

TIDA-010036 REV E1 Bill of Materials

Item #	Designator	Quantity	Value	PartNumber	Manufacturer	Description	PackageReference
1	PCB1	1		TIDA-010036	Any	Printed Circuit Board	
2	C1	1	1uF	0805C105KAT2A	AVX	CAP. CERM. 1 uF, 50 V, +/-10%, X7R, 0805	0805
3	C2	1	2.2uF	C2012X7R1H22K125AC	TDK	CAP. CERM. 2.2 uF, 50 V, +/-10%, X7R, 0805	0805
4	C3	1	150uF	FK25X50ELL151MJC25	Chem-Con	CAP. AL. 150 uF, 50 V, +/-20%, TH	TH, 2-Leads, Body 10x12.5mm, Pin Spacing 5mm
5	C4	1	47uF	GRM21BR61A47ME15L	MuRata	CAP. CERM. 47 uF, 10 V, +/-20%, X5R, 0805	0805
6	C5	1	1uF	UMK107AB7105KA-T	Tayo Yuden	CAP. CERM. 1 uF, 50 V, +/-10%, X7R, 0803	0803
7	C6	1	0.47uF	ECQ-E647K0F	Panasonic	CAP. Film, 0.47 uF, 630 V, +/-10%, TH	Radial 25.7x9.4x19.7
8	C7	1	0.1uF	CL05B104KFR3NNC	Samsung Electro-Mechanics	CAP. CERM. 0.1 uF, 10 V, +/-10%, X7R, 0402	0402
9	C8, C11, C13, C15	4	4.7uF	CG83B1XSR1A475K055AC	TDK	CAP. CERM. 4.7 uF, 10 V, +/-10%, X5R, 0603	0603
10	C10, C12, C14, C16, C17, C24, C46, C47, C50	9	0.1uF	GCM18B71C104KA37J	MuRata	CAP. CERM. 0.1 uF, 16 V, +/-10%, X7R, AEC-Q200 Grade 1, 0603	0603
11	C18, C21	2	180pF	CT105C20G11H80J050BA	TDK	CAP. CERM. 18 pF, 50 V, +/-5%, COG/NPO, 0402	0402
12	C19, C20	2	120pF	CW603C120J5GACTU	Kemet	CAP. CERM. 12 pF, 50 V, +/-5%, COG/NPO, 0603	0603
13	C22	1	0.33uF	GCM18B71C133KA01D	MuRata	CAP. CERM. 0.33 uF, 16 V, +/-10%, X7R, 0603	0603
14	C23	1	1000pF	CW603C102K5GACTU	Kemet	CAP. CERM. 1000 pF, 50 V, +/-10%, X7R, 0603	0603
15	C26	1	2.2uF	GRT18B8R1H225KE13D	MuRata	CAP. CERM. 2.2 uF, 50 V, +/-10%, X5R, AEC-Q200 Grade 3, 0603	0603
16	C27, C28, C30, C31, C32, C33, C34, C35, C36, C38	10	0.1uF	CGA3E2X8R1E104K080AA	TDK	CAP. CERM. 0.1 uF, 25 V, +/-10%, X5R, AEC-Q200 Grade 0, 0603	0603
17	C39, C45, C48	3	1uF	CGA3E1X7R1E105M080AC	TDK	CAP. CERM. 1 uF, 25 V, +/-20%, X7R, AEC-Q200 Grade 1, 0603	0603
18	C41	1	6800pF	CGA3EANP02A682J080AC	TDK	CAP. CERM. 6800 pF, 100 V, +/-5%, COG/NPO, AEC-Q200 Grade 0, 0603	0603
19	C44, C53	2	6800pF	GRM18B72A682KA01D	MuRata	CAP. CERM. 6800 pF, 100 V, +/-10%, X7R, 0603	0603
20	D1, D6	2	30V	SD103BW-T-F	Diodes Inc.	Diode, Schottky, 30 V, 0.35 A, SOD-123	SOD-123
21	D2, D6	2	Red	SLR-342VCF3P	Rohm	LED, Red, TH	Dx3.8x6.35mm
22	D3, D4, D5	2	Yellow	SLR-342YCF3P	Rohm	LED, Yellow, TH	Dx3.8x6.35mm
23	D7	2	75V	TM1485W1T	Fairchild Semiconductor	Diode, Switching, 75 V, 0.3 A, SOD-523F	SOD-523F
