

TIDA-01452 REV B Bill of Materials



Item #	Designator	Quantity	Value	PartNumber	Manufacturer	Description	PackageReference
1	B1T	1	0.1uF	BAT14E-D101	Diodes Inc	Battery Holder, Retainer clip, SMT	22, 16x4.2x15.5mm
2	C38, C39, C40, C46, C47, C48, C49, C51, C58, C59, C61, C62, C71, C78, C80, C88, C100, C101	18	0.1uF	GRM1555R1J104KA01D	MuRata	CAP, CERML, 0.1 uF, 5.3V, +/-10%, X7R, 0402	0402
3	C38, C58, C60, C79, C76, C85, C113	7	10uF	GRM188R60J106ME47D	MuRata	CAP, CERML, 10 uF, 6.3V, +/-20%, X6R, 0603	0603
4	C41, C77, C79, C82	4	4.7uF	C1005X8R1A475K0508C	TDK	CAP, CERML, 4.7 uF, 10V, +/-10%, X8R, 0402	0402
5	C42, C43	2	16pF	GRM1555C1H16JAU01D	MuRata	CAP, CERML, 16 pF, 50V, +/-5%, COG/NPO, 0402	0402
6	C44, C46, C66, C69	4	8.2pF	GRM1555C1H8R2CA01D	MuRata	CAP, CERML, 8.2 pF, 50V, +/-5%, COG/NPO, 0402	0402
7	C45, C47, C48, C49, C51, C68, C84, C111, C112	9	0.1uF	GCN155R7H104KE02D	MuRata	CAP, CERML, 0.1 uF, 50V, +/-10%, X7R, AEC-Q200 Grade 1, 0402	0402
8	C56, C57, C81	3	0.01uF	C0402C103R8ACTU	Kemet	CAP, CERML, 0.01 uF, 50V, +/-5%, X7R, 0402	0402
9	C63, C64	2	9pF	GRM1555C1H9P9CA01D	MuRata	CAP, CERML, 9pF, 50V, +/-5%, COG/NPO, 0402	0402
10	C69	1	1uF	GRM1555R1E104KA12D	MuRata	CAP, CERML, 1 uF, 25V, +/-10%, X6R, 0402	0402
11	C70, C72	2	22pF	GRM188R60J222KA10D	MuRata	CAP, CERML, 22 pF, 10V, +/-20%, X6R, 0603	0603
12	C73	1	100pF	GRM1555C1H100PA01D	MuRata	CAP, CERML, 100 pF, 10V, +/-5%, COG/NPO, 0402	0402
13	C86	1	10uF	GRM018B77A100K65L	MuRata	CAP, CERML, 10 uF, 10V, +/-10%, X7R, 0805	1206, 190
14	C109	1	2.2uF	GRM1555C1H2R2CA01D	MuRata	CAP, CERML, 2.2 uF, 50V, +/-5%, COG/NPO, 0402	0402
15	C110	1	1uF	GRM1555C1H100CA01D	MuRata	CAP, CERML, 1 uF, 50V, +/-5%, COG/NPO, 0402	0402
16	CR1, CR3	2		SML-P11UT86	Rohm Semiconductor	Red 62 trim LED indication - Discrete 1.8V (0402) (1005 Metric)	0402
17	CR2, CR4	2		SML-P11MT86	Rohm Semiconductor	Green 62trim LED indication - Discrete 1.9V (0402) (1005 Metric)	0402
18	D2, D4	2	5V	1SS131P188	Diodes	Diode, Schottky, 0V, 0.03A, SOD323	SOD-323
19	FL1	1	1500 ohm	BLM188E-125SN1D	MuRata	Ferrite Bead, 1500 ohm @ 100 MHz, 0.5 A, 0603	0603
20	FL2	1	1.5k Ohm	1.5K1206-02000000	MuRata	Film, nonpolarized, 2.000000	1206 8mm
21	J2, J19	2		M50-360542	Hawin	Header, 1.27mm, 5x2, Gold, SMT	Header, 1.27mm, 5x2, SMT
22	J4	1		UJLR-SM1Y1	Hesse Electric Co. Ltd.	Connector, Ultra-Mini Lowcost, SMD	Ultra small COOAX SMD
23	J9	1		PEC02SAAN	Sullins Connector Solutions	Header, 100mil, 2x1, Tin, TH	Header, 2 Pin, 100mil, Tin
24	J10, J11	2		PEC02SAAN	Sullins Connector Solutions	Header, 100mil, 3x1, Tin, TH	Header, 3 Pin, 100mil, Tin
