

TIDA-010080 REV E1 Bill of Materials

Designator	Quantity	Value	PartNumber	Manufacturer	Description	PackageReference
PCB1	1		TIDA-010080	Any	Printed Circuit Board	
C1	1	330uF	861011486022	Wurth Elektronik	CAP, AL, 330 uF, 450 V, +/- 20%, TH, 861011486022	D35xL37mm
C2, C3, C11, C12, C41	5	2200pF	AY2222M35Y5US63L7	Vishay-Bccomponents	CAP, CERM, 2200 pF, X1 440 VAC/Y2 300 VAC, +/- 20%, Y5U, AEC-Q200 Grade 1, D9.5xT5mm	D9.5xT5mm
C4, C10	2	0.47uF	890324024005	Wurth Elektronik	CAP, Film, 0.47 uF, 275 V, +/- 10%, TH	15x10mm
C5	1	0.47uF	B32522N6474J000	TDK	CAP, Film, 0.47 uF, 450 V, +/- 5%, AEC-Q200 Grade 1, TH	18x8.5mm
C6, C7	2	0.1uF	C3225X7T2J104M160AC	TDK	CAP, CERM, 0.1 uF, 630 V, +/- 20%, X7T, 1210	1210
C8, C40	2	1uF	C1608X5R1E105K080AC	TDK	CAP, CERM, 1 uF, 25 V, +/- 10%, X5R, 0603	0603
C9, C30	2	0.1uF	CL10A104KA8NNNC	Samsung Electro-Mechanics	CAP, CERM, 0.1 uF, 25 V, +/- 10%, X5R, 0603	0603
C13	1	100pF	GRM31A5C2J101JW01D	MuRata	CAP, CERM, 100 pF, 630 V, +/- 5%, C0G/NP0, 1206	1206
C14	1	2.2uF	GRM188R6YA225KA12D	MuRata	CAP, CERM, 2.2 uF, 35 V, +/- 10%, X5R, 0603	0603
C15	1	0.47uF	GCM188R71E474KA64D	MuRata	CAP, CERM, 0.47 uF, 25 V, +/- 10%, X7R, AEC-Q200 Grade 1, 0603	0603
C16	1	1500pF	C0603C152J3RACTU	Kemet	CAP, CERM, 1500 pF, 25 V, +/- 5%, X7R, 0603	0603
C17, C24	2	4.7uF	GRM188R61E475KE11D	MuRata	CAP, CERM, 4.7 uF, 25 V, +/- 10%, X5R, 0603	0603
C18	1	4700pF	C0603C472J5RACTU	Kemet	CAP, CERM, 4700 pF, 50 V, +/- 5%, X7R, 0603	0603
C19	1	820pF	GRM1885C1E821JA01D	MuRata	CAP, CERM, 820 pF, 25 V, +/- 5%, C0G/NP0, 0603	0603
C20	1	0.47uF	GRM188R71C474KA88D	MuRata	CAP, CERM, 0.47 uF, 16 V, +/- 10%, X7R, 0603	0603
C21	1	2.2uF	CC0603KRX7R7BB225	Yageo America	CAP, CERM, 2.2 uF, 16 V, +/- 10%, X7R, 0603	0603
C22, C53	2	0.1uF	C1608X7R1H104K080AA	TDK	CAP, CERM, 0.1 uF, 50 V, +/- 10%, X7R, 0603	0603
C23	1	2.2uF	EMK107BB7225KA-T	Taiyo Yuden	CAP, CERM, 2.2 uF, 16 V, +/- 10%, X7R, 0603	0603
C25	1	68pF	GRM31A7U3A680JW31D	MuRata	CAP, CERM, 68 pF, 1000 V, +/- 5%, U2J, 1206	1206
C26	1	330pF	GRM31A5C2J331JW01D	MuRata	CAP, CERM, 330 pF, 630 V, +/- 5%, C0G/NP0, 1206	1206
C27, C28, C29	3	680uF	EGPA800ELL681MM30S	Chemi-Con	CAP, AL, 680 uF, 80 V, +/- 20%, 0.041 ohm, AEC-Q200 Grade 1, TH	D18xL30mm
