

TIDA-010247 REV E1 Bill of Materials

Designator	Quantity	Value	PartNumber	Manufacturer	Description	PackageReference
!PCB1	1		TIDA-010247	Any	Printed Circuit Board	
C1, C3, C4, C5, C17, C18, C19, C20, C59, C61, C63, C72, C73, C77, C90, C92, C94, C97, C99, C100, C102, C104, C107, C109, C139	25	0.1uF	GRM188R61C104KA01D	MuRata	CAP, CERM, 0.1 uF, 16 V, +/- 10%, X5R, 0603	0603
C2, C6, C60, C62, C91, C93, C95, C96, C98, C101, C103, C105, C106, C108	14	1uF	CC0603MRX5R7BB105	Yageo America	CAP, CERM, 1 uF, 16 V, +/- 20%, X5R, 0603	0603
C7, C74, C75, C80, C81, C114, C130	7	1uF	GCM188R71C105KA64D	MuRata	CAP, CERM, 1 uF, 16 V, +/- 10%, X7R, AEC-Q200 Grade 1, 0603	0603
C8, C9, C10, C28, C29, C30, C31, C32, C33, C34, C35, C36, C37, C38, C39, C40, C41, C42, C43, C44, C45, C46, C47, C48, C49, C50, C51, C52, C53, C54, C55, C57, C58, C140, C148, C301	36	0.1uF	GRM188R71H104KA93D	MuRata	CAP, CERM, 0.1 uF, 50 V, +/- 10%, X7R, 0603	0603
C11, C135, C136	3	2.2uF	GRM188Z71C225KE43	MuRata	CAP, CERM, 2.2 uF, 16 V, +/- 10%, X7R, 0603	0603
C12	1	0.47uF	GCM188R71C474KA55D	MuRata	CAP, CERM, 0.47 uF, 16 V, +/- 10%, X7R, AEC-Q200 Grade 1, 0603	0603
C13	1	2200pF	GRM155R71H222KA01D	MuRata	CAP, CERM, 2200 pF, 50 V, +/- 10%, X7R, 0402	0402
C14	1	0.01uF	C0603X103K1RACTU	Kemet	CAP, CERM, 0.01 uF, 100 V, +/- 10%, X7R, 0603	0603
C15, C16, C25, C26	4	22pF	GRM1555C1H220JA01D	MuRata	CAP, CERM, 22 pF, 50 V, +/- 5%, C0G/NP0, 0402	0402

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C22, C56, C150, C159, C160, C161, C163, C164, C165, C166, C167, C168, C169, C170, C171, C172	16	470pF	GRM033R71C471KA01D	MuRata	CAP, CERM, 470 pF, 16 V, +/- 10%, X7R, 0201	0201
C23	1	1uF	GCM188R71C105KA64J	MuRata	CAP, CERM, 1 µF, 16 V,+/- 10%, X7R, AEC-Q200 Grade 1, 0603	0603
C27	1	1500pF	GRM155R71H152KA01D	MuRata	CAP, CERM, 1500 pF, 50 V, +/- 10%, X7R, 0402	0402
C64, C70	2	2.2uF	GRM31CR72A225KA73L	MuRata	CAP, CERM, 2.2 uF, 100 V, +/- 10%, X7R, 1206_190	1206_190
C65, C76, C78, C84, C87, C89, C112	7	100pF	GRM1885C2A101JA01D	MuRata	CAP, CERM, 100 pF, 100 V, +/- 5%, C0G/NP0, 0603	0603
C66	1	2.2uF	GRM21BR71E225KA73L	MuRata	CAP, CERM, 2.2 uF, 25 V, +/- 10%, X7R, 0805	0805
C67, C71	2	2.2uF	EMK107BB7225MA-T	Taiyo Yuden	CAP, CERM, 2.2 uF, 16 V,+/- 10%, X7R, 0603	0603
C68	1	0.1uF	GRM188R71H104KA93D	MuRata	CAP, CERM, 0.1 µF, 50 V,+/- 10%, X7R, 0603	0603
C69, C79	2	0.022uF	GRM188R71H223KA01D	MuRata	CAP, CERM, 0.022 uF, 50 V, +/- 10%, X7R, 0603	0603
C82, C83	2	1uF	C3216X7R2A105K160AA	TDK	CAP, CERM, 1 uF, 100 V, +/- 10%, X7R, 1206	1206
C85, C86, C88	3	47pF	GRM1885C1H470JA01D	MuRata	CAP, CERM, 47 pF, 50 V, +/- 5%, C0G/NP0, 0603	0603
C110, C111, C113	3	0.1uF	C1206C104K2RACTU	Kemet	CAP, CERM, 0.1 uF, 200 V, +/- 10%, X7R, 1206	1206
