

TIDA-010037 REV E1 Bill of Materials



Item #	Designator	Quantity	Value	PartNumber	Manufacturer	Description	Package/Reference
1	PCB	1	0.1uf	TDA-010037	Any	Printed Circuit Board	
2	C1	1	0.1uf	CXSB810AKP00NANC	Samung Electro-Mechanics	CAP, CERM, 0.1 uF, 10 V, +/- 10%, X9R, 0402	0402
3	C3, C5, C7, C8, C19	5	4.7uF	CG8B81X8R1A479K055AC	TDK	CAP, CERM, 4.7 uF, 10 V, +/- 10%, X9R, 0603	0603
4	C4, C6, C8, C10, C11, C12, C86, C91, C93, C95	10	0.1uF	DCM18BR7C104KA37J	MuRata	CAP, CERM, 0.1 uF, 16 V, +/- 10%, X9R, AEC-Q200 Grade 1, 0603	0603
5	C13, C14	2	18pF	C106C0G1H180J060BA	TDK	CAP, CERM, 18 pF, 50 V +/- 5%, C0G/NP0, 0402	0402
6	C16, C17	1	120pF	C0603C0G120K060ACTU	Kemet	CAP, CERM, 12 pF, 50 V +/- 5%, C0G/NP0, 0603	0603
7	C18	1	1000pF	C0603C0G100K060ACTU	Kemet	CAP, CERM, 1000 pF, 50 V, +/- 10%, X9R, 0603	0603
8	C19, C120	2	2.2uF	GR11889H420K5E13D	MuRata	CAP, CERM, 2.2 uF, 50 V, +/- 10%, X9R, AEC-Q200 Grade 3, 0603	0603
9	C20, C22, C24, C121	4	1uF	CGA3E2X7R1E104M000AC	TDK	CAP, CERM, 1 uF, 25 V +/- 20%, X9R, AEC-Q200 Grade 1, 0603	0603
10	C21, C22, C25, C26, C27, C28, C29, C30, C33	10	0.1uF	CGA3E2XR1E104K080AA	TDK	CAP, CERM, 0.1 uF, 25 V, +/- 10%, X9R, AEC-Q200 Grade 0, 0603	0603
11	C91	1	0.33uF	GRM18BR7C334KA01D	MuRata	CAP, CERM, 0.33 uF, 16 V, +/- 10%, X9R, 0603	0603
12	C96, C102	2	6800pF	GRM18BR7J680K0A01D	MuRata	CAP, CERM, 6800 pF, 100 V, +/- 10%, X9R, 0603	0603
13	C105, C108	2	0603pF	CGA3E2XR1E104K080AA	TDK	CAP, CERM, 0.603 pF, 100 V +/- 5%, C0G/NP0, AEC-Q200 Grade 0, 0603	0603
14	C122	1	1000pF	GRM188C1H100J0A01D	MuRata	CAP, CERM, 1000 pF, 50 V, +/- 5%, C0G/NP0, 0603	0603
15	C123	1	0.47uF	LC072X63TH47K025AB	TDK	CAP, CERM, 0.47 uF, 50 V, +/- 10%, X6S, 0605	0605
16	D1, D5	2	Red	SLK342VCF	Rohm	LED, Red, TH	0x3.6x1.35mm
17	D3, D3, D4	2	Yellow	SLK342VCF	Rohm	LED, Yellow, TH	0x3.6x1.35mm
18	D6, D7	2	750	1N414801T	Fairchild Semiconductor	Diode, Switching, 75 V, 0.3 A, SOD-523F	SOD-523F
19	D10	1	20V	8320A-13A	Diodex Inc	Diode, Schottky, 20 V, 3 A, SMA	SMA
20	H1, H2, H3, H4	4		APX3008M 2201	APX HERSEAL	MACHINE SCREW PAN-PHILLIPS M3	
21	H1, hole, H2, hole, H3, hole, H4, hole	4			Any	5 mm PCB Hole	5mm PCB Hole
22	H, case, H, A1, H, A2, H, A3, H, B1, H, B2, H, B3, H, VA1, H, VA2, H, VB1, H, VB2	11			Any	3.5 mm PCB Hole	3.5mm PCB Hole