C31	1	0.082uF	R73PN2820SE00J	Kemet	CAP, Film, 0.082 uF, 300 VAC/630 VDC, +/- 5%, AEC-Q200 Grade 2, TH	26.5x10mm
C32, C33, C34, C35	4	10uF	GRM32ER71J106KA12L	MuRata	CAP, CERM, 10 uF, 63 V, +/- 10%, X7R, 1210	1210
C38, C49, C56	3	100pF	06033C101KAT2A	AVX	CAP, CERM, 100 pF, 25 V, +/- 10%, X7R, 0603	0603
C39	1	8200pF	GCD188R71H822KA01D	MuRata	CAP, CERM, 8200 pF, 50 V, +/- 10%, X7R, AEC-Q200 Grade 1, 0603	0603
C42	1	0.1uF	06035C104KAT2A	AVX	CAP, CERM, 0.1 uF, 50 V, +/- 10%, X7R, 0603	0603
C43	1	1uF	GCM188R71C105MA64D	MuRata	CAP, CERM, 1 uF, 16 V, +/- 20%, X7R, AEC-Q200 Grade 1, 0603	0603
C44, C45, C46, C57	4	0.01uF	C0603X103K5RACTU	Kemet	CAP, CERM, 0.01 uF, 50 V, +/- 10%, X7R, 0603	0603
C47	1	1uF	12063C105KAT2A	AVX	CAP, CERM, 1 uF, 25 V, +/- 10%, X7R, 1206	1206
C48	1	0.12uF	GRM188R71E124KA01D	MuRata	CAP, CERM, 0.12 uF, 25 V, +/- 10%, X7R, 0603	0603
C50	1	0.33uF	GRM188R71C334KA01D	MuRata	CAP, CERM, 0.33 uF, 16 V, +/- 10%, X7R, 0603	0603
C51	1	1000pF	06031C102JAT2A	AVX	CAP, CERM, 1000 pF, 100 V, +/- 5%, X7R, 0603	0603
C52	1	47uF	C3216X5R1E476M160AC	TDK	CAP, CERM, 47 uF, 25 V, +/- 20%, X5R, 1206_190	1206_190
C54	1	4.7uF	GRM188R61E475KE11D	MuRata	CAP, CERM, 4.7 uF, 25 V, +/- 10%, X5R, 0603	0603
C55	1	10pF	GRM1885C1H100JA01D	MuRata	CAP, CERM, 10 pF, 50 V, +/- 5%, C0G/NP0, 0603	0603
D1	1	600V	1N5406	Vishay-Semiconductor	Diode, Switching-Bridge, 600 V, 3 A, TH	DO-201AD
D2	1	600V	MUR860G	ON Semiconductor	Diode, Ultrafast, 600 V, 8 A, TH	TO-220AC
D3	1	1000V	LVB2560-M3/45	Vishay	Diode, Switching-Bridge, 600 V, 25 A, TH	GSIB-5S
D4, D5, D15	3	1000V	RS1MB-13-F	Diodes Inc.	Diode, P-N, 1000 V, 1 A, SMB	SMB

Designator	Quantity	Value	PartNumber	Manufacturer	Description	PackageReference
D6, D10, D11	3	70V	1N5711W-7-F	Diodes Inc.	Diode, Schottky, 70 V, 0.015 A, SOD-123	SOD-123
D7	1	30V	BAT54HT1G	ON Semiconductor	Diode, Schottky, 30V, 0.2A, SOD-323	SOD-323
D8	1	5.6V	MMSZ4690T1G	ON Semiconductor	Diode, Zener, 5.6 V, 500 mW, SOD-123	SOD-123
D9	1	250V	BAV23C,215	Nexperia	Diode, Switching, 250 V, 0.225 A, SOT-23	SOT-23
D12	1	600V	STTH3R06S	ST	Diode, Ultrafast, 600 V, 3 A, SMC	SMC
