

**TIDA-01037 REV E2 Bill of Materials**

Designator	Quantity	Value	PartNumber	Manufacturer	Description	PackageReference
IPC B1	1		TIDA-01037	Any	Printed Circuit Board	
C1, C4, C5, C19, C88, C96	6	10uF	GRM21BR71A106KE51L	MuRata	CAP, CERM, 10 µF, 10 V, +/- 10%, X7R, 0805	0805
C2, C3, C11, C12, C18, C44, C45, C54, C55, C56, C58, C59, C63, C64, C65, C66, C67, C68, C69, C73, C74, C77, C90	23	0.1uF	GRM155R71C104KA88D	MuRata	CAP, CERM, 0.1 µF, 16 V, +/- 10%, X7R, 0402	0402
C7, C57, C97	3	0.1uF	C0603C104J3RACTU	Kemet	CAP, CERM, 0.1 µF, 25 V, +/- 5%, X7R, 0603	0603
C8, C60, C89	3	10uF	ZRB18AD71A106KE01L	MuRata	CAP, CERM, 10 µF, 10 V, +/- 10%, X7T, 0603	0603
C9, C10, C61, C62	4	0.1uF	GRM155R61E104KA87D	MuRata	CAP, CERM, 0.1 µF, 25 V, +/- 10%, X5R, 0402	0402
C13	1	100uF	TPME107K020R0035	AVX Corporation	100µF ±10% Molded Tantalum Capacitors 20V 2917 (7343 Metric) 35 mOhm	7343-43
C14, C24	2	10uF	C3216X7R1E106M160AE	TDK	CAP, CERM, 10 µF, 25 V, +/- 20%, X7R, 1206_190	1206_190
C15, C25, C28, C30, C32, C33	6	47uF	C3216X5R1E476M160AC	TDK	CAP, CERM, 47 µF, 25 V, +/- 20%, X5R, 1206_190	1206_190
C16, C29, C31, C82, C86	5	1000pF	GRM1885C1H102FA01J	MuRata	CAP, CERM, 1000 pF, 50 V, +/- 1%, COG/NP0, 0603	0603
C17, C26, C34, C35, C79, C80, C92, C94, C95, C100, C101	11	1uF	GRM188R71E105KA12D	MuRata	CAP, CERM, 1 µF, 25 V, +/- 10%, X7R, 0603	0603
C20	1	0.022uF	08055C223KAT2A	AVX	CAP, CERM, 0.022uF, 50V, +/-10%, X7R, 0805	0805
C21	1	22uF	C3225X5R1A226M230AA	TDK	CAP, CERM, 22uF, 10V, +/-20%, X5R, 1210	1210
C22, C23	2	10uF	C1210C106K5RACTU	Kemet	10µF ±10% 50V Ceramic Capacitor X7R 1210 (3225 Metric)	1210
C27	1	0.01uF	C0603C103J5RACTU	Kemet	CAP, CERM, 0.01uF, 50V, +/-5%, X7R, 0603	0603
C36	1	1uF	08055C105KAT2A	AVX	CAP, CERM, 1uF, 50V, +/-10%, X7R, 0805	0805
C37, C39	2	0.1uF	C0603C104K5RACTU	Kemet	CAP, CERM, 0.1uF, 50V, +/-10%, X7R, 0603	0603
C38	1	10uF	0805YD106MAT2A	AVX	CAP, CERM, 10uF, 16V, +/-20%, X5R, 0805	0805
C52, C53	2	0.1uF	GRM31C5C1H104JA01L	Murata Electronics North Ame	0.10µF 50V Ceramic Capacitor COG, NP0 1206 (3216 Metric) 0.126" L x 0.063" W (3.20mm x 1.60mm)	1206_190
C75	1	1000pF	202R18W102KV4E	Johanson Technology	CAP, CERM, 1000 pF, 2000 V, +/- 10%, X7R, 1206_190	1206_190
C81, C91	2	470pF	GRM2165C2A471JA01D	MuRata	CAP, CERM, 470 pF, 100 V, +/- 5%, COG/NP0, 0805	0805
C85	1	1000pF	C0805C102J1GACTU	Kemet	CAP, CERM, 1000 pF, 100 V, +/- 5%, COG/NP0, 0805	0805
C87	1	22uF	GRM188R60J226MEA0J	MuRata	CAP, CERM, 22 µF, 6.3 V, +/- 20%, X5R, 0603	0603
D1, D3	2	20V	MBR0520LT1G	ON Semiconductor	Diode, Schottky, 20 V, 0.5 A, SOD-123	SOD-123
D2	1	200V	MBRS4201T3G	ON Semiconductor	Diode, Schottky, 200V, 4A, SMC	SMC
D4, D5	2	Red	150060RS75000	Würth Elektronik	LED, Red, SMD	LED_0603
FID4, FID5, FID6	3		N/A	N/A	Fiducial mark. There is nothing to buy or mount.	Fiducial
