

PMP10260 REV B Bill of Materials

Designator	Quantity	Value	PartNumber	Manufacturer	Description	Package
C1, C19, C20, C21, C22, C23, C24	7	33uF	63SXV33M	Panasonic	CAP, OS-CON, 33uF, 63V, +/-20%, 0.025 ohm, 8.0x11.9mm SMD	8.0x11.9mm
C2, C3	2	470uF	63ZLH470MEFC12.5x25	Rubycon	CAP, AL, 470uF, 63V, +/-20%, 0.043 ohm, TH	12.5x25mm
C4, C9, C13, C15, C17, C41, C46, C51, C52	9	0.1uF	C1608X7R1H104K	TDK	CAP, CERM, 0.1uF, 50V, +/-10%, X7R, 0603	0603
C5, C25, C26, C100	4	2.2uF	GRM32ER72A225KA35L	MuRata	CAP, CERM, 2.2uF, 100V, +/-10%, X7R, 1210	1210
C6	1	0.1uF	GRM188R72A104KA35D	MuRata	CAP, CERM, 0.1uF, 100V, +/-10%, X7R, 0603	0603
C7, C8	2	22uF	C3225X7R1C226M	TDK	CAP, CERM, 22uF, 16V, +/-20%, X7R, 1210	1210
C10, C50	2	0.01uF	C1608X7R1H103K	TDK	CAP, CERM, 0.01uF, 50V, +/-10%, X7R, 0603	0603
C11	1	4700pF	C1608C0G1H472J	TDK	CAP, CERM, 4700pF, 50V, +/-5%, C0G/NP0, 0603	0603
C12	1				CAP, open, 0603	0603
C14, C16, C18, C28, C30, C31, C32	7	1uF	C1608X7R1E105K080AB	TDK	CAP, CERM, 1uF, 25V, +/-10%, X7R, 0603	0603
C27	1	470pF	C1608C0G1H471J	TDK	CAP, CERM, 470pF, 50V, +/-5%, C0G/NP0, 0603	0603
C29	1	0.1uF	C2012X7R2A104K	TDK	CAP, CERM, 0.1uF, 100V, +/-10%, X7R, 0805	0805
C33, C38	2	2200pF	C0603C222K5RAC	Kemet	CAP, CERM, 2200pF, 50V, +/-10%, X7R, 0603	0603
C34, C37	2	10uF	GMK325AB7106MM-T	Taiyo Yuden	CAP, CERM, 10uF, 35V, +/-20%, X7R, 1206	1206
C35, C36	2				CAP, CERM, open, 1210	1210
C39, C40	2	390uF	20SVPF390M	Sanyo	CAP, OS-CON, 390uF, 20V, +/-20%, 0.014 ohm, 8x10 SMD	8x10
C42	1	0.47uF	C0603C474K4RACTU	Kemet	CAP, CERM, 0.47uF, 16V, +/-10%, X7R, 0603	0603
C45, C47	2	680pF	C1608C0G1H681J	TDK	CAP, CERM, 680pF, 50V, +/-5%, C0G/NP0, 0603	0603
C43, C44	2	1000pF	C1608C0G1H102J	TDK	CAP, CERM, 1000pF, 50V, +/-5%, C0G/NP0, 0603	0603
C48	1	100pF	C1608C0G1H101J	TDK	CAP, CERM, 100pF, 50V, +/-5%, C0G/NP0, 0603	0603
C49	1	0.033uF	GRM188R71H333KA61D	MuRata	CAP, CERM, 0.033uF, 50V, +/-10%, X7R, 0603	0603
C53	1	0.27uF	0805YC274KAT2A	AVX	CAP, CERM, 0.27uF, 16V, +/-10%, X7R, 0805	0805
C101	1	220uF	50ZL220MT78X11.5	Rubycon	CAP, AL, 220 uF, 50 V, +/- 20%, 0.072 ohm, TH	8x11.5
D1	1	100V	MBRS1100T3G	ON Semi	Diode, Schottky, 100V, 1A, SMB	SMB
D2, D3	2	60V	PMEG6010CEH	NXP	Diode, Schottky, 60V, 1A, SOD-123F	SOD-123F
D4, D5, D6	3	85V	BAS116T-7-F	Diodes Inc.	Diode, Switching, 85V, 0.215A, SOT-523	SOT-523
L1, L2	2				Inductor, open, SMD	
L3, L4	2	1.5uH	PG1096.152NL	Pulse	Inductor, Shielded E Core, Ferrite, 1.5uH, 47A, 0.00085 ohm, SMD	1024x571x1024 mil
L5	1	100uH	MSS1048-104MLB	Coilcraft	Inductor, Shielded Drum Core, Ferrite, 100uH, 1.36A, 0.25 ohm, SMD	MSS1048
L6, L7	2				Inductor, open, TH	27.94x20.0x23.11mm