25	J17	1		SFM-110-02-S-D-A-K-TR	Samtec	Acceptance, 50mil, 10x2, Gold, SMT	15, 88x4, 7x3, 02mm
26	J18	1		SFM-106-02-S-D-A	Samtec	Receptacle, 1.27mm, 6x2, Gold, SMT	Receptacle, 1.27mm, 6x2, SMT
27	JP1, JP3	2		MM-102-01-Y-S	Samtec	Header, 2mm, 2x1, Tin, TH	Header, 2mm, 2x1
28	JP2, JP4, JP19	3		MM-102-01-Y-S	Samtec	Header, 2mm, 3x1, Tin, TH	Header, 2mm, 3x1
29	L2, L3	2	4.7uH	MFL202-04R75T01	TDK	Inductor, Multilayer, Ferrite, 4.7 uH, 0.3 A, 0.143 ohm, SMD	2, 5x1, 1x2mm
30	L4	1	10uH	CSL2125100M-Y	Rayo Yuden	Inductor, Multilayer, Ferrite, 10 uH, 0.11 A, 0.52 ohm, SMD	0805
31	L5	1	10uH	LP54018-103MLB	Coilcraft	Inductor, Shielded Drum Core, Ferrite, 10 uH, 1.25 A, 0.2 ohm, SMD	CP54018
32	L6	1	4.7uH	EPL3015-47ZMLB	Coilcraft	Inductor, Shielded, Ferrite, 4.7 uH, 1.2 A, 0.14 ohm, SMD	Inductor, 8x1, 5x6mm
33	L7	1	22uH	744025Z0	Würth Elektronik eSos	Inductor, Shielded Drum Core, Ferrite, 22uH, 0.5A, 0.525 ohm, SMD	Inductor, 2, 8x2, 8x2, 8mm
34	L8	1	4.7uH	VLFS2010MT-4R7M	TDK	Inductor, Shielded, Ferrite, 4.7uH, 0.64A, 0.25 ohm, SMD	R35, 2, 8x2, 2x2mm
35	Q8, Q9, Q7	3	20V	CS2R08W1015	Texas Instruments	MOSFET, P-CH, 20 V, 1.8 A	
36	R24, R44, R67	3	100k	CRCV04020100KKEED	Vishay-Dale	RES, 100 k, 1%, 0.063 W, 0402	0402
37	R25	1	91.0k	RG1609P-91.0-B-T5	Susumu Co Ltd	RES, 91.0 k, 0.1%, 0.1 W, 0603	0603
38	R30, R34, R39	3	270	CRCV0402270RKEED	Vishay-Dale	RES, 270, 1%, 0.0625W, 50V, 0402	0402
39	R31, R41, R42, R46, R48, R49, R66, R68, R69, R86, R100, R114, R119, R122	18	0	CRCV04020000Z0EED	Vishay-Dale	RES, 0, 5%, 0.063 W, 0402	0402
40	R32, R33, R37, R38	4	680	CRCV0402680RKEED	Vishay-Dale	RES, 680, 5%, 0.063 W, 0402	0402
41	R35, R40, R109, R110	4	10.0k	CRCV040210K0PKEED	Vishay-Dale	RES, 10.0 k, 1%, 0.063 W, 0402	0402
42	R55, R91, R93, R139	4	1.00M	CRCV04021000KKEED	Vishay-Dale	RES, 1.00 M, 1%, 0.063 W, 0402	0402
43	R81	1	6.85M	CRCV0402685KKEED	Vishay-Dale	RES, 6.85 M, 1%, 0.063 W, 0402	0402
44	R82	1	2.37M	CRCV0402237KKEED	Vishay-Dale	RES, 2.37 M, 1%, 0.063 W, 0402	0402
45	R83, R80	2	5.11M	CRCV0402511KKEED	Vishay-Dale	RES, 5.11 M, 1%, 0.063 W, 0402	0402
46	R84	1	3.3M	CRCV0402330KKEED	Vishay-Dale	RES, 3.3 M, 1%, 0.063 W, 0402	0402
47	R85	1	4.42M	CRCV0402442KKEED	Vishay-Dale	RES, 4.42 M, 1%, 0.063 W, 0402	0402
48	R86	1	17.8M	CRCV0402178KKEED	Vishay-Dale	RES, 17.8 M, 1%, 0.063 W, 0402	0402
49	R88	1	180k	CRCV0402180RKEED	Vishay-Dale	RES, 180 k, 1%, 0.063 W, 0402	0402
50	R140	1	402	CRCV0402402RKEED	Vishay-Dale	RES, 402, 1%, 0.063 W, 0402	0402
51	SW1, SW2, SW3	3		RS1100P	Altron Electronic Components	SWITCH TACTILE SPST 10x5A 15V	8x1, 8x2, 5mm
52	U2	1		MS3409-6010K20ZR	Texas Instruments	Mixed-Signal Microcontroller, ZW4000A	0295000A
