

**TIDA-01580 REV E2 Bill of Materials**

Designator	Quantity	Value	PartNumber	Manufacturer	Description	PackageReference
IPCB1	1		TIDA-01580	Any	Printed Circuit Board	
BT1	1		301	Keystone	Battery Holder, 30mm , TH	Battery Holder, 30mm , TH
C1, C8	2	1000pF	GRM155R61A102KA01D	MuRata	CAP, CERM, 1000 pF, 10 V, +/- 10%, X5R, 0402	0402
C2, C9, C10, C11	4	0.1uF	GRM155R71C104KA88D	MuRata	CAP, CERM, 0.1 $\mu$ F, 16 V, +/- 10%, X7R, 0402	0402
C3, C4, C5	3	22uF	GRM21BR61A226ME44L	MuRata	CAP, CERM, 22 $\mu$ F, 10 V, +/- 20%, X5R, 0805	0805
C6, C19, C20, C23, C24, C25, C36, C51	8	0.1uF	GRM155R70J104KA01D	MuRata	CAP, CERM, 0.1 $\mu$ F, 6.3 V, +/- 10%, X7R, 0402	0402
C7, C22, C27, C52	4	10uF	GRM188R60J106ME47D	MuRata	CAP, CERM, 10 $\mu$ F, 6.3 V, +/- 20%, X5R, 0603	0603
C14, C18	2	0.01uF	GRM188R71C103KA01D	MuRata	CAP, CERM, 0.01 $\mu$ F, 16 V, +/- 10%, X7R, 0603	0603
C28, C30	2	12pF	GRM1555C1H120JA01D	MuRata	CAP, CERM, 12 pF, 50 V, +/- 5%, C0G/NP0, 0402	0402
C39	1	1uF	GRM155R61A105KE15D	MuRata	CAP, CERM, 1 $\mu$ F, 10 V, +/- 10%, X5R, 0402	0402
C41	1	100uF	C3216X5R1A107M160AC	TDK	CAP, CERM, 100 $\mu$ F, 10 V, +/- 20%, X5R, 1206_190	1206_190
C42	1	0.1uF	885012206046	Wurth Elektronik	CAP, CERM, 0.1 $\mu$ F, 16 V, +/- 10%, X7R, 0603	0603
C43, C47	2	10uF	GRM219R61A106KE44D	MuRata	CAP, CERM, 10 $\mu$ F, 10 V, +/- 10%, X5R, 0805	0805
C44	1	10pF	GJM0335C1E100JB01D	MuRata	CAP, CERM, 10 pF, 25 V, +/- 5%, C0G/NP0, 0201	0201
C45, C49, C53	3	10uF	EMK212BJ106KG-T	Taiyo Yuden	CAP, CERM, 10 $\mu$ F, 16 V, +/- 10%, X5R, 0805	0805
C46	1	22uF	C2012X5R1C226K125AC	TDK	CAP, CERM, 22 $\mu$ F, 16 V, +/- 10%, X5R, 0805	0805
C54	1	2.2uF	C0603C225K9PACTU	Kemet	CAP, CERM, 2.2 $\mu$ F, 6.3 V, +/- 10%, X5R, 0603	0603
C55	1	1uF	GRM185R60J105KE26D	MuRata	CAP, CERM, 1 $\mu$ F, 6.3 V, +/- 10%, X5R, 0603	0603
D2, D3, D4	3	Red	150060RS75000	Wurth Elektronik	LED, Red, SMD	LED_0603
E1	1	2.3-2.7GHz	2500AT44M0400E		ANTENNA	
FID4, FID5, FID6	3		N/A	N/A	Fiducial mark. There is nothing to buy or mount.	Fiducial
FL1	1	2.45 GHz	LFB182G45BG5D920	MuRata	Filter, BandPass, 2.45GHz, SMD	1.6x0.8mm
J1, J2	2		M50-3140545	Harwin	Receptacle, 1.27mm, 5x1, Gold with Tin tail, SMT	Receptacle, 1.27mm, 5x1, SMT
J3, J5, J8	3		GRPB021VWVN-RC	Sullins Connector Solutions	Header, 50mil, 2x1, Gold, TH	2x1 Header
J6	1		PRPC008SADN-RC	Sullins Connector Solutions	Header, 100mil, 8x1, Gold, TH	Header, 2.54 mm, 8x1, TH
