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### TIDA-01537 REV E1 Bill of Materials

Item #	Designator	Quantity	Value	PartNumber	Manufacturer	Description	PackageReference
1	!PCB1	1		TIDA-01537	Any	Printed Circuit Board	
2	C1_A, C1_B, C1_C, C1_D, C1_E, C1_F, C1_G, C1_H, C1_I, C1_J, C1_K, C1_L, C1_M, C1_N, C1_O, C2_A, C2_B, C2_C, C2_D, C2_E, C2_F, C2_G, C2_H, C2_I, C2_J, C2_K, C2_L, C2_M, C2_N, C2_O, C48, C49	32	0.33uF	GCM31MR71H334KA37L	MuRata	CAP, CERM, 0.33 $\mu$ F, 50 V, +/- 10%, X7R, AEC-Q200 Grade 1, 1206	1206
3	C3_A, C3_B, C3_C, C3_D, C3_E, C3_F, C3_G, C3_H, C3_I, C3_J, C3_K, C3_L, C3_M, C3_N, C3_O, C4_A, C4_B, C4_C, C4_D, C4_E, C4_F, C4_G, C4_H, C4_I, C4_J, C4_K, C4_L, C4_M, C4_N, C4_O, C5_A, C5_B, C5_C, C5_D, C5_E, C5_F, C5_G, C5_H, C5_I, C5_J, C5_K, C5_L, C5_M, C5_N, C5_O, C6_A, C6_B, C6_C, C6_D, C6_E, C6_F, C6_G, C6_H, C6_I, C6_J, C6_K, C6_L, C6_M, C6_N, C6_O, C8_A, C8_B, C8_C, C8_D,	112	2.2uF	CGA3E1X7S1C225M080AC	TDK	CAP, CERM, 2.2 $\mu$ F, 16 V, +/- 20%, X7S, AEC-Q200 Grade 1, 0603	0603
4	C9, C61, C63	3	10uF	GRM21BR71A106ME51L	MuRata	CAP, CERM, 10 $\mu$ F, 10 V, +/- 20%, X7R, 0805	0805

5	C12_A, C12_B, C12_C, C12_D, C12_E, C12_F, C12_G, C12_H, C12_I, C12_J, C12_K, C12_L, C12_M, C12_N, C12_O, C13_A, C13_B, C13_C, C13_D, C13_E, C13_F, C13_G, C13_H, C13_I, C13_J, C13_K, C13_L, C13_M, C13_N, C13_O, C18_A, C18_B, C18_C, C18_D, C18_E, C18_F, C18_G, C18_H, C18_I, C18_J, C18_K, C18_L, C18_M, C18_N, C18_O, C19_A, C19_B, C19_C, C19_D, C19_E, C19_F, C19_G, C19_H, C19_I, C19_J, C19_K, C19_L, C19_M, C19_N, C19_O	60	1000pF	C1206C102KGRACAUTO	Kemet	CAP, CERM, 1000 pF, 2000 V, +/- 10%, X7R, AEC-Q200 Grade 1, 1206	1206
6	C14_A, C14_B, C14_C, C14_D, C14_E, C14_F, C14_G, C14_H, C14_I, C14_J, C14_K, C14_L, C14_M, C14_N, C14_O, C15_A, C15_B, C15_C, C15_D, C15_E, C15_F, C15_G, C15_H, C15_I, C15_J, C15_K, C15_L, C15_M, C15_N, C15_O, C16_A, C16_B, C16_C, C16_D, C16_E, C16_F, C16_G, C16_H, C16_I, C16_J, C16_K, C16_L, C16_M, C16_N, C16_O, C17_A, C17_B, C17_C, C17_D, C17_E, C17_F, C17_G, C17_H, C17_I, C17_J, C17_K, C17_L, C17_M, C17_N, C17_O, C20_A, C20_B, C20_C, C20_D,	121	51pF	GRM1885C1H510JA01D	MuRata	CAP, CERM, 51 pF, 50 V, +/- 5%, C0G/NP0, 0603	0603

7	C24_A, C24_B, C24_C, C24_D, C24_E, C24_F, C24_G, C24_H, C24_I, C24_J, C24_K, C24_L, C24_M, C24_N, C24_O, C24_P, C27_A, C27_B, C27_C, C27_D, C27_E, C27_F, C27_G, C27_H, C27_I, C27_J, C27_K, C27_L, C27_M, C27_N, C27_O, C27_P, C32_A, C32_B, C32_C, C32_D, C32_E, C32_F, C32_G, C32_H, C32_I, C32_J, C32_K, C32_L, C32_M, C32_N, C32_O, C32_P, C35_A, C35_B, C35_C, C35_D, C35_E, C35_F, C35_G, C35_H, C35_I, C35_J, C35_K, C35_L, C35_M, C35_N, C35_O, C35_P,	96	0.1uF	CGA5L2X7R2A104K160AA	TDK	CAP, CERM, 0.1 μF, 100 V, +/- 10%, X7R, AEC-Q200 Grade 1, 1206	1206
8	C25_A, C25_B, C25_C, C25_D, C25_E, C25_F, C25_G, C25_H, C25_I, C25_J, C25_K, C25_L, C25_M, C25_N, C25_O, C25_P, C26_A, C26_B, C26_C, C26_D, C26_E, C26_F, C26_G, C26_H, C26_I, C26_J, C26_K, C26_L, C26_M, C26_N, C26_O, C26_P, C28_A, C28_B, C28_C, C28_D, C28_E, C28_F, C28_G, C28_H, C28_I, C28_J, C28_K, C28_L, C28_M, C28_N, C28_O, C28_P, C31_A, C31_B, C31_C, C31_D, C31_E, C31_F, C31_G, C31_H, C31_I, C31_J, C31_K, C31_L, C31_M, C31_N, C31_O, C31_P,	160	0.47uF	GCM188R71C474KA55D	MuRata	CAP, CERM, 0.47 μF, 16 V, +/- 10%, X7R, AEC-Q200 Grade 1, 0603	0603

9	C29_A, C29_B, C29_C, C29_D, C29_E, C29_F, C29_G, C29_H, C29_I, C29_J, C29_K, C29_L, C29_M, C29_N, C29_O, C29_P, C30_A, C30_B, C30_C, C30_D, C30_E, C30_F, C30_G, C30_H, C30_I, C30_J, C30_K, C30_L, C30_M, C30_N, C30_O, C30_P, C40_A, C40_B, C40_C, C40_D, C40_E, C40_F, C40_G, C40_H, C40_I, C40_J, C40_K, C40_L, C40_M, C40_N, C40_O, C40_P, C41_A, C41_B, C41_C, C41_D, C41_E, C41_F, C41_G, C41_H, C41_I, C41_J, C41_K, C41_L, C41_M, C41_N, C41_O, C41_P	64	0.33uF	CGA3E3X7R1H334K080AB	TDK	CAP, CERM, 0.33 $\mu$ F, 50 V, +/- 10%, X7R, AEC-Q200 Grade 1, 0603	0603
10	C33_A, C33_B, C33_C, C33_D, C33_E, C33_F, C33_G, C33_H, C33_I, C33_J, C33_K, C33_L, C33_M, C33_N, C33_O, C33_P, C34_A, C34_B, C34_C, C34_D, C34_E, C34_F, C34_G, C34_H, C34_I, C34_J, C34_K, C34_L, C34_M, C34_N, C34_O, C34_P, C36_A, C36_B, C36_C, C36_D, C36_E, C36_F, C36_G, C36_H, C36_I, C36_J, C36_K, C36_L, C36_M, C36_N, C36_O, C36_P, C37_A, C37_B, C37_C, C37_D, C37_E, C37_F, C37_G, C37_H, C37_I, C37_J, C37_K, C37_L, C37_M, C37_N, C37_O, C37_P	64	1uF	CGA4J3X8R1C105K125AB	TDK	CAP, CERM, 1 $\mu$ F, 16 V, +/- 20%, X8R, AEC-Q200 Grade 0, 0805	0805

