

TIDA-010049 REV E2 Bill of Materials

Item #	Designator	Quantity	Value	PartNumber	Manufacturer	Description	PackageReference
1	IPCB1	1		TIDA-010049	Any	Printed Circuit Board	
2	C1_1, C1_2, C1_3, C1_4, C1_5, C1_6, C1_7, C1_8	8	0.56uF	GRM188R71A564KA61D	MuRata	CAP, CERM, 0.56 uF, 10 V, +/- 10%, X7R, 0603	0603
3	C2_1, C2_2, C2_3, C2_4, C2_5, C2_6, C2_7, C2_8	8	100pF	0603ZC101KAT2A	AVX	CAP, CERM, 100 pF, 10 V, +/- 10%, X7R, 0603	0603
4	C3_1, C3_2, C3_3, C3_4, C3_5, C3_6, C3_7, C3_8, C4_1, C4_2, C4_3, C4_4, C4_5, C4_6, C4_7, C4_8, C5, C10, C11, C12, C13, C14, C15, C16, C21, C22, C23, C24, C25, C26, C28, C29, C30, C33, C34, C45, C46, C47, C48, C52, C53	41	0.1uF	GRM188R71C104KA01D	MuRata	CAP, CERM, 0.1 uF, 16 V, +/- 10%, X7R, 0603	0603
5	C6, C7, C8, C9, C19, C20	6	10uF	JMK212B7106KG-T	Taiyo Yuden	CAP, CERM, 10 uF, 6.3 V, +/- 10%, X7R, 0805	0805
6	C17	1	22uF	GRM21BZ71A226ME15L	MuRata	CAP, CERM, 22 uF, 10 V, +/- 20%, X7R, 0805	0805
7	C18, C27, C42	3	1uF	GRM188R71A105KA61D	MuRata	CAP, CERM, 1 uF, 10 V, +/- 10%, X7R, 0603	0603
8	C31, C32	2	33pF	GRM1885C1H330JA01D	MuRata	CAP, CERM, 33 pF, 50 V, +/- 5%, COG/NP0, 0603	0603
9	C35	1	4.7uF	C5750X7R2A475K230KA	TDK	CAP, CERM, 4.7 uF, 100 V, +/- 10%, X7R,	
10	C36, C37	2	0.22uF	GRM21AR72A224KAC5L	MuRata	CAP, CERM, 0.22 uF, 100 V, +/- 10%, X7R, 0805	0805
11	C38	1	22pF	GRM1885C1H220JA01D	MuRata	CAP, CERM, 22 pF, 50 V, +/- 5%, COG/NP0, 0603	0603
12	C39, C40	2	22uF	C4532X7R1E226M250KC	TDK	CAP, CERM, 22 uF, 25 V, +/- 20%, X7R,	
13	C41	1	4.7uF	CL10B475KQ8NQND	Samsung	CAP, CERM, 4.7 uF, 6.3 V, +/- 10%, X7R, 0603	0603
14	C43, C44	2	10uF	GRM21BR71A106KE51L	MuRata	CAP, CERM, 10 uF, 10 V, +/- 10%, X7R, 0805	0805
15	C49, C50	2	0.1uF	GRM188R72A104KA35D	MuRata	CAP, CERM, 0.1 uF, 100 V, +/- 10%, X7R, 0603	0603
16	C51	1	0.01uF	CL10B103KB8NCNC	Samsung Electro-Mechanics	CAP, CERM, 0.01 uF, 50 V, +/- 10%, X7R, 0603	0603
17	D1_1, D1_2, D1_3, D1_4, D1_5, D1_6, D1_7, D1_8	8	Green	150060GS75000	Würth Elektronik	LED, Green, SMD	LED_0603
18	D2	1	30V	DB3X313F0L	Panasonic	Diode, Switching, 30 V, 0.13 A, SOT23, 3-Leads, Body 2.98x1.6mm, Pitch 0.95mm	SOT23, 3-Leads, Body 2.98x1.6mm, Pitch 0.95mm
19	D3	1	30V	BAT54CT-7-F	Diodes Inc.	Diode, Schottky, 30 V, 0.2 A, SOT-523	SOT-523
20	D4	1	30V	BAT54AT-7-F	Diodes Inc.	Diode, Schottky, 30 V, 0.2 A, SOT-523	SOT-523
