

TIDA-00210 REV E1 Bill of Materials

Designator	Quantity	Value	PartNumber	Manufacturer	Description	PackageReference
!PCB	2		TIDA-00365	Any	Printed Circuit Board	
3.3V, 12V	4	Green	150060GS75000	Würth Elektronik	LED, Green, SMD	LED_0603
C1, C6, C40, C50, C57	10	0.1uF	C1005X7R1E104M050BB	TDK	CAP, CERM, 0.1 µF, 25 V, +/- 20%, X7R, 0402	0402
C2, C9	4	0.01uF	885012205031	Würth Elektronik	CAP, CERM, 0.01 µF, 16 V, +/- 10%, X7R, 0402	0402
C3	2	0.1uF	885012205044	Würth Elektronik	CAP, CERM, 1000 pF, 25 V, +/- 10%, X7R, 0402	0402
C4, C8	4	1uF	885012106017	Würth Elektronik	CAP, CERM, 1 µF, 16 V, +/- 20%, X5R, 0603	0603
C5, C17	4	100uF	860040875005	Würth Elektronik	CAP, AL, 100 µF, 100 V, +/- 20%, 0.2 ohm, TH	D10xL25mm
C7	2	4700pF	GRM155R72A472KA01D	MuRata	CAP, CERM, 4700 pF, 100 V, +/- 10%, X7R, 0402	0402
C10, C13, C33, C66, C67, C68, C69, C70, C71, C72, C73	22	100pF	CC0402KRX7R9BB101	Yageo America	CAP, CERM, 100 pF, 50 V, +/- 10%, X7R, 0402	0402
C11, C14	4	1uF	C2012X7S2A105K125AB	TDK	CAP, CERM, 1 µF, 100 V, +/- 10%, X7S, 0805	0805
C12, C21	4	0.01uF	06031C103KAT2A	AVX	CAP, CERM, 0.01 µF, 100 V, +/- 10%, X7R, 0603	0603
C15, C16, C26, C32	8	3.3uF	C3216X7S2A335M160AB	TDK	CAP, CERM, 3.3 µF, 100 V, +/- 20%, X7S, 1206_190	1206_190
C19, C20	4	0.1uF	C2012X7R2A104K125AA	TDK	CAP, CERM, 0.1 µF, 100 V, +/- 10%, X7R, 0805	0805
C22, C23, C25	6	100pF	885012205055	Würth Elektronik	CAP, CERM, 100 pF, 50 V, +/- 10%, X7R, 0402	0402
C27, C29, C51, C52	8	2200pF	06031C222JAT2A	AVX	CAP, CERM, 2200 pF, 100 V, +/- 5%, X7R, 0603	0603
C28, C64	4	4.7uF	GRM188R61E475KE11D	MuRata	CAP, CERM, 4.7 µF, 25 V, +/- 10%, X5R, 0603	0603
C34, C39, C62	6	1uF	C1608X5R1C105K	TDK	CAP, CERM, 1 µF, 16 V, +/- 10%, X5R, 0603	0603
C36	2	3300pF	GRM188R72A332KA01D	MuRata	CAP, CERM, 3300 pF, 100 V, +/- 10%, X7R, 0603	0603
C37	2	0.1uF	GRM188R72A104KA35D	MuRata	CAP, CERM, 0.1 µF, 100 V, +/- 10%, X7R, 0603	0603
C41	2	1000pF	885012205044	Würth Elektronik	CAP, CERM, 1000 pF, 25 V, +/- 10%, X7R, 0402	0402
CLR_FLT	2		TL1015AF160QG	E-Switch	Switch, Tactile, SPST-NO, 0.05A, 12V, SMT	Switch, 4.4x2x2.9 mm
D1	2	75V	BAV99W-7-F	Diodes Inc.	Diode, Switching, 75 V, 0.15 A, SOT-323	SOT-323
D3, D4, D5, D8, D13	10	100V	BAS316,115	NXP Semiconductor	Diode, Ultrafast, 100 V, 0.25 A, SOD-323	SOD-323
D6	2	3.9V	BZT52C3V9T-7	Diodes Inc.	Diode, Zener, 3.9 V, 300 mW, SOD-523	SOD-523
D9, D10	4	91V	MMSZ5270BT1G	ON Semiconductor	Diode, Zener, 91 V, 500 mW, SOD-123	SOD-123
FAULT, PGOOD, TRIP	6	Red	150060RS75000	Würth Elektronik	LED, Red, SMD	LED_0603
FID1, FID2, FID3, FID4, FID5, FID6	12		N/A	N/A	Fiducial mark. There is nothing to buy or mount.	N/A
H1, H2, H3, H13	8		1514409	Farnell	Will add component to BOM. Useful for cables, nuts, etc. not in libraries	Screw, M3, 6mm, Nylon
H4, H5, H6, H7	8		1902C	Standoff	Will add component to BOM. Useful for cables, nuts, etc. not in libraries	Hexagon Spacer
H9	2		691351500003	Würth Elektronik	TERM BLOCK PLUG 3POS 5.08MM	
H10	2		691352510002	Würth Elektronik	TERM BLOCK PLUG 2POS 5.08MM	