23	J1, J2, J5, J6, J12, J20, J21	7		PBC02SAAN	Sullins Connector Solutions	Header, 100mil, 2x1, Gold, TH	Sullins 100mil, 1x2, 230 mil above insulator
24	J3, J4, J8	3		PBC02EAAN	Sullins Connector Solutions	Header, 2.54 mm, 4x1, Gold, TH	Header, 2.54 mm, 4x1, TH
25	J7, J16, J17, J22, J23, J24	6		JE1102-6404-AR	3M	Header, 2.54mm, 2x1, TH	Header, 2.54mm, 2x1, TH
26	J9, J10, J11, J18	4		R130041121	Würth Elektronik	Header, 2.54 mm, 4x1, Gold, TH	Header, 2.54mm, 4x1, TH
27	J13	1		GRP65ZVWVNR	Sullins Connector Solutions	Header, 50mil, 5x2, Gold, TH	Header, 2x2, 50mil
28	J19, J20, J21	3		GB003SAAN	Sullins Connector Solutions	Header, 2.54 mm, 3x1, Gold, TH	Header, 2.54 mm, 3x1, TH
29	J25	1		OSTVND4A150	On-Shore Technology	Terminal Block, 2.54mm, 4x1, Brass, TH	Terminal Block, 2.54mm, 4-pin, TH
30	J26, J27	2		ED12930S	On-Shore Technology	Terminal Block, 5.08 mm, 3x1, Brass, TH	3x1 5.08 mm Terminal Block
31	J28, J29	2		ED12920S	On-Shore Technology	Terminal Block, 5.08 mm, 2x1, Brass, TH	2x1 5.08 mm Terminal Block
32	J32	1		PEC00SAAN	Sullins Connector Solutions	Header, 100mil, 6x1, Tin, TH	Header, 6x1, 100mil, TH
33	L1	1	4.7uH	LQH6MCNR4M302L	MuRata	Inductor, Wirewound, Ferrite, 4.7 uH, 0.3 A, 1.04 ohm, SMD	2.6x3.65x1.6mm
34	LBL1	1		TH1-14-423-10	Brady	Thermal Transfer Printable Labels, 6.650" W x 0.200" H - 10,000 per roll	PCB Label 0.650 x 0.200 inch
35	LC01	1		PH1102P	Adicom Elektronik	160 Segment LCD Display, TH	0.9x30.18mm
36	R1	1	91.0k	RG2012P-91.0-B-TS	Susumu Co Ltd	RES, 91.0 k, 0.1%, 0.125 W, 0605	0605
37	R2, R3, R5, R11, R12	1	100k	RJ45R-100V	Panasonic	RES, 100 k, 0.1%, 0.125 W, AEC-Q200 Grade 3, 0605	0605
38	R6, R7, R8, R10	5	100	RC0603JR-07100L	Yageo America	RES, 100 k, 0.5%, 0.1 W, 0603	0603
39	R9, R7, R8, R10	5	100	RC0603JR-07100L	Yageo America	RES, 100 k, 0.5%, 0.1 W, 0603	0603
40	R13	1	75k	RC0603JR-0750K0EA	Vishay-Dale	RES, 75 k, 0.5%, 0.125 W, 0605	0605
41	R15	1	47.0k	RC0402FR-0747KL	Yageo America	RES, 47.0 k, 0.1%, 0.0625 W, 0402	0402
42	R17	1	1.0k	RC0603JR-071KL	Yageo America	RES, 1.0 k, 0.5%, 0.1 W, 0603	0603
43	R10, R71, R80, R81, R82, R83, R84, R85, R86	5	0	RC0603W00000000ED	Vishay-Dale	RES, 0, 0.5%, 0.063 W, AEC-Q200 Grade 0, 0402	0402
44	R77, R78	2	100k	RG1005P-104-B-TS	Susumu Co Ltd	RES, 100 k, 0.1%, 0.063 W, 0402	0402
45	R87, R88	2	275VAC	B7220S027R101	TDK	Varistor 275 VAC, 100 A, TH	Disc, 21.5mm
