

TIDA-00548 REV E2 Bill of Materials

Item #	Designator	Quantity	Value	PartNumber	Manufacturer	Description	PackageReference
1	IPCB1	1		TIDA-00548	Any	Printed Circuit Board	
2	C1, C2, C3, C4, C6, C7, C14, C20, C29, C30, C31, C32, C33, C34, C35, C40, C44, C45, C49, C51, C52, C54, C57, C58, C59, C60, C61	27	0.1uF	GRM188R71H104KA93D	MuRata	CAP, CERM, 0.1 µF, 50 V, +/- 10%, X7R, 0603	0603
3	C5, C8, C16, C21, C22, C36, C64	7	1uF	C1608X7R1C105K080AC	TDK	CAP, CERM, 1 µF, 16 V, +/- 10%, X7R, 0603	0603
4	C9, C12, C18, C23, C50	5	680pF	GRM1885C1H681JA01D	MuRata	CAP, CERM, 680 pF, 50 V, +/- 5%, C0G/NP0, 0603	0603
5	C10, C19	2	0.01uF	C1608X7R2A103K	TDK	CAP, CERM, 0.01 µF, 100 V, +/- 10%, X7R, 0603	0603
6	C11, C15	2	0.1uF	C3216NP01H104J160AA	TDK	CAP, CERM, 0.1 µF, 50 V, +/- 5%, C0G/NP0, 1206_190	1206_190
7	C13	1	4700pF	C1608C0G1E472J	TDK	CAP, CERM, 4700 pF, 25 V, +/- 5%, C0G/NP0, 0603	0603
8	C17	1	1uF	C1608X7R1C105K	TDK	CAP, CERM, 1 µF, 16 V, +/- 10%, X7R, 0603	0603
9	C24, C37	2	4.7uF	GRM21BR71C475KA73L	MuRata	CAP, CERM, 4.7 µF, 16 V, +/- 10%, X7R, 0805	0805
10	C25, C26, C27, C28, C55, C56	6	10uF	GRM21BR71A106KE51K	MuRata	CAP, CERM, 10 µF, 10 V, +/- 10%, X7R, 0805	0805
11	C38, C43	2	10uF	GRM31CR71C106KAC7L	MuRata	CAP, CERM, 10 µF, 16 V, +/- 10%, X7R, 1206	1206
12	C39	1	1000pF	202R18W102KV4E	Johanson Technology	CAP, CERM, 1000 pF, 2000 V, +/- 10%, X7R, 1206_190	1206_190
13	C41, C42, C53	3	2.2uF	GRM188R71A225KE15D	MuRata	CAP, CERM, 2.2 µF, 10 V, +/- 10%, X7R, 0603	0603
14	C46	1	22uF	GCM32ER71C226KE19L	MuRata	CAP, CERM, 22 µF, 16 V, +/- 10%, X7R, 1210	1210
15	C47, C48	2	0.01uF	GRM188R71H103KA01D	MuRata	CAP, CERM, 0.01 µF, 50 V, +/- 10%, X7R, 0603	0603
16	C62, C63	2	33pF	GRM1885C1H330JA01D	MuRata	CAP, CERM, 33 pF, 50 V, +/- 5%, C0G/NP0, 0603	0603
17	D1, D3	2	39V	SM6T39CA	STMicroelectronics	Diode, TVS, Bi, 39 V, 600 W, SMB	SMB
18	D2	1	40V	BAS40-05-7-F	Diodes Inc.	Diode, Schottky, 40 V, 0.2 A, SOT-23	SOT-23
19	D4	1	30V	BAT54C-7-F	Diodes Inc.	Diode, Schottky, 30 V, 0.2 A, SOT-23	SOT-23
20	D5	1	Green	150060VS75000	Würth Elektronik	LED, Green, SMD	LED_0603
21	D6	1	3.9V	BZT52C3V9T-7	Diodes Inc.	Diode, Zener, 3.9 V, 300 mW, SOD-523	SOD-523
22	D7	1	5.6V	BZT52C5V6T-7	Diodes Inc.	Diode, Zener, 5.6 V, 300 mW, SOD-523	SOD-523
23	D8, D9, D10	3	Red	150060RS75000	Würth Elektronik	LED, Red, SMD	LED_0603
24	D11	1	30V	RB080L-30TE25	Rohm	Diode, Schottky, 30 V, 5 A, SMA	SMA
25	F1	1		SST 500	Bel Fuse	Fuse, 0.5 A, 125VAC/VDC, SMD	6.1x2.54x2.54mm
26	H1	1		1840382	Phoenix Contact	Terminal Block Plug, 3.5mm, 4x1, Green	
27	H2	1		1841161	Phoenix Contact	Fiber optics - MC 1,5/10-LWL 1,5-3,5 for Phoenix connectors	
28	J1	1		1844236	Phoenix Contact	Terminal Block, 4x1, 3.5mm, Green, R/A, TH	Terminal Block, 4x1, 3.5mm, R/A, TH
29	J2	1		61000218321	Würth Elektronik	Header, 2.54mm, 2x1, Gold, SMT	Header, 2.54mm, 2x1, SMT
30	J3	1		FTR-110-51-S-D-06	Samtec	Header, 1.27mm, 10x2, Tin, SMT	Header, 1.27mm, 10x2, SMT
31	J8, J9	2		SSHQ-123-D-08-F-LF	Major League Electronics	Female Connector, 2.54mm, 23x2, TH	Female Connector, 2.54mm, 23x2, TH
32	L1	1	3.3uH	744028003	Würth Elektronik	Inductor, Shielded Drum Core, Ferrite, 3.3 µH, 0.85 A, 0.185 ohm, SMD	WE-TPC-T
33	L2	1	22uH	744025220	Würth Elektronik	Inductor, Shielded Drum Core, Ferrite, 22 µH, 0.5 A, 0.525 ohm, SMD	Inductor, 2.8x2.8x2.8mm
34	Q1, Q2	2	60V	CSD18534Q5A	Texas Instruments	MOSFET, N-CH, 60 V, 50 A, SON 5x6mm	SON 5x6mm