Designator	Quantity	Value	PartNumber	Manufacturer	Description	PackageReference
J1	2		691311500103	Würth Elektronik	Header (Shrouded), 5.08mm, 3x1, Tin, TH	Header (Shrouded), 5.08mm, 3x1, TH
J2, J5	4		61030421121	Würth Elektronik	Header, 2.54mm, 2x2, Gold, SMT	Header, 2.54mm, 2x2, Gold, TH
J4	2		691311500002	Würth Elektronik	Header (Shrouded), 5.08mm, 2x1, Tin, TH	Header (Shrouded), 5.08mm, 2x1, TH
J7	2		61031221121	Würth Elektronik	Header, 2.54mm, 6x2, Gold, SMT	Header, 2.54mm, 6x2, Gold, TH
L2	2	10uH	74479887310	Würth Elektronik	Inductor, Shielded Drum Core, Metal Composite, 10 µH, 0.35 A, 0.7 ohm, SMD	2.5x1x2mm
L5	2	100uH	74404041101	Würth Elektronik	Inductor, Wirewound, Ferrite, 100 µH, 0.35 A, 1.697 ohm, SMD	3.7x4mm
Q5, Q6, Q7, Q8	8	100V	CSD19534Q5A	Texas Instruments	MOSFET, N-CH, 100 V, 10 A, SON 5x6mm	SON 5x6mm
R1	2	475	CRCW0402475RFKED	Vishay-Dale	RES, 475, 1%, 0.063 W, 0402	0402
R2, R3, R4, R5, R15, R16, R27, R36	16	22	CRCW040222R0JNED	Vishay-Dale	RES, 22, 5%, 0.063 W, 0402	0402
R6	2	806	CRCW0402806RFKED	Vishay-Dale	RES, 806, 1%, 0.063 W, 0402	0402
R7	2	487k	CRCW0402487KFKED	Vishay-Dale	RES, 487 k, 1%, 0.063 W, 0402	0402
R8	2	100k	CRCW0402100KFKED	Vishay-Dale	RES, 100 k, 1%, 0.063 W, 0402	0402
R10, R50, R78	6	10	CRCW060310R0JNEA	Vishay-Dale	RES, 10, 5%, 0.1 W, 0603	0603
R13, R14, R20	6	1.2k	CRCW04021K20JNED	Vishay-Dale	RES, 1.2 k, 5%, 0.063 W, 0402	0402
R17	2	100k	CRCW0402100KJNED	Vishay-Dale	RES, 100 k, 5%, 0.063 W, 0402	0402
R18, R19, R23, R24, R49, R76, R93, R126	16	51k	CRCW040251K0JNED	Vishay-Dale	RES, 51 k, 5%, 0.063 W, 0402	0402
R21, R35, R40, R81, R83, R91	12	49.9k	CRCW040249K9FKED	Vishay-Dale	RES, 49.9 k, 1%, 0.063 W, 0402	0402
R22	2	1.00k	CRCW04021K00FKED	Vishay-Dale	RES, 1.00 k, 1%, 0.063 W, 0402	0402
R25	2	820	CRCW0402820R0JNED	Vishay-Dale	RES, 820, 5%, 0.063 W, 0402	0402
R26	2	6.8k	CRCW04026K80JNED	Vishay-Dale	RES, 6.8 k, 5%, 0.063 W, 0402	0402
R28, R29, R95, R96	8	2.7	CRCW08052R70JNEA	Vishay-Dale	RES, 2.7, 5%, 0.125 W, 0805	0805
R51, R53	4	1.50k	CRCW04021K50FKED	Vishay-Dale	RES, 1.50 k, 1%, 0.063 W, 0402	0402
R57	2	100	CRCW0402100R0JNED	Vishay-Dale	RES, 100, 5%, 0.063 W, 0402	0402
R58, R67, R68, R74	8	47	CRCW060347R0JNEA	Vishay-Dale	RES, 47, 5%, 0.1 W, 0603	0603
R61, R62	4	3.0	CRCW06033R00JNEA	Vishay-Dale	RES, 3.0, 5%, 0.1 W, 0603	0603
R64	2	0.01	CRA2512-FZ-R010ELF	Bourns	RES, 0.01, 1%, 3 W, 2512	2512
R66	2	1.8k	CRCW04021K80JNED	Vishay-Dale	RES, 1.8 k, 5%, 0.063 W, 0402	0402
R69	2	23.2k	CRCW040223K2FKED	Vishay-Dale	RES, 23.2 k, 1%, 0.063 W, 0402	0402
R71, R97	4	180k	CRCW0402180KJNED	Vishay-Dale	RES, 180 k, 5%, 0.063 W, 0402	0402
R72	2	16.5k	CRCW040216K5FKED	Vishay-Dale	RES, 16.5 k, 1%, 0.063 W, 0402	0402
R73, R98	4	10k	CRCW040210K0JNED	Vishay-Dale	RES, 10 k, 5%, 0.063 W, 0402	0402
R77	2	9.1k	CRCW04029K10JNED	Vishay-Dale	RES, 9.1 k, 5%, 0.063 W, 0402	0402
R79, R80	4	200k	CRCW0402200KJNED	Vishay-Dale	RES, 200 k, 5%, 0.063 W, 0402	0402
R82	2	7.5k	CRCW04027K50JNED	Vishay-Dale	RES, 7.5 k, 5%, 0.063 W, 0402	0402
R85	2	3.24k	CRCW04023K24FKED	Vishay-Dale	RES, 3.24 k, 1%, 0.063 W, 0402	0402
R92	2	2.26k	CRCW04022K26FKED	Vishay-Dale	RES, 2.26 k, 1%, 0.063 W, 0402	0402
R101	2	3.0	CRCW04023R00JNED	Vishay-Dale	RES, 3.0, 5%, 0.063 W, 0402	0402

