

Filename: TIDA-00778E2-BOM.xls
 Variant: 001
 Generated: 3/15/2017 8:52:21 PM
 TID #: 00778



TIDA-00778 REV E2 Bill of Materials

Item #	Designator	Quantity	Value	PartNumber	Manufacturer	Description	PackageReferen
1	C1	1	68uF	UCS2W680MHD	Nichicon	CAP, AL, 68 μ F, 450 V, +/- 20%, TH	TH, 2-Leads, Body 18x31.5mm, Pin Spacing 7.5mm
2	C2, C3, C4, C6, C11, C24, C25, C26, C28, C29, C36, C52, C53, C54, C58, C61, C62, C66, C68, C73, C75, C77, C80, C81, C83	25	0.1uF	0603YC104JAT2A	AVX	CAP, CERM, 0.1 μ F, 16 V, +/- 5%, X7R, 0603	0603
3	C5, C7, C8, C9, C10, C12, C21, C37, C39, C42, C44, C47, C49, C59, C64, C78, C79	17	220pF	06035A221FAT2A	AVX	CAP, CERM, 220 pF, 50 V, +/- 1%, COG/NP0, 0603	0603
4	C14, C15, C16, C18	4	0.047uF	06033C473JAT2A	AVX	CAP, CERM, 0.047 μ F, 25 V, +/- 5%, X7R, 0603	0603
5	C17	1	3300pF	C0603C332K5RACTU	Kemet	CAP, CERM, 3300 pF, 50 V, +/- 10%, X7R, 0603	0603
6	C23, C60, C74, C76	4	4.7uF	GRM21BR71C475KA73L	MuRata	CAP, CERM, 4.7 μ F, 16 V, +/- 10%, X7R, 0805	0805
7	C30, C31, C32	3	0.1uF	C1812V104KDRACTU	Kemet	CAP, CERM, 0.1 μ F, 1000 V, +/- 10%, X7R, 1812	1812
8	C33, C34, C35	3	10uF	C2012X5R1E106K125AB	TDK	CAP, CERM, 10 μ F, 25 V, +/- 10%, X5R, 0805	0805
9	C38, C43, C48, C55, C56, C57	6	1uF	C0805C105K3RACTU	Kemet	CAP, CERM, 1 μ F, 25 V, +/- 10%, X7R, 0805	0805
10	C40, C41, C45, C46, C50, C51	6	2200pF	GRM188R71E222KA01D	MuRata	CAP, CERM, 2200 pF, 25 V, +/- 10%, X7R, 0603	0603
11	C65, C69	2	22uF	URZ1E220MDD1TD	Nichicon	CAP, AL, 22 μ F, 25 V, +/- 20%, TH	5.0x9.0mm
12	C67	1	10uF	0805YD106MAT2A	AVX	CAP, CERM, 10 μ F, 16 V, +/- 20%, X5R, 0805	0805
13	C70	1	0.1uF	06033C104KAT2A	AVX	CAP, CERM, 0.1 μ F, 25 V, +/- 10%, X7R, 0603	0603
14	C71, C84	2	22pF	C0603C220J5GACTU	Kemet	CAP, CERM, 22 pF, 50 V, +/- 5%, COG/NP0, 0603	0603
15	D1, D2, D17, D18, D19, D20, D21, D22	8	40V	1N5819HW-7-F	Diodes Inc.	Diode, Schottky, 40V, 1A, SOD-123	SOD-123
16	D3	1	RED	150060RS75000	Würth Elektronik Inc	LED RED CLEAR 0603 SMD	LED_0603
17	D5	1	GREEN	150060GS75000	Würth Elektronik Inc	LED, Green, SMD	LED_0603
18	D6	1	YELLOW	150060YS75000	Würth Elektronik Inc	LED YELLOW CLEAR 0603 SMD	LED_0603
19	D8, D12, D13, D14	4	30V	CDBP0130L-G	Comchip Technology	Diode, Schottky, 30 V, 0.1 A, SOD-723	SOD-723
20	D9, D10, D11	3	1000V	US1M-13-F	Diodes Inc.	Diode, Ultrafast, 1000V, 1A, SMA	SMA
21	H5	1		ATS-57003-C1-R0	Advanced Thermal Solutions Inc.	HEAT SINK 94MM X 94MM X 27MM	Heat Sink 50x100x50 mm