C115, C117, C124, C125, C141, C142, C152, C153	8	2200pF	GCM155R71H222KA37D	MuRata	CAP, CERM, 2200 pF, 50 V, +/- 10%, X7R, AEC-Q200 Grade 1, 0402	0402
C118, C119, C126, C127, C143, C144, C154, C155	8	22uF	GRM21BZ71A226ME15L	MuRata	CAP, CERM, 22 uF, 10 V, +/- 20%, X7R, 0805	0805
C120	1	0.068uF	C1210C683J2RACTU	Kemet	CAP, CERM, 0.068 uF, 200 V, +/- 5%, X7R, 1210	1210
C121	1	1uF	18122C105KAT2A	AVX	CAP, CERM, 1 µF, 200 V,+/- 10%, X7R, 1812	1812
C122, C123	2	1uF	2220Y6300105KXTWS2	Knowles Capacitors	CAP, CERM, 2.2 uF, 200 V,+/- 10%, X7R, 2220	2220
C128	1		CGA5H2X8R2A104K115AA	TDK Corporation	Cap Ceramic 0.1uF 200V X7R 10% SMD 1206	1206
C129	1	10µF	EEV-EB2C100Q	Panasonic Electronic Compon	10 µF 160 V Aluminum Electrolytic Capacitors Radial, Can - SMD - 3000 Hrs @ 105°C	RADIAL
C132, C133, C134	3	4.7uF	GRM21BR71C475KA73L	MuRata	CAP, CERM, 4.7 uF, 16 V, +/- 10%, X7R, 0805	0805
C138	1	10uF	EMK107BBJ106MA-T	Taiyo Yuden	CAP, CERM, 10 uF, 16 V, +/- 20%, X5R, 0603	0603
C145, C146	2	10uF	CGA5L1X7R1H106K160AC	TDK	CAP, CERM, 10 µF, 50 V,+/- 10%, X7R, AEC-Q200 Grade 1, 1206	1206
C147, C151, C158	3	0.1uF	C0603C104K5RACAUTO	Kemet	CAP, CERM, 0.1 µF, 50 V,+/- 10%, X7R, AEC-Q200 Grade 1, 0603	0603
C149	1	0.033uF	GRM188R71C333KA01D	MuRata	CAP, CERM, 0.033 uF, 16 V, +/- 10%, X7R, 0603	0603
C156, C157	2	22uF	C3216X5R1V226M160AC	TDK	CAP, CERM, 22 uF, 35 V, +/- 20%, X5R, 1206	1206
D2, D3, D6, D9, D22, D32, D33, D35, D10	9	100V	BAT46W-7-F	Diodes Inc.	Diode, Schottky, 100 V, 0.15 A, SOD-123	SOD-123
D4, D7, D8	3	30V	BAT42WS-7-F	Diodes Inc.	Diode, Schottky, 30 V, 0.2 A, SOD-323	SOD-323
D5, D10	2	100V	BAT41KFILM	STMicroelectronics	Diode, Schottky, 100 V, 0.2 A, SOD-523	SOD-523

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D11, D12, D14, D18	4	3.6V	MMSZ4685T1G	ON Semiconductor	Diode, Zener, 3.6 V, 500 mW, SOD-123	SOD-123
D13, D21, D23, D24, D29	5	16V	MMSZ5246B-7-F	Diodes Inc.	Diode, Zener, 16 V, 500 mW, SOD-123	SOD-123
D15, D42	2	60V	SMAJ60CA	Good-Ark Semiconductor	Diode, TVS, Bi, 60 V, 96.8 Vc, 400 W, 4.1 A, SMA (non-polarized)	SMA (non-polarized)
D16, D19, D20, D34	4	75V	MMSZ5263BT1G	ON Semiconductor	Diode, Zener, 75V, 500 mW, AEC-Q101, SOD-123	SOD-123
D17	1	20V	DB2J20900L	Panasonic	Diode, Schottky, 20 V, 0.5 A, SOD-323F	SOD-323F
D25	1	5.1V	BZT52C5V1S-7-F	Diodes Inc.	Diode, Zener, 5.1 V, 200 mW, SOD-323	SOD-323
D26, D30, D31, D36	4	100V	BAT46WJ,115	Nexperia	Diode, Schottky, 100 V, 0.25 A, SOD-323F	SOD-323F
D28, D39	2	100V	BAS516,115	Nexperia	Diode, Switching, 100 V, 0.25 A, SOD-523	SOD-523
D37	1	400V	ES5GC	MDD	Diode, Ultrafast, 200 V, 3 A, SMC	SMC
D38	1	91V	SMBJ5375B-TP	Micro Commercial Component	Diode, Zener, 91 V, 5 W, SMB	SMB
