

TIDA-010083 REV E1 Bill of Materials

Item #	Designator	Quantity	Value	PartNumber	Manufacturer	Description	PackageReference
1	IPC81	1		TIDA-010083	Any	Printed Circuit Board	
2	C1, C2, C3, C4, C5, C15, C17, C21, C23, C25, C29, C31, C33, C45, C50	15	0.1uF	C1005X6R1H104K050BB	TDK	CAP, CERM, 0.1 uF, 50 V, +/- 10%, X5R, 0402	0402
3	C3, C7, C8, C9	4	0.01uF	GRM188R72A103KA01D	MuRata	CAP, CERM, 0.01 uF, 100 V, +/- 10%, X7R, 0603	0603
4	C10, C11, C62	3	27pF	GRM1555C1E270JA01D	MuRata	CAP, CERM, 27 pF, 25 V, +/- 5%, C0G/NF0, 0402	0402
5	C12, C18, C26, C59, C61	5	10uF	GRM155R60J106ME15D	MuRata	CAP, CERM, 10 uF, 6.3 V, +/- 20%, X5R, 0402	0402
6	C13, C19, C27	3	0.01uF	GRM155R61A103KA01D	MuRata	CAP, CERM, 0.01 uF, 10 V, +/- 10%, X5R, 0402	0402
7	C14, C16, C20, C22, C24, C28, C30, C32, C38, C53	10	1uF	GRM155R61E109KA12D	MuRata	CAP, CERM, 1 uF, 25 V, +/- 10%, X5R, 0402	0402
8	C34, C35	2	2200pF	VJ1210Y222KXGAT5Z	Vishay-Vitramon	CAP, CERM, 2200 pF, 1000 V, +/- 10%, X7R, 1210	1210
9	C36, C47	2	0.1uF	C2012X7R2A104K125AA	TDK	CAP, CERM, 0.1 uF, 100 V, +/- 10%, X7R, 0805	0805
10	C37, C48	2	10uF	CGA6P1X7R1N106M250AC	TDK	CAP, CERM, 10 uF, 75 V, +/- 20%, X7R, AEC-Q200 Grade 1, 1210	1210
11	C39, C40	2	2.2uF	GRM32ER72A225KA35L	MuRata	CAP, CERM, 2.2 uF, 100 V, +/- 10%, X7R, 1210	1210
12	C41, C42, C43	3	22uF	GRM32ER71E226KE15L	MuRata	CAP, CERM, 22 uF, 25 V, +/- 10%, X7R, 1210	1210
13	C44	1	3.3uF	C2012X7R1E335K125AB	TDK	CAP, CERM, 3.3 uF, 25 V, +/- 10%, X7R, 0805	0805
14	C46	1	0.22uF	GRM188R72A222KACSL	MuRata	CAP, CERM, 0.22 uF, 100 V, +/- 10%, X7R, 0805	0805
15	C49	1	1uF	C1608X7R1V105K080AC	TDK	CAP, CERM, 1 uF, 35 V, +/- 10%, X7R, 0803	0803
16	C51	1	22pF	885012005009	Würth Elektronik	CAP, CERM, 22 pF, 10 V, +/- 5%, COG/NF0, 0402	0402
17	C52	1	6800pF	C0603C682K5RACTU	Kemet	CAP, CERM, 6800 pF, 50 V, +/- 10%, X7R, 0603	0603
18	C54, C63	2	1000pF	C1206C102KGRACAUTO	Kemet	CAP, CERM, 1000 pF, 2000 V, +/- 10%, X7R, AEC-Q200 Grade 1, 1206	1206
19	C55	1	2200pF	GRM188R71H222KA01D	MuRata	CAP, CERM, 2200 pF, 50 V, +/- 10%, X7R, 0603	0603
20	C56	1	0.1uF	C1608X7R1E104K080AA	TDK	CAP, CERM, 0.1 uF, 25 V, +/- 10%, X7R, 0603	0603
21	C57	1	0.022uF	GRM155R60J223KA01D	MuRata	CAP, CERM, 0.022 uF, 6.3 V, +/- 10%, X5R, 0402	0402
22	C58, C60	2	10uF	GRM155R61A106ME11	MuRata	CAP, CERM, 10 uF, 10 V, +/- 20%, X5R, 0402	0402
23	D1, D3, D13	3	75V	1N4148WT	Fairchild Semiconductor	Diode, Switching, 75 V, 0.3 A, SOD-523F	SOD-523F
24	D2	1	200V	RF071M2S	Rohm	Diode, Ultrafast, 200 V, 1 A, SOD-123	SOD-123
25	D4	1	58V	SMAJ58A	Littelfuse	Diode, TVS, Uni, 58 V, 93.6 Vc, 400 W, 4.3 A, SMA	SMA
26	D5, D8	2		CZRU52C12	Comchip Technology	Zener Diode 12V 150mW 25% Surface Mount 0603/SOD-523F	SOD523F