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35	R1, R2, R4, R5, R7, R8, R9, R13, R31, R44, R45, R46, R47, R48, R49, R50, R52, R53, R58	19	10.0k	CRCW060310K0FKEA	Vishay-Dale	RES, 10.0 k, 1%, 0.1 W, 0603	0603
36	R3	1	0	CRCW06030000Z0EA	Vishay-Dale	RES, 0, 5%, 0.1 W, 0603	0603
37	R10, R11	2	6.65k	CRCW06036K65FKEA	Vishay-Dale	RES, 6.65 k, 1%, 0.1 W, 0603	0603
38	R12, R32	2	1.00Meg	CRCW06031M00FKEA	Vishay-Dale	RES, 1.00 M, 1%, 0.1 W, 0603	0603
39	R14, R22, R23, R30	4	4.99k	CRCW06034K99FKEA	Vishay-Dale	RES, 4.99 k, 1%, 0.1 W, 0603	0603
40	R15, R16	2	10	ERJ-1TYJ100U	Panasonic	RES, 10, 5%, 1 W, 2512	2512
41	R17, R25	2	24.9	RNCF1206TKY24R9	Stackpole Electronics Inc	RES, 24.9, 0.01%, 0.25 W, 1206	1206
42	R18	1	200k	CRCW0603200KFKEA	Vishay-Dale	RES, 200 k, 1%, 0.1 W, 0603	0603
43	R19, R20, R27, R33, R55, R56, R59, R60, R61	9	47	CRCW060347R0JNEA	Vishay-Dale	RES, 47, 5%, 0.1 W, 0603	0603
44	R21, R24, R29, R54, R62, R63	6	100k	CRCW0603100KFKEA	Vishay-Dale	RES, 100 k, 1%, 0.1 W, 0603	0603
45	R26, R28, R57	3	150k	CRCW0603150KFKEA	Vishay-Dale	RES, 150 k, 1%, 0.1 W, 0603	0603
46	R34	1	10.7k	CRCW060310K7FKEA	Vishay-Dale	RES, 10.7 k, 1%, 0.1 W, 0603	0603
47	R35	1	1.24	CRCW06031R24FKEA	Vishay-Dale	RES, 1.24, 1%, 0.1 W, 0603	0603
48	R36	1	1.00	CRCW06031R00FKEA	Vishay-Dale	RES, 1.00, 1%, 0.1 W, 0603	0603
49	R37, R41, R42, R43	4	750	CRCW0603750RFKEA	Vishay-Dale	RES, 750, 1%, 0.1 W, 0603	0603
50	R38	1	43.2	CRCW060343R2FKEA	Vishay-Dale	RES, 43.2, 1%, 0.1 W, 0603	0603
51	R39	1	80.6	CRCW060380R6FKEA	Vishay-Dale	RES, 80.6, 1%, 0.1 W, 0603	0603
52	R40	1	0.15	ERJ-3RSFR15V	Panasonic	RES, 0.15, 1%, 0.1 W, 0603	0603
53	R51	1	2.21k	CRCW06032K21FKEA	Vishay-Dale	RES, 2.21 k, 1%, 0.1 W, 0603	0603
54	S1	1		416131160802	Würth Elektronik	Switch, SPST, Off-On, 2 Pos, SMD	5.6x3.58mm
55	S2, S3	2		RS-032G05A3-SM RT	C&K Components	Switch, Tactile, SPST-NO, 0.05A, 12V, SMD	SPST, 6x3.5mm
56	SH-J1	1		60900213421	Würth Elektronik	Shunt, 2.54mm, Gold, Black	Shunt, 2.54mm, Black
57	T1	1	475uH	760390013	Würth Elektronik	Transformer, 475 uH, SMT	10.05x4.19x6.73 mm
58	U1	1		SN74LVC2G86DCTR	Texas Instruments	Dual 2-Input Exclusive-OR Gate, DCT0008A	DCT0008A