D40	1	20V	B0520LW-7-F	Diodes Inc.	Diode, Schottky, 20 V, 0.5 A, SOD-123	SOD-123
D43, D44, D45, D46	4	60V	SMBJ60CA	Littelfuse	Diode, TVS, Bi, 60V, SMB	SMB
D48	1		SMDJ120CA	Littelfuse Inc	Diode, TVS, Bi, 120 V, 3000 W,SMD (non-polarized)	DO-214AB
D49, D50, D51, D52, D53, D54, D55, D56, D57	9	7V	SMBJ7.0CA	Littelfuse	Diode, TVS, Bi, 7 V, SMB	SMB
F1	1		PF-MB1-150	Bourns	Fuse Power 150A 240V Bolt Flat 56 X 17.4 X 19.1mm	BT_FUSE_56MM0_17MM4
J1, J2	2		705550056	Molex	Connector Header Through Hole, Right Angle 22 position 0.100" (2.54mm)	HDR22
J3, J4	2		TSW-103-07-G-D	Samtec	Header, 100mil, 3x2, Gold, TH	3x2 Header
J5	1		ED120/2DS	On-Shore Technology	Terminal Block, 5.08 mm, 2x1, Brass, TH	2x1 5.08 mm Terminal Block
J6, J7	2		TSW-102-08-G-S	Samtec	Header, 2.54mm, 2x1, Gold, TH	Header, 2.54mm, 2x1, TH
J8	1		PBC04SAAN	Sullins Connector Solutions	Header, 2.54 mm, 4x1, Gold, TH	Header, 2.54 mm, 4x1, TH
J9, J10	2		PPTC021LGBN-RC	Sullins	2 Position Header Connector 0.100" (2.54mm) Through Hole, Right Angle Tin	CONN_HDR2
J11	1		PPPC041LGBN-RC	Sullins Connector Solutions	Receptacle, 100mil, 4x1, Gold, R/A, TH	10.66x3.15x8.5 mm
J12	1		FTSH-105-01-L-DV-K	Samtec	Header(Shrouded), 1.27mm, 5x2, Gold, SMT	Header(Shrouded), 1.27mm, 5x2, SMT
J14, J15	2		6.1302E+11	Würth Elektronik	Header, 100mil, 20x1, Gold, TH	20x1 Header
L1	1	1uH	74438335010	Würth Elektronik	Inductor, Shielded, 1 uH, 2.7 A, 0.039 ohm, SMD	3x3mm
L2, L5	2		SRF3225TAC-510Y	Bourns	51 µH @ 100 kHz 2 Line Common Mode Choke Surface Mount 2.6 kOhms @ 10 MHz 200mA DCR 700mOhm	SMT4
L3, L4, L6, L7, L8, L9	6	600 ohm	74279265	Würth Elektronik	Ferrite Bead, 600 ohm @ 100 MHz, 0.2 A, 0603	0603
L10	1	68uH	744777168	Würth Elektronik	Inductor, Shielded Drum Core, Metal Composite, 68 uH, 0.87 A, 0.239 ohm, SMD	SMD
L11	1	10uH	74439346100	Würth Elektronik	Inductor, Shielded, Hyperflux, 10 µH, 5 A, 0.02915 ohm, SMD	6.65x6.45mm
L12, L13, L14, L15	4		74479275222	Würth Elektronik	WE-PMCI SMT Power Molded Chip Inductor, size 0805, 2.2uH, 2.1A, 190mOhm	
LED1	1	Rgb	19-337/R6GHBHC-A01/2T	Everlight	LED, RGB, SMD	1.6x1.6mm

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Q1, Q2, Q3, Q4, Q7, Q8, Q10, Q11, Q12, Q13, Q14, Q15, Q17, Q18, Q21, Q22, Q24, Q25, Q26, Q27, Q28, Q29, Q30, Q31, Q32, Q33, Q36, Q37, Q39, Q40, Q41, Q43	32	40 V	BSR14	NXP Semiconductor	Transistor, NPN, 40 V, 0.8 A, SOT-23	SOT-23
Q5, Q6, Q16, Q19, Q66	5	80 V	MMBTA56LT1G	ON Semiconductor	Transistor, PNP, 80 V, 0.5 A, SOT-23	SOT-23
Q9, Q20, Q23, Q68	4	60 V	MMBTA05LT1G	ON Semiconductor	Transistor, NPN, 60 V, 0.5 A, AEC-Q101, SOT-23	SOT-23
Q34, Q35	2	100 V	FZT493TA	Diodes Inc.	Transistor, NPN, 100 V, 1 A, AEC-Q101, SOT-223	SOT-223
