

## Bill of Materials

TI DESIGNS

## TIDA-00190

Fitted	Description	Designator Designator	Manufacturer	PartNumber	Quantity	RoHS	PackageReference
Fitted	Printed Circuit Board	!PCB1	Any	ISE5002	1	0	
Fitted	CAP, CERM, 15pF, 50V, +/-5%, C0G/NP0, 0402	C8	MuRata	GRM1555C1H150JA01D	1	Υ	0402
Fitted	CAP, CERM, 10uF, 35V, +/-10%, X7R, 1206	C13	Taiyo Yuden	GMK316AB7106KL	1	Υ	1206
Fitted	CAP, CERM, 33pF, 50V, +/-5%, C0G/NP0, 0603	C16, C21	AVX	06035A330JAT2A	2	Υ	0603
Fitted	CAP, CERM, 100pF, 50V, +/-10%, X7R, 0402	C17, C25, C32	Yageo America	CC0402KRX7R9BB101	3	Υ	0402
Fitted	CAP, TA, 100uF, 10V, +/-20%, 0.6 ohm, SMD	C18, C29	Vishay-Sprague	293D107X0010D2TE3	2	Υ	7343-31
Fitted	CAP, CERM, 0.01uF, 50V, +/-10%, C0G/NP0, 0402	C20, C48, C54	MuRata	GCM155R71H103KA55D	3	Υ	0402
Fitted	CAP, CERM, 0.1uF, 16V, +/-10%, X7R, 0603	C22, C47, C53, C55	Kemet	C0603C104K4RACTU	4	Υ	0603
Fitted	CAP, CERM, 0.1uF, 10V, +/-10%, X5R, 0402	C23, C26, C36, C37	TDK	C1005X5R1A104K	4	Υ	0402
Fitted	CAP, CERM, 1uF, 6.3V, +/-10%, X5R, 0603	C27, C31, C33, C34	MuRata	GRM185R60J105KE26D	4	Υ	0603
Fitted	CAP, CERM, 1000pF, 25V, +/-10%, X5R, 0402	C28, C50, C52	MuRata	GRM155R61E102KA01D	3	Υ	0402
Fitted	CAP, CERM, 10uF, 10V, +/-10%, X5R, 1210	C30	Kemet	C1210C106K8PACTU	1	Υ	1210
Fitted	CAP, CERM, 0.22uF, 16V, +/-10%, X7R, 0603	C35	MuRata	GRM188R71C224KA01D	1	Υ	0603
Fitted	CAP, CERM, 1000pF, 2000V, +/-10%, X7R, 1812	C38, C39	AVX	1812GC102KA1	2	Υ	1812
Fitted	CAP, CERM, 4700pF, 2000V, +/-10%, X7R, 1812	C40	AVX	1812GC472KA1	1	Υ	1812
Fitted	Diode, Schottky, 200V, 1A, PowerDI123	D1, D2	Diodes Inc.	DFLS1200-7	2	Υ	PowerDI123
Fitted	Quad Channel High Speed ESD Protection Device, DCK0006A	D3	Texas Instruments	TPD4E1U06DCK	1	Υ	DCK0006A
