

Change in menu Project

Designator	Quantity	Value	Description	PackageReference	PartNumber	Manufacturer	Alternate PartNumber	Alternate Manufacturer
!PCB	1		Printed Circuit Board		XX###	Any	-	-
C100, C101	2	4.7µF	CAP, [Technology], xxxF, xxV, +/-xx%, xxOhm ESR, [MountType]	Radial, Can	UVR2W4R7MPD	Nichicon	-	-
C103	1	1µF	CAP, CERM, 1µF, 50V, +/-10%, X7R, 1206	1206	C3216X7R1H105K	TDK		
C104	1	1000pF	CAP, CERM, 1000pF, 50V, +/-10%, X7R, 0805	0805	CC0805KRX7R9BB102	Yageo America		
C105	1	0.022µF	CAP, CERM, 0.022µF, 100V, +/-10%, X7R, 0805	0805	C2012X7R2A223K	TDK		
C106	1	1µF	CAP, CERM, 1µF, 25V, +/-10%, X5R, 0805	0805	C2012X5R1E105K	TDK		
C107	1	0.027µF	CAP, CERM, 0.027µF, 50V, +/-10%, X7R, 0805	0805	CC0805KRX7R9BB273	Yageo America		
C110	1	470µF	CAP, AL, 470µF, 6.3V, +/-20%, 0.16 ohm, SMD	SMT Radial F	EEE-FK0J471P	Panasonic		
C111	1	22µF	CAP, CERM, 22µF, 6.3V, +/-20%, X5R, 0805	0805	C2012X5R0J226M	TDK		
C112	1	0.47µF	CAP, CERM, 0.47µF, 25V, +/-10%, X7R, 0805	0805	C2012X7R1E474K	TDK		
C113	1	0.047µF	CAP, CERM, 0.047µF, 50V, +/-10%, X7R, 0805	0805	GRM21BR71H473KA01L	MuRata		
C114	1	100pF	CAP, CERM, 100pF, 50V, +/-5%, C0G/NP0, 0805	0805	GQM2195C1H101JB01D	MuRata		
C130	1	1000pF	CAP, CERM, 1000pF, 250V, +/-10%, X7R, 1808	1808	1808JA250102KXBSY2	SYFER		
D100	1	1V	Diode, Switching-Bridge, 400V, 0.8A, MiniDIP	MiniDIP	HD04-T	Diodes Inc.		
D101	1	1.25V	Diode, Ultrafast, 100V, 0.15A, SOD-123	SOD-123	1N4148W-7-F	Diodes Inc.		
D106	1	36V	Diode, Zener, 36V, 3W, SMA	SMA	3SMAJ5938B-TP	Micro Commercial Component		
D110	1	0.79V	Diode, Schottky, 100V, 2A, SMB	SMB	B2100-13-F	Diodes Inc.		
FID1, FID2, FID3	3		Fiducial mark. There is nothing to buy or mount.	Fiducial	N/A	N/A		
H1, H2, H3, H4	4		Machine Screw, Round, #4-40 x 1/4, Nylon, Philips 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	-	-
J1	1		CONN TERM BLOCK 2POS 6.35MM PCB	2 X 6.35mm	1714955	Phoenix Contact	-	-
L100	1		Common Mode Choke	BU9S	UU9.8v-103LF	GCI Technologies	-	-
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	-	-
P102, P103	2	Double	Terminal, Turret, TH, Double	Keystone1502-2	1502-2	Keystone		
Q100	1		MOSFET, N-CH, xxV, xxxA, [PackageReference]	TO-252-3, DPak (2 Leads + Tab), SC-63	SPD06N80C3	Infineon Technologies	-	-
Q101	1	Value	Transistor, NPN, xxV, xA, [PackageReference]	TO-236-3, SC-59, SOT-23-3	FMMT458TA	Diodes Inc	-	-
R100, R101	2	20.0	RES, 20.0 ohm, 1%, 0.25W, 1206	1206	CRCW120620R0FKEA	Vishay-Dale		
R102	1	1.00Meg	RES, 1.00Meg ohm, 1%, 0.25W, 1206	1206	CRCW12061M00FKEA	Vishay-Dale		
R103	1	200k	RES, 200k ohm, 1%, 0.125W, 0805	0805	CRCW0805200KFKEA	Vishay-Dale		
R104	1	2.21	RES, 2.21 ohm, 1%, 0.125W, 0805	0805	CRCW08052R21FKEA	Vishay-Dale		
R105, R116, R117	3	499	RES, 499 ohm, 1%, 0.125W, 0805	0805	CRCW0805499RFKEA	Vishay-Dale		
R106	1	82.5k	RES, 82.5k ohm, 1%, 0.125W, 0805	0805	CRCW080582K5FKEA	Vishay-Dale		
R107	1	1.00k	RES, 1.00k ohm, 1%, 0.125W, 0805	0805	CRCW08051K00FKEA	Vishay-Dale		
R108	1	110	RES, 110 ohm, 1%, 0.125W, 0805	0805	CRCW0805110RFKEA	Vishay-Dale		
R109	1	10.0Meg	RES, 10.0Meg ohm, 1%, 0.25W, 1206	1206	CRCW120610M0FKEA	Vishay-Dale		
R112	1	49.9	RES, 49.9 ohm, 1%, 0.125W, 0805	0805	CRCW0805499FKEA	Vishay-Dale		
R113	1	10.0	RES, 10.0 ohm, 1%, 0.125W, 0805	0805	CRCW080510R0FKEA	Vishay-Dale		
R114	1	63.4k	RES, 63.4k ohm, 1%, 0.125W, 0805	0805	CRCW080563K4FKEA	Vishay-Dale		
R115	1	20.5k	RES, 20.5k ohm, 1%, 0.125W, 0805	0805	CRCW080520K5FKEA	Vishay-Dale		
R121	1	10.0k	RES, 10.0k ohm, 1%, 0.125W, 0805	0805	CRCW080510K0FKEA	Vishay-Dale		
T100	1		Transformer	PA2865NL	PA2865NL	Pulse	-	-
U100	1		AC-DC Current Mode PWM Controller, 8-pin MSOP, Pb-Free	MUA08A	LM5021MM-1/NOPB	National Semiconductor		
U101, U105	2		High Isolation Voltage Single Transistor Type OptoCoupler	PS2501L	PS2501L-1-A	California Eastern Laboratories		
U103	1		Low-Voltage (1.24V) Adjustable Precision Shunt Regulators, 5-pin SOT-23, Pb-Free	MF05A	LMV431IM5/NOPB	National Semiconductor		
D103, D104	0	0.0875V	Diode, Ultrafast, 200V, 1A, SMA	SMA	MURA120T3G	ON Semiconductor		

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.