

TIDA-010243 REV E2 Bill of Materials

Item #	Designator	Quantity	Value	PartNumber	Manufacturer	Description	PackageReference
1	PCB	1		TIDA-010243	Any	Printed Circuit Board	
2	C1, C3, C7, C8, C10, C12, C13, C15, C16, C18, C19, C21, C45, C47, C49	15	10µF	GCM1885C2A100JA16D	MuRata	CAP, CERAM, 10 µF, 100 V, +/- 5%, COGN/PL, AEC-Q200 Grade 1, 0603	0603
3	C2, C8, C11	3	6800µF	CGA3EANP02A682J08AC	TDK	CAP, CERM, 6800 µF, 100 V, +/- 5%, COGN/PL, AEC-Q200 Grade 0, 0603	0603
4	C4	1	220Vf	CGA2B2V7R1C224K050BE	TDK Corporation	Cap Ceramic 220Vf 16V X7R 10% Pad SMD 0402 +125°C Automotive TR	0402
5	C5, C6	2	1µF	CGA3E1X7R1E102K080AC	TDK	CAP, CERM, 1 µF, 16 V, +/- 10%, X7R, AEC-Q200 Grade 1, 0603	0603
6	C14, C17, C20, C48	4	6800µF	GRM188R72A682K0A1D	MuRata	CAP, CERM, 6800 µF, 100 V, +/- 10%, X7R, 0603	0603
7	C22	1	0.47µF	GRM188R1A472K4E1D	MuRata	CAP, CERM, 0.47 µF, 10 V, +/- 10%, X5R, 0603	0603
8	C23	1	10µF	GRM188R1A10K4A1D	MuRata	CAP, CERM, 10 µF, 10 V, +/- 10%, X5R, 0603	0603
9	C24	1	1000µF	GRM155R1A102K4D1D	MuRata	CAP, CERM, 1000 µF, 10 V, +/- 10%, X5R, 0402	0402
10	C25	1	0.33µF	GRM188R7C033K4E1D	MuRata	CAP, CERM, 0.33 µF, 16 V, +/- 10%, X7R, 0603	0603
11	C26	1	0.1µF	GCM155R71H104KE02D	MuRata	CAP, CERM, 0.1 µF, 50 V, +/- 10%, X7R, AEC-Q200 Grade 1, 0402	0402
12	C27, C28	2	15µF	GRM1555C1H15J0A1D1D	MuRata	CAP, CERM, 15 µF, 50 V, +/- 5%, COGN/PL, 0402	0402
13	C29, C32, C33, C36, C37, C39, C43, C44	8	0.1µF	CGA3E2AR1E104K080AA	TDK	CAP, CERM, 0.1 µF, 25 V, +/- 10%, X5R, AEC-Q200 Grade 0, 0603	0603
14	C30, C30	2	2.2µF	GR1188R1H225KE1D	MuRata	CAP, CERM, 2.2 µF, 50 V, +/- 10%, X5R, AEC-Q200 Grade 3, 0603	0603
15	C31, C34, C41, C46	4	0.1µF	C0603X104K3RACTU	Kemet	CAP, CERM, 0.1 µF, 25 V, +/- 10%, X7R, 0603	0603
16	C35	1	1µF	CGA3E1X7R1E102K080AC	TDK	CAP, CERM, 1 µF, 25 V, +/- 20%, X7R, AEC-Q200 Grade 1, 0603	0603
17	C40	1	10µF	CGA3E2CG1H100K080AA	TDK	CAP, CERM, 10 µF, 50 V, +/- 5%, COGN/PL, AEC-Q200 Grade 1, 0603	0603
18	C42, C51	2	1µF	C0603X102K3RACTU	Kemet	CAP, CERM, 1 µF, 25 V, +/- 10%, X7R, 0603	0603
19	D1, D2	2	Reel	SL-3-343-DF	Reel	LED, Red, TH	Disc 6x1.5mm
20	D3, D4, D6	3	75V	1N4148WT	Fairchild Semiconductor	Diode, Switching, 75 V, 0.3 A, SOD-523F	SOD-523F
21	FD1, FD2, FD3	3	N/A	N/A	N/A	Physical mark. There is nothing to buy or mount.	N/A
22	H5, H6, H8, H9	4		PHXMM 2701	APM HEXSEAL	MACHINE SCREW PAN/PHILLIPS M3	3mm
23	H13, H14, H15, H16	4		SMM HOLE	Any	5 mm PCB Hole	5mm PCB Hole
24	H, H1, H, H2, H, H1, H, H2, H, H1, H, H2	6		3.5 MM HOLE	Any	3.5 mm PCB Hole	3.5mm PCB Hole
25	J1, J2, J3	3		ED120ZDS	On-Shore Technology	Terminal Block, 5.08 mm, 2x1, Brass, TH	2x1 5.08 mm Terminal Block
26	J4, J5, J6, J15	4		ED120ZDS	On-Shore Technology	Terminal Block, 5.08 mm, 3x1, Brass, TH	3x1 5.08 mm Terminal Block
27	J7, J8	2		961102-6404-AR	3M	Header, 2.54mm, 2x1, TH	Header, 2.54mm, 2x1, TH
28	J9	1		FTSH-105-01-L-DV-K	Santec	Header(Shrouded), 1.27mm, Sx2, Gold, SMT	Header(Shrouded), 1.27mm, Sx2, SMT