11	C56, C59	2	1000pF	C0603C102K3GACTU	Kemet	CAP, CERM, 1000 pF, 25 V, +/- 10%, C0G/NP0, 0603	0603
12	C60, C62, C64, C65, C66, C67, C68, C69, C73, C75, C77, C78, C79, C80, C81, C85, C86, C87, C88, C89, C90, C91, C92, C93, C94, C99, C101, C120, C122, C131, C132, C134, C137, C139	34	0.1uF	CL05B104KP5NNNC	Samsung Electro-Mechanics	CAP, CERM, 0.1 µF, 10 V, +/- 10%, X7R, 0402	0402
13	C70, C71, C72, C74, C144, C145, C146	7	47pF	CGA2B2NP01H470J050BA	TDK	CAP, CERM, 47 pF, 50 V, +/- 5%, C0G/NP0, AEC-Q200 Grade 0, 0402	0402
14	C76, C82, C105, C106, C115, C116, C118, C140	8	4.7uF	CGA4J1X7R1V475K125AC	TDK	CAP, CERM, 4.7 µF, 35 V, +/- 10%, X7R, AEC-Q200 Grade 1, 0805	0805
15	C83, C84, C110	3	10pF	885012005055	Würth Elektronik	CAP, CERM, 10 pF, 50 V, +/- 5%, C0G/NP0, 0402	0402
16	C95, C96, C112, C123, C124, C125, C126, C141	8	10uF	GRT31CR61H106KE01L	MuRata	CAP, CERM, 10 µF, 50 V, +/- 10%, X5R, AEC-Q200 Grade 1, 1206	1206
17	C97, C98, C107	3	0.015uF	CGA2B3X7R1H153K050BB	TDK	CAP, CERM, 0.015 µF, 50 V, +/- 10%, X7R, AEC-Q200 Grade 1, 0402	0402
18	C100, C129	2	0.01uF	CGA2B3X7R1H103K050BB	TDK	CAP, CERM, 0.01 µF, 50 V, +/- 10%, X7R, AEC-Q200 Grade 1, 0402	0402
19	C102, C103, C104	3	10uF	CGA6P3X8R1C106K250AB	TDK	CAP, CERM, 10 µF, 16 V, +/- 10%, X8R, AEC-Q200 Grade 0, 1210	1210
20	C108	1	1000pF	CGA2B2X7R1H102K050BA	TDK	CAP, CERM, 1000 pF, 50 V, +/- 10%, X7R, AEC-Q200 Grade 1, 0402	0402
21	C109	1	1500pF	CGA2B2X7R1H152K050BA	TDK	CAP, CERM, 1500 pF, 50 V, +/- 10%, X7R, AEC-Q200 Grade 1, 0402	0402
22	C111	1	3300pF	CGA2B2X7R1H332K050BA	TDK	CAP, CERM, 3300 pF, 50 V, +/- 10%, X7R, AEC-Q200 Grade 1, 0402	0402
23	C113, C114, C117, C142	4	0.1uF	GRM188R71H104KA93D	MuRata	CAP, CERM, 0.1 µF, 50 V, +/- 10%, X7R, 0603	0603
24	C119, C121, C127, C128, C150	5	2.2uF	GRM188R71A225KE15D	MuRata	CAP, CERM, 2.2 µF, 10 V, +/- 10%, X7R, 0603	0603
25	C130, C143	2	22uF	GCM32ER71C226KE19L	MuRata	CAP, CERM, 22 µF, 16 V, +/- 10%, X7R, 1210	1210
26	C133	1	0.022uF	GRM188R71H223KA01D	MuRata	CAP, CERM, 0.022 µF, 50 V, +/- 10%, X7R, 0603	0603
27	C135, C138	2	0.01uF	GRM188R71H103KA01D	MuRata	CAP, CERM, 0.01 µF, 50 V, +/- 10%, X7R, 0603	0603
28	C136	1	4700pF	CGA3E2X7R2A472K080AA	TDK	CAP, CERM, 4700 pF, 100 V, +/- 10%, X7R, AEC-Q200 Grade 1, 0603	0603
29	C147, C148	2	15uF	CGA9P3X7S2A156M250KB	TDK	CAP, CERM, 15 µF, 100 V, +/- 20%, X7S, AEC-Q200 Grade 1, 2220	2220
30	C149	1	10uF	CGA6P3X7S1H106K250AB	TDK	CAP, CERM, 10 µF, 50 V, +/- 10%, X7S, AEC-Q200 Grade 1, 1210	1210
31	C151	1	47uF	EMVH350ADA470MHA0G	Chemi-Con	CAP, AL, 47 µF, 35 V, +/- 20%, 0.4 ohm, SMD	HA0
32	Comms Jumper	1		219-4MST	CTS Electrocomponents	Switch, SPST, Slide, Off-On, 4 Pos, 0.1A, 20V, SMD	11.63x6.7mm
33	D2, D3	2	20V	MBR0520LT1G	ON Semiconductor	Diode, Schottky, 20 V, 0.5 A, SOD-123	SOD-123
34	D4, D9	2	Green	150060VS75000	Würth Elektronik	LED, Green, SMD	LED_0603
35	D5	1	40V	FSV340AF	Fairchild Semiconductor	Diode, Schottky, 40 V, 3 A, AEC-Q101, SMAF	SMAF
36	D6	1	3.9V	BZT52C3V9T-7	Diodes Inc.	Diode, Zener, 3.9 V, 300 mW, SOD-523	SOD-523
37	D7	1	5.6V	BZT52C5V6T-7	Diodes Inc.	Diode, Zener, 5.6 V, 300 mW, SOD-523	SOD-523
38	D8	1	30V	RB080L-30TE25	Rohm	Diode, Schottky, 30 V, 5 A, SMA	SMA
39	D10	1	Orange	SML-311DTT86	Rohm	LED, Orange, SMD	1.6x0.8x0.8mm
40	D11	1	Red	150060RS75000	Würth Elektronik	LED, Red, SMD	LED_0603
41	D12	1	90V	1SS355 RRG	Taiwan Semiconductor	Diode, Switching, 90 V, 0.25 A, SOD-323F	SOD-323F
42	F1	1		PTS120660V010	Eaton	Fuse, 0.1 A, 60 VDC, SMD	3.25x1.65mm
43	FB1, FB2, FB3, FB4	4	40 ohm	MI0805K400R-10	Laird-Signal Integrity Products	Ferrite Bead, 40 ohm @ 100 MHz, 1.5 A, 0805	0805
44	FID4, FID5, FID6	3		N/A	N/A	Fiducial mark. There is nothing to buy or mount.	Fiducial
45	H1, H2, H3, H4	4		NY PMS 440 0025 PH	B&F Fastener Supply	Machine Screw, Round, #4-40 x 1/4, Nylon, Philips panhead	Screw
46	H5, H6	2		39500-0009	Molex	Terminal Block, 9 Pos, 3.5mm	
47	H7, H8	2		50-57-9404	Molex	Rectangular Housing Connector, 4 Pos, 2.54mm	

