



Bill of Materials

TI DESIGNS

TIDA-00390

Item	Qty	Reference	Part Description	Manufacturer	Manufacturer Part Number
1	1	C1	CAP, AL, 47 µF, 6.3 V, +/- 20%, 1.35 ohm, SMD	Panasonic	EEE-FK0J470UR
2	1	C2, C23, C25	CAP, CERM, 0.1 µF, 16 V, +/- 10%, X7R, 0402	MuRata	GRM155R71C104KA88D
3	3	C3, C4, C8, C14, C15	CAP, CERM, 10 µF, 10 V, +/- 10%, X7R, 0805_140	MuRata	GRM21BR71A106KE51K
4	5	C5, C6, C11	CAP, CERM, 1 µF, 16 V, +/- 10%, X7R, 0603	MuRata	GRM188R71C105KA12D
5	3	C7	CAP, CERM, 47 µF, 10 V, +/- 20%, X7R, 1210 (H=2.5mm)	MuRata	GRM32ER71A476ME15L
6	1	C9, C10	CAP, CERM, 0.01 µF, 50 V, +/- 10%, X7R, 0402	MuRata	GRM155R71H103KA88D
7	2	C12, C19	CAP, CERM, 2.2 µF, 10 V, +/- 10%, X7R, 0603	MuRata	GRM188R71A225KE15D
8	2	C13	CAP, CERM, 4.7 pF, 50 V, +/- 5%, C0G/NP0, 0402	MuRata	GRM1555C1H4R7CA01D
9	1	C16	CAP, CERM, 22 pF, 50 V, +/- 5%, C0G/NP0, 0402	MuRata	GRM1555C1H220JA01D
10	1	C18	CAP, CERM, 4.7 µF, 16 V, +/- 10%, X7R, 0805	MuRata	GRM21BR71C475KA73L
11	1	C24	CAP, TA, 330 µF, 2 V, +/- 20%, 0.003 ohm, SMD	Panasonic	EEF-GX0D331R
12	1	C26	CAP, CERM, 22 µF, 10 V, +/- 10%, X7R, 1206	MuRata	GRM31CR71A226KE15L
13	1	FID4, FID5, FID6	Fiducial mark. There is nothing to buy or mount.	N/A	N/A
14	3	J1, J8	Header, 100mil, 2x1, Tin, TH	Sullins Connector Solutions	PEC02SAAN
15	2	J2, J3, J4, J5, J6, J7, J9	TERMINAL BLOCK 5.08MM VERT 2POS, TH	On-Shore Technology	ED120/2DS
16	7	L1, L4	Inductor, Multilayer, Ferrite, 2.2 µH, 1 A, 0.12 ohm, SMD	MuRata	LQM2HPN2R2MJ0L
17	2	L2	Inductor, Shielded, Ferrite, 470 nH, 3.7 A, 0.029 ohm, SMD	Toko	1239AS-H-R47M
18	1	L3	Inductor, Multilayer, Ferrite, 1 µH, 0.8 A, 0.19 ohm, SMD	MuRata	LQM21PN1R0MC0D
19	1	R1, R2, R3, R8, R15	RES, 100k ohm, 5%, 0.1W, 0603	Vishay-Dale	CRCW0603100KJNEA
20	5	R4	RES, 51.1 k, 1%, 0.063 W, 0402	Vishay-Dale	CRCW040251K1FKED
21	1	R5	RES, 162 k, 1%, 0.063 W, 0402	Vishay-Dale	CRCW0402162KFKED
22	1	R6	RES, 43.2 k, 1%, 0.063 W, 0402	Vishay-Dale	CRCW040243K2FKED
23	1	R7	RES, 36.5 k, 1%, 0.063 W, 0402	Vishay-Dale	CRCW040236K5FKED
24	1	R9	RES, 316 k, 1%, 0.063 W, 0402	Vishay-Dale	CRCW0402316KFKED
25	1	R10	RES, 210 k, 1%, 0.063 W, 0402	Vishay-Dale	CRCW0402210KFKED
26	1	SH-J1, SH-J8	Shunt, 100mil, Gold plated, Black	3M	969102-0000-DA
27	2	TP1, TP3, TP5, TP7, TP9, TP11, TP13, TP18	Test Point, Multipurpose, Red, TH	Keystone	5010
28	8	TP2, TP4, TP6, TP8, TP10, TP12, TP14, TP19	Test Point, Multipurpose, Black, TH	Keystone	5011
29	8	TP17	Test Point, Miniature, White, TH	Keystone	5002
30	1	U1	Power Sequencer, 6-pin SOT-23, Pb-Free	Texas Instruments	LM3880QMFE-1AA/NOPB
31	1	U2	Buck Step Down Regulator with 2 to 6 V Input and 1.8 V Output, -40 to 85 degC, 6-Pin SON (DRV),	Texas Instruments	TPS62261TDRVRQ1
32	1	U3	Single Output Automotive LDO, 300 mA, Fixed 1.8 V Output, 2 to 5.5 V Input, with Low IQ, 5-pin SOT	Texas Instruments	TLV70018QDDCRQ1
33	1	U4	3.5-MHz High Efficiency Step-Up Converter, DRV0006A	Texas Instruments	TPS61240IDRVVRQ1
34	1	U5	3A High Efficient Synchronous Step Down Converter with DC Control, RGT0016C	Texas Instruments	TPS62090QRGTRQ1
35	1	U6	DDR-I and DDR-II Termination Regulator, 8-pin PSOP, Pb-Free	Texas Instruments	LP2998QMR/NOPB
36	1	U7	Single Output Fast Transient Response LDO, 250 mA, Adjustable 1.2 to 5.5 V Output, 1.7 to 5.5 V	Texas Instruments	TPS73201QDBVRQ1
37	1	U8	Buck Step Down Regulator with 2 to 6 V Input and 0.6 to 6 V Output, -40 to 85 degC, 6-Pin SON	Texas Instruments	TPS62260TDRVRQ1

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.