59	U2, U3	2		SN74LVC1G332DCKR	Texas Instruments	Single 3-Input Positive-OR Gate, DCK0006A	DCK0006A
60	U4	1		24LC256-I/ST	Microchip	256K I2C CMOS Serial EEPROM, TSSOP-8	TSSOP-8
61	U5	1		ADS1263IPWR	Texas Instruments	32-Bit, Precision, 38-kSPS, Analog-to-Digital Converter (ADC) with Programmable Gain Amplifier (PGA) and Voltage Reference, PW0028A	PW0028A
62	U6	1		TLV333IDBVR	Texas Instruments	2-uV VOS, 0.02-uV/degC, 17-uA, CMOS Operational Amplifiers Zero-Drift Series, DBV0005A	DBV0005A
63	U7	1		INA826AIDRGR	Texas Instruments	Precision, 200-uA Supply Current, 2.7-V to 36-V Supply Instrumentation Amplifier with R-R Output, DRG0008A	DRG0008A
64	U8	1		REF5030AIDGKR	Texas Instruments	Low Noise, Very Low Drift, Precision Voltage Reference, -40 to 125 degC, 8-pin MSOP (DGK), Green (RoHS & no Sb/Br)	DGK0008A
65	U9	1		SN6501DBVR	Texas Instruments	Transformer Driver for Isolated Power Supplies, DBV0005A	DBV0005A
66	U10	1		TPS62170DSGR	Texas Instruments	Buck Step Down Regulator with 3 to 17 V Input and 0.9 to 6 V Output, -40 to 85 degC, 8-Pin WSON (DSG), Green (RoHS & no Sb/Br)	DSG0008A
67	U11	1		TPS65381QDAPRQ1	Texas Instruments	Multi-Rail Power Supply for Microcontrollers in Safety Applications, DAP0032B	DAP0032B
68	U12	1		SN74LVC3G07QDCURQ1	Texas Instruments	TRIPLE BUFFER/DRIVER WITH OPEN-DRAIN OUTPUTS, DCU0008A	DCU0008A
69	U13	1		RM41L232BPZT	Texas Instruments	16- and 32-Bit RISC Flash Microcontroller, PZ0100A	PZ0100A
70	U14	1		TPS27082LDDCR	Texas Instruments	1.2V - 8V, 3A PFET Load Switch with Configurable Slew Rate, Fast Transient Isolation and Hysteretic Control, DDC0006A	DDC0006A
71	U15	1		ISO7141CCDBQR	Texas Instruments	4242-VPK Small-Footprint and Low-Power Quad Channels Digital Isolators, DBQ0016A	DBQ0016A

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72	Y1	1		ABM3-16.000MHZ-D2Y-T	Abracon Corporation	Crystal, 16 MHz, 18 pF, SMD	ABM3
73	FID1, FID2, FID3	0		N/A	N/A	Fiducial mark. There is nothing to buy or mount.	Fiducial
74	R6	0	0	CRCW06030000Z0EA	Vishay-Dale	RES, 0, 5%, 0.1 W, 0603	0603

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