

### TIDA-00909 REV E1 Bill of Materials

Item #	Designator	Quantity	Value	PartNumber	Manufacturer	Description	PackageReference
1	C1	1	220uF	EKYB101ELL221MK25S	Chemi-Con	CAP, AL, 220 µF, 100 V, +/- 20%, 0.039 ohm, TH	D12.5xL25mm
2	C2, C5, C6, C7, C10, C11, C12, C21, C22, C23, C42, C45	12	3.3uF	C3216X7S2A335M160AB	TDK	CAP, CERM, 3.3 µF, 100 V, +/- 20%, X7S, 1206_190	1206_190
3	C3, C8, C19	3	2.2uF	C1005X5R1A225K050BC	TDK	CAP, CERM, 2.2 µF, 10 V, +/- 10%, X5R, 0402	0402
4	C4, C9, C20	3	0.1uF	C3216C0G2A104J160AC	TDK	CAP, CERM, 0.1 µF, 100 V, +/- 5%, C0G/NP0, 1206_190	1206_190
5	C13, C14, C24, C47, C50, C54, C59	7	0.1uF	GCM155R71C104KA55D	MuRata	CAP, CERM, 0.1 µF, 16 V, +/- 10%, X7R, 0402	0402
6	C15, C16, C17, C18, C25, C26	6	47pF	GRM1555C1E470JA01D	MuRata	CAP, CERM, 47 pF, 25 V, +/- 5%, C0G/NP0, 0402	0402
7	C27, C32	2	0.1uF	GRM155R71A104KA01D	MuRata	CAP, CERM, 0.1 µF, 10 V, +/- 10%, X7R, 0402	0402
8	C28, C29, C30, C31, C33, C34, C35, C36	8	2200pF	885012206036	Würth Elektronik	CAP, CERM, 2200 pF, 16 V, +/- 10%, X7R, 0603	0603
9	C37	1	0.01uF	GRM155R61C103KA01D	MuRata	CAP, CERM, 0.01 µF, 16 V, +/- 10%, X5R, 0402	0402
10	C38	1	3300pF	GRM188R72A332KA01D	MuRata	CAP, CERM, 3300 pF, 100 V, +/- 10%, X7R, 0603	0603
11	C39	1	0.01uF	GRM216R71H103KA01D	MuRata	CAP, CERM, 0.01 µF, 50 V, +/- 10%, X7R, 0805	0805
12	C40	1	100uF	C3216X5R1A107M160AC	TDK	CAP, CERM, 100 µF, 10 V, +/- 20%, X5R, 1206_190	1206_190
13	C41	1	0.1uF	C1005X7R1E104M050BB	TDK	CAP, CERM, 0.1 µF, 25 V, +/- 20%, X7R, 0402	0402
14	C43, C44	2	0.1uF	GRM188R72A104KA35D	MuRata	CAP, CERM, 0.1 µF, 100 V, +/- 10%, X7R, 0603	0603
15	C46	1	1uF	GRM188R71A105KA61D	MuRata	CAP, CERM, 1 µF, 10 V, +/- 10%, X7R, 0603	0603
16	C48	1	1uF	GCM155C71A105KE38D	MuRata	CAP, CERM, 1 µF, 10 V, +/- 10%, X7S, AEC-Q200 Grade 1, 0402	0402
17	C49	1	100uF	GRM31CR60J107ME39L	MuRata	CAP, CERM, 100 µF, 6.3 V, +/- 20%, X5R, 1206	1206
18	C51, C55, C57, C60	4	0.033uF	GRM155R71A333KA01D	MuRata	CAP, CERM, 0.033 µF, 10 V, +/- 10%, X7R, 0402	0402
19	C53, C58, C61, C62, C64	5	0.1uF	GRM188R71C104KA01D	MuRata	CAP, CERM, 0.1 µF, 16 V, +/- 10%, X7R, 0603	0603
20	D1, D2, D3, D4	4	70V	1PS79SB70,115	NXP Semiconductor	Diode, Schottky, 70 V, 0.07 A, SOD-523	SOD-523
21	D5, D6	2	Green	150060GS75000	Würth Elektronik	LED, Green, SMD	LED_0603
22	H1	1		691352510002	Würth Elektronik	TERM BLOCK PLUG 2POS 5.08MM	
23	J1, J2	2		SSW-110-23-F-D	Samtec	Connector, Receptacle, 100mil, 10x2, Gold plated, TH	10x2 Receptacle
24	J3	1		OSTTC032162	On-Shore Technology	Terminal Block, 3x1, 5.08 mm, Tin, TH	Terminal Block, 3x1, 5.08 mm, TH
25	J4	1		OSTTC022162	On-Shore Technology	Terminal Block, 2-pole, 200mil, TH	THD, 2-Leads, Body 10.16x7.6mm, Pitch 5.08mm
26	J5, J6	2		PEC02SAAN	Sullins Connector Solutions	Header, 100mil, 2x1, Tin, TH	Header, 2 PIN, 100mil, Tin
27	L1	1	470uH	7447709471	Würth Elektronik	Inductor, Shielded Drum Core, Ferrite, 470 µH, 1.4 A, 0.56 ohm, SMD	SMD
28	L2	1	33uH	NLFV25T-330K-PF	TDK	Inductor, Shielded, Ferrite, 33 µH, 0.085 A, 1.4 ohm, SMD	2.5x1.8x2mm
29	L3	1	300 ohm	74279272	Würth Elektronik	Ferrite Bead, 300 ohm @ 100 MHz, 0.2 A, 0402	0402
30	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"H x 0.200"W
31	R1, R2, R54	3	0	MCR03EZPJ000	Rohm	RES, 0, 5%, 0.1 W, 0603	0603
32	R3, R4, R9, R22, R46, R47, R49, R57, R58, R60, R63, R64, R68, R71, R72, R75, R76	17	0	CRCW04020000Z0ED	Vishay-Dale	RES, 0, 5%, 0.063 W, 0402	0402

