

TIDA-01415 REV E1 Bill of Materials

Designator	Quantity	Value	PartNumber	Manufacturer	Description	PackageReference
!PCB1	1		TIDA-01415	Any	Printed Circuit Board	
BLED+, BLED-, GLED+, GLED-, GND, GND, GND1, GND1, GND1, GND1, IADJ1, IADJ2, IADJ3, IADJ4, PWM1, PWM2, PWM3, PWM4, RLED+, RLED-, SH1, SH2, SH3, SH4, SW1, SW2, SW3, SW4, SW5, SW6, TP1, TP3, VFB1, VFB2, VFB3, VFB4, VIN+, VIN-, WLED+, WLED-	40		5015	Keystone	Test Point, Miniature, SMT	Testpoint_Keystone_ Miniature
C1, C15, C46, C59, C85, C86, C87, C88	8	0.1uF	C2012X7R1H104K085AA	TDK	CAP, CERM, 0.1 µF, 50 V, +/- 10%, X7R, 0805	0805
C2, C16, C47, C60	4	1uF	C2012X7R1H105K125AB	TDK	CAP, CERM, 1 µF, 50 V, +/- 10%, X7R, 0805	0805
C3, C14, C45, C58, C74	5	1uF	C1608X7R1C105K080AC	TDK	CAP, CERM, 1 µF, 16 V, +/- 10%, X7R, 0603	0603
C4, C5, C17, C18, C34, C41, C48, C49, C61, C62	10	2.2uF	C2012X7R1H225K125AC	TDK	CAP, CERM, 2.2 µF, 50 V, +/- 10%, X7R, 0805	0805
C7, C20, C51, C64	4	470pF	CGA1A2X7R1H471K030BA	TDK	CAP, CERM, 470 pF, 50 V, +/- 10%, X7R, AEC-Q200 Grade 1, 0201	0201
C27	1	0.33uF	C0603C334K4RACTU	Kemet	CAP, CERM, 0.33 µF, 16 V, +/- 10%, X7R, 0603	0603
C28, C29, C30, C31, C35, C36, C101, C102	8	2.2uF	C2012X7R1C225K125AB	TDK	CAP, CERM, 2.2 µF, 16 V, +/- 10%, X7R, 0805	0805
C32	1	22uF	GRM31CR61C226KE15L	MuRata	CAP, CERM, 22 µF, 16 V, +/- 10%, X5R, 1206	1206
C37	1	0.047uF	GCM188R71E473KA37D	MuRata	CAP, CERM, 0.047 µF, 25 V, +/- 10%, X7R, AEC-Q200 Grade 1, 0603	0603
C38, C43, C78	3	10uF	GRT188C81A106ME13D	MuRata	CAP, CERM, 10 µF, 10 V, +/- 20%, X6S, AEC-Q200 Grade 2, 0603	0603
C39	1	0.1uF	GRM188R71E104KA01D	MuRata	CAP, CERM, 0.1 µF, 25 V, +/- 10%, X7R, 0603	0603
C40	1	10uF	CGA4J1X7S1C106K125AC	TDK	CAP, CERM, 10 µF, 16 V, +/- 10%, X7S, AEC-Q200 Grade 1, 0805	0805
C42	1	0.056uF	GRM155R71C563KA88D	MuRata	CAP, CERM, 0.056 µF, 16 V, +/- 10%, X7R, 0402	0402
C44	1	0.1uF	GRM155R61A104KA01D	MuRata	CAP, CERM, 0.1 µF, 10 V, +/- 10%, X5R, 0402	0402
C77, C79	2	0.1uF	GRM188R71H104KA93D	MuRata	CAP, CERM, 0.1 µF, 50 V, +/- 10%, X7R, 0603	0603
C80	1	0.15uF	C1608X7R1E154K080AA	TDK	CAP, CERM, 0.15 µF, 25 V, +/- 10%, X7R, 0603	0603

