

PMP10709_BOM

Designator	Quantity	Value	PartNumber	Manufacturer	Description	PackageReference
!PCB	1		XX####	Any	Printed Circuit Board	
AGND, DAC, EN, PGOOD, SYNC, Vin	6	SMT	5015	Keystone	Test Point, Miniature, SMT	Testpoint_Keystone_Minature
C1, C4, C5, C11, CT1	5	100pF	GRM1885C1H101JA01D	MuRata	CAP, CERM, 100pF, 50V, +/-5%, COG/NP0, 0603	0603
C13	1	47pF	GRM1885C1H470JA01D	MuRata	CAP, CERM, 47pF, 50V, +/-5%, COG/NP0, 0603	0603
C14	1	100pF	CGA3E2NP01H101J080AA	TDK	CAP, CERM, 100pF, 50V, +/-5%, COG/NP0, 0603	0603
C15, Cbias, Cin8	3	0.22uF	C1608X7R1H224K080AB	TDK	CAP, CERM, 0.22uF, 50V, +/-10%, X7R, 0603	0603
C16, C17	2	4700pF	C2012X7R2A472K	TDK	CAP, CERM, 4700 pF, 100 V, +/- 10%, X7R, 0805	0805
Cb1, Cb2	2	0.1uF	GCM188R71H104KA57D	MuRata	CAP, CERM, 0.1uF, 50V, +/-10%, X7R, 0603	0603
Cc1	1	6800pF	06031C682KAT2A	AVX	CAP, CERM, 6800 pF, 100 V, +/- 10%, X7R, 0603	0603
Cc2	1	470pF	06031C471JAT2A	AVX	CAP, CERM, 470 pF, 100 V, +/- 5%, X7R, 0603	0603
Cd	1	0	RC0603JR-070RL	Yageo America	RES, 0, 5%, 0.1 W, 0603	0603
Cin1, Cin2, Cin3, Cin4, Cin5, Co1, Co2, Co3, Co4, Co5	10	10uF	GRM32ER71H106KA12L	MuRata	CAP, CERM, 10uF, 50V, +/-10%, X7R, 1210, CAP, CERM, 10 uF, 50 V, +/- 10%, X7R, 1210, CAP, CERM, 10 uF, 50 V, +/- 10%, X7R, 1210, CAP, CERM, 10 uF, 50 V, +/- 10%, X7R, 1210, CAP, CERM, 10 uF, 50 V, +/- 10%, X7R, 1210	1210
Cin7, Cin9, Co7, Co8	4	100uF	25SVPF100M	Panasonic	CAP, AL, 100 uF, 25 V, +/- 20%, 0.024 ohm, SMD	8.0x7.0mm
Css	1	0.047uF	GRM188R71H473KA61D	MuRata	CAP, CERM, 0.047 uF, 50 V, +/- 10%, X7R, 0603	0603
Cvcc	1	1uF	GRM188R71C105KA12D	MuRata	CAP, CERM, 1uF, 16V, +/-10%, X7R, 0603	0603
D1	1	30V	BAT54HT1G	ON Semiconductor	Diode, Schottky, 30V, 0.2A, SOD-323	SOD-323
D2, D3	2	100V	BAS516,115	NXP Semiconductor	Diode, Switching, 100V, 0.25A, SOD-523	SOD-523
D4, D5	2	28V	SMBJ28A-13-F	Diodes Inc.	Diode, TVS, Uni, 28 V, 600 W, SMB	SMB
D6	1	15V	MMSZ5245B-7-F	Diodes Inc.	Diode, Zener, 15 V, 500 mW, SOD-123	SOD-123
FID1, FID2, FID3	3		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
H9, H10, H11, H12	4		SJ-5303 (CLEAR)	3M	Bumpon, Hemisphere, 0.44 X 0.20, Clear	Transparent Bumpon
J1, J2, J2, J4	4		108-0740-001	Emerson Network Power	Standard Banana Jack, Uninsulated, 15A	Banana Jack
L1	1	3.3uH	IHLP5050FDER3R3M01	Vishay-Dale	Inductor, Shielded Drum Core, Powdered Iron, 3.3 uH, 18 A, 0.0057 ohm, SMD	IHLP-5050FD
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	2	-60V	SQJ461EP	Vishay-Siliconix	MOSFET, P-CH, -60 V, 30 A, PowerPAK_SO-8L	PowerPAK_SO-8L
Q3	1	60V	SQ2360EES-T1-GE3	Vishay-Siliconix	MOSFET, N/P-CH, 60 V, 4.4 A, SOT-23	SOT-23
QH1, QL1	2	60V	CSD18531Q5A	Texas Instruments	MOSFET, N-CH, 60 V, 19 A, SON 5x6mm	SON 5x6mm
QH2, QL2	2	30V	CSD17573Q5B	Texas Instruments	MOSFET, N-CH, 30 V, 100 A, SON 5x6mm	SON 5x6mm
R1	1	200k	RC0603FR-07200KL	Yageo America	RES, 200k ohm, 1%, 0.1W, 0603	0603
R2	1	52.3k	RC0603FR-0752K3L	Yageo America	RES, 52.3 k, 1%, 0.1 W, 0603	0603
R3, R5, R6	3	10.0	RC0603FR-0710RL	Yageo America	RES, 10.0 ohm, 1%, 0.1W, 0603	0603
R4	1	1.00k	RC0603FR-071KL	Yageo America	RES, 1.00k ohm, 1%, 0.1W, 0603	0603