Q38, Q42	2	65 V	BC846B,215	NXP Semiconductor	Transistor, NPN, 65 V, 0.1 A, SOT-23	SOT-23
Q44	1	60V	2N7002W-7-F	Diodes Inc.	MOSFET, N-CH, 60 V, 0.115 A, SOT-323	SOT-323
Q45, Q46, Q47, Q48, Q49, Q50, Q51, Q52, Q56, Q57, Q58, Q59, Q60, Q61, Q62, Q63	16	200V	IPB068N20NM6ATMA1	Infineon Technologies	MOSFET, N-CH, 200 V, 134A, DDPAK	DDPAK
Q53	1	-150V	SI7439DP-T1-E3	Vishay-Siliconix	MOSFET, P-CH, -150 V, -3 A, PowerPAK SO-8	PowerPAK SO-8
Q54	1	-20V	DMG1013UW-7	Diodes Inc.	MOSFET, P-CH, -20 V, -0.82 A, SOT-323	SOT-323
Q55	1	150 V	FMMT495TA	Diodes Inc.	Transistor, NPN, 150 V, 1 A, AEC-Q101, SOT-23	SOT-23
Q64	1	-150V	SI2325DS-T1-E3	Vishay-Siliconix	MOSFET, P-CH, -150 V, -0.53 A, SOT-23	SOT-23
Q65	1	100V	CPH3461-TL-W	Fairchild Semiconductor	MOSFET, N-CH, 100 V, 0.17 A, SOT-23	SOT-23
Q67	1	150 V	ZXTN4004KTC	Diodes Inc.	Transistor, NPN, 150 V, 1 A, AEC-Q101, DPAK	DPAK
R2, R152, R153	3	0	CRCW06030000Z0EA	Vishay-Dale	RES, 0, 5%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
R3	1	300μ	SEWF3951FL300PT	C&B ELECTRONICS	High-Precision Low-TCR Alloy Current Sensing Resistor 0.3mOhm 1% 25ppm/°C 15W 3951	3951
R4, R305, R5	3	100	CRCW0603100RFKEA	Vishay-Dale	RES, 100, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
R5, R28, R30, R45, R188, R189, R192, R199, R249, R252, R254, R329	12	10.0k	CRCW060310K0FKEA	Vishay-Dale	RES, 10.0 k, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	0603

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R6, R7, R11, R12, R14, R15, R16, R18, R19, R22, R27, R31, R35, R36, R37, R38, R39, R40, R46, R47, R51, R53, R54, R91, R92, R95, R96, R99, R100, R103, R104, R107, R108, R111, R112, R115, R116, R119, R154, R157, R158, R161, R162, R165, R166, R169, R170, R173, R174, R177, R178, R181, R182, R185, R186, R198, R200, R211, R218, R239, R251, R292	62	100	CRCW0603100RFKEA	Vishay-Dale	RES, 100, 1%, 0.1 W, 0603	0603
R8	1	47.0k	CRCW060347K0FKEA	Vishay-Dale	RES, 47.0 k, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
R9, R10, R17, R20	4	60.4	RC0603FR-0760R4L	Yageo	RES, 60.4, 1%, 0.1 W, 0603	0603
R13, R191, R193, R195, R197, R202, R204, R206, R208, R210, R212, R215, R217, R263, R264, R265, R266, R267, R273, R295, R296, R298, R301, R315, R318	25	0	CRCW04020000Z0ED	Vishay-Dale	RES, 0, 5%, 0.063 W, 0402	0402
R21	1		ERA-2AEB104X	Panasonic	Res Thin Film 0402 100K Ohm 0.1% 1/16W ±25ppm/°C Molded SMD SMD Punched Carrier T/R	0402
R23	1	220	CRCW0402220RJNED	Vishay-Dale	RES, 220, 5%, 0.063 W, 0402	0402
R24, R25	2	330	CRCW0402330RJNED	Vishay-Dale	RES, 330, 5%, 0.063 W, 0402	0402
R26, R221	2	26.1k	CRCW060326K1FKEA	Vishay-Dale	RES, 26.1 k, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