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C89, C90, C91, C92	4	0.1uF	C1005X7R1E104M050BB	TDK	CAP, CERM, 0.1 µF, 25 V, +/- 20%, X7R, 0402	0402
D1, D3, D4, D6, D8, D10, D11, D13	8	10V	ZLLS410TA	Diodes Inc.	Diode, Schottky, 10 V, 0.75 A, SOD-323	SOD-323
D2, D5, D9, D12	4	60V	CDBC560-G	Comchip Technology	Diode, Schottky, 60 V, 5 A, SMC	SMC
D7	1	100V	MBR1H100SFT3G	ON Semiconductor	Diode, Schottky, 100 V, 1 A, SOD-123FL	SOD-123FL
FID4, FID5, FID6	3		N/A	N/A	Fiducial mark. There is nothing to buy or mount.	Fiducial
H1, H2, H3, H4	4		NY PMS 440 0025 PH	B&F Fastener Supply	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
J1, J3, J6, J8, J12	5		0022284033	Molex	Header, 2.54mm, 3x1, Tin, TH	Header, 2.54mm, 3x1, TH
J2, J7, J9, J13	4		1751248	Phoenix Contact	Conn Term Block, 2POS, 3.5mm, TH	11x8.5x7.3mm
J4	1		800-10-002-10-001000	Mill-Max	Header, 100mil, 2x1, TH	Header, 2x1, 100mil, TH
J5, J10	2		PEC10DAAN	Sullins Connector Solutions	Header, 100mil, 10x2, TH	Header, 10x2, 2.54mm, TH
J14	1		1727010	Phoenix Contact	Conn Term Block, 2POS, 3.81mm, TH	2POS Terminal Block
L1, L2, L8, L9	4	47uH	744770147	Würth Elektronik	Inductor, Shielded Drum Core, Ferrite, 47 µH, 2.7 A, 0.076 ohm, SMD	SMD
L3	1	15uH	744053150	Würth Elektronik	Inductor, Shielded Drum Core, Ferrite, 15 µH, 1.15 A, 0.07 ohm, SMD	WE-TPC-LH
L4, L5, L10	3	1000 ohm	742792662	Würth Elektronik	Ferrite Bead, 1000 ohm @ 100 MHz, 0.6 A, 0603	0603
L6	1	220 ohm	BLM15AG221SN1D	MuRata	Ferrite Bead, 220 ohm @ 100 MHz, 0.45 A, 0402	0402
L7	1	330uH	SDR0403-331KL	Bourns	Inductor, Drum Core, Ferrite, 330 µH, 0.17 A, 6 ohm, SMD	4.5x3.2x4mm
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, Q3, Q5, Q7	4	100V	CSD19538Q2	Texas Instruments	MOSFET, N-CH, 100 V, 4.5 A, DQK0006C (WSON-6)	DQK0006C
Q2, Q4, Q6, Q8	4	-70V	ZXMP7A17KTC	Diodes Inc.	MOSFET, P-CH, -70 V, -5.7 A, DPAK	DPAK
R1	1	5.62k	CRCW06035K62FKEA	Vishay-Dale	RES, 5.62 k, 1%, 0.1 W, 0603	0603
R2	1	49.9k	CRCW060349K9FKEA	Vishay-Dale	RES, 49.9 k, 1%, 0.1 W, 0603	0603
R3, R4, R17, R18, R41, R42, R53, R54	8	1.0	CRCW06031R00JNEA	Vishay-Dale	RES, 1.0, 5%, 0.1 W, 0603	0603
R5, R19, R43, R55	4	0.3	CSRN2512FKR300	Stackpole Electronics Inc	RES, 0.3, 1%, 2 W, 2512	2512
R6, R7, R20, R21, R44, R45, R56, R57	8	10.0k	CRCW060310K0FKEA	Vishay-Dale	RES, 10.0 k, 1%, 0.1 W, 0603	0603
R8, R22, R46, R58	4	470	CRCW0402470RJNED	Vishay-Dale	RES, 470, 5%, 0.063 W, 0402	0402
R9, R23, R47, R59	4	3.16Meg	CRCW06033M16FKEA	Vishay-Dale	RES, 3.16 M, 1%, 0.1 W, 0603	0603
R10, R48	2	16.5k	CRCW060316K5FKEA	Vishay-Dale	RES, 16.5 k, 1%, 0.1 W, 0603	0603
R12, R25, R30, R33, R49, R61	6	110k	CRCW0603110KFKEA	Vishay-Dale	RES, 110 k, 1%, 0.1 W, 0603	0603
R14, R28, R52, R64	4	14.0k	CRCW060314K0FKEA	Vishay-Dale	RES, 14.0 k, 1%, 0.1 W, 0603	0603
R15, R16	2	0	CRCW04020000Z0ED	Vishay-Dale	RES, 0, 5%, 0.063 W, 0402	0402
R24	1	15.4k	CRCW060315K4FKEA	Vishay-Dale	RES, 15.4 k, 1%, 0.1 W, 0603	0603
R29, R39, R65, R71, R86, R87, R88, R89	8	100k	CRCW0603100KFKEA	Vishay-Dale	RES, 100 k, 1%, 0.1 W, 0603	0603

