



# Bill of Materials

TI DESIGNS

ITEM	QTY	REFERENCE DESIGNATOR	VALUE	DESCRIPTION	SIZE	MANUFACTURER	MANUFACTURER PART NUMBER
1	1	C1	10 uF	CAP CER 10UF 25V 20% X7R 1210	CAP_1210	TDK	C3225X7R1E106M
2	2	C2,C5	22 uF	CAP CERAMIC 22UF 6.3V X5R 0603	CAP_0603	TDK	C1608X5R0J226M080AC
3	10	C3,C6,C8,C10,C13,C15,C16, C18,C19,C21	0.1uF	CAP CERAMIC .1UF 25V X5R 0402	CAP_0402	TDK	C1005X5R1E104K050BC
4	2	C4,C14	1uF	CAP CERAMIC 1UF 10V X5R 0603	CAP_0603	TDK	C1608X5R1A105K080AC
5	1	C7	3.3 nF	CAP CER 3300PF 50V 10% X7R 0402	CAP_0402	TDK	C1005X7R1H332K050BA
6	3	C9,C11,C17	4.7uF	CAP CERAMIC 4.7UF 10V X5R 0603	CAP_0603	TDK	CGB3B1X5R1A475K055AC
7	1	C12	0.01uF	CAP CERAMIC .01UF 25V X5R 0402	CAP_0402	TDK	C1005X7R1E103K050BB
8	1	C20	510pF	CAP CER 510PF 50V 5% NP0 0402	CAP_0402	Murata	GRM1555C1H511JA01D
9	1	J1	929834-01-04-RK	CONN HEADER 4POS SNGL .100 STR	CON_HDR_4PIN	3M	929834-01-04-RK
10	1	J2	929834-01-06-RK	CONN HEADER 6POS SNGL .100 STR	CON_HDR_6PIN	3M	929834-01-06-RK
11	1	J3	S4B-EH(LF)(SN)	CONN HEADER EH SIDE 2POS 2.5MM	CON_JST_4PIN_SIDE	JST	S4B-EH(LF)(SN)
12	1	L1	2.2 uH	IND 2.2uH 3.1Amp XFL4020	XFL4020	Coilcraft	XFL4020-222MEB
13	2	R1,R10	100K	RES 100K OHM 1/16W 1% 0402 SMD	RES_0402	Yageo	RC0402FR-07100KL
14	1	R2	750K	RES 750K OHM 1/10W 1% 0402 SMD	RES_0402	PANASONIC	ERJ-2RKF7503X
15	1	R3	1.0K	RES 1.0K OHM 1/16W 1% 0402 SMD	RES_0402	PANASONIC	ERJ-2RKF1001X
16	1	R4	240K	RES 240K OHM 1/10W 1% 0402 SMD	RES_0402	PANASONIC	ERJ-2RKF2403X
17	1	R5	1.5K	RES 1.5K OHM 1/10W 1% 0402 SMD	RES_0402	PANASONIC	ERJ-2RKF1501X
18	1	R6	1.0M	RES 1.00M OHM 1/16W 1% 0402 SMD	RES_0402	Yageo	RC0402FR-071ML
19	2	R7,R12	10K	RES 10K OHM 1/10W 1% 0402 SMD	RES_0402	PANASONIC	ERJ-2RKF1002X
20	1	R8	220K	RES 220K OHM 1/16W 1% 0402 SMD	RES_0402	Yageo	RC0402FR-07220KL
21	1	R9	200K	RES 200K OHM 1/16W 1% 0402 SMD	RES_0402	Yageo	RC0402FR-07200KL
22	1	R11	20K	RES 20K OHM 1/16W .1% 0402 SMD	RES_0402	TT Electronics/Welwyn	PCF0402PR20KBT1
23	1	U1	TLV62130RGT	IC REG BUCK SYNC ADJ 3A 16QFN	RGT	Texas Instruments	TLV62130RGT
24	1	U2	REF5025AIDGK	IC VREF SERIES PREC 2.5V 8VSSOP	8VSSOP	Texas Instruments	REF5025AIDGK
25	1	U3	UA78L06ACPK	IC REG LDO 6.2V 0.1A SOT89-3	SOT89-3	Texas Instruments	UA78L06ACPK
26	1	U4	TPS71750DSE	IC REG LDO 5V 0.15A 6WSON	6WSON	Texas Instruments	TPS71750DSE
27	1	U5	INA330AIDGST	IC OPAMP GP R-R 1KHZ SGL 10MSOP	MSOP-10	Texas Instruments	INA330AIDGST
28	1	U6	OPA569AIDWPR	IC OPAMP GP R-R 1.2MHZ 20SOPWR	20SOPWR	Texas Instruments	OPA569AIDWPR
29	1	U7	OPA340NA/3K	IC OPAMP GP R-R 5.5MHZ SOT23-5	SOT23-5	Texas Instruments	OPA340NA/3K
30	1	U8	SN74AHC1G09DBVR	IC GATE AND SGL 2INP SOT23-5	TI_DVB	Texas Instruments	SN74AHC1G09DVB
31	1	VR1	25k	TRIMMER 25K OHM 0.25W PC PIN	3266_THRU_HOLE	Bourns Inc.	3266W-1-253LF

## 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.