

**TIDA-010043 REV E2 Bill of Materials**

Designator	Quantity	Value	PartNumber	Manufacturer	Description	PackageReference
!PCB	1		TIDA-010043	Any	Printed Circuit Board	
C1	1	68uF	T495D686K020ATE150	Kemet	CAP, TA, 68 uF, 20 V, +/- 10%, 0.15 ohm, SMD	7343-31
C2, C3	2	22uF	GRM188R60J226MEA0D	MuRata	CAP, CERM, 22 uF, 6.3 V, +/- 20%, X5R, 0603	0603
C4	1	10uF	GRM188Z71A106MA73D	MuRata	CAP, CERM, 10 uF, 10 V, +/- 20%, X7R, 0603	0603
C5, C7, C12, C17, C22, C23, C24	7	0.1uF	06033C104KAT2A	AVX	CAP, CERM, 0.1 uF, 25 V, +/- 10%, X7R, 0603	0603
C6	1	3300pF	GRM188R71E332KA01D	MuRata	CAP, CERM, 3300 pF, 25 V, +/- 10%, X7R, 0603	0603
C8, C10, C13, C15, C18, C20, C27	7	10uF	885012207026	Würth Elektronik	CAP, CERM, 10 uF, 10 V, +/- 10%, X7R, 0805	0805
C9, C11, C14, C16, C19, C21, C28	7	0.1uF	885012205037	Würth Elektronik	CAP, CERM, 0.1 uF, 16 V, +/- 10%, X7R, 0402	0402
C25	1	10uF	GRM188R60J106ME84	MuRata	CAP, CERM, 10 uF, 6.3 V, +/- 20%, X5R, 0603	0603
C26	1	0.47uF	GRM188R71A474KA61D	MuRata	CAP, CERM, 0.47 uF, 10 V, +/- 10%, X7R, 0603	0603
D1	1	Green	LZ1-00G102-0000	LEDEngin	LED, Green, SMD	4.4x4.4mm
D2	1	Red	LZ1-00R102-0000	LEDEngin	LED, Red, SMD	4.4x4.4mm
D4, D5	2	100V	1N4148W-7-F	Diodes Inc.	Diode, Ultrafast, 100 V, 0.15 A, SOD-123	SOD-123
D6	1	Green	SM0603GCL	Bivar	LED, Green, SMD	0603 LED
FID4, FID5, FID6	3		N/A	N/A	Fiducial mark. There is nothing to buy or mount.	Fiducial
GND	1		5001	Keystone	Test Point, Miniature, Black, TH	Black Miniature Testpoint
J1	1		850-10-008-20-001000	Mill-Max	Header, 50mil, 8x1, R/A, TH	Header, 8x1, 50mil, R/A
J2, J3	2		61301011821	Würth Elektronik	Receptacle, 2.54mm, 10x1, Gold, TH	Receptacle, 2.54mm, 10x1, TH
J4	1		PPTC021LFBN-RC	Sullins Connector Solutions	Receptacle, 100mil, 2x1, Tin, TH	Receptacle, 2x1, 100mil, Tin
J6, J8	2		61300211121	Würth Elektronik	Header, 2.54 mm, 2x1, Gold, TH	Header, 2.54mm, 2x1, TH
L1	1	470nH	DFE201612E-R47M=P2	MuRata	Inductor, Shielded, Metal Composite, 470 nH, 4.5 A, 0.026 ohm, SMD	2x1.6mm
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
Q1	1	45 V	BC857C-7-F	Diodes Inc.	Transistor, PNP, 45 V, 0.1 A, SOT-23	SOT-23
Q2	1	12V	CSD13306W	Texas Instruments	MOSFET, N-CH, 12 V, 3.5 A, YZC0006ABAB (DSBGA-6)	YZC0006ABAB
Q3	1	12V	CSD13202Q2	Texas Instruments	MOSFET, N-CH, 12 V, 22 A, DQK0006C (WSON-6)	DQK0006C
R1, R2	2	0	5106	Keystone	RES, 0, 1%, 0.5 W, 0805	0805
R3, R31, R32, R33	4	10.2k	RC0603FR-0710K2L	Yageo	RES, 10.2 k, 1%, 0.1 W, 0603	0603
R4, R12	2	806k	RC0603FR-07806KL	Yageo	RES, 806 k, 1%, 0.1 W, 0603	0603
R5, R8, R13, R17, R21, R22, R23, R24, R29, R30, R34, R35, R36, R39, R40, R45, R46	17	0	RMCF0603ZT0R00	Stackpole Electronics Inc	RES, 0, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
R6, R10	2	100k	CRCW0603100KFKEA	Vishay-Dale	RES, 100 k, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
R7, R37	2	1.00Meg	RC0603FR-071ML	Yageo	RES, 1.00 M, 1%, 0.1 W, 0603	0603