Fitted	Diode, Zener, 3.9V, 550mW, SMB	D4	ON Semiconductor	1SMB5915BT3G	1	Υ	SMB
Fitted	FERRITE CHIP 1000 OHM 300MA 0603	FB4	TDK Corporation	MMZ1608B102C	1	Υ	0603
Fitted	CONN TERM BLOCK 2.54MM 2POS PCB	J1	On Shore Technology Inc	OSTVN02A150	1	Υ	TERM_BLK, 2pos, 2.54mm
Fitted	CONN MOD JACK R/A 8P8C SHIELDED	J3	TE Connectivity	6116526-1	1		RJ45
Fitted	Receptacle, 0.8mm, 25x2, SMT	J4	Samtec	ERF8-025-05.0-L-DV-K-TR	1	Υ	25x2 Socket Strip
Fitted	LED SmartLED Green 570NM	LD1, LD2, LD3, LD4, LD5	OSRAM	LG L29K-G2J1-24-Z	5		0603
Fitted	Mountin hole, NPTH Drill 3.2mm	MH1, MH2, MH3, MH4	N/A	N/A	4		
Fitted	RES, 33 ohm, 5%, 0.063W, 0402	R1, R2, R3, R4, R5, R6, R7, R8, R10, R11, R13, R23, R24, R25, R26, R27, R28, R62	Vishay-Dale	CRCW040233R0JNED	18	Y	0402
Fitted	RES, 0 ohm, 5%, 0.1W, 0603	R17, R19, R33, R35, R41, R44, R45, R47, R51, R53, R61, R79	Vishay-Dale	CRCW06030000Z0EA	12	Υ	0603
Fitted	RES, 0 ohm, 5%, 0.125W, 0805	R21, R30, R34, R38	Yageo America	RC0805JR-070RL	4	Υ	0805
Fitted	RES, 470 ohm, 1%, 0.1W, 0603	R32, R49, R76, R80, R83	Yageo America	RC0603FR-07470RL	5	Υ	0603
Fitted	RES, 49.9 ohm, 1%, 0.063W, 0402	R39, R40, R42, R43	Vishay-Dale	CRCW040249R9FKED	4	Υ	0402
Fitted	RES, 3.3k ohm, 5%, 0.063W, 0402	R48	Vishay-Dale	CRCW04023K30JNED	1	Υ	0402
Fitted	RES, 2.2k ohm, 5%, 0.063W, 0402	R50, R64, R65, R66, R67, R69, R70, R75, R77, R81, R82	Vishay-Dale	CRCW04022K20JNED	11	Υ	0402
Fitted	RES, 75.0 ohm, 1%, 0.1W, 0603	R54, R55, R56, R57	Yageo America	RC0603FR-0775RL	4	Υ	0603
Fitted	RES, 1.0Meg ohm, 5%, 0.25W, 1206	R58	Vishay-Dale	CRCW12061M00JNEA	1	Υ	1206
Fitted	RES, 4.87k ohm, 1%, 0.1W, 0603	R73	Vishay-Dale	CRCW06034K87FKEA	1	Υ	0603
Fitted	RES, 2.00k ohm, 1%, 0.063W, 0402	R74	Vishay-Dale	CRCW04022K00FKED	1	Υ	0402