29	J10	1		6130061121	Würth Elektronik	Header, 2.54 mm, 6x1, Gold, TH	Header, 2.54mm, 6x1, TH
30	J11	1		800-10-008-10-001000	ME-Max	Header, 100mil, 6x1, TH	Header, 6x1, 100mil, TH
31	J12	1		OSTVND4A150	On-Shore Technology	Terminal Block, 2.54mm, 4x1, Brass, TH	Terminal Block, 2.54mm, 4-pole, TH
32	J13	1		6130142121	Würth Elektronik	Header, 2.54mm, 7x2, Gold, TH	Header, 2.54mm, 7x2, TH
33	J14	1		6130041121	Würth Elektronik	Header, 2.54 mm, 4x1, Gold, TH	Header, 2.54mm, 4x1, TH
34	J17	1		GRP001WVWVNC	Sullins Connector Solutions	Header, 50mil, 6x1, Gold, TH	Header, 6x1, TH
35	JP1, JP2	2		TSW-103-07-G-S	Santec	Header, 100mil, 3x1, Gold, TH	3x1 Header
36	LBL1	1		THR-14-423-10	Brady	Thermal Transfer Printable Labels, 0.650" W x 0.200" H - 10,000 per roll	PCB Label 0.650 x 0.200 inch
37	R1, R8, R10, R21, R24, R24, R25, R38, R41, R45, R47, R51, R56, R54, R112, R114	16	0	ERJ-3GEY8R00V	Panasonic	RES, 0, 0%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
38	R2, R3, R4, R11, R12, R13, R25, R26, R27	9	330k	RG1608P-334-B-75	Susumu Co Ltd	RES, 330 k, 0.1%, 0.1 W, 0603	0603
39	R5, R8, R14, R19, R28, R33	6	1.00k	RT0603DRD071KL	Yageo	RES, 1.00 k, 0.5%, 0.1 W, 0603	0603
40	R6, R16, R31	3	275VAC	8722259271K101	TDK	Varistor 275 VAC, 100 A, TH	Disc 21.5mm
41	R7, R17, R32	3	750	RT0603RE07750R	Yageo America	RES, 750, 0.5%, 0.1 W, 0603	0603
42	R15	1		CRCW040230R3UNEED	Vishay-Dale	RES, 33, 5%, 0.063 W, AEC-Q200 Grade 0, 0402	0402
43	R18, R20, R22, R23, R30	5	33	CRCW040230R3UNEED	Vishay-Dale	RES, 33, 5%, 0.063 W, 0402	0402
44	R29	1	0	CRCW10020000030ED	Vishay-Dale	RES, 0, 0%, 0.063 W, AEC-Q200 Grade 0, 0402	0402
45	R36, R40, R42, R46, R48, R52, R108, R110, R111, R113, R115	11	2.00k	RT0603DRD072KL	Yageo America	RES, 2.00 k, 0.5%, 0.1 W, 0603	0603
46	R37, R38, R43, R44, R49, R50	6	6.49	CRCW0603849FKEA	Vishay-Dale	RES, 6.49, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
47	R53, R54	2	100	RC0603FR-07100R	Yageo America	RES, 100, 1%, 0.1 W, 0603	0603
48	R55	1	47k	CRCW060347K0JNEED	Vishay-Dale	RES, 47k, 0.063 W, AEC-Q200 Grade 0, 0402	0402
49	R58	1	10.0k	CRCW060310K0FKEA	Vishay-Dale	RES, 10.0 k, 1%, 0.1 W, 0603	0603
50	R59, R81	2	100k	CRCW0603100K0FKEA	Vishay-Dale	RES, 100 k, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
51	R60, R82	2	6x03	GR0402-10W-400T	Vertek	0 Ohm Jumper 0.1W, 1/10W Chip Resistor 0402 (1005 Metric) - Thick Film	0402
52	R101	1	0	RC0402JR-0700R	Yageo America	RES, 0, 0%, 0.063 W, 0402	0402
53	R102, R105, R106	3	4.7k	CRCW060347K0JNEA	Vishay-Dale	RES, 4.7 k, 5%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
54	R107	1	120	RT0603DR07120R	Yageo America	RES, 120, 0.5%, 0.1 W, 0603	0603
55	R51	1		3-574736-0	TE Connectivity	Receptacle, D-SUB-9, 2.74mm, Gold, TH	Receptacle, D-SUB-9, 2.74mm, TH
56	S1	1		MUTPSMVBTR	APEM	Switch, Tactile, SPST-NO, 12 V, SMD	Switch, Body 6.2x6.3mm