24	H1, H2, H3, H4	4		8MM HOLE	Any	6 mm PCB Hole	6mm PCB Hole
25	H5, H6, H7, H8	4		R308MM 2101	APM HEXSEAL	MACHINE SCREW PAN PHILLIPS M3	3.5mm PCB Hole
26	H, JA1, H, JA2, H, JA3, H, JB1, H, JB2, H, JB3	6		1.5 MM HOLE	Any	1.5 mm PCB Hole	
27	J1, J2, J3, J13, J14, J19, J20	7		961102-6404-AR	3M	Header, 2.54mm, 2x1, TH	Header, 2.54mm, 2x1, TH
28	J3, J16, J17, J18	4		GB002SAAN	Sullins Connector Solutions	Header, 2.54 mm, 3x1, Gold, TH	Header, 2.54 mm, 3x1, TH
29	J4, J8, J23, J24	4		PBC02SAAN	Sullins Connector Solutions	Header, 100mil, 2x1, Gold, TH	Sullins 100mil, 1x2, 230 mil above insulator
30	J6, J7, J8, J15	4		PBC04SAAN	Sullins Connector Solutions	Header, 2.54 mm, 4x1, Gold, TH	Header, 2.54 mm, 4x1, TH
31	J11	1		GBPB62VWVWVNR	Sullins Connector Solutions	Header, 50mil, 5x2, Gold, TH	Header, 5x2, 50mil
32	J21	1		OSTV04A4150	On-Shore Technology	Terminal Block, 2.54mm, 4x1, Brass, TH	Terminal Block, 2.54mm, 4-pole, TH
33	J22	1		ED120J2S	On-Shore Technology	Terminal Block, 5.08 mm, 2x1, Brass, TH	2x1 5.08 mm Terminal Block
34	J25, J26	2		ED120J3S	On-Shore Technology	Terminal Block, 5.08 mm, 3x1, Brass, TH	3x1 5.08 mm Terminal Block
35	J27	1		PEC03SAAN	Sullins Connector Solutions	Header, 100mil, 6x1, Tin, TH	Header, 6x1, 100mil, TH
36	L1	1	4.7uH	LDR60CN4R7M0ZL	MuRata	Inductor, Wirewound, Ferrite, 4.7 uH, 0.3 A, 1.04 ohm, SMD	2.0x0.65x1.6mm
37	LBL1	1		TH1F14-423-10	Bradley	Thermal Transfer Printable Labels, 0.650" W x 0.200" H ~ 10,000 per roll	PCB Label 0.650 x 0.200 inch
38	LCD1	1		TH-115SP	Adkom Elektronik	160 Segment LCD Display, TH	63x30.15mm
39	R1	2	2.2M	RC0603FR-072M2TL	Yageo	RES, 2.21 M, 1%, 0.1 W, 0603	0603
40	R2	1	220k	CRCW0603220KJNEA	Vishay-Dale	RES, 220 k, 5%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
41	R3, R5	2	100k	CRCW0603100KJKEA	Vishay-Dale	RES, 100 k, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
42	R7	1	470	45A472	Shimite	RES, 470, 5%, 5 W, 36.7mm	36.7mm
43	R8	1	91.0k	RC2012P-913B-15	Sakuma Co Ltd	RES, 91.0 k, 0.1%, 0.125 W, 0805	0805
44	R7	1	100k	ERJ4ENF1003V	Panasonic	RES, 100 k, 1%, 0.125 W, AEC-Q200 Grade 0, 0805	0805
45	R6	1	10	RL0603RJ-0710RL	Yageo America	RES, 10, 5%, 0.125 W, 0805	0805
46	R5, R15, R16	3	100k	CRCW0603100KJNEAC	Vishay-Dale	RES, 100 k, 5%, 0.1 W, 0603	0603
