

TIDA-010236 REV B Bill of Materials



Item #	Designator	Quantity	Value	PartNumber	Manufacturer	Description	PackageReference
1	PCB1	1		TIDA-010236	Any	Printed Circuit Board	
2	C1, C2	2	1mF	SB61021486045	Wurth	WCAP-AIGS Aluminum Electrolytic Capacitors 1000uF ±20% 450VDC	RADIAL
3	C5	1	2.2uF	ECWFG2J225	Panasonic	CAP, Film, 2.2 uF, 630 V, +/- 20%, TH	ECWFG2J225
4	C6, C34, C35, C41, C42, C46, C50	7	10uF	GRM31CR71E106KA12L	MuRata	CAP, CERM, 10 uF, 25 V, +/- 10%, X7R, 1206	1206
5	C7, C9, C12, C13, C15, C17, C18, C26, C30, C33, C36, C40, C43, C45, C47, C49, C51, C52, C53	19	0.1uF	GRM188R71E104KA01D	MuRata	CAP, CERM, 0.1 uF, 25 V, +/- 10%, X7R, 0603	0603
6	C8, C22, C27, C28	4	0.01uF	GRM188R71H103KA01D	MuRata	CAP, CERM, 0.01 uF, 50 V, +/- 10%, X7R, 0603	0603
7	C10, C16, C19, C44, C48, C54, C55, C56, C58, C59, C63	11	1uF	GRJ188R71E105KE11D	MuRata	CAP, CERM, 1 uF, 25 V, +/- 10%, X7R, 0603	0603
8	C11, C14, C20, C65	4	1000pF	GCJ188R71H102KA01D	MuRata	CAP, CERM, 1000 pF, 50 V, +/- 10%, X7R, 0603	0603
9	C21, C25	2	220pF	GRM188SC1H221JA01D	MuRata	CAP, CERM, 220 pF, 50 V, +/- 5%, COG/NP0, 0603	0603
10	C23	1	2200pF	GRM188R71H222KA01D	MuRata	CAP, CERM, 2200 pF, 50 V, +/- 10%, X7R, 0603	0603
11	C24	1	0.047uF	GRM188R71H473KA61D	MuRata	CAP, CERM, 0.047 uF, 50 V, +/- 10%, X7R, 0603	0603
12	C29	1	3300pF	GRM188R72A332KA01D	MuRata	CAP, CERM, 3300 pF, 100 V, +/- 10%, X7R, 0603	0603
13	C31	1	10uF	UPW1V100MDD6	Nichicon	CAP, AL, 10 uF, 35 V, +/- 20%, 0.95 ohm, TH	5x7mm
14	C32, C62	2	22pF	GRM188SC1H220JA01D	MuRata	CAP, CERM, 22 pF, 50 V, +/- 5%, COG/NP0, 0603	0603
15	C37	1	15uF	UC72W150MPD1TD	Nichicon	15uF 450V Aluminum Electrolytic Capacitors Radial, Can 12000 Hrs @ 105°C	RADIAL
16	C38	1	4.7uF	UVY2W4R7MPD1TD	Nichicon	CAP, AL, 4.7 uF, 450 V, +/- 20%, TH	D10xL12.5mm
17	C39	1	390uF	UHV1E391MPD	Nichicon	CAP, AL, 390 uF, 25 V, +/- 20%, 0.046 ohm, TH	RCAP, 8x16mm
18	C57	1	4700pF	AY2472M49Y5U63L7	Vishay-Bccomponents	CAP, CERM, 4700 pF, 300 V, +/- 20%, Y5U, AEC-Q200 Grade 1, D13xT5mm	D13xT5mm
19	C60	1	100pF	DE2B3KY101KN3AU02F	MuRata	CAP, CERM, 100 pF, X1 250 VAC/Y2 300 VAC, +/- 10%, B, TH	TH, 2-Leads, Body 7x5mm, Pin Spacing 7.5mm
20	C61	1	150pF	GRM188SC1H151JA01D	MuRata	CAP, CERM, 150 pF, 50 V, +/- 5%, COG/NP0, 0603	0603
21	C64	1	1.2uF	890334027012CS	Wurth Electronics	1.2uF Film Capacitor 310V Polypropylene (PP), Metallized Radial	RADIAL
22	C66, C67	2	100pF	C0603C101J5GACTU	Kemet	CAP, CERM, 100 pF, 50 V, +/- 5%, COG/NP0, 0603	0603
23	C68, C69	2	4700pF	DE2E3KY472MB3BM02F	MuRata	CAP, CERM, 4700 pF, 250 V, +/- 20%, E, 10x5x13mm	10x5x13mm
24	D1, D2, D11, D12	4	1000V	S1MTR	SMC Diode Solutions	Diode, Standard Recovery Rectifier, 1000 V, 1 A, SMA	SMA
25	D3, D6, D7, D8	4	30V	BAT54T1G	ON Semiconductor	Diode, Schottky, 30 V, 0.2 A, SOD-123	SOD-123