57	S2	1		1825284-1	TE Connectivity	Switch, Slide, 4PDT, TH	Switch, 4PDT, 15x18x9.4 mm
58	SH-11, SH-12	2		881545-2	TE Connectivity	Shunt, 100mil, Gold plated, Black	Shunt 2 pins, 100 mil
59	TP1, TP2, TP3, TP4, TP5, TP6	6	5000		Keystone	Test Point, Miniature, Red, TH	Red Miniature Testpoint
60	U1	1		ADS131M18BNSMR	Texas Instruments	8-Channel Simultaneously-Sampling, 24-Bit Delta-Sigma ADC	WQFN52
61	U2	1		MSPM031S07SPM	Texas Instruments	Mw=3 Signal Microcontrollers LQFP64 80MHz 128KB Flash and 32KB RAM 60 GPIOs 32bits ARM Cortex-M3+ 7 Timers	LQFP64
62	U3	1		TPS3A0120D0BVR	Texas Instruments	Nano Power, Wide VIN Voltage Detector with Programmable Delay, DBV0005A (SOT-23-5)	DBV0005A
63	U4	1		TPS70533DBVR	Texas Instruments	150-mA, 30-V, Ultra-Low IQ, Wide Input Low-Dropout Regulator with Reverse Current Protection, DBV0005A (SOT-23-5)	DBV0005A
64	U5	1		ISOCP14DWR	Texas Instruments		SOIC16
65	U6	1				3-V to 5.5-V Multichannel RS-232 Line Driver / Receiver with ±15-kV IEC ESD Protection, 0 to 70 deg.C, 16-Pin TSSOP (PQFN), Green (RoHS & no Sb/Br)	PW0016A
66	U7	1		TNVD1600D	Texas Instruments	500-Mbps RS-485 Transceivers With ±8-kV IEC ESD Protection	SOIC8
67	U8	1		IS22CZ00R	Texas Instruments		SOIC8
68	U9	1		IMT35Z73A0Q0BVR	Texas Instruments	3-Axis Linear Hall Effect Sensor With I2C Interface SOT23-6	SOT23-6
69	Y1	1		FAZ28-18-3840MB-K	Epson	Crystal, 18.384 MHz, 50 ppm, 10-pF, SMD	3.2x2.5mm
70	C38	0	10µF	CGA3E2CG1H100K080AA	TDK	CAP, CERM, 10 µF, 50 V, +/- 5%, COGN/PL, AEC-Q200 Grade 1, 0603	0603
71	C52, C53, C54, C55, C57	0	0.1µF	GCM155R71A104KA5D	MuRata	CAP, CERM, 0.1 µF, 10 V, +/- 10%, X7R, AEC-Q200 Grade 1, 0402	0402
72	C58	0	10µF	GRM188R1A10K4E09D	MuRata	CAP, CERM, 10 µF, 10 V, +/- 20%, X5R, 0603	0603
73	C59	0	1000µF	8.85012E+11	Würth Elektronik	CAP, CERM, 1000 µF, 25 V, +/- 10%, X7R, 0402	0402
74	C58, C50	0	0.1µF	C0603X104K3RACTU	Kemet	CAP, CERM, 0.1 µF, 16 V, +/- 10%, X7R, AEC-Q200 Grade 1, 0402	0402
75	H19	0		893-10-004-10-10110	Phree-Dip	Header, 50mil, 4x1, Gold, TH	Header, 4x1, 50mil, TH
76	J18	0		GRP001WVWVNC	Sullins Connector Solutions	Header, 50mil, 6x1, Gold, TH	Header, 6x1, TH
77	LD11	0		PH-1152P	Adacom Electronics	160 Segment LCD Display	63x30.18mm
78	R57, R83	0	6.49	CRCW0603849FKEA	Vishay-Dale	RES, 6.49, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
79	R89	0	47k	CRCW040247K0JNEED	Vishay-Dale	RES, 47k, 5%, 0.063 W, AEC-Q200 Grade 0, 0402	0402
80	R96, R87	0	100k	CRCW0603100K0FKEA	Vishay-Dale	RES, 100 k, 1%, 0.063 W, AEC-Q200 Grade 0, 0402	0402
81	R103, R108	0	100k	CRCW0603100K0JNEA	Vishay-Dale	RES, 100 k, 5%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
82	S3, S4	0		MUTPSMVBTR	APEM	Switch, Tactile, SPST-NO, 12 V, SMD	Switch, Body 6.2x6.3mm
83	U10	0		MSP430F44133PMR	Texas Instruments	16 MHz Ultra-Low-Power Microcontroller with 16 KB FRAM, 2 KB SRAM, 60 I/O, 10 ch ADC10+, LCD, IR Logic, PM0064A (LQFP-64)	PM0064A

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