TIDA-01012 REV E1 Bill of Materials

Designator	Quantity	Value	PartNumber	Manufacturer	Description	PackageReference
!PCB	1		TIDA-01012	Any	Printed Circuit Board	
BT1	1		1021	Keystone	HOLDER BATTERY AAA, TH	HOLDER BATTERY AAA, TH
C1	1	0.1uF	GRM155R71C104JA88D	MuRata	CAP, CERM, 0.1 µF, 16 V, +/- 5%, X7R, 0402	0402
C2, C8, C9, C21, C25, C26, C29, C30, C31, C32, C33, C35, C38, C46, C51, C52, C71	17	0.1uF	CL03A104KP3NNNC	Samsung Electro-Mechanics	CAP, CERM, 0.1 µF, 10 V, +/- 10%, X5R, 0201	0201
C3, C4, C24, C28, C36, C47, C55, C58, C65, C66, C72	11	1uF	GRM155R61A105KE15D	MuRata	CAP, CERM, 1 µF, 10 V, +/- 10%, X5R, 0402	0402
C5, C27, C39, C68	4	1uF	C1005X5R0J105M050BB	TDK	CAP, CERM, 1 µF, 6.3 V, +/- 20%, X5R, 0402	0402
C6	1	22uF	GRM155R60J226ME11D	MuRata	CAP, CERM, 22 µF, 6.3 V, +/- 20%, X5R, 0402	0402
C7	1	4.7uF	GRM188R6YA475KE15D	MuRata	CAP, CERM, 4.7 µF, 35 V, +/- 10%, X5R, 0603	0603
C10, C11	2	1200pF	C0402C122J5GACTU	Kemet	CAP, CERM, 1200 pF, 50 V, +/- 5%, C0G/NP0, 0402	0402
C12	1	0.1uF	C0603C104J5RACTU	Kemet	CAP, CERM, 0.1 µF, 50 V, +/- 5%, X7R, 0603	0603
C13	1	10pF	C0603C100F5GAC7867	Kemet	CAP, CERM, 10 pF, 50 V, +/- 1%, C0G/NP0, 0603	0603
C14	1	0.01uF	C0805C103F1GACTU	Kemet	CAP, CERM, 0.01 µF, 100 V, +/- 1%, C0G/NP0, 0805	0805
C15	1	330pF	GRM1555C1H331FA01J	MuRata	CAP, CERM, 330 pF, 50 V, +/- 1%, C0G/NP0, 0402	0402
C16	1	470pF	08055A471FAT2A	AVX	CAP, CERM, 470 pF, 50 V, +/- 1%, C0G/NP0, 0805	0805
C17	1	150pF	GRM1555C1H151JA01D	MuRata	CAP, CERM, 150 pF, 50 V, +/- 5%, C0G/NP0, 0402	0402
C20	1	2200pF	GRM1885C1H222JA01D	MuRata	CAP, CERM, 2200 pF, 50 V, +/- 5%, C0G/NP0, 0603	0603
C22	1	100pF	C1608C0G2A101F080AA	TDK	CAP, CERM, 100 pF, 100 V, +/- 1%, C0G/NP0, 0603	0603
C23	1	0.022uF	C1608X7R2A223K	TDK	CAP, CERM, 0.022 µF, 100 V, +/- 10%, X7R, 0603	0603
C34, C56, C57	3	4.7uF	C1005X5R1A475K050BC	TDK	CAP, CERM, 4.7 µF, 10 V, +/- 10%, X5R, 0402	0402
C40, C41	2	22pF	GCM0335C1E220JD03D	MuRata	CAP, CERM, 22 pF, 25 V, +/- 5%, C0G/NP0, AEC-Q200 Grade 1, 0201	0201
C42, C43	2	12pF	GRM0335C1H120JA01D	MuRata	CAP, CERM, 12 pF, 50 V, +/- 5%, C0G/NP0, 0201	0201
C48, C53	2	0.47uF	GRM033R60J474KE90D	MuRata	CAP, CERM, 0.47 µF, 6.3 V, +/- 10%, X5R, 0201	0201
C49	1	39pF	GRM1555C1H390JA01D	MuRata	CAP, CERM, 39 pF, 50 V, +/- 5%, C0G/NP0, 0402	0402
C54	1	2.2uF	GRM155R61C225KE11D	MuRata	CAP, CERM, 2.2 µF, 16 V, +/- 10%, X5R, 0402	0402
C59, C62, C64, C67	4	10uF	CL05A106MP5NUNC	Samsung Electro-Mechanics	CAP, CERM, 10 µF, 10 V, +/- 20%, X5R, 0402	0402
C63	1	100uF	C3216X5R1A107M160AC	TDK	CAP, CERM, 100 µF, 10 V, +/- 20%, X5R, 1206_190	1206_190
D1, D2	2	35V	CDBU0130L	Comchip Technology	Diode, Schottky, 35 V, 0.1 A, SOD-523F	SOD-523F
