

**TIDA-01623 REV E1 Bill of Materials**

Item #	Designator	Quantity	Value	Description	PartNumber	Manufacturer	PackageReference
1	PCB	1		Printed Circuit Board	TIDA-01623	Any	
2	BD1, BD2	2	600V	Diode, P-N-Bridge, 600 V, 4 A, Z4-D	Z4DGP406L-HF	Comchip Technology	Z4-D
3	C1	1	220pF	CAP, CERM, 220 pF, 250 V, +/- 10%, X7R, 0603	GRM188R72E221KV	MuRata	0603
4	C2	1	0.33uF	CAP, CERM, 0.33 µF, 10 V, +/- 10%, X5R, 0402	C1005X5R1A334K05	TDK	0402
5	C3	1	680uF	CAP, Aluminum Polymer, 680 µF, 20 V, +/- 20%, 0.012 ohm	APSG200ELL681MJB	Chemi-Con	10x11.5mm
6	C4, C5, C6, C7	4	33uF	CAP, CERM, 33 µF, 25 V, +/- 20%, X5R, 1206	C3216X5R1E336M1	TDK	1206
7	C8, C35	2	0.01uF	CAP, CERM, 0.01 µF, 50 V, +/- 5%, X7R, 0402	C0402C103J5RACTU	Kemet	0402
8	C10	1	6.8uF	CAP, CERM, 6.8 µF, 25 V, +/- 10%, X5R, 0805	C2012X5R1E685K12	TDK	0805
9	C11, C12, C13	3	0.1uF	CAP, CERM, 0.1 µF, 450 V, +/- 10%, X7T, 1206	C3216X7T2W104K1	MuRata	1206
10	C14, C17, C19, C25, C52	5	0.022uF	CAP, CERM, 0.022 µF, 50 V, +/- 10%, X7R, 0402	GRM155R71H223KA	MuRata	0402
11	C15, C20	2	0.1uF	CAP, CERM, 0.1 µF, 50 V, +/- 10%, X7R, 0402	C1005X7R1H104K05	TDK	0402
12	C16, C51	2	0.01uF	CAP, CERM, 0.01 µF, 50 V, +/- 10%, C0G/NP0, 0402	GCM155R71H103KA	MuRata	0402
13	C18	1	0.22uF	CAP, CERM, 0.22 µF, 25 V, +/- 20%, X5R, 0402	C1005X5R1E224M01	TDK	0402
14	C21	1	0.1uF	CAP, CERM, 0.1 µF, 50 V, +/- 10%, X7R, 0603	C0603C104K5RACTU	Kemet	0603
15	C22	1	22uF	CAP, CERM, 22 µF, 35 V, +/- 20%, JB, 0805	C2012JB1V226M125	TDK	0805
16	C23, C28	2	4.7uF	CAP, CERM, 4.7 µF, 100 V, +/- 10%, X7R, 1206	GRM31CZ72A475KE	MuRata	1206
17	C26	1	22pF	CAP, CERM, 22 pF, 50 V, +/- 5%, C0G/NP0, 0402	GRM1555C1H220JA	MuRata	0402
18	C27, C70	2	2.2uF	CAP, CERM, 2.2 µF, 50 V, +/- 10%, X5R, 0603	GRM188R61H225KE	MuRata	0603
19	C29, C31, C41, C61, C76, C78	6	1uF	CAP, CERM, 1 µF, 50 V, +/- 10%, X7R, 0603	UMK107AB7105KA	Taiyo Yuden	0603
20	C30	1	4700pF	CAP, CERM, 4700 pF, 50 V, +/- 10%, X7R, 0402	GRM155R71H472KA	MuRata	0402
21	C32, C33	2	560pF	CAP, CERM, 560 pF, 50 V, +/- 10%, X7R, 0603	GRM188R71H561KA	MuRata	0603
22	C34	1	220pF	CAP, CERM, 220 pF, 50 V, +/- 5%, C0G/NP0, 0402	GRM1555C1H221JA	MuRata	0402
23	C36	1	3.3pF	CAP, CERM, 3.3 pF, 50 V, +/- 5%, C0G/NP0, 0402	GRM1555C1H3R3CA	MuRata	0402
24	C37	1	0.1uF	CAP, CERM, 0.1 µF, 50 V, +/- 10%, X7R, 0603	GRM188R71H104KA	MuRata	0603
25	C38	1	22pF	CAP, CERM, 22 pF, 50 V, +/- 5%, C0G/NP0, 0603	GRM1885C1H220JA	MuRata	0603
26	C39, C63	2	2200pF	CAP, CERM, 2200 pF, 50 V, +/- 5%, C0G/NP0, 0603	GRM1885C1H222JA	MuRata	0603