47	R10, R11, R12, R13, R14	5	100	RC0603FR-07100RL	Yageo America	RES, 100, 1%, 0.1 W, 0603	0603
48	R17	1	75.0k	CRCW0603750KJKEA	Vishay-Dale	RES, 75.0 k, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
49	R18	1	47.0k	RC0402FR-0747KL	Yageo America	RES, 47.0 k, 1%, 0.0625 W, 0402	0402
50	R19, R22, R45, R46, R47, R50, R52, R53, R55	9	0	CRCW04020000020ED	Vishay-Dale	RES, 0, 5%, 0.063 W, AEC-Q200 Grade 0, 0402	0402
51	R20	1	1.0k	RL0603RJ-071KL	Yageo America	RES, 1.0 k, 5%, 0.1 W, 0603	0603
52	R24	1	120	RT0603DRE07120KL	Yageo America	RES, 120, 0.5%, 0.1 W, 0603	0603
53	R29, R37, R38, R43, R48, R57	6	0	ERJ3DEYR0R02V	Panasonic	RES, 0, 5%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
54	R30, R31, R32	3	330k	CRCW1206330KJNEA	Vishay-Dale	RES, 330 k, 5%, 0.25 W, AEC-Q200 Grade 0, 1206	1206
55	R33, R36	2	1.00k	RT0603DRE071KL	Yageo	RES, 1.00 k, 0.5%, 0.1 W, 0603	0603
56	R34	1		B7220S05011K101	TDK	VARIABLE 820V 6.5KA DISC 20MM	RADIAL
57	R35	1	750	RT0603DRE07750RL	Yageo America	RES, 750, 0.5%, 0.1 W, 0603	0603
58	R36, R44, R49, R58	4	2.00k	RT0603DRE072KL	Yageo America	RES, 2.00 k, 0.5%, 0.1 W, 0603	0603
59	R51, R56	2	6.49	CRCW0603649KJKEA	Vishay-Dale	RES, 6.49, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
60	R59, R60	2	100k	RC1002P-104B-15	Sakuma Co Ltd	RES, 100 k, 0.1%, 0.083 W, 0402	0402
61	RS1	1		25747706-0	TE Connectivity	Receptacle, D-SUB-9, 2.74mm, Gold, TH	Receptacle, D-SUB-9, 2.74mm, TH
62	S1, S2	2		MJPSMW6TR	APEM	Switch, Tactile, SPST-NO, 12 V, SMD	Switch, Body 6.2x6.3mm
63	SH-J1, SH-J2, SH-J3, SH-J4, SH-J5, SH-J6, SH-J7, SH-J8, SH-J9	9	1x2	SFC02SYAN	Sullins Connector Solutions	Shunt, 100mil, Flash Gold, Black	Closed Top 100mil Shunt
64	U1	1		TPS7A7633PWR	Texas Instruments	100-mA Non-Isolated Line Power Voltage Regulator, PWP0014C (HTSSOP-14)	PWP0014C
65	U2	1		MS3432P4111P2R	Texas Instruments	SimpleLink™ Mixed-Signal Microcontroller, P20100A (LQFP-100)	P20100A
66	U3	1		TPS38V02L-20GBVR	Texas Instruments	Nano Power, Wide VIN Voltage Detector with Programmable Delay, DBV0005A (SOT-23-5)	DBV0005A
67	U4	1		ISO7200R	Texas Instruments	High Speed, Robust EMC Dual-Channel Digital Isolator, D0008B (SOIC-8)	D0008B
68	U5	1		TPS70933DBVR	Texas Instruments	150-mA, 30-V, Ultra-Low IQ, Wide Input Low-Dropout Regulator with Reverse Current Protection, DBV0005A (SOT-23-5)	DBV0005A
