

TIDA-020015 REV E1 Bill of Materials



Item #	Designator	Quantity	Value	PartNumber	Manufacturer	Description	PackageReference
1	IPC8	1		TIDA-020015	Any	Printed Circuit Board	
2	C1, C21	2	220pF	GRM188R71H221KA01D	MuRata	CAP, CERM, 220 pF, 50 V, +/- 10%, X7R, 0603	0603
3	C2, C9, C22, C29	4	10uF	C3216X7R1V106M160AC	TDK	CAP, CERM, 10 uF, 35 V, +/- 20%, X7R, 1206_190	1206_190
4	C3, C10, C11, C23, C30, C31, C45, C53	8	0.1uF	C1005X7R1H104K050BB	TDK	CAP, CERM, 0.1 uF, 50 V, +/- 10%, X7R, 0402	0402
5	C4	1	10uF	GRM31CR71E106KA12L	MuRata	CAP, CERM, 10 uF, 25 V, +/- 10%, X7R, 1206	1206
6	C5, C8	2	0.1uF	GRM21BR71H104KA01L	MuRata	CAP, CERM, 0.1 uF, 50 V, +/- 10%, X7R, 0805	0805
7	C6	1	2.2uF	GRM31CR71H225KA88L	MuRata	CAP, CERM, 2.2 uF, 50 V, +/- 10%, X7R, 1206	1206
8	C7, C26, C43, C51	4	0.1uF	CGA5L2X7R2A104K160AA	TDK	CAP, CERM, 0.1 uF, 100 V, +/- 10%, X7R, AEC-Q200 Grade 1, 1206	1206
9	C12, C13, C32, C33	4	100pF	CC0402JRNPO9BN101	Yageo America	CAP, CERM, 100 pF, 50 V, +/- 5%, C0G/NP0, 0402	0402
10	C14, C34, C44, C52	4	10uF	C2012X5R1E106K125AB	TDK	CAP, CERM, 10 uF, 25 V, +/- 10%, X5R, 0805	0805
11	C15, C35	2	0.015uF	CGA3E2X7R2A153K080AA	TDK	CAP, CERM, 0.015 uF, 100 V, +/- 10%, X7R, AEC-Q200 Grade 1, 0603	0603
12	C16, C36	2	0.01uF	GCM188R71H103KA37D	MuRata	CAP, CERM, 0.01 uF, 50 V, +/- 10%, X7R, AEC-Q200 Grade 1, 0603	0603
13	C17, C55	2	1uF	UMK107AB7105KA-T	Taiyo Yuden	CAP, CERM, 1 uF, 50 V, +/- 10%, X7R, 0603	0603
14	C41, C49	2	0.1uF	12061C104JAT2A	AVX	CAP, CERM, 0.1 uF, 100 V, +/- 5%, X7R, 1206	1206
15	C42	1	0.01uF	C0402C103J5RACTU	Kemet	CAP, CERM, 0.01 uF, 50 V, +/- 5%, X7R, 0402	0402
16	C46, C47, C57, C58	4	10pF	04025U100CAT2A	AVX	CAP, CERM, 10 pF, 50 V, +/- 2.5%, C0G/NP0, AEC-Q200 Grade 1, 0402	0402
17	C50	1	0.01uF	C0603H103J3GACTU	Kemet	CAP, CERM, 0.01 uF, 25 V, +/- 5%, C0G/NP0, 0603	0603
18	C54, C56	2	2.2uF	C1206C225K4RACTU	Kemet	CAP, CERM, 2.2 uF, 16 V, +/- 10%, X7R, 1206	1206
19	D1	1	60V	B260A-13-F	Diodes Inc.	Diode, Schottky, 60 V, 2 A, SMA	SMA
20	D2, D5, D11, D15	4	1200V	STTH112A	STMicroelectronics	Diode, Ultrafast, 1200 V, 1 A, SMA	SMA
21	D3, D12	2	12V	MMSZ5242BS-7-F	Diodes Inc.	Diode, Zener, 12 V, 200 mW, SOD-323	SOD-323
22	D4, D13	2	30V	BAT54WS-7-F	Diodes Inc.	Diode, Schottky, 30 V, 0.2 A, SOD-323	SOD-323
23	D6, D8	2	Green	150060GS75000	Wurth Elektronik	LED, Green, SMD	LED 0603
24	D7, D17	2	40V	B240A-13-F	Diodes Inc.	Diode, Schottky, 40 V, 2 A, SMA	SMA
25	D9, D19	2	19V	SMBJ20CA	Littelfuse	Diode, TVS, Bi, 19 V, SMB	SMB
26	J1	1		TSW-106-07-G-D	Samtec	Header, 100mil, 6x2, Gold, TH	6x2 Header
27	J2	1		OSTVN02A150	On-Shore Technology	Terminal Block, 2.54mm, 2x1, Brass, TH	Terminal Block, 2.54mm, 2-pole, Brass, TH
28	J3, J4, J5, J6	4		SSQ-102-03-G-S	Samtec	Receptacle, 2.54mm, 2x1, Gold, TH	Receptacle, 2.54mm, 2x1, TH
29	J7	1		SSW-103-01-G-S	Samtec	Receptacle, 100mil, 3x1, Gold, TH	3x1 Receptacle
30	L1	1		ACM4520-421-2P-T000	TDK	Coupled inductor, 2.8 A, 0.055 ohm, SMD	4.7x4.5mm
31	Q1, Q3	2	60 V	ZXTN2010ZTA	Diodes Inc.	Transistor, NPN, 60 V, 5 A, AEC-Q101, SOT-89	SOT-89