27	C42, C43, C44	3	0.33uF	CAP, CERM, 0.33 µF, 250 V, +/- 10%, X7T, 1210	C3225X7T2E334K20	TDK	1210
28	C47, C54	2	220pF	CAP, CERM, 220 pF, 50 V, +/- 5%, C0G/NP0, 0402	GRM1555C1H221JA	MuRata	0402
29	C50	1	4.7uF	CAP, CERM, 4.7 µF, 50 V, +/- 10%, X6S, 0805	C2012X6S1H475K12	TDK	0805
30	C57	1	3900pF	CAP, CERM, 3900 pF, 100 V, +/- 10%, X7R, 0603	GRM188R72A392KA	MuRata	0603
31	C59	1	0.033uF	CAP, CERM, 0.033 µF, 50 V, +/- 10%, X7R, 0603	GRM188R71H333KA	MuRata	0603
32	C60	1	1uF	CAP, CERM, 1 µF, 25 V, +/- 10%, X7R, 0603	GRM188R71E105KA	MuRata	0603
33	C62, C77	2	220pF	CAP, CERM, 220 pF, 50 V, +/- 5%, C0G/NP0, 0603	GRM1885C1H221JA	MuRata	0603
34	C65	1	10pF	CAP, CERM, 10 pF, 1000 V, +/- 5%, C0G/NP0, 1206	VJ1206A100JXGAT5	Vishay-Vitramon	1206
35	C66	1	1uF	CAP, CERM, 1 µF, 25 V, +/- 10%, X7R, 0805	C0805C105K3RACTU	Kemet	0805
36	C75	1	0.1uF	CAP, CERM, 0.1 µF, 250 V, +/- 10%, X7T, 0805	C2012X7T2E104K12	TDK	0805
37	C79	1	0.033uF	CAP, CERM, 0.033 µF, 25 V, +/- 10%, X7R, 0402	GRM155R71E333KA	MuRata	0402
38	C#1	1	0.47uF	CAP, Film, 0.47 µF, 450 V, +/- 10%, TH	ECW-FD2W474Q1	Panasonic	12.6x6.5x12.7mm
39	Cblk	1	68uF	CAP, AL, 68 µF, 450 V, +/- 20%, TH	450BXW68MEFR14.	Rubycon	D12.5xL45mm
40	CX1	1	68 nF	WCAP-FTX2 Film Capacitors, 10x6x12mm, 275V AC, 68 nF			
41	CX2	1	220 nF	WCAP-FTX2 Film Capacitors, 15x7x12.5mm, 275V AC, 220 nF			
42	D1	1	800V	Diode, Switching, 800 V, 3 A, SMC	RS3K-E3/9AT	Vishay-Semiconductor	SMC
43	D2	1	600V	Diode, Ultrafast, 600 V, 3 A, SMC	MURS360T3G	ON Semiconductor	SMC

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44	D3	1	40V	Diode, Schottky, 40 V, 3 A, AEC-Q101, SOD-123W	PMEG4030ER	NXP Semiconductor	SOD-123W
45	D4, D10	2	6.2V	Diode, Zener, 6.2 V, 150 mW, SOD-523F	CZRU52C6V2	Comchip Technology	SOD-523F
46	D6, D15	2	16V	Diode, Zener, 16 V, 150 mW, SOD-523F	CZRU52C16	Comchip Technology	SOD-523F
47	D7	1	600V	Diode, Superfast Rectifier, 600 V, 0.2A	RFU02VSM6S	Comchip Technology	3.5x1.6mm
48	D8, D9	2	2V	Diode, Zener, 2 V, 150 mW, SOD-523F	CZRU52C2	Comchip Technology	SOD-523F
49	D11	1	40V	Diode, Schottky, 40 V, 0.03 A, SOD-523	SDM03U40-7	Diodes Inc.	SOD-523
50	D13	1	10V	Diode, Zener, 10V, 150 mW, SOD-523F	CZRU52C10V	Comchip Technology	SOD-523F
51	D14, D16, D19, DA3	4	50V	Diode, Schottky, 50 V, 0.2 A, SOD-523F	CDBU0245	Comchip Technology	SOD-523F
52	D17	1	200V	Diode, Ultrafast, 200 V, 1 A, SOD-123	RF071M2S	Rohm	SOD-123
53	D25	1	13V	Diode, Zener, 11 V, 150 mW, SOD-523F	CZRU52C13	Comchip Technology	SOD-523F
54	D30	1	30V	Diode, Schottky, 30 V, 0.2 A, SOD-523	RB520S30,115	NXP Semiconductor	SOD-523
