

TIDA-010940 REV E2 Bill of Materials

Item #	Designator	Quantity	Value	PartNumber	Manufacturer	Description	PackageReference
1	PCB	1		TIDA-010940	Any	Printed Circuit Board	
2	C1, C3	2	1µF	GMC04X7R105K10NT	Cal-Chip Electronics	1µF ±10% 10V Ceramic Capacitor X7R 0402 (1005 Metric)	402
3	C2, C10	2	0.1µF	GRM155R71E104KE14D	MuRata	CAP. CERM. 0.1 µF, 25 V, +/- 10%, X7R, 0402	402
4	C4, C5	2	22µF	GRM1555C1H220JA01D	MuRata	CAP. CERM. 22 µF, 50 V, +/- 5%, COG/NPO, 0402	402
5	C6, C67	2	15µF	GRM1555C1H150JA01D	MuRata	CAP. CERM. 15 µF, 50 V, +/- 5%, COG/NPO, 0402	402
6	C7, C8	2	100µF	0402YC101KAT2A	AVX	CAP. CERM. 100 µF, 16 V, +/- 10%, X7R, 0402	402
7	C9, C62, C68	3	0.47µF	GRM155R61C474KE01	MuRata	CAP. CERM. 0.47 µF, 16 V, +/- 10%, X5R, 0402	402
8	C29, C30, C34, C38, C54	5	0.033µF	GRM188R71C333KA01D	MuRata	CAP. CERM. 0.033 µF, 16 V, +/- 10%, X7R, 0603	603
9	C31	1	0.1µF	06035C104KAT2A	AVX	CAP. CERM. 0.1 µF, 50 V, +/- 10%, X7R, 0603	603
10	C63	1	4700µF	CO603C4721GAC7867	Kemet	CAP. CERM. 4700 µF, 100 V, +/- 5%, COG/NPO, 0603	603
11	C57	1	0.22µF	CL05B224K05NNNC	Samsung Electro-Mechanics	CAP. CERM. 0.22 µF, 16 V, +/- 10%, X7R, 0402	402
12	C63	1	10µF	GRM155R61A106ME11D	MuRata	CAP. CERM. 10 µF, 10 V, +/- 20%, X5R, 0402	402
13	C64	1	1µF	GRM155R61E105KE11D	MuRata	CAP. CERM. 1 µF, 25 V, +/- 10%, X5R, 0402	402
14	C66	1	1000µF	GRM155R61A102KA01D	MuRata	CAP. CERM. 1000 µF, 10 V, +/- 10%, X5R, 0402	402
15	C80, C81	2	0.1µF	CO603104K3RACTU	Kemet	CAP. CERM. 0.1 µF, 25 V, +/- 10%, X7R, 0603	603
16	C84, C85	2	10µF	CGA3E2C0G1H100D080AA	TDK	CAP. CERM. 10 µF, 50 V, +/- 5%, COG/NPO, AEC-Q200 Grade 1, 0603	603
17	C86	1	0.1µF	CGA3E2XR1E1D4K080AA	TDK	CAP. CERM. 0.1 µF, 25 V, +/- 10%, X6R, AEC-Q200 Grade 0, 0603	603
18	D1, D2	2	Bright Green	160800V575000	Würth Elektronik	LED, Bright Green, SMD	LED_0805
19	D4, D9	2		VSMY2853SLX01	Vishay	IR Emitter High Speed 850nm 50mW/sr 100mA 1.9V 2-Pin SMD T/R	SMT_LED_2MM30_2MM55
20	DS2	1		VIM-878-DP-RC-S-LV	Varitronix	Character Display Module Reflective 14-Segment TN - Twisted Nematic Without Backlight 52.00mm x 22.00mm x 2.80mm	PTH_DS_52MM0_22MM0
21	FID1, FID2, FID3	3	N/A	N/A	N/A	Fiducial mark. There is nothing to buy or mount.	N/A
22	H1, H2	2		3.5 MM HOLE	Any	3.5 mm PCB Hole	3.5mm PCB Hole
23	J1	1		FTSH-105-01-L-DV-K	Samtec	Header(Shrouded), 1.27mm, 5x2, Gold, SMT	Header(Shrouded), 1.27mm, 5x2, SMT
24	J1, J10	2		MTMM-105-15-L-D-150	Samtec	Header, 2mm, 5x2, Gold, TH	Header, 2mm, 5x2, TH
