

8/22/2014 10:11:07 AM

PMP10288 REV B Bill of Materials

Designator	Quantity	Value	PartNumber	Manufacturer	Description	PackageReference
C27	1	100pF	C1608C0G1H101J	TDK	CAP, CERM, 100pF, 50V, +/-5%, C0G/NP0, 0603	603
C2, C3, C8, C9	4	1000pF	C1608X7R2A102K	TDK	CAP, CERM, 1000pF, 100V, +/-10%, X7R, 0603	603
C4, C5, C6, C7	4	0.01uF	C1608X7R2A103K	TDK	CAP, CERM, 0.01uF, 100V, +/-10%, X7R, 0603	603
C28	1	0.033uF	GRM188R71C333KA01D	MuRata	CAP, CERM, 0.033 uF, 16 V, +/- 10%, X7R, 0603	603
C30	1	0.1uF	C1608X7R1H104K	TDK	CAP, CERM, 0.1uF, 50V, +/-10%, X7R, 0603	603
C26	1	0.47uF	GRM188R71C474KA88D	MuRata	CAP, CERM, 0.47 uF, 16 V, +/- 10%, X7R, 0603	603
C11, C12, C13, C14	0	DNP	C1608C0G1H331J	TDK	CAP, CERM, 330pF, 50V, +/-5%, C0G/NP0, 0603	603
C17	0	DNP	C1608X7R1H102K	TDK	CAP, CERM, 1000 pF, 50 V, +/- 10%, X7R, 0603	603
C33	0	DNP	C1608X7R1H104K	TDK	CAP, CERM, 0.1uF, 50V, +/-10%, X7R, 0603	603
C32	1	0.1uF	C2012X7R2A104K	TDK	CAP, CERM, 0.1uF, 100V, +/-10%, X7R, 0805	805
C24, C31	2	1uF	C2012X7R1E105K	TDK	CAP, CERM, 1uF, 25V, +/-10%, X7R, 0805	805
C29	1	4.7uF	GRM21BR71A475KA73L	MuRata	CAP, CERM, 4.7 uF, 10 V, +/- 10%, X7R, 0805	805
C23	1	0.047uF	C3216X7R2E473K	TDK	CAP, CERM, 0.047uF, 250V, +/-10%, X7R, 1206	1206
C19	1	100uF	C3225X5R0J107M	TDK	CAP, CERM, 100uF, 6.3V, +/-20%, X5R, 1210	1210
C21, C22	2	2.2uF	GRM32ER72A225KA35L	MuRata	CAP, CERM, 2.2uF, 100V, +/-10%, X7R, 1210	1210
C16	1	22uF	GRM32ER71E226KE15L	MuRata	CAP, CERM, 22uF, 25V, +/-10%, X7R, 1210	1210
C1, C10, C15, C25	4	1000pF	1812GC102KA1	AVX	CAP, CERM, 1000pF, 2000V, +/-10%, X7R, 1812	1812
C18	1	330uF	6TPE330ML	Sanyo	CAP, TA, 330uF, 6.3V, +/-20%, 0.025 ohm, SMD	7.3x2.8x4.3mm
C20	1	47uF	EEE-FK1J470P	Panasonic	CAP, AL, 47uF, 63V, +/-20%, 0.65 ohm, SMD	SMT Radial F
D1, D2, D3, D4, D5, D6, D7, D8, D9	9		B2100-13-F	Diodes Inc.	Diode, Schottky, 100V, 2A, SMB	SMB
D10, D11, D12, D13, D14	5		MMSD4148T1G	ON Semiconductor	Diode, Switching, 100V, 0.2A, SOD-123	SOD-123
D15	1		BAT54S-7-F	Diodes Inc.	Diode, Schottky, 30V, 0.2A, SOT-23	SOT-23
D16	1	58V	SMAJ58A	Diodes Inc.	Diode, TVS, Uni, 58V, 400W, SMA	SMA
D17	0	DNP	ES1A-13-F	Diodes Inc.	Diode, Ultrafast, 50V, 1A, SMA	SMA
D18, D19	0	DNP	CDBHD2100-G	Comchip Technology	Diode, Schottky-Bridge, 100V, 2A, MiniDIP	MiniDIP
J1, J2	2		1-406541-1	AMP	RJ-45, Right Angle, No LED, tab up	16.26x14.54x15.75
J3	1		ED555/2DS	On-Shore Technology	Terminal Block, 6A, 3.5mm Pitch, 2-Pos, TH	7.0x8.2x6.5mm
J4	1		ED120/2DS	On-Shore Technology	TERMINAL BLOCK 5.08MM VERT 2POS, TH	TERM_BLK, 2pos, 5.08mm
J5	1		PEC02SAAN	Sullins Connector Solutions	Header, 100mil, 2x1, Tin plated, TH	Header, 2 PIN, 100mil, Tin
L1, L2, L3, L4	4		MPZ1608S221A	TDK	Ferrite Bead, 220 ohm @ 100MHz, 2.2A, 0603	603
L5	1	1.5mH	LPS5030-155MLB	Coilcraft	Inductor, Shielded Drum Core, Ferrite, 1.5mH, 0.09A, 7.6 ohm, SMD	LPS5030
L6	1	6uH	SER1360-602KLB	Coilcraft	Inductor, Shielded E Core, Ferrite, 6uH, 9.4A, 0.01 ohm, SMD	SER1360
L7	1	3.3uH	MSS5131-332MLB	Coilcraft	Inductor, Shielded Drum Core, Ferrite, 3.3uH, 1.73A, 0.03 ohm, SMD	MSS5131
Q1, Q2, Q3, Q4	4	DNP	FDN8601	Fairchild Semiconductor	MOSFET, N-CH, 100V, 2.7A, SSOT-3	SSOT-3
Q5, Q6	2		CSD17501Q5A	Texas Instruments	MOSFET, N-CH, 30V, 100A, SON 5x6mm	SON 5x6mm
Q7	1		FDMC2523P	Fairchild Semiconductor	MOSFET, P-CH, -150V, -3A, QFN-8	QFN-8
Q8	1		FDS86242	Fairchild Semiconductor	MOSFET, N-CH, 150V, 4.1A, SOIC-8	SOIC-8
Q9	0	DNP	IRF6216TRPBF	International Rectifier	MOSFET, P-CH, -150V, -2.2A, SO-8	SO-8
R26	1	0	ERJ-3GEY0R00V	Panasonic	RES, 0 ohm, 5%, 0.1W, 0603	603
R22	1	4.7	CRCW06034R70JNEA	Vishay-Dale	RES, 4.7 ohm, 5%, 0.1W, 0603	603

