🜵 Texas Instruments

Bill of Materials

TIDA-00388

Itom	Qty	Reference	Value	Part Description	Manufacturer	Manufacturer	Alternate Part P	PCB Footprint	Note
Item						Part Number	Alternate Part		
1	1	C1	0.1uF	CAP, CERM, 0.1 µF, 50 V, +/- 10%, X7R,	TDK	C1608X7R1H104K	06	603	
2	9	C2, C4, C9, C10, C16, C19, C22, C23, C24	47uF	CAP, CERM, 47 µF, 16 V, +/- 15%, X5R, 1206	TDK	C3216X5R1C476M160A B	12	206	
3	2		0.01uF	CAP, CERM, 0.01 µF, 50 V, +/- 10%, X8R, 0603	TDK	C1608X8R1H103K	06	603	
4	1	C5	22uF	CAP, CERM, 22 µF, 35 V, +/- 20%, X5R, 0805	TDK	C2012X5R1V226M125A C	80	805	
5	1	C7	4700pF	CAP, CERM, 4700 pF, 50 V, +/- 10%, X8R, 0603	TDK	C1608X8R1H472K	06	603	
6	1	C8	1000pF	CAP, CERM, 1000 pF, 100 V, +/- 5%, X7R,	AVX	06031C102JAT2A	06	603	
7	1	C11	330pF	CAP, CERM, 330 pF, 50 V, +/- 1%,	TDK	C1608C0G1H331F080AA	06	603	
8	1	C12	0.1uF	CAP, CERM, 0.1 µF, 50 V, +/- 10%,	TDK	C1005X7R1H104K	04	402	
9	2	C13, C15	22uF	CAP, CERM, 22uF, 35V, +/-20%, JB, 0805	TDK	C2012JB1V226M125AC	08	305	
10	1	C17	0.01uF	CAP, CERM, 0.01uF, 16V, +/-10%, X7R,	MuRata	GRM188R71C103KA01D	06	603	
11	1	C18	4.7uF	CAP, CERM, 4.7uF, 10V, +/-10%, X5R, 0603	TDK	CGB3B1X5R1A475K055	06	603	
12	1	C20	220uF	CAP, AL, 220 µF, 6.3 V, +/- 20%, 0.015 ohm,	Sanyo	6SVPE220MW	E	61	
13	2	C21, C25	3300pF	CAP, CERM, 3300 pF, 50 V, +/- 5%,	TDK	C1608C0G1H332J	06	603	
14	1	C26	1000pF	CAP, CERM, 1000 pF, 50 V, +/- 5%,	TDK	C1608C0G1H102J	06	603	
15	1	C27	10uF	CAP, CERM, 10 µF, 6.3 V, +/- 20%, X5R,	TDK	C2012X5R0J106M	08	805	
16	6	J1, J2, J3, J4, JP3, JP4		Header, TH, 100mil, 2x1, Gold plated, 230	Samtec	TSW-102-07-G-S	2x	x1 Header	
17	1	J7		Header, 100mil, 2x1, Gold, TH	Samtec	TSW-102-07-G-S	2x	x1 Header	
18	1	JP1		Header, TH, 100mil, 3x1, Gold plated, 230	Samtec	TSW-103-07-G-S	3x	x1 Header	
19	1	JP2		Header, 100mil, 3x1, Gold, TH	Samtec	TSW-103-07-G-S	3x	x1 Header	
20	1	L1	1.5uH	Inductor, Shielded, Composite, 1.5 µH, 7.12	Coilcraft	XAL4020-152MEB	4x	x2.1x4mm	
21	1	R1	3.57k	RES, 3.57k ohm, 0.1%, 0.1W, 0603	Susumu Co Ltd	RG1608P-3571-B-T5	06	603	
22	1	R2	4.02k	RES, 4.02 k, 1%, 0.1 W, 0603	Vishay-Dale	CRCW06034K02FKEA	06	603	
23	1	R3	392k	RES, 392 k, 1%, 0.1 W, 0603	Vishay-Dale	CRCW0603392KFKEA	06	603	
24	1	R4	27.4k	RES, 27.4 k, 1%, 0.1 W, 0603	Vishay-Dale	CRCW060327K4FKEA	06	603	
25	1	R5	10.0k	RES, 10.0 k, 1%, 0.1 W, 0603	Vishay-Dale	CRCW060310K0FKEA	06	603	
26	1	R6	22.1k	RES, 22.1 k, 1%, 0.1 W, 0603	Vishay-Dale	CRCW060322K1FKEA	06	603	
27	1	R7	10k	RES, 10k ohm, 5%, 0.1W, 0603	Vishay-Dale	CRCW060310K0JNEA	06	603	
28	1	R8	10k	RES, 10k ohm, 5%, 0.063W, 0402	Vishay-Dale	CRCW040210K0JNED	04	402	
29	2	R9, R12	3.92	RES, 3.92, 1%, 0.1 W, 0603	Vishay-Dale	CRCW06033R92FKEA	06	603	
30	1	R10	160k	RES, 160 k, 1%, 0.1 W, 0603	Vishay-Dale	CRCW0603160KFKEA	06	603	
31	1	R11	0	RES, 0, 5%, 0.063 W, 0402	Vishay-Dale	CRCW04020000Z0ED	04	402	
32	1	TP1	Red	Test Point, Miniature, Red, TH	Keystone	5000	Re	ed Miniature	
33	2	TP2, TP5	Black	Test Point, Miniature, Black, TH	Keystone	5001	BI	lack Miniature	
34	2	TP3, TP4	White	Test Point, Miniature, White, TH	Keystone	5002	W	/hite Miniature	
35	1	U1	TPS54122RHL	IC, Low Noise LDO, 3-A Power Supply with	ТІ	TPS54122RHL	QI	FN-24	
36	1	C6	10pF	CAP, CERM, 10 pF, 50 V, +/- 5%, C0G/NP0,	TDK	C1608C0G1H100D	06	603	
37	0	J5, J6		Connector, End launch SMA, 50 ohm, SMT	Emerson Network Pow	/142-0701-851	SI	MA End	

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.

Mailing Address: Texas Instruments, Post Office Box 655303, Dallas, Texas 75265 Copyright © 2014, Texas Instruments Incorporated