27	D6, D7	2	100V	CD38H2100-G	Comchip Technology	Diode, Schottky-Bridge, 100 V, 2 A, MiniDIP	MiniDIP
28	D9, D10, D11	3	Green	15040465573240	Würth Elektronik	LED, Green, SMD	1x3.5mm
29	D12	1	24V	SMAZ24-13-F	Diodes Inc.	Diode, Zener, 24 V, 1 W, SMA	SMA
30	J1	1		LSS-130-02-L-DV-A-TR	Samtec	Receptacle, 0.635 mm, 30x2, Gold, SMT	Receptacle, 0.635 mm, 30x2, SMT
31	J2	1		634108185321		Modular Jack WR-MJ, Shielded, with Solder Tab, Vertical Entry, SMT, 8P6C	
32	J4	1		HR25-7TR-8PA(73)	Hirose		CONN_CIRCULAR_5MM7735
33	L1, L2	2	470nH	TFM16080ALC-R47MTAA	TDK	Inductor, Shielded, Metal Composite, 470 nH, 2 A, 0.062 ohm, SMD	0603
34	L4	1		74438335033	Würth Electronics	3.3uH Shielded Molded Inductor 1.7A 131mOhm Max 1212 (3030 Metric)	1212
35	Q1	1	30V	CSD17579Q3A	Texas Instruments	MOSFET, N-CH, 30 V, 20 A, DNH0008A (VSONP-8)	DNH0008A
36	Q2	1	100V	CSD19538Q2	Texas Instruments	MOSFET, N-CH, 100 V, 4.5 A, DQK0006C (WSON-6)	DQK0006C
37	R1	1	11.0k	RC0201FR-0711KL	Yageo America	RES, 11.0 k, 1%, 0.05 W, 0201	0201
38	R2, R3	2	2.2k	RC0201JR-072K04L	Yageo America	RES, 2.2 k, 5%, 0.05 W, 0201	0201
39	R4, R5, R6, R9	4	75.0	CRCW040275R0FKED	Vishay-Dale	RES, 75.0, 1%, 0.063 W, 0402	0402
40	R6	1	33k	CRCW080533K0JNEA	Vishay-Dale	RES, 33 k, 5%, 0.125 W, AEC-Q200 Grade 0, 0805	0805
41	R7, R37, R40	3	10	CRCW040210R0JNEA	Vishay-Dale	RES, 10, 5%, 0.063 W, AEC-Q200 Grade 0, 0402	0402
42	R10, R42	2	0	CRCW040200002EDHP	Vishay-Dale	RES, 0, 0%, 0.2 W, AEC-Q200 Grade 0, 0402	0402
43	R11	1	3.9	RC0805JR-073R9L	Yageo America	RES, 3.9, 5%, 0.125 W, 0805	0805
44	R12	1	3.3k	RC0603JR-073K3L	Yageo	RES, 3.3 k, 5%, 0.1 W, 0603	0603
45	R13, R22	2	1.00k	SMM02040C1001FB300	Vishay-Dalric	RES, 1.00 k, 1%, 0.25 W, AEC-Q200 Grade 1, 1.4x3.6mm	1.4x3.6mm
46	R14, R15	2	562	CRCW0603562RFKFA	Vishay-Dale	RES, 562, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
47	R16	1	0	RC0402JR-070RL	Yageo America	RES, 0, 5%, 0.063 W, 0402	0402
48	R17	1	301k	CRCW0402301KFKED	Vishay-Dale	RES, 301 k, 1%, 0.063 W, AEC-Q200 Grade 0, 0402	0402
49	R18, R19	2	0.91	CRM0805FX-R910ELF	Bourns	RES, 0.91, 1%, 0.25 W, 0805	0805
50	R20	1	24.9k	CRCW040224K9FKED	Vishay-Dale	RES, 24.9 k, 1%, 0.063 W, AEC-Q200 Grade 0, 0402	0402
51	R21	1	34.0k	CRCW040234K0FKED	Vishay-Dale	RES, 34.0 k, 1%, 0.063 W, AEC-Q200 Grade 0, 0402	0402
52	R23	1	6.04k	RC0201FR-076K04L	Yageo America	RES, 6.04 k, 1%, 0.05 W, 0201	0201
53	R24	1	49.9	RMCFC0402F149R9	Stackpole Electronics Inc	RES, 49.9, 1%, 0.063 W, AEC-Q200 Grade 0, 0402	0402
54	R25	1	1.0k	CRCW04021K00JNEA	Vishay-Dale	RES, 1.0 k, 5%, 0.063 W, AEC-Q200 Grade 0, 0402	0402