Designator	Quantity	Value	PartNumber	Manufacturer	Description	Package
L8, L9	2	6.8uH	SER2915H-682KL	Coilcraft	Inductor, Shielded E Core, Ferrite, 6.8uH, 30A, 0.00186 ohm, SMD	SER29xx
Q1, Q2, Q3, Q4, Q5, Q6, Q7, Q8, Q9, Q10	10	60V	BUK7Y6R0-60EX	NXP	MOSFET, N-CH, 60V, 100A, SOT669	SOT669
Q11, Q12, Q13, Q14	4	40V	IPB120N04S4-02	Infineon	MOSFET, N-CH, 40V, 120A, DDPAK	DDPAK
Q15	1	0.3V	MMBT2222A	Fairchild	Transistor, NPN, 40V, 0.15A, SOT-23	SOT-23
R1, R2	2	0.2	CSRN2512FKR200	Stackpole	RES, 0.2 ohm, 1%, 2W, 2512	2512
R3	1	0.001	CSS2725FT1L00	Stackpole	RES, 0.001 ohm, 1%, 4W, RES_2725	RES_2725
R4, R35	2	49.9	CRCW060349R9FKEA	Vishay-Dale	RES, 49.9 ohm, 1%, 0.1W, 0603	0603
R5	1	178k	CRCW0603178KFKEA	Vishay-Dale	RES, 178k ohm, 1%, 0.1W, 0603	0603
R6	1	53.6k	CRCW060353K6FKEA	Vishay-Dale	RES, 53.6k ohm, 1%, 0.1W, 0603	0603
R7	1	10.2k	CRCW060310K2FKEA	Vishay-Dale	RES, 10.2k ohm, 1%, 0.1W, 0603	0603
R8	1	88.7k	CRCW060388K7FKEA	Vishay-Dale	RES, 88.7k ohm, 1%, 0.1W, 0603	0603
R9	1	49.9k	CRCW060349K9FKEA	Vishay-Dale	RES, 49.9k ohm, 1%, 0.1W, 0603	0603
R10	1	237k	CRCW0603237KFKEA	Vishay-Dale	RES, 237k ohm, 1%, 0.1W, 0603	0603
R11	1	75.0k	CRCW060375K0FKEA	Vishay-Dale	RES, 75.0k ohm, 1%, 0.1W, 0603	0603
R12	1	1.00	CRCW08051R00FKEA	Vishay-Dale	RES, 1.00 ohm, 1%, 0.125W, 0805	0805
R13	1	5.76k	CRCW06035K76FKEA	Vishay-Dale	RES, 5.76k ohm, 1%, 0.1W, 0603	0603
R14, R15, R16, R17, R18, R19, R20, R21, R24, R25	10	2.2	CRCW06032R20JNEA	Vishay-Dale	RES, 2.2 ohm, 5%, 0.1W, 0603	0603
R22, R36	2	0	CRCW06030000Z0EA	Vishay-Dale	RES, 0 ohm, 5%, 0.1W, 0603	0603L
R23, R26	2	10	CRCW120610R0JNEA	Vishay-Dale	RES, 10 ohm, 5%, 0.25W, 1206	1206
R27, R28, R32, R34	4	100	RC0603FR-07100RL	Yageo America	RES, 100 ohm, 1%, 0.1W, 0603	0603L
R29, R30	2	0.001	ERJ-M1WTF1M0U	Panasonic	RES, 0.001ohm, 1%, 2W, 2512	2512
R31, R33	2	249k	CRCW0603249KFKEA	Vishay-Dale	RES, 249k ohm, 1%, 0.1W, 0603	0603
R37	1	20.0k	CRCW060320K0FKEA	Vishay-Dale	RES, 20.0k ohm, 1%, 0.1W, 0603	0603
R38	1	6.34k	CRCW06036K34FKEA	Vishay-Dale	RES, 6.34k ohm, 1%, 0.1W, 0603	0603
R39	1	10k	3224W-2-103E	Bourns	TRIMMER, 10K, 0.25W, SMD	3.5x5.3x4.8mm
R40	1	1.62k	CRCW06031K62FKEA	Vishay-Dale	RES, 1.62k ohm, 1%, 0.1W, 0603	0603
R41	1	36.5k	CRCW060336K5FKEA	Vishay-Dale	RES, 36.5k ohm, 1%, 0.1W, 0603	0603
R42	1	3.01k	CRCW06033K01FKEA	Vishay-Dale	RES, 3.01k ohm, 1%, 0.1W, 0603	0603
R43	1	0.0005	CSS2725FTL500	Stackpole	RES, 0.0005 ohm, 1%, 4W, RES_2725	RES_2725
R44, R49, R52, R53	4	10.0k	CRCW060310K0FKEA	Vishay-Dale	RES, 10.0k ohm, 1%, 0.1W, 0603	0603
R45	1	13.7k	CRCW060313K7FKEA	Vishay-Dale	RES, 13.7k ohm, 1%, 0.1W, 0603	0603
R46, R47	2	82.5k	CRCW060382K5FKEA	Vishay-Dale	RES, 82.5k ohm, 1%, 0.1W, 0603	0603
R48	1	1.00k	CRCW06031K00FKEA	Vishay-Dale	RES, 1.00k ohm, 1%, 0.1W, 0603	0603
R50	1	16.5k	CRCW060316K5FKEA	Vishay-Dale	RES, 16.5k ohm, 1%, 0.1W, 0603	0603
R51	1	11.0k	CRCW060311K0FKEA	Vishay-Dale	RES, 11.0k ohm, 1%, 0.1W, 0603	0603
T1, T2	2	50A	CB35-36-CY	Panduit	Terminal 50A Lug	CB35-36-CY
T3, T4	2	90A	CB70-14-CY	Panduit	Terminal 90A Lug	CB70-14-CY

