

Bill of Materials

TI DESIGNS

TIDA-00719

Item #	Designator	Quantity	Value	Description	PackageReference	PartNumber	Manufacturer
2	!PCB	1		Printed Circuit Board		TIDA-00719	Any
3	C0, C1, C2, C3, C30,	6	22uF	CAP, CERM, 22uF, 10V, +/-20%, X5R, 0603	0603	CL10A226MP8NUNE	Samsung
4	C4, C5, C6, C7	4	10uF	CAP, CERM, 10uF, 6.3V, +/-20%, X5R, 0603	0603	GRM188R60J106ME47D	MuRata
5	C8	1	0.1uF	CAP, CERM, 0.1uF, 10V, +/-10%, X5R, 0201	0201	CL03A104KP3NNNC	Samsung
6	C9	1	220uF	CAP, TANT, 220uF, 10V, +/-10%, 0.05 ohm, 7343-31 SMD	7343-31	TPSD227K010R0050	AVX
7	C10	1	100uF	CAP, CERM, 100uF, 6.3V, +/-20%, X5R, 1206	1206	GRM31CR60J107ME39L	MuRata
8	C11, C29	2	10pF	CAP, CERM, 10pF, 50V, +/-5%, C0G/NP0, 0603	0603	GRM1885C1H100JA01D	MuRata
9	C12, C13	2	15pF	CAP, CERM, 15pF, 100V, +/-5%, C0G/NP0, 0603	0603	GRM1885C2A150JA01D	MuRata
10	C14, C21, C23, C39,	5	10uF	CAP, CERM, 10uF, 16V, +/-20%, X5R, 0603	0603	EMK107BBJ106MA-T	Taiyo Yuden
11	C15, C16, C17, C18, C19, C20, C22, C24, C25, C26, C28, C38, C46	13	0.1uF	CAP, CERM, 0.1uF, 25V, +/-10%, X7R, 0603	0603	GRM188R71E104KA01D	MuRata
12	C34	1	10uF	CAP, CERM, 10uF, 16V, +/-10%, X5R, 0805	0805	EMK212BJ106KG-T	Taiyo Yuden
13	C37, C41, C43, C45, C47	5	1uF	CAP, CERM, 1uF, 25V, +/-10%, X5R, 0603	0603	GRM188R61E105KA12D	MuRata
14	C40	1	0.01uF	CAP, CERM, 0.01uF, 50V, +/-10%, X5R, 0603	0603	GRM188R61H103KA01D	MuRata
15	D1	1	5.6V	Diode, Zener, 5.6V, 5W, SMB	SMB	SMBJ5339B-TP	Micro Commercial Components
16	FID1, FID2, FID3	3		Fiducial mark. There is nothing to buy or mount.	Fiducial	N/A	N/A
17	H1, H2, H3, H4	4		MACHINE SCREW PAN PHILLIPS 4-40	Screw	NY PMS 440 0050 PH	B&F Fastener Supply
18	H5, H6, H7, H8	4		Standoff, Hex, 0.5"L #4-40 Nylon	Standoff	1902C	Keystone
19	J0, J1A, J2A, J3A	4	0	RES, 0 ohm, 5%, 0.063W, 0402	0402	CRCW04020000Z0ED	Vishay-Dale
20	J01	1		SMT Jumper Link	S1911-46R	S1911-46R	Harwin Inc
21	J4	1		Header, TH, 100mil, 2x2, Gold plated, 230 mil above insulator	TSW-102-07-G-D	TSW-102-07-G-D	Samtec, Inc.
22	J5, J9	2		Header, TH, 100mil, 2x1, Gold plated, 230 mil above insulator	TSW-102-07-G-S	TSW-102-07-G-S	Samtec, Inc.
23	J6	1		Conn Rcpt Mini USB2.0 Type B 5POS SMD	USB Mini Type B	1734035-2	TE Connectivity
24	L0, L1, L2, L3	4	470nH	Inductor, Shielded, Metal Composite, 470nH, 3.9A, 0.029 ohm, SMD	2.5x1x2mm	VLS252010HBX-R47M	TDK
25	L4, L6	2	10uH	Inductor, Wirewound, Ferrite, 10uH, 0.12A, 0.5 ohm, SMD	0805	LB2012T100KR	Taiyo Yuden
26	R1	1	0.01	RES, 0.01 ohm, 1%, 3W, 2512 High Power Current Sense Chip Resistor	2512	CRA2512-FZ-R010ELF	Bourns
27	R4	1	6.80k	RES, 6.80k ohm, 1%, 0.1W, 0603	0603	RC0603FR-076K8L	Yageo America
28	R5, R7	2	39.0	RES, 39.0 ohm, 1%, 0.1W, 0603	0603	RC0603FR-0739RL	Yageo America
29	R8	1	47.0k	RES, 47.0k ohm, 1%, 0.1W, 0603	0603	RC0603FR-0747KL	Yageo America
30	R9	1	27.0k	RES, 27.0k ohm, 1%, 0.1W, 0603	0603	RC0603FR-0727KL	Yageo America
31	R10, R11, R13, R14, R15, R16, R17, R22	8	0	RES, 0 ohm, 5%, 0.1W, 0603	0603	CRCW06030000Z0EA	Vishay-Dale
32	R12, R23	2	1.00	RES, 1.00 ohm, 1%, 0.1W, 0603	0603	RC0603FR-071RL	Yageo America
33	R20, R21	2	1.00k	RES, 1.00k ohm, 1%, 0.1W, 0603	0603	CRCW06031K00FKEA	Vishay-Dale
34	R29	1	470k	RES, 470k ohm, 5%, 0.1W, 0603	0603	CRCW0603470KJNEA	Vishay-Dale
35	SH-J9, SH-J10, SH-J12	3	1x2	Shunt, 100mil, Gold plated, Black	Shunt	969102-0000-DA	3M