H1, H2, H3, H4	4		9330	Keystone Electronics	Machine Screw, Round, #4-40 x 1/4, Nylon, Philips panhead	Screw
H5, H6, H7, H8	4		1902C	Keystone	Standoff, Hex, 0.5"L #4-40 Nylon	Standoff
H13, H14	2		9774050360R	Würth Elektronik	ROUND STANDOFF M3 STEEL 11MM	ROUND STANDOFF M3 STEEL 11MM
J1	1		QTH-030-03-L-D-A	Samtec	Header(Shrouded), 19.7mil, 30x2, Gold, SMT	Header (Shrouded), 19.7mil, 30x2, SMT

Designator	Quantity	Value	PartNumber	Manufacturer	Description	PackageReference
J2, J4	2		61300211121	Würth Elektronik eiSos	Header, 2.54 mm, 2x1, Gold, TH	Header, 2.54mm, 2x1, TH
J3, J6, J10, J12, J13, J14, J15	7		61300311121	Würth Elektronik eiSos	Header, 2.54 mm, 3x1, Gold, TH	Header, 2.54mm, 3x1, TH
J5	1		8718	Keystone Electronics	2 Position Wire to Board Terminal Block Horizontal with Board 0.197" (5.00mm) Through Hole	
J7, J11	2		0878980204	Molex	Header, 2.54 mm, 2x1, Gold, R/A, SMT	Header, 2.54 mm, 2x1, R/A, SMT
J8, J9	2		142-0701-801	Johnson	Connector, End launch SMA, 50 ohm, SMT	End Launch SMA
L1, L2, L3, L4	4	1000 ohm	HZ1206D102R-10	Laird-Signal Integrity Products	Ferrite Bead, 1000 ohm @ 100 MHz, 0.4 A, 1206	1206
R1, R2, R3, R4, R5, R7, R8, R9, R10, R11, R12, R29, R33, R35, R47, R48, R53, R54, R55, R56, R91, R118	22	0	ERJ-2GE0R00X	Panasonic	RES, 0, 5%, 0.063 W, 0402	0402
R6	1	10.0k	CRCW060310K0FKEA	Vishay-Dale	RES, 10.0 k, 1%, 0.1 W, 0603	0603
R15, R16, R20, R21, R122, R123, R126, R127	8	4.7k	CRCW04024K70JNED	Vishay-Dale	RES, 4.7 k, 5%, 0.063 W, 0402	0402
R17, R120, R121, R124	4	33	CRCW040233R0JNED	Vishay-Dale	RES, 33, 5%, 0.063 W, 0402	0402
R19, R125	2	100	RC0402FR-07100RL	Yageo America	RES, 100, 1%, 0.063 W, 0402	0402
R22	1	0	CRCW12060000Z0EA	Vishay-Dale	RES, 0, 5%, 0.25 W, 1206	1206
R23, R38, R39	3	0.1	ERJ-3RSFR10V	Panasonic	RES, 0.1, 1%, 0.1 W, 0603	0603
R24	1	118k	ERJ-6ENF1183V	Panasonic	RES, 118 k, 1%, 0.125 W, 0805	0805
R25	1	5.62k	RC0805FR-075K62L	Yageo America	RES, 5.62 k, 0.1%, 0.125 W, 0805	0805
R26	1	249k	CRCW0805249KFKEA	Vishay-Dale	RES, 249k ohm, 1%, 0.125W, 0805	0805
R31	1	549	RR1220P-5490-D-M	Susumu Co Ltd	RES, 549, 0.5%, 0.1 W, 0805	0805
R34	1	20.5k	CRCW080520K5FKEA	Vishay-Dale	RES, 20.5 k, 1%, 0.125 W, 0805	0805
R36	1	392	RR1220P-3920-D-M	Susumu Co Ltd	RES, 392, 0.5%, 0.1 W, 0805	0805
R40, R128	2	1.2k	CRCW06031K20JNEA	Vishay-Dale	RES, 1.2 k, 5%, 0.1 W, 0603	0603
R57, R58, R60, R61, R62, R63, R66, R67, R68, R71, R76	11	0	CRCW04020000Z0ED	Vishay-Dale	RES, 0, 5%, 0.063 W, 0402	0402
R59, R64, R65, R69, R70, R90, R119	7	10.0k	ERJ-2RKF1002X	Panasonic	RES, 10.0 k, 1%, 0.1 W, 0402	0402
R72, R73, R74, R75	4	1.5k	CRCW06031K50JNEA	Vishay-Dale	RES, 1.5 k, 5%, 0.1 W, 0603	0603
R77, R82, R83, R92	4	1.00k	RG1608P-102-B-T5	Susumu Co Ltd	RES, 1.00 k, 0.1%, 0.1 W, 0603	0603