48	J1, J2, J3, J4, J5	5		34691-6201	Molex	Header(shrouded), 2.54mm, 10x2, Tin, R/A, TH	Header, 2.54mm, 10x2, TH
49	J6	1		22-12-4062	Molex	Header, 0.5mm, 6x1, R/A, Gold, TH	Header, 0.5mm, 6x1, R/A, TH
50	J7	1		SBH11-PBPC-D07-ST-BK	Sullins Connector Solutions	Header (shrouded), 100 mil, 7x2, Gold, TH	7x2 Shrouded Header
51	J8	1		1759017	Phoenix Contact	Header (Shrouded), 5.08mm, 2x1, Tin, R/A, TH	Header (Shrouded), 5.08mm, 2x1, R/A, TH
52	J9	1		618009231121	Würth Elektronik	Receptacle, D-Sub, 9 Position, R/A, TH	Receptacle, D-Sub, 9 Position, R/A, TH
53	L1	1	22uH	XAL5050-223MEB	Coilcraft	Inductor, Shielded, Composite, 22 µH, 3.4 A, 0.1 ohm, SMD	XAL5050
54	L2	1	33uH	744770133	Würth Elektronik	Inductor, Shielded Drum Core, Ferrite, 33 µH, 3.2 A, 0.047 ohm, SMD	SMD
55	L3	1	100uH	ACT45B-101-2P-TL003	TDK	Inductor, Ferrite, 100 µH, 0.15 A, 2 ohm, SMD	SMD, 4-Leads, Body 4.7 x 3.7 mm
56	L4	1	2.2uH	XAL4020-222MEB	Coilcraft	Inductor, Shielded, Composite, 2.2 µH, 5.5 A, 0.04 ohm, SMD	4x2.1x4mm
57	Q1	1	100V	CSD19532Q5B	Texas Instruments	MOSFET, N-CH, 100 V, 17 A, DNK0008A (VSON-CLIP-8)	DNK0008A
58	Q2, Q3	2	60V	2N7002-7-F	Diodes Inc.	MOSFET, N-CH, 60V, 0.17A, SOT-23	SOT-23
59	R1_A, R1_B, R1_C, R1_D, R1_E, R1_F, R1_G, R1_H, R1_I, R1_J, R1_K, R1_L, R1_M, R1_N, R1_O, R32	16	40.2	RC1206FR-0740R2L	Yageo America	RES, 40.2, 1%, 0.25 W, 1206	1206
60	R2_A, R2_B, R2_C, R2_D, R2_E, R2_F, R2_G, R2_H, R2_I, R2_J, R2_K, R2_L, R2_M, R2_N, R2_O, R4_A, R4_B, R4_C, R4_D, R4_E, R4_F, R4_G, R4_H, R4_I, R4_J, R4_K, R4_L, R4_M, R4_N, R4_O, R33, R38	32	100	ESR03EZPJ101	Rohm	RES, 100, 5%, 0.25 W, AEC-Q200 Grade 0, 0603	0603

61	R3, R5, R8_A, R8_B, R8_C, R8_D, R8_E, R8_F, R8_G, R8_H, R8_I, R8_J, R8_K, R8_L, R8_M, R8_N, R8_O, R9_A, R9_B, R9_C, R9_D, R9_E, R9_F, R9_G, R9_H, R9_I, R9_J, R9_K, R9_L, R9_M, R9_N, R9_O, R14_A, R14_B, R14_C, R14_D, R14_E, R14_F, R14_G, R14_H, R14_I, R14_J, R14_K, R14_L, R14_M, R14_N, R14_O, R15_A, R15_B, R15_C, R15_D, R15_E, R15_F, R15_G, R15_H, R15_I, R15_J, R15_K, R15_L, R15_M, R15_N, R15_O, R34, R39, R40, R41,	68	10.0k	CRCW060310K0FKEA	Vishay-Dale	RES, 10.0 k, 1%, 0.1 W, 0603	0603
62	R6_A, R6_B, R6_C, R6_D, R6_E, R6_F, R6_G, R6_H, R6_I, R6_J, R6_K, R6_L, R6_M, R6_N, R6_O, R7_A, R7_B, R7_C, R7_D, R7_E, R7_F, R7_G, R7_H, R7_I, R7_J, R7_K, R7_L, R7_M, R7_N, R7_O, R10_A, R10_B, R10_C, R10_D, R10_E, R10_F, R10_G, R10_H, R10_I, R10_J, R10_K, R10_L, R10_M, R10_N, R10_O, R11_A, R11_B, R11_C, R11_D, R11_E, R11_F, R11_G, R11_H, R11_I, R11_J, R11_K, R11_L, R11_M, R11_N, R11_O, R12_A, R12_B, R12_C, R12_D,	120	49.9	RC0603FR-0749R9L	Yageo America	RES, 49.9, 1%, 0.1 W, 0603	0603

63	R18_A, R18_B, R18_C, R18_D, R18_E, R18_F, R18_G, R18_H, R18_I, R18_J, R18_K, R18_L, R18_M, R18_N, R18_O, R18_P, R20_A, R20_B, R20_C, R20_D, R20_E, R20_F, R20_G, R20_H, R20_I, R20_J, R20_K, R20_L, R20_M, R20_N, R20_O, R20_P, R22_A, R22_B, R22_C, R22_D, R22_E, R22_F, R22_G, R22_H, R22_I, R22_J, R22_K, R22_L, R22_M, R22_N, R22_O, R22_P, R24_A, R24_B, R24_C, R24_D, R24_E, R24_F, R24_G, R24_H, R24_I, R24_J, R24_K, R24_L, R24_M, R24_N, R24_O, R24_P,	112	40.2	ERJ-3EKF40R2V	Panasonic	RES, 40.2, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
64	R19_A, R19_B, R19_C, R19_D, R19_E, R19_F, R19_G, R19_H, R19_I, R19_J, R19_K, R19_L, R19_M, R19_N, R19_O, R19_P, R21_A, R21_B, R21_C, R21_D, R21_E, R21_F, R21_G, R21_H, R21_I, R21_J, R21_K, R21_L, R21_M, R21_N, R21_O, R21_P, R23_A, R23_B, R23_C, R23_D, R23_E, R23_F, R23_G, R23_H, R23_I, R23_J, R23_K, R23_L, R23_M, R23_N, R23_O, R23_P, R25_A, R25_B, R25_C, R25_D, R25_E, R25_F, R25_G, R25_H, R25_I, R25_J, R25_K, R25_L, R25_M, R25_N, R25_O, R25_P,	112	10.0	ERJ-14NF10R0U	Panasonic	RES, 10.0, 1%, 0.5 W, AEC-Q200 Grade 0, 1210	1210