Item #	Designator	Quantity	Value	PartNumber	Manufacturer	Description	PackageReferen
22	H6, H7, H8, H9, H10	5		29316	Keystone Electronics	MACHINE SCREW PAN SLOTTED M3	
23	H11, H12, H13, H14	4		1902C	Keystone	Standoff, Hex, 0.5"L #4-40 Nylon	Standoff
24	J1	1		OSTVI024152	On Shore Technology Inc.	TERMINAL BLOCK 7.50MM 2POS PCB	TERMINAL BLOCK 7.50MM 2POS PCB
25	J2	1		OSTVI034152	On-Shore Technology	TERMINAL BLOCK 7.50MM 3POS PCB, TH	
26	J3	1		0353120360	Molex Connector Corporation	CONN HEADER 3POS VERT SHROUD	Header (Shrouded), 2.5mm, 3x1, TH
27	J4	1		PEC07DAAN	Sullins Connector Solutions	Header, 100mil, 7x2, Tin, TH	Header, 7x2, 100mil, Tin
28	R1, R11, R12, R30, R47, R94, R107, R117, R119, R132, R137	11	100	CRCW0603100RFKEA	Vishay-Dale	RES, 100, 1%, 0.1 W, 0603	0603
29	R2, R4	2	300k	CRCW1206300KJNEA	Vishay-Dale	RES, 300 k, 5%, 0.25 W, 1206	1206
30	R3, R5, R6, R7, R15, R40, R41, R42, R81, R82, R86, R87, R93, R96, R98	15	0	CRCW06030000Z0EA	Vishay-Dale	RES, 0, 5%, 0.1 W, 0603	0603
31	R8	1	20k	3386P-1-203LF	Bourns	TRIMMER, 20k ohm, 0.5W, TH	375x190x375mil
32	R9, R120	2	1.00Meg	CRCW06031M00FKEA	Vishay-Dale	RES, 1.00 M, 1%, 0.1 W, 0603	0603
33	R10, R45, R46, R88, R95, R97, R103, R112, R114, R116, R124, R125, R126, R127, R129, R130	16	10.0k	CRCW060310K0FKEA	Vishay-Dale	RES, 10.0 k, 1%, 0.1 W, 0603	0603
34	R13, R33, R34, R35, R36, R37, R48	7	9.09k	CRCW06039K09FKEA	Vishay-Dale	RES, 9.09 k, 1%, 0.1 W, 0603	0603
35	R14, R50, R60	3	31.6k	CRCW060331K6FKEA	Vishay-Dale	RES, 31.6 k, 1%, 0.1 W, 0603	0603
36	R16, R17, R18, R19, R20, R21, R22, R23, R24, R27, R28, R29	12	374k	RC1206FR-07374KL	Yageo America	RES, 374 k, 1%, 0.25 W, 1206	1206
37	R25, R26, R106, R108	4	100	RG1608P-101-B-T5	Susumu Co Ltd	RES, 100, 0.1%, 0.1 W, 0603	0603
38	R31, R102, R115, R118, R128, R133, R134, R135	8	1.00k	CRCW06031K00FKEA	Vishay-Dale	RES, 1.00 k, 1%, 0.1 W, 0603	0603
39	R32, R38, R39	3	51.1k	CRCW060351K1FKEA	Vishay-Dale	RES, 51.1 k, 1%, 0.1 W, 0603	0603
40	R43, R44, R56, R63, R69, R71, R75, R77, R131	9	51.1	CRCW060351R1FKEA	Vishay-Dale	RES, 51.1, 1%, 0.1 W, 0603	0603
41	R49, R54, R62	3	3.3	CRCW12063R30JNEA	Vishay-Dale	RES, 3.3 ohm, 5%, 0.25W, 1206	1206
42	R51, R53, R57, R59, R64, R66	6	20.0k	CRCW060320K0FKEA	Vishay-Dale	RES, 20.0k ohm, 1%, 0.1W, 0603	0603
43	R52, R109	2	4.99k	RT0603BRD074K99L	Yageo America	RES, 4.99 k, 0.1%, 0.1 W, 0603	0603
44	R55, R61	2	0.02	CRA2512-FZ-R020ELF	Bourns	RES, 0.02, 1%, 3 W, 2512	2512
45	R58, R68, R70, R73, R76, R79	6	12.0	RC1206FR-0712RL	Yageo America	RES, 12.0, 1%, 0.25 W, 1206	1206

