

**TIDA-060030 REV E1 Bill of Materials**

Item #	Designator	Quantity	Value	PartNumber	Manufacturer	Description	PackageReference
1	IPCB	1		TIDA-060030	Any	Printed Circuit Board	
2	1, 2	2		5000	Keystone	Test Point, Miniature, Red, TH	Red Miniature Testpoint
3	A11, A12, A13	3		5002	Keystone	Test Point, Miniature, White, TH	White Miniature Testpoint
4	C1, C2, C3, C4, C5, C6	6	0.01uF	GRM188R72A103KA01D	MuRata	CAP, CERM, 0.01 uF, 100 V, +/- 10%, X7R, 0603	0603
5	C7, C13, C14	3	0.01uF	06031C103JAT2A	AVX	CAP, CERM, 0.01 uF, 100 V, +/- 5%, X7R, 0603	0603
6	C8, C12, C16	3	1uF	CGA4J3X7S2A105K125AB	TDK	CAP, CERM, 1 uF, 100 V, +/- 10%, X7S, AEC-Q200 Grade 1, 0805	0805
7	C9, C10, C11, C37	4	330uF	ELXZ630ELL331MK20S	Chem-Con	CAP, AL, 330 uF, 63 V, +/- 20%, AEC-Q200 Grade 2, TH	D12.5xL20mm
8	C15, C17, C18	3	22uF	CGA8N3X7R1C226M230KB	TDK	CAP, CERM, 22 uF, 16 V, +/- 20%, X7R, AEC-Q200 Grade 1, 1812	1812
9	C19	1	1uF	CGA5L2X7R2A105K160AA	TDK	CAP, CERM, 1 uF, 100 V, +/- 10%, X7R, AEC-Q200 Grade 1, 1206	1206
10	C20	1	100pF	GCM033R71E101KA03D	MuRata	CAP, CERM, 100 pF, 25 V, +/- 10%, X7R, AEC-Q200 Grade 1, 0201	0201
11	C21, C24	2	0.022uF	CGA3E2X7R2A223K080AA	TDK	CAP, CERM, 0.022 uF, 100 V, +/- 10%, X7R, AEC-Q200 Grade 1, 0603	0603
12	C22, C25, C26	3	1000pF	GRM188R71C102KA01D	MuRata	CAP, CERM, 1000 pF, 16 V, +/- 10%, X7R, 0603	0603
13	C23, C27, C30	3	2200pF	GRM188R71C222KA01D	MuRata	CAP, CERM, 2200 pF, 16 V, +/- 10%, X7R, 0603	0603
14	C28	1	4.7uF	CGA9N2X7R2A475K230KA	TDK	CAP, CERM, 4.7 uF, 100 V, +/- 10%, X7R, AEC-Q200 Grade 1,	
15	C29, C45	2	1uF	GCM31CR72A105KA03	MuRata	CAP, CERM, 1 uF, 100 V, +/- 10%, X7R, AEC-Q200 Grade 1, 1206	1206
16	C31, C46	2	0.1uF	CGA3E3X7S2A104K080AB	TDK	CAP, CERM, 0.1 uF, 100 V, +/- 10%, X7S, AEC-Q200 Grade 1, 0603	0603
17	C32, C48	2	0.01uF	CGA3E2X7R2A103K080AA	TDK	CAP, CERM, 0.01 uF, 100 V, +/- 10%, X7R, AEC-Q200 Grade 1, 0603	0603
18	C33, C49	2	1000pF	CGA3E2X7R2A102K080AA	TDK	CAP, CERM, 1000 pF, 100 V, +/- 10%, X7R, AEC-Q200 Grade 1, 0603	0603
19	C34	1	0.1uF	GRM188R710104KA01D	MuRata	CAP, CERM, 0.1 uF, 6.3 V, +/- 10%, X7R, 0603	0603
20	C35	1	1uF	GCM188R71E105KA64D	MuRata	CAP, CERM, 1 uF, 25 V, +/- 10%, X7R, AEC-Q200 Grade 1, 0603	0603
21	C36	1	0.1uF	GCJ188R72A104KA01D	MuRata	CAP, CERM, 0.1 uF, 100 V, +/- 10%, X7R, AEC-Q200 Grade 1, 0603	0603
22	C38	1	4.7uF	GRM32ER71K475KE14L	MuRata	CAP, CERM, 4.7 uF, 80 V, +/- 10%, X7R, 1210	1210
23	C39	1	0.047uF	CGA4J2X7R2A473K125AA	TDK	CAP, CERM, 0.047 uF, 100 V, +/- 10%, X7R, AEC-Q200 Grade 1, 0805	0805
24	C40	1	1uF	C0603C105K9RACAUTO	Kemet	CAP, CERM, 1 uF, 6.3 V, +/- 10%, X7R, AEC-Q200 Grade 1, 0603	0603