55	R26	1	200k	CRCW0402200KFKED	Vishay-Dale	RES, 200 k, 1%, 0.063 W, AEC-Q200 Grade 0, 0402	0402
56	R28	1	100k	CRCW0402100KJNEA	Vishay-Dale	RES, 100 k, 5%, 0.063 W, AEC-Q200 Grade 0, 0402	0402
57	R29	1	649	CRCW0402649RFKED	Vishay-Dale	RES, 649, 1%, 0.063 W, AEC-Q200 Grade 0, 0402	0402
58	R31, R32, R33	3	3.32k	CRCW04023K32FKED	Vishay-Dale	RES, 3.32 k, 1%, 0.063 W, AEC-Q200 Grade 0, 0402	0402
59	R35	1	36.5k	CRCW040236K5FKED	Vishay-Dale	RES, 36.5 k, 1%, 0.063 W, AEC-Q200 Grade 0, 0402	0402
60	R36	1	23.7k	RC0201FR-0723K7L	Yageo America	RES, 23.7 k, 1%, 0.05 W, 0201	0201
61	R38	1	237k	CRCW0402237KFKED	Vishay-Dale	RES, 237 k, 1%, 0.063 W, AEC-Q200 Grade 0, 0402	0402
62	R39	1	44.2k	RC0201FR-0744K2L	Yageo America	RES, 44.2 k, 1%, 0.05 W, 0201	0201
63	R41	1	60.4k	CRCW040260K4FKED	Vishay-Dale	RES, 60.4 k, 1%, 0.063 W, AEC-Q200 Grade 0, 0402	0402
64	R43	1	2.49k	RC0201FR-072K49L	Yageo America	RES, 2.49 k, 1%, 0.05 W, 0201	0201
65	R44	1	1.0Meg	CRCW12061M00JNEA	Vishay-Dale	RES, 1.0 M, 5%, 0.25 W, AEC-Q200 Grade 0, 1206	1206
66	T1	1		749023010A	Würth Electronics	WURTH ELEKTRONIK LAN TRANSFORMER, 10/100/1000 BASE-T	TRANS_SMD_17MM 5 14MM2
67	T3	1		750318525	Würth Elektronik	TRANSFORMER	SMT_TRANSFORMER
68	U1	1		DP83867IRRGZR	Texas Instruments	Gigabit Ethernet PHY Customized for Harsh Industrial Environments, RG20048B (VQFN-48)	RG20048B
69	U2	1		TPS523758RJ	Texas Instruments	IEEE 802.3at PoE PD with No-Opto Flyback DC-DC Controller, RJ0023B (VSON-23)	RJ0023B
70	U3	1		LM74700QDBVRQ1	Texas Instruments	Low Iq Always ON Smart Diode Controller, DBV0006A (SOT-23-6)	DBV0006A
71	U4, U5	2		TVS3300DRVR	Texas Instruments	33-V Precision Surge Protection Clamp, DRV0006A (WSON-6)	DRV0006A
72	U6	1		ISO1212DBQR	Texas Instruments	ISO1212DBQR, DBQ00016A, DBQ0016A (SSOP-16)	DBQ0016A
73	U7	1		TPS62801YKAR	Texas Instruments	Tiny High Frequency Ultra-low Iq Step-Down Converter, YKA0006ACAC (DSBGA-6)	YKA0006ACAC
74	U8	1		PC3H7J00000F	Sharp Microelectronics	Optocoupler, 2.5 kV, 20-400% CTR, SMT	Photocoupler, 4.4x2.1x2.6mm
75	U9	1		TPS62802YKAR	Texas Instruments	Tiny High Frequency Ultra-low Iq Step-Down Converter, YKA0006ACAC (DSBGA-6)	YKA0006ACAC
76	Y1	1		ABM11-25.000MHZ-D2X-T3	Abracon Corporation	Crystal, 25 MHz, SMD	2x1.6mm
77	R27	0	6.04k	RC0201FR-076K04L	Yageo America	RES, 6.04 k, 1%, 0.05 W, 0201	0201
78	R30	0	2.49k	RC0201FR-072K49L	Yageo America	RES, 2.49 k, 1%, 0.05 W, 0201	0201
79	R34	0	0	RC0402JR-070RL	Yageo America	RES, 0, 5%, 0.063 W, 0402	0402
80	U10, U11	0		TPD4E05U06DQAR	Texas Instruments	4-Channel Ultra-Low-Capacitance IEC ESD Protection Diode, DQA0010A (USON-10)	DQA0010A

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