D13	1	600V	US1J-13-F	Diodes Inc.	Diode, Ultrafast, 600 V, 1 A, SMA	SMA
D14	1	30V	MMSZ5256B-7-F	Diodes Inc.	Diode, Zener, 30 V, 500 mW, SOD-123	SOD-123
F1	1		0215010.MXP	Bel Fuse	Fuse, 10 A, 250 VAC	9.8x3.05mm
J1	1		350429-1	TE Connectivity	Header(Shrouded), 6.35mm, 3x1, Tin, TH	Header(Shrouded), 6.35mm, 3x1, TH
J2	1		4-644694-4	TE Connectivity	Header, 100 mil, 14x1, Tin, R/A, TH	Header, 100 mil, 14x1, R/A, TH
L1	1		750344651	Würth	Inductor	
L2	1	5 mH	8113-RC	Bourns	Common Mode Filters / Chokes 5mH MIN	30x35x21mm
L3	1		YXBCM020013007C	YAXIN ELECTRONICS	8.3mH @ 10kHz 2 Line Common Mode Choke Through Hole DCR 12mOhm	PTH_CHOKE_12MM5 _25MM0
L4	1		750344650	Würth	Inductor	0402-A
L5	1	300nH	PA2607.301NLT	Pulse Engineering	Inductor, Ferrite, 300 nH, 32 A, 0.00031 ohm, SMD	10.31x7.65mm
Q1	1	600V	IPW60R099CPFKSA1	Infineon Technologies	MOSFET, N-CH, 600 V, 31 A, TO-247	TO-247
Q2	1	600V	TK20G60W,RVQ	AOS	MOSFET, N-CH, 600 V, 20 A, DDPAK	DDPAK
Q3	1	65 V	BC846PNH6327XTSA1	Infineon Technologies	Transistor, NPN/PNP Pair, 65 V, 0.1 A, SOT-363	SOT-363
Q4, Q9	2	60V	2N7002	Fairchild Semiconductor	MOSFET, N-CH, 60 V, 115 A, SOT-23	SOT-23
Q5, Q8	2	650V	SPP20N65C3XKSA1	Infineon Technologies	MOSFET, N-CH, 650 V, 20.7 A, TO-220AB	TO-220AB
Q6, Q7	2	150V	IPP075N15N3GXKSA1	Infineon Technologies	MOSFET, N-CH, 150 V, 100 A,	
R1, R31, R41, R46, R50, R59	6	10k	CRCW060310K0JNEA	Vishay-Dale	RES, 10 k, 5%, 0.1 W, 0603	0603
R2	1	18.2	CRCW080518R2FKEA	Vishay-Dale	RES, 18.2, 1%, 0.125 W, 0805	0805
R3	1	0.02	CSRN2512FK20L0	Stackpole Electronics Inc	RES, 0.02, 1%, 2 W, 2512	2512
R4	1	49.9k	ERJ-3EKF4992V	Panasonic	RES, 49.9 k, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
R5	1	3.3	CRCW08053R30JNEA	Vishay-Dale	RES, 3.3, 5%, 0.125 W, 0805	0805
R6	1	10	CRCW080510R0JNEA	Vishay-Dale	RES, 10, 5%, 0.125 W, 0805	0805
R7, R9, R12	3	3.0Meg	CRCW12063M00JNEA	Vishay-Dale	RES, 3.0 M, 5%, 0.25 W, 1206	1206
R8, R16	2	330k	CRCW1206330KJNEA	Vishay-Dale	RES, 330 k, 5%, 0.25 W, 1206	1206
R10	1	10k	RC0603JR-0710KL	Yageo America	RES, 10 k, 5%, 0.1 W, 0603	0603
R11	1	340k	CRCW1206340KFKEA	Vishay-Dale	RES, 340 k, 1%, 0.25 W, 1206	1206