Item #	Designator	Quantity	Value	PartNumber	Manufacturer	Description	PackageReferen
46	R65, R67, R72, R74, R78, R80	6	6.04	CRCW12066R04FKEA	Vishay-Dale	RES, 6.04, 1%, 0.25 W, 1206	1206
47	R83, R84, R85	3	0.005	CRE2512-FZ-R005E-3	Bourns	RES, 0.005, 1%, 3 W, AEC-Q200 Grade 0, 2512	2512
48	R89	1	21.5k	CRCW060321K5FKEA	Vishay-Dale	RES, 21.5 k, 1%, 0.1 W, 0603	0603
49	R90, R91, R92	3	5.11	RC0603FR-075R11L	Yageo America	RES, 5.11, 1%, 0.1 W, 0603	0603
50	R101	1	4.99k	CR0603-FX-4991ELF	Bourns	RES, 4.99 k, 1%, 0.1 W, 0603	0603
51	R104, R110, R121, R122, R123, R136	6	4.7k	CRCW06034K70JNEA	Vishay-Dale	RES, 4.7 k, 5%, 0.1 W, 0603	0603
52	S1	1		434121025816	Würth Elektronik	Switch, Tactile, SPST, 12 V, SMD	SMD, 6x3.9mm
53	TP1	1		5000	Keystone	Test Point, Miniature, Red, TH	Red Miniature Testpoint
54	U1, U7, U15	3		INA303A1IPWR	Texas Instruments	36-V, High-Speed, Bi-Directional, Zero-Drift, Voltage-Output, Current-Shunt Monitor with Multi-Alert High-Speed, Overcurrent Comparator, PW0014A	PW0014A
55	U2, U3, U4	3		UCC27714D	Texas Instruments	High-Speed, 4-A, 600-V High-Side Low-Side Gate Driver	D0014A
56	U6, U10	2		TLV6001IDBVT	Texas Instruments	1-MHz, Low-Power Operational Amplifier	DBV0005A
57	U8	1		OPA835IDBVR	Texas Instruments	Ultra Low Power, Rail-to-Rail Out, Negative Rail In, VFB Amplifier, 2.5 to 5.5 V, -40 to 125 degC, 6-pin SOT23 (DBV6), Green (RoHS & no Sb/Br)	DBV0006A
58	U9	1		TLV1701AIDBVR	Texas Instruments	2.2-V to 36-V, microPower Comparator, DBV0005A	DBV0005A
59	U12	1	TMS320F2802xPTA	TMS320F28027FPTT	TI	IC, 32-Bit Piccolo Microcontrollers, xx MHz	LQFP
60	U13	1		TLV70433DBVR	Texas Instruments	Single Output LDO, 150 mA, Fixed 3.3 V Output, 2.5 to 24 V Input, with Ultra-Low IQ, 5-pin SOT-23 (DBV), -40 to 125 degC, Green (RoHS & no Sb/Br)	DBV0005A
61	U14	1		SK30GD066ET	SEMIKRON	MODULE, THRU-19PIN	-
62	C13, C22, C27	0	220pF	06035A221FAT2A	AVX	CAP, CERM, 220 pF, 50 V, +/- 1%, COG/NP0, 0603	0603
63	R105	0	4.99k	RT0603BRD074K99L	Yageo America	RES, 4.99 k, 0.1%, 0.1 W, 0603	0603

IMPORTANT NOTICE FOR TI DESIGN INFORMATION AND RESOURCES

Texas Instruments Incorporated ("TI") technical, application or other design advice, services or information, including, but not limited to, reference designs and materials relating to evaluation modules, (collectively, "TI Resources") are intended to assist designers who are developing applications that incorporate TI products; by downloading, accessing or using any particular TI Resource in any way, you (individually or, if you are acting on behalf of a company, your company) agree to use it solely for this purpose and subject to the terms of this Notice.

TI's provision of TI Resources 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 TI Resources. TI reserves the right to make corrections, enhancements, improvements and other changes to its TI Resources.

You understand and agree that you remain responsible for using your independent analysis, evaluation and judgment in designing your applications and that you have full and exclusive responsibility to assure the safety of your applications and compliance of your applications (and of all TI products used in or for your applications) with all applicable regulations, laws and other applicable requirements. You represent that, with respect to your applications, you have 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. You agree that prior to using or distributing any applications that include TI products, you will thoroughly test such applications and the functionality of such TI products as used in such applications. TI has not conducted any testing other than that specifically described in the published documentation for a particular TI Resource.

You are authorized to use, copy and modify any individual TI Resource only in connection with the development of applications that include the TI product(s) identified in such TI Resource. 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 regarding or referencing third-party products or services does not constitute a license to use such products or services, or a warranty or endorsement thereof. Use of TI Resources 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 RESOURCES ARE PROVIDED "AS IS" AND WITH ALL FAULTS. TI DISCLAIMS ALL OTHER WARRANTIES OR REPRESENTATIONS, EXPRESS OR IMPLIED, REGARDING TI RESOURCES OR USE THEREOF, 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 YOU AGAINST ANY CLAIM, INCLUDING BUT NOT LIMITED TO ANY INFRINGEMENT CLAIM THAT RELATES TO OR IS BASED ON ANY COMBINATION OF PRODUCTS EVEN IF DESCRIBED IN TI RESOURCES 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 TI RESOURCES OR USE THEREOF, AND REGARDLESS OF WHETHER TI HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.

You agree to fully indemnify TI and its representatives against any damages, costs, losses, and/or liabilities arising out of your non-compliance with the terms and provisions of this Notice.

This Notice applies to TI Resources. Additional terms apply to the use and purchase of certain types of materials, TI products and services. These include; without limitation, TI's standard terms for semiconductor products (<http://www.ti.com/sc/docs/stdterms.htm>), [evaluation modules](#), and [samples](http://www.ti.com/sc/docs/sampterm.htm) (<http://www.ti.com/sc/docs/sampterm.htm>).

Mailing Address: Texas Instruments, Post Office Box 655303, Dallas, Texas 75265
Copyright © 2017, Texas Instruments Incorporated