

**TIDA-01599 REV E1 Bill of Materials**

Item #	Designator	Quantity	Value	PartNumber	Manufacturer	Description	PackageReference
1	PCB1	1		TIDA-01599	Any	Printed Circuit Board	
2	C1	1	4.7uF	GRM188Z71C475KE21D	MuRata	CAP, CERM, 4.7 uF, 16 V, +/- 10%, X7R, 0603	0603
3	C2, C5, C15, C20, C22, C24, C34	7	0.1uF	C1608X7R1H104K080AA	TDK	CAP, CERM, 0.1 uF, 50 V, +/- 10%, X7R, 0603	0603
4	C3, C28	2	0.022uF	C0603C223K4RACTU	Kemet	CAP, CERM, 0.022 uF, 16 V, +/- 10%, X7R, 0603	0603
5	C4	1	1uF	GRM31MR71H105KA88L	MuRata	CAP, CERM, 1 uF, 50 V, +/- 10%, X7R, 1206	1206
6	C6	1	0.01uF	C0603C103K1RACTU	Kemet	CAP, CERM, 0.01 uF, 100 V, +/- 10%, X7R, 0603	0603
7	C7	1	10uF	UMK325AB7106KM-T	Taiyo Yuden	CAP, CERM, 10 uF, 50 V, +/- 10%, X7R, 1210	1210
8	C8, C11	2	0.01uF	GRM188R70J103KA01D	MuRata	CAP, CERM, 0.01 uF, 6.3 V, +/- 10%, X7R, 0603	0603
9	C9, C12	2	3.3uF	GRM21BR71A335KA99L	MuRata	CAP, CERM, 3.3 uF, 10 V, +/- 10%, X7R, 0805	0805
10	C10	1	220pF	C0603C221K5RACTU	Kemet	CAP, CERM, 220 pF, 50 V, +/- 10%, X7R, 0603	0603
11	C13, C17	2	1uF	885012206052	Wurth Elektronik	CAP, CERM, 1 uF, 16 V, +/- 10%, X7R, 0603	0603
12	C14, C29, C30	3	0.1uF	C1608X7R1E104K080AA	TDK	CAP, CERM, 0.1 uF, 25 V, +/- 10%, X7R, 0603	0603
13	C16	1	0.47uF	885012207049	Wurth Elektronik	CAP, CERM, 0.47 uF, 16 V, +/- 10%, X7R, 0805	0805
14	C18	1	2200pF	885012205027	Wurth Elektronik	CAP, CERM, 2200 pF, 16 V, +/- 10%, X7R, 0402	0402
15	C19	1	10uF	CL31B106KBHNNNE	Samsung Electro-Mechanics	CAP, CERM, 10 uF, 50 V, +/- 10%, X7R, 1206	1206
16	C21	1	4.7uF	GRM21BR71C475KA73L	MuRata	CAP, CERM, 4.7 uF, 16 V, +/- 10%, X7R, 0805	0805
17	C23, C25	2	1uF	C3216X7R2A105M160AA	TDK	CAP, CERM, 1 uF, 100 V, +/- 20%, X7R, 1206	1206
18	C26, C27	2	22uF	EMK316BB7226ML-T	Taiyo Yuden	CAP, CERM, 22 uF, 16 V, +/- 20%, X7R, 1206	1206
19	C31	1	0.22uF	VJ2220Y224KBEAT4X	Vishay-Vitramon	CAP, CERM, 0.22 uF, 500 V, +/- 10%, X7R, 2220	2220
20	D1	1	Blue	LTST-C193TBKT-5A	Lite-On	LED, Blue, SMD	1.6x0.8mm
21	D2	1	60V	B360A-13-F	Diodes Inc.	Diode, Schottky, 60 V, 3 A, SMA	SMA
22	D3	1	1200V	STTH112A	STMicroelectronics	Diode, Ultrafast, 1200 V, 1 A, SMA	SMA
23	D4	1	12V	MMSZ5242BS-7-F	Diodes Inc.	Diode, Zener, 12 V, 200 mW, SOD-323	SOD-323
24	D5, D8	2	30V	BAT54WS-7-F	Diodes Inc.	Diode, Schottky, 30 V, 0.2 A, SOD-323	SOD-323
25	D6	1	10V	ZLS410TA	Diodes Inc.	Diode, Schottky, 10 V, 0.75 A, SOD-323	SOD-323
26	D7	1	Green	LNJ337W83RA	Panasonic	LED, Green, SMD	1.6x0.8mm
27	D9	1	5.1V	MMSZ5231B-7-F	Diodes Inc.	Diode, Zener, 5.1 V, 500 mW, SOD-123	SOD-123
28	FID4, FID5, FID6	3	N/A	N/A	N/A	Fiducial mark. There is nothing to buy or mount.	Fiducial
29	J1, J4, J8	3		282834-2	TE Connectivity	Terminal Block, 2x1, 2.54mm, TH	Terminal Block, 2x1, 2.54mm, TH
30	J2	1		ED655/3DS	On-Shore Technology	Terminal Block, 3.5mm Pitch, 3x1, TH	10.5x8.2x6.5mm
31	J5	1		1725698	Phoenix Contact	Terminal Block, 6x1, 2.54mm, TH	Terminal Block, 6x1, 2.54mm, TH
32	J6, J7	2		TSW-110-07-G-D	Samtec	Header, 100mil, 10x2, Gold, TH	10x2 Header
33	Q2	1	20 V	2SAR522EBTL	Rohm	Transistor, PNP, 20 V, 0.2 A, SC-89	SC-89
