

Bill of Materials

TI DESIGNS TIDA-00386

Item	Qty	Reference	Part Description	Manufacturer	Manufacturer Part Number	Alternate Part Number	Notes
1	1	BR1	RECT BRIDGE GPP 4A 600V GBU	Micro Commercial Co	GBU4J-BP	GBU4J-BPMS-ND	
2	1	C1	CAP, Film, 0.33uF, 630V, +/-20%, TH	BFC233820334	BFC233820334	BC1613-ND	
3	1	C2	CAP ALUM 22UF 25V 20% RADIAL	Panasonic	EEA-GA1E220H	P15803CT-ND	
4	1	C3	CAP, CERM, 1uF, 25V, +/-10%, X7R, 1206	AVX	12063C105KAT2A	478-1567-1-ND	
5	1	C4	CAP, CERM, 0.1uF, 25V, +/-10%, X7R, 0603	Kemet	C0603C104K3RACTU	399-1281-1-ND	
6	1	C5	CAP, AL, 68uF, 400V, +/-20%, TH	Nichicon	UCY2G680MHD9	493-6889-ND	
7	1	C6	CAP, CERM, 120pF, 50V, +/-5%, C0G/NP0, 0603	AVX Corporation	06035A121JAT2A	478-1176-1-ND	
8	1	C7	CAP, AL, 27uF, 400V, +/-20%, TH	Nichicon	UCY2G270MHD1TO	493-4825-1-ND	
9	1	C8	CAP, CERM, 2200pF, 100V, +/-5%, X7R, 0603	AVX Corporation	06031C222JAT2A	478-3705-1-ND	
10	1	C9	CAP, CERM, 2200pF, 250V, +/-20%, E, Disc 10x8mm	Murata	DE1E3KX222MA5BA01	490-7048-ND	
11	0	C10	CAP CER 0.082UF 16V 10% X7R 0603	AVX Corporation	0603YC823KAT2A	478-1238-1-ND	DNP
12	2	C11, C12	CAP, AL, 680uF, 35V, +/-20%, 0.019 ohm, TH	Nichicon	UHW1V681MPD6	493-6804-ND	
13	0	C13	CAP, CERM, 1uF, 50V, +/-10%, X7R, 0805	AVX Corporation	08055C105KAT2A	478-7956-1-ND	DNP
14	1	C14	CAP, CERM, 1000pF, 100V, +/-10%, X7R, 0805	AVX Corporation	08051C102KAT2A	478-1352-1-ND	
15	1	C15	CAP, CERM, 10pF, 50V, +/-5%, C0G/NP0, 0603	AVX Corporation	06035A100JAT2A	478-1163-1-ND	
16	1	C16	CAP, CERM, 10pF, 200V, +/-5%, C0G/NP0, 1206	AVX Corporation	12062A100JAT2A	12062A100JAT2A-ND	
17	2	C17, C18	CAP, CERM, 0.1uF, 50V, +/-10%, X7R, 0603	AVX Corporation	06035C104KAT2A	478-5052-1-ND	
18	1	C19	CAP, CERM, 10uF, 10V, +/-20%, X5R, 0603	TDK Corporation	C1608X5R1A106M080AC	445-6853-1-ND	
19	2	C20, C21	CAP, CERM, 4.7uF, 50V, +/-10%, X5R, 0805	TDK Corporation	C2012X5R1H475K125AB	445-5980-1-ND	
20	2	C22, C35	CAP, CERM, 0.1uF, 25V, +/-10%, X7R, 0805	AVX Corporation	08053C104KAT2A	478-3755-1-ND	
21	2	C23, C24	CAP, CERM, 1uF, 25V, +/-10%, X5R, 0603	TDK Corporation	C1608X5R1E105K080AC	445-5146-1-ND	
22	1	C30	CAP, CERM, 470pF, 50V, +/-5%, 0603	TDK Corporation	C1608CH1H471J080AA	445-11087-1-ND	
23	1	D1	Diode, Ultrafast, 200V, 1A, SMA	Diodes Incorporated	ES1D-13-F	ES1D-FDICT-ND	
24	2	D2, D3	Diode, P-N, 1000V, 1A, TH	Fairchild Semiconductor	1N4007	1N4007FSCT-ND	
25	1	D4	Diode, Switching, 70V, 0.25A, SOT-23	Vishay-Semiconductor	BAV70-E3-08	BAV70-E3-08CT-ND	
26	1	D5	Diode, Ultrafast, 100V, 0.25A, SOD-323	NXP Semiconductors	BAS316,115	568-5003-1-ND	
27	1	D6	Diode, Ultrafast, 600V, 1A, SMB	Diodes Incorporated	MURS160-13-F	MURS160-FDICT-ND	
28	1	D7	DIODE SCHOTTKY 150V 10A TO220AB	Fairchild Semiconductor	MBR20150CTTU	MBR20150CTTU-ND	
29	1	D8	Diode, Zener, 82V, 550mW, SMB	ON Semiconductor	1SMB5947BT3G	863-1SMB5947BT3G	
30	1	D9	Diode, Zener, 100V, 550mW, SMB	ON Semiconductor	1SMB5949BT3G	863-1SMB5949BT3G	
31	1	F1	Fuse, 3.15A, 250V, TH	Littelfuse Inc	39213150000	F5504CT-ND	
32	2	HS1, HS2	BOARD LEVEL HEATSINK .375" TO-220	Aavid Thermalloy	7173DG	HS415-ND	
33	1	J1	Terminal Block, 2x1, 5.08mm, TH	On Shore Technology Inc	ED120/2DS	ED1609-ND	
34	1	J2	CONN HEADER 4POS .100" SGL GOLD	Samtec Inc	TSW-104-07-G-S	SAM1029-04-ND	
35	1	J4	CONN HEADER 3POS .100" SGL GOLD	Samtec Inc	TSW-103-07-G-S	SAM1029-03-ND	
36	1	L1	Inductor, Toroid, 4.5mH, 0.05 ohm, TH	Renco Electronics	RLTI-1099		
37	1	L2	Inductor, Toroid, 47.7uH, 0.04 ohm, TH	Renco Electronics	RLTI-1098		
38	1	L3	INDUCTOR POWER 47UH 1007	Taiyo Yuden	CB2518T470K	587-2191-1-ND	
39	1	Q1	MOSFET, N-CH, 600V, 11A, TO-220 FullPAK	STMicroelectronics	STF13NM60ND	497-13865-5-ND	
40	1	R1	RES, 4.70 ohm, 1%, 0.125W, 0805	Yageo	RC0805FR-074R7L	311-4.70CRCT-ND	