65	R35, R54	2	100k	RMCF0402FT100K	Stackpole Electronics Inc	RES, 100 k, 1%, 0.063 W, AEC-Q200 Grade 0, 0402	0402
66	R36, R37, R78	3	10.0k	CRCW060310K0FKEA	Vishay-Dale	RES, 10.0k ohm, 1%, 0.1W, 0603	0603
67	R43, R44, R45, R62, R64, R65, R67, R90, R91	9	47	ERJ-2GEJ470X	Panasonic	RES, 47, 5%, 0.1 W, AEC-Q200 Grade 0, 0402	0402
68	R46, R47, R49, R83, R84, R85, R86, R87, R88, R92, R93	11	10.0k	CRCW040210K0DHEDP	Vishay-Dale	RES, 10.0 k, 0.5%, 0.063 W, 0402	0402
69	R48, R69, R71, R74, R75, R89	6	1.00k	ERJ-2RKF1001X	Panasonic	RES, 1.00 k, 1%, 0.1 W, 0402	0402
70	R50, R51, R52, R55, R66, R80, R81	7	0	RK73Z1ETTP	KOA Speer	RES, 0, 5%, 0.063 W, AEC-Q200 Grade 0, 0402	0402
71	R53	1	10k	ERJ-2GEJ103X	Panasonic	RES, 10 k, 5%, 0.1 W, AEC-Q200 Grade 0, 0402	0402
72	R56	1	71.5k	ERJ-2RKF7152X	Panasonic	RES, 71.5 k, 1%, 0.1 W, AEC-Q200 Grade 0, 0402	0402
73	R57	1	10.0	RMCF0402JT10R0	Stackpole Electronics Inc	RES, 10.0, 1%, 0.063 W, AEC-Q200 Grade 0, 0402	0402
74	R58	1	40.2k	ERJ-2RKF4022X	Panasonic	RES, 40.2 k, 1%, 0.1 W, AEC-Q200 Grade 0, 0402	0402
75	R59	1	300k	CRCW0402300KFKED	Vishay-Dale	RES, 300 k, 1%, 0.063 W, AEC-Q200 Grade 0, 0402	0402
76	R60	1	23.7k	ERJ-2RKF2372X	Panasonic	RES, 23.7 k, 1%, 0.1 W, AEC-Q200 Grade 0, 0402	0402
77	R61	1	76.8k	ERA-2AEB7682X	Panasonic	RES, 76.8 k, 0.1%, 0.063 W, AEC-Q200 Grade 0, 0402	0402
78	R63	1	0.15	ERJ-3RSFR15V	Panasonic	RES, 0.15, 1%, 0.1 W, 0603	0603
79	R68	1	3.48k	CRCW06033K48FKEA	Vishay-Dale	RES, 3.48 k, 1%, 0.1 W, 0603	0603
80	R70	1	24.9k	CRCW060324K9FKEA	Vishay-Dale	RES, 24.9 k, 1%, 0.1 W, 0603	0603
81	R72, R79	2	0	CRCW04020000Z0ED	Vishay-Dale	RES, 0, 5%, 0.063 W, 0402	0402
82	R73, R77	2	60.4	ERJ-8ENF60R4V	Panasonic	RES, 60.4, 1%, 0.25 W, 1206	1206
83	R76	1	120	RT0603BRD07120RL	Yageo America	RES, 120, 0.1%, 0.1 W, 0603	0603
84	R94	1	10.0k	CRCW060310K0FKEA	Vishay-Dale	RES, 10.0 k, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
85	R95, R96, R97, R98, R99	6	0	CRCW04020000Z0ED	Vishay-Dale	RES, 0, 5%, 0.063 W, AEC-Q200 Grade 0, 0402	0402
86	S1	1		218-2LPST	CTS Electrocomponents	Switch, SPST, 2 Pos, 25mA, 24VDC, SMD	3.71x5.8mm
87	ST1, ST2, ST3, ST4	4		1902C	Keystone	Standoff, Hex, 0.5"L #4-40 Nylon	Standoff
88	T1	1	475uH	760390014	Würth Elektronik	Transformer, 475uH, SMT	10.05x4.19x6.73 mm
89	U1_A, U1_B, U1_C, U1_D, U1_E, U1_F, U1_G, U1_H, U1_I, U1_J, U1_K, U1_L, U1_M, U1_N, U1_O, U2	16		BQ79606PHPQ1	Texas Instruments	SafeTI Precision Monitor With Integrated Hardware Protector for Multi-Cell Lithium-Ion and Lithium Phosphate Battery Pack Automotive Applications SYSTEMS SPECIFICATION, PHP0048G (HTQFP-48)	PHP0048G
90	U3	1		TPS76333QDBVRQ1	Texas Instruments	Single Output Automotive LDO, 150 mA, Fixed 3.3 V Output, 2.7 to 10 V Input, 5-pin SOT-23 (DBV), -40 to 125 degC, Green (RoHS & no Sb/Br)	DBV0005A
91	U4	1		SN6501QDBVRQ1	Texas Instruments	Automotive Low-Noise 350 mA, 410 kHz Transformer Driver, DBV0005A (SOT-5)	DBV0005A
92	U5	1		ISO7742FQDWRQ1	Texas Instruments	High Speed, Robust EMC Reinforced Quad-Channel Digital Isolator, DW0016B (SOIC-16)	DW0016B
93	U6	1		TMS5700432APZQQ1	Texas Instruments	16- and 32-Bit RISC Flash Microcontroller, PZ0100A (LQFP-100)	PZ0100A
94	U7	1		TPS57160QDQGQRQ1	Texas Instruments	1.5-A 60-V Step-Down DC-DC Converter With Eco-mode Control, DGQ0010D (VSSOP-10)	DGQ0010D
95	U8	1		LM5050Q1MKX-1/NOPB	Texas Instruments	High Side OR-ing FET Controller, DDC0006A (SOT-23-T-6)	DDC0006A
96	U9	1		TPS65381AQDAPRQ1	Texas Instruments	Multi-Rail Power Supply for Microcontrollers in Safety Applications, DAP0032B (TSSOP-32)	DAP0032B
97	U10	1		TCAN1042HGVDQ1	Texas Instruments	Automotive Fault Protected CAN Transceiver With Flexible Data-Rate, D0008A (SOIC-8)	D0008A
98	Y1	1		ABLSG-16.000MHZ-D2Y-T	Abracon Corporation	Crystal, 16 MHz, 18pF, SMD	11.4x4.7mm

99	C7_A, C7_B, C7_C, C7_D, C7_E, C7_F, C7_G, C7_H, C7_I, C7_J, C7_K, C7_L, C7_M, C7_N, C7_O	0	1000pF	C1206C102KGRACAUTO	Kemet	CAP, CERM, 1000 pF, 2000 V, +/- 10%, X7R, AEC-Q200 Grade 1, 1206	1206
100	D1_A, D1_B, D1_C, D1_D, D1_E, D1_F, D1_G, D1_H, D1_I, D1_J, D1_K, D1_L, D1_M, D1_N, D1_O, D1_P	0	36V	SMAJ36CA	Littelfuse	Diode, TVS, Bi, 36 V, 400 W, SMA	SMA
101	FID1, FID2, FID3	0		N/A	N/A	Fiducial mark. There is nothing to buy or mount.	Fiducial