55	DA1, DA2	2	600V	Diode, Superfast Rectifier, 600 V, 1 A, 3.5x1.6mm	CSFMT108-HF	Comchip Technology	3.5x1.6mm
56	DE1, DE2	2		1-Channel ESD Protection Diode for USB Type-C and Anten	TPD1E05U06QDPYR	Texas Instruments	DPY0002A
57	Dhvg1	1	24V	Diode, Zener, 24 V, 150 mW, SOD-523F	CZRU52C24	Comchip Technology	SOD-523F
58	Dz1	1	20V	Diode, Zener, 20 V, 150 mW, SOD-523F	CZRU52C20	Comchip Technology	SOD-523F
59	F1	1		Fuse, 5 A, 250VAC/VDC, TH	40015000440	Littelfuse	8x8.5x4mm
60	J2	1		Connector, Receptacle, USB Type C, R/A	632 723 300 011	Würth Elektronik	Connector, Receptacle, USB Type C, R/A, THT/SMT
61	L1	1	150µH	WE-FI Leaded Toroidal Line Choke, L = 150µH	7447018	Würth Elektronik	
62	L2	1	5.5mH=	Coupled inductor, 5.5mH+/-32%, 2.5 A, 0.040 ohm	750343092	Würth Elektronik	
63	L3	1	1uH	FIXED IND 1UH 11.5A 4.75 MOHM	744316100	Würth Elektronik	5.5x5.3mm
64	L4	1	0.68uH	Inductor, Multilayer, Ferrite, 0.68 µH, 0.19 A, 0.67 ohm, 120	74479136	Würth Elektronik	4.8x1.8x4.8mm
65	L5	1	14mH	Coupled inductor, 14mH, 2.5 A, 0.1 ohm	750344166	Würth Elektronik	
66	Lpfc	1		Transformer 6-Terminal , THT, Vertical, RM10	750343984	Würth Elektronik	
67	Q1	1	30V	MOSFET, N-CH, 30 V, 27 A, DNH0008A (VSONP-8)	CSD17575Q3	Texas Instruments	DNH0008A
68	Q2	1	100V	MOSFET, N-CH, 100 V, 1.9 A, SOT-23	AP10TN135N	Advanced Power	SOT-23
69	Q3	1	600V	MOSFET, N-CH, 600 V, 0.3 A, SOT-223	STN1NK60Z	STMicroelectronics	SOT-223
70	Q4	1	60V	MOSFET, N-CH, 60 V, 115 A, SOT-23	2N7002	Fairchild Semiconductor	SOT-23
71	Q5	1	-30V	MOSFET P-CH 50V 0.18A SOT23	DMP510DL-7	Diodes Inc.	SOT-23
72	Q6, Q9, Q13, Q16, Q17	5	60V	MOSFET, N-CH, 60 V, 0.31 A, SOT-323	2N7002KW	Fairchild Semiconductor	SOT-323
73	Q7	1	600V	MOSFET, N-CH, 600 V, 0.021 A, AEC-Q101, SOT-23	BSS126 H6906	Infineon Technologies	SOT-23
74	Q8	1	600V	N-Channel 600V 24A (Tc) 156W (Tc) Surface Mount PowerPAK® 8 x 8	SiHH120N60E	Vishay	PG-VSON-4
75	Q10	1	100V	MOSFET, N-CH, 100 V, 0.17 A, SOT-323	BSS123W-7-F	Diodes Inc.	SOT-323
76	QH	1	650V	650V AllGaN Power IC with iDrive, PQFN-8	NV6117	Navitas Semiconductor	8-QFN
77	QL	1	650V	650V AllGaN Power IC with iDrive, PQFN-8	NV6115	Navitas Semiconductor	8-QFN
78	Q_SR1	1	150V	MOSFET, N-CH, 150 V, 87 A, PG-TDSON-8	BSC093N15NS5ATM	Infineon Technologies	PG-TDSON-8
79	R1	1	0.005	RES, 0.005, 1%, 0.25 W, 1206	WSL12065L000FEA	Vishay-Dale	1206
80	R2	1	22	RES, 22, 5%, 0.125 W, 0805	ERJ-6GEYJ220V	Panasonic	0805
81	R3	1	1.00k	RES, 1.00 k, 1%, 0.063 W, 0402	CRCW04021K00FKE	Vishay-Dale	0402
82	R4	1	2.21Meg	RES, 2.21 M, 1%, 0.25 W, 1206	CRCW12062M21FKE	Vishay-Dale	1206