R29	1	120	RC0603FR-07120RL	Yageo America	RES, 120, 1%, 0.1 W, 0603	0603
R32	1	10.0k	RT0603BRD0710KL	Yageo America	RES, 10.0 k, 0.1%, 0.1 W, 0603	0603

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R33, R230, R231, R242, R243, R324	6	200k	CRCW0603200KFKEA	Vishay-Dale	RES, 200 k, 1%, 0.1 W, 0603	0603
R34, R233	2	33.0k	RC0603FR-0733KL	Yageo	RES, 33.0 k, 1%, 0.1 W, 0603	0603
R41, R42, R43, R44	4	4.70k	RC0603FR-074K7L	Yageo	RES, 4.70 k, 1%, 0.1 W, 0603	0603
R55, R56, R57, R58, R59, R60, R61, R62, R63, R64, R65, R66, R67, R68, R69, R70, R71, R72, R73, R74, R75, R76, R77, R78, R79, R80, R81, R82, R83, R84, R85, R86, R120, R121, R122, R123, R124, R125, R126, R127, R128, R129, R130, R131, R132, R133, R134, R135, R136, R137, R138, R139, R140, R141, R142, R143, R144, R145, R146, R147, R148, R149, R150, R151	64	80.6	CRCW120680R6FKEA	Vishay-Dale	RES, 80.6, 1%, 0.25 W, 1206	1206
R87, R88	2	20	CRCW060320R0FKEA	Vishay-Dale	RES, 20.0, 1%, 0.1 W, 0603	0603
R89, R90, R93, R94, R97, R98, R101, R102, R105, R106, R109, R110, R113, R114, R117, R118, R155, R156, R159, R160, R163, R164, R167, R168, R171, R172, R175, R176, R179, R180, R183, R184	32	300	CRCW0603300RJNEA	Vishay-Dale	RES, 300, 5%, 0.1 W, 0603	0603

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R190	1	2.0k	RC0603JR-072KL	Yageo	RES, 2.0 k, 5%, 0.1 W, 0603	0603
R201, R209	2	154	CRCW1206154RFKEA	Vishay-Dale	RES, 154, 1%, 0.25 W, 1206	1206
R213, R214	2	619	CRCW1206619RFKEA	Vishay-Dale	RES, 619, 1%, 0.25 W, AEC-Q200 Grade 0, 1206	1206
R216, R235	2	499k	CRCW0603499KFKEA	Vishay-Dale	RES, 499 k, 1%, 0.1 W, 0603	0603
R219	1	2.00Meg	RC0603FR-072ML	Yageo	RES, 2.00 M, 1%, 0.1 W, 0603	0603
R220, R236, R237	3	300	RC0603FR-07300RL	Yageo	RES, 300, 1%, 0.1 W, 0603	0603
R224	1	0	CRCW04020000Z0ED	Vishay-Dale	RES, 0, 5%, 0.063 W, AEC-Q200 Grade 0, 0402	0402
R228, R240, R241	3	80.6k	CRCW060380K6FKEA	Vishay-Dale	RES, 80.6 k, 1%, 0.1 W, 0603	0603
R229, R248, R250, R253, R282, R294, R297, R303, R304	9	10Meg	CRCW060310M0JNEA	Vishay-Dale	RES, 10 M, 5%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
R232, R234, R244, R245, R246, R247	6	150k	CRCW0603150KFKEA	Vishay-Dale	RES, 150 k, 1%, 0.1 W, 0603	0603
R238, R330	2	18.0k	RT0603BRD0718KL	Yageo America	RES, 18.0 k, 0.1%, 0.1 W, 0603	0603
R255	1	1.5k	CRCW08051K50JNEA	Vishay-Dale	RES, 1.5 k, 5%, 0.125 W, AEC-Q200 Grade 0, 0805	0805
R256	1	1.0Meg	CRCW06031M00JNEA	Vishay-Dale	RES, 1.0 M, 5%, 0.1 W, 0603	0603
R257, R260	2	1.00Meg	MCT06030C1004FP500	Vishay/Beyschlag	RES, 1.00 M, 1%, 0.125 W, 0603	0603
R258	1	49.9k	RT0603BRD0749K9L	Yageo America	RES, 49.9 k, 0.1%, 0.1 W, 0603	0603
R259	1	499	RC0603FR-07499RL	Yageo	RES, 499, 1%, 0.1 W, 0603	0603
