## PMP11312 REV A Bill of Materials



LogicalDesignator	Quantity	Value	PartNumber	Manufacturer	Description	PackageReference
!PCB1	1	Value	Use PMP11312 REVA	Any	Printed Circuit Board	1 dellagertererene
C11, C8	2	2.2uF	GRM188R61C225KAAD	MuRata	CAP, CERM, 2.2 µF, 16 V, +/- 10%, X5R, 0603	0603
C1, C9	2	1uF	C1005X5R1C105K050BC	TDK	CAP, CERM, 1 µF, 16 V, +/- 10%, X5R, 0402	0402
C7, C5, C2, C6	4	22pF	C1005C0G1H220J050BA	TDK	CAP, CERM, 22 pF, 50 V, +/- 5%, C0G/NP0, 0402	0402
C4, C10, C33,	10	1000pF	C1005X7R1H102K	TDK	CAP, CERM, 1000 pF, 50 V, +/- 10%, X7R, 0402	0402
C34, C45, C46,	10	Тооорі	C 1005X/1C111102K	IBK	OAF, CEININ, 1000 pr , 30 V, +7- 1070, X71X, 0402	0402
C35, C47, C74,						
C78	1	2200=5	C1005X7R1H332K	TDK	CAD CEDM 2200 = F. FO.V/ 400/ VZD 0400	0402
C3	•	3300pF			CAP, CERM, 3300 pF, 50 V, +/- 10%, X7R, 0402	0402
C21, C24, C18,	20	22uF	GRM31CR61C226KE15L	MuRata	CAP, CERM, 22 μF, 16 V, +/- 10%, X5R, 1206	1206
C25, C28, C13,						
C15, C17, C20,						
C22, C12, C14,						
C16, C19, C23,						
C67, C68, C69,						
C70, C71						
C51, C49, C53,	12	470uF	EEF-GX0E471R	Panasonic	CAP, Aluminum Polymer, 470 µF, 2.5 V, +/- 20%, 0.003 ohm,	SMD_7.3x1.9x4.3mm
C48, C50, C54,					SMD_7.3x1.9x4.3mm SMD	
C79, C80, C85,						
C86, C88, C89						
C58, C64, C56,	40	100uF	JMK316BJ107ML-T	Taiyo Yuden	CAP, CERM, 100 μF, 6.3 V, +/- 20%, X5R, 1206	1206
C59, C62, C65,						
C55, C57, C60,						
C61, C63, C66,						
C81, C82, C83,						
C84, C90, C91,						
C92, C93, C94,						
C95, C96, C97,						
C98, C99, C100,						
C101, C102,						
C101, C102, C103, C104,						
C105, C104, C105, C106,						
, , , , , , , , , , , , , , , , , , ,						
C107, C108,						
C109, C110,						
C111, C112, C113						
C31, C26, C27,	4	3300pF	GRM188R71H332KA01D	MuRata	CAP, CERM, 3300 pF, 50 V, +/- 10%, X7R, 0603	0603
C72						
C32, C29, C30,	4	1uF	GRM188R61E105KA12D	MuRata	CAP, CERM, 1 µF, 25 V, +/- 10%, X5R, 0603	0603
C73						
C36, C37, C38,	6	0.1uF	C1005X7R1H104K	TDK	CAP, CERM, 0.1 µF, 50 V, +/- 10%, X7R, 0402	0402
C75, C52, C114					, , , , , , , , , , , , , , , , , , , ,	
C43, C42, C44,	4	0.1uF	06033C104JAT2A	AVX	CAP, CERM, 0.1 µF, 25 V, +/- 5%, X7R, 0603	0603
C77	•				5 , 5 = 1 till, 511 pr. , 25 t , 77 570, 711 til, 5000	
C39, C40, C41,	4	4.7uF	GRM188R61C475KAAJ	MuRata	CAP, CERM, 4.7 µF, 16 V, +/- 10%, X5R, 0603	0603
C76	7	<i>I</i> GI	311111111111111111111111111111111111111	Markata	ο, α , σειτίνι, τ.τ μι , το ν, ττ το το, ποιτ, σουσ	0000
C87	1	220uF	EMZA160ADA221MF80G	Chemi-Con	CAP, AL, 220 μF, 16 V, +/- 20%, 0.34 ohm, SMD	F80
001	<u> </u>	<u>L</u> LOUI	LIVIZA TOUADAZZ HVIFOUG	TOHERIN-OOH	[OΛΙ , ΛΕ, ΖΖΟ μι , ΤΟ V, Τ/- ΖΟ /0, Ο.Ο+ ΟΠΙΠ, ΟΝΙΟ	ji 00

