

TIDA-011011 REV E1 Bill of Materials

Item #	Designator	Quantity	Value	PartNumber	Manufacturer	Description	PackageReference
1	IPCB	1		TIDA-011011	Any	Printed Circuit Board	
2	C1, C14, C30, C43	4	0.1uF	GCM188R71E104KA57D	MuRata	CAP, CERM, 0.1 uF, 25 V, +/- 10%, X7R, AEC-Q200 Grade 1, 0603	0603
3	C2, C15	2	10uF	KGM31HR71E106KU	KYOCERA AVX	10 uF ±10% 25V Ceramic Capacitor X7R 1206 (3216 Metric)	1206
4	C3, C4, C16, C17, C35, C48	6	10uF	GMC31X7R106K50NT	Cal-Chip Electronics	10 uF ±10% 50V Ceramic Capacitor X7R 1206 (3216 Metric)	1206
5	C5, C18	2	1uF	C1206C105J5RECAUTO	KEMET	1 uF ±5% 50V Ceramic Capacitor X7R 1206 (3216 Metric)	1206
6	C6, C19	2	470pF	C0603X471F5GACTU	KEMET	Cap Ceramic 470pF 50V COG 1% SMD 0603 125°C Paper T/R	0603
7	C7, C20	2	22pF	VJ0603D220JLAAJ32	Vishay	22 pF ±5% 50V Ceramic Capacitor COG, NPO 0603 (1608 Metric)	0603
8	C8, C9, C21, C22	4	100nF	KGM15BR71H104JT	KYOCERA AVX	0.1 uF ±5% 50V Ceramic Capacitor X7R 0603 (1608 Metric)	0603
9	C10, C12, C23	3	2.2uF	GRT188C71E225KE13D	Murata	Multi-Layer Ceramic Capacitor 2.2uF 25V X7S ±10% 0603 Paper T/R	0603
10	C11, C24	2	2.2uF	CGA5L2X7R1E225K160AA	TDK	Cap Ceramic 2.2uF 25V X7R 10% Pad SMD 1206 +125°C Automotive T/R	1206
11	C13	1	1uF	UMK107AB7105KA-T	Taiyo Yuden	CAP, CERM, 1 uF, 50 V, +/- 10%, X7R, 0603	0603
12	C25, C26, C44, C45	4	2.2uF	GRT188R61H225KE13D	MuRata	CAP, CERM, 2.2 uF, 50 V, +/- 10%, X5R, AEC-Q200 Grade 3, 0603	0603
13	C27, C28, C46, C47	4	200pF	GRM1885C1H201JA01D	MuRata	CAP, CERM, 200 pF, 50 V, +/- 5%, COG/NPO, 0603	0603
14	C29, C42	2	4.7uF	GRM188R61E475KE15D	Murata	4.7uF ±10% 25V Ceramic Capacitor X5R 0603 (1608 Metric)	0603
15	C31, C32, C33, C34	4	56pF	06035A560FAT2A	AVX	CAP, CERM, 56 pF, 50 V, +/- 1%, COG/NPO, 0603	0603
16	C36, C39, C49, C52	4	100nF	C0805C104K5RAC7800	KEMET	0.1 uF ±10% 50V Ceramic Capacitor X7R 0805 (2012 Metric)	0805
17	C37, C50	2	1uF	CL10B105K89VPJC	Samsung	1 uF ±10% 50V Ceramic Capacitor X7R 0603 (1608 Metric)	0603
18	C38, C51	2	10uF	C1206C106J4RACAUTO	KEMET	10 uF ±5% 16V Ceramic Capacitor X7R 1206 (3216 Metric)	1206
19	C40, C53	2	1uF	GRM188C71C105KA12D	Murata	1 uF ±10% 16V Ceramic Capacitor X7S 0603 (1608 Metric)	0603
20	C41, C54	2	100pF	06033C101KAT2A	AVX	CAP, CERM, 100 pF, 25 V, +/- 10%, X7R, 0603	0603
21	C55, C56, C57, C58	4	100nF	C0603C104K5RAC3121	KEMET	0.1 uF ±10% 50V Ceramic Capacitor X7R 0603 (1608 Metric)	0603
22	D1, D2	2	40V	RB060M-40TFTTR	Rohm	Diode, Schottky, 40 V, 2 A, SOD-123	SOD-123
23	D3, D4, D5	3	Red	LH R974-LP-1	OSRAM	LED, Red, SMD	1.2x2mm
24	D6, D7	2		KG DELLS1 22-JGKH-24	Osram Opto	Standard LEDs - SMD Green TOPLED E 1608	0603
25	D8, D9, D13, D14, D18, D19	6	1200V	STTH112A	STMicroelectronics	Diode, Ultrafast, 1200 V, 1 A, SMA	SMA
26	D10, D15	2	2.7V	BZT52C2V7T-7	Diodes Inc.	Diode, Zener, 2.7 V, 300 mW, SOD-523	SOD-523
27	D11, D16	2	14V	MMSZ4701-HE3-08	Vishay-Semiconductor	Diode, Zener, 14 V, 500 mW, AEC-Q101, SOD-123	SOD-123
28	D12, D17	2	30V	DFLZ30-7	Diodes Inc.	Diode, Zener, 30 V, 1 W, PowerDI123	PowerDI123
29	J1, J4, J8	3		22281020	Molex	KK 254 Breakaway Header, Right-Angle with Friction Lock, 2 Circuits, Tin (Sn) Plating	HDR2
30	J2, J6	2		MMCX-J-P-H-ST-TH1	Samtec	Connector, MMCX 50 ohm, TH	Connector, MMCX, TH
31	J3, J7	2		SSW-102-01-G-D	Samtec	Receptacle, 2.54mm, 2x2, Gold, TH	Receptacle, 2.54mm, 2x2, TH