R261, R271	2	806	CRCW0603806RFKEA	Vishay-Dale	RES, 806, 1%, 0.1 W, 0603	0603
R262	1	510	RC0603FR-07510RL	Yageo	RES, 510, 1%, 0.1 W, 0603	0603
R268, R269, R270, R276, R279, R280, R287, R288, R289, R290, R291, R312, R313, R314, R316, R321	16	75	CRCW060375R0FKEA	Vishay-Dale	RES, 75.0, 1%, 0.1 W, 0603	0603
R272, R283	2	56k	CRCW080556K0JNEA	Vishay-Dale	RES, 56 k, 5%, 0.125 W, 0805	0805
R274, R347, R348, R365, R366	5	10	CRCW080510R0FKEA	Vishay-Dale	RES, 10.0, 1%, 0.125 W, 0805	0805
R277, R278, R284, R285, R286	5	511	CRCW1206511RFKEA	Vishay-Dale	RES, 511, 1%, 0.25 W, 1206	1206
R293	1	20	RC0603FR-0720RL	Yageo	RES, 20.0, 1%, 0.1 W, 0603	0603
R299, R306, R307	3	5.1k	CRCW06035K10JNEA	Vishay-Dale	RES, 5.1 k, 5%, 0.1 W, 0603	0603
R300	1	604k	RC0603FR-07604KL	Yageo	RES, 604 k, 1%, 0.1 W, 0603	0603
R302	1	620k	RC0603FR-07620KL	Yageo	RES, 620 k, 1%, 0.1 W, 0603	0603
R308	1	200	CRM2512-FX-2000ELF	Bourns	RES, 200, 1%, 2 W, 2512	2512
R309	1	20.0k	RC1206FR-0720KL	Yageo America	RES, 20.0 k, 1%, 0.25 W, 1206	1206

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R310, R311, R322, R323	4	18.2k	CRCW060318K2FKEA	Vishay-Dale	RES, 18.2 k, 1%, 0.1 W, 0603	0603
R320	1	523k	CRCW0402523KFKED	Vishay-Dale	RES, 523 k, 1%, 0.063 W, AEC-Q200 Grade 0, 0402	0402
R325	1	82.5k	CRCW060382K5FKEA	Vishay-Dale	RES, 82.5 k, 1%, 0.1 W, 0603	0603
R326	1	10.2k	RC0603FR-0710K2L	Yageo	RES, 10.2 k, 1%, 0.1 W, 0603	0603
R327	1	53.6k	RC0603FR-0753K6L	Yageo	RES, 53.6 k, 1%, 0.1 W, 0603	0603
R328	1	63.4k	CRCW060363K4FKEA	Vishay-Dale	RES, 63.4 k, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
R331, R332, R333, R334, R335, R336, R337, R338, R339, R340, R341, R342, R343, R344, R345, R346, R349, R350, R351, R352, R353, R354, R355, R356, R357, R358, R359, R360, R361, R362, R363, R364	32	200	CRCW2512200RFKEG	Vishay-Dale	RES, 200, 1%, 1 W, AEC-Q200 Grade 0, 2512	2512
RT1, RT3, RT4, RT5, RT6, RT7, RT8, RT9, RT10, RT11, RT12, RT13, RT14, RT15, RT16, RT17, RT18, RT19, RT21, RT22, RT23, RT24, RT25, RT26, RT27, RT28, RT29, RT30, RT31, RT32, RT33, RT34, RT35, RT36, RT37	35		TMP6131DECR	Texas Instruments	Thermistor, DEC0002A (X1SON-2)	DEC0002A
S1	1		RS-032G05A3-SM RT	C&K Components	Switch, Tactile, SPST-NO, 0.05A, 12V, SMD	SPST, 6x3.5mm
S2	1		4.16131E+11	Würth Elektronik	Switch, SPST, Off-On, 2 Pos, SMD	5.6x3.58mm
TP9, TP12, TP25, TP27	4		5009	Keystone Electronics	Test Point, Compact, Yellow, TH	Yellow Compact Testpoint
TP17, TP28	2		5011	Keystone	Test Point, Multipurpose, Black, TH	Black Multipurpose Testpoint
TP24, TP29	2		5010	Keystone	Test Point, Multipurpose, Red, TH	Red Multipurpose Testpoint