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41	2	R2, R3	RES, 100k ohm, 1%, 0.25W, 1206	Yageo	RC1206FR-07100KL	311-100KFRCT-ND	
42	1	R4	RES, 100 ohm, 1%, 0.1W, 0603	Yageo	RC0603FR-07100RL	311-100HRCT-ND	
43	1	R5	RES, 1.00k ohm, 1%, 0.1W, 0603	Yageo	RC0603FR-071KL	311-1.00KHRCT-ND	
44	1	R6,R23	RES, 0 ohm, 5%, 0.1W, 0603	Vishay-Dale	CRCW06030000Z0EA	541-0.0GCT-ND	R6-DNP
45	1	R7	RES, 22.6k ohm, 1%, 0.25W, 1206	Yageo	RC1206FR-0722K6L	311-22.6KFRCT-ND	
46	1	R8	RES, 47k ohm, 5%, 0.25W, 1206	Yageo	RC1206JR-0747KL	311-47KERCT-ND	
47	1	R9	RES, 220k ohm, 1%, 0.1W, 0603	Yageo	RC0603FR-07220KL	311-220KHRCT-ND	
48	1	R10	RES, 3.90k ohm, 1%, 0.1W, 0603	Yageo	RC0603FR-073K9L	311-3.90KHRCT-ND	
49	1	R11	RES, 47.0 ohm, 1%, 0.25W, 1206	Yageo	RC1206FR-0747RL	311-47.0FRCT-ND	
50	1	R12	RES, 47.0k ohm, 1%, 0.1W, 0603	Yageo	RC0603FR-0747KL	311-47.0KHRCT-ND	
51	1	R13	RES, 4.7 ohm, 5%, 0.25W, 1206	Yageo	RC1206JR-074R7L	311-4.7ERCT-ND	R19-DNP
52	4	R14, R18, R21, R22, R19	RES, 4.75k ohm, 1%, 0.1W, 0603	Yageo	RC0603FR-074K75L	311-4.75KHRCT-ND	
53	0	R17	RES, 1.00k ohm, 1%, 0.25W, 1206	Vishay-Dale	CRCW12061K00FKEA	541-1.00KFCT-ND	DNP
54	1	R15	RES, 100k ohm, 1%, 0.1W, 0603	Yageo	RC0603FR-07100KL	311-100KHRCT-ND	
55	1	R16	RES, 0.2 ohm, 1%, 2W, 2512	Stackpole Electronics Inc	CSRN2512FKR200	CSRN2512FKR200CT-ND	
56	1	R20	RES, 0 ohm, 5%, 0.25W, 1206	Yageo	RC1206JR-070RL	311-0.0ERCT-ND	DNP
57	1	RT1	Thermistor NTC, 470k ohm, 5%, Disc, 5.5x5mm	EPCOS Inc	B57164K474J	495-2084-ND	DNP
58	1	T1	RM10/I - P-1031 5-pin Bobbin	Renco Electronics			
59	1	U1	Green-Mode Flyback Controller, D0007A	Texas Instruments	UCC28630D	296-37545-5-ND	
60	1	U2	24V/2Amp, 3-phase sensor-less BLDC motor control IC	Texas Instruments	DRV10983PWPR	DRV10983PWPR-ND	
61	1	U3	16-bit Mixed Signal Microcontroller	Texas Instruments	MSP430G2201IPW14R	296-27473-1-ND	
62	1	U5	3V PH.MODULE 38KHZ S.VIEW	Vishay Semiconductor	TSOP31338	TSOP31338-ND	
63	1	V1	Varistor, 430V, 4.5KA, TH	EPCOS Inc	B72214S0271K101	495-1412-ND	

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