D3	1	-20V	SI2323DS	Vishay-Siliconix	MOSFET, P-CH, -20 V, -3.7 A, SOT-23	SOT-23
F1	1		NANOSMDC020F-2	TE Connectivity	Fuse, Resettable, 0.2 A, 24 VDC, SMD	1206
FL1	1	2.45 GHz	LFB182G45BG5D920	MuRata	Filter, BandPass, 2.45GHz, SMD	1.6x0.8mm
J1	1		66.9040-22	Multi-Contact	MAH561 Connector, XELW-4, Red, THD	XELW-4 Connector, TH
J2	1		66.9040-21	Multi-Contact	MAH561 Connector, XELW-4, Black, THD	XELW-4 Connector, TH
J3	1		20021121-00006C4LF	FCI	Header, 1.27 mm, 3x2, Au, SMT	Header, 1.27mm, 3x2, SMT
J4	1		HFW4R-1STE1LF	Amphenol FCI	CONN FFC BOTTOM 4POS 1.00MM R/A	

Designator	Quantity	Value	PartNumber	Manufacturer	Description	PackageReference
J5	1		20021121-00010C4LF	FCI	Header, 1.27mm, 5x2, Gold, SMT	Header, 1.27mm, 5x2, SMT
J6	1		0473460001	Molex	Connector, Receptacle, Micro-USB Type B, R/A, Bottom Mount SMT	7.5x2.45x5mm
L1, L2	2	2.2uH	MLZ2012A2R2WT000	TDK	Inductor, Multilayer, Ferrite, 2.2 µH, 0.21 A, 0.15 ohm, SMD	0805
L3	1	1500 ohm	BLM18HE152SN1D	MuRata	Ferrite Bead, 1500 ohm @ 100 MHz, 0.5 A, 0603	0603
R1, R24	2	13.3k	CRCW040213K3FKED	Vishay-Dale	RES, 13.3 k, 1%, 0.063 W, 0402	0402
R2	1	8.2	CRCW04028R20JNED	Vishay-Dale	RES, 8.2, 5%, 0.063 W, 0402	0402
R3	1	10.0k	CRCW040210K0FKED	Vishay-Dale	RES, 10.0 k, 1%, 0.063 W, 0402	0402
R4, R14	2	3.01k	CRCW04023K01FKED	Vishay-Dale	RES, 3.01 k, 1%, 0.063 W, 0402	0402
R5, R15	2	52.3	CRCW040252R3FKED	Vishay-Dale	RES, 52.3, 1%, 0.063 W, 0402	0402
R6	1	9.76k	CRCW04029K76FKED	Vishay-Dale	RES, 9.76 k, 1%, 0.063 W, 0402	0402
R7	1	100k	RG1005P-104-B-T5	Susumu Co Ltd	RES, 100 k, 0.1%, 0.063 W, 0402	0402
R8	1	1.00Meg	CRCW04021M00FKED	Vishay-Dale	RES, 1.00 M, 1%, 0.063 W, 0402	0402
R9	1	100Meg	CRCW0603100MJPEAHR	Vishay-Dale	RES, 100 M, 5%, 0.1 W, 0603	0603
R10	1	10.0	CRCW040210R0FKED	Vishay-Dale	RES, 10.0, 1%, 0.063 W, 0402	0402
R11, R13	2	0	CRCW04020000Z0ED	Vishay-Dale	RES, 0, 5%, 0.063 W, 0402	0402
R12	1	10.2k	CRCW040210K2FKED	Vishay-Dale	RES, 10.2 k, 1%, 0.063 W, 0402	0402
R16	1	10.0Meg	CRHV1206AF10M0FKE5	Vishay-Dale	RES, 10.0 M, 1%, 0.3 W, 1206	1206
R17	1	499k	CRCW0402499KFKED	Vishay-Dale	RES, 499 k, 1%, 0.063 W, 0402	0402
R19, R23	2	133k	CRCW0402133KFKED	Vishay-Dale	RES, 133 k, 1%, 0.063 W, 0402	0402
R20	1	95.3	CRCW251295R3FKEG	Vishay-Dale	RES, 95.3, 1%, 1 W, 2512	2512
R21	1	11.3k	CRCW040211K3FKED	Vishay-Dale	RES, 11.3 k, 1%, 0.063 W, 0402	0402
R25	1	0.5	RL0603FR-070R5L	Yageo America	RES, 0.5, 1%, 0.1 W, 0603	0603
R26, R27	2	909	CRCW0201909RFKED	Vishay-Dale	RES, 909, 1%, 0.05 W, 0201	0201
R28, R30, R31, R32, R51, R52, R53, R54, R56, R57, R58	11	0	MCR01MZPJ000	Rohm	RES, 0, 5%, 0.063 W, 0402	0402
R33, R35, R36, R37, R38, R60, R63, R65	8	47.0k	RK73H1HTTC4702F	KOA Speer	RES, 47.0 k, 1%, 0.05 W, AEC-Q200 Grade 0, 0201	0201
