

**TIDA-01524 REV E1 Bill of Materials**

Item #	Designator	Quantity	Value	PartNumber	Manufacturer	Description	PackageReference
1	PCB1	1		TIDA-01524	Any	Printed Circuit Board	
2	0.9V, 1.2V, 1.8V, 5V, GND2, GND3, GND4, GND5	8	Double	1503-2	Keystone	Terminal, Turret, TH, Double	Keystone1503-2
3	C0_2, C1_2, C2_2, C3_2	4	0.1uF	GRM188R71C104KA01D	MuRata	CAP, CERM, 0.1 uF, 16 V, +/- 10%, X7R, 0603	0603
4	C0_3, C1_3, C2_3, C3_3	4	3300pF	GRM155R71H332KA01D	MuRata	CAP, CERM, 3300 pF, 50 V, +/- 10%, X7R, 0402	0402
5	C1, C2, C3, C8, Cbias1	5	0.1uF	GCM188R71C104KA37J	MuRata	CAP, CERM, 0.1 uF, 16 V, +/- 10%, X7R, AEC-Q200 Grade 1, 0603	0603
6	C4, C5, C6, C7	4	10uF	GCM21BR71A106KE22L	MuRata	CAP, CERM, 10 uF, 10 V, +/- 10%, X7R, 0805	0805
7	C9, C10	2	4700pF	C0603C472J1GAC7867	Kemet	CAP, CERM, 4700 pF, 100 V, +/- 5%, C0G/NP0, 0603	0603
8	C11	1	2.2uF	C2012X5R1H225K125AB	TDK	CAP, CERM, 2.2 uF, 50 V, +/- 10%, X5R, 0805	0805
9	C12, C13, C14, C15	4	10uF	GRM32ER71H106KA12L	MuRata	CAP, CERM, 10 uF, 50 V, +/- 10%, X7R, 1210	1210
10	C16, C17, C24, C25	4	390pF	GRM155R71H391KA01D	MuRata	CAP, CERM, 390 pF, 50 V, +/- 10%, X7R, 0402	0402
11	C18, C21, C26, C29	4	6800pF	GRM155R71H682KA88D	MuRata	CAP, CERM, 6800 pF, 50 V, +/- 10%, X7R, 0402	0402
12	C19, C22, C27, C30	4	10uF	GRM21BR60J106KE19L	MuRata	CAP, CERM, 10 uF, 6.3 V, +/- 10%, X5R, 0805	0805
13	C20, C23, C28, C31, C34, C35, C38, C39, C44, C49, C51	11	0.1uF	GRM155R71C104JA88D	MuRata	CAP, CERM, 0.1 uF, 16 V, +/- 5%, X7R, 0402	0402
14	C32, C33, C36, C37, C40, C41, C42, C43, C48, C50	10	10uF	GCM31CR71A106KA64L	MuRata	CAP, CERM, 10 uF, 10 V, +/- 10%, X7R, AEC-Q200 Grade 1, 1206	1206
15	C45, C47	2	2.2uF	GRM188R61A225KE34D	MuRata	CAP, CERM, 2.2 uF, 10 V, +/- 10%, X5R, 0603	0603
16	C46	1	1uF	C0603C105K8PACTU	Kemet	CAP, CERM, 1 uF, 10 V, +/- 10%, X5R, 0603	0603
17	C52, C58	2	2200pF	C0603C222K5RACTU	Kemet	CAP, CERM, 2200pF, 50V, +/-10%, X7R, 0603	0603
18	C53	1	0.47uF	GRM188R71A474KA61D	MuRata	CAP, CERM, 0.47uF, 10V, +/-10%, X7R, 0603	0603
19	C54, C55, C56, C57	4	22uF	GCM31CR71A226KE02	MuRata	CAP, CERM, 22 uF, 10 V, +/- 10%, X7R, AEC-Q200 Grade 1, 1206	1206
20	Cboot1	1	0.47uF	GRM188R71E474KA12D	MuRata	CAP, CERM, 0.47 uF, 25 V, +/- 10%, X7R, 0603	0603
21	Cbulk1	1	100uF	HXB500ARA101MJA0G	Chemi-Con	CAP, Aluminum Polymer, 100 uF, 50 V, +/- 20%, 0.025 ohm, AEC-Q200 Grade 2, D10xL10mm SMD	D10xL10mm
22	CF1, CF2, CF3, CF4	4	4.7uF	CGA6P3X7R1H475M250AB	TDK	CAP, CERM, 4.7 uF, 50 V, +/- 20%, X7R, AEC-Q200 Grade 1, 1210	1210
23	CFF1	1	91pF	GRM1555C1H910JA01D	MuRata	CAP, CERM, 91 pF, 50 V, +/- 5%, C0G/NP0, 0402	0402
24	Cin_hf1, Cin_hf2	2	0.047uF	GRM188R71H473KA61D	MuRata	CAP, CERM, 0.047 uF, 50 V, +/- 10%, X7R, 0603	0603
25	Co1, Co2, Co3, Co4, Co5, Co6	6	47uF	GRM32ER71A476KE15L	MuRata	CAP, CERM, 47 uF, 10 V, +/- 10%, X7R, 1210	1210
26	Cvc1	1	4.7uF	GCM21BR71C475KA73L	MuRata	CAP, CERM, 4.7 uF, 16 V, +/- 10%, X7R, AEC-Q200 Grade 1, 0805	0805
