

TIDA-010019 REV E2 Bill of Materials

Designator	Quantity	Value	PartNumber	Manufacturer	Description	PackageReference
IPCB	1		TIDA-010019	Any	Printed Circuit Board	
C1, C2, C7, C9, C11, C13, C15, C19, C39, C41, C42, C45, C51, C53, C66_1, C66_3, C66_4, C68, C69, C72, C73, C85_1, C85_3, C85_4, C86_1, C86_3, C86_4	27	0.1uF	885012206020	Würth Elektronik	CAP, CERM, 0.1 uF, 10 V,+/- 10%, X7R, 0603	0603
C6, C65_1, C65_3, C65_4	4	10uF	885012207026	Würth Elektronik	CAP, CERM, 10 uF, 10 V, +/- 10%, X7R, 0805	0805
C10, C12, C16, C18, C38, C40, C44, C54, C67, C74	10	1uF	885012106017	Würth Elektronik	CAP, CERM, 1 uF, 16 V, +/- 20%, X5R, 0603	0603
C14, C17, C37, C43	4	0.01uF	C1608NP01H103J080AA	TDK	CAP, CERM, 0.01 uF, 50 V, +/- 5%, C0G/NP0, 0603	0603
C21_1, C21_3, C21_4	3	1000pF	C0603C102K3GACTU	Kemet	CAP, CERM, 1000 pF, 25 V, +/- 10%, C0G/NP0, 0603	0603
C34_1, C34_3, C34_4, C83_1, C83_3, C83_4, C84_1, C84_3, C84_4, C89_1, C89_3, C89_4	12	1uF	CL10B105KP8NNNC	Samsung	CAP, CERM, 1 uF, 10 V,+/- 10%, X7R, 0603	0603
C46	1	0.047uF	C1608X5R1H473K080AA	TDK	CAP, CERM, 0.047 uF, 50 V, +/- 10%, X5R, 0603	0603
C70	1	1uF	GCM188R71C105MA64D	Murata	CAP, CERM, 1 uF, 16 V, +/- 20%, X7R, AEC-Q200 Grade 1, 0603	0603
D1_1, D1_3, D1_4, D2_1, D2_3, D2_4, D9_1, D9_3, D9_4, D10_1, D10_3, D10_4	12	Green	150040GS73240	Würth Elektronik	LED, Green, SMD	1x0.5mm
D3, D4, D7, D8, D12, D13	6	70V	BAV199-TP	Micro Commercial Component	Diode, Switching, 70 V, 0.215 A, SOT-23	SOT-23
D16, D17, D18	3	40V	BAS40W-7-F	Diodes Inc.	Diode, Schottky, 40 V, 0.2 A, SOT-323	SOT-323
FID4, FID5, FID6	3		N/A	N/A	Fiducial mark. There is nothing to buy or mount.	N/A

