

TIDA-010265 REV B Bill of Materials

Item #	Designator	Quantity	Value	PartNumber	Manufacturer	Description	PackageReference
1	IPC81	1		TIDA-010265	Any	Printed Circuit Board	
2	C1, C3, C4, C5, C6, C8, C12, C20, C21, C22, C24, C26, C27	13	0.1uF	GRM156R71C104KA88D	MuRata	CAP, CERM, 0.1 uF, 16 V, +/- 10%, X7R, 0402	0402
3	C2, C7, C8, C13, C17, C18	6	10uF	GRM156R61A106ME11	MuRata	CAP, CERM, 10 uF, 10 V, +/- 20%, X5R, 0402	0402
4	C10, C28	2	2.2uF	GRM156R61A225ME95	MuRata	CAP, CERM, 2.2 uF, 10 V, +/- 20%, X5R, 0402	0402
5	C11	1	0.01uF	GRM156R61C103KA01D	MuRata	CAP, CERM, 0.01 uF, 16 V, +/- 10%, X5R, 0402	0402
6	C14, C15, C16, C25, C29, C36, C87, C88	8	100pF	GRM1555C1H101JA01D	MuRata	CAP, CERM, 100 pF, 50 V, +/- 5%, COG/NP0, 0402	0402
7	C19, C31, C54, C77, C78, C83	6	1000pF	GRM188R71E102KA01D	MuRata	CAP, CERM, 1000 pF, 25 V, +/- 10%, X7R, 0603	0603
8	C23	1	1000pF	GRM156R71H102KA01D	MuRata	CAP, CERM, 1000 pF, 50 V, +/- 10%, X7R, 0402	0402
9	C25, C29	2	330pF	GRM156R71H331KA01D	MuRata	CAP, CERM, 330 pF, 50 V, +/- 10%, X7R, 0402	0402
10	C30, C85	2	120F	GRM1555C1H120JA01D	MuRata	CAP, CERM, 12 uF, 50 V, +/- 5%, COG/NP0, 0402	0402
11	C32, C57, C60, C62, C72	5	10uF	GRM218R6YA106KE43L	MuRata	CAP, CERM, 10 uF, 35 V, +/- 10%, X5R, 0805	0805
12	C33, C40	2	2200pF	DE2E3KY222MA2BM01F	MuRata	CAP, CERM, 2200 pF, X1 250 VAC/Y2 250 VAC, +/- 20%, E, 6x5mm	6x5mm
13	C34	1	0.47uF	8.90324E+11	Würth Elektronik	CAP, Film, 0.47 uF, 275 V, +/- 10%, TH	15x10mm
14	C35	1	20pF	GRM1885C1H200JA01D	MuRata	CAP, CERM, 20 pF, 50 V, +/- 5%, COG/NP0, 0603	0603
15	C36, C43, C45, C53, C58, C61, C63, C74, C75, C76, C81, C82, C84	13	0.1uF	GRM188R71H104KA57D	MuRata	CAP, CERM, 0.1 uF, 50 V, +/- 10%, X7R, 0603	0603
16	C37	1	0.33uF	GRM218R71H334KA88D	MuRata	CAP, CERM, 0.33 uF, 50 V, +/- 10%, X7R, 0805	0805
17	C38	1	180uF	8.61141E+11	Würth Elektronik	CAP, AL, 180 uF, 450 V, +/- 20%, TH	Di4 35mm
18	C39	1	0.1uF	8.90324E+11	Würth Elektronik	CAP, Film, 0.1 uF, 275 V, +/- 10%, TH	18x6mm
19	C41	1	100uF	352LJ100M6.3X11	Rubycon	CAP, AL, 100 uF, 35 V, +/- 20%, TH	D6 3x1.1mm
20	C42	1	10uF	8.60241E+11	Würth Electronics	10 uF 400 V Aluminum Electrolytic Capacitors Radial, Can 10000 Hrs @ 105°C	RADIAL
21	C44	1	10uF	GRM319R6YA106KA12D	MuRata	CAP, CERM, 10 uF, 35 V, +/- 10%, X5R, 1206	1206
22	C46, C47, C48, C50, C51, C52	6	10uF	GRM31CR71E106KA12L	MuRata	CAP, CERM, 10 uF, 25 V, +/- 10%, X7R, 1206	1206
