

**TIDA-00951 REV E2 Bill of Materials**

Designator	Quantity	Value	PartNumber	Manufacturer	Description	PackageReference
IPC1	1		TIDA-00951	Any	Printed Circuit Board	
C1, C20	2	47uF	UCS2G470MHD	Nichicon	CAP, AL, 47 µF, 400 V, +/- 20%, TH	16x25
C2	1	1uF	105CKE450M	Illinois Capacitor	CAP, AL, 1 µF, 450 V, +/- 20%, 331.57 ohm, TH	D10xL12.5mm
C3	1	1uF	B32924C3105K	TDK	CAP, Film, 1 µF, 630 V, +/- 10%, 0.018 ohm, TH	B32924_19mm
C4, C7, C11, C13, C18, C19, C21, C27, C28, C29, C30, C31, C34, C35, C36, C37, C38, C59, C60	19	2.2uF	GRM32ER72A225KA35K	MuRata	CAP, CERM, 2.2 µF, 100 V, +/- 10%, X7R, 1210	1210
C5	1	10uF	200CFX10MEFC10X16	Rubycon	CAP, AL, 10 µF, 200 V, +/- 20%, TH	10x16mm
C6	1	0.1uF	C1210C104K1RACTU	Kemet	CAP, CERM, 0.1 µF, 100 V, +/- 10%, X7R, 1210	1210
C8	1	0.1uF	ECW-F6104JL	Panasonic	CAP, Film, 0.1 µF, 1000 V, +/- 10%, TH	26.5x7mm
C9, C79	2	0.01uF	06031C103KAT2A	AVX	CAP, CERM, 0.01 µF, 100 V, +/- 10%, X7R, 0603	0603
C10, C41, C45, C51	4	1000pF	06035A102KAT2A	AVX	CAP, CERM, 1000 pF, 50 V, +/- 10%, C0G/NP0, 0603	0603
C12	1	0.1uF	ECW-F6104JL	Panasonic	CAP, CERM, 100 pF, 50 V, +/- 1%, C0G/NP0, 0603	0603
C14, C17, C24, C26, C42, C57, C63	7	1uF	GRM188R61H105KAALD	MuRata	CAP, CERM, 1 µF, 50 V, +/- 10%, X7R, 0603	0603
C15, C25	2	0.1uF	C0603C104J3RACTU	Kemet	CAP, CERM, 0.1 µF, 25 V, +/- 5%, X7R, 0603	0603
C16, C22, C58	3	470uF	ECA-2AM471	Panasonic	CAP, AL, 470 µF, 100 V, +/- 20%, TH	D16xL25mm
C23	1	1uF	C3216X7R1H105K160AB	TDK	CAP, CERM, 1 µF, 50 V, +/- 10%, X7R, 1206	1206
C32, C33, C67, C74	4	0.1uF	GRM188R71E104KA01D	MuRata	CAP, CERM, 0.1 µF, 25 V, +/- 10%, X7R, 0603	0603
C39	1	0.1uF	GRM31CR72E104KW03L	MuRata	CAP, CERM, 0.1 µF, 250 V, +/- 10%, X7R, 1206	1206
C40, C47, C48, C50, C53, C54	6	100pF	06035A101JAT2A	AVX	CAP, CERM, 100 pF, 50 V, +/- 5%, C0G/NP0, 0603	0603
C43, C44, C46, C49, C52, C55, C56	7	10uF	GRM21BR61E106MA73L	MuRata	CAP, CERM, 10 µF, 25 V, +/- 20%, X5R, 0805	0805
C61	1	2200pF	C1206X222KCRAC7800	Kemet	CAP, CERM, 2200 pF, 500 V, +/- 10%, X7R, 1206	1206
C62, C64, C69, C70	4	1000pF	GRM188R71H102KA01D	MuRata	CAP, CERM, 1000 pF, 50 V, +/- 10%, X7R, 0603	0603
C66, C68	2	10uF	EMK212BB7106MG-T	Taiyo Yuden	CAP, CERM, 10 µF, 16 V, +/- 20%, X7R, 0805	0805