R34	1	200k	CRCW0402200KFKED	Vishay-Dale	RES, 200 k, 1%, 0.063 W, 0402	0402
R39	1	100k	CRCW0201100KFKED	Vishay-Dale	RES, 100 k, 1%, 0.05 W, 0201	0201
R40	1	1.00k	CRCW02011K00FKED	Vishay-Dale	RES, 1.00 k, 1%, 0.05 W, 0201	0201
R41, R42, R43	3	10.0k	CRCW020110K0FKED	Vishay-Dale	RES, 10.0 k, 1%, 0.05 W, 0201	0201
R44	1	10.0k	ERJ-2RKF1002X	Panasonic	RES, 10.0 k, 1%, 0.1 W, 0402	0402
R45	1	0.01	WSL0805R0100FEA18	Vishay-Dale	RES, 0.01, 1%, 0.25 W, 0805	0805
R46	1	10k	CRCW040210K0JNED	Vishay-Dale	RES, 10 k, 5%, 0.063 W, 0402	0402
R47	1	1.15k	CRCW04021K15FKED	Vishay-Dale	RES, 1.15 k, 1%, 0.063 W, 0402	0402
R48	1	9.31k	CRCW04029K31FKED	Vishay-Dale	RES, 9.31 k, 1%, 0.063 W, 0402	0402
R49	1	5.76k	CRCW04025K76FKED	Vishay-Dale	RES, 5.76 k, 1%, 0.063 W, 0402	0402
R50	1	30.1k	CRCW040230K1FKED	Vishay-Dale	RES, 30.1 k, 1%, 0.063 W, 0402	0402
R55	1	1.0k	CRCW04021K00JNED	Vishay-Dale	RES, 1.0 k, 5%, 0.063 W, 0402	0402
S1, S2	2		GS-113-0043	CW Industries	Switch, Slide, DPDT, On-On, 0.5 A, 125 V, TH	9.65x7.92mm
S3	1		B3U-1000P	Omron Electronic Components	SWITCH TACTILE SPST-NO 0.05A 12V	3x1.6x2.5mm
U1	1		ADS8885IDRCR	Texas Instruments	18-Bit, 400-kSPS, Serial Interface, microPower, Miniature, True-Differential Input, SAR Analog-to-Digital Converter, DRC0010D	DRC0010D
U2	1		REF3325AIDCKTG4	Texas Instruments	30 ppm / degC Drift, 3.9 uA Voltage Reference, -40 to 125 degC, 3-pin SC70 (DCK), Green (RoHS & no Sb/Br)	DCK0003A
U3	1		OPA313IDCKR	Texas Instruments	1-MHz, Micro-Power, Low-Noise, RRIO,1.8-V CMOS OPERATIONAL AMPLIFIER Precision Value Line Series, DCK0005A	DCK0005A
U4	1		TS5A3359DCUR	Texas Instruments	1-Ohm SP3T ANALOG SWITCH 5-V/3.3-V SINGLE-CHANNEL 3:1 MULTIPLEXER/DEMULTIPLEXER, DCU0008A	DCU0008A
U5	1		OPA2313IDRGR	Texas Instruments	1-MHz, Micro-Power, Low-Noise, RRIO,1.8-V CMOS OPERATIONAL AMPLIFIER Precision Value Line Series, DRG0008A	DRG0008A

Designator	Quantity	Value	PartNumber	Manufacturer	Description	PackageReference
U6	1		THS4531IDGK	Texas Instruments	Ultra Low Power, Rail-to-Rail Output, Fully-Differential Amplifier, DGK0008A	DGK0008A
U7	1		TPS78230DRVR	Texas Instruments	Single Output LDO, 150 mA, Fixed 3 V Output, 2.2 to 5.5 V Input, with 0.5 uA Quiescent Current, 6-pin SON (DRV), -40 to 125 degC, Green (RoHS & no Sb/Br)	DRV0006A
U8	1		TS3A24159DRCR	Texas Instruments	0.3-ohm 2-Channel SPDT Bidirectional Analog Switch Dual-Channel 2:1 Multiplexer and Demultiplexer, DRC0010J	DRC0010J
U9	1		OPA333AIDCKR	Texas Instruments	17 uA, MicroPower, Precision, Zero Drift CMOS Operational Amplifier, 1.8 to 5.5 V, -40 to 125 degC, 5-pin SOT23 (DCK0005A), Green (RoHS & no Sb/Br)	DCK0005A