23	C48, C79	2	100pF	GRM1885C1H101JA01D	MuRata	CAP, CERM, 100 pF, 50 V, +/- 5%, COG/NP0, 0603	0603
24	C56, C70, C71, C73	4	0.047uF	GRM188R71H473KA61D	MuRata	CAP, CERM, 0.047 uF, 50 V, +/- 10%, X7R, 0603	0603
25	C59	1	0.47uF	ECW-FD2W474Q1	Panasonic	CAP, Film, 0.47 uF, 450 V, +/- 10%, TH	12.6x6.5x12.7mm
26	C64, C65, C66, C67, C68, C69	6	220pF	GRM188R71H221KA01D	MuRata	CAP, CERM, 220 pF, 50 V, +/- 10%, X7R, 0603	0603
27	D1, D2	2	Red	LTST-C193KRKT-5A	Lite-On	LED, Red, SMD	1.6x0.8mm
28	D3, D12	2	30V	BAT5411G	ON Semiconductor	Diode, Schottky, 30 V, 0.2 A, SOD-123	SOD-123
29	D4, D7	2	1000V	US1M-13-F	Diodes Inc.	Diode, Ultrafast, 1000 V, 1 A, SMA	SMA
30	D5	1		GBU8J	Diotec	Bridge Rectifier Single Phase Standard 600 V Through Hole GBU	SIP4
31	D6, D8, D9, D10, D11	5	18V	MMSZ548BS-7-F	Diodes Inc.	Diode, Zener, 18 V, 200 mW, SOD-323	SOD-323
32	F1	1		021500R-HXP	Littelfuse Inc	Fuse Miniature Slow Blow Acting 8A 250V Holder Cartridge 5 X 20mm Ceramic Bulk	FUSE-CARTRIDGE
33	J1, J12	2		PBC07SAAN	Sullins Connector Solutions	Header, 2.54 mm, 7x1, Gold, TH	Header, 2.54 mm, 7x1, TH
34	J2, J3, J13, J19	4		MTMM-110-06-T-S-118	Samtec	Variable Post Height Header Strips, 2.00 mm Pitch, 10pos	HDR10
35	J4, J20	2		MTMM-109-06-T-S-118	Samtec	Variable Post Height Header Strips, 2.00 mm Pitch, 10pos	HDR9
36	J5	1		1-1318301-1	TE Connectivity	Polarized Header, 7.92 mm, 2x1, Tin, TH	TH Header
37	J7	1		63824-1	TE Connectivity	Header, 7.92 mm, 2x1, Tin, TH	CONN_7MM92_3MM11
38	J8	1		70543-0038	Molex	Header(shrouded), 2.54mm, 4x1, Tin, TH	Header(shrouded), 2.54mm, 4x1, TH
39	J10	1		1-1318301-3	TE Connectivity	Header, 312mil, 3x1, Tin, TH	19.7x10.7x8.5 mm
40	J14	1		840456-2	TE Connectivity	Header, 2.54mm, 2x1, Tin, TH	Header, 2.54mm, 2x1, TH
41	J15	1		PPPC071LFBN-RC	Sullins Connector Solutions	Receptacle, 2.54mm, 7x1, Gold, TH	Receptacle, 2.54mm, 7x1, TH
42	J16, J17	2		SQT-110-01-F-S	Samtec	Connector Socket Strip SKT 10 POS 2mm Solder ST Thru-Hole Tube	CONN_RCPT10
43	J18	1		SQT-109-01-F-S	Samtec	Connector Socket Strip SKT 9 POS 2mm Solder ST Thru-Hole Tube	CONN_RCPT9
44	K1	1		G5Q-144-EU DC12	Omron	Electromechanical Relay SPST-NO 5(NO)/3(NC)ADC10(NO)/3(NC)AAC12/DC 720Ohm Through Hole	PTH_RELAY_20MM10MM0
45	L2	1	7mH	7448040707	Würth Elektronik	Coupled inductor, 7 mH, 7 A, 0.02 ohm, TH	19x28mm