C71, C72	2	1uF	GRM32RR71H105KA01L	MuRata	CAP, CERM, 1 µF, 50 V, +/- 10%, X7R, 1210	1210
C73, C75, C76	3	180pF	06035A181JAT2A	AVX	CAP, CERM, 180 pF, 50 V, +/- 5%, C0G/NP0, 0603	0603
D1	1	100V	MBRS1100T3G	ON Semiconductor	Diode, Schottky, 100 V, 1 A, SMB	SMB
D2	1	100V	SBR05M100BLP-7	Diodes Inc.	Diode, Switching-Bridge, 100 V, 0.5 A, DFN3030-4	DFN3030-4
D3, D6, D7, D8	4	100V	MMDL914-TP	Micro Commercial Component	Diode, Switching, 100 V, 0.2 A, SOD-323	SOD-323
D4	1	5.1V	BZT52C5V1-G3-08	Vishay-Semiconductor	Diode, Zener, 5.1 V, 500 mW, SOD-123	SOD-123
D5, D10	2	100V	BAT46WH,115	NXP Semiconductor	Diode, Schottky, 100 V, 0.25 A, SOD-123F	SOD-123F
D9, D11	2	600V	MURS160T3G	ON Semiconductor	Diode, Ultrafast, 600 V, 2 A, SMB	SMB

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D12, D13	2	40V	1N5819HW-7-F	Diodes Inc.	Diode, Schottky, 40 V, 1 A, SOD-123	SOD-123
D14, D15, D18, D19, D20, D21	6	100V	B3100-13-F	Diodes Inc.	Diode, Schottky, 100 V, 3 A, SMC	SMC
D16, D17	2	MBR3100	MBR3100	On Semi	Diode, Schottky, 3A, 100V, Vert. Mount	DO-201AD
FID1, FID2, FID3	3		N/A	N/A	Fiducial mark. There is nothing to buy or mount.	Fiducial
H1, H2, H3, H4, H5	5		R4-40X3/8 2701	APM Hexseal	Machine Screw, Round, #4-40 x 1/4, Nylon, Philips panhead	Screw
H6, H7, H8, H9, H10	5		1902C	Keystone	Standoff, Hex, 0.5"L #4-40 Nylon	Standoff
HS1, HS2	2		OMNI-UNI-18-75	Wakefield-Vette	HEATSINK VERT MAX CLIP, BLACK, 4.25 INCHES	4.25 INCH EXTRUDED HEAT SINK
J1, J6, J13	3		TSW-102-07-G-S	Samtec	Header, 100mil, 2x1, Gold, TH	2x1 Header
J2, J3	2		TSW-102-07-G-D	Samtec	Header, 100mil, 2x2, Gold, TH	2x2 Header
J4, J15, J16	3		TSW-103-07-G-S	Samtec	Header, 100mil, 3x1, Gold, TH	3x1 Header
J5	1		TSW-126-07-G-S	Samtec	Header, 2.54 mm, 26x1, Gold, TH	Header, 2.54 mm, 26x1, TH
J8, J9, J10, J11, J12	5		7461086	Würth Elektronik	Power Element Bush, M4, 12, TH	Bush, M4, TH
J14	1		SSW-106-01-T-S	Samtec	Receptacle, 6x1, 2.54mm, Tin, TH	Receptacle, 6x1, 2.54mm, TH
L3	1	47uH	SRN1060-470M	Bourns	Inductor, Shielded, Ferrite, 47 µH, 2.3 A, 0.11 ohm, SMD	10x6x9.8mm
L5	1	2.2uH	SRU2009-2R2Y	Bourns	Inductor, Drum Core, Ferrite, 2.2 µH, 0.8 A, 0.21 ohm, SMD	2.8x0.9x2.8mm
Q1, Q2, Q3, Q4, Q5	5	100V	CSD19536KCS	Texas Instruments	MOSFET, N-CH, 100 V, 150 A,	