U1, U4	2		ISO1042DWR	Texas Instruments	Isolated CAN Transceiver With 70-V Bus Fault Protection and Flexible Data Rate, DW0016B (SOIC-16)	DW0016B

Designator	Quantity	Value	PartNumber	Manufacturer	Description	PackageReference
U2	1		TPD4E001DBVR	Texas Instruments	Low-Capacitance + / - 15-kV ESD Protection Array for High-Speed Data Interfaces, 4 Channels, -40 to +85 degC, 6-pin SOT-23 (DBV), Green (RoHS & no Sb/Br)	DBV0006A
U3, U5	2		ESD2CANFD24DBZR	Texas Instruments	24-V, 2-Channel ESD Protection Diode for In-Vehicle Networks	SOT-23-3
U6	1		ISO1410DWR	Texas Instruments	5-kVRMS Reinforced and Basic Isolated RS-485/RS-422 Transceiver With Robust-EMC, DW0016B (SOIC-16)	DW0016B
U7	1		TPD2E007DCKR	Texas Instruments	ESD Protection Array for AC Signal Data Interface, 2 Channels, -40 to +85 degC, 3-pin SC70 (DCK), Green (RoHS & no Sb/Br)	DCK0003A
U8	1		ISO6731DWR	Texas Instruments		SOIC16
U9	1		ISO1640BDR	Texas Instruments		SOIC8
U10, U11	2		bq76972PFBR	Texas Instruments	Multicell Battery Monitor and Protection Family, PFB0048A (TQFP-48)	PFB0048A
U12, U13, U14, U19, U20, U21	6		SN74LV4052APWR	Texas Instruments	Catalog Dual 4-Channel Analog Multiplexer/Demultiplexer, PW0016A (TSSOP-16)	PW0016A
U15, U17	2		SN74HCS74DR	Texas Instruments	Schmitt-trigger input dual D-type positive-edge-triggered flip-flops w/ clear and preset	D0014A
U16, U18	2		SN74AUC1G86DBVR	Texas Instruments	Single 2-Input Exclusive-OR Gate, DBV0005A (SOT-23-5)	DBV0005A
U22	1		UCC33410	Texas Instruments	1.5W, High-Density, >3 kVRMS Isolated DC-DC Converter	VSON-FCRLF12
U23	1		UCC33421	Texas Instruments	1.5W, High-Density, >5 kVRMS Isolated DC-DC Converter	SSOP16
U24	1		LM5168PDDAR	Texas Instruments	0.3-A, 120-V, Step-Down Converter with Fly-buck Capability	DDA0008E
U25, U26, U27	3		TPS7A2433DBVR	Texas Instruments	200-mA, 18-V, ultra-low-IQ, low-dropout (LDO) voltage regulator with enable 5-SOT-23 -40 to 125	SOT23-5
U28, U29	2		UCC33411	Texas Instruments	1.5W, High-Density, >5 kVRMS Isolated DC-DC Converter	SSOP16
U30	1		TPS62932DRLR	Texas Instruments	3.8-V to 30-V, 2-A Synchronous Buck Converter in SOT583 Package	SOT583
U31	1		MSPM0G3519SPM	Texas Instruments	Mixed-Signal Microcontrollers With CAN-FD Interface LQFP64	LQFP64
U32, U33, U34	3		TPD1E10B06DPYR	Texas Instruments	Single-Channel ESD in 0402 Package With 10pF Capacitance and 6V Breakdown, DPY0002A (X1SON-2)	DPY0002A
Y1	1		X1A0001410014	Epson	Crystal, 32.768 KHz, 12.5 pF, SMD	SMD, 2-Leads, Body 3.2x1.5mm
Y2	1		X1E0000210179	Seiko Epson	Crystal 40MHz ±10ppm (Tol) ±20ppm (Stability) 12pF FUND 40Ohm 4-Pin Mini-CSMD T/R	TSX-3225
C116	1	1uF	18122C105KAT2A	AVX	CAP, CERM, 1 µF, 200 V,+/- 10%, X7R, 1812	1812

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