

# Bill of Materials

TI DESIGNS  
TIDA-00557

Item	Qty	Reference	Value	Part Description	Manufacturer	Manufacturer Part Number	PCB Footprint	Note
1	1	PCB1		Printed Circuit Board	Any	TIDA-00557		
2	28	C1, C2, C3, C4, C5, C6, C7, C8, C9, C10, C11, C12, C13, C14, C15, C16, C17, C18, C19, C20, C21, C22, C24, C26, C30, C31, C33, C36	0.1uF	CAP, CERM, 0.1uF, 50V, +/-10%, X7R, 0603	Kemet	C0603C104K5RACTU		603
3	2	C23, C29	10uF	CAP, CERM, 10uF, 35V, +/-20%, X7R, 1210	Taiyo Yuden	GMK325AB7106MM-T		1210
4	4	C25, C28, C32, C34	1uF	CAP, CERM, 1uF, 16V, +/-10%, X7R, 0603	TDK	C1608X7R1C105K		603
5	2	C27, C35	4.7uF	CAP, TA, 4.7uF, 35V, +/-10%, 1.9 ohm, SMD	Vishay-Sprague	293D475X9035C2TE3	6032-28	
6	2	C37, C38	1000pF	CAP, CERM, 1000pF, 2KV 10%, X7R 1206	Johanson Dielectrics Inc	202R18W102KV4E		1206
7	3	D1, D2, D3	20V	Diode, Schottky, 20V, 0.5A, SOD-123	Diodes Inc	B0520LW-7-F	SOD-123	
8	1	D4	Green	LED SmartLED Green 570NM	OSRAM	LG L29K-G2J1-24-Z	LED0603AA	
9	2	D5, D23	3.9V	DIODE ZENER 3.9V 500MW SOD123	Diodes Incorporated	MMS25228B-7-F	sod-123	
10	1	D6	SMBJ18CA	TVS 18 VOLT 600 WATT BI-DIR SMB	Littelfuse Inc	SMBJ18CA	DIO_SMB_BIAAAA	
11	16	D7, D8, D9, D10, D11, D12, D13, D14, D15, D16, D17, D18, D19, D20, D21, D22	19	Diode, TVS, ARRAY, 19V, SOD323	Bourns Inc.	CDSOD323-T12C	sod-323	
12	2	FB1, FB2	1000 OHM	FERRITE CHIP 1000 OHM 300MA 0603	TDK Corporation	MMZ1608B102C		603
13	5	H1, H2, H3, H4, H9		Machine Screw, Round, #4-40 x 1/4, Nylon, Philips panhead	B&P Fastener Supply	NY PMS 440 0025 PH	NY PMS 440 0025 PH	
14	5	H5, H6, H7, H8, H10		Standoff, Hex, 0.5L #4-40 Nylon*	Keystone	1902C	Keystone_1902C	
15	1	J1	747250-4	Connector, 9-pin D, Right Angle, Male	AMP	747250-4	DB9_RA	
16	2	J2, J4		Terminal Block, 8x1, 2.54 mm, TH	Phoenix Contact		1725711	
17	1	J3		CONN DB9 FEMALE R/A SOLDER TH	NorComp	182-009-213R171	CONN_1725711	
18	2	J5, J6		CONN TERM BLOCK 2.54MM 2POS PCB	On Shore Technology Inc	OSTVN02A150	NORCOMP_182-009-213R171	
19	2	L1, L2	120 ohm	Ferrite Bead, 120 ohm @ 100 MHz, 0.8 A, 0805	MuRata	BLM21AG121SN1D	0805_HV	
20	THT-14-423-10	000 per roll	2065596	Thermal Transfer Printable Labels, 0.650 W x 0.200" H - 10	Label_650x200	Brady	LBL1	
21	8	R1, R2, R7, R8, R9, R10, R15, R16	10.0k	RES, 10.0k ohm, 1%, 0.1W, 0603	Vishay-Dale	CRCW060310K0FKEA		603
22	3	R17, R50, R51	0	RES, 0 ohm, 5%, 0.1W, 0603, RES, 0, 5%, 0.1 W, 0603, RES, 0, 5%, 0.1 W, 0603	Vishay-Dale	CRCW0603000Z0EA		603
23	1	R18	300	RES, 300 ohm, 5%, 0.1W, 0603	Vishay-Dale	CRCW0603300RJNEA		603
24	16	R36	10	RES SMD 22 OHM 5% 1.5W 2512	Vishay-Dale	RPC2512JT22R0		2512
25	2	R37, R38	0	RES, 0, 5%, 0.125 W, 0805	Vishay-Dale	CRCW0805000Z0EA	0805_HV	
26	1	T1	475uH	Transformer 475uH SMD	Wurth Electronics Midcom	760390014		760390015
27	7	TP1, TP2, TP3, TP4, TP5, TP6, TP7	STD	Test Point, 0.040 Hole	STD		TP-040_RND	
28	2	U5, U7		IC, ISOLATOR DGLTL 2CH 1/1, SOIC-8, ROHS 3-V to 5.5-V Multichannel RS-232 Line Driver / Receiver with ±15-kV IEC ESD Protection, -40 to 85 degC, 28-Pin SOIC (DW), Green (RoHS & no Sb/Br)	TEXAS INSTRUMENTS	ISO7321CD		
29	1	U6		Robust EMC, Low Power, Quad-Channel Digital Isolators, DW0016B	Texas Instruments	TRS324EIDWR	DW0028A_N	
30	1	U8		Transformer Driver for Isolated Power Supplies, DBV0005A	Texas Instruments	ISO7341CDWR	DW0016B_HV	
31	2	U17, U19	TPS7A6533QKVURQ1	IC, 300-mA 40-V LOW-DROPOUT REGULATOR WITH 25-uA QUIESCENT CURRENT	TI	TPS7A6533QKVURQ1	KVUJ_1	
32	1	U18		Transformer Driver for Isolated Power Supplies, DBV0005A	Texas Instruments	SN6501DBV	DBV0005A_N	
33	0	FID1, FID2, FID3		Fiducial mark. There is nothing to buy or mount.	N/A	N/A	Fiducial10-20	
34	0	R27, R30	10	DNP	Vishay-Dale	DNP		2512
35	0	R52, R53, R54, R55	10.0k	RES, 10.0k ohm, 1%, 0.1W, 0603	Vishay-Dale	CRCW060310K0FKEA		603
36	0	U13, U15		IC, ISOLATOR DGLTL 2CH 1/1, SOIC-8, ROHS 3-V to 5.5-V Multichannel RS-232 Line Driver / Receiver with ±15-kV ESD (HBM) Protection, -40 to 85 degC, 28-Pin SOIC (DW), Green (RoHS & no Sb/Br)	TEXAS INSTRUMENTS	ISO7321CD		
37	0	U14		Robust EMC, Low Power, Quad-Channel Digital Isolators, DW0016B	Texas Instruments	TRSF3238EIDWR	DW0028A_N	
38	0	U16		Robust EMC, Low Power, Quad-Channel Digital Isolators, DW0016B	Texas Instruments	ISO7341CDWR	DW0016B_HV	

## 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.