Designator	Quantity	Value	PartNumber	Manufacturer	Description	PackageReference
R7	1	DNP	CRCW06030000Z0EA	Vishay-Dale	RES, 0 ohm, 5%, 0.1W, 0603	0603
R8	1	200k	CRCW0603200KFKEA	Vishay-Dale	RES, 200 k, 1%, 0.1 W, 0603	0603
R10	1	8.06k	CRCW06038K06FKEA	Vishay-Dale	RES, 8.06 k, 1%, 0.1 W, 0603	0603
R12	1	100k	RC0603FR-07100KL	Yageo America	RES, 100k ohm, 1%, 0.1W, 0603	0603
R13, R14	2	100	RC0603FR-07100RL	Yageo America	RES, 100 ohm, 1%, 0.1W, 0603	0603
R15	1	25.5k	RG1608P-2552-B-T5	Susumu Co Ltd	RES, 25.5 k, 0.1%, 0.1 W, 0603	0603
R16	1	50	CRCW060350R0FKEA	Vishay-Dale	RES, 50, 1%, 0.1 W, 0603	0603
R17, R18	2	100	CRCW0603100RFKEA	Vishay-Dale	RES, 100, 1%, 0.1 W, 0603	0603
R19, R24	2	100k	CPF0603B100KE	TE Connectivity	RES, 100 k, 0.1%, 0.063 W, 0603	0603
R20	1	20k	CRCW060320K0JNEA	Vishay-Dale	RES, 20 k, 5%, 0.1 W, 0603	0603
R21	1	30.1k	CRCW060330K1FKEA	Vishay-Dale	RES, 30.1 k, 1%, 0.1 W, 0603	0603
R22	1	20.0k	CRCW060320K0FKEA	Vishay-Dale	RES, 20.0 k, 1%, 0.1 W, 0603	0603
R23	1	2.00k	CRCW06032K00FKEA	Vishay-Dale	RES, 2.00 k, 1%, 0.1 W, 0603	0603
Rc	1	5.49k	CRCW06035K49FKEA	Vishay-Dale	RES, 5.49 k, 1%, 0.1 W, 0603	0603
Rh1, R11	2	0	CRCW06030000Z0EA	Vishay-Dale	RES, 0 ohm, 5%, 0.1W, 0603	0603
Rpg	1	20.0k	RC0603FR-0720KL	Yageo America	RES, 20.0 k, 1%, 0.1 W, 0603	0603
Rs1	1	0.007	KRL6432E-M-R007-F-T1	Susumu	RES 0.007 OHM 3W 1% 2512 WIDE	Wide 2512 (6432 Metric), 1225
Rs2	1	0.009	73M2R009F	CTS Resistor	RES, 0.009, 1%, 2 W, 2512	2512
RT1	1	69.8k	CRCW060369K8FKEA	Vishay-Dale	RES, 69.8 k, 1%, 0.1 W, 0603	0603
U1	1		LM5175PWP	Texas Instruments	42V Wide VIN 4-Switch Synchronous Buck-Boost Controller, PWP0028F	PWP0028F
U2	1		TLVH431AQDBVRA	Texas Instruments	Low-Voltage Adjustable Precision Shunt Regulator, 80 mA, -40 to 125 degC, 5-pin SOT-23 (DBV), Green (RoHS & no Sb/Br)	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.