46	R90, R92, R96, R97, R103, R104, R111, R112	8	0	EJU3SEYR00V	Panasonic	RES, 0, 0.5%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
47	R91, R92, R96, R99	4	6.4k	CR060306R46K0EA	Vishay-Dale	RES, 6.4k, 0.1%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
48	R94, R95, R101, R102	4	2.00k	R106030R02072KL	Yageo America	RES, 2.00 k, 0.5%, 0.1 W, 0603	0603
49	R106, R106, R107, R113, R114, R115	6	330k	RG1605P-334-B-TS	Susumu Co Ltd	RES, 330 k, 0.1%, 0.1 W, 0603	0603
50	R108, R116	2	750	R106030R0750K0L	Yageo America	RES, 750 k, 0.5%, 0.1 W, 0603	0603
51	R109, R110, R117, R118	4	1.00k	R106030R071KL	Yageo	RES, 1.00 k, 0.5%, 0.1 W, 0603	0603
52	R119	1	0	MCT0603020002P900	Vishay/Beyschlag	RES, 0, 0.5%, 0.125 W, 0603	0603
53	R120	1	430k	RC0402FR-0743KL	Yageo America	RES, 430 k, 0.1%, 0.063 W, 0402	0402
54	R121	1	75.0k	RC0603JR-0750K0ED	Vishay-Dale	RES, 75.0 k, 0.1%, 0.063 W, AEC-Q200 Grade 0, 0402	0402
55	R122	1	160k	RC0603JR-07160KL	Vishay-Dale	RES, 160 k, 0.1%, 0.063 W, AEC-Q200 Grade 0, 0402	0402
56	R123	1	150k	RC0603JR-07150KL	Vishay-Dale	RES, 150 k, 0.1%, 0.063 W, AEC-Q200 Grade 0, 0402	0402
57	R124	1	0.001	R106030R00100KL	Yageo America	RES, 0.001, 0.5%, 0.1 W, 0603	0603
58	RS1	1	120	D-5747708-0	TE Connectivity	Receptacle, D-SUB-9, 2.74mm, Gold, TH	Receptacle, D-SUB-9, 2.74mm, TH
59	S1, S2, S3	3		MLF7SMWB1R	APTEM	Switch, Tactile, SPST-NO, 12 V, SMD	Switch, Body 6.2x6.3mm
60	SH-J1, SH-J2, SH-J3, SH-J4, SH-J5, SH-J6, SH-J7, SH-J8, SH-J9, SH-J10	10	1x2	SFC0251AN	Sullins Connector Solutions	Shunt, 100mil, Flash Gold, Black	Closed Top 100mil Shunt
61	U1	1		MSP432P4111P2R	Texas Instruments	SimpleLink™ Mixed-Signal Microcontroller, P2010A (LQFP-100)	P-20100A
62	U2, U40	2		TPS703320VR	Texas Instruments	100mA, 3xV, Ultra-Low Noise Voltage Regulator with Reverse Current Protection, DBV0005A (SOT-23-5)	DBV0005A
63	U3	1				SVT 3.5V Multichannel RS-232 Line Driver / Receiver with ±15kV ESD ESD Protection, 0 to 70 degC, 16-Pin TSSOP (PQW), Green (RoHS & no Sb/Bi)	PV0016BA
64	U4	1		ISO712BDWR	Texas Instruments	High-Speed Basic Isolation Yade-Channel Digital Isolator, D9V0076B (SOIC-16)	D9V0076B
65	U5	1		ISO7200R	Texas Instruments	High-Speed, Robust EMC Dual-Channel Digital Isolator, D00008B (SOIC-8)	D00008B
66	U6	1		THVD1500DR	Texas Instruments	250 kbps RS-485 Transceivers With +/-12kV AEC ESD Protection, D00008A (SOIC-8)	D00008A