46	L3	1	1.8mH	768772182	Würth Elektronik	Inductor, Shielded Drum Core, Metal Composite, 1.8 mH, 0.35 A, 2.7 ohm, TH	Di4 8x10mm
47	L4	1	6.8uH	7843835068	Würth Elektronik	Inductor, Shielded, Powdered Iron, 6.8 uH, 1.1 A, 0.287 ohm, AEC-Q200 Grade 1 SMD	SMD, 2-Leads, Body 3x3mm
48	L5	1	10 ohm	782423100	Würth Elektronik	Ferrite Bead, 10 ohm @ 100 MHz, 1.5 A, 0402	0402
49	Q1	1	60V	2N7002P.215	Nexperia	MOSFET, N-CH, 60 V, 0.36 A, SOT-23	SOT-23
50	R2, R21, R84	3	1.00k	RC0402FR-0710KL	Yageo America	RES, 1.00 k, 1%, 0.0625 W, 0402	0402
51	R3, R4, R5, R6, R7, R18, R19, R20, R29, R35, R86, R89, R96, R111	14	10.0k	RC0402FR-0710KL	Yageo America	RES, 10.0 k, 1%, 0.063 W, 0402	0402
52	R8, R55, R65, R88, R97, R98	6	20	RC0603FR-0720RL	Yageo	RES, 20.0, 1%, 0.1 W, 0603	0603
53	R9, R10, R11, R15, R16, R17, R26, R27, R33, R34, R90, R91	12	2.40k	ERJ-2RKF2401X	Panasonic	RES, 2.40 k, 1%, 0.1 W, AEC-Q200 Grade 0, 0402	0402
54	R12, R13, R14, R25, R110	5	100	RC0402FR-07100RL	Yageo America	RES, 100, 1%, 0.063 W, 0402	0402
55	R22, R24, R28, R30, R31, R32	6	20.0k	CRCW040220K0FKED	Vishay-Dale	RES, 20.0 k, 1%, 0.063 W, AEC-Q200 Grade 0, 0402	0402
56	R36, R77, R93, R94, R108	5	1.00k	RC0603FR-0710KL	Yageo	RES, 1.00 k, 1%, 0.1 W, 0603	0603
57	R37	1	180	RC1210FR-07180RL	Yageo	RES, 180, 1%, 0.5 W, 1210	1210
58	R38, R43, R78, R100, R101, R102, R103	7	10.0k	RC0603FR-0710KL	Yageo	RES, 10.0 k, 1%, 0.1 W, 0603	0603
59	R39	1	700	B5770C0120A070	TDK	PTC Thermistor 70 Ohms Disc, 13mm Dia x 7.5mm W	RADIAL
60	R40, R52	2	133k	RC0603FR-07133KL	Yageo	RES, 133 k, 1%, 0.1 W, 0603	0603
61	R41, R44, R45	3	100k	RC1206FR-07100KL	Yageo America	RES, 100 k, 1%, 0.25 W, 1206	1206
62	R42	1		isoM3-275-B-L2	Bourns	3 kA Varistor 1 Circuit Through Hole Disc 13.2mm	RADIAL
63	R46, R107, R109	3	20.0k	RC0603FR-0720KL	Yageo	RES, 20.0 k, 1%, 0.1 W, 0603	0603
64	R47, R48, R54, R62, R63, R64, R67, R68, R69, R70, R71, R72	12	332k	RC1206FR-07332KL	Yageo America	RES, 332 k, 1%, 0.25 W, 1206	1206
65	R49	1	1.50Meg	RC0603FR-071M5L	Yageo	RES, 1.50 M, 1%, 0.1 W, 0603	0603
66	R50	1	100k	RC0603FR-07100KL	Yageo	RES, 100 k, 1%, 0.1 W, 0603	0603
67	R53	1	13.7k	RC0603FR-0713K7L	Yageo	RES, 13.7 k, 1%, 0.1 W, 0603	0603
68	R57, R74, R75, R76	4	8.20k	RC0603FR-078K2L	Yageo	RES, 8.20 k, 1%, 0.1 W, 0603	0603
69	R58, R59, R60, R61, R65, R66, R79, R92, R95, R106	10	100	RC0603FR-07100RL	Yageo	RES, 100, 1%, 0.1 W, 0603	0603