Designator	Quantity	Value	PartNumber	Manufacturer	Description	Package
TP1, TP2, TP3, TP4, TP5, TP6, TP7, TP8, TP9, TP10, TP11, TP12, TP13, TP14, TP15, TP16, TP17, TP18, TP19, TP20, TP21, TP22, TP23, TP24	24	SMT	5015	Keystone	Test Point, Miniature, SMT	Testpoint_Keystone_ Miniature
U1, U7	2		INA198AIDBV	Texas Instruments	CURRENT SHUNT MONITOR -16V to +80V Common-Mode Range, DBV0005A	DBV0005A
U2	1		TPS54060DGQ	Texas Instruments	Buck Inverting Buck-Boost Step Down Regulator with 3.5 to 60 V Input and 0.8 to 58 V Output, -40 to 150 degC, 10-Pin MSOP-PowerPAD (DGQ), Green (RoHS & no Sb/Br)	DGQ0010D
U3, U4, U5	3		LM50CIM3/NOPB	Texas Instruments	Single-Supply Centigrade Temperature Sensor, 3-pin SOT-23, Pb-Free	MF03A
U6	1		LM5119PSQ/NOPB	Texas Instruments	LM5119/LM5119Q Wide Input Range Dual Synchronous Buck Controller, RTV0032A	RTV0032A
U8	1		LM5060Q1MM/NOPB	Texas Instruments	High-Side Protection Controller with Low Quiescent Current, 10-pin MSOP, Pb-Free	MUB10A

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.