J100, J101, J102	3		M50-3140245	Harwin	Receptacle, 1.27mm, 2x1, Gold with Tin tail, SMT	Receptacle, 1.27mm, 2x1, SMT
L1, L5, L6, L9, L10	5	1500 ohm	BLM18HE152SN1D	MuRata	Ferrite Bead, 1500 ohm @ 100 MHz, 0.5 A, 0603	0603
L2, L3, L4	3		DLW31SN900SQ2L	MuRata	Coupled inductor, 0.37 A, 0.3 ohm, SMD	3.2x1.6mm
L7	1	2nH	LQG15HS2N0S02D	MuRata	Inductor, Multilayer, Air Core, 2 nH, 0.3 A, 0.1 ohm, SMD	0402 polarized
L8	1	10uH	CKS2125100M-T	Taiyo Yuden	Inductor, Multilayer, Ferrite, 10 $\mu$ H, 0.11 A, 0.52 ohm, SMD	0805
L11	1	2.2uH	74404024022	Wurth Elektronik	Inductor, Wirewound, Ferrite, 2.2 $\mu$ H, 1.8 A, 0.08 ohm, SMD	SMD, 2.5x2mm
L12	1	1uH	XFL3012-102MEB	Coilcraft	Inductor, Shielded, Composite, 1 $\mu$ H, 2.5 A, 0.04 ohm, SMD	3x1.2x3mm
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" H x 0.200" W
R1, R45, R46, R47, R48, R49, R50	7	499	CRCW0402499RFKED	Vishay-Dale	RES, 499, 1%, 0.063 W, 0402	0402

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R2, R4, R5, R11, R13, R38, R39, R40, R41, R42, R43, R44, R51, R52, R53	15	0	CRCW04020000Z0ED	Vishay-Dale	RES, 0, 5%, 0.063 W, 0402	0402
R8, R12, R16, R19, R54, R55	6	100k	CRCW0402100KDHP	Vishay-Dale	RES, 100 k, 0.5%, 0.063 W, 0402	0402
R10, R14	2	5.11Meg	CRCW04025M11FKED	Vishay-Dale	RES, 5.11 M, 1%, 0.063 W, 0402	0402
R20, R21	2	47.5k	CRCW040247K5FKED	Vishay-Dale	RES, 47.5 k, 1%, 0.063 W, 0402	0402
R22	1	100	ERJ-2RKF1000X	Panasonic	RES, 100, 1%, 0.1 W, 0402	0402
R23	1	100k	CRCW0402100KFKED	Vishay-Dale	RES, 100 k, 1%, 0.063 W, 0402	0402
R25, R26, R27	3	4.7k	RC0603JR-074K7L	Yageo America	RES, 4.7 k, 5%, 0.1 W, 0603	0603
R28, R29, R30, R33	4	0	CRCW06030000Z0EA	Vishay-Dale	RES, 0, 5%, 0.1 W, 0603	0603
R31	1	164k	RT0603DRE07164KL	Yageo America	RES, 164 k, 0.5%, 0.1 W, 0603	0603
R32	1	51.1k	RT0603DRE0751K1L	Yageo America	RES, 51.1 k, 0.5%, 0.1 W, 0603	0603
R35	1	320k	RT0603DRD07320KL	Yageo America	RES, 320 k, 0.5%, 0.1 W, 0603	0603
R36	1	100k	RT0603DRE07100KL	Yageo America	RES, 100 k, 0.5%, 0.1 W, 0603	0603
S1	1		TL9210AF180Q	E-Switch	Switch, SPST-NO, Off-Mom, 0.05 A, 12 VDC, SMD	6x6mm
S2	1		CL-SB-12A-01T	Copal Electronics	Switch, Slide, SPDT, 0.2A, J Lead, SMD	SMD, 3-Leads, Body 8.5x3.5mm, Pitch 2.5mm
TP1	1		5000	Keystone	Test Point, Miniature, Red, TH	Red Miniature Testpoint
TP2	1		5001	Keystone	Test Point, Miniature, Black, TH	Black Miniature Testpoint
