

TIDA-010935 REV E1 Bill of Materials

Item #	Designator	Quantity	Value	PartNumber	Manufacturer	Description	PackageReference
1	PCB1	1		TIDA-010935	Any	Printed Circuit Board	
2	AUX_Supply, J2, J3	3		ED120/2DS	On-Shore Technology	Terminal Block, 5.08 mm, 2x1, Brass, TH	2x1 5.08 mm Terminal Block
3	C1, C21	2	22uF	GRT21BR61E226ME13L	MuRata	CAP, CERM, 22 uF, 25 V, +/- 20%, X5R, AEC-Q200 Grade 3, 0805	0805
4	C2, C3, C4, C8, C11, C18, C35	7	0.1uF	08053C104KAT2A	AVX	CAP, CERM, 0.1 uF, 25 V, +/- 10%, X7R, 0805	0805
5	C5	1	1000pF	C0603C102F3GACTU	Kemet	CAP, CERM, 1000 pF, 25 V, +/- 1%, COG/NPO, 0603	0603
6	C6	1	33pF	C0805C330J5GACTU	Kemet	CAP, CERM, 33 pF, 50 V, +/- 5%, COG/NPO, 0805	0805
7	C7	1	15pF	04025A150FAT2A	AVX	CAP, CERM, 15 pF, 50 V, +/- 1%, COG/NPO, 0402	0402
8	C9	1	10uF	C3216X5R1H106K160AB	TDK	CAP, CERM, 10 uF, 50 V, +/- 10%, X5R, 1206	1206
9	C10	1	1nF	CGA3E2NP01H102J080AA	TDK	Cap Ceramic 1nF 50V NPO 5% Pad SMD 0603 +150°C Automotive T/R	0603
10	C12, C16, C24, C30	4	0.01uF	8.85012E+11	Würth Elektronik	CAP, CERM, 0.01 uF, 50 V, +/- 10%, X7R, 0603	0603
11	C13, C14	2	3300pF	8.85012E+11	Würth Elektronik	CAP, CERM, 3300 pF, 50 V, +/- 10%, X7R, 0603	0603
12	C15	1	2200pF	C0603C222K5RAC	Kemet	CAP, CERM, 2200 pF, 50 V, +/- 10%, X7R, 0603	0603
13	C17, C19	2	470pF	GRM188R72A471KA01D	MuRata	CAP, CERM, 470 pF, 100 V, +/- 10%, X7R, 0603	0603
14	C20	1	2.2uF	CGA5L3X7S2A225K160AB	TDK	CAP, CERM, 2.2 uF, 100 V, +/- 10%, X7S, AEC-Q200 Grade 1, 1206	1206
15	C22	1	1uF	CGA6M2X7R2A105K200AA	TDK	CAP, CERM, 1 uF, 100 V, +/- 10%, X7R, AEC-Q200 Grade 1, 1210	1210
16	C23, C27	2	100pF	8.85012E+11	Würth Elektronik	CAP, CERM, 100 pF, 50 V, +/- 5%, COG/NPO, 0805	0805
17	C25, C26	2	100pF	CBR06C101F5GAC	Kemet	CAP, CERM, 100 pF, 50 V, +/- 1%, COG/NPO, 0603	0603
18	C28, C33	2	0.1uF	06033D104KAT2A	AVX	CAP, CERM, 0.1 uF, 25 V, +/- 10%, X5R, 0603	0603
19	C29	1	15uF	C1608X5R1A156M080AC	TDK	CAP, CERM, 15 uF, 10 V, +/- 20%, X5R, 0603	0603
20	C31, C34	2	22pF	GRM1885C1H220JA01D	MuRata	CAP, CERM, 22 pF, 50 V, +/- 5%, COG/NPO, 0603	0603
21	C32	1	4.7uF	GRM188R61E475KE15D	Murata	4.7uF ±10% 25V Ceramic Capacitor X5R 0603 (1608 Metric)	0603
22	CA1, CB1	2	10uF	C3216X5S2A106K160AC	TDK	10 uF ±10% 100V Ceramic Capacitor X6S 1206 (3216 Metric)	1206
23	D1	1	24V	SMAJ24A	Littelfuse	Diode, TVS, Uni, 24 V, 38.9 Vc, 400 W, 10.3 A, SMA	SMA
24	D2, D3, D5, D6, D7, D8, D9, D10, D12, D13, D14, D15	12	40V	SD103AWS-TP	Micro Commercial Component	Diode, Schottky, 40 V, 0.35 A, SOD-323	SOD-323
25	D4	1	22V	SMAJ22CA	Littelfuse	Diode, TVS, Bi, 22 V, 35.5 Vc, 400 W, 11.3 A, SMA (non-polarized)	SMA (non-polarized)