Variant: 001  
 Generated: 10/16/2018 5:06:01 PM  
 TID #: N/A



### TIDA-01537 REV E1 Bill of Materials

Item #	Designator	Quantity	Value	PartNumber	Manufacturer	Description	PackageReference
1	!PCB1	1		TIDA-01537	Any	Printed Circuit Board	
2	C1_A, C1_B, C1_C, C1_D, C1_E, C1_F, C1_G, C1_H, C1_I, C1_J, C1_K, C1_L, C1_M, C1_N, C1_O, C2_A, C2_B, C2_C, C2_D, C2_E, C2_F, C2_G, C2_H, C2_I, C2_J, C2_K, C2_L, C2_M, C2_N, C2_O, C48, C49	32	0.33uF	GCM31MR71H334KA37L	MuRata	CAP, CERM, 0.33 $\mu$ F, 50 V, +/- 10%, X7R, AEC-Q200 Grade 1, 1206	1206
3	C3_A, C3_B, C3_C, C3_D, C3_E, C3_F, C3_G, C3_H, C3_I, C3_J, C3_K, C3_L, C3_M, C3_N, C3_O, C4_A, C4_B, C4_C, C4_D, C4_E, C4_F, C4_G, C4_H, C4_I, C4_J, C4_K, C4_L, C4_M, C4_N, C4_O, C5_A, C5_B, C5_C, C5_D, C5_E, C5_F, C5_G, C5_H, C5_I, C5_J, C5_K, C5_L, C5_M, C5_N, C5_O, C6_A, C6_B, C6_C, C6_D, C6_E, C6_F, C6_G, C6_H, C6_I, C6_J, C6_K, C6_L, C6_M, C6_N, C6_O, C8_A, C8_B, C8_C, C8_D,	112	2.2uF	CGA3E1X7S1C225M080AC	TDK	CAP, CERM, 2.2 $\mu$ F, 16 V, +/- 20%, X7S, AEC-Q200 Grade 1, 0603	0603
4	C9, C61, C63	3	10uF	GRM21BR71A106ME51L	MuRata	CAP, CERM, 10 $\mu$ F, 10 V, +/- 20%, X7R, 0805	0805

5	C12_A, C12_B, C12_C, C12_D, C12_E, C12_F, C12_G, C12_H, C12_I, C12_J, C12_K, C12_L, C12_M, C12_N, C12_O, C13_A, C13_B, C13_C, C13_D, C13_E, C13_F, C13_G, C13_H, C13_I, C13_J, C13_K, C13_L, C13_M, C13_N, C13_O, C18_A, C18_B, C18_C, C18_D, C18_E, C18_F, C18_G, C18_H, C18_I, C18_J, C18_K, C18_L, C18_M, C18_N, C18_O, C19_A, C19_B, C19_C, C19_D, C19_E, C19_F, C19_G, C19_H, C19_I, C19_J, C19_K, C19_L, C19_M, C19_N, C19_O	60	1000pF	C1206C102KGRACAUTO	Kemet	CAP, CERM, 1000 pF, 2000 V, +/- 10%, X7R, AEC-Q200 Grade 1, 1206	1206
6	C14_A, C14_B, C14_C, C14_D, C14_E, C14_F, C14_G, C14_H, C14_I, C14_J, C14_K, C14_L, C14_M, C14_N, C14_O, C15_A, C15_B, C15_C, C15_D, C15_E, C15_F, C15_G, C15_H, C15_I, C15_J, C15_K, C15_L, C15_M, C15_N, C15_O, C16_A, C16_B, C16_C, C16_D, C16_E, C16_F, C16_G, C16_H, C16_I, C16_J, C16_K, C16_L, C16_M, C16_N, C16_O, C17_A, C17_B, C17_C, C17_D, C17_E, C17_F, C17_G, C17_H, C17_I, C17_J, C17_K, C17_L, C17_M, C17_N, C17_O, C20_A, C20_B, C20_C, C20_D,	121	51pF	GRM1885C1H510JA01D	MuRata	CAP, CERM, 51 pF, 50 V, +/- 5%, C0G/NP0, 0603	0603

7	C24_A, C24_B, C24_C, C24_D, C24_E, C24_F, C24_G, C24_H, C24_I, C24_J, C24_K, C24_L, C24_M, C24_N, C24_O, C24_P, C27_A, C27_B, C27_C, C27_D, C27_E, C27_F, C27_G, C27_H, C27_I, C27_J, C27_K, C27_L, C27_M, C27_N, C27_O, C27_P, C32_A, C32_B, C32_C, C32_D, C32_E, C32_F, C32_G, C32_H, C32_I, C32_J, C32_K, C32_L, C32_M, C32_N, C32_O, C32_P, C35_A, C35_B, C35_C, C35_D, C35_E, C35_F, C35_G, C35_H, C35_I, C35_J, C35_K, C35_L, C35_M, C35_N, C35_O, C35_P,	96	0.1uF	CGA5L2X7R2A104K160AA	TDK	CAP, CERM, 0.1 $\mu$ F, 100 V, +/- 10%, X7R, AEC-Q200 Grade 1, 1206	1206
8	C25_A, C25_B, C25_C, C25_D, C25_E, C25_F, C25_G, C25_H, C25_I, C25_J, C25_K, C25_L, C25_M, C25_N, C25_O, C25_P, C26_A, C26_B, C26_C, C26_D, C26_E, C26_F, C26_G, C26_H, C26_I, C26_J, C26_K, C26_L, C26_M, C26_N, C26_O, C26_P, C28_A, C28_B, C28_C, C28_D, C28_E, C28_F, C28_G, C28_H, C28_I, C28_J, C28_K, C28_L, C28_M, C28_N, C28_O, C28_P, C31_A, C31_B, C31_C, C31_D, C31_E, C31_F, C31_G, C31_H, C31_I, C31_J, C31_K, C31_L, C31_M, C31_N, C31_O, C31_P,	160	0.47uF	GCM188R71C474KA55D	MuRata	CAP, CERM, 0.47 $\mu$ F, 16 V, +/- 10%, X7R, AEC-Q200 Grade 1, 0603	0603

9	C29_A, C29_B, C29_C, C29_D, C29_E, C29_F, C29_G, C29_H, C29_I, C29_J, C29_K, C29_L, C29_M, C29_N, C29_O, C29_P, C30_A, C30_B, C30_C, C30_D, C30_E, C30_F, C30_G, C30_H, C30_I, C30_J, C30_K, C30_L, C30_M, C30_N, C30_O, C30_P, C40_A, C40_B, C40_C, C40_D, C40_E, C40_F, C40_G, C40_H, C40_I, C40_J, C40_K, C40_L, C40_M, C40_N, C40_O, C40_P, C41_A, C41_B, C41_C, C41_D, C41_E, C41_F, C41_G, C41_H, C41_I, C41_J, C41_K, C41_L, C41_M, C41_N, C41_O, C41_P	64	0.33uF	CGA3E3X7R1H334K080AB	TDK	CAP, CERM, 0.33 $\mu$ F, 50 V, +/- 10%, X7R, AEC-Q200 Grade 1, 0603	0603
10	C33_A, C33_B, C33_C, C33_D, C33_E, C33_F, C33_G, C33_H, C33_I, C33_J, C33_K, C33_L, C33_M, C33_N, C33_O, C33_P, C34_A, C34_B, C34_C, C34_D, C34_E, C34_F, C34_G, C34_H, C34_I, C34_J, C34_K, C34_L, C34_M, C34_N, C34_O, C34_P, C36_A, C36_B, C36_C, C36_D, C36_E, C36_F, C36_G, C36_H, C36_I, C36_J, C36_K, C36_L, C36_M, C36_N, C36_O, C36_P, C37_A, C37_B, C37_C, C37_D, C37_E, C37_F, C37_G, C37_H, C37_I, C37_J, C37_K, C37_L, C37_M, C37_N, C37_O, C37_P	64	1uF	CGA4J3X8R1C105K125AB	TDK	CAP, CERM, 1 $\mu$ F, 16 V, +/- 20%, X8R, AEC-Q200 Grade 0, 0805	0805