83	R5, R25, R81, R87, R88	5	10.0	RES, 10.0, 1%, 0.063 W, 0402	CRCW040210R0FKE	Vishay-Dale	0402
84	R6, RG1	2	10.0	RES, 10.0, 1%, 0.1 W, 0603	CRCW060310R0FKE	Vishay-Dale	0603
85	R8, R31, R95, R99	4	100k	RES, 100 k, 1%, 0.063 W, 0402	CRCW0402100KFKE	Vishay-Dale	0402
86	R84	1	121k	RES, 121 k, 1%, 0.063 W, 0402	CRCW0402121KFKE	Vishay-Dale	0402
87	R10, R27	2	100	RES, 100, 1%, 0.1 W, 0603	RC0603FR-07100RL	Yageo America	0603
88	R11	1	5.11	RES, 5.11, 1%, 0.1 W, 0603	CRCW06035R11FKE	Vishay-Dale	0603
89	R12, R82	2	100	RES, 100, 1%, 0.063 W, 0402	CRCW0402100RFKE	Vishay-Dale	0402
90	R13	1	0	RES, 0, 5%, 0.063 W, 0402	RC0402JR-070RL	Yageo America	0402

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91	R14	1	825	RES, 825, 1%, 0.063 W, 0402	CRCW0402825RFKE	Vishay-Dale	0402
92	R15	1	2.00k	RES, 2.00 k, 1%, 0.063 W, 0402	CRCW04022K00FKE	Vishay-Dale	0402
93	R16	1	90.9k	RES, 90.9 k, 1%, 0.063 W, 0402	CRCW040290K9FKE	Vishay-Dale	0402
94	R17, R18, R75, R76	4	0.22	RES, 0.22, 1%, 0.25 W, 1206	ERJ-8RQFR22V	Panasonic	1206
95	R19, R85, R96	3	0	RES, 0, 5%, 0.063 W, 0402	CRCW04020000Z0E	Vishay-Dale	0402
96	R20	1	61.9k	RES, 61.9 k, 1%, 0.063 W, 0402	CRCW040261K9FKE	Vishay-Dale	0402
97	R21	1	75.0k	RES, 75.0 k, 1%, 0.063 W, 0402	CRCW040275K0FKE	Vishay-Dale	0402
98	R22, R29	2	10.0k	RES, 10.0 k, 1%, 0.063 W, 0402	CRCW040210K0FKE	Vishay-Dale	0402
99	R23	1	432k	RES, 432 k, 1%, 0.063 W, 0402	CRCW0402432KFKE	Vishay-Dale	0402
100	R24	1	49.9k	RES, 49.9 k, 1%, 0.063 W, 0402	CRCW040249K9FKE	Vishay-Dale	0402
101	R26	1	150k	RES, 150.0 k, 1%, 0.1 W, 150V, 0603	ERJPA3F1503V	Panasonic	0603
102	R28	1	562	RES, 562, 1%, 0.063 W, 0402	CRCW0402562RFKE	Vishay-Dale	0402
103	R30, R37, R41	3	150k	RES, 150 k, 1%, 0.063 W, 0402	CRCW0402150KFKE	Vishay-Dale	0402
104	R32, R86	2	30.1k	RES, 30.1 k, 1%, 0.063 W, 0402	CRCW040230K1FKE	Vishay-Dale	0402
105	R33, Rb2	2	56.2k	RES, 56.2 k, 1%, 0.063 W, 0402	CRCW040256K2FKE	Vishay-Dale	0402
106	R34	1	15.0k	RES, 15.0 k, 1%, 0.063 W, 0402	CRCW040215K0FKE	Vishay-Dale	0402
107	R35	1	121	RES, 121, 1%, 0.1 W, 0603	CRCW0603121RFKE	Vishay-Dale	0603
108	R36	1	1.00Meg	RES, 1.00 M, 1%, 0.063 W, 0402	RC0402FR-071ML	Yageo America	0402
109	R38	1	274k	RES, 274 k, 1%, 0.063 W, 0402	CRCW0402274KFKE	Vishay-Dale	0402
110	R43	1	24.9	RES, 24.9, 1%, 0.1 W, 0603	CRCW060324R9FKE	Vishay-Dale	0603
111	R44, R45	2	1.00	RES, 1.00, 1%, 0.125 W, 0805	RC0805FR-071RL	Yageo America	0805
112	R46, R47, R48, R60, R61, R62, R71, R72, R73	9	3.24Meg	RES, 3.24 M, 1%, 0.25 W, 1206	CRCW12063M24FKE	Vishay-Dale	1206