R78, R87, R88, R104	4	0	CRCW06030000Z0EA	Vishay-Dale	RES, 0, 5%, 0.1 W, 0603	0603
R79, R89	2	22.1	RR0816Q-22R1-D-34R	Susumu	RES SMD 22.1 OHM 0.5% 1/16W 0603	0603
R80, R86	2	0	ERJ-3GEY0R00V	Panasonic	RES, 0, 5%, 0.1 W, 0603	0603
R85	1	1.00	CRCW06031R00FKEA	Vishay-Dale	RES, 1.00, 1%, 0.1 W, 0603	0603
R93	1	0.22	ERJ-2BQFR22X	Panasonic	RES, 0.22, 1%, 0.125 W, 0402	0402
R94	1	20.0k	RG1608P-203-B-T5	Susumu Co Ltd	RES, 20.0 k, 0.1%, 0.1 W, 0603	0603
R95	1	1.00k	CRCW06031K00FKEA	Vishay-Dale	RES, 1.00 k, 1%, 0.1 W, 0603	0603
R96	1	499	RG1608P-4990-B-T5	Susumu Co Ltd	RES, 499, 0.1%, 0.1 W, 0603	0603
R97, R101	2	49.9k	RG1608P-4992-B-T5	Susumu Co Ltd	RES, 49.9 k, 0.1%, 0.1 W, 0603	0603

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R116	1	0	CRCW08050000Z0EA	Vishay-Dale	RES, 0, 5%, 0.125 W, 0805	0805
T1	1	340uH	750313734	Wurth Elektronik	Transformer, 340 uH, TH	8x9.14mm
TP1, TP20, TP21, TP22, TP25, TP26, TP27	7	STD	STD	STD	Test Point, 0.025"	
TP2, TP3, TP4, TP5, TP6, TP7, TP8, TP9, TP10, TP11, TP12, TP13, TP14, TP15, TP16, TP17, TP18, TP19, TP23, TP24	20		5015	Keystone	Test Point, Miniature, SMT	Testpoint_Keystone_Minature
U1	1		BR24G32FVT-3AGE2	Rohm	I2C BUS EEPROM (2-Wire), TSSOP-B8	TSSOP-8
U2	1		LMK61E2-SIAT	Texas Instruments	Ultra-Low Jitter Programmable Oscillator with Internal EEPROM, SIA0008B	SIA0008B
U3, U17	2		SN65LVDS4RSET	Texas Instruments	500 Mbps High-Speed Differential Line Driver / Receivers with LVDS Input and LVTTTL / LVCMOS Output, 1 Rx, -40 to +85 degC, 10-pin UQFN (RSE), Green (RoHS & no Sb/Br)	RSE0010A
U4	1		SN6501DBVR	Texas Instruments	TRANSFORMER DRIVERS FOR ISOLATED POWER SUPPLIES, DBV0005A	DBV0005A
U5	1		LMZ14203TZ-ADJ/NOPB	Texas Instruments	3A SIMPLE SWITCHER® Power Module with 42V Maximum Input Voltage, 7-pin TO-PMOD, Pb-Free	TZA07A
U6, U7, U8	3		TPS7A4700RGWR	Texas Instruments	36-V, 1-A, 4.17-µVRMS, RF LDO Voltage Regulator, RGW0020A	RGW0020A
U9	1		TPS70918DBVT	Texas Instruments	IC REG LDO 1.8V 0.15A SOT23-5	DBV0005A
U11, U22	2		ISO7840DW	Texas Instruments	High-Performance, 8000 VPK Reinforced Quad-Channel Digital Isolator, DW0016B	DW0016B
U15	1		ISO7340CDWR	Texas Instruments	Robust EMC, Low Power, Quad-Channel Digital Isolators, DW0016B (SOIC-16)	DW0016B
U16	1		LMK61E2-SIAR	Texas Instruments	Ultra-Low Jitter Programmable Oscillator with Internal EEPROM, SIA0008B	SIA0008B
U18, U27	2	SN74AUP1G80DCKR	SN74AUP1G80DCKR	TI	IC, Single Positive-Edge-Triggered D-Type Flip-Flop	SC-70
U19	1		ISO7842DWR	Texas Instruments	High-Performance, 8000 VPK Reinforced Quad Channel Digital Isolator, DW0016B	DW0016B
U20, U21	2		SN74AHC1G04DBVR	Texas Instruments	SINGLE SCHMITT-TRIGGER INVERTER GATE, DBV0005A	DBV0005A
U25	1		ISO1541DR	Texas Instruments	Low-Power Bidirectional I2C Isolators, D0008A	D0008A