26	D11	1	33V	SMBJ33CA-13-F	Diodes Inc.	Diode, TVS, Bi, 33 V, SMB	SMB
27	D FLT, D PWR	2	Red	150060RS75000	Würth Elektronik	LED, Red, SMD	LED_0603
28	D mode	1	Blue	150060BS75000	Würth Elektronik	LED, Blue, SMD	LED_0603
29	J4	1		M22-2510205	Harwin	Header, 2mm, 2x1, Gold, Black, TH	Header, 2mm, 2x1, TH
30	J5, J6	2		SSQ-110-03-T-D	Samtec	Receptacle, 2.54mm, 10x2, Tin, TH	10x2 Receptacle
31	L1	1		LQM2MPN1R0MEHL	Murata	FIXED IND 1uH 1.65A 119 MOHM SMD	0806
32	L2, L3	2	470uH	LB2518T471K	Taiyo Yuden	SMD Inductors 470uH ±10% 0.025A 13Q 1007	1007
33	L4	1	150uH	7447714151	Würth Elektronik	Inductor, Shielded Drum Core, Ferrite, 150 uH, 1.2 A, 0.251 ohm, SMD	SMD
34	L5, L6	2	220uH	LB2518T221K	Taiyo Yuden	SMD Inductors 220uH ±10% 0.04A 5.85Q 1007	1007
35	L7, L8, L10, L11	4	47uH	74404024470	Würth Elektronik	Inductor, 47 uH, 0.33 A, 1.7 ohm, SMD	Inductor, 2.5x2.2mm, SMT
36	L9	1	18uH	SRN3015-180M	Bourns	Inductor, Drum Core, Ferrite, 18 uH, 0.62 A, 0.546 ohm, SMD	Inductor, 3x1.5x2mm
37	L12	1	10uH	74437324100	Würth Elektronik	Inductor, Shielded Drum Core, Powdered Iron, 10 uH, 1.5 A, 0.215 ohm, SMD	4.45x1.8x4.06mm
38	R1, R2, R3	3	1.00k	ERJ-2RKF1001X	Panasonic	RES, 1.00 k, 1%, 0.1 W, 0402	0402
39	R4, R7	2	15.0k	CRCW0603150KFKEA	Vishay-Dale	RES, 15.0 k, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
40	R6, R16	2	1.24k	CRCW04021K24FKED	Vishay-Dale	RES, 1.24 k, 1%, 0.063 W, AEC-Q200 Grade 0, 0402	0402
41	R9	1	274	RC1206FR-07274RL	Yageo America	RES, 274, 1%, 0.25 W, 1206	1206
42	R10, R11, R19, R20	4	100k	CRCW0603100KFKEA	Vishay-Dale	RES, 100 k, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
43	R12, R14	2	10.0k	RMCF0402FT10K0	Stackpole Electronics Inc	RES, 10.0 k, 1%, 0.063 W, AEC-Q200 Grade 0, 0402	0402
44	R13, R17	2	24.9	ERJ-2RKF24R9X	Panasonic	RES, 24.9, 1%, 0.1 W, AEC-Q200 Grade 0, 0402	0402
45	R15	1	4.7k	ERJ-H2GJ472X	Panasonic	4.7 kOhms ±5% 0.1W, 1/10W Chip Resistor 0402 (1005 Metric) Automotive AEC-Q200 Thick Film	0402
46	R18	1	2k	AC0603FR-102KL	YAGEO	2 kOhms ±1% 0.1W, 1/10W Chip Resistor 0603 (1608 Metric) Thick Film	0603
47	R21	1	1.00k	CRCW0603100KFKEA	Vishay-Dale	RES, 1.00 k, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
48	R22	1	76.8k	CRCW0603768KFKEA	Vishay-Dale	RES, 76.8 k, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
49	R23	1	19.1k	RC0603FR-0719K1L	Yageo	RES, 19.1 k, 1%, 0.1 W, 0603	0603
50	R24	1	4.42k	CRCW06034K42FKEA	Vishay-Dale	RES, 4.42 k, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
51	R25	1	1.50k	RC0603FR-071K5L	Yageo	RES, 1.50 k, 1%, 0.1 W, 0603	0603