70	R73	1	0	RC0603JR-070RL	Yageo	RES, 0, 5%, 0.1 W, 0603	0603
71	R80, R81, R82	3	0.05	CSRN2512F250L0	Stackpole Electronics Inc	RES, 0.05, 1%, 2 W, 2512	2512
72	R83	1	5.10k	RC0603FR-075K1L	Yageo	RES, 5.10 k, 1%, 0.1 W, 0603	0603
73	R87, R104, R105	3	300	RC0603FR-07300RL	Yageo	RES, 300, 1%, 0.1 W, 0603	0603
74	R11	1		TMP6131DECR	Texas Instruments	Thermistor, DECO002A (X1SON-2)	DECO002A
75	TP6, TP7, TP8, TP9, TP10, TP11	6		5015	Keystone Electronics	Test Point, Miniature, SMT	Testpoint_Keystone_Miniature
76	U1	1		F280013PPT	Texas Instruments	Real-Time Microcontrollers	LOFP48
77	U2, U9	2		TLV9082DGKR	Texas Instruments	10-MHz, Low-Noise, RRIO, CMOS Operational Amplifier for Cost-Sensitive Systems, DGK0008A (VSSOP-8)	DGK0008A
78	U3	1		MSPM0G1506SPT	Texas Instruments	MSPM0C 64k Flash 32k RAM 48pin LQFP	LQFP
79	U4	1		UCC28881DR	Texas Instruments	700-V Lowest Quiescent Current Off-Line Switcher, D0007A (SOIC-7)	D0007A
80	U5	1		TPS54202DDCR	Texas Instruments	4.5V to 28V Input, 2A Output, EMI Friendly Synchronous Step-Down Converter, DDC0068A (SOT-23-THN-6)	DDC0068A
81	U6	1		TLV7403PDBVR	Texas Instruments	300-mA low-dropout (LDO) regulator with foldback current limit 5-SOT23-40 to 125	SOT23-5
82	U7	1		SLIMDIP-M	Mitsubishi Electric	RC-IGBT inverter bridge for three phase DC-to-AC power conversion	SLIMDIP
83	U8	1		ISO6721BODRQ1	Texas Instruments	Low Speed, General Purpose, Robust EMC, Dual-Channel Digital Isolators	SOIC8
84	U10	1		LMV331QDBVRQ1	Texas Instruments	GENERAL-PURPOSE LOW-VOLTAGE COMPARATOR, DBV0005A (SOT-23-5)	DBV0005A
85	XF1, XF2	2	10A	010000662	Littelfuse	Fuse Holder, 10A, TH	Fuse Holder, 4.5x10.6x5.94mm
86	Y1	1		8.30108E+11	Würth Electronics	20 MHz ±10ppm Crystal 8pF 50 Ohms 4-SMD, No Lead	SMT_CRYSTAL_3M M2_2MM5
87	FID1, FID2, FID3, FID4, FID5, FID6	0	N/A	N/A	N/A	Fiducial mark. There is nothing to buy or mount.	N/A
88	LBL1	0		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
89	MP1, MP2, MP3, MP4	0		970130365	Würth Electronics		SPCAER_M3
90	R1, R23	0	100k	RG1005P-104-B-T5	Susumu Co Ltd	RES, 100 k, 0.1%, 0.063 W, 0402	0402
91	R51	0	0	RC0603JR-070RL	Yageo	RES, 0, 5%, 0.1 W, 0603	0603
92	R56	0	20.0k	RC0603FR-0720KL	Yageo	RES, 20.0 k, 1%, 0.1 W, 0603	0603
93	R99	0	10.0k	RC0402FR-0710KL	Yageo America	RES, 10.0 k, 1%, 0.063 W, 0402	0402

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