25	J2	1		6.91217E+11	Würth Electronics	2 Position Wire to Board Terminal Block Horizontal with Board 0.400" (10.16mm) Through Hole	TERM_BLK_2
26	J2, J3, J7, J8	4		M22-2511205	Harwin	Header, 2mm, 12x1, Gold, TH	Header, 2mm, 12x1, TH
27	J3, J12	2		61000218321	Würth Elektronik	Header, 2.54mm, 2x1, Gold, SMT	Header, 2.54mm, 2x1, SMT
28	J4	1		M50-3630242	Harwin	Header, 1.27mm, 2x1, Gold with Tin tail, SMT	Header, 1.27mm, 2x1, SMT
29	J4, J20	2		PTT-103-01-L-S	Samtec	Header, 2mm, 3x1, Gold, TH	Header, 2mm, 3x1, TH
30	J5, J6	2		61300111121	Würth Elektronik	Header, 2.54 mm, 1x1, Gold, TH	Header, 2.54 mm, 1x1, TH
31	J11	1		TMM-102-01-F-S	Samtec	Header, 2mm, 2x1, Gold, TH	Header, 2mm, 2x1, TH
32	J14	1		2R2841-2	TE Connectivity	Terminal Block, 2x1, 5.08mm, TH	10.16x15.2x9mm
33	J15	1		OSTVN04A150	On-Shore Technology	Terminal Block, 2.54mm, 4x1, Brass, TH	Terminal Block, 2.54mm, 4-pole, TH
34	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
35	MP1, MP2, MP3, MP4	4		SJ5076	3M	Bumper Cylindrical, Flat Top 0.315" Dia (Ø.00mm) Polyurethane Black	BUMPER_CYLIN
36	Q1	1	30 V	BC84CLT1G	GN Semiconductor	Transistor, NPN, 30 V, 0.1 A, SOT-23	SOT-23
37	R1	1	220k	RC0402FR-07220KL	Yageo America	RES, 220 k, 1%, 0.0625 W, 0402	402
38	R2	1	100k	RG1005P-104-B-T5	Susumu Co Ltd	RES, 100 k, 0.1%, 0.063 W, 0402	402
39	R3	1		B72214S2461K101	TDK	Var MOV 460VAC/615VDC 5000A 750V Thru-Hole Radial Bulk	RADIAL
40	R4, R6, R7, R74, R81	5	0	ERJ3GEYR00V	Panasonic	RES, 0, 5%, 0.1 W, AEC-Q200 Grade 0, 0603	603
41	R5, R9	2	10.0k	ERJ2RF1002X	Panasonic	RES, 10.0 k, 1%, 0.1 W, 0402	402
42	R10, R11	2	2.20k	RC0402FR-07220KL	Yageo America	RES, 2.20 k, 1%, 0.063 W, 0402	402
43	R12, R13	2	4.7Meg	CRCW04024M70JNED	Vishay-Dale	RES, 4.7 M, 5%, 0.063 W, AEC-Q200 Grade 0, 0402	402
44	R14	1	1.0k	CRCW04021K00JNED	Vishay-Dale	RES, 1.0 k, 5%, 0.063 W, AEC-Q200 Grade 0, 0402	402
45	R15	1	0.6µ	CR0402-10W-000T	Venkel	0 Ohms Jumper 0.1W, 1/10W Chip Resistor 0402 (1005 Metric) - Thick Film	402
46	R16	1	8.06k	ERA-2ARB8061X	Panasonic	8.06 kOhms ±0.1% 0.063W, 1/16W Chip Resistor 0402 (1005 Metric) Automotive AEC-Q200 Thin Film	402
47	R17	1	820	RC0402FR-07820RL	Yageo America	RES, 820, 1%, 0.063 W, 0402	402
48	R18, R86, R87	3	1.00k	RC0402FR-071KL	Yageo America	RES, 1.00 k, 1%, 0.0625 W, 0402	402
49	R19	1	220	ERJ2RF2200X	Panasonic	RES, 220, 1%, 0.1 W, AEC-Q200 Grade 0, 0402	402
50	R20	1	820	CRCW0402820R_JNED	Vishay-Dale	RES, 820, 5%, 0.063 W, AEC-Q200 Grade 0, 0402	402
