

Variant: 001
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 TID #: TIDA-01386



TIDA-01386 REV E1 Bill of Materials

Item #	Designator	Quantity	Value	PartNumber	Manufacturer	Description	PackageReference
1	PCB	1		TIDA-01386	Any	Printed Circuit Board	
2	C1, C3	2	150pF	885012005062	Würth Elektronik	CAP, CERM, 150 pF, 50 V, +/- 5%, COG/NP0, 0402	0402
3	C2	1	1uF	CGA4J3X7S2A105K125AB	TDK	CAP, CERM, 1 uF, 100 V, +/- 10%, X7S, AEC-Q200 Grade 1, 0805	0805
4	C4, C10	2	1uF	885012105012	Würth Elektronik	CAP, CERM, 1 uF, 10 V, +/- 20%, X5R, 0402	0402
5	C5	1	2.2uF	C3216X7S2A225K160AB	TDK	CAP, CERM, 2.2 uF, 100 V, +/- 10%, X7S, 1206	1206
6	C6	1	1000pF	885012206083	Würth Elektronik	CAP, CERM, 1000 pF, 50 V, +/- 10%, X7R, 0603	0603
7	C7	1	100pF	885012006057	Würth Elektronik	CAP, CERM, 100 pF, 50 V, +/- 5%, COG/NP0, 0603	0603
8	C8	1	22uF	C1608X5R1A226M080AC	TDK	CAP, CERM, 22 uF, 10 V, +/- 20%, X5R, 0603	0603
9	C9, C11	2	0.1uF	GRM155R71E104KE14D	MuRata	CAP, CERM, 0.1 uF, 25 V, +/- 10%, X7R, 0402	0402
10	C12, C13	2	22pF	885012005009	Würth Elektronik	CAP, CERM, 22 pF, 10 V, +/- 5%, COG/NP0, 0402	0402
11	C14, C15, C16	3	0.1uF	C1608X7R1H104K080AA	TDK	CAP, CERM, 0.1 uF, 50 V, +/- 10%, X7R, 0603	0603
12	C17	1	75pF	GRM1885C2A750JA01D	MuRata	CAP, CERM, 75 pF, 100 V, +/- 5%, COG/NP0, 0603	0603
13	C18	1	0.01uF	06031C103JAT2A	AVX	CAP, CERM, 0.01 uF, 100 V, +/- 5%, X7R, 0603	0603
14	C19	1	22uF	EMVA350ADA220ME55G	Chem-Con	CAP, AL, 22 uF, 35 V, +/- 20%, SMD	E55
15	C20	1	100pF	C1608C0G2A101F080AA	TDK	CAP, CERM, 100 pF, 100 V, +/- 1%, COG/NP0, 0603	0603
16	D1	1	200V	RF071M2S	Rohm	Diode, Ultrafast, 200 V, 1 A, SOD-123	SOD-123
17	D2	1	Yellow	LY L29K-J1K2-26-Z	OSRAM	LED, Yellow, SMD	LED, 1.3x0.65x0.8mm
18	D3	1	Green	LG L29K-G2J1-24-Z	OSRAM	LED, Green, SMD	1.7x0.65x0.8mm
19	FID1, FID2, FID3, FID4, FID5, FID6	0		N/A	N/A	Fiducial mark. There is nothing to buy or mount.	Fiducial
20	J1	1		09 0431 212 04	Binder-Connector	M12 Socket, 4Pos, TH	M12 Conn D12x14.3
21	J2	1		850-10-004-40-001000	Mill-Max	Header, 50mil, 4x1, Gold, R/A, SMT	Header, 50mil, R/A, SMT
22	J3	1		PPPC031LGBN-RC	Sullins Connector Solutions	Receptacle, 2.54 mm, 3x1, Gold, R/A, TH	Receptacle, 2.54 mm, 3x1, R/A, TH
23	L1	1	47uH	744773147	Würth Elektronik	Inductor, Shielded Drum Core, Ferrite, 47 uH, 0.68 A, 0.844 ohm, SMD	4.5x3.2x4.0mm
24	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
25	R1, R2, R16	3	10k	CRCW040210K0JNED	Vishay-Dale	RES, 10 k, 5%, 0.063 W, 0402	0402
26	R3	1	1.0Meg	CRCW04021M00JNED	Vishay-Dale	RES, 1.0 M, 5%, 0.063 W, 0402	0402
27	R4	1	88.7k	CRCW040288K7FKED	Vishay-Dale	RES, 88.7 k, 1%, 0.063 W, 0402	0402
28	R5	1	37.4k	CRCW040237K4FKED	Vishay-Dale	RES, 37.4 k, 1%, 0.063 W, 0402	0402
29	R6	1	82.5k	CRCW040282K5FKED	Vishay-Dale	RES, 82.5 k, 1%, 0.063 W, AEC-Q200 Grade 0, 0402	0402
30	R7	1	357k	CRCW0402357KFKED	Vishay-Dale	RES, 357 k, 1%, 0.063 W, 0402	0402
31	R8	1	169k	CRCW0402169KFKED	Vishay-Dale	RES, 169 k, 1%, 0.063 W, 0402	0402
32	R9	1	30.1k	CRCW040230K1FKED	Vishay-Dale	RES, 30.1 k, 1%, 0.063 W, 0402	0402
33	R10, R11	2	47	MCR01M2PJ470	Rohm	RES, 47, 5%, 0.063 W, 0402	0402
34	R12, R13	2	820	CRCW0402820RJNED	Vishay-Dale	RES, 820, 5%, 0.063 W, 0402	0402
35	R14	1	47k	CRCW040247K0JNED	Vishay-Dale	RES, 47k ohm, 5%, 0.063W, 0402	0402
36	R15	1	100	CRCW0603100RFKEA	Vishay-Dale	RES, 100, 1%, 0.1 W, 0603	0603
37	R17	1	100	CRCW0402100RFKED	Vishay-Dale	RES, 100, 1%, 0.063 W, 0402	0402
38	R18	1	2.7k	CRCW04022K70JNED	Vishay-Dale	RES, 2.7 k, 5%, 0.063 W, 0402	0402
39	T1	1	3mH	B78416A2232A003	TDK	Transformer, 3 mH, SMT	8.8x7.6mm
40	T2	0	3mH	750317161	Würth Elektronik	Transformer, 3 mH, SMT	8.26x6.60x5.59mm
41	U1, U2	2		TVS3300YZFR	Texas Instruments	33V Precision Surge Protection Clamp, YZF0004-C01 (DSBGA-4)	YZF0004-C01
42	U3	1		LM5166DRCR	Texas Instruments	3.0-V to 65-V Input, 500-mA Synchronous Buck Converter with Ultra-Low IQ, DRC0010J (VSON-10)	DRC0010J
43	U4	1		PGA460TPWRQ1	Texas Instruments	PGA460TPWRQ1, PW0016A	PW0016A
44	U5	1		MSP430FR5959IRHAR	Texas Instruments	MSP430FR5959 16 MHz Ultra-Low-Power Microcontroller featuring 64 KB FRAM, 2 KB SRAM, 33 IO, RHA0040B (VQFN-40)	RHA0040B
45	U6	1		TIOL111	Texas Instruments	IO-Link Device Transceiver with Integrated Surge Protection, TIOL111 (WSON-10)	TIOL111
46	Y2	1		ABM8-14.7456MHZ-10-1-U-T	Abracon Corporation	Crystal, 14.7456 MHz, 10 pF, SMD	3.2x0.8x2.5mm

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