21	D5, D7	2	30V	SMAJ30CA	Littelfuse	Diode, TVS, Bi, 30 V, 48.4 Vc, 400 W, 8.3 A, SMA (non-polarized)	SMA (non-polarized)
22	D6	1	30V	BAT54LP-7	Diodes Inc.	Diode, Schottky, 30 V, 0.2 A, 1.00x0.50x0.60mm	1.00x0.50x0.60mm
23	D8	1	Green	150060VS75000	Würth Elektronik	LED, Green, SMD	LED_0603
24	D9	1	Red	150060RS75000	Würth Elektronik	LED, Red, SMD	LED_0603
25	F1	1		045401.5MR	Littelfuse	Fuse, 1.5 A, 125VAC/VDC, SMD	SloBlo452
26	FID1, FID2, FID3	3		N/A	N/A	Fiducial mark. There is nothing to buy or mount.	N/A
27	H1, H2, H3, H4	4		SJ-5303 (CLEAR)	3M	Bumpon, Hemisphere, 0.44 X 0.20, Clear	Transparent Bumpon
28	J1	1		FTR-110-51-S-D-06	Samtec	Header, 1.27mm, 10x2, Tin, SMT	Header, 1.27mm, 10x2, SMT
29	J2	1		HTSW-102-07-G-S	Samtec	Header, 100mil, 2x1, Gold, TH	Header, 100mil, 2x1, TH
30	J3	1		61300611121	Würth Elektronik	Header, 2.54 mm, 6x1, Gold, TH	Header, 2.54mm, 6x1, TH
31	J4	1		1792863	Phoenix Contact	Terminal Block, 5mm, 2x1, R/A, TH	Terminal Block, 5mm, 2x1, R/A, TH

32	J5, J6	2		1990067	Phoenix Contact	Terminal Block, 8x1, 2.5mm, Green, TH	Terminal Block, 8x1, 2.5mm, TH
33	L1, L2	2	18uH	744043180	Würth Elektronik	Inductor, Shielded Drum Core, Ferrite, 18 uH, 0.7 A, 0.138 ohm, SMD	WE-TPC-M2
34	L3	1	2.2uH	LQM21PN2R2MC0D	MuRata	Inductor, Multilayer, Ferrite, 2.2 uH, 0.6 A, 0.34 ohm, SMD	0805
35	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
36	Q1	1	60V	CSD18541F5	Texas Instruments	MOSFET, N-CH, 60 V, 2.2 A, YJK0003A (PICOSTAR-3)	YJK0003A
37	R1_1, R1_2, R1_3, R1_4, R1_5, R1_6, R1_7, R1_8, R4_1, R4_2, R4_3, R4_4, R4_5, R4_6, R4_7, R4_8, R23	17	200	CRCW0603200RJNEA	Vishay-Dale	RES, 200, 5%, 0.1 W, 0603	0603
38	R2_1, R2_2, R2_3, R2_4, R2_5, R2_6, R2_7, R2_8	8	4.99k	CRCW20104K99FKEF	Vishay-Dale	RES, 4.99 k, 1%, 0.75 W, AEC-Q200 Grade 0, 2010	2010
39	R3_1, R3_2, R3_3, R3_4, R3_5, R3_6, R3_7, R3_8	8	1.13k	RC0603FR-071K13L	Yageo	RES, 1.13 k, 1%, 0.1 W, 0603	0603
40	R5_1, R5_2, R5_3, R5_4, R5_5, R5_6, R5_7, R5_8	8	66.5	RC0603FR-0766R5L	Yageo	RES, 66.5, 1%, 0.1 W, 0603	0603
41	R6_1, R6_2, R6_3, R6_4, R6_5, R6_6, R6_7, R6_8, R64	9	806	RC0603FR-07806RL	Yageo	RES, 806, 1%, 0.1 W, 0603	0603
42	R7_1, R7_2, R7_3, R7_4, R7_5, R7_6, R7_7, R7_8	8	2.49k	RC0603FR-072K49L	Yageo	RES, 2.49 k, 1%, 0.1 W, 0603	0603
43	R8, R16, R22, R24, R27, R57, R58, R59, R63	9	3.3k	RC0603JR-073K3L	Yageo	RES, 3.3 k, 5%, 0.1 W, 0603	0603
