

**TIDA-01461 REV E1 Bill of Materials**

Item #	Designator	Quantity	Value	PartNumber	Manufacturer	Description	PackageReference
1	IPCB1	1		TIDA-01461	Any	Printed Circuit Board	
2	C1, C12, C15_Us, C15_Us, C16_Us, C16_Us	6	0.1uF	GRM319R72A104KA01D	MuRata	CAP, CERM, 0.1 uF, 100 V,+/- 10%, X7R, 1206	1206
3	C2, C10	2	10uF	TCJB106M035R0200	AVX	CAP, Tantalum Polymer, 10 uF, 35 V,+/- 20%, 0.2 ohm, 3528-21 SMD	3528-21
4	C3, C4, C6, C7, C14_Us, C14_Us, C17_Us, C17_Us, C24	9	1uF	GRM31CR72A105KA01L	MuRata	CAP, CERM, 1 uF, 100 V,+/- 10%, X7R, 1206	1206
5	C5, C8, C9, C11	4	0.01uF	VJ1206Y103KXEAT5Z	Vishay-Vitramon	CAP, CERM, 0.01 uF, 500 V,+/- 10%, X7R, 1206	1206
6	C18_Us, C18_Us, C23, C25, C28	5	4.7uF	GRM31CR71H475KA12L	MuRata	CAP, CERM, 4.7 uF, 50 V,+/- 10%, X7R, 1206	1206
7	C19_Us, C19_Us	2	0.1uF	GRM188R72A104KA35D	MuRata	CAP, CERM, 0.1 uF, 100 V,+/- 10%, X7R, 0603	0603
8	C20_Us, C20_Us	2	1000pF	GRM188R61H102KA01D	MuRata	CAP, CERM, 1000 pF, 50 V,+/- 10%, X5R, 0603	0603
9	C21_Us, C21_Us	2	3.3uF	GRM21BR71C335KA99L	MuRata	CAP, CERM, 3.3 uF, 16 V,+/- 10%, X7R, 0805	0805
10	C22_Us, C22_Us	2	0.1uF	06035C104KAT2A	AVX	CAP, CERM, 0.1 uF, 50 V,+/- 10%, X7R, 0603	0603
11	C26, C29, C30	3	22uF	12103D226MAT2A	AVX	CAP, CERM, 22 uF, 25 V,+/- 20%, X5R, 1210	1210
12	C27	1	0.022uF	GRM188R71H223KA01D	MuRata	CAP, CERM, 0.022 uF, 50 V,+/- 10%, X7R, 0603	0603
13	D1, D6	2	33V	SMCJ33CA	Bourns	Diode, TVS, Bi, 33 V, SMC	SMC
14	D2, D4, D11	3	Green	150060GS75000	Würth Elektronik	LED, Green, SMD	LED_0603
15	D3, D5	2	Red	150060RS75000	Würth Elektronik	LED, Red, SMD	LED_0603
16	D7_Us, D7_Us, D9_Us, D9_Us	4	100V	CD0603-S01575	Bourns	Diode, Switching, 100 V, 0.15 A, 0603 Diode	0603 Diode
17	D8_Us, D8_Us	2	Blue	150060BS75000	Würth Elektronik	LED, Blue, SMD	LED_0603
18	D10_Us, D10_Us	2	33V	BZT52C33-7-F	Diodes Inc.	Diode, Zener, 33 V, 500 mW, SOD-123	SOD-123
19	FID1, FID2, FID3	3	N/A	N/A	N/A	Fiducial mark. There is nothing to buy or mount.	Fiducial
20	J1, J6, J7	3		039544-3002	Molex	Terminal Block, 5.08mm, 2x1, TH	Terminal Block, 5.08mm, 2x1, TH
21	J2, J3, J8, J9	4		61300621121	Würth Elektronik	Header, 2.54mm, 3x2, Gold, TH	Header, 2.54mm, 3x2, TH
22	J4	1		09 3420 81 04	Binder-Connector	M8 Socket, 4Pos, Gold, TH	M8 Socket, 4Pos, TH
23	J5	1		ZS7002-0001	Beckhoff	EtherCAT P, 4 Pos, TH	EtherCAT P, 4 Pos, TH
24	J10_Us, J10_Us, J11	3		0022284023	Molex	Header, 2.54mm, 2x1, Tin, TH	Header, 2.54mm, 2x1, TH
25	L1, L2, L3, L4	4	6.8uH	74437346068	Würth Elektronik	Inductor, Shielded Drum Core, Powdered Iron, 6.8 uH, 3.4 A, 0.054 ohm, SMD	7.30x2.80x6.60mm
26	LBL1	1		THT-14-423-10	Brady	Thermal Transfer Printable Labels, 0.650" W x 0.200" H - 10,000 per roll	PCB Label 0.650"H x 0.200"W