Designator	Quantity	Value	PartNumber	Manufacturer	Description	PackageReference
R102, R103	4	3.32k	CRCW04023K32FKED	Vishay-Dale	RES, 3.32 k, 1%, 0.063 W, 0402	0402
R113	2	3.09k	CRCW04023K09FKED	Vishay-Dale	RES, 3.09 k, 1%, 0.063 W, 0402	0402
R118	2	10.0k	CRCW040210K0FKED	Vishay-Dale	RES, 10.0 k, 1%, 0.063 W, 0402	0402
R125	2	20.0k	CRCW040220K0FKED	Vishay-Dale	RES, 20.0 k, 1%, 0.063 W, 0402	0402
TP1	2		5002	Keystone	Test Point, Miniature, White, TH	White Miniature Testpoint
U1	2		LMT89DCKR	Texas Instruments	2.4V, 10µA, SC70, DSBGA Temperature Sensor, DCK0005A	DCK0005A
U2	2		SM72295MAX/NOPB	Texas Instruments	Photovoltaic Full Bridge Driver, DW0028A	DW0028A
U3	2		ATL431BQDBZR	Texas Instruments	2.5V Low Iq Adjustable Precision Shunt Regulator, DBZ0003A	DBZ0003A
U5	2		LM5018MRX/NOPB	Texas Instruments	100V, 300mA Constant On-Time Synchronous Buck Regulator, DDA0008B	DDA0008B
U6	2		LM2901VQD	Texas Instruments	Quad Comparator, D0014A	D0014A
U7	2		LM317LIPK	Texas Instruments	3-Terminal Adjustable Regulator, PK0003A	PK0003A
U9	2		SN74LVC1G175DCKR	Texas Instruments	SINGLE D-TYPE FLIP-FLOP WITH ASYNCHRONOUS CLEAR, DCK0006A	DCK0006A
U10	2		TL431QDBZT	Texas Instruments	Adjustable Precision Shunt Regulator, 34 ppm / degC, 100 mA, -40 to 125 degC, 3-pin SOT-23 (DBZ), Green (RoHS & no Sb/Br)	DBZ0003A
C18, C24	0	0.01uF	885012205031	Wurth Elektronik	CAP, CERM, 0.01 µF, 16 V, +/- 10%, X7R, 0402	0402
Q1	0	160 V	DMMT5551-7-F	Diodes Inc.	Transistor, Dual NPN, 160 V, 0.2 A, SOT-26	SOT-26
R9	0	0	CRCW04020000Z0ED	Vishay-Dale	RES, 0, 5%, 0.063 W, 0402	0402
R11	0	24k	CRCW040224K0JNED	Vishay-Dale	RES, 24 k, 5%, 0.063 W, 0402	0402
R12	0	33.2k	CRCW040233K2FKED	Vishay-Dale	RES, 33.2 k, 1%, 0.063 W, 0402	0402

IMPORTANT NOTICE FOR TI REFERENCE DESIGNS

Texas Instruments Incorporated ("TI") reference designs are solely intended to assist designers ("Designer(s)") who are developing systems that incorporate TI products. TI has not conducted any testing other than that specifically described in the published documentation for a particular reference design.