11	C56, C59	2	1000pF	C0603C102K3GACTU	Kemet	CAP, CERM, 1000 pF, 25 V, +/- 10%, C0G/NP0, 0603	0603
12	C60, C62, C64, C65, C66, C67, C68, C69, C73, C75, C77, C78, C79, C80, C81, C85, C86, C87, C88, C89, C90, C91, C92, C93, C94, C99, C101, C120, C122, C131, C132, C134, C137, C139	34	0.1uF	CL05B104KP5NNNC	Samsung Electro-Mechanics	CAP, CERM, 0.1 µF, 10 V, +/- 10%, X7R, 0402	0402
13	C70, C71, C72, C74, C144, C145, C146	7	47pF	CGA2B2NP01H470J050BA	TDK	CAP, CERM, 47 pF, 50 V, +/- 5%, C0G/NP0, AEC-Q200 Grade 0, 0402	0402
14	C76, C82, C105, C106, C115, C116, C118, C140	8	4.7uF	CGA4J1X7R1V475K125AC	TDK	CAP, CERM, 4.7 µF, 35 V, +/- 10%, X7R, AEC-Q200 Grade 1, 0805	0805
15	C83, C84, C110	3	10pF	885012005055	Würth Elektronik	CAP, CERM, 10 pF, 50 V, +/- 5%, C0G/NP0, 0402	0402
16	C95, C96, C112, C123, C124, C125, C126, C141	8	10uF	GRT31CR61H106KE01L	MuRata	CAP, CERM, 10 µF, 50 V, +/- 10%, X5R, AEC-Q200 Grade 1, 1206	1206
17	C97, C98, C107	3	0.015uF	CGA2B3X7R1H153K050BB	TDK	CAP, CERM, 0.015 µF, 50 V, +/- 10%, X7R, AEC-Q200 Grade 1, 0402	0402
18	C100, C129	2	0.01uF	CGA2B3X7R1H103K050BB	TDK	CAP, CERM, 0.01 µF, 50 V, +/- 10%, X7R, AEC-Q200 Grade 1, 0402	0402
19	C102, C103, C104	3	10uF	CGA6P3X8R1C106K250AB	TDK	CAP, CERM, 10 µF, 16 V, +/- 10%, X8R, AEC-Q200 Grade 0, 1210	1210
20	C108	1	1000pF	CGA2B2X7R1H102K050BA	TDK	CAP, CERM, 1000 pF, 50 V, +/- 10%, X7R, AEC-Q200 Grade 1, 0402	0402
21	C109	1	1500pF	CGA2B2X7R1H152K050BA	TDK	CAP, CERM, 1500 pF, 50 V, +/- 10%, X7R, AEC-Q200 Grade 1, 0402	0402
22	C111	1	3300pF	CGA2B2X7R1H332K050BA	TDK	CAP, CERM, 3300 pF, 50 V, +/- 10%, X7R, AEC-Q200 Grade 1, 0402	0402
23	C113, C114, C117, C142	4	0.1uF	GRM188R71H104KA93D	MuRata	CAP, CERM, 0.1 µF, 50 V, +/- 10%, X7R, 0603	0603
24	C119, C121, C127, C128, C150	5	2.2uF	GRM188R71A225KE15D	MuRata	CAP, CERM, 2.2 µF, 10 V, +/- 10%, X7R, 0603	0603
25	C130, C143	2	22uF	GCM32ER71C226KE19L	MuRata	CAP, CERM, 22 µF, 16 V, +/- 10%, X7R, 1210	1210
26	C133	1	0.022uF	GRM188R71H223KA01D	MuRata	CAP, CERM, 0.022 µF, 50 V, +/- 10%, X7R, 0603	0603
27	C135, C138	2	0.01uF	GRM188R71H103KA01D	MuRata	CAP, CERM, 0.01 µF, 50 V, +/- 10%, X7R, 0603	0603
28	C136	1	4700pF	CGA3E2X7R2A472K080AA	TDK	CAP, CERM, 4700 pF, 100 V, +/- 10%, X7R, AEC-Q200 Grade 1, 0603	0603
29	C147, C148	2	15uF	CGA9P3X7S2A156M250KB	TDK	CAP, CERM, 15 µF, 100 V, +/- 20%, X7S, AEC-Q200 Grade 1, 2220	2220
30	C149	1	10uF	CGA6P3X7S1H106K250AB	TDK	CAP, CERM, 10 µF, 50 V, +/- 10%, X7S, AEC-Q200 Grade 1, 1210	1210
31	C151	1	47uF	EMVH350ADA470MHA0G	Chemi-Con	CAP, AL, 47 µF, 35 V, +/- 20%, 0.4 ohm, SMD	HA0
32	Comms Jumper	1		219-4MST	CTS Electrocomponents	Switch, SPST, Slide, Off-On, 4 Pos, 0.1A, 20V, SMD	11.63x6.7mm
33	D2, D3	2	20V	MBR0520LT1G	ON Semiconductor	Diode, Schottky, 20 V, 0.5 A, SOD-123	SOD-123
34	D4, D9	2	Green	150060VS75000	Würth Elektronik	LED, Green, SMD	LED_0603
35	D5	1	40V	FSV340AF	Fairchild Semiconductor	Diode, Schottky, 40 V, 3 A, AEC-Q101, SMAF	SMAF
36	D6	1	3.9V	BZT52C3V9T-7	Diodes Inc.	Diode, Zener, 3.9 V, 300 mW, SOD-523	SOD-523
37	D7	1	5.6V	BZT52C5V6T-7	Diodes Inc.	Diode, Zener, 5.6 V, 300 mW, SOD-523	SOD-523
38	D8	1	30V	RB080L-30TE25	Rohm	Diode, Schottky, 30 V, 5 A, SMA	SMA
39	D10	1	Orange	SML-311DTT86	Rohm	LED, Orange, SMD	1.6x0.8x0.8mm
40	D11	1	Red	150060RS75000	Würth Elektronik	LED, Red, SMD	LED_0603
41	D12	1	90V	1SS355 RRG	Taiwan Semiconductor	Diode, Switching, 90 V, 0.25 A, SOD-323F	SOD-323F
42	F1	1		PTS120660V010	Eaton	Fuse, 0.1 A, 60 VDC, SMD	3.25x1.65mm
43	FB1, FB2, FB3, FB4	4	40 ohm	MI0805K400R-10	Laird-Signal Integrity Products	Ferrite Bead, 40 ohm @ 100 MHz, 1.5 A, 0805	0805
44	FID4, FID5, FID6	3		N/A	N/A	Fiducial mark. There is nothing to buy or mount.	Fiducial
45	H1, H2, H3, H4	4		NY PMS 440 0025 PH	B&F Fastener Supply	Machine Screw, Round, #4-40 x 1/4, Nylon, Philips panhead	Screw
46	H5, H6	2		39500-0009	Molex	Terminal Block, 9 Pos, 3.5mm	
47	H7, H8	2		50-57-9404	Molex	Rectangular Housing Connector, 4 Pos, 2.54mm	

