narrow SOIC	M08A
U6	1		CD4017BM96	Texas Instruments	IC 10-OUT DECADE COUNTER 16-SOIC	D (R-PDSO-G16)
U8	1		LM2936MP-3.3/NOPB	Texas Instruments	Ultra-Low Quiescent Current LDO Voltage Regulator, 4-pin SOT-223, Pb-	MP04A
Min Cond Marit		Disale	5004	IV av sat a sa a	Free	Mayatana F004
Vin Gnd, Vout	2	Black	5001	Keystone	Test Point, TH, Miniature, Black	Keystone5001
Gnd		DI	5000		Test Deint TH Ministra Ded	I/
Vin, Vout	2	Red	5000	Keystone	Test Point, TH, Miniature, Red	Keystone5000
R57	0	100k	CRCW0603100KFKEA	Vishay-Dale	RES, 100k ohm, 1%, 0.1W, 0603	0603

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.