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33	R5, R6, R7, R8, R10, R11	6	20.0	CRCW040220R0FKED	Vishay-Dale	RES, 20.0, 1%, 0.063 W, 0402	0402
34	R12, R13, R14, R15, R16, R17, R18, R19, R20	9	20	CRCW040220R0JNED	Vishay-Dale	RES, 20, 5%, 0.063 W, 0402	0402
35	R21, R24, R25, R26, R27, R28, R29, R30, R31, R32, R33, R34, R35, R36, R37, R38	16	10k	CRCW040210K0JNED	Vishay-Dale	RES, 10 k, 5%, 0.063 W, 0402	0402
36	R39	1	1.2k	CRCW04021K20JNED	Vishay-Dale	RES, 1.2 k, 5%, 0.063 W, 0402	0402
37	R40	1	470k	CRCW0402470KJNED	Vishay-Dale	RES, 470 k, 5%, 0.063 W, 0402	0402
38	R41, R48	2	10.0k	CRCW040210K0FKED	Vishay-Dale	RES, 10.0 k, 1%, 0.063 W, 0402	0402
39	R42	1	510k	RC0603FR-07510KL	Yageo America	RES, 510 k, 1%, 0.1 W, 0603	0603
40	R43	1	100k	CRCW0603100KJNEA	Vishay-Dale	RES, 100 k, 5%, 0.1 W, 0603	0603
41	R44	1	3.24k	CRCW04023K24FKED	Vishay-Dale	RES, 3.24 k, 1%, 0.063 W, 0402	0402
42	R45	1	20k	CRCW040220K0JNED	Vishay-Dale	RES, 20 k, 5%, 0.063 W, 0402	0402
43	R50	1	820	CRCW0402820RJNED	Vishay-Dale	RES, 820, 5%, 0.063 W, 0402	0402
44	R55, R61, R69	3	0.005	CRE2512-FZ-R005E-3	Bourns	RES, 0.005, 1%, 3 W, AEC-Q200 Grade 0, 2512	2512
45	R56, R62, R66, R70	4	100k	CRCW0402100KFKED	Vishay-Dale	RES, 100 k, 1%, 0.063 W, 0402	0402
46	R59, R65, R67, R74	4	4.22k	CRCW04024K22FKED	Vishay-Dale	RES, 4.22 k, 1%, 0.063 W, 0402	0402
47	TP1, TP2	2		5001	Keystone	Test Point, Miniature, Black, TH	Black Miniature Testpoint
48	U1, U2, U3	3		LMG5200MOFT	Texas Instruments	100V GaN Half Bridge Power Module, MOF0009A	MOF0009A
49	U4	1		SN74AVC8T245RHLLR	Texas Instruments	8-BIT DUAL-SUPPLY BUS TRANSCEIVER WITH CONFIGURABLE VOLTAGE TRANSLATION AND 3-STATE OUTPUTS, RHL0024A	RHL0024A
50	U5	1		LM5018MRX/NOPB	Texas Instruments	100V, 300mA Constant On-Time Synchronous Buck Regulator, DDA0008B	DDA0008B
51	U6	1		TMP302BQDRLRQ1	Texas Instruments	Automotive Grade, Low-Power, Easy-to-Use, Temperature Switch in MicroPackage, DRL0006A	DRL0006A
52	U7	1		LP38691SD-3.3/NOPB	Texas Instruments	500mA Low Dropout CMOS Linear Regulators Stable with Ceramic Output Capacitors, 6-pin LLP, Pb-Free	SDE06A
53	U8, U9, U11	3		INA240A1PW	Texas Instruments	Wide Common-Mode Range, Voltage Output, High or Low-Side Bi-Directional Zero-Drift Current Shunt Monitor, PW0008A	PW0008A
54	U10	1		REF3333AIDBZR	Texas Instruments	30 ppm / degC Drift, 3.9 uA Voltage Reference, -40 to 125 degC, 3-pin SOT-23 (DBZ), Green (RoHS & no Sb/Br)	DBZ0003A
55	C52, C56, C63	0	1500pF	C0402H152J3GAC7867	Kemet	CAP, CERM, 1500 pF, 25 V, +/- 5%, C0G/NP0, 0402	0402
56	FID1, FID2, FID3	0		N/A	N/A	Fiducial mark. There is nothing to buy or mount.	Fiducial
57	R23, R51, R52, R73	0	0	CRCW04020000Z0ED	Vishay-Dale	RES, 0, 5%, 0.063 W, 0402	0402
58	R53	0	0	MCR03EZPJ000	Rohm	RES, 0, 5%, 0.1 W, 0603	0603

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