69	U6	1		ISO7718BWR	Texas Instruments	High-Speed Basic Isolation Triple-Channel Digital Isolator, DW0016B (SOIC-16)	DW0016B
70	U7	1				3-V to 5.5-V Multichannel RS-232 Line Driver / Receiver with ±15kV IEC ESD Protection, 0 to 70 degC, 16-Pin TSSOP (Pw), Green (RoHS & no Sb/Br)	PW0016A
71	U8	1		THVD1500DR	Texas Instruments	250 kbps RS-485 Transceivers With +/-12kV IEC ESD Protection, D0008A (SOIC-8)	D0008A
72	U9	1		ADS131M04PWR	Texas Instruments	2-Channel, 24-Bit, Simultaneously-Sampling, Delta-Sigma ADC, PW0020A (TSSOP-20)	PW0020A
73	Y1	1		CMR600T3270K0QZT-UT	Citizen Fintech Miyota	Crystal, 32.768 MHz, SMD	21.8x6.6mm
74	Y2	1		FA-238 16.384MHz-K	Epson	Crystal, 16.384 MHz, 50 ppm, 10 pF, SMD	13x22.2mm
75	C6	0	4.7uF	CC0603D5V6BB475	Yageo America	CAP. CERM. 4.7 uF, 10 V, +/-20%, Y5V, 0805	0805
76	C23	0	0.01uF	GCM18B71H103KA5SD	MuRata	CAP. CERM. 0.01 uF, 50 V, +/-10%, COG/NPO, 0402	0402
77	C37, C38	0	10pF	CGA3E2CG1H100J080AA	TDK	CAP. CERM. 10 pF, 50 V, +/-5%, COG/NPO, AEC-Q200 Grade 1, 0603	0603
78	C40, C42, C43, C49, C52, C54	0	10pF	GCM18B5C2A100JA16D	MuRata	CAP. CERM. 10 pF, 100 V, +/-5%, COG/NPO, AEC-Q200 Grade 1, 0603	0603
79	C51	0	10pF	C0402C100K4SACTU	Kemet	CAP. CERM. 10 pF, 16 V, +/-10%, COG, 0402	0402
80	FD1, FD2, FD3	0		N/A	N/A	Fiducial mark. There is nothing to buy or mount.	N/A
81	J10	0		961102-6404-AR	3M	Header, 2.54mm, 2x1, TH	Header, 2.54mm, 2x1, TH
82	J12	0		PBC02SAAN	Sullins Connector Solutions	Header, 100mil, 2x1, Gold, TH	Sullins 100mil, 1x2, 230 mil above insulator
83	R21, R25, R26	0	100k	CRCW0603100KJNEA	Vishay-Dale	RES, 100 k, 5%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
84	R23	0	0	RL0603RJ-070KL	Yageo America	RES, 0, 5%, 0.083 W, 0402	0402
85	R27, R28	0	50	PC0603DRE0750KL	Vishay-Tin Film	RES, 50, 0.1%, 0.125 W, 0603	0603
86	R40, R42	0	6.49	CRCW0603649KJKEA	Vishay-Dale	RES, 6.49, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
87	R41, R54	0	13.0	RT0603DRE0713RL	Yageo America	RES, 13.0, 0.5%, 0.1 W, 0603	0603
88	R61	0	100k	RC1002P-104B-15	Sakuma Co Ltd	RES, 100 k, 0.1%, 0.083 W, 0402	0402
89	U10, U11, U12, U13	0		TVS0500DRVR	Texas Instruments	5-V Precision Surge Protection Clamp, DRV0006A (WSON-6)	DRV0006A
90	Y3	0		STR624BA-22-33E-8.192000G	STMicro	Oscillator, 8.192 MHz, 15 pF, AEC-Q200 Grade 1, SMD	3.2x2.5mm