67	U18	1		TPS840XL200BVR	Texas Instruments	Nano Power, Wide VIN Voltage Detector with Programmable Delay, DBV0005A (SOT-23-5)	DBV0005A
68	U20	1		ADS131M04PWR	Texas Instruments	4-Channel, 24-Bit, Simultaneously-Sampling, Delta-Sigma ADC, P4V0020A (TSSOP-20)	P4V0020A
69	U41	1		TVS1800ZDR	Texas Instruments	18V Precision Surge Protection Clamp, DRV0000A (WSON-6)	DRV0000A
70	U42	1		TPS2952LDR	Texas Instruments	1.8k, 1.8k, WMO of-Pair with Adjustable +/-2% Accurate Current Limit, D0000A (SOIC-6)	D0000A
71	V1	1		FA-238 18.364MHz	Upsilon	Crystal, 18.364 MHz, 50 pF, SMD	3.2x2.5mm
72	V2	1		CMX2001-02 70MHz	SiTime	Crystal, 27.768 MHz, SMD	0.1x1.6mm
73	C2	0	4.7uF	CG0603C0G470K060ACTU	Yageo America	CAP, CERM, 4.7 uF, 10 V, +/- 10%, X9R, 0603	0603
74	C3	0	0.1uF	CG0603C0G100K060ACTU	Yageo America	CAP, CERM, 0.1 uF, 10 V, +/- 10%, X9R, 0603	0603
75	C33, C34	0	10pF	CGA3E2C0G101H00000AA	TDK	CAP, CERM, 10 pF, 50 V, +/- 5%, C0G/NP0, AEC-Q200 Grade 1, 0603	0603
76	C90	0	10pF	CGA3E2C0G100K060ACTU	Kemet	CAP, CERM, 10 pF, 16 V +/- 10%, 0603	0402
77	C97, C98, C100, C101, C103, C104, C106, C107	0	10pF	DCM18BR7C100JA16D	MuRata	CAP, CERM, 10 pF, 100 V +/- 5%, C0G/NP0, AEC-Q200 Grade 1, 0603	0603
78	C124	0	0.1uF	DCM18BR7C104KA37J	MuRata	CAP, CERM, 0.1 uF, 16 V +/- 10%, X9R, AEC-Q200 Grade 1, 0603	0603
79	PBT, PBT2, PBT3	0		N/A	N/A	PBcoat mark. There is nothing to buy or mount.	N/A
80	J14	0		PBC02SAAN	Sullins Connector Solutions	Header, 100mil, 2x1, Gold, TH	Sullins 100mil, 1x2, 230 mil above insulator
81	J15	0		JE1102-6404-AR	3M	Header, 2.54mm, 2x1, TH	Header, 2.54mm, 2x1, TH
82	R18, R126, R129	0	100k	CR060306100K0EA	Vishay-Dale	RES, 100 k, 0.5%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
83	R79	0	100k	RG1005P-104-B-TS	Susumu Co Ltd	RES, 100 k, 0.1%, 0.063 W, 0402	0402
84	R93, R100	0	0	R106030R071KL	Yageo America	RES, 1.0 k, 0.5%, 0.1 W, 0603	0603
85	R124	0	100k	RC1005P-104CS	Samung Electro-Mechanics	RES, 100 k, 0.1%, 0.063 W, 0402	0402
86	R126, R126	0	0	RC0402JR-070KL	Yageo America	RES, 0, 0.5%, 0.063 W, 0402	0402
87	R130, R131	0	50	PC0603E50R08TBS1T	Vishay Thin Film	RES, 50, 0.1%, 0.125 W, 0603	0603
88	U11, U22, U23, U24	0		TVS060300VR	Texas Instruments	3-V Precision Surge Protection Clamp, DRV0000A (WSON-6)	DRV0000A
89	V3	0		SI78524BA-22-33E-6.192000G	SiTime	Oscillator, 8.192 MHz, 15 pF, AEC-Q200 Grade 1, SMD	3.2x2.5mm