Fitted	TRANSFORMER, MDL, XFMR SGL ETHR LAN, SOIC-16	T1	PULSE ELECTRONICS	HX1198FNL	1	Υ	-
Fitted	IC, INDUSTRIAL TEMP, SINGLE PORT 10/100Mbs ETHERNET PHYSICAL LAYER TRANSCEIVER, VQFN-32P	U3	TEXAS INSTRUMENTS	TLK105LRHBR	1	Y	-
Fitted	IC, Low Dropout Voltage Regulator, 3.3 V, 2.0 A	U4	Texas Instruments	TPS75433QPWP	1		PWP20
Fitted	3.3 V and 2.5 V LVCMOS High-Performance Clock Buffer Family, PW0008A	U5	Texas Instruments	CDCLVC1102PW	1	Y	PW0008A
Fitted	CRYSTAL 25.0MHZ 18PF SMD	Y2	CTS-Frequency Controls	445I23D25M00000	1	Υ	2-SMD
Not Fitted	CAP, CERM, 1uF, 10V, +/-10%, X5R, 1206	C1, C4	MuRata	GRM319R61A105KA01D	0	Υ	1206
Not Fitted	CAP, CERM, 0.22uF, 6.3V, +/-10%, X7R, 0603	C2, C7, C44	MuRata	GRM188R70J224KA88D	0	Υ	0603
Not Fitted	CAP, CERM, 33pF, 50V, +/-5%, C0G/NP0, 0603	C3, C9	AVX	06035A330JAT2A	0	Υ	0603
Not Fitted	CAP, CERM, 0.1uF, 16V, +80/-20%, Y5V, 0603	C5	Kemet	C0603C104Z4VACTU	0	Υ	0603
Not Fitted	CAP, CERM, 10uF, 35V, +/-10%, X7R, 1206	C6, C24	Taiyo Yuden	GMK316AB7106KL	0	Υ	1206
Not Fitted	CAP, CERM, 0.01uF, 50V, +/-10%, C0G/NP0, 0402	C10, C15	MuRata	GCM155R71H103KA55D	0	Υ	0402
Not Fitted	CAP, CERM, 15pF, 50V, +/-5%, C0G/NP0, 0402	C11, C49	MuRata	GRM1555C1H150JA01D	0	Υ	0402
Not Fitted	CAP, CERM, 100pF, 50V, +/-10%, X7R, 0402	C12, C14	Yageo America	CC0402KRX7R9BB101	0	Υ	0402
Not Fitted	CAP, CERM, 1000pF, 25V, +/-10%, X5R, 0402	C19, C42, C46	MuRata	GRM155R61E102KA01D	0	Υ	0402
Not Fitted	CAP, CERM, 4.7uF, 6.3V, +/-10%, X5R, 0603	C41, C43, C45	Kemet	C0603C475K9PACTU	0	Υ	0603
Not Fitted	CAP, CERM, 0.1uF, 16V, +/-10%, X7R, 0603	C51	Kemet	C0603C104K4RACTU	0	Υ	0603
Not Fitted	FERRITE CHIP 1000 OHM 300MA 0603	FB1, FB2, FB3	TDK Corporation	MMZ1608B102C	0	Υ	0603
Not Fitted	Fiducial mark. There is nothing to buy or mount.	FID1, FID2, FID3, FID4, FID5, FID6	N/A	N/A	0		Fiducial
Not Fitted	CONN HEADER 3POS 2MM VERT T/H	J2	3M	951103-8622-AR	0	Υ	0.079 inch x 3
Not Fitted	Thermal Transfer Printable Labels, 0.650" W x 0.200" H - 10,000 per roll	LBL1	Brady	THT-14-423-10	0	Y	PCB Label 0.650"H x 0.200"W
Not Fitted	RES, 1.00Meg ohm, 1%, 0.063W, 0402	R9, R36	Vishay-Dale	CRCW04021M00FKED	0	Υ	0402
Not Fitted	RES, 0 ohm, 5%, 0.1W, 0603	R12, R18, R29, R46, R52, R78	Vishay-Dale	CRCW06030000Z0EA	0	Υ	0603
			,				
Not Fitted	RES, 22 ohm, 5%, 0.063W, 0402	R14, R15	Vishay-Dale	CRCW040222R0JNED	0	Υ	0402
Not Fitted	RES, 2.2k ohm, 5%, 0.063W, 0402	R16, R63, R68, R71, R72	Vishay-Dale	CRCW04022K20JNED	0	Υ	0402
Not Fitted	RES, 0 ohm, 5%, 0.125W, 0805	R20, R37	Yageo America	RC0805JR-070RL	0	Υ	0805
Not Fitted	RES, 4.7k ohm, 5%, 0.1W, 0603	R31, R59, R60	Yageo America	RC0603JR-074K7L	0	Υ	0603
Not Fitted	IC REG LDO 1.8V 50MA SC70-5	U1	TI	TPS71518DCKR	0		SOP-5 (DCK)
Not Fitted	Programmable 1-PLL VCXO Clock Synthesizer With 1.8-V, 2.5- V, and 3.3-V Outputs, PW0014A	U2	Texas Instruments	CDCE913PW	0	Υ	PW0014A
Not Fitted	OSC 25.00 MHZ 3.3V HIGH STAB SMD	X1	EPSON	HG-2150CA 25.000M-BXC3	0	Υ	4-SMD, No Lead (DFN, LCC)
Not Fitted	CRYSTAL 25.0MHZ 18PF SMD	Y1	CTS-Frequency Controls	445I23D25M00000	0	Υ	2-SMD

## 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, 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.