LogicalDesignator	Quantity	Value	PartNumber	Manufacturer	Description	PackageReference
FID1, FID2, FID3	3		N/A	N/A	Fiducial mark. There is nothing to buy or mount.	Fiducial
J1, J2	2		U.FL-R-SMT-1	Hirose Electric Co. Ltd.	Connector, Ultra-Mini Coaxial, SMD	Ultra small CO-AX SMD
P1	1		1715747	Phoenix Contact	Terminal Block, 5.08mm, 4x1, TH	Terminal Block, 5.08mm, 4x1, TH
P12, P13, P11	3		800-10-002-10-001000	Mill-Max	Header, 100mil, 2x1, TH	Header, 2x1, 100mil, TH
P2, P6, P3, P7, P4, P8, P5, P9	8		108-0740-001	Emerson Network Power	Standard Banana Jack, Uninsulated, 15A	Banana Jack
P10	1		N2510-6002-RB	3M	Header (shrouded), 100mil, 5x2, High-Temperature, Gold, TH	5x2 Shrouded header
L1, L2, L3, L4	4	150nH	PA2607.151NLT	Pulse Engineering	Inductor, Ferrite, 150 nH, 41 A, 0.00029 ohm, SMD	10.31x7.65mm
Q1	1	30V	FDMC7660	Fairchild Semiconductor	MOSFET, N-CH, 30 V, 40 A, QFN-8	QFN-8
R3, R4	2	100	ERJ-2RKF1000X	Panasonic	RES, 100, 1%, 0.1 W, 0402	0402
R25, R24, R28, R26, R27, R39	6	2.2	CRCW04022R20JNED	Vishay-Dale	RES, 2.2, 5%, 0.063 W, 0402	0402
R1, R2	2	0	ERJ-2GE0R00X	Panasonic	RES, 0, 5%, 0.063 W, 0402	0402
R7	1	2.43k	CRCW04022K43FKED	Vishay-Dale	RES, 2.43 k, 1%, 0.063 W, 0402	0402
R21, R22, R43	3	10.0k	CRCW040210K0FKED	Vishay-Dale	RES, 10.0 k, 1%, 0.063 W, 0402	0402
R16	1	4.64k	CRCW04024K64FKED	Vishay-Dale	RES, 4.64 k, 1%, 0.063 W, 0402	0402
R10	1	78.7k	CRCW040278K7FKED	Vishay-Dale	RES, 78.7 k, 1%, 0.063 W, 0402	0402
R8	1	22.6k	CRCW040222K6FKED	Vishay-Dale	RES, 22.6 k, 1%, 0.063 W, 0402	0402
R5	1	26.7k	CRCW040226K7FKED	Vishay-Dale	RES, 26.7 k, 1%, 0.063 W, 0402	0402
R6	1	9.31k	CRCW04029K31FKED	Vishay-Dale	RES, 9.31 k, 1%, 0.063 W, 0402	0402
R9	1	16.5k	CRCW040216K5FKED	Vishay-Dale	RES, 16.5 k, 1%, 0.063 W, 0402	0402
R11	1	61.9k	CRCW040261K9FKED	Vishay-Dale	RES, 61.9 k, 1%, 0.063 W, 0402	0402
R12, R17	2	20.0k	CRCW040220K0FKED	Vishay-Dale	RES, 20.0 k, 1%, 0.063 W, 0402	0402
R20, R18, R19	3	24.3k	CRCW040224K3FKED	Vishay-Dale	RES, 24.3 k, 1%, 0.063 W, 0402	0402
R13	1	39k	CRCW040239K0JNED	Vishay-Dale	RES, 39 k, 5%, 0.063 W, 0402	0402
R14	1	150k	CRCW0402150KFKED	Vishay-Dale	RES, 150 k, 1%, 0.063 W, 0402	0402
R15	1	48.7k	CRCW040248K7FKED	Vishay-Dale	RES, 48.7 k, 1%, 0.063 W, 0402	0402
R23	1	121k	CRCW0402121KFKED	Vishay-Dale	RES, 121 k, 1%, 0.063 W, 0402	0402
R29, R30, R31, R40	4	1.00	CRCW04021R00FKED	Vishay-Dale	RES, 1.00, 1%, 0.063 W, 0402	0402
R35, R32, R33, R36, R34, R37, R41, R422	8	1.00	CRCW06031R00FKEA	Vishay-Dale	RES, 1.00, 1%, 0.1 W, 0603	0603
R38, R45	2	49.9	CRCW040249R9FKED	Vishay-Dale	RES, 49.9, 1%, 0.063 W, 0402	0402
R44	1	0.01	ERJ-M1WSF10MU	Panasonic	RES, 0.01, 1%, 1 W, 2512	2512
U1	1		TPS53647RTAR	Texas Instruments	4-Phase, D-CAP+TM Step-Down Buck Controller with NVM and PMBus Interface, RTA0040B	RTA0040B
U2, U3, U4, U5	4	CSD95372B	CSD95372BQ5M	Texas Instruments	Synchronous Buck NexFET Power Stage, DQP0012A	DQP0012A

## 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.