53	U4	1		ROC105002RH	Texas Instruments	Low Power, High Accuracy Digital Humidity Sensor with Temperature Sensor, DMS0000A	0295000A
54	U6	1		BM280	Bosch SensiMotor	On-chip Inertial Sensor, LSM302, 3MM, 0.65	0.2, 3mm, LGA-8
55	U7	1		OPT101-DNPR	Texas Instruments	Optical Light Sensor, 10N0000A	0295000A
56	U9	1		CC2500P-2R8ZNR	Texas Instruments	SimpleLink Multistandard Wireless MCU, R20000A	0295000A
57	U10	1		TPS22757R02R	Texas Instruments	Programmable Output Voltage Ultra-Low Power Buck Converter with up to 50mA / 200 mA Output Current, RGY0014A	0295000A
58	U12	1		TPS1222DCAR	Texas Instruments	LOV INPUT VOLTAGE STEP-UP CONVERTER IN 6 PIN SC70 PACKAGE, DCK0006A	DCK0006A
59	U15	1		BQ25506RGR	Texas Instruments	Ultra Low Power Boost Converter with Battery Management for Energy Harvesting Applications, RGR0020A	RGR0020A
60	U21	1		24LC256-1SN	Microchip	256K 12C CMOS Serial EEPROM	
61	U22	1		TSSA160DBVR	Texas Instruments	1-Chip SPDT ANALOG SWITCH 5-V/3.3-V SINGLE-CHANNEL 2:1 MULTIPLEXER/MULTIPLEXER, DBV0006A	DBV0006A
62	U28	1		TPS6081DBSER	Texas Instruments	Ultra-Low Quiescent Current Synchronous Boost with Integrated LDO/Less Switch, DSE0006A	DSE0006A
63	U67	1		LSI29H12	ST Microelectronics	Ultra-low power high-performance 3-axis piezo accelerometer	
64	Y2	1		73F-AZ28-48B-K3	Epson	Crystal, 48MHz, 10pF, SMD	
65	Y3, Y5	2		FC-135-32.768KA-AG0	Epson	Crystal, 32.768 KHz, 7 pF, SMD	SMD, 2 Leads, Body 3.2x1.5mm
66	Y4	1		1SX3225-24.000MF20G-AC3	Epson	Crystal, 24 MHz, 9 pF, SMD	SMD, 4 Leads, Body 2.8x3.35mm, Height 0.6mm
67	C1, C6	0	2.2uF	C1005X8R1E222K0508C	TDK	CAP, CERML, 2.2 uF, 25V, +/-10%, X8R, 0402	0402
68	C2	0	220pF	GRM1555R1E222KA01D	MuRata	CAP, CERML, 220 pF, 50V, +/-10%, X7R, 0402	0402
69	C3	0	0.47uF	GRM1555R1C474KE01	MuRata	CAP, CERML, 0.47 uF, 16V, +/-10%, X6R, 0402	0402
70	C4, C8, C9, C31, C32	0	1000pF	GRM1555C1H102JA01D	MuRata	CAP, CERML, 1000 pF, 50V, +/-5%, COG/NPO, 0402	0402
71	C5, C30, C35	0	0.1uF	GRM1555R1H104KE02D	MuRata	CAP, CERML, 0.1 uF, 50V, +/-10%, X7R, AEC-Q200 Grade 1, 0402	0402
72	C10, C14	0	16pF	GRM1555C1H16JAU01D	MuRata	CAP, CERML, 16 pF, 50V, +/-5%, COG/NPO, 0402	0402
73	C11	0	10uF	C1206C106K3RACTU	Kemet	Cap Cerml, MLC, 10uF, 25 Volts, 10%, X7R, 1206	1206, 190
74	C12, C13	0	100pF	C1206C100K3RACTU	Kemet	CAP, CERML, 100 pF, 25V, +/-10%, X7R, 1206, 190	1206, 190
75	C15, C25	0	12.2uF	C0603C122K0508C	Kemet	CAP, CERML, 2.2 uF, 16V, +/-10%, X7R, 0603	0603
76	C16	0	100pF	GRM1555C1H100PA01D	MuRata	CAP, CERML, 100 pF, 50V, +/-5%, COG/NPO, 0402	0402
77	C17	0	220pF	GRM1555C1H220PA01D	MuRata	CAP, CERML, 220 pF, 50V, +/-5%, COG/NPO, 0402	0402