U29	1		ADS8900BIRGER	Texas Instruments	20-Bit, 1-MSPS, SAR ADC with Enhanced Serial Interface, RGE0024H	RGE0024H
U30	1		THS4551IRGTR	Texas Instruments	Low Power, Precision, 160MHz, Fully Differential Amplifier, RGT0016A	RGT0016A
U31	1		REF5050AIDGKT	Texas Instruments	Low Noise, Very Low Drift, Precision Voltage Reference, -40 to 125 degC, 8-pin VSSOP (DGK), Green (RoHS & no Sb/Br)	DGK0008A
U33	1		OPA376AIDBVR	Texas Instruments	Precision, Low Noise, Low Iq Operational Amplifier, 2.2 to 5.5 V, -40 to 125 degC, 5-pin SOT23 (DBV0005A), Green (RoHS & no Sb/Br)	DBV0005A
Y2	1		ASTMLPE-125.000MHZ-LJ-E-T	ABRACON	OSC, 125 MHz, 3.3V, SMD	3.2x2.5mm
C6, C46, C47, C48, C49, C50, C51	0	0.1uF	GRM155R71C104KA88D	MuRata	CAP, CERM, 0.1 µF, 16 V, +/- 10%, X7R, 0402	0402
C40	0	1uF	08055C105KAT2A	AVX	CAP, CERM, 1uF, 50V, +/-10%, X7R, 0805	0805
C41, C43	0	0.1uF	C0603C104K5RACTU	Kemet	CAP, CERM, 0.1uF, 50V, +/-10%, X7R, 0603	0603
C42	0	10uF	0805YD106MAT2A	AVX	CAP, CERM, 10uF, 16V, +/-20%, X5R, 0805	0805
C76, C83, C93	0	100pF	885012005061	Wurth Elektronik	CAP, CERM, 100 pF, 50 V, +/- 5%, C0G/NP0, 0402	0402

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C84	0	0.01uF	C0805C103F1GACTU	Kemet	CAP, CERM, 0.01 $\mu$ F, 100 V, +/- 1%, COG/NP0, 0805	0805
C98	0	47uF	GRM32ER71A476KE15L	MuRata	CAP, CERM, 47 $\mu$ F, 10 V, +/- 10%, X7R, 1210	1210
C99	0	10uF	GRM21BR71A106KE51L	MuRata	CAP, CERM, 10uF, 10V, +/-10%, X7R, 0805	0805
C102	0	1uF	GRM188R71A105KA61D	MuRata	CAP, CERM, 1uF, 10V, +/-10%, X7R, 0603	0603
FID1, FID2, FID3	0		N/A	N/A	Fiducial mark. There is nothing to buy or mount.	Fiducial
R13, R14	0	33	CRCW040233R0JNED	Vishay-Dale	RES, 33, 5%, 0.063 W, 0402	0402
R18, R105, R106, R107, R108, R109, R110, R111, R112, R113, R114, R115	0	10.0k	ERJ-2RKF1002X	Panasonic	RES, 10.0 k, 1%, 0.1 W, 0402	0402
R27, R28, R30, R32, R37, R41, R42, R43, R44, R45, R46, R49, R50, R51, R52, R81	0	0	ERJ-2GE0R00X	Panasonic	RES, 0, 5%, 0.063 W, 0402	0402
R84, R98, R102, R103	0	0	CRCW06030000Z0EA	Vishay-Dale	RES, 0, 5%, 0.1 W, 0603	0603
R99, R100	0	0.22	ERJ-3RQFR22V	Panasonic	RES, 0.22 ohm, 1%, 0.1W, 0603	0603
R117	0	0	CRCW08050000Z0EA	Vishay-Dale	RES, 0, 5%, 0.125 W, 0805	0805
T2	0	110uH	750315240	Würth Elektronik	Transformer, 110 uH, SMT	10.41x12.32mm
U10	0		TPS70918DBVT	Texas Instruments	IC REG LDO 1.8V 0.15A SOT23-5	DBV0005A
U12, U13, U14	0		SN74AVC4T245DGVR	Texas Instruments	4-Bit Dual-supply Bus Transceiver with Configurable Voltage Translation and 3-State Outputs, DGV0016A	DGV0016A
U32	0		REF6041AIDGK	Texas Instruments	High-Precision Voltage Reference with Integrated High-Bandwidth Buffer, DGK0008A	DGK0008A
Y1	0		ASTMLPE-125.000MHZ-LJ-E-T	ABRACON	OSC, 125 MHz, 3.3V, SMD	3.2x2.5mm

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