32	Q2, Q4	2	60 V	ZXTP2012ZTA	Diodes Inc.	Transistor, PNP, 60 V, 4.3 A, AEC-Q101, SOT-89	SOT-89
33	R1, R17	2	10.0k	CRCW08051K00FKEA	Vishay-Dale	RES, 10.0 k, 1%, 0.125 W, 0805	0805
34	R2	1	1.00k	CRCW08051K00FKEA	Vishay-Dale	RES, 1.00 k, 1%, 0.125 W, 0805	0805
35	R3, R19	2	1.00Meg	CRCW08051M00FKEA	Vishay-Dale	RES, 1.00 M, 1%, 0.125 W, 0805	0805
36	R4, R5, R20, R21	4	100	CRCW0402100RFKED	Vishay-Dale	RES, 100, 1%, 0.063 W, 0402	0402
37	R6, R22, R61	3	10	CRCW080510R0JNEA	Vishay-Dale	RES, 10, 5%, 0.125 W, 0805	0805
38	R7, R9, R11, R23, R25, R27	6	12	CRCW080512R0JNEA	Vishay-Dale	RES, 12, 5%, 0.125 W, 0805	0805
39	R8, R10, R12, R14, R15, R16, R24, R26, R28, R30, R31, R34	12	1.20	CRCW12061R20FKEA	Vishay-Dale	RES, 1.20, 1%, 0.25 W, AEC-Q200 Grade 0, 1206	1206
40	R13, R29, R63, R64	4	10.0k	RC0603FR-0710KL	Yageo America	RES, 10.0 k, 1%, 0.1 W, 0603	0603
41	R18	1	1.00k	ERJ-P06F1001V	Panasonic	RES, 1.00 k, 1%, 0.25 W, 0805	0805
42	R32, R67	2	10.0k	RMCF0402FT10K0	Stackpole Electronics Inc	RES, 10.0 k, 1%, 0.063 W, AEC-Q200 Grade 0, 0402	0402
43	R33, R48, R52	3	0	ERJ-3GEY0R00V	Panasonic	RES, 0, 5%, 0.1 W, 0603	0603
44	R35	1	0	MCR18E2HJ000	Rohm	RES, 0, 5%, 0.25 W, 1206	1206
45	R36, R37, R38, R39, R40, R41, R42, R43, R44	9	1.00Meg	CRCW12061M00FKEA	Vishay-Dale	RES, 1.00 M, 1%, 0.25 W, 1206	1206
46	R46	1	60.4k	CRCW040260K4FKED	Vishay-Dale	RES, 60.4 k, 1%, 0.063 W, 0402	0402
47	R49, R50, R51, R54, R58, R59, R62, R66	8	10.0	CRCW040210R0FKED	Vishay-Dale	RES, 10.0, 1%, 0.063 W, 0402	0402
48	R55, R60	2	0	CRCW04020000Z0ED	Vishay-Dale	RES, 0, 5%, 0.063 W, AEC-Q200 Grade 0, 0402	0402
49	R57	1	100k	RMCF0402FT100K	Stackpole Electronics Inc	RES, 100 k, 1%, 0.063 W, AEC-Q200 Grade 0, 0402	0402
50	R65	1	3.32k	CRCW04023K32FKED	Vishay-Dale	RES, 3.32 k, 1%, 0.063 W, 0402	0402
51	R68	1	10.0k	CRCW040210K0FKED	Vishay-Dale	RES, 10.0 k, 1%, 0.063 W, 0402	0402
52	TP1, TP2, TP3, TP4, TP5, TP6, TP7, TP8, TP9, TP10, TP11, TP12, TP13, TP14, TP15, TP16, TP17	17		0508-0-00-15-00-00-03-0	MIL-Max	PCB Pin, 20mil Dia, Gold, TH	PCB Pin, 20mil Dia, TH
53	U1, U4	2		ISO6852SQDWQ1	Texas Instruments	High-CMTI 2.5-A/5-A Isolated IGBT, MOSFET Gate Driver With Split Outputs and Protection Features, DW0016B (SOIC-16)	DW0016B
54	U2	1		TPS7B8250DQGNRQ1	Texas Instruments	300mA High-Voltage Ultra-Low-Iq Low-Dropout (LDO) Regulator, DGN0008D (VSSOP-8)	DGN0008D
55	U7, U10	2			Texas Instruments	Automotive Catalog Single 2-Input Positive-AND Gate, DBV0005A, LARGE T&R	DBV0005A
56	U8	1		AMC1311QDWVRQ1	Texas Instruments	Precision, 2-V Input, Reinforced Isolated Amplifier, DWV0008A (SOIC-8)	DWV0008A
57	U11	1		AMC1301QDWVRQ1	Texas Instruments	Automotive Precision, ±250mV Input, 3µs Delay, Reinforced Isolated Amplifier, DWV0008A (SOIC-8)	DWV0008A
58	U12	1		TPS70950DBVR	Texas Instruments	150-mA, 30-V, Ultra-Low IQ, Wide Input Low-Dropout Regulator with Reverse Current Protection, DBV0005A (SOT-23-5)	DBV0005A
59	FID1, FID2, FID3	0		N/A	N/A	Fiducial mark. There is nothing to buy or mount.	N/A