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H9, H10, H11, H12, H17, H18, H19, H20, H37, H38, H39, H40	12		NY PMS 440 0025 PH	B&F Fastener Supply	Machine Screw, Round, #4-40 x 1/4, Nylon, Philips panhead	Screw
H13, H14, H15, H16, H21, H22, H23, H24, H45, H46, H47, H48	12		1902C	Keystone	Standoff, Hex, 0.5"L #4-40 Nylon	Standoff
J2, J5, J31	3		691210910002	Würth Elektronik	Receptacle, 2.54mm, 2x1, Tin, R/A, TH	Receptacle, 2.54mm, 2x1, R/A, TH
J7, J23, J28, J36	4		61300511121	Würth Elektronik	Header, 2.54mm, 5x1, Gold, TH	Header, 2.54mm, 5x1, TH
J8, J22, J24	3		PRPC010DAAN-RC	Sullins Connector Solutions	Header, 2.54mm, 10x2, Gold, TH	Header, 2.54mm, 10x2, TH
J20_1, J20_3, J20_4	3		475890001	Molex	Connector, Receptacle, Micro-USB Type AB, R/A, Bottom Mount SMT	5.6x2.5x8.2mm
J37_1, J37_3, J37_4	3		61300411121	Würth Elektronik	Header, 2.54 mm, 4x1, Gold, TH	Header, 2.54mm, 4x1, TH
J39_1, J39_3, J39_4	3		61300611121	Würth Elektronik	Header, 2.54 mm, 6x1, Gold, TH	Header, 2.54mm, 6x1, TH
LBL1, LBL3, LBL4	3		THT-14-423-10	Brady	Thermal Transfer Printable Labels, 0.650" W x 0.200" H - 10,000 per roll	PCB Label 0.650 x 0.200 inch
Q3, Q6	2	65 V	BC846BLP4-7B	Diodes Inc.	Transistor, NPN, 65 V, 0.1 A, AEC-Q101, 1x0.6mm	1x0.6mm
R4, R9, R44, R50, R70, R85, R120	7	10	CRCW040210R0JNED	Vishay-Dale	RES, 10, 5%, 0.063 W, AEC-Q200 Grade 0, 0402	0402
R6, R52	2	100k	CRCW0402100KFKE	Vishay-Dale	RES, 100 k, 1%, 0.063 W, AEC-Q200 Grade 0, 0402	0402
R8	1	1.00Meg	RMCF0603FG1M00	Stackpole Electronics Inc	RES, 1.00 M, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
R10, R15, R45, R51	4	2.00Meg	CRCW04022M00FKED	Vishay-Dale	RES, 2.00 M, 1%, 0.063 W, AEC-Q200 Grade 0, 0402	0402
R11, R12, R13, R14, R46, R47, R48, R49, R76, R81	10	499	CRCW0402499RFKED	Vishay-Dale	RES, 499, 1%, 0.063 W, AEC-Q200 Grade 0, 0402	0402
R16	1	3.24k	PFC-W1206R-12-3241-B	TT Electronics/IRC	RES, 3.24 k, 0.1%, 0.333 W, 1206	1206
R25_1, R25_3, R25_4	3	47k	CRCW040247K0JNED	Vishay-Dale	RES, 47 k, 5%, 0.063 W, AEC-Q200 Grade 0, 0402	0402
R27_1, R27_3, R27_4, R55_1, R55_3, R55_4, R56_1, R56_3, R56_4, R57_1, R57_3, R57_4	12	3.32k	CRCW04023K32FKED	Vishay-Dale	RES, 3.32 k, 1%, 0.063 W, AEC-Q200 Grade 0, 0402	0402
R65_4, R66_3, R109_1, R109_3	4	1.00k	CRCW06031K00FKEA	Vishay-Dale	RES, 1.00 k, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
R71	1	4.7k	CRCW04024K70JNED	Vishay-Dale	RES, 4.7 k, 5%, 0.063 W, AEC-Q200 Grade 0, 0402	0402
R72	1	487k	CRCW0603487KFKEA	Vishay-Dale	RES, 487 k, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
R74, R78, R80	3	10.0k	CRCW060310K0FKEA	Vishay-Dale	RES, 10.0 k, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	0603

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R77, R82	2	10.0k	CRCW040210K0FKED	Vishay-Dale	RES, 10.0 k, 1%, 0.063 W, AEC-Q200 Grade 0, 0402	0402
R79	1	3.09k	CRCW06033K09FKEA	Vishay-Dale	RES, 3.09 k, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
R84	1	39k	CRCW040239K0JNED	Vishay-Dale	RES, 39 k, 5%, 0.063 W, AEC-Q200 Grade 0, 0402	0402
R86	1	68k	CRCW040268K0JNED	Vishay-Dale	RES, 68 k, 5%, 0.063 W, AEC-Q200 Grade 0, 0402	0402
R87	1	6.8k	CRCW04026K80JNED	Vishay-Dale	RES, 6.8 k, 5%, 0.063 W, AEC-Q200 Grade 0, 0402	0402
R110	1	249k	CRCW0402249KFKED	Vishay-Dale	RES, 249 k, 1%, 0.063 W, AEC-Q200 Grade 0, 0402	0402
R111, R112, R113	3	100k	CRCW0402100KJNED	Vishay-Dale	RES, 100 k, 5%, 0.063 W, AEC-Q200 Grade 0, 0402	0402
R114	1	1.0k	CRCW04021K00JNED	Vishay-Dale	RES, 1.0 k, 5%, 0.063 W, AEC-Q200 Grade 0, 0402	0402
R115	1	61.9k	CRCW040261K9FKED	Vishay-Dale	RES, 61.9 k, 1%, 0.063 W, AEC-Q200 Grade 0, 0402	0402
R117_1, R117_3, R117_4, R121	4	0	CRCW04020000Z0EDHP	Vishay-Dale	RES, 0, 0%, 0.2 W, AEC-Q200 Grade 0, 0402	0402
RT2	1	100ohm	PTS060301B100RP100	Vishay/Beyschlag	Temperature Sensor 100 ohm, SMD	0603
S1_1, S1_3, S1_4, S2_1, S2_3, S2_4	6		434121025816	Würth Elektronik	Switch, Tactile, SPST, 12 V, SMD	SMD, 6x3.9mm
SH-J1, SH-J2, SH-J3, SH-J4, SH-J5, SH-J6, SH-J7, SH-J8, SH-J9, SH-J10, SH-J11, SH-J12, SH-J13, SH-J14, SH-J15, SH-J16, SH-J17, SH-J18, SH-J19, SH-J20, SH-J21	21		60900213421	Würth Elektronik	Shunt, 2.54mm, Gold, Black	Shunt, 2.54mm, Black
U3, U14	2		ADS112U04IRTET	Texas Instruments	16-Bit, 4-Channel, 2-kSPS, Delta-Sigma ADC with UART Interface, RTE0016D (WQFN-16)	RTE0016D
U6	1		REF2125IDBVR	Texas Instruments	Low-Drift Low-Power Small-Footprint Series Voltage Reference With Clean Start, DBV0005A (SOT-23-5)	DBV0005A
U15	1		LMT70YFQR	Texas Instruments	+/-0.1degC Precision Analog Temperature Sensor, YFQ0004ACAC (DSBGA-4)	YFQ0004ACAC
U18_1, U18_3, U18_4	3		TPS72733DSET	Texas Instruments	250-mA, Ultralow IQ, Fast Transient Response, RF Low-Dropout Linear Regulator, DSE0006A (WSON-6)	DSE0006A
U19	1		LPV821DBVR	Texas Instruments	700nA, Precision Zero-Drift Amplifier, DBV0005A (SOT-23-5)	DBV0005A
U20_1, U20_3, U20_4	3		MSP430FR2355TRHAR	Texas Instruments	Mixed-Signal Microcontroller, RHA0040E (VQFN-40)	RHA0040E
U21	1		ADS7142IRUGR	Texas Instruments	Nanopower, Ultra-Small Size, Sensor Monitor with I2C Interface and Alert Output, RUG0010A (X2QFN-10)	RUG0010A
U22	1		INA317IDGKR	Texas Instruments	Micro-Power (50 µA), Zero-Drift, Rail-to-Rail-Out Instrumentation Amplifier, DGK0008A (VSSOP-8)	DGK0008A
U23	1		TMP117AIDRVR	Texas Instruments	High-Accuracy, Low-Power, Digital Temperature Sensor With SMBus- and I2C-Compatible Interface, DRV0006B (WSON-6)	DRV0006B
U24	1		LMT01LPG	Texas Instruments	0.5degC Accurate 2-pin Temperature Sensor with a Pulse Train Interface, LPG0002A (TO-92-2)	LPG0002A
U30_1, U30_3, U30_4	3		ISO7721D	Texas Instruments	High Speed, Robust EMC Reinforced Dual-Channel Digital Isolator, D0008B (SOIC-8)	D0008B
U31	1		TMP235DCK	Texas Instruments	TMP235DCK, DCK0005A (SOT-5)	DCK0005A

