

## PMP11098 REV B Bill of Materials



Designator	Quantity	Value	PartNumber	Manufacturer	Description	Package
C1, C35	2	0.01uF	C1608X7R1H103K	TDK	CAP, CERM, 0.01uF, 50V, +/-10%, X7R, 0603	0603
C3, C9, C14, C15	4	1uF	C1608X7R1E105K080AB	TDK	CAP, CERM, 1uF, 25V, +/-10%, X7R, 0603	0603
C5, C6, C7, C10, C11, C12	6	4.7uF	C3225X7S2A475M200AB	TDK	CAP, CERM, 4.7uF, 100V, +/-20%, X7S, 1210	1210
C8	1	0.1uF	GRM188R72A104KA35D	MuRata	CAP, CERM, 0.1 uF, 100 V, +/- 10%, X7R, 0603	0603
C16, C17	2				CAP, CERM, open, 0603	0603
C18	1	68uF	50SVPF68M	Sanyo	CAP, OS-CON, 68uF, 50V, +/-20%, 0.020 ohm, F12, SMD	10x10.3
C21, C25	2	10uF	GMK325AB7106MM-T	Taiyo Yuden	CAP, CERM, 10uF, 35V, +/-20%, X7R, 1210	1210
C22	1	270uF	16SVPF270M	Panasonic	CAP, Polymer, 270 uF, 16 V, +/- 20%, 0.022 ohm, 8x8 SMD	8x8
C26, C28	2	1000pF	06031C102KAT2A	AVX	CAP, CERM, 1000pF, 100V, +/-10%, X7R, 0603	0603
C27, C30, C37	3	0.1uF	C1608X7R1H104K	TDK	CAP, CERM, 0.1uF, 50V, +/-10%, X7R, 0603	0603
C29	1	0.47uF	C0603C474K4RACTU	Kemet	CAP, CERM, 0.47uF, 16V, +/-10%, X7R, 0603	0603
C31, C32	2	1800pF	C1608C0G1H182J	TDK	CAP, CERM, 1800pF, 50V, +/-5%, C0G/NP0, 0603	0603
C33	1	100pF	C1608C0G1H101J	TDK	CAP, CERM, 100pF, 50V, +/-5%, C0G/NP0, 0603	0603
C34	1	68pF	C1608C0G1H680J	TDK	CAP, CERM, 68 pF, 50 V, +/- 5%, C0G/NP0, 0603	0603
C36	1	0.047uF	C1608X7R1H473K	TDK	CAP, CERM, 0.047uF, 50V, +/-10%, X7R, 0603	0603
D4, D5	2	0.51V	MBRA160T3G	ON Semiconductor	Diode, Schottky, 60V, 1A, SMA	SMA
J1, J2, J3	3		ED120/2DS	On Shore Tech	TERMINAL BLOCK 5.08MM VERT 2POS	TERM_BLK, 2pos, 5.08mm
L1	1	68uH	MSS1210-683ME	Coilcraft	Inductor, Shielded, Ferrite, 68 uH, 4.3 A, 0.074 ohm, SMD	Inductor, 12.3x10x12.3mm
L2	1	33uH	MSS1210-333ME	Coilcraft	Inductor, Shielded, Ferrite, 33 uH, 5.9 A, 0.034 ohm, SMD	Inductor, 12.3x10x12.3mm
Q1, Q2, Q3, Q4	4	100V	CSD19534Q5A	Texas Instruments	MOSFET, N-CH, 100V, 15nC, 0.0124 ohm, SON 5x6mm	SON 5x6mm
R1	1	100k	CRCW0603100KFKEA	Vishay-Dale	RES, 100k ohm, 1%, 0.1W, 0603	0603L
R3	1	1.00	CRCW06031R00FKEA	Vishay-Dale	RES, 1.00 ohm, 1%, 0.1W, 0603	0603L
R4	1	6.65k	CRCW06036K65FKEA	Vishay-Dale	RES, 6.65k ohm, 1%, 0.1W, 0603	0603L
R6, R7, R25	3	0	CRCW0603000Z0EA	Vishay-Dale	RES, 0 ohm, 5%, 0.1W, 0603	0603L
R8, R9, R10, R11	4	2.2	CRCW06032R20JNEA	Vishay-Dale	RES, 2.2 ohm, 5%, 0.1W, 0603	0603
R12	1	100k	CRCW0603100KFKEA	Vishay-Dale	RES, 100 k, 1%, 0.1 W, 0603	0603
R13, R15	2				RES, open, 1206	1206
R14	1	29.4k	CRCW060329K4FKEA	Vishay-Dale	RES, 29.4 k, 1%, 0.1 W, 0603	0603
R16, R17, R20, R21	4	100	CRCW0603100RFKEA	Vishay-Dale	RES, 100 ohm, 1%, 0.1W, 0603	0603
R18	1	0.015	CSR1206FK15L0	Stackpole	RES, 0.015 ohm, 1%, 0.5W, 1206	1206
R19	1	0.025	CSRN2010FK25L0	Stackpole	RES, 0.025, 1%, 1 W, 2010	2010
R22	1	24.9k	CRCW060324K9FKEA	Vishay-Dale	RES, 24.9 k, 1%, 0.1 W, 0603	0603
R23, R24	2	49.9	CRCW060349R9FKEA	Vishay-Dale	RES, 49.9 ohm, 1%, 0.1W, 0603	0603L
R26, R27	2	20.0k	CRCW060320K0FKEA	Vishay-Dale	RES, 20.0k ohm, 1%, 0.1W, 0603	0603L
R28	1	78.7k	CRCW060378K7FKEA	Vishay-Dale	RES, 78.7 k, 1%, 0.1 W, 0603	0603
R29	1	12.1k	CRCW060312K1FKEA	Vishay-Dale	RES, 12.1 k, 1%, 0.1 W, 0603	0603