U10	1		CC2640F128RGZR	Texas Instruments	Ultra low-power ARM Cortex M3 2.4 GHz Radio MCU, Bluetooth Low Energy, RGZ0048A	RGZ0048A
U11	1		MSP430FR2532IRGER	Texas Instruments	Mixed-Signal Microcontrollers, RGE0024G	RGE0024G
U12	1		479480001	Molex	2.4GHz Antenna, 50 Ohms, SMD	3.14x3.14mm
U13	1		LSF0102DQER	Texas Instruments	2-Channel Bidirectional Multi-Voltage Level Translator for Open-Drain & Push-Pull Application, DQE0008A	DQE0008A
U14	1		RF430CL330HIRGTR	Texas Instruments	DYNAMIC NFC INTERFACE TRANSPONDER, RGT0016C	RGT0016C
U15, U16	2		TPD1E10B06DPYR	Texas Instruments	ESD in 0402 Package with 10 pF Capacitance and 6 V Breakdown, 1 Channel, -40 to +125 degC, 2-pin X2SON (DPY), Green (RoHS & no Sb/Br)	DPY0002A
U17	1		LSF0204RUTR	Texas Instruments	4-Bits Bidirectional Multi-Voltage Level Translator for Open-Drain and PushPull Application, RUT0012A	RUT0012A
U18	1		TPS3422EGDRYR	Texas Instruments	Low-Power, Push-Button Controllers With Configurable Delay, DRY0006A	DRY0006A
U19	1		BQ27426YZFR	Texas Instruments	System-Side Impedance Track Fuel Gauge, YZF0009-C01	YZF0009-C01
U20	1		BQ24232RGTR	Texas Instruments	USB Friendly 0.5 A Li+ Charger with Dynamic Power Management, 10.5 V OVP, 4.3 V, -40 to 85 degC, 16-pin QFN (RGT), Green (RoHS & no Sb/Br)	RGT0016C
U21, U23	2		TPS62740DSSR	Texas Instruments	360nA IQ Step Down Converter for Low Power Applications, DSS0012A	DSS0012A
U24	1		TPS78227DRVR	Texas Instruments	Single Output LDO, 150 mA, Fixed 2.7 V Output, 2.2 to 5.5 V Input, with 0.5 uA Quiescent Current, 6-pin SON (DRV), -40 to 85 degC, Green (RoHS & no Sb/Br)	DRV0006A
U25	1		TS5A3166DCKR	Texas Instruments	0.9-Ohm SPST ANALOG SWITCH, DCK0005A	DCK0005A
Y1	1		FC-135 32.7680KA-A3	Epson	Crystal, 32.768 KHz, 12.5 pF, SMD	SMD, 2-Leads, Body 3.2x1.5mm
Y2	1		FC-12M 32.7680KA-A3	Epson	Crystal, 32.768kHz, 12.5pF, SMD	Crystal 2.05x.6x1.2mm
Y3	1		TSX-3225 24.0000MF20G-AC3	Epson	Crystal, 24 MHz, 9 pF, SMD	SMD, 4-Leads, Body 2.65x3.35mm, Height 0.6mm
C18, C19	0	DNP	Used in BOM report	Used in BOM Report	Cap, 0402 footprint placeholder	0402
C37, C50	0	39pF	GRM1555C1H390JA01D	MuRata	CAP, CERM, 39 pF, 50 V, +/- 5%, C0G/NP0, 0402	0402
C44, C45	0	12pF	GRM0335C1H120JA01D	MuRata	CAP, CERM, 12 pF, 50 V, +/- 5%, C0G/NP0, 0201	0201
C69	0	1uF	GRM155R61A105KE15D	MuRata	CAP, CERM, 1 µF, 10 V, +/- 10%, X5R, 0402	0402
C70	0	2.2uF	CL05A225KQ5NNNC	Samsung	CAP, CERM, 2.2 µF, 6.3 V, +/- 10%, X5R, 0402	0402
FID1, FID2, FID3, FID4, FID5, FID6	0		N/A	N/A	Fiducial mark. There is nothing to buy or mount.	Fiducial
R29	0	0	MCR01MZPJ000	Rohm	RES, 0, 5%, 0.063 W, 0402	0402
R59, R61, R62, R64	0	47.0k	RK73H1HTTC4702F	KOA Speer	RES, 47.0 k, 1%, 0.05 W, AEC-Q200 Grade 0, 0201	0201

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