

Bill of Materials

TI DESIGNS

TIDEP0071

Item	Qty	Reference	Value	Part Description	Manufacturer	Manufacturer Part Number	PCB Footprint
1	11	C172,C176,C180,C182,C183,C185,C 186,C187,C188,C189,C190	0.1uF/16V X7R	CAP .10UF 16V CERAMIC X7R	Murata	GRM155R71C104KA88D	402
2	2	C173,C175	0.47uF/16V X5R	CAP CER .47UF 16V X5R 0402	TDK	C1005X5R1C474M050BC	402
3	2	C174,C177	220pF/50V X7R	CAP 220PF 50V CERAMIC X7R 0402	Yageo	CC0402KRX7R9BB221	402
4	4	C178,C179,C184,C191	10uF/10V X5R	CAP 10UF 10V CERAMIC X5R 0805	TDK	C2012X5R1A106M125AB	805
5	1	C181	1uF/10V X5R	CAP CER 1UF 10V X5R 0402	Murata	GRM155R61A105KE15D	402
6	3	FB14,FB15,FB16	MMZ2012S121A	FERRITE CHIP 120 OHM 800MA 0805	TDK	MMZ2012S121A	805
7	1	J10	CK3.5-1230-08	CONN STEREO JACK 3.5MM 3/3P PCB	Fosen Electronics Technology Co. Ltd. / Zai Kuai Sales, Ltd. Co.	CK3.5-1230-08	CX3_5-1230-08
8	1	J11	STX-3500-4NTR	Phone Connectors 3.5mm SMT STEREO JAK 4P NON THREADED T/R	Kycon	STX-3500-4NTR	STX3500
9	3	R94,R95,R164	33E/5% 1/16W	RES 33 OHM 1/16W 5% 0402 SMD	Yageo	RC0402FR-0733RL	402
10	5	R150,R151,R158,R159,R162	2K/1% 1/16W	RES 2K OHM 1/16W 1% 0402 SMD	Vishay Dale	CRCW04022K00FKED	402
11	2	R152,R154	0E/5% 1/10W	RES ZERO OHM 1/10W 5% 0402	Panasonic	ERJ-2GE0R00X	402
12	2	R153,R155	5.6K, DNI	RES 5.60K OHM 1/16W 1% 0402	Yageo	AC0402FR-075K6L	402
13	2	R156,R157	20K/1% 1/16W	RES 20K OHM 1/16W 1% 0402 SMD	Yageo	RC0402FR-0720KL	402
14	1	R160	2K/1% 1/16W,DNI	RES 2K OHM 1/16W 1% 0402 SMD	Vishay Dale	CRCW04022K00FKED	402
15	1	R161	20K, DNI	RES 20K OHM 1/16W 1% 0402 SMD	Yageo	RC0402FR-0720KL	402
16	1	R163	4.7K/5% 1/16W	RES 4.7K OHM 1/16W 5% 0402 SMD	Yageo	RC0402JR-074K7L	402
17	2	TP16,TP17	TEST POINT,DNI	CONN HEADER 1POS .100" SGL GOLD	SAMTEC	TSW-101-07-G-S	tp
18	1	U7	OMAP-L138	LOW POWER ARM+DSP CONTROLLER	TI	OMAPL138ZWT	bga361_w19_p8_16x16
19	1	U22	TLV320AIC3106IRGZ	LOW POWER STERO AUDIO CODEC	TI	TLV320AIC3106IRGZ	QFN48_25V
20	1	Y5	CB3LV-3I-24M5760	OSCILLATOR 24.5760 MHZ 3.3V SMD	ABRACON	ASFL1-24.576MHZ-EC-T	OSC4_90-100SMD_130X200

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.