Q6, Q7, Q8, Q9	4	650V	TK16E60W5,S1VX	Toshiba	MOSFET, N-CH, 600 V, 915.6A, TO-220	TO-220
Q10	1	600V	AOT10N60	AOS	MOSFET, N-CH, 600 V, 2 A, DPAK	TO-220
R1, R4, R10, R25	4	510k	CRCW0805510KJNEA	Vishay-Dale	RES, 510 k, 5%, 0.125 W, 0805	0805
R2	1	4.7	CRCW06034R70JNEA	Vishay-Dale	RES, 4.7, 5%, 0.1 W, 0603	0603
R3, R9, R31, R38	4	22	CRCW060322R0JNEA	Vishay-Dale	RES, 22, 5%, 0.1 W, 0603	0603
R5, R15, R36, R37, R40, R43, R46, R47, R48, R50, R59, R69	12	10k	CRCW060310K0JNEA	Vishay-Dale	RES, 10 k, 5%, 0.1 W, 0603	0603
R6, R7, R20, R29	4	0.0005	HCS2512FTL500	Stackpole Electronics Inc	RES, 0.0005, 1%, 3 W, 2512	2512
R8, R34, R56, R57	4	100k	CRCW1206100KJNEA	Vishay-Dale	RES, 100 k, 5%, 0.25 W, 1206	1206
R11	1	100k	CRCW0603100KFKEA	Vishay-Dale	RES, 100 k, 1%, 0.1 W, 0603	0603
R12	1	10.0	CRCW201010R0FKEF	Vishay-Dale	RES, 10.0, 1%, 0.75 W, AEC-Q200 Grade 0, 2010	2010
R13	1	1.00k	RT0603BRD071KL	Yageo America	RES, 1.00 k, 0.1%, 0.1 W, 0603	0603
R14, R30, R42	3	4.75k	CRCW06034K75FKEA	Vishay-Dale	RES, 4.75 k, 1%, 0.1 W, 0603	0603
R16, R17, R44, R45	4	1.00	CRCW08051R00FKEA	Vishay-Dale	RES, 1.00, 1%, 0.125 W, 0805	0805
R18, R22	2	1.0k	RC0603JR-071KL	Yageo America	RES, 1.0 k, 5%, 0.1 W, 0603	0603
R19	1	4.99k	CR0603-FX-4991ELF	Bourns	RES, 4.99 k, 1%, 0.1 W, 0603	0603
R21	1	30.9k	CRCW060330K9FKEA	Vishay-Dale	RES, 30.9 k, 1%, 0.1 W, 0603	0603
R23, R28	2	82.0k	RC0603FR-0782KL	Yageo America	RES, 82.0 k, 1%, 0.1 W, 0603	0603
R24, R26, R27, R39, R41	5	1.00k	CRCW06031K00FKEA	Vishay-Dale	RES, 1.00 k, 1%, 0.1 W, 0603	0603
R32, R55	2	2.7	CRCW12062R70JNEA	Vishay-Dale	RES, 2.7, 5%, 0.25 W, 1206	1206

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R33	1	100	CRCW0603100RJNEA	Vishay-Dale	RES, 100, 5%, 0.1 W, 0603	0603
R35	1	1.0k	CRCW12061K00JNEA	Vishay-Dale	RES, 1.0 k, 5%, 0.25 W, 1206	1206
R49	1	1.0	CRCW12061R00JNEA	Vishay-Dale	RES, 1.0, 5%, 0.25 W, 1206	1206
R51, R52, R53, R54, R60	5	100	CRCW0603100RFKEA	Vishay-Dale	RES, 100, 1%, 0.1 W, 0603	0603
R58	1	0	CRCW12060000Z0EA	Vishay-Dale	RES, 0, 5%, 0.25 W, 1206	1206
R61	1	0	CRCW06030000Z0EA	Vishay-Dale	RES, 0, 5%, 0.1 W, 0603	0603
R62, R67, R68	3	7.50k	ERJ-3EKF7501V	Panasonic	RES, 7.50 k, 1%, 0.1 W, 0603	0603