Designator	Quantity	Value	PartNumber	Manufacturer	Description	Package
R30	1	3.09k	CRCW06033K09FKEA	Vishay-Dale	RES, 3.09 k, 1%, 0.1 W, 0603	0603
R31	1	590	CRCW0603590RFKEA	Vishay-Dale	RES, 590, 1%, 0.1 W, 0603	0603
R32	1	10.0k	CRCW060310K0FKEA	Vishay-Dale	RES, 10.0k ohm, 1%, 0.1W, 0603	0603L
R33	1	13.7k	CRCW060313K7FKEA	Vishay-Dale	RES, 13.7 k, 1%, 0.1 W, 0603	0603
TP1, TP3, TP6, TP7, TP8, TP10, TP12	7	Red	5010	Keystone	Test Point, Multipurpose, Red, TH	Keystone5010
TP2, TP4, TP5, TP9, TP11, TP13, TP14	7	Black	5011	Keystone	Test Point, Multipurpose, Black, TH	Keystone5011
U1	1		LM5119QPSQ/NOPB	Texas Instruments	LM5119/LM5119Q Wide Input Range Dual Synchronous Buck Controller, RTV0032A	RTV0032A

## IMPORTANT NOTICE FOR TI REFERENCE DESIGNS

Texas Instruments Incorporated ("TI") reference designs are solely intended to assist designers ("Designer(s)") who are developing systems that incorporate TI products. TI has not conducted any testing other than that specifically described in the published documentation for a particular reference design.

TI's provision of reference designs and any other technical, applications or design advice, quality characterization, reliability data or other information or services does not expand or otherwise alter TI's applicable published warranties or warranty disclaimers for TI products, and no additional obligations or liabilities arise from TI providing such reference designs or other items.

TI reserves the right to make corrections, enhancements, improvements and other changes to its reference designs and other items.

Designer understands and agrees that Designer remains responsible for using its independent analysis, evaluation and judgment in designing Designer's systems and products, and has full and exclusive responsibility to assure the safety of its products and compliance of its products (and of all TI products used in or for such Designer's products) with all applicable regulations, laws and other applicable requirements. Designer represents that, with respect to its applications, it has all the necessary expertise to create and implement safeguards that (1) anticipate dangerous consequences of failures, (2) monitor failures and their consequences, and (3) lessen the likelihood of failures that might cause harm and take appropriate actions. Designer agrees that prior to using or distributing any systems that include TI products, Designer will thoroughly test such systems and the functionality of such TI products as used in such systems. Designer may not use any TI products in life-critical medical equipment unless authorized officers of the parties have executed a special contract specifically governing such use. Life-critical medical equipment is medical equipment where failure of such equipment would cause serious bodily injury or death (e.g., life support, pacemakers, defibrillators, heart pumps, neurostimulators, and implantables). Such equipment includes, without limitation, all medical devices identified by the U.S. Food and Drug Administration as Class III devices and equivalent classifications outside the U.S.

Designers are authorized to use, copy and modify any individual TI reference design only in connection with the development of end products that include the TI product(s) identified in that reference design. HOWEVER, NO OTHER LICENSE, EXPRESS OR IMPLIED, BY ESTOPPEL OR OTHERWISE TO ANY OTHER TI INTELLECTUAL PROPERTY RIGHT, AND NO LICENSE TO ANY TECHNOLOGY OR INTELLECTUAL PROPERTY RIGHT OF TI OR ANY THIRD PARTY 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 products 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 the reference design or other items described above 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 AND OTHER ITEMS DESCRIBED ABOVE ARE PROVIDED "AS IS" AND WITH ALL FAULTS. TI DISCLAIMS ALL OTHER WARRANTIES OR REPRESENTATIONS, EXPRESS OR IMPLIED, REGARDING THE REFERENCE DESIGNS OR USE OF THE REFERENCE DESIGNS, INCLUDING BUT NOT LIMITED TO ACCURACY OR COMPLETENESS, TITLE, ANY EPIDEMIC FAILURE WARRANTY AND ANY IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, AND NON-INFRINGEMENT OF ANY THIRD PARTY INTELLECTUAL PROPERTY RIGHTS.

TI SHALL NOT BE LIABLE FOR AND SHALL NOT DEFEND OR INDEMNIFY DESIGNERS AGAINST ANY CLAIM, INCLUDING BUT NOT LIMITED TO ANY INFRINGEMENT CLAIM THAT RELATES TO OR IS BASED ON ANY COMBINATION OF PRODUCTS AS DESCRIBED IN A TI REFERENCE DESIGN OR OTHERWISE. IN NO EVENT SHALL TI BE LIABLE FOR ANY ACTUAL, DIRECT, SPECIAL, COLLATERAL, INDIRECT, PUNITIVE, INCIDENTAL, CONSEQUENTIAL OR EXEMPLARY DAMAGES IN CONNECTION WITH OR ARISING OUT OF THE REFERENCE DESIGNS OR USE OF THE REFERENCE DESIGNS, AND REGARDLESS OF WHETHER TI HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.

TI's standard terms of sale for semiconductor products (<http://www.ti.com/sc/docs/stdterms.htm>) apply to the sale of packaged integrated circuit products. Additional terms may apply to the use or sale of other types of TI products and services.

Designer will fully indemnify TI and its representatives against any damages, costs, losses, and/or liabilities arising out of Designer's non-compliance with the terms and provisions of this Notice.

Mailing Address: Texas Instruments, Post Office Box 655303, Dallas, Texas 75265  
Copyright © 2016, Texas Instruments Incorporated