26	D4	1	600V	GB5Z506	Diodes Inc.	Diode Bridge rectifier 1 phase 600V 25A TH	
27	D9	1	100V	1N4148W-7-F	Diodes Inc.	Diode, Ultrafast, 100 V, 0.15 A, SOD-123	SOD-123
28	D10	1	600V	ES1JTR	SMC Diode Solutions	Diode, Superfast Rectifier, 600 V, 1 A, SMA	SMA
29	D13, D17	2	Green	LTST-C193KGKT-5A	Lite-On	LED, Green, SMD	1.6x0.8mm
30	D14, D18	2	Red	LTST-C193KRKT-5A	Lite-On	LED, Red, SMD	1.6x0.8mm
31	D15	1	18V	CRZ18	Toshiba	Diode, Zener, 18 V, 700 mW, SOD-123	SOD-123
32	D16	1	600V	MURS360T3G	ON Semiconductor	Diode, Ultrafast, 600 V, 3 A, SMC	SMC
33	F1	1		0324025 MXP	Littelfuse	FUSE CERM 25A 250VAC 125VDC 3AB	AXIAL
34	H2, H3, H6	3		29311	Keystone	Screw Pan Head M3	Screw M3
35	H4, H5, H8, H9	4		971120321	Wurth Elektronik	HEX STANDOFF M3 STEEL 12MM	HEX STANDOFF M3 STEEL 12MM
36	J1, J2, J3, J5, J7	5		63824-1	TE Connectivity		CONN, 7MM92_3MM 11
37	J4	1		SSM-107-L-SV-BE	Samtec		HDR7
38	J6	1		1-2834011-2	TE Connectivity AMP Connectors		HDR2
39	J8	1		6.94106E+11	Wurth Elektronik	WR-DC DC Power Jack, R/A, TH	WR-DC DC Power Jack, R/A, TH
40	J9	1		HSECB-160-01-L-DV-A-BL	Samtec	C2000 controlCARD-120HSEC connector, SMT	C2000 pin numbering
41	J10, J11	2		6.1202E+11	Wurth	Header(shrouded), 2.54mm, 10x2, Gold, TH	Header, 2.54mm, 10x2, TH
42	J12	1		B2B-WH-A(LF)(SN)	JST Manufacturing	Header (Shrouded), 2.5mm, 2x1, Tin, TH	Header (Shrouded), 2.5mm, 2x1, TH
43	J13	1		3-644695-4	TE Connectivity	Header, 100mil, 4x1, Tin, TH	Header, 2.54 mm, 4x1, TH
44	K1	1		19AS1D12-15	TE Connectivity	Relay, SPST-NO (1 Form A), 30 A, 15 V, TH	32.51x127.43mm
45	L2	1	300uH	ARLDC807842C201NB	Sunlord	PFC CHOKE 480uH 33A	D80x35mm
46	L3, L4, L5	3	1800 ohm	782631182	Wurth Elektronik	Ferrite Bead, 1800 ohm @ 100 MHz, 0.2 A, 0603	0603
47	L6	1	10uH	74404024100	Wurth Elektronik	Inductor, Wirewound, Ferrite, 10 uH, 0.47 A, 0.435 ohm, SMD	SMD, 2.5x2mm
48	L7	1	1mH	7447462102	Wurth Elektronik	Inductor, Unshielded Drum Core, Ferrite, 1 mH, 0.25 A, 4.38 ohm, TH	D6 x 8.5mm
49	L8	1	47uH	744770147	Wurth Elektronik	Inductor, Shielded Drum Core, Ferrite, 47 uH, 2.7 A, 0.076 ohm, SMD	SMD
50	MP1	1		TIDA-010236 Main Heatsink	Texas Instruments	Main Heatsink	HEATSINK_120MM0180MM0
51	Q1, Q3, Q4, Q5, Q6	5	60V	2V7002KT1G	ON Semiconductor	MOSFET, N-CH, 60 V, 0.32 A, AEC-Q101, SOT-23	SOT-23
52	Q2	1	600V	A0D4S60	AOS	MOSFET, N-CH, 600 V, 4 A, DPAK	DPAK
53	R1	1	300	RC0603FR-07300RL	Yageo	RES, 300, 1%, 0.1 W, 0603	0603
54	R2, R17, R22, R29, R34, R61, R65, R70, R73, R74, R79, R81	12	100	RC0603FR-07100RL	Yageo	RES, 100, 1%, 0.1 W, 0603	0603
55	R3, R10, R11, R46, R47, R58, R67, R72	8	10.0k	RC0603FR-0710KL	Yageo	RES, 10.0 k, 1%, 0.1 W, 0603	0603
56	R4, R5, R7, R8	4	0.002	ERJ-M1W1TF2M0U	Panasonic	RES, 0.002, 1%, 1 W, 2512	2512