R63, R64, R65, R66	4	4.70k	RC0603FR-074K7L	Yageo America	RES, 4.70 k, 1%, 0.1 W, 0603	0603
R85	1	100k	RC0603JR-07100KL	Yageo America	RES, 100 k, 0.1%, 0.063 W, 0603	0603
T1	1		750343383R01	Würth Elektronik	TRANSFORMER, 4.5uH, 10%, THRU-8P	
T2	1		750343382R02	Würth Elektronik	TRANSFORMER, 45uH, THRU-20P	
T3	1	xx mH	FIS1xx	Coilcraft	Transformer, Current Sense	0.591 x 0.693 inch
T4	1	38uH	750343341	Würth Elektronik	Transformer, 50 uH, SMT	11.31x9.14m
U1, U7	2	TLP2361	TLP2361(TPL,E	Toshiba	IC, Photocoupler	SOP-4
U2	1		AMC1301DWVR	Texas Instruments	Precision +/-250-mV Input, 3-us Delay, Reinforced Isolated Amplifier, DWV0008A (SOIC-8) (SOIC-8)	DWV0008A
U3, U8	2		UCC27211ADRMT	Texas Instruments	120-V Boot, 4-A Peak, High Frequency High-Side and Low-Side Driver, DRM0008A (VSON-8)	DRM0008A
U4	1	FODM611	FODM611	Fairchild	IC, Photocoupler	SOP-4
U5, U18	2		OPA376AIDBVT	Texas Instruments	Precision, Low Noise, Low Iq Operational Amplifier, 2.2 to 5.5 V, -40 to 125 degC, 5-pin SOT23 (DBV0005A), Green (RoHS & no Sb/Br)	DBV0005A
U6	1		LM4041A12IDBZT	Texas Instruments	Precision Micropower Shunt Voltage Reference, 0.1% accuracy, 1.2 V, 15 ppm / degC, 12 mA, -40 to 85 degC, 3-pin SOT-23 (DBZ), Green (RoHS & no Sb/Br)	DBZ0003A
U9, U14	2		UCC27517ADBVT	Texas Instruments	Single-Channel High-Speed Low-Side Gate Driver, DBV0005A	DBV0005A
U10	1		TMP300BIDBVT	Texas Instruments	1.8V, Resistor-Programmable TEMPERATURE SWITCH and ANALOG OUT TEMPERATURE SENSOR, DCK0006A	DCK0006A
U11	1		TPS62160DSGT	Texas Instruments	Buck Step Down Regulator with 3 to 17 V Input and 0.9 to 6 V Output, -40 to 85 degC, 8-Pin WSON (DSG), Green (RoHS & no Sb/Br)	DSG0008A
U12	1		TLV1117-33IDRJR	Texas Instruments	LDO with 4.7 to 15 V Input and 3.3 V Output, -40 to 125 degC, 8-Pin SON (DRJ), Green (RoHS & no Sb/Br)	DRJ0008A
U13	1		TLV1117-50CDRJR	Texas Instruments	LDO with 6.4 to 15 V Input and 5 V Output, 0 to 125 degC, 8-Pin SON (DRJ), Green (RoHS & no Sb/Br)	DRJ0008A
U15	1		SN6505BDBVT	Texas Instruments	LOW-NOISE 1A TRANSFORMER DRIVERS FOR ISOLATED POWER SUPPLIES, DBV0006A	DBV0006A
U16, U17	2		SN74LVC126APWR	Texas Instruments	Quadruple Bus Buffer Gate with 3-State Outputs, PW0014A (TSSOP-14)	PW0014A

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