TI's provision of reference designs and any other technical, applications or design advice, quality characterization, reliability data or other information or services does not expand or otherwise alter TI's applicable published warranties or warranty disclaimers for TI products, and no additional obligations or liabilities arise from TI providing such reference designs or other items.

TI reserves the right to make corrections, enhancements, improvements and other changes to its reference designs and other items.

Designer understands and agrees that Designer remains responsible for using its independent analysis, evaluation and judgment in designing Designer's systems and products, and has full and exclusive responsibility to assure the safety of its products and compliance of its products (and of all TI products used in or for such Designer's products) with all applicable regulations, laws and other applicable requirements. Designer represents that, with respect to its applications, it has all the necessary expertise to create and implement safeguards that (1) anticipate dangerous consequences of failures, (2) monitor failures and their consequences, and (3) lessen the likelihood of failures that might cause harm and take appropriate actions. Designer agrees that prior to using or distributing any systems that include TI products, Designer will thoroughly test such systems and the functionality of such TI products as used in such systems. Designer may not use any TI products in life-critical medical equipment unless authorized officers of the parties have executed a special contract specifically governing such use. Life-critical medical equipment is medical equipment where failure of such equipment would cause serious bodily injury or death (e.g., life support, pacemakers, defibrillators, heart pumps, neurostimulators, and implantables). Such equipment includes, without limitation, all medical devices identified by the U.S. Food and Drug Administration as Class III devices and equivalent classifications outside the U.S.

Designers are authorized to use, copy and modify any individual TI reference design only in connection with the development of end products that include the TI product(s) identified in that reference design. HOWEVER, NO OTHER LICENSE, EXPRESS OR IMPLIED, BY ESTOPPEL OR OTHERWISE TO ANY OTHER TI INTELLECTUAL PROPERTY RIGHT, AND NO LICENSE TO ANY TECHNOLOGY OR INTELLECTUAL PROPERTY RIGHT OF TI OR ANY THIRD PARTY 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 products 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 the reference design or other items described above 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 AND OTHER ITEMS DESCRIBED ABOVE ARE PROVIDED "AS IS" AND WITH ALL FAULTS. TI DISCLAIMS ALL OTHER WARRANTIES OR REPRESENTATIONS, EXPRESS OR IMPLIED, REGARDING THE REFERENCE DESIGNS OR USE OF THE REFERENCE DESIGNS, INCLUDING BUT NOT LIMITED TO ACCURACY OR COMPLETENESS, TITLE, ANY EPIDEMIC FAILURE WARRANTY AND ANY IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, AND NON-INFRINGEMENT OF ANY THIRD PARTY INTELLECTUAL PROPERTY RIGHTS.

TI SHALL NOT BE LIABLE FOR AND SHALL NOT DEFEND OR INDEMNIFY DESIGNERS AGAINST ANY CLAIM, INCLUDING BUT NOT LIMITED TO ANY INFRINGEMENT CLAIM THAT RELATES TO OR IS BASED ON ANY COMBINATION OF PRODUCTS AS DESCRIBED IN A TI REFERENCE DESIGN OR OTHERWISE. IN NO EVENT SHALL TI BE LIABLE FOR ANY ACTUAL, DIRECT, SPECIAL, COLLATERAL, INDIRECT, PUNITIVE, INCIDENTAL, CONSEQUENTIAL OR EXEMPLARY DAMAGES IN CONNECTION WITH OR ARISING OUT OF THE REFERENCE DESIGNS OR USE OF THE REFERENCE DESIGNS, AND REGARDLESS OF WHETHER TI HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.

TI's standard terms of sale for semiconductor products (<http://www.ti.com/sc/docs/stdterms.htm>) apply to the sale of packaged integrated circuit products. Additional terms may apply to the use or sale of other types of TI products and services.

Designer will fully indemnify TI and its representatives against any damages, costs, losses, and/or liabilities arising out of Designer's non-compliance with the terms and provisions of this Notice.

Mailing Address: Texas Instruments, Post Office Box 655303, Dallas, Texas 75265
Copyright © 2016, Texas Instruments Incorporated