44	R9, R10, R11, R12, R13, R15, R26	7	10k	RC0603JR-0710KL	Yageo	RES, 10 k, 5%, 0.1 W, 0603	0603
45	R14, R17, R19, R21, R28, R29, R30, R37, R38, R39, R42, R49, R50, R51, R56	15	47k	RC0603JR-0747KL	Yageo	RES, 47 k, 5%, 0.1 W, 0603	0603
46	R18	1	4.7	CRCW06034R70JNEA	Vishay-Dale	RES, 4.7, 5%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
47	R20	1	2.21k	RC0603FR-072K21L	Yageo	RES, 2.21 k, 1%, 0.1 W, 0603	0603
48	R25	1	1.0k	RC0603JR-071KL	Yageo	RES, 1.0 k, 5%, 0.1 W, 0603	0603
49	R31	1	82.5k	RC0603FR-0782K5L	Yageo	RES, 82.5 k, 1%, 0.1 W, 0603	0603
50	R32	1	1.00	RC0603FR-071RL	Yageo	RES, 1.00, 1%, 0.1 W, 0603	0603
51	R33, R36, R46, R47, R48, R55, R62	7	24.9k	RC0603FR-0724K9L	Yageo	RES, 24.9 k, 1%, 0.1 W, 0603	0603
52	R34	1	31.6k	RC0603FR-0731K6L	Yageo	RES, 31.6 k, 1%, 0.1 W, 0603	0603
53	R35	1	68.1k	RC0603FR-0768K1L	Yageo	RES, 68.1 k, 1%, 0.1 W, 0603	0603
54	R40	1	53.6k	RC0603FR-0753K6L	Yageo	RES, 53.6 k, 1%, 0.1 W, 0603	0603
55	R41	1	249k	RC0603FR-07249KL	Yageo	RES, 249 k, 1%, 0.1 W, 0603	0603
56	R43	1	1.24k	RC0603FR-071K24L	Yageo	RES, 1.24 k, 1%, 0.1 W, 0603	0603
57	R44	1	2.15k	RC0603FR-072K15L	Yageo	RES, 2.15 k, 1%, 0.1 W, 0603	0603
58	R45	1	196k	RC0603FR-07196KL	Yageo	RES, 196 k, 1%, 0.1 W, 0603	0603
59	R52	1	562k	RC0603FR-07562KL	Yageo	RES, 562 k, 1%, 0.1 W, 0603	0603
60	R53	1	13.0k	RC0603FR-0713KL	Yageo	RES, 13.0 k, 1%, 0.1 W, 0603	0603
61	R54	1	7.50k	RC0603FR-077K5L	Yageo	RES, 7.50 k, 1%, 0.1 W, 0603	0603
62	R60	1	165k	RC0603FR-07165KL	Yageo	RES, 165 k, 1%, 0.1 W, 0603	0603
63	R61	1	14.7k	RC1206FR-0714K7L	Yageo America	RES, 14.7 k, 1%, 0.25 W, 1206	1206
64	S1, S2	2		RS-032G05A3-SM RT	C&K Components	Switch, Tactile, SPST-NO, 0.05A, 12V, SMD	SPST, 6x3.5mm
65	TP11, TP12, TP13, TP14	4		5015	Keystone	Test Point, Miniature, SMT	Testpoint_Keystone_Minature

66	U1_1, U1_2, U1_3, U1_4, U1_5, U1_6, U1_7, U1_8, U23	9		SN74LVC1G125DRLR	Texas Instruments	Single Bus Buffer Gate With 3-State Outputs, DRL0005A, LARGE T&R	DRL0005A
67	U2_1, U2_2, U2_3, U2_4, U2_5, U2_6, U2_7, U2_8	8		TLV9001IDCKR	Texas Instruments	Low-Power, Rail-to-Rail In and Out, 1-MHz Operational Amplifier, DCK0005A (SOT-SC70-5)	DCK0005A
68	U3_1, U3_2, U3_3, U3_4, U3_5, U3_6, U3_7, U3_8, U4_1, U4_2, U4_3, U4_4, U4_5, U4_6, U4_7, U4_8	16		TVS0500DRVR	Texas Instruments	5-V Precision Surge Protection Clamp, DRV0006A (WSON-6)	DRV0006A