27	Q1_Us, Q1_Us, Q2_Us, Q2_Us	4	60V	CSD18540Q5B	Texas Instruments	MOSFET, N-CH, 60 V, 100 A, DNK0008A (VSON-CLIP-8)	DNK0008A
28	R1, R6, R10_Us, R10_Us	4	10.0k	CRCW060310K0FKEA	Vishay-Dale	RES, 10.0 k, 1%, 0.1 W, 0603	0603
29	R2, R3, R4, R5	4	1.00Meg	CRCW12061M00FKEA	Vishay-Dale	RES, 1.00 M, 1%, 0.25 W, 1206	1206
30	R7_Us, R7_Us	2	0.018	KRL1220E-M-R018-F-T5	Susumu Co Ltd	RES, 0.018, 1%, 0.5 W, AEC-Q200 Grade 0, 0805	0805
31	R9_Us, R9_Us	2	100	RC0603FR-07100RL	Yageo America	RES, 100, 1%, 0.1 W, 0603	0603
32	R11_Us, R11_Us, R12_Us, R12_Us	4	47.0k	RC0603FR-0747KRL	Yageo America	RES, 47.0 k, 1%, 0.1 W, 0603	0603
33	R13_Us, R13_Us	2	115k	RC0603FR-07115KRL	Yageo America	RES, 115 k, 1%, 0.1 W, 0603	0603
34	R14_Us, R14_Us	2	6.20k	RC0603FR-076K2L	Yageo America	RES, 6.20 k, 1%, 0.1 W, 0603	0603
35	R15_Us, R15_Us	2	4.42k	RC0603FR-074K42L	Yageo America	RES, 4.42 k, 1%, 0.1 W, 0603	0603
36	R16_Us, R16_Us	2	14.0k	CRCW060314K0FKEA	Vishay-Dale	RES, 14.0 k, 1%, 0.1 W, 0603	0603
37	R17	1	174k	CRCW0603174KFKFA	Vishay-Dale	RES, 174 k, 1%, 0.1 W, 0603	0603
38	R18	1	140k	CRCW0603140KFKFA	Vishay-Dale	RES, 140 k, 1%, 0.1 W, 0603	0603
39	R19	1	84.5k	CRCW060384K5FKFA	Vishay-Dale	RES, 84.5 k, 1%, 0.1 W, 0603	0603
40	R20	1	2.21k	CRCW06032K21FKFA	Vishay-Dale	RES, 2.21 k, 1%, 0.1 W, 0603	0603
41	R21	1	11.5k	CRCW060311K5FKFA	Vishay-Dale	RES, 11.5 k, 1%, 0.1 W, 0603	0603
42	R22	1	267k	CRCW0603267KFKFA	Vishay-Dale	RES, 267 k, 1%, 0.1 W, 0603	0603
43	SH-J1, SH-J2, SH-J3, SH-J4, SH-J5, SH-J6, SH-J7, SH-J8, SH-J9_Us, SH-J9_Us, SH-J10	11		60900213421	Würth Elektronik	Shunt, 2.54mm, Gold, Black	Shunt, 2.54mm, Black
44	TP1, TP2, TP3, TP4, TP5	5		5001	Keystone	Test Point, Miniature, Black, TH	Black Miniature Testpoint
45	TP6_Us, TP6_Us, TP7_Us, TP7_Us	4		5004	Keystone	Test Point, Miniature, Yellow, TH	Yellow Miniature Testpoint
46	U1, U2	2		TPD2E2U06DRLR	Texas Instruments	Dual-Channel High-Speed ESD Protection, DRL0005A (SOT-OTHER-5)	DRL0005A
47	U3_Us, U3_Us	2		LM5050MK-1/NOPB	Texas Instruments	High Side OR-ing FET Controller, DDC0006A (SOT-23-T-6)	DDC0006A
48	U4_Us, U4_Us	2		LM5069MM-2/NOPB	Texas Instruments	Positive High Voltage Hot Swap / Inrush Current Controller with Power Limiting, 10-pin MSOP, Pb-Free	MUB10A
49	U5	1		LMZ35003RKGR	Texas Instruments	SIMPLE SWITCHER(R) 7V to 50V, 2.5A Wide Vin Power Module in Small Package, RKG0041A (B1QFN-41)	RKG0041A
50	U6_TVS3300_Us, U6_TVS3300_Us, U7_TVS3300_Us, U7_TVS3300_Us	4		TVS3300DRVR	Texas Instruments	33V Precision Surge Protection Clamp, DRV0006A (WSON-6)	DRV0006A
51	C13_Us, C13_Us	0	4.7uF	GRM31CR71H475KA12L	MuRata	CAP, CERM, 4.7 uF, 50 V,+/- 10%, X7R, 1206	1206
52	R8_Us, R8_Us	0	0.018	KRL1220E-M-R018-F-T5	Susumu Co Ltd	RES, 0.018, 1%, 0.5 W, AEC-Q200 Grade 0, 0805	0805

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