

TIDA-01417 REV E1 Bill of Materials

Designator	Quantity	Value	PartNumber	Manufacturer	Description	PackageReference
IPCB	1		TIDA-01417	Any	Printed Circuit Board	
C1, C16	2	1000pF	CGA3E2X7R2A102K080AA	TDK	CAP, CERM, 1000 pF, 100 V, +/- 10%, X7R, AEC-Q200 Grade 1, 0603	0603
C2, C17	2	1000pF	C0805C102JBRACU	Kemet	CAP, CERM, 1000 pF, 630 V, +/- 5%, X7R, 0805	0805
C3, C8, C12	3	10uF	C2012X5R1V106K085AC	TDK	CAP, CERM, 10 µF, 35 V, +/- 10%, X5R, 0805	0805
C4, C5	2	47uF	ESMG451ELL470MLP1S	Chemi-Con	CAP, AL, 47 µF, 450 V, +/- 20%, TH	D16xL35.5mm
C6, C7	2	470uF	ELXZ350ELL471MJ20S	Chemi-Con	CAP, AL, 470 µF, 35 V, +/- 20%, AEC-Q200 Grade 2, TH	D10xL20mm
C9, C10	2	0.1uF	C1608X5R1H104K080AA	TDK	CAP, CERM, 0.1 µF, 50 V, +/- 10%, X5R, 0603	0603
C11, C13	2	1uF	C1608X5R1H105K080AB	TDK	CAP, CERM, 1 µF, 50 V, +/- 10%, X5R, 0603	0603
C14	1	560pF	GRM188R71H561KA01D	MuRata	CAP, CERM, 560 pF, 50 V, +/- 10%, X7R, 0603	0603
C15	1	0.047uF	C1608X5R1H473K080AA	TDK	CAP, CERM, 0.047 µF, 50 V, +/- 10%, X5R, 0603	0603
D1	1	600V	DF1506S-T	Diodes Inc.	Diode, Switching-Bridge, 600 V, 1.5 A, DF-S	DF-S
D2	1	170V	SMBJ170A-13-F	Diodes Inc.	Diode, TVS, Uni, 170 V, 275 Vc, SMB	SMB
D3	1	200V	MBRS4201T3G	ON Semiconductor	Diode, Schottky, 200 V, 4 A, SMC	SMC
D4	1	1000V	US1M-13-F	Diodes Inc.	Diode, Ultrafast, 1000 V, 1 A, SMA	SMA
D5	1	100V	PMEG10010ELRX	NXP Semiconductor	Diode, Schottky, 100 V, 1 A, AEC-Q101, SOD-123W	SOD-123W
F1	1		048712.5MXEP	Littelfuse	FUSE 420VAC/DC 5X20 FA PT 12.5A	
J2, J3	2		61300411121	Würth Elektronik	Header, 2.54 mm, 4x1, Gold, TH	Header, 2.54mm, 4x1, TH
L1	1	1mH	768772102	Würth Elektronik	Inductor, Shielded Drum Core, Metal Composite, 1 mH, 0.5 A, 1.7 ohm, TH	Dia 8x10mm
L2	1	47uH	CB2518T470K	Taiyo Yuden	Inductor, Wirewound, Ferrite, 47 µH, 0.11 A, 1.235 ohm, SMD	2.5x1.8x1.8mm
Q1	1	650V	TK7P65W,RQ	Toshiba	MOSFET, N-CH, 650 V, 6.8 A, DPAK	DPAK
R1	1	75.0k	RC0603FR-0775KL	Yageo America	RES, 75.0 k, 1%, 0.1 W, 0603	0603
R2	1	1.50k	RC0603FR-071K5L	Yageo America	RES, 1.50 k, 1%, 0.1 W, 0603	0603
R3	1	383k	RT0603BRD07383KL	Yageo America	RES, 383 k, 0.1%, 0.1 W, 0603	0603
R4	1	24k	RC0603JR-0724KL	Yageo America	RES, 24 k, 5%, 0.1 W, 0603	0603
R5	1	1.00k	RC0603FR-071KL	Yageo America	RES, 1.00 k, 1%, 0.1 W, 0603	0603
R6	1	0	MCR03EZPJ000	Rohm	RES, 0, 5%, 0.1 W, 0603	0603
R7	1	2.7k	RC0603JR-072K7L	Yageo America	RES, 2.7 k, 5%, 0.1 W, 0603	0603
R8	1	100k	RC0603FR-07100KL	Yageo America	RES, 100 k, 1%, 0.1 W, 0603	0603
R9	1	22.0k	RC0603FR-0722KL	Yageo America	RES, 22.0 k, 1%, 0.1 W, 0603	0603
R10	1	0.43	ERJ-8RQFR43V	Panasonic	RES, 0.43, 1%, 0.25 W, AEC-Q200 Grade 1, 1206	1206
R11	1	44.2k	RC0603FR-0744K2L	Yageo America	RES, 44.2 k, 1%, 0.1 W, 0603	0603
R12, R13	2	100	RC0603FR-07100RL	Yageo America	RES, 100, 1%, 0.1 W, 0603	0603
R14, R15, R16, R20, R21, R22, R23	7	5.1k	RC0603JR-075K1L	Yageo America	RES, 5.1 k, 5%, 0.1 W, 0603	0603
R17	1	10	CRCW060310R0JNEA	Vishay-Dale	RES, 10, 5%, 0.1 W, 0603	0603
R18	1	10	RC0805JR-0710RL	Yageo America	RES, 10, 5%, 0.125 W, 0805	0805
R19	1	0.82	ERJ-8RQFR82V	Panasonic	RES, 0.82, 1%, 0.25 W, 1206	1206
RCL1	1	4.7 ohm	B57236S479M	EPCOS (TDK)	ICL 4.7 OHM 20% 4.6A 11.51MM	Disc_11.5mmx6mm
T1	1	280uH	750343466	Würth Elektronik	Transformer, PRI inductance 280uH, reinforced isolation	TRANS
U1	1		DRV10983PWP	Texas Instruments	12- to 24-V, Three-Phase, Sensorless BLDC Motor Driver, PWP0024B (TSSOP-24)	PWP0024B

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U2	1		UCC28740DR	Texas Instruments	Constant-Voltage, Constant-Current Flyback Controller Using Opto-Coupler Feedback, D0007A (SOIC-7)	D0007A
U3	1		LTV-817S	Lite-On	Optocoupler, 5 kV, 50-600% CTR, SMT	DIP-4 SMT
U4	1		TL431BQDBZT	Texas Instruments	Adjustable Precision Shunt Regulator, 34 ppm / degC, 100 mA, -40 to 125 degC, 3-pin SOT-23 (DBZ), Green (RoHS & no Sb/Br)	DBZ0003A

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