48	J1, J2, J3, J4, J5	5		34691-6201	Molex	Header(shrouded), 2.54mm, 10x2, Tin, R/A, TH	Header, 2.54mm, 10x2, TH
49	J6	1		22-12-4062	Molex	Header, 0.5mm, 6x1, R/A, Gold, TH	Header, 0.5mm, 6x1, R/A, TH
50	J7	1		SBH11-PBPC-D07-ST-BK	Sullins Connector Solutions	Header (shrouded), 100 mil, 7x2, Gold, TH	7x2 Shrouded Header
51	J8	1		1759017	Phoenix Contact	Header (Shrouded), 5.08mm, 2x1, Tin, R/A, TH	Header (Shrouded), 5.08mm, 2x1, R/A, TH
52	J9	1		618009231121	Würth Elektronik	Receptacle, D-Sub, 9 Position, R/A, TH	Receptacle, D-Sub, 9 Position, R/A, TH
53	L1	1	22uH	XAL5050-223MEB	Coilcraft	Inductor, Shielded, Composite, 22 µH, 3.4 A, 0.1 ohm, SMD	XAL5050
54	L2	1	33uH	744770133	Würth Elektronik	Inductor, Shielded Drum Core, Ferrite, 33 µH, 3.2 A, 0.047 ohm, SMD	SMD
55	L3	1	100uH	ACT45B-101-2P-TL003	TDK	Inductor, Ferrite, 100 µH, 0.15 A, 2 ohm, SMD	SMD, 4-Leads, Body 4.7 x 3.7 mm
56	L4	1	2.2uH	XAL4020-222MEB	Coilcraft	Inductor, Shielded, Composite, 2.2 µH, 5.5 A, 0.04 ohm, SMD	4x2.1x4mm
57	Q1	1	100V	CSD19532Q5B	Texas Instruments	MOSFET, N-CH, 100 V, 17 A, DNK0008A (VSON-CLIP-8)	DNK0008A
58	Q2, Q3	2	60V	2N7002-7-F	Diodes Inc.	MOSFET, N-CH, 60V, 0.17A, SOT-23	SOT-23
59	R1_A, R1_B, R1_C, R1_D, R1_E, R1_F, R1_G, R1_H, R1_I, R1_J, R1_K, R1_L, R1_M, R1_N, R1_O, R32	16	40.2	RC1206FR-0740R2L	Yageo America	RES, 40.2, 1%, 0.25 W, 1206	1206
60	R2_A, R2_B, R2_C, R2_D, R2_E, R2_F, R2_G, R2_H, R2_I, R2_J, R2_K, R2_L, R2_M, R2_N, R2_O, R4_A, R4_B, R4_C, R4_D, R4_E, R4_F, R4_G, R4_H, R4_I, R4_J, R4_K, R4_L, R4_M, R4_N, R4_O, R33, R38	32	100	ESR03EZPJ101	Rohm	RES, 100, 5%, 0.25 W, AEC-Q200 Grade 0, 0603	0603



61	R3, R5, R8_A, R8_B, R8_C, R8_D, R8_E, R8_F, R8_G, R8_H, R8_I, R8_J, R8_K, R8_L, R8_M, R8_N, R8_O, R9_A, R9_B, R9_C, R9_D, R9_E, R9_F, R9_G, R9_H, R9_I, R9_J, R9_K, R9_L, R9_M, R9_N, R9_O, R14_A, R14_B, R14_C, R14_D, R14_E, R14_F, R14_G, R14_H, R14_I, R14_J, R14_K, R14_L, R14_M, R14_N, R14_O, R15_A, R15_B, R15_C, R15_D, R15_E, R15_F, R15_G, R15_H, R15_I, R15_J, R15_K, R15_L, R15_M, R15_N, R15_O, R34, R39, R40, R41,	68	10.0k	CRCW060310K0FKEA	Vishay-Dale	RES, 10.0 k, 1%, 0.1 W, 0603	0603
62	R6_A, R6_B, R6_C, R6_D, R6_E, R6_F, R6_G, R6_H, R6_I, R6_J, R6_K, R6_L, R6_M, R6_N, R6_O, R7_A, R7_B, R7_C, R7_D, R7_E, R7_F, R7_G, R7_H, R7_I, R7_J, R7_K, R7_L, R7_M, R7_N, R7_O, R10_A, R10_B, R10_C, R10_D, R10_E, R10_F, R10_G, R10_H, R10_I, R10_J, R10_K, R10_L, R10_M, R10_N, R10_O, R11_A, R11_B, R11_C, R11_D, R11_E, R11_F, R11_G, R11_H, R11_I, R11_J, R11_K, R11_L, R11_M, R11_N, R11_O, R12_A, R12_B, R12_C, R12_D,	120	49.9	RC0603FR-0749R9L	Yageo America	RES, 49.9, 1%, 0.1 W, 0603	0603

63	R18_A, R18_B, R18_C, R18_D, R18_E, R18_F, R18_G, R18_H, R18_I, R18_J, R18_K, R18_L, R18_M, R18_N, R18_O, R18_P, R20_A, R20_B, R20_C, R20_D, R20_E, R20_F, R20_G, R20_H, R20_I, R20_J, R20_K, R20_L, R20_M, R20_N, R20_O, R20_P, R22_A, R22_B, R22_C, R22_D, R22_E, R22_F, R22_G, R22_H, R22_I, R22_J, R22_K, R22_L, R22_M, R22_N, R22_O, R22_P, R24_A, R24_B, R24_C, R24_D, R24_E, R24_F, R24_G, R24_H, R24_I, R24_J, R24_K, R24_L, R24_M, R24_N, R24_O, R24_P,	112	40.2	ERJ-3EKF40R2V	Panasonic	RES, 40.2, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
64	R19_A, R19_B, R19_C, R19_D, R19_E, R19_F, R19_G, R19_H, R19_I, R19_J, R19_K, R19_L, R19_M, R19_N, R19_O, R19_P, R21_A, R21_B, R21_C, R21_D, R21_E, R21_F, R21_G, R21_H, R21_I, R21_J, R21_K, R21_L, R21_M, R21_N, R21_O, R21_P, R23_A, R23_B, R23_C, R23_D, R23_E, R23_F, R23_G, R23_H, R23_I, R23_J, R23_K, R23_L, R23_M, R23_N, R23_O, R23_P, R25_A, R25_B, R25_C, R25_D, R25_E, R25_F, R25_G, R25_H, R25_I, R25_J, R25_K, R25_L, R25_M, R25_N, R25_O, R25_P,	112	10.0	ERJ-14NF10R0U	Panasonic	RES, 10.0, 1%, 0.5 W, AEC-Q200 Grade 0, 1210	1210