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R31	1	30.0k	RC0603FR-0730KL	Yageo America	RES, 30.0 k, 1%, 0.1 W, 0603	0603
R32, R94, R95, R96, R97	5	100	RC0603FR-07100RL	Yageo America	RES, 100, 1%, 0.1 W, 0603	0603
R34	1	887k	CRCW0402887KFKED	Vishay-Dale	RES, 887 k, 1%, 0.063 W, 0402	0402
R35	1	1.50k	RC0603FR-071K5L	Yageo America	RES, 1.50 k, 1%, 0.1 W, 0603	0603
R36	1	12.4k	CRCW060312K4FKEA	Vishay-Dale	RES, 12.4 k, 1%, 0.1 W, 0603	0603
R37	1	124k	CRCW0402124KFKED	Vishay-Dale	RES, 124 k, 1%, 0.063 W, 0402	0402
R38	1	182k	CRCW0402182KFKED	Vishay-Dale	RES, 182 k, 1%, 0.063 W, 0402	0402
R60	1	7.87k	CRCW06037K87FKEA	Vishay-Dale	RES, 7.87 k, 1%, 0.1 W, 0603	0603
R75, R76, R77, R78	4	0	CRCW06030000Z0EA	Vishay-Dale	RES, 0, 5%, 0.1 W, 0603	0603
R81	1	412	CRCW1206412RFKEA	Vishay-Dale	RES, 412, 1%, 0.25 W, 1206	1206
R99, R100	2	10.0	CRCW060310R0FKEA	Vishay-Dale	RES, 10.0, 1%, 0.1 W, 0603	0603
SH-J3, SH-J4, SH-J5, SH-J6, SH-J7	5	1x2	969102-0000-DA	3M	Shunt, 100mil, Gold plated, Black	Shunt
U1, U4, U10, U13	4		UCC27511DBVR	Texas Instruments	Single-Channel High-Speed Low-Side Gate Driver (with 4-A Peak Source and 8-A Peak Sink), DBV0006A (SOT-6)	DBV0006A
U2, U5, U11, U14	4		LM3409MY/NOPB	Texas Instruments	PFET Buck Controller for High Power LED Drives, 10-pin eMSOP, Pb-Free	MUC10A
U7	1		LP5907SNX-3.3/NOPB	Texas Instruments	250-mA Ultra-Low-Noise, Low-IQ LDO, DQN0004A (X2SON-4)	DQN0004A
U8	1		LMR16006XDDCR	Texas Instruments	Wide Input Voltage Range Buck Regulator with High Efficiency Sleep Mode, DDC0006A (SOT-6)	DDC0006A
U9	1		LM5165DRCR	Texas Instruments	3V-65V, 150mA Synchronous Buck Converter With Ultra-Low IQ, DRC0010J (VSON-10)	DRC0010J
U17	1		DAC7564ICPWR	Texas Instruments	12-Bit, Quad Channel, Ultra-Low Glitch, Voltage Output DAC with 2.5V, 2ppm/degC Internal Reference, PW0016A (TSSOP-16)	PW0016A
C6, C19, C50, C63	0	0.01uF	885012207092	Wurth Elektronik	CAP, CERM, 0.01 µF, 50 V, +/- 10%, X7R, 0805	0805
C33	0	10uF	GRT188C81A106ME13D	MuRata	CAP, CERM, 10 µF, 10 V, +/- 20%, X6S, AEC-Q200 Grade 2, 0603	0603
C97, C98, C99, C100	0	15pF	885012005056	Wurth Elektronik	CAP, CERM, 15 pF, 50 V, +/- 5%, C0G/NP0, 0402	0402
FID1, FID2, FID3	0		N/A	N/A	Fiducial mark. There is nothing to buy or mount.	Fiducial
R79, R80	0	0	CRCW06030000Z0EA	Vishay-Dale	RES, 0, 5%, 0.1 W, 0603	0603

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