27	D1	1	28V	SMBJ28CA-13-F	Diodes Inc.	Diode, TVS, Bi, 28 V, 45.4 Vc, SMB	SMB
28	FB1	1	800 ohm	HR2220V801R-10	Laird-Signal Integrity Products	Ferrite Bead, 800 ohm @ 100 MHz, 8 A, 2220	2220
29	FID1, FID2, FID3, FID4, FID5, FID6	6		N/A	N/A	Fiducial mark. There is nothing to buy or mount.	Fiducial
30	GND1	1		6092	Keystone	Standard Banana Jack, Insulated, Black	6092
31	L1	1	10uH	XAL6060-103MEB	Coilcraft	Inductor, Shielded, Composite, 10 uH, 7.6 A, 0.03 ohm, SMD	IND_6.4x6.1x6.6
32	L2, L3, L4, L5	4	30 ohm	BLM21PG300SH1D	MuRata	Ferrite Bead, 30 ohm @ 100 MHz, 4 A, 0805	0805
33	L6, L7, L8, L9	4	470nH	DFE252012F-R47M=P2	MuRata Toko	Inductor, Powdered Iron, 470 nH, 5.8 A, 0.017 ohm, SMD	2.5x1.2x2mm
34	L10, L11	2	1.2uH	XAL5030-122MEB	Coilcraft	Inductor, Shielded, Composite, 1.2 uH, 11.1 A, 0.01 ohm, SMD	5.3x31.x5.5mm
35	L11	1	4.7uH	XAL6060-472MEB	Coilcraft	Inductor, Shielded, Composite, 4.7 uH, 10.5 A, 0.015 ohm, SMD	IND_6.4x6.1x6.6
36	Q1	1	40V	SQJ422EP-T1-GE3	Vishay-Siliconix	MOSFET, N-CH, 40 V, 75 A, PowerPAK_SO-8L	PowerPAK_SO-8L
37	R1, R2, R3, R4	4	3.9	CRCW08053R90JNEA	Vishay-Dale	RES, 3.9, 5%, 0.125 W, 0805	0805
38	R5, R6, R7, R8	4	100k	CRCW0402100KFKED	Vishay-Dale	RES, 100 k, 1%, 0.063 W, 0402	0402
39	R9	1	4.99	RC0805FR-074R99L	Yageo America	RES, 4.99 ohm, 1%, 0.125W, 0805	0805
40	R10, R16	2	4.7k	CRCW08054R70JNEA	Vishay-Dale	RES, 4.7 ohm, 5%, 0.125W, 0805	0805
41	R11, R13	2	49.9k	CRCW060349K9FKEA	Vishay-Dale	RES, 49.9k ohm, 1%, 0.1W, 0603	0603
42	R12	1	12.4k	CRCW060312K4FKEA	Vishay-Dale	RES, 12.4k ohm, 1%, 0.1W, 0603	0603
43	R14	1	4.99k	CRCW06034K99FKEA	Vishay-Dale	RES, 4.99 k, 1%, 0.1 W, 0603	0603
44	R15, R17	2	10k	CRCW060310K0JNEA	Vishay-Dale	RES, 10k ohm, 5%, 0.1W, 0603	0603
45	Rbias1	1	3.0	CRCW04023R00JNED	Vishay-Dale	RES, 3.0, 5%, 0.063 W, 0402	0402
46	RFBB1	1	34.8k	CRCW040234K8FKED	Vishay-Dale	RES, 34.8 k, 1%, 0.063 W, 0402	0402
47	RFBT1	1	80.6k	CRCW040280K6FKED	Vishay-Dale	RES, 80.6 k, 1%, 0.063 W, 0402	0402
48	R_EN1, R_Reset1	2	100k	CRCW0603100KJNEA	Vishay-Dale	RES, 100 k, 5%, 0.1 W, 0603	0603
49	U1	1		LM74700QDBV1TQ1	Texas Instruments	Low Iq Always ON Smart Diode Controller, DDC0006A (SOT-6)	DDC0006A
50	U2	1		LMS3655LQRNLRQ1	Texas Instruments	5.5A Synchronous Buck Regulator for Automotive Applications, RNL0022A (VQFN-HR-22)	RNL0022A
51	U3	1		LP875611RNRQ1	Texas Instruments	Four-Phase Buck Converter, RNF0026C (VQFN-HR-26)	RNF0026C
52	U4	1		LM2775DSGR	Texas Instruments	Switched Capacitor 5 V Boost Converter, DSG0008A (WSON-8)	DSG0008A
53	U5	1		LM26420Q1XSQ/NOPB	Texas Instruments	Dual 2-A, High Frequency Synchronous Buck Regulator, RUM0016A (WQFN-16)	RUM0016A
54	VIN1	1		6091	Keystone	Standard Banana Jack, Insulated, Red	6091

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Mailing Address: Texas Instruments, Post Office Box 655303, Dallas, Texas 75265  
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