69	U5_1, U5_2, U5_3, U5_4, U5_5, U5_6, U5_7, U5_8, U24	9		TL431LIAQDBZR	Texas Instruments	Programmable Shunt Regulator with Optimized Reference Current, DBZ0003A (SOT-23-3)	DBZ0003A
70	U6	1		SN74LVC2G132DCUR	Texas Instruments	Dual 2-Input NAND Gate with Schmitt-Trigger Inputs, DCU0008A (VSSOP-8)	DCU0008A
71	U7	1		RM41L232BPZT	Texas Instruments	16- and 32-Bit RISC Flash Microcontroller, PZ0100A (LQFP-100)	PZ0100A
72	U8	1		TPS3852H3DRBR	Texas Instruments	High-Accuracy Voltage Supervisor With Programmable Window Watchdog Timer, DRB0008A (VSON-8)	DRB0008A
73	U9	1		REF3030AIDBZT	Texas Instruments	3.0 V, 50 ppm / degC, 50 uA Series (Bandgap) Voltage Reference, -40 to 125 degC, 3-pin SOT-23 (DBZ), Green (RoHS & no Sb/Br)	DBZ0003A
74	U10	1		SN74LVC1G11DCKR	Texas Instruments	Single 3-Input Positive-AND Gate, DCK0006A (SOT-SC70-6)	DCK0006A
75	U11	1		TPS22917DBVR	Texas Instruments	5.5-V, 2-A, 80 mohm Low Leakage Load Switch with RCB and Programmable Rise Time, DBV0006A (SOT-23-6)	DBV0006A
76	U12	1		TL431LIBQDBZR	Texas Instruments	Programmable Shunt Regulator with Optimized Reference Current, DBZ0003A (SOT-23-3)	DBZ0003A
77	U13	1		ISO7741FQDWRQ1	Texas Instruments	Automotive, High Speed, Robust EMC Quad-Channel Digital Isolators, DW0016B (SOIC-16)	DW0016B
78	U14	1		LMR36006BRNXT	Texas Instruments	65-V 0.6-A Synchronous Step-Down Converter, RNX0012B (VQFN-HR-12)	RNX0012B
79	U15	1		LM5166YDRCR	Texas Instruments	3V-65V Input, 500mA Synchronous Buck Converter With Ultra-Low Iq, DRC0010J (VSON-10)	DRC0010J
80	U16	1		TPS622318DRYT	Texas Instruments	2 MHz Ultra Small Step Down Converter with DCS-Control in 1x1.5 SON Package, DRY0006A (USON-6)	DRY0006A
81	U17, U18, U19	3		TPS3700DSESR	Texas Instruments	High-Voltage (18V) Window Comparator with Over- and Undervoltage Detection, DSE0006A (WSON-6)	DSE0006A
82	U20	1		TMP302CDRLR	Texas Instruments	Pin-Selectable Trip Point 1.4V-Capable Family of Temperature Switches, DRL0006A (SOT-OTHER-6)	DRL0006A
83	U21	1		TPS26624DRCR	Texas Instruments	60-V, 800-mA Industrial eFuse with Integrated Reverse Polarity Protection, DRC0010J (VSON-10)	DRC0010J
84	U22	1		SN74AHC594PW	Texas Instruments	8-Bit Shift Registers With Output Registers, PW0016A, TUBE	PW0016A
85	Y1	1		ABM3-16.000MHZ-D2Y-T	Abracon Corporation	Crystal, 16 MHz, 18 pF, SMD	ABM3

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