52	R26	1	1k	AC0603FR-071KL	Yageo	1 kOhms ±1% 0.1W, 1/10W Chip Resistor 0603 (1608 Metric) Automotive AEC-Q200, Moisture Resistant Thick Film	0603
53	R28	1	1.15Meg	CRCW04021M15FKED	Vishay-Dale	RES, 1.15 M, 1%, 0.063 W, AEC-Q200 Grade 0, 0402	0402
54	R29	1	1.00Meg	CRCW04021M00FKED	Vishay-Dale	RES, 1.00 M, 1%, 0.063 W, AEC-Q200 Grade 0, 0402	0402
55	R30	1	1.5k	RC0603JR-071K5L	Yageo	RES, 1.5 k, 5%, 0.1 W, 0603	0603
56	R31	1	448k	RT0603BRD07448KL	Yageo America	RES, 448 k, 0.1%, 0.1 W, 0603	0603
57	R32	1	82.5k	CRCW0402825FKED	Vishay-Dale	RES, 82.5 k, 1%, 0.063 W, AEC-Q200 Grade 0, 0402	0402
58	R34	1	124k	CRCW0402124FKED	Vishay-Dale	RES, 124 k, 1%, 0.063 W, AEC-Q200 Grade 0, 0402	0402
59	R35	1	49.9k	MCR01MZPF4992	Rohm	RES, 49.9 k, 1%, 0.063 W, 0402	0402
60	R36, R41	2	4.7	ERJ-6GEYJ4R7V	Panasonic	RES, 4.7, 5%, 0.125 W, AEC-Q200 Grade 0, 0805	0805
61	R37	1	100k	RC1005F104CS	Samsung Electro-Mechanics	RES, 100 k, 1%, 0.063 W, 0402	0402
62	R38	1	30.1k	CRCW040230K1FKED	Vishay-Dale	RES, 30.1 k, 1%, 0.063 W, AEC-Q200 Grade 0, 0402	0402
63	R42	1	3.9k	RC0603JR-073K9L	Yageo	RES, 3.9 k, 5%, 0.1 W, 0603	0603
64	Rlim1	1	11.8k	ERJ-8ENF1182V	Panasonic	RES, 11.8 k, 1%, 0.25 W, AEC-Q200 Grade 0, 1206	1206
65	T1	1		TT1-6-KK81+	Minicircuits	RF Transformer, 50ohm, 0.004 to 300 MHz, SMT	7.62x6.86mm
66	TP_A, TP_D1, TP_D2, TP_D3, TP_D4, TP_FL, TP_RX	7		5126	Keystone Electronics	Test Point, Multipurpose, Green, TH	Green Multipurpose Testpoint
67	U1	1		TPS26624DRCR	Texas Instruments	60-V, 800-mA Industrial eFuse with Integrated Reverse Polarity Protection, DRC0010J (VSON-10)	DRC0010J
68	U2	1		LM5164QDDARQ1	Texas Instruments	100-V Low IQ Synchronous Buck Regulator, DDA0008E (SOIC-8)	DDA0008E
69	U3	1		TPS560430X3FDBVR	Texas Instruments	4V to 36 V Fixed 3.3 V, 0.6 A Synchronous Step-Down Converter, DBV0006A (SOT-23-6)	DBV0006A
70	U4, U7	2			Texas Instruments	,4:1, General Purpose Analog Multiplexer	VSSOP10
71	U5	1		THVD8000DDF	Texas Instruments	RS-485 Transceiver with OOK Modulation for Power Line Communication	SOT-23
72	U6	1		THS6222IRGTR	Texas Instruments	8 V to 32 V, Differential HPLC Line Driver with Common-Mode Buffer	VQFN16
73	FID1, FID2, FID3	0		NA	NA	Fiducial mark. There is nothing to buy or mount.	NA
74	J1	0		M22-2510205	Harwin	Header, 2mm, 2x1, Gold, Black, TH	Header, 2mm, 2x1, TH
75	R5, R8	0	249	RC0603FR-07249RL	Yageo	RES, 249, 1%, 0.1 W, 0603	0603
76	R27, R33, R40, R43	0	3.00k	RC0603FR-073KL	Yageo	RES, 3.00 k, 1%, 0.1 W, 0603	0603
77	R-term1	0	120	CRCW0603120RJNEA	Vishay-Dale	RES, 120, 5%, 0.1 W, AEC-Q200 Grade 0, 0603	0603

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