57	R6, R9, R55, R57	4	10	RC0603FR-0710RL	Yageo	RES, 10.0, 1%, 0.1 W, 0603	0603
58	R12, R36	2	51.1k	RC0603FR-0751K1L	Yageo	RES, 51.1 k, 1%, 0.1 W, 0603	0603
59	R13, R25, R45, R77	4	2.40k	RC0603FR-072K4L	Yageo	RES, 2.40 k, 1%, 0.1 W, 0603	0603
60	R14, R15, R16, R26, R27, R28, R31, R32, R33	9	330k	RC1210FR-07330KL	Yageo	RES, 330 k, 1%, 0.5 W, 1210	1210
61	R18, R21, R30, R35, R44	5	5.10k	RC0603FR-075K1L	Yageo	RES, 5.10 k, 1%, 0.1 W, 0603	0603
62	R19, R23	2	3.30k	RC0603FR-073K3L	Yageo	RES, 3.30 k, 1%, 0.1 W, 0603	0603
63	R37	1	0.3	ERJ8BQFR20V	Panasonic	RES, 0.3, 1%, 0.5 W, AEC-Q200 Grade 1, 1206	1206
64	R38	1	430k	RC1206FR-07430KL	Yageo America	RES, 430 k, 1%, 0.25 W, 1206	1206
65	R39	1	18.7k	RC0603FR-0718K7L	Yageo	RES, 18.7 k, 1%, 0.1 W, 0603	0603
66	R40	1	88.7k	RC0603FR-0788K7L	Yageo	RES, 88.7 k, 1%, 0.1 W, 0603	0603
67	R41, R48, R49, R50, R51, R52, R54, R56, R59, R60, R62, R64, R66, R68, R69, R71, R82, R84, R85, R86, R88	21	0	RC0603JR-070RL	Yageo	RES, 0, 5%, 0.1 W, 0603	0603
68	R42	1	12.0k	RC0603FR-0712KL	Yageo	RES, 12.0 k, 1%, 0.1 W, 0603	0603
69	R43, R53, R63, R75, R76, R78, R80, R83	8	1.00k	RC0603FR-071KL	Yageo	RES, 1.00 k, 1%, 0.1 W, 0603	0603
70	R87	1	1.50k	RC0603FR-071K5L	Yageo	RES, 1.50 k, 1%, 0.1 W, 0603	0603
71	R11	1	50	MS22 50004	Ametherm	Thermistor PTC, 50 ohm, 25%, D23 x T10mm, P7.8mm	D23 x T10 x P7.8
72	S1	1		206AWMSP1T1A1M2OE	E-Switch	Toggle Switch SPDT Through Hole 3A 120V	PTH_SW_8MM13_5MM08
73	TP1, TP2, TP3, TP4, TP5, TP6, TP7, TP8, TP9, TP10, TP11, TP12, TP13, TP14, TP15, TP17, TP18, TP19, TP20, TP21, TP22, TP23, TP25, TP26, TP28, TP29, TP30, TP31, TP32, TP33, TP34	31		5015	Keystone	Test Point, Miniature, SMT	Testpoint_Keystone_Miniature
74	U2	1		TLV9062IDR	Texas Instruments	10-MHz, Low-Noise, RRIO, CMOS Operational Amplifier for Cost-Sensitive Systems, D0008A (SOIC-8)	D0008A
75	U3	1		AMC3302DWE	Texas Instruments	Precision, ±250-mV Input, Reinforced Isolated Amplifier With Integrated DC/DC Converter	SOIC16
76	U4	1		UCC28710DR	Texas Instruments	Constant-Voltage, Constant-Current PWM Controller with Primary-Side Regulation, D0007A (SOIC-7)	D0007A
77	U5	1		TP5S4202DDCR	Texas Instruments	4.5V to 28V Input, 2A Output, EMI Friendly Synchronous Step-Down Converter, DDC0006A (SOT-23-THIN-6)	DDC0006A
78	U6	1		TLV74033PDBVR	Texas Instruments	300-mA low-dropout (LDO) regulator with foldback current limit 5-SOT-23 -40 to 125	SOT23-5
79	U7	1		ISO6721BDR	Texas Instruments	Low Speed, General Purpose, Robust EMC, Dual-Channel Digital Isolator	SOIC8
80	U8	1		UCC227624D	Texas Instruments	Dual Channel 30-V 5-A High-Speed Low-Side Gate Driver	SOIC8
81	C3, C4, U1	0					
82	L1	0				Inductor 265uH 26A vertical	
83	R20, R24	0	0	RC0603JR-070RL	Yageo	RES, 0, 5%, 0.1 W, 0603	0603