U1, U2, U3, U5, U6, U7, U8, U9, U10, U11, U12, U13	12		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
U4	1		AFE4900YZR	Texas Instruments	Ultra Low Power, Integrated AFE for Wearable Optical/Electrical Bio-sensing with FIFO, YZ0030-C01 (DSBGA-30)	YZ0030-C01
U14	1		CC2640R2FRGZR	Texas Instruments	SimpleLink(TM) Bluetooth(R) low energy Wireless MCU, RGZ0048A (VQFN-48)	RGZ0048A
U15	1		TPS63036YFGR	Texas Instruments	High Efficient Single Inductor Buck-Boost Converter with 1-A Switches, YFG0008APAL (DSBGA-8)	YFG0008APAL
U17	1		TPS61099YFFR	Texas Instruments	Synchronous Boost Converter with 800 nA Ultra-Low Quiescent Current, YFF0006AFAD (DSBGA-6)	YFF0006AFAD
Y1	1		TSX-3225 24.0000MF20G-AC3	Epson	Crystal, 24 MHz, 9 pF, SMD	SMD, 4-Leads, Body 2.65x3.35mm, Height 0.6mm
Y2	1		FC-135 32.7680KA-A3	Epson	Crystal, 32.768 KHz, 12.5 pF, SMD	SMD, 2-Leads, Body 3.2x1.5mm
C12, C16	0	4700pF	GRM188R71H472KA01D	MuRata	CAP, CERM, 4700 pF, 50 V, +/- 10%, X7R, 0603	0603
C13, C15, C17, C29	0	100pF	06035A101FAT2A	AVX	CAP, CERM, 100 pF, 50 V, +/- 1%, C0G/NP0, 0603	0603
C21, C26	0	1pF	GRM1555C1H1R0CA01D	MuRata	CAP, CERM, 1 pF, 50 V, +/- 5%, C0G/NP0, 0402	0402
C48, C50	0	0.1uF	GRM155R71C104KA88D	MuRata	CAP, CERM, 0.1 uF, 16 V, +/- 10%, X7R, 0402	0402
D1	0	GREEN	150060GS75000	Würth Elektronik Inc	LED, Green, SMD	LED_0603
FID1, FID2, FID3	0		N/A	N/A	Fiducial mark. There is nothing to buy or mount.	Fiducial
J4	0		SJ-43514-SMT-TR	CUI Inc.	3.5 mm Audio Jack, R/A, SMT	3.5 mm Audio Jack, R/A, SMT
J7	0		CONREVSMA001-SMD-G	Linx Technologies Inc.	Connector, SMA, Vertical, Gold, SMT	SMD, 4-Leads, Body 7.1x7.1mm
L13	0	1500 ohm	BLM18HE152SN1D	MuRata	Ferrite Bead, 1500 ohm @ 100 MHz, 0.5 A, 0603	0603

Designator	Quantity	Value	PartNumber	Manufacturer	Description	PackageReference
R3	0	499k	CRCW0402499KFKED	Vishay-Dale	RES, 499 k, 1%, 0.063 W, 0402	0402
R6, R9, R17, R18	0	0	CRCW04020000Z0ED	Vishay-Dale	RES, 0, 5%, 0.063 W, 0402	0402
R7, R15	0	620k	CRCW0402620KJNED	Vishay-Dale	RES, 620 k, 5%, 0.063 W, 0402	0402
R24	0	1.0k	CRCW06031K00JNEA	Vishay-Dale	RES, 1.0 k, 5%, 0.1 W, 0603	0603
R34, R37, R56	0	0	CRCW06030000Z0EA	Vishay-Dale	RES, 0, 5%, 0.1 W, 0603	0603
U16	0		MX25U12835FZ2I-10G	Macronix	FLASH Memory IC 128Mb (16M x 8) SPI 104MHz 8-WSON (8x6)	WSON 8X6 mm
U18	0		TLV70718DQNT	Texas Instruments	200mA, Low-IQ, Low-Noise, Low-Dropout Regulator for Portable Devices, DQN0004A (X2SON-4)	DQN0004A