65	R35, R54	2	100k	RMCF0402FT100K	Stackpole Electronics Inc	RES, 100 k, 1%, 0.063 W, AEC-Q200 Grade 0, 0402	0402
66	R36, R37, R78	3	10.0k	CRCW060310K0FKEA	Vishay-Dale	RES, 10.0k ohm, 1%, 0.1W, 0603	0603
67	R43, R44, R45, R62, R64, R65, R67, R90, R91	9	47	ERJ-2GEJ470X	Panasonic	RES, 47, 5%, 0.1 W, AEC-Q200 Grade 0, 0402	0402
68	R46, R47, R49, R83, R84, R85, R86, R87, R88, R92, R93	11	10.0k	CRCW040210K0DHEDP	Vishay-Dale	RES, 10.0 k, 0.5%, 0.063 W, 0402	0402
69	R48, R69, R71, R74, R75, R89	6	1.00k	ERJ-2RKF1001X	Panasonic	RES, 1.00 k, 1%, 0.1 W, 0402	0402
70	R50, R51, R52, R55, R66, R80, R81	7	0	RK73Z1ETTP	KOA Speer	RES, 0, 5%, 0.063 W, AEC-Q200 Grade 0, 0402	0402
71	R53	1	10k	ERJ-2GEJ103X	Panasonic	RES, 10 k, 5%, 0.1 W, AEC-Q200 Grade 0, 0402	0402
72	R56	1	71.5k	ERJ-2RKF7152X	Panasonic	RES, 71.5 k, 1%, 0.1 W, AEC-Q200 Grade 0, 0402	0402
73	R57	1	10.0	RMCF0402JT10R0	Stackpole Electronics Inc	RES, 10.0, 1%, 0.063 W, AEC-Q200 Grade 0, 0402	0402
74	R58	1	40.2k	ERJ-2RKF4022X	Panasonic	RES, 40.2 k, 1%, 0.1 W, AEC-Q200 Grade 0, 0402	0402
75	R59	1	300k	CRCW0402300KFKED	Vishay-Dale	RES, 300 k, 1%, 0.063 W, AEC-Q200 Grade 0, 0402	0402
76	R60	1	23.7k	ERJ-2RKF2372X	Panasonic	RES, 23.7 k, 1%, 0.1 W, AEC-Q200 Grade 0, 0402	0402
77	R61	1	76.8k	ERA-2AEB7682X	Panasonic	RES, 76.8 k, 0.1%, 0.063 W, AEC-Q200 Grade 0, 0402	0402
78	R63	1	0.15	ERJ-3RSFR15V	Panasonic	RES, 0.15, 1%, 0.1 W, 0603	0603
79	R68	1	3.48k	CRCW06033K48FKEA	Vishay-Dale	RES, 3.48 k, 1%, 0.1 W, 0603	0603
80	R70	1	24.9k	CRCW060324K9FKEA	Vishay-Dale	RES, 24.9 k, 1%, 0.1 W, 0603	0603
81	R72, R79	2	0	CRCW04020000Z0ED	Vishay-Dale	RES, 0, 5%, 0.063 W, 0402	0402
82	R73, R77	2	60.4	ERJ-8ENF60R4V	Panasonic	RES, 60.4, 1%, 0.25 W, 1206	1206
83	R76	1	120	RT0603BRD07120RL	Yageo America	RES, 120, 0.1%, 0.1 W, 0603	0603
84	R94	1	10.0k	CRCW060310K0FKEA	Vishay-Dale	RES, 10.0 k, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
85	R95, R96, R97, R98, R99	6	0	CRCW04020000Z0ED	Vishay-Dale	RES, 0, 5%, 0.063 W, AEC-Q200 Grade 0, 0402	0402
86	S1	1		218-2LPST	CTS Electrocomponents	Switch, SPST, 2 Pos, 25mA, 24VDC, SMD	3.71x5.8mm
87	ST1, ST2, ST3, ST4	4		1902C	Keystone	Standoff, Hex, 0.5"L #4-40 Nylon	Standoff
88	T1	1	475uH	760390014	Würth Elektronik	Transformer, 475uH, SMT	10.05x4.19x6.73 mm
89	U1_A, U1_B, U1_C, U1_D, U1_E, U1_F, U1_G, U1_H, U1_I, U1_J, U1_K, U1_L, U1_M, U1_N, U1_O, U2	16		BQ79606PHPQ1	Texas Instruments	SafeTI Precision Monitor With Integrated Hardware Protector for Multi-Cell Lithium-Ion and Lithium Phosphate Battery Pack Automotive Applications SYSTEMS SPECIFICATION, PHP0048G (HTQFP-48)	PHP0048G
90	U3	1		TPS76333QDBVRQ1	Texas Instruments	Single Output Automotive LDO, 150 mA, Fixed 3.3 V Output, 2.7 to 10 V Input, 5-pin SOT-23 (DBV), -40 to 125 degC, Green (RoHS & no Sb/Br)	DBV0005A
91	U4	1		SN6501QDBVRQ1	Texas Instruments	Automotive Low-Noise 350 mA, 410 kHz Transformer Driver, DBV0005A (SOT-5)	DBV0005A
92	U5	1		ISO7742FQDWRQ1	Texas Instruments	High Speed, Robust EMC Reinforced Quad-Channel Digital Isolator, DW0016B (SOIC-16)	DW0016B
93	U6	1		TMS5700432APZQQ1	Texas Instruments	16- and 32-Bit RISC Flash Microcontroller, PZ0100A (LQFP-100)	PZ0100A
94	U7	1		TPS57160QDGGQRQ1	Texas Instruments	1.5-A 60-V Step-Down DC-DC Converter With Eco-mode Control, DGQ0010D (VSSOP-10)	DGQ0010D
95	U8	1		LM5050Q1MKX-1/NOPB	Texas Instruments	High Side OR-ing FET Controller, DDC0006A (SOT-23-T-6)	DDC0006A
96	U9	1		TPS65381AQDAPRQ1	Texas Instruments	Multi-Rail Power Supply for Microcontrollers in Safety Applications, DAP0032B (TSSOP-32)	DAP0032B
97	U10	1		TCAN1042HGVDQ1	Texas Instruments	Automotive Fault Protected CAN Transceiver With Flexible Data-Rate, D0008A (SOIC-8)	D0008A
98	Y1	1		ABLSG-16.000MHZ-D2Y-T	Abracon Corporation	Crystal, 16 MHz, 18pF, SMD	11.4x4.7mm

99	C7_A, C7_B, C7_C, C7_D, C7_E, C7_F, C7_G, C7_H, C7_I, C7_J, C7_K, C7_L, C7_M, C7_N, C7_O	0	1000pF	C1206C102KGRACAUTO	Kemet	CAP, CERM, 1000 pF, 2000 V, +/- 10%, X7R, AEC-Q200 Grade 1, 1206	1206
100	D1_A, D1_B, D1_C, D1_D, D1_E, D1_F, D1_G, D1_H, D1_I, D1_J, D1_K, D1_L, D1_M, D1_N, D1_O, D1_P	0	36V	SMAJ36CA	Littelfuse	Diode, TVS, Bi, 36 V, 400 W, SMA	SMA
101	FID1, FID2, FID3	0		N/A	N/A	Fiducial mark. There is nothing to buy or mount.	Fiducial

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