Item #	Designator	Quantity	Value	Description	PackageReference	PartNumber	Manufacturer
36	TP1, TP2, TP3, TP4, TP5, TP6, TP9, TP12, TP15, TP19	10	Yellow	Test Point, TH, Miniature, Yellow	Keystone5004	5004	Keystone
37	TP11, TP13	2	Double	Terminal, Turret, TH, Double	Keystone1502-2	1502-2	Keystone
38	U1	1		LP8758 Multiphase 4-Core Step-Down Converter, YFF0035	YFF0035	LP8758	Texas Instruments
39	U2	1		AT91SAM ARM-based Flash MCU, LQFP100	100 pin LQFP	ATSAM3U2C-AU	Atmel
40	U3	1		Dual Linear Regulator with 300mA and 150mA Outputs and Power-On-Reset, 10-pin LLP, Pb-Free	SDA10A	LP3996SD-1833/NOPB	Texas Instruments
41	U4	1		SOT-23 Precision Low Dropout Voltage Reference	MF05A	LM4132AMF-2.5	Texas Instruments
42	X0, X1, X2, X3, X4	5	2x1	Conn Term Block, 2POS, 5.08mm, TH	2POS Terminal Block	1715721	Phoenix Contact
43	X5, X10	2		Header, 2 Pos, 6A, 63V	6.2x8.5x5.54 mm	1725656	Phoenix Contact
44	X6	1		Terminal Block, 8x1, 2.54 mm, TH	8POS Terminal Block	1725711	Phoenix Contact
45	Y1	1		Crystal, 12Mhz, 18pF, SMD	ABM3	ABM3-12.000MHZ-B2-T	Abracon Corportation
46	C0_1, C1_1, C2_1, C3_1	0	22uF	CAP, CERM, 22uF, 10V, +/-20%, X5R, 0805	0805	LMK212BJ226MG-T	Taiyo Yuden
47	C0_2, C1_2, C2_2, C3_2	0	10uF	CAP, CERM, 10uF, 6.3V, +/-20%, X5R, 0603	0603	C0603C106M9PACTU	Kemet
48	J1B, J2B, J3B, J10, J12, J13, J14, J15, J16, J17	0	0	RES, 0 ohm, 5%, 0.063W, 0402	0402	CRCW04020000Z0ED	Vishay-Dale
49	J02, J23	0		SMT Jumper Link	S1911-46R	S1911-46R	Harwin Inc
50	LBL1	0		Thermal Transfer Printable Labels, 1.250" W x 0.250" H - 10,000 per roll	PCB Label 1.25"H x 0.250"W	THT-13-457-10	Brady
51	R2, R3, R6	0	1.8k	RES, 1.8k ohm, 5%, 0.1W, 0603	0603	CRCW06031K80JNEA	Vishay-Dale
52	TP10, TP14, TP16, TP17, TP18	0		Header, TH, 100mil, 2x1, Gold plated, 230 mil above insulator	TSW-102-07-G-S	TSW-102-07-G-S	Samtec, Inc.
	X7, X9	0		Connector, 7 pos, 2.54mm, R/A, SMT	30x3.6x9.2mm	OPP-07-01-T-S-M	Samtec

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.