

Change in menu Project

Designator	Quantity	Value	Description	PackageReference	PartNumber	Manufacturer	Alternate PartNumber	Alternate Manufacturer
IPC	1		Printed Circuit Board		XX###	Any	-	-
C1	1	0.1uF	CAP, CERM, 0.1uF, 50V, +/-10%, C0G/NP0, 0402	0402	C1005X7R1H104K	TDK		
C2, C4	2	0.01uF	CAP, CERM, 0.01uF, 100V, +/-5%, X7R, 0603	0603	06031C103JAT2A	AVX		
C3	1	1uF	CAP, CERM, 1uF, 25V, +/-10%, X7R, 0603	0603	C1608X7R1E105K080A B	TDK		
C5	1	6800pF	CAP, CERM, 6800pF, 100V, +/-10%, X7R, 0603	0603	06031C682KAT2A	AVX		
C7	1	0.1uF	CAP, CERM, 0.1uF, 25V, +/-5%, X7R, 0603	0603	06033C104JAT2A	AVX		
C8	1	1000pF	CAP, CERM, 1000F, 2KV, X7R, 10%, 1206	1206	202R18W102KV4E	Johanson Dielectrics	-	-
C9, C10	2	4.7uF	CAP, CERM, 4.7uF, 25V, +/-10%, X7R, 1206	1206	C3216X7R1E475K	TDK		
C11	1	10uF	CAP, CERM, 10uF, 25V, +/-10%, X7R, 1206	1206	GRM31CR71E106KA12 L	MuRata		
C12, C13	2	1uF	CAP, CERM, 1uF, 100V, +/-10%, X7R, 1206	1206	GRM31CR72A105KA01 L	MuRata		
D1	1	200V	Diode, Ultrafast, 200V, 1A, SMA	SMA	ES1D-13-F	Diodes Inc.		
H1, H2, H3, H4	4		Machine Screw, Round, #4-40 x 1/4, Nylon, Phillips panhead	Screw	NY PMS 440 0025 PH	B&F Fastener Supply	-	-
H5, H6, H7, H8	4		Standoff, Hex, 0.5"L #4-40 Nylon	Standoff	1902C	Keystone	-	-
H9, H10, H11, H12	4		Bumpon, Hemisphere, 0.44 X 0.20, Clear	Transparent Bumpon	SJ-5303 (CLEAR)	3M		
LBL1	1		Thermal Transfer Printable Labels, 0.650" W x 0.200" H - 10,000 per roll	PCB Label 0.650"H x 0.200"W	THT-14-423-10	Brady	-	-
R1	1	187k	RES, 187k ohm, 1%, 0.125W, 0805	0805	CRCW0805187KFKEA	Vishay-Dale		
R2	1	49.9k	RES, 49.9k ohm, 1%, 0.125W, 0805	0805	CRCW080549K9FKEA	Vishay-Dale		
R3	1	9.53k	RES, 9.53k ohm, 1%, 0.125W, 0805	0805	CRCW08059K53FKEA	Vishay-Dale		
R4	1	1.02k	RES, 1.02k ohm, 1%, 0.063W, 0402	0402	CRCW04021K02FKED	Vishay-Dale		
R5	1	14.3k	RES, 14.3k ohm, 1%, 0.063W, 0402	0402	CRCW040214K3FKED	Vishay-Dale		
R7	1	0	RES, 0 ohm, 5%, 0.063W, 0402	0402	CRCW0402000Z0ED	Vishay-Dale		
R8	1	1.24k	RES, 1.24k ohm, 1%, 0.063W, 0402	0402	CRCW04021K24FKED	Vishay-Dale		
R9	1	16.9k	RES, 16.9k ohm, 1%, 0.063W, 0402	0402	CRCW040216K9FKED	Vishay-Dale		
R10	1	1.50k	RES, 1.50k ohm, 1%, 0.063W, 0402	0402	CRCW04021K50FKED	Vishay-Dale		
T1	1			eg: 0603, used in PnP report	750314320	Wurth Elektronik	-	-
U1	1		100V, 600mA COT Synchronous Buck Regulator	WSON8	LM5017SD	Texas Instruments	-	-
U2	1		5-Pin Mini Flat Package High Speed Transistor Optocoupler	MFP05A	FODM452/453	Fairchild Semiconductor	-	-
U3	1		Low-Voltage (1.24V) Adjustable Precision Shunt Regulator, 3-pin SOT-23	MF03A	LMV431AIMF	National Semiconductor		
C6	0	100pF	CAP, CERM, 100pF, 50V, +/-5%, C0G/NP0, 0402	0402	GRM1555C1H101JA01 D	MuRata		
C14	0	1uF	CAP, CERM, 1uF, 25V, +/-10%, X5R, 0603	0603	C1608X5R1E105K080A C	TDK		
D2, D3	0	30V	Diode, Schottky, 30V, 0.2A, SOD-323	SOD-323	BAT54WS-7-F	Diodes Inc.		
FID1, FID2, FID3	0		Fiducial mark. There is nothing to buy or mount.	Fiducial	N/A	N/A		
R6	0	3.74k	RES, 3.74k ohm, 1%, 0.1W, 0603	0603	CRCW06033K74FKEA	Vishay-Dale		
R12	0	10.0k	RES, 10.0k ohm, 1%, 0.063W, 0402	0402	CRCW040210K0FKED	Vishay-Dale		

Notes:

Unless otherwise noted in the Alternate PartNumber and/or Alternate Manufacturer columns, all parts may be substituted with equivalents.

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.