25	C41	1	0.1uF	CGJ3E2X7R1C104K080AA	TDK	CAP, CERM, 0.1 uF, 16 V, +/- 10%, X7R, AEC-Q200 Grade 1, 0603	0603
26	C42	1	0.1uF	C0603C104JRACTU	Kemet	CAP, CERM, 0.1 uF, 16 V, +/- 5%, X7R, 0603	0603
27	C43, C44, C50, C51, C56	5	2.2uF	GRM188R71A225KE15D	MuRata	CAP, CERM, 2.2 uF, 10 V, +/- 10%, X7R, 0603	0603
28	C47	1	2.2uF	GRT155C71A225KE13	MuRata	CAP, CERM, 2.2 uF, 10 V, +/- 10%, X7S, AEC-Q200 Grade 1, 0402	0402
29	C52, C53, C54, C55	4	0.1uF	C0402C104K4RACAUTO	Kemet	CAP, CERM, 0.1 uF, 16 V, +/- 10%, X7R, AEC-Q200 Grade 1, 0402	0402
30	D1, D13, D14	3	100V	FSV20100V	Fairchild Semiconductor	Diode, Schottky, 100 V, 20 A, AEC-Q101, TO-277A	TO-277A
31	D2, D3, D4	3	Green	LTST-C170KGKT	Lite-On	LED, Green, SMD	LED_0805
32	D5, D6, D8, D9, D10, D11	6	Orange	LTST-C170KFKT	Lite-On	LED, Orange, SMD	LED_0805
33	D7	1	Red	LTST-C170KRKT	Lite-On	LED, Red, SMD	Red 0805 LED
34	D12, D16	2	90V	CDO603-S0180	Bourns	Diode, Switching, 90 V, 0.1 A, 0603 Diode	0603 Diode
35	FB1, FB2, FB3	3		BLM18PG331SH1	Murata	Ferrite Beads 330 Ohm 25%	0603
36	FID1, FID2, FID3	3		N/A	N/A	Fiducial mark. There is nothing to buy or mount.	N/A
37	GND1, GND2, GND3	3		D3082-05	Harwin	1mm Uninsulated Shorting Plug, 10.16mm spacing, TH	Shorting Plug, 10.16mm spacing, TH
38	H1, H2, H3, H4	4		NY PMS 440 0025 PH	B&F Fastener Supply	Machine Screw, Round, #4-40 x 1/4, Nylon, Philips panhead	Screw
39	H1, H2, H6	3		OSTT7022150	On-Shore Technology	Terminal Block, 30A, 9.52mm ( .375) Pitch, 2-Pos, TH	19.62x21.5x12.5mm
40	H5	1		OSTT7032150	On-Shore Technology	Terminal Block, 3x1, 9.52mm, TH	Terminal Block, 3x1, 9.52mm, TH
41	H5, H6, H7, H8	4		1902C	Keystone	Standoff, Hex, 0.5" L #4-40 Nylon	Standoff
42	H9, H10, H11, H12	4		SJ-5303 (CLEAR)	3M	Bumpon, Hemisphere, 0.44 X 0.20, Clear	Transparent Bumpon
43	J1	1		TSW-107-07-G-D	Samtec	Header, 100mil, 7x2, Gold, TH	7x2 Header
44	L1	1	47uH	SRU1028A-470Y	Bourns	Inductor, Shielded Drum Core, Ferrite, 47 uH, 1.1 A, 0.23 ohm, AEC-Q200 Grade 1, SMD	Inductor, 10x3.1x10mm
45	L2	1	1uH	SRP1250-1R0M	Bourns	Inductor, Powdered Iron, 1 uH, 29 A, 0.0025 ohm, SMD	13.9x5.9x13.5mm
46	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 x 0.200 inch
47	Q1, Q2, Q3, Q4, Q5, Q6	6		SQJ850EP-T1-GE3	Vishay	Single N-Channel 60 V 0.023 Ohms Surface Mount Mosfet - PowerPAK-SO-8L	PowerPAK-SO-8L-Single
48	Q7	1	80V	NVMFS6H818NWT1G	ON Semiconductor	MOSFET, N-CH, 80 V, 123 A, AEC-Q101, SO-8FL	SO-8FL
49	Q8	1	80 V	FMMT620TA	Diodes Inc.	Transistor, NPN, 80 V, 1.5 A, AEC-Q101, SOT-23	SOT-23
