

TIDA-01444 REV E1 Bill of Materials

Designator	Quantity	Value	PartNumber	Manufacturer	Description	PackageReference
PCB	1		TIDA-01444	Any	Printed Circuit Board	
C1, C2, C3, C4, C5, C6, C7, C8, C51, C52, C53, C54, C55, C56, C57, C58,	16	22uF	EMK316BB7226ML-T	Murata	CAP, CERM, 22 µF, 16 V, +/- 20%, X7R, 1206	1206
C11, C12, C13, C14, C15, C16, C17, C18, C19, C20, C21, C22, C23,	13	22uF	EMK316BB7226ML-T	Murata	CAP, CERM, 22 µF, 16 V, +/- 20%, X7R, 1206	1206
C59, C60, C61, C62, C63, C64, C65, C66, C67, C68, C70, C71, C72, C73	14	22uF	EMK316BB7226ML-T	Murata	CAP, CERM, 22 µF, 16 V, +/- 20%, X7R, 1206	1206
C9, C25, C75	3	1000uF	16SVPF1000M	Panasonic	CAP, Aluminum Polymer, 1000 µF, 16 V, +/- 20%, 0.012 ohm	F12, SMD, 2-Leads
C85, C86	2	0.1uF	GRM155R71H104KE14D	Murata	CAP, CERM, 0.1 µF, 50 V, +/- 10%, X7R, 0402	0402
C33, C82	2	1000pF	GRM1555C1H102GA01D	Murata	CAP, CERM, 1000 pF, 50 V, +/- 10%, C0G/NP0, 0402	0402
C30	1	220pF	GRM1555C1H221JA01D	Murata	CAP, CERM, 220 pF, 50 V, +/- 10%, C0G/NP0, 0402	0402
C31, C80	2	2.2uF	C1608X7R1A225K080AE	Murata	CAP, CERM, 2.2 µF, 10 V, +/- 10%, X7R, 0603	0603
C32, C81	2	0.1uF	GRM188R71H104KA93D	Murata	CAP, CERM, 0.1 µF, 50 V, +/- 10%, X7R, 0603	0603
C35, C84	2	1000pF	GRM1885C1H102JA01D	Murata	CAP, CERM, 1000 pF, 50 V, +/- 10%, C0G/NP0, 0603	0603
C36, C87	2	4.7uF	C1608X7S1A475K080AC	Murata	CAP, CERM, 4.7 µF, 16 V, +/- 10%, X7R, 0603	0603
R2, R32	2	100K	RC0402FR-07100KL	Yageo	RES, 100 k, 1%, 0.063 W, 0402	0402
R4, R34	2	37.4K	RC0402FR-0737K4L	Yageo	RES, 37.4 k, 1%, 0.063 W, 0402	0402
R15, R45	2	49.9K	RC0402FR-0749K9L	Yageo	RES, 49.9 k, 1%, 0.063 W, 0402	0402
R16	1	2K	RC0402FR-072KL	Yageo	RES, 2 k, 1%, 0.063 W, 0402	0402
R17	1	4.99K	RC0402FR-074K99L	Yageo	RES, 4.99k, 1%, 0.063 W, 0402	0402
R18	1	5.23K	RC0402FR-075K23L	Yageo	RES, 5.23 k, 1%, 0.063 W, 0402	0402
R5, R35	2	51.1K	RC0402FR-0751K1L	Yageo	RES, 51.1 k, 1%, 0.063 W, 0402	0402
R11, R41	2	4.99K	RC0402FR-074K99L	Yageo	RES, 4.99 k, 1%, 0.063 W, 0402	0402
R10	1	20K	RC0402FR-0720KL	Yageo	RES, 20 k, 1%, 0.063 W, 0402	0402
R40	1	11.5K	RC0402FR-0711K5L	Yageo	RES, 11.5 k, 1%, 0.063 W, 0402	0402
R6	1	43.2K	RC0402FR-0743K2L	Yageo	RES, 43.2 k, 1%, 0.063 W, 0402	0402
R30, R12, R42, R39, R31	5	0	RC0402JR-070RL	Yageo	RES, 0, 5%, 0.1 W, 0402	0402
R37	1	34.8K	RC0402FR-0734K8L	Yageo	RES, 34.8 k, 1%, 0.063 W, 0402	0402
R38	1	51.1K	RC0402FR-0751K1L	Yageo	RES, 51.1 k, 1%, 0.063 W, 0402	0402
R8	1	187K	RC0402FR-07187KL	Yageo	RES, 187 k, 1%, 0.063 W, 0402	0402
R22, R23, R52, R53	4	49.9	RC0402FR-0749R9L	Yageo	RES, 49.9, 1%, 0.063 W, 0402	0402
R13, R43	2	2	RC0805FR-072RL	Yageo	RES, 2, 1%, 0.125W, 0805	0805
R36	1	68.1K	RC0402FR-0768K1L	Yageo	RES, 68.1 k, 1%, 0.063 W, 0402	0402
D1, D2, D32	3	20V	NSR0320MW2T1G	Onsemi	Schottky Barrier Diode, Low Forward Voltage, 1.0 A, 20 V	SOD-323
J1	1		TSW-105-08-G-D-RA	Samtec	Header, 100mil, 5x2, Gold, R/A, TH	TSW-105-08-G-D-RA
L1, L2	2	650nH	RM7	DMEGC	Inductor, 650nH, DMR95 Core	RM7
Q1	1	40V	MMBT3904LT1G	Onsemi	Transistor, NPN, 40 V, 0.2 A, SOT-23	SOT-23
Q2, Q32	2	60V	2N7002	Fairchild	MOSFET, N-CH, 60 V, 115 A, SOT-23	SOT-23
U20	1		LM20BIM7	Texas Instruments	2.4V, 10µA Temperature Sensor, 5-pin SC-70 Micro SMD	SC-70-5
U2	1		TL431BQDBZR	Texas Instruments	Low-Voltage Adjustable Precision Shunt Regulator	SOT-23
U1, U31	1		TPS543C20RVFT	Texas Instruments	35A FIXED FREQUENCY NON-COMPENSATION STACKABLE SYNCHRONOUS BUCK CONVERTER	RVF(40)

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