78	C19	0	330pF	GRM1555C1H330PA01D	MuRata	CAP, CERML, 330 pF, 50V, +/-5%, COG/NPO, 0402	0402
79	C20, C21	0	0.22uF	88021220948	Würth Elektronik	CAP, CERML, 0.22 uF, 16V, +/-10%, X6R, 0603	0603
80	C22	0	0.47uF	C1005X8R1E472K0508C	TDK	CAP, CERML, 0.47 uF, 25V, +/-10%, X8R, 0402	0402
81	C23, C24	0	470pF	GRM1555C1H470PA01D	MuRata	CAP, CERML, 470 pF, 50V, +/-5%, COG/NPO, 0402	0402
82	C26	0	10pF	GRM1555R1E10P9CA01D	MuRata	CAP, CERML, 10 pF, 25V, +/-10%, X6R, 0402	0402
83	C27	0	33pF	GRM1555C1H330PA01D	MuRata	CAP, CERML, 33 pF, 50V, +/-5%, COG/NPO, 0402	0402
84	C27, C34	0	0.022uF	GCN1555R7H222KA05D	MuRata	CAP, CERML, 0.022 uF, 50V, +/-10%, COG/NPO, 0402	0402
85	C28	0	100pF	GRM1555C1H100PA01D	MuRata	CAP, CERML, 100 pF, 50V, +/-5%, COG/NPO, 0402	0402
86	C33	0	0.01uF	GCN1555R7H101KA05D	MuRata	CAP, CERML, 0.01 uF, 50V, +/-10%, COG/NPO, 0402	0402
87	D3	0	30V	BTA54W5-7-F	Diodes Inc	Diode, Schottky, 30 V, 0.2 A, SOD323	SOD-323
88	L8	0	100uH	ELC0205202	Alcon Store Technology	Ferrite Bead, 0.3 A, 3.0mm Thick, 2 Pin, TH	0.3, 2x2, 5mm
89	JP8	0		MM-102-01-Y-S	Samtec	Header, 2mm, 2x1, Tin, TH	Header, 2mm, 2x1
90	JP24, JP25	0		MM-102-01-Y-S	Samtec	Header, 2mm, 2x1, Tin, TH	Header, 2mm, 2x1
91	L1	0	100uH	ELC0205202	Alcon Store Technology	Inductor, Wirewound, 100 uH, 0.27 A, 1.4 ohm, SMD	1, 2x2, 2x2, 2mm
92	D1	0	80 V	S8B1200102R	Rohm	Transistor, NPN, 80 V, 1 A, SOT-89	SOT-89
93	D4	0		RCR150800102R	Rohm Semiconductor	Transistor, NPN, 15 V, 0.1 A, SOT-23	SOT-23
94	R1	0	20.0k	RC0603P-0720K	Vagyo America	RES, 20.0 k, 1%, 0.1 W, 0603	0603
95	R5	0	402k	CRCV0402402RKEED	Vishay-Dale	RES, 402 k, 1%, 0.063 W, 0402	0402
96	R7, R15, R16, R28, R29, R131, R132	0	100k	CRCV0402100KKEED	Vishay-Dale	RES, 100 k, 1%, 0.063 W, 0402	0402
97	R8	0	4.02	CRCV0603402PKEA	Vishay-Dale	RES, 4.02, 1%, 0.1 W, 0603	0603
98	R9	0	8.25k	CRCV0603825PKEA	Vishay-Dale	RES, 8.25 k, 1%, 0.1 W, 0603	0603
99	R10	0	3.31k	CRCV0603331PKEA	Vishay-Dale	RES, 3.31 k, 1%, 0.063 W, 0402	0402
100	R11	0	30.1k	CRCV040230K1PKEED	Vishay-Dale	RES, 30.1 k, 1%, 0.063 W, 0402	0402
101	R12	0	1.10k	CRCV0603110PKEA	Vishay-Dale	RES, 1.10 k, 1%, 0.1 W, 0603	0603
102	R13, R14, R21, R22	0	33.1k	ELK-2413333X	Panasonic	RES, 33.1 k, 0.1%, 0.063 W, 0402	0402
103	R17	0	10.0	CRCV0603100PKEA	Vishay-Dale	RES, 10.0, 1%, 0.1 W, 0603	0603
104	R17	0	200k	CRCV0402200KKEED	Vishay-Dale	RES, 200 k, 1%, 0.063 W, 0402	0402
105	R19	0	49.9k	CRCV040249K9PKEED	Vishay-Dale	RES, 49.9 k, 1%, 0.063 W, 0402	0402
106	R20	0	393.0k	CRCV0402393K9PKEED	Vishay-Dale	RES, 393.0 k, 1%, 0.063 W, 0402	0402
107	R23	0	37.4k	CRCV040			

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