R13	1	1.0k	CRCW06031K00JNEA	Vishay-Dale	RES, 1.0 k, 5%, 0.1 W, 0603	0603
R14	1	220	CRCW0603220RJNEA	Vishay-Dale	RES, 220, 5%, 0.1 W, 0603	0603
R15, R18, R29, R40	4	100k	CRCW0603100KJNEA	Vishay-Dale	RES, 100 k, 5%, 0.1 W, 0603	0603
R17	1	2.0Meg	CRCW06032M00JNEA	Vishay-Dale	RES, 2.0 M, 5%, 0.1 W, 0603	0603
R19	1	12k	CRCW060312K0JNEA	Vishay-Dale	RES, 12 k, 5%, 0.1 W, 0603	0603
R20	1	22k	CRCW060322K0JNEA	Vishay-Dale	RES, 22 k, 5%, 0.1 W, 0603	0603
R21	1	13.0k	CRCW060313K0FKEA	Vishay-Dale	RES, 13.0 k, 1%, 0.1 W, 0603	0603
R22	1	33k	CRCW080533K0JNEA	Vishay-Dale	RES, 33 k, 5%, 0.125 W, 0805	0805
R23	1	24k	RC0603JR-0724KL	Yageo America	RES, 24 k, 5%, 0.1 W, 0603	0603
R24, R64	2	127k	CRCW0603127KFKEA	Vishay-Dale	RES, 127 k, 1%, 0.1 W, 0603	0603
R25	1	1.18Meg	CRCW06031M18FKEA	Vishay-Dale	RES, 1.18 M, 1%, 0.1 W, 0603	0603
R26, R65	2	9.1k	CRCW06039K10JNEA	Vishay-Dale	RES, 9.1 k, 5%, 0.1 W, 0603	0603
R27, R35	2	5.60	RC0805FR-075R6L	Yageo America	RES, 5.60, 1%, 0.125 W, 0805	0805
R28, R42, R48	3	2.0	CRCW06032R00JNEA	Vishay-Dale	RES, 2.0, 5%, 0.1 W, 0603	0603

Designator	Quantity	Value	PartNumber	Manufacturer	Description	PackageReference
R30, R37	2	1.00	RC0805FR-071RL	Yageo America	RES, 1.00, 1%, 0.125 W, 0805	0805
R32	1	30	CRCW060330R0JNEA	Vishay-Dale	RES, 30, 5%, 0.1 W, 0603	0603
R33	1	33k	CRCW060333K0JNEA	Vishay-Dale	RES, 33 k, 5%, 0.1 W, 0603	0603
R34	1	51k	CRCW060351K0JNEA	Vishay-Dale	RES, 51 k, 5%, 0.1 W, 0603	0603
R36	1	0.0005	WSL2512L5000FEA18	Vishay-Dale	RES, 0.0005, 1%, 2 W, 2512	2512
R38	1	8.2k	CRCW06038K20JNEA	Vishay-Dale	RES, 8.2 k, 5%, 0.1 W, 0603	0603
R39	1	68	CRCW060368R0JNEA	Vishay-Dale	RES, 68, 5%, 0.1 W, 0603	0603
R43, R44	2	10.0	CRCW060310R0FKEAHP	Vishay-Dale	RES, 10.0, 1%, 0.25 W, AEC-Q200 Grade 0, 0603	0603
R45	1	1.0k	RC0603JR-071KL	Yageo America	RES, 1.0 k, 5%, 0.1 W, 0603	0603
R47	1	24.3k	CRCW060324K3FKEA	Vishay-Dale	RES, 24.3 k, 1%, 0.1 W, 0603	0603
R49	1	110k	CRCW0603110KJNEA	Vishay-Dale	RES, 110 k, 5%, 0.1 W, 0603	0603
R51, R53	2	5.1Meg	CRCW12065M10JNEA	Vishay-Dale	RES, 5.1 M, 5%, 0.25 W, 1206	1206
R52	1	75k	CRCW060375K0JNEA	Vishay-Dale	RES, 75 k, 5%, 0.1 W, 0603	0603
R54	1	470k	CRCW0603470KJNEA	Vishay-Dale	RES, 470 k, 5%, 0.1 W, 0603	0603