Designator	Quantity	Value	PartNumber	Manufacturer	Description	PackageReference
R18, R19, R23	3	10	CRCW060310R0JNEA	Vishay-Dale	RES, 10 ohm, 5%, 0.1W, 0603	603
R38	1	63.4	CRCW060363R4FKEA	Vishay-Dale	RES, 63.4 ohm, 1%, 0.1W, 0603	603
R1, R2, R3, R4, R5, R6, R7, R8	8	75	CRCW060375R0FKEA	Vishay-Dale	RES, 75.0 ohm, 1%, 0.1W, 0603	603
R30	1	150	CRCW0603150RFKEA	Vishay-Dale	RES, 150, 1%, 0.1 W, 0603	603
R28	1	237	CRCW0603665RFKEA	Vishay-Dale	RES, 665 ohm, 1%, 0.1W, 0603	603
R33	1	1.00k	CRCW06031K00FKEA	Vishay-Dale	RES, 1.00k ohm, 1%, 0.1W, 0603	603
R31	1	2.00k	CRCW06032K00FKEA	Vishay-Dale	RES, 2.00k ohm, 1%, 0.1W, 0603	603
R25	1	3.01k	CRCW06033K01FKEA	Vishay-Dale	RES, 3.01 k, 1%, 0.1 W, 0603	603
R40	1	4.64k	CRCW06034K64FKEA	Vishay-Dale	RES, 4.64k ohm, 1%, 0.1W, 0603	603
R35	1	5.90k	CRCW06035K90FKEA	Vishay-Dale	RES, 5.90k ohm, 1%, 0.1W, 0603	603
R24, R29, R32	3	10.0k	CRCW060310K0FKEA	Vishay-Dale	RES, 10.0k ohm, 1%, 0.1W, 0603	603
R37, R43	2	24.9k	CRCW060324K9FKEA	Vishay-Dale	RES, 24.9 k, 1%, 0.1 W, 0603, RES, 24.9k ohm, 1%, 0.1W, 0603	603
R39	1	40.2k	CRCW060340K2FKEA	Vishay-Dale	RES, 40.2k ohm, 1%, 0.1W, 0603	603
R42	1	69.8k	CRCW060369K8FKEA	Vishay-Dale	RES, 69.8k ohm, 1%, 0.1W, 0603	603
R36, R41	2	100k	CRCW0603100KFKEA	Vishay-Dale	RES, 100k ohm, 1%, 0.1W, 0603	603
R9, R10, R11, R12	0	DNP	CRCW0603499KFKEA	Vishay-Dale	RES, 499k ohm, 1%, 0.1W, 0603	603
R13, R14, R15, R16	0	DNP	CRCW0603150KFKEA	Vishay-Dale	RES, 150k ohm, 1%, 0.1W, 0603	603
R34	0	DNP	CRCW0603100KFKEA	Vishay-Dale	RES, 100k ohm, 1%, 0.1W, 0603	603
R17	0	DNP	CRCW080524K0JNEA	Vishay-Dale	RES, 24k ohm, 5%, 0.125W, 0805	805
R20	0	DNP	CRCW120610R0JNEA	Vishay-Dale	RES, 10, 5%, 0.25 W, 1206	1206
R27	1	0.2	CSRN2010FKR200	Stackpole Electronics Inc	RES, 0.2 ohm, 1%, 0.5W, 2010	2010
T1	1		H6096NL	Pulse Engineering	TRANSFORMER/CMC MOD, GIGABIT POE+, SMT	12.2X6.6X18.16 mm
T2	1		FCT1-33M22SLB	Coilcraft	Transformer, 95 uH, SMT	SMD, 10-Leads, Body 13.46x13mm, Pitch 2.5mm
U2	1		HMHA2801A	Fairchild Semiconductor	Optocoupler, 3.75kV RMS, SMT	Mini Flat Package
U5	1		PC357N4J000F	Sharp Microelectronics	Photocoupler, 300-600% CTR, SMT	4.4x2.6x3.6mm
U3	1		TPS23754PWP	Texas Instruments	High Power/High Efficiency PoE Interface and DC/DC Controller, PWP0020B	PWP0020B
U4	1		TLV431AIDBV	Texas Instruments	LOW-VOLTAGE ADJUSTABLE PRECISION SHUNT REGULATOR, DBV0005A	DBV0005A

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.