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U32_1, U32_3, U32_4	3		TPS22946YZPR	Texas Instruments	Ultra-Low Power, Low Input Voltage, Current Limited Load Switch, 300 mOhms rDS(On), -40 to 85 degC, 6-pin DSBGA (YZP), Green (RoHS & no Sb/Br)	YZP0006ADAD
C22_1, C22_3, C22_4, C23_1, C23_3, C23_4	0	12pF	GRM1555C1E120JA01D	MuRata	CAP, CERM, 12 pF, 25 V, +/- 5%, C0G/NP0, 0402	0402
C87	0	0.01uF	GCM155R71H103KA55D	MuRata	CAP, CERM, 0.01 uF, 50 V, +/- 10%, C0G/NP0, 0402	0402
C88	0	10pF	885012005055	Wurth Elektronik	CAP, CERM, 10 pF, 50 V, +/- 5%, C0G/NP0, 0402	0402
C90	0	0.047uF	C1608X5R1H473K080AA	TDK	CAP, CERM, 0.047 uF, 50 V, +/- 10%, X5R, 0603	0603
F1_1, F1_3, F1_4	0		0ZCJ0005FF2E	Bel Fuse	Fuse, 0.05 A, 60 VDC, SMD	3.25x1.65mm
FID1, FID2, FID3	0		N/A	N/A	Fiducial mark. There is nothing to buy or mount.	N/A
R65_1, R65_3, R66_1, R66_4, R109_4	0	1.00k	CRCW06031K00FKEA	Vishay-Dale	RES, 1.00 k, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
R73, R83	0	2.00Meg	CRCW04022M00FKED	Vishay-Dale	RES, 2.00 M, 1%, 0.063 W, AEC-Q200 Grade 0, 0402	0402
R75	0	10.0k	CRCW060310K0FKEA	Vishay-Dale	RES, 10.0 k, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
R116_1, R116_3, R116_4, R118_1, R118_3, R118_4, R119_1, R119_3, R119_4	0	0	CRCW04020000Z0EDHP	Vishay-Dale	RES, 0, 0%, 0.2 W, AEC-Q200 Grade 0, 0402	0402
Y1_1, Y1_3, Y1_4	0		ECS-.327-12.5-34B-TR	ECS Inc.	Crystal, 32.768 KHz, 20 ppm, SMD	3.2x1.5mm

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