R55	1	6.04k	CRCW06036K04FKEA	Vishay-Dale	RES, 6.04 k, 1%, 0.1 W, 0603	0603
R56	1	130k	CRCW0603130KJNEA	Vishay-Dale	RES, 130 k, 5%, 0.1 W, 0603	0603
R57, R63	2	10k	RC1608J103CS	Samsung Electro-Mechanics	RES, 10 k, 5%, 0.1 W, 0603	0603
R58	1	0	RMCF0603ZT0R00	Stackpole Electronics Inc	RES, 0, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
R60	1	5.6Meg	CRCW12065M60JNEA	Vishay-Dale	RES, 5.6 M, 5%, 0.25 W, 1206	1206
R61	1	330k	CRCW0603330KJNEA	Vishay-Dale	RES, 330 k, 5%, 0.1 W, 0603	0603
R62	1	0	CRCW06030000Z0EA	Vishay-Dale	RES, 0, 5%, 0.1 W, 0603	0603
R66	1	5k Ohm	PV37W502C01B00	Bourns	Trimmer Potentiometer, Lead Sealed Type Multiturn PV37 Series, TH	6.71x4.5mm
R67, R68, R69	3	330k	RC1206FR-07330KL	Yageo America	RES, 330 k, 1%, 0.25 W, 1206	1206
RF1	1	47	EMC2-47RKI	TT Electronics/IRC	RES, 47, 10%, 2 W, Axial resistor	Axial resistor
RV1	1	275V	B72210S2271K101	TDK	Varistor 275V RMS 10MM Radial, TH	10mm Radial
T1	1		750344508	Wurth	WE-LLCR Resonant Converter, size PQ3232, 155uH, 16:4:4:1, 500W	
U1	1		UCC28180DR	Texas Instruments	8-PIN CONTINUOUS CONDUCTION MODE (CCM) PFC CONTROLLER, D0008A (SOIC-8)	D0008A
U2	1		TLV9101IDBVR	Texas Instruments	36V, Low-Power, RRO, General-Purpose Operational Amplifier, DBV0005A (SOT-23-5)	DBV0005A
U3	1		UCC24624DR	Texas Instruments	High Performance Synchronous Rectifier Driver for LLC Resonant Converter, D0008A (SOIC-8)	D0008A
U4	1		INA180A4IDBVR	Texas Instruments	Low- and High-Side Measurement, Multichannel, Voltage Output, Current-Sense Amplifier, DBV0005A (SOT-5)	DBV0005A
U5	1		TLV76033DBZR	Texas Instruments	100-mA, 30-V, Fixed-Output, Linear-Voltage Regulator, DBZ0003A (SOT-23-3)	DBZ0003A
U6	1		TLV9001IDBVR	Texas Instruments	Low-Power, Rail-to-Rail In and Out, 1-MHz Operational Amplifier, DBV0005A (SOT-23-5)	DBV0005A
U7	1		UCC256403DDBR	Texas Instruments	LLC Resonant Controller Enabling Low Standby Power, DDB0014A (SOIC-14)	DDB0014A
U8, U9	2		VO618A	Vishay-Semiconductor	Optocoupler, 5.3 kV, 50-600% CTR, TH	DIP, 4-Leads, Body 6.86x4.83mm, Pitch 2.54mm
U10	1		ATL431BQDBZR	Texas Instruments	2.5V Low Iq Adjustable Precision Shunt Regulator, DBZ0003A (SOT-23-3)	DBZ0003A