34	R1	1	4.02k	RT0603BRD074K02L	Yageo America	RES, 4.02 k, 0.1%, 0.1 W, 0603	0603
35	R2, R3, R35, R36	4	10k	CRCW060310K0JNEA	Vishay-Dale	RES, 10 k, 5%, 0.1 W, 0603	0603
36	R4	1	1.65k	CRCW12061K65FKEA	Vishay-Dale	RES, 1.65 k, 1%, 0.25 W, 1206	1206
37	R5, R9, R10, R13, R16, R19, R20, R23, R24	9	1.00k	RG1608P-102-B-T5	Susumu Co Ltd	RES, 1.00 k, 0.1%, 0.1 W, 0603	0603
38	R7	1	2.55k	CRCW12062K55FKEA	Vishay-Dale	RES, 2.55 k, 1%, 0.25 W, 1206	1206
39	R8	1	7.50k	RC0603FR-077K5L	Yageo America	RES, 7.50 k, 1%, 0.1 W, 0603	0603
40	R12, R21	2	560	RC0603FR-07560RL	Yageo America	RES, 560, 1%, 0.1 W, 0603	0603
41	R14	1	1.00k	ERJ-6ENF1001V	Panasonic	RES, 1.00 k, 1%, 0.125 W, 0805	0805
42	R15, R22	2	2.49k	CRCW12062K49FKEA	Vishay-Dale	RES, 2.49 k, 1%, 0.25 W, 1206	1206
43	R25	1	100	CRCW0402100RFKED	Vishay-Dale	RES, 100, 1%, 0.063 W, 0402	0402
44	R26	1	3.32k	RT0603DRE073K32L	Yageo America	RES, 3.32 k, 0.5%, 0.1 W, 0603	0603
45	R27, R28	2	12.0	RT0603BRD0712RL	Yageo America	RES, 12.0, 0.1%, 0.1 W, 0603	0603
46	R29, R30, R32, R33, R34, R37, R38, R39, R44	9	0	ERJ-3GEY0R00V	Panasonic	RES, 0, 5%, 0.1 W, 0603	0603
47	R31	1	50	CRCW060350R0FKEA	Vishay-Dale	RES, 50, 1%, 0.1 W, 0603	0603
48	R40	1	68.1k	CRCW120668K1FKEA	Vishay-Dale	RES, 68.1 k, 1%, 0.25 W, 1206	1206
49	R41	1	61.9k	RC1206FR-0761K9L	Yageo America	RES, 61.9 k, 1%, 0.25 W, 1206	1206
50	R42	1	1.07k	RT0603DRE071K07L	Yageo America	RES, 1.07 k, 0.5%, 0.1 W, 0603	0603
51	R43	1	11.8k	CRCW120611K8FKEA	Vishay-Dale	RES, 11.8 k, 1%, 0.25 W, 1206	1206
52	R45	1	470Meg	RGP0207CJ470M	TE Connectivity	RES, 470 M, 5%, 0.25 W, D2.5xL6.5mm	D2.5xL6.5mm
53	TP1, TP2, TP3, TP4, TP5, TP6, TP7, TP8, TP9, TP10, TP11	11		5000	Keystone	Test Point, Miniature, Red, TH	Red Miniature Testpoint
54	U1	1		LMZ14201TZ-ADJ/NOPB	Texas Instruments	1A SIMPLE SWITCHER® Power Module with 42V Maximum Input, 7 pin TO-PMOD	TZA07A
55	U2	1		SN74HC7001DT	Texas Instruments	Quadruple Positive-AND Gates With Schmitt-Trigger Inputs, D0014A, SMALL T&R	D0014A
56	U3	1		TPS27S100BPWPR	Texas Instruments	40 V, 80 mOhm Single-Channel High-Side Switch, PWP0014C (TSSOP-14)	PWP0014C
57	U4, U6	2		TVS3300DRVR	Texas Instruments	33V Precision Surge Protection Clamp, DRV0006A (WSON-6)	DRV0006A
58	U5	1		ISO1212DBQR	Texas Instruments	ISO1212DBQR, DBQ00016A, DBQ0016A (SSOP-16)	DBQ0016A
59	U7	1		TPS22860DBVR	Texas Instruments	TPS22860 Ultra-low leakage load switch, DBV0006A (SOT-23-6)	DBV0006A
60	U8	1		ISO5852SDWR	Texas Instruments	2.5 / 5 A Isolated IGBT Gate Driver with Split Outputs and Active Safety Features, DW0016A	DW0016A
61	C32	0	0.01uF	VJ2220Y103KBEAT4X	Vishay-Vitramon	CAP, CERM, 0.01 uF, 500 V, +/- 10%, X7R, 2220	2220
62	FID1, FID2, FID3	0		N/A	N/A	Fiducial mark. There is nothing to buy or mount.	Fiducial
63	Q1	0	650 V	AOT10B65M2	AOS	Transistor, IGBT, 650 V, 20 A, TO-220AB	TO-220AB
64	R17	0	0	ERJ-3GEY0R00V	Panasonic	RES, 0, 5%, 0.1 W, 0603	0603
65	R46, R47, R48	0	0	CRCW08050000Z0EA	Vishay-Dale	RES, 0, 5%, 0.125 W, 0805	0805

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