Designator	Quantity	Value	PartNumber	Manufacturer	Description	PackageReference
R9	1	1.40k	RC0603FR-071K4L	Yageo	RES, 1.40 k, 1%, 0.1 W, 0603	0603
R11	1	390k	RC0603FR-07390KL	Yageo	RES, 390 k, 1%, 0.1 W, 0603	0603
R14, R16, R18, R20	4	10.0k	RMCF0603FT10K0	Stackpole Electronics Inc	RES, 10.0 k, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
R15, R42	2	1.00k	ERJ-3EKF1001V	Panasonic	RES, 1.00 k, 1%, 0.1 W, 0603	0603
R19	1	20.0	CRCW120620R0FKEAHP	Vishay-Dale	RES, 20.0, 1%, 0.5 W, AEC-Q200 Grade 0, 1206	1206
R25	1	2.49	CRCW06032R49FKEA	Vishay-Dale	RES, 2.49, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
R26	1	49.9	CRCW060349R9FKEA	Vishay-Dale	RES, 49.9, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
R28	1	0.05	CRM1206-FZ-R050ELF	Bourns	RES, 0.05, 1%, 0.5 W, 1206	1206
R38	1	2.00Meg	RC0603FR-072ML	Yageo	RES, 2.00 M, 1%, 0.1 W, 0603	0603
R41	1	100k	RC0603FR-07100KL	Yageo	RES, 100 k, 1%, 0.1 W, 0603	0603
R43	1	22.0k	ERJ-3EKF2202V	Panasonic	RES, 22.0 k, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
R44	1	470k	RC0603FR-07470KL	Yageo	RES, 470 k, 1%, 0.1 W, 0603	0603
S2	1		SKRKAEE010	Alps	Switch, Push Button, SMD	2.9x2x3.9mm SMD
TP2, TP3, TP5, TP6, VIN	5		5000	Keystone	Test Point, Miniature, Red, TH	Red Miniature Testpoint
U1	1		TPS63802DLAR	Texas Instruments	High Current, High Efficiency Single Inductor Buck-Boost Converter, DLA0010A (VSON-HR-10)	DLA0010A
U2	1		TPS259571DSGR	Texas Instruments	12V eFuse with Over Voltage Protection, DSG0008A (WSON-8)	DSG0008A
U3, U8	2		OPA333AIDBVR	Texas Instruments	17 uA, MicroPower, Precision, Zero Drift CMOS Operational Amplifier, 1.8 to 5.5 V, -40 to 125 degC, 5-pin SOT23 (DBV5), Green (RoHS & no Sb/Br)	DBV0005A
U4, U5	2		OPA365AIDBVR	Texas Instruments	50 MHz, Low-Noise, Single-Supply Rail-to-Rail Operational Amplifier, 2.2 to 5.5 V, -40 to 125 degC, 5-pin SOT23 (DBV5), Green (RoHS & no Sb/Br)	DBV0005A
U6	1		TMUX1119DCKR	Texas Instruments	5-V low-leakage-current, 2:1 1-channel precision multiplexer	DCK0006A
U7	1		TLV7021DCKR	Texas Instruments	Small-Size Micropower Low-Voltage Comparator, DCK0005A (SOT-SC70-5)	DCK0005A
D3	0	40V	ZLLS350TA	Diodes Inc.	Diode, Schottky, 40 V, 0.38 A, SOD-523	SOD-523
FID1, FID2, FID3	0		N/A	N/A	Fiducial mark. There is nothing to buy or mount.	Fiducial
J5	0		61000418221	Würth Elektronik	Header, 2.54mm, 4x1, Gold, SMT	Header, 2.54mm, 4x1, SMT
R27, R47, R48	0	0	RMCF0603ZT0R00	Stackpole Electronics Inc	RES, 0, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	0603

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