50	R1, R2, R4, R8, R12, R13	6	100	CRCW0603100R-JNEA	Vishay-Dale	RES, 100, 5%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
51	R3, R5, R9, R10, R31	5	93.1k	CRCW060393K1FKEA	Vishay-Dale	RES, 93.1 k, 1%, 0.1 W, 0603	0603
52	R6, R7, R11	3	0.005	PMR100HZPFU5L00	Rohm	RES, 0.005, 1%, 2 W, 2512	2512
53	R14, R33, R34, R35, R39, R40, R41, R42	8	330	CRCW0603330R-JNEA	Vishay-Dale	RES, 330, 5%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
54	R15	1	470	RG1608P-471-B-T5	Susumu Co Ltd	RES, 470, 0.1%, 0.1 W, 0603	0603
55	R16	1	5.11k	TNPW06035K11BEEA	Vishay-Dale	RES, 5.11 k, 0.1%, 0.1 W, AEC-Q200 Grade 1, 0603	0603
56	R17	1	20.0k	CRCW120620K0FKEA	Vishay-Dale	RES, 20.0 k, 1%, 0.25 W, AEC-Q200 Grade 0, 1206	1206
57	R18	1	100k	TNPW1206100KBEEA	Vishay-Dale	RES, 100 k, 0.1%, 0.25 W, AEC-Q200 Grade 1, 1206	1206
58	R19, R30, R37, R48, R49, R50	6	47.0k	CRCW060347K0FKEA	Vishay-Dale	RES, 47.0 k, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
59	R20, R21, R22, R23, R26, R29, R36	7	0	CRCW0603000020EA	Vishay-Dale	RES, 0, 5%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
60	R24, R25, R27	3	56	CRCW060356R0JNEA	Vishay-Dale	RES, 56, 5%, 0.1 W, 0603	0603
61	R28, R38, R43	3	10k	CRCW060310K0JNEA	Vishay-Dale	RES, 10 k, 5%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
62	R32, R44, R45, R46, R47	5	4.99k	CR0603-FX-4991ELF	Bourns	RES, 4.99 k, 1%, 0.1 W, 0603	0603
63	R51	1	50k	3352T-1-503LF	Bourns	Trimming Potentiometer, 50K, 0.5W, TH	9.53x8.89mm
64	S1, S2, S3, S4, S5	5		1138K9-9F9F1125	Tone Parts Electronics	Switch, SPST, 0.05A, 12V, SMD	6x6mm
65	S6	1		SKRKAEE010	Alps	Switch, Push Button, SMD	2.9x2x3.9mm SMD
66	U1	1		TPS7B8133QDRVRQ1	Texas Instruments	Automotive 150-mA high-voltage ultra-low-IQ low-dropout (LDO) linear regulator, DRV0006A (WSON-6)	DRV0006A
67	U2	1		LMR36006AQRNQRQ1	Texas Instruments	SIMPLE SWITCHER 4.2 V to 60 V 0.6 A Synchronous Step-Down Converter, RNX0012A (VQFN-HR-12)	RNX0012A
68	U3	1		DRV8343SPHPQ1	Texas Instruments	Automotive 5.5 to 60-V Three-Phase Smart Gate Driver With Three Integrated Current-Shunt Amplifiers, PHP0048G (HTQFP-48)	PHP0048G
69	U4	1		TMS320F28035RSHS	Texas Instruments	Piccolo Microcontroller, RSH0056D (VQFN-56)	RSH0056D
70	VM1	1		5005	Keystone	Test Point, Compact, Red, TH	Red Compact Testpoint
71	D15	0	90V	CDO603-S0180	Bourns	Diode, Switching, 90 V, 0.1 A, 0603 Diode	0603 Diode
72	R52, R53, R54, R55, R56, R57, R58, R59, R60, R61	0	47.0k	CRCW060347K0FKEA	Vishay-Dale	RES, 47.0 k, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	0603

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