113	R49, R50, R51	3	1.00k	RES, 1.00 k, 1%, 0.25 W, 1206	CRCW12061K00FKE	Vishay-Dale	1206
114	R63	1	274k	RES, 274 k, 1%, 0.1 W, 0603	CRCW0603274KFKE	Vishay-Dale	0603
115	R65	1	2.00	RES, 2.00, 1%, 0.1 W, 0603	CRCW06032R00FKE	Vishay-Dale	0603
116	R66	1	64.9k	RES, 64.9 k, 1%, 0.1 W, 0603	CRCW060364K9FKE	Vishay-Dale	0603
117	R68	1	182k	RES, 182 k, 1%, 0.063 W, 0402	CRCW0402182KFKE	Vishay-Dale	0402
118	R74	1	24.3k	RES, 24.3 k, 0.5%, 0.1 W, 0603	RT0603DRE0724K3L	Yageo America	0603
119	R78	1	750	RES, 750, 1%, 0.1 W, 0603	CRCW0603750RFKE	Vishay-Dale	0603
120	R80	1	47.5k	RES, 47.5 k, 1%, 0.063 W, 0402	CRCW040247K5FKE	Vishay-Dale	0402
121	R83	1	178k	RES, 178 k, 1%, 0.063 W, 0402	CRCW0402178KFKE	Vishay-Dale	0402
122	R97	1	39.2k	RES, 39.2 k, 1%, 0.063 W, 0402	CRCW040239K2FKE	Vishay-Dale	0402
123	R98	1	3.16Meg	RES, 3.16 M, 1%, 0.125 W, 0805	CRCW08053M16FKE	Vishay-Dale	0805
124	Rb1	1	332k	RES, 332 k, 1%, 0.063 W, 0402	CRCW0402332KFKE	Vishay-Dale	0402
125	RG2	1	1.00	RES, 1.00, 1%, 0.1 W, 0603	CRCW06031R00FKE	Vishay-Dale	0603
126	RG3	1	82.5k	RES, 82.5 k, 1%, 0.1 W, 0603	CRCW060382K5FKE	Vishay-Dale	0603
127	RT1	1	100.0k oh	Thermistor NTC, 100.0k ohm, 1%, 0603	NCP18WB104F10RB	MuRata	0603
128	Rvs1	1	75.0k	RES, 75.0 k, 1%, 0.1 W, 0603	ERJPA3F7502V	Panasonic	0603
129	Rvs2	1	12.4k	RES, 12.4 k, 1%, 0.063 W, 0402	CRCW040212K4FKE	Vishay-Dale	0402
130	T1	1	Np:Ns:Nat	Transformer, 110 uH, RM10	750344183	Wurth Elektronik	26.16x26.16mm
131	U2	1		UCC24612-1DBV, DBV0005A (SOT-23-5)	UCC24612-1DBVR	Texas Instruments	DBV0005A
132	U3	1		Robust EMC, Low Power, Single Channel Digital Isolator, D0	ISO7710FD	Texas Instruments	D0008A
133	U4	1		Active-Clamp Flyback Controller, RTE0016C (WQFN-16)	UCC28780RTER	Texas Instruments	RTE0016C
134	U5	1		Optocoupler, 3.75 kV, 80-160% CTR, SMT	FODM8801AV	Fairchild Semiconductor	Mini Flat Package
135	U6	1		USB Type-C and USB PD Source Controller, RGE0024H (VQFN-24)	TPS25740BRGER	Texas Instruments	RGE0024H
136	U7	1		Adjustable Precision Shunt Regulator, 34 ppm / degC, 100 mV	ATL431BQDBZR	Texas Instruments	DBZ0003A
137	U9	1		Tiny CMOS Operational Amplifier with Rail-to-Rail Input and	LMC7111BIM5	Texas Instruments	DBV0005A

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138	U10	1		6-Pin Single-Phase Transition-Mode PFC Controller, DBV000	UCC28056DBV	Texas Instruments	DBV0006A
139	U11	1		Micropower 100 mA Ultra Low-Dropout Regulator, 5-pin S	LP2981AIM5-5.0/NQ	Texas Instruments	MF05A

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