51	R21, R22, R23, R28, R29, R30	6	330k	TNPV1206330KBEEEN	Vishay Draloric	RES, 330 k, 0.1%, 1 W, 1206	1206
52	R24	1	470	AC05000004700JAC00	Vishay-Bcomponents	RES, 470, 5%, 5 W, AEC-Q200 Grade 0, Dia 7.5mm	Dia 7.5mm
53	R25, R26, R27	3	0	S113	Keystone Electronics	0 Ohms Jumper Chip Resistor 0402 (1005 Metric) Metal Element	402
54	R31, R36	2	0	PMR18E2P3000	Rohm Semiconductor	0 Ohms Jumper 1W Chip Resistor 1206 (3216 Metric) Automotive AEC-Q200, Current Sense Thick Film	1206
55	R32, R33, R34, R35	4	1.00k	RC0603FR-071KL	Yageo	RES, 1.00 k, 1%, 0.1 W, 0603	603
56	R37, R38	2	0	RC0805FR-070RL	Yageo	RES SMD 0 OHM JUMPER 1/8W 0805	805
57	R46, R54	2	100k	CRCW0603100K_JNEA	Vishay-Dale	RES, 100 k, 5%, 0.1 W, AEC-Q200 Grade 0, 0603	603
58	R52, R55	2	4.7k	CRCW06034K70_JNEA	Vishay-Dale	RES, 4.7 k, 5%, 0.1 W, AEC-Q200 Grade 0, 0603	603
59	R56	1	120	RT0603DRE07120RL	Yageo America	RES, 120, 0.5%, 0.1 W, 0603	603
60	R88	1	47k	CRCW040247K0JNED	Vishay-Dale	RES, 47 k, 5%, 0.063 W, AEC-Q200 Grade 0, 0402	402
61	SW1, SW2, SW3	3		TL1105DF250Q	E-Switch	Switch Tactile N.O. SPST Round Button PC Pins 0.05A 50VDC 2.45N Thru-Hole	PTH_SW_6MM0_6MM0
62	TP1	1		3154-0-00-15-00-00-03-0	Mill-Max	PCB Pin, 0.46 Dia, Gold, TH	PCB Pin, 0.46 Dia, TH
63	U1	1		DRV5032ZE2DB2R	Texas Instruments	Ultra-Low Power 1.65V to 5.5V Hall Effect Switch Sensor, DB2003A (SOT-23-3)	DB2003A
64	U2	1		MSPM0L2228TPN	Texas Instruments	MSPM0L2228TPN	LQFP80
65	U3	1		THVD1400D	Texas Instruments	500 kbps RS-485 Transceivers With ±8-kV IEC ESD Protection	SOIC8
66	U4	1		W25Q64BV-SN6Q	Winbond	3V 32-Kbit SPI Flash Memory With Dual Quad SPI, SOIC-8	SOIC-8
67	U6	1		ADS131M03IPWR	Texas Instruments	3-Channel 24-Bit, Simultaneously-Sampling, Delta-Sigma ADC, PW0020A (TSSOP-20)	PW0020A
68	U7	1		TPD2E007DCKR	Texas Instruments	ESD Protection Array for AC Signal Data Interface, 2 Channels, -40 to +85 degC, 3-pin SC70 (DCK), Green (RoHS & no Sb/Br)	DCK0003A
69	U11	1		IS6731DWR	Texas Instruments		SOIC16
70	Y1	1		FA238 16.384MB-K	Epson	Crystal, 16.384 MHz, 50 ppm, 10 µF, SMD	3.2x2.5mm
71	Y2	1		X1A001410014	Epson	Crystal, 32.768 KHz, 12.5 µF, SMD	SMD, 2-Leads, Body 3.2x1.5mm
72	D3, D5, D13	0	30V	BAT54HT1G	ON Semiconductor	Diode, Schottky, 30 V, 0.2 A, SOD-323	SOD-323
73	D6, D7, D8, D10, D12, D14, D15, D16	0	70V	BAV199-TP	Micro Commercial Component	Diode, Switching, 70 V, 0.215 A, SOT-23	SOT-23
74	DS1	0		GDH-1638WP	Xiamen Ocular Optics	GDH-1638WP	PTH_DS_43MM0_17MM6

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