32	J5, J9	2		034-1030-12G	Amphenol RF	BNC JACK, 75 Ohm, Gold, R/A, TH	BNC
33	L1, L2	2	3.3uH	AIML-0603-3R3K-T	Abracon Corporation	Inductor, Multilayer, Ferrite, 3.3 uH, 0.015 A, 1.55 ohm, SMD	0603
34	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 x 0.200 inch
35	Q1, Q3, Q4, Q6	4		BUK6D23-40EX	Nexperia	N-Channel 40 V 8A (Ta), 19A (Tc) 2.3W (Ta), 15W (Tc) Surface Mount DFN2020MD-6	SOT1220
36	Q2, Q5	2		BUK6D43-40PX	Nexperia	P-Channel 40 V 6A (Ta) 15W (Tc) Surface Mount DFN2020MD-6	SOT1220
37	R1, R5, R8, R13	4	10.0k	RT0603DRE0710KL	Yageo America	RES, 10.0 k, 0.5%, 0.1 W, 0603	0603
38	R2, R26, R33, R45	4	1	TNPW12061R00DEEA	Vishay	1 Ohms ±0.5% 0.52W Chip Resistor 1206 (3216 Metric) Anti-Sulfur, Automotive AEC-Q200, Moisture Resistant Thin Film	1206
39	R3, R10, R11, R58	4	15.0k	RT0603BRD0715KL	Yageo America	RES, 15.0 k, 0.1%, 0.1 W, 0603	0603
40	R4, R12	2	51k	ERA-3AED513V	Panasonic	51 kOhms ±0.5% 0.1W, 1/10W Chip Resistor 0603 (1608 Metric) Automotive AEC-Q200 Thin Film	0603
41	R6, R14	2	2.40k	RT0603DRE072K4L	Yageo America	RES, 2.40 k, 0.5%, 0.1 W, 0603	0603
42	R7	1	30.0k	RG1608P-303-B-T5	Susumu Co Ltd	RES, 30.0 k, 0.1%, 0.1 W, 0603	0603
43	R9	1	10k	P2TC0603D1002LNTA	Vishay	10 kOhms ±0.01% 0.125W, 1/8W Chip Resistor 0603 (1608 Metric) Anti-Sulfur, Moisture Resistant Thin Film	0603
44	R15, R16, R25, R31, R37, R38, R39, R44, R50, R54, R55, R56	12	10k	5,60112E+11	Würth Electronics	10 kOhms ±1% 0.1W, 1/10W Chip Resistor 0603 (1608 Metric) Anti-Sulfur Thick Film	0603
45	R17	1	12.0k	ERJ-3EKF1202V	Panasonic	RES, 12.0 k, 1%, 0.1 W, 0603	0603
46	R18, R19	2	8k	RT0603BRE078KL	Yageo	8 kOhms ±0.1% 0.1W, 1/10W Chip Resistor 0603 (1608 Metric) Thin Film	0603
47	R20, R21	2	24.9k	5,60112E+11	Würth Electronics	24.9 kOhms ±1% 0.1W, 1/10W Chip Resistor 0603 (1608 Metric) Anti-Sulfur Thick Film	0603
48	R22, R23, R29, R32, R41, R42, R48, R51	8	120	RT0603BRD07120RL	Yageo America	RES, 120, 0.1%, 0.1 W, 0603	0603
49	R24, R43	2	32.4	CRCW120632R4FKEA	Vishay-Dale	RES, 32.4, 1%, 0.25 W, AEC-Q200 Grade 0, 1206	1206
50	R27, R30, R46, R49	4	3.3	CRCW12063R30JNEA	Vishay-Dale	RES, 3.3, 5%, 0.25 W, AEC-Q200 Grade 0, 1206	1206
51	R28, R47	2	1.00k	RT0603DRE071KL	Yageo America	RES, 1.00 k, 0.5%, 0.1 W, 0603	0603
52	R34, R53	2	10	ESR03EZPF10R0	ROHM	10 Ohms ±1% 0.25W, 1/4W Chip Resistor 0603 (1608 Metric) Automotive AEC-Q200, Pulse Withstanding Thick Film	0603
53	R35, R36	2	5.05k	RT0603DRE075K05L	Yageo America	RES, 5.05 k, 0.5%, 0.1 W, 0603	0603
54	R40, R57	2	1k	P2TC0603D1001LNTA	Vishay	1 kOhms ±0.01% 0.125W, 1/8W Chip Resistor 0603 (1608 Metric) Anti-Sulfur, Moisture Resistant Thin Film	0603
55	TP2	1		5011	Keystone Electronics	Test Point, Multipurpose, Black, TH	Black Multipurpose Testpoint
56	U1, U3	2		UCC35131QDHARQ1	Texas Instruments	Automotive 2.0W, 12V VIN, High-Density, > 5kVRMS, Isolated DC/DC Module	SSOP16
57	U2	1		TPS7A2450DBVR	Texas Instruments	Linear Voltage Regulator IC 1 Output 200mA SOT-23-5	SOT23-5
58	U4, U5	2		PUCC218915AQDFPQ1	Texas Instruments	Single Channel Isolated Pre-Driver for SiC/IGBT with Active Protection	SSOP28
59	FID1, FID2	0		N/A	N/A	Fiducial mark. There is nothing to buy or mount.	N/A

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