

**TIDA-01253 REV B Bill of Materials**

Item #	Designator	Quantity	Value	PartNumber	Manufacturer	Description	PackageReference
1	C1, C6, C17, C19, C20, C21, C23, C26	8	0.1uF	C1005X7R1H104K050BB	TDK	CAP, CERM, 0.1 µF, 50 V, +/- 10%, X7R, 0402	0402
2	C2	1	68uF	EEE-FK1V680XP	Panasonic	CAP, AL, 68 µF, 35 V, +/- 20%, 0.34 ohm, AEC-Q200 Grade 2, SMD	SMT Radial D8
3	C3	1	10uF	GRM31CR61H106KA12L	MuRata	CAP, CERM, 10 µF, 50 V, +/- 10%, X5R, 1206	1206
4	C5	1	2.2uF	GRM188R61A225KE34D	MuRata	CAP, CERM, 2.2 µF, 10 V, +/- 10%, X5R, 0603	0603
5	C7	1	0.47uF	GRM188R71E474KA12D	MuRata	CAP, CERM, 0.47 µF, 25 V, +/- 10%, X7R, 0603	0603
6	C8	1	0.027uF	GRM155R61C273KA01D	MuRata	CAP, CERM, 0.027 µF, 16 V, +/- 10%, X5R, 0402	0402
7	C9, C10	2	22uF	C4532X7R1E226M250KC	TDK	CAP, CERM, 22 µF, 25 V, +/- 20%, X7R, 1812	1812
8	C11, C12	2	0.22uF	C1608X7R1H224K080AB	TDK	CAP, CERM, 0.22 µF, 50 V, +/- 10%, X7R, 0603	0603
9	C13, C14, C25	3	10uF	GCM21BR70J106KE22L	MuRata	CAP, CERM, 10 µF, 6.3 V, +/- 10%, X7R, 0805	0805
10	C15, C16	2	100uF	GRM32ER61A107ME20L	MuRata	CAP, CERM, 100 µF, 10 V, +/- 20%, X5R, 1210	1210
11	C18	1	4.7uF	GRM188Z71C475KE21D	MuRata	CAP, CERM, 4.7 µF, 16 V, +/- 10%, X7R, 0603	0603
12	C22, C24	2	10uF	GRM21BR61C106KE15L	MuRata	CAP, CERM, 10 µF, 16 V, +/- 10%, X5R, 0805	0805
13	C27	1	1000pF	GRM155R61H102KA01D	MuRata	CAP, CERM, 1000 pF, 50 V, +/- 10%, X5R, 0402	0402
14	D1	1	30V	1SMB30CAT3G	ON Semiconductor	Diode, TVS, Bi, 30 V, 600 W, SMB	SMB
15	D2	1	16V	SMAJ16CA	Littelfuse	Diode, TVS, Bi, 16 V, 400 W, SMA	SMA
16	J1	1		5-146278-2	TE Connectivity	Header, 100mil, 2x1, Tin, TH	Header, 2x1, 100mil, TH
17	J2	1		ED120/2DS	On-Shore Technology	Terminal Block, 5.08 mm, 2x1, Brass, TH	2x1 5.08 mm Terminal Block
18	J3, J4	2		896-43-004-00-000000	Mill-Max	Connector, Receptacle, USB TYPE A, R/A, Top Mount SMT	USB TYPE A CONNECTOR RECEPTACLE 4POS SMD
19	L1	1	4.7uH	XAL5030-472MEB	Coilcraft	Inductor, Shielded, Composite, 4.7 µH, 5.9 A, 0.04 ohm, SMD	5.3x31.x5.5mm
20	L2	1	10uH	MSS1278-103MLB	Coilcraft	Inductor, Shielded Drum Core, Ferrite, 10 µH, 5.7 A, 0.02 ohm, SMD	MSS1278
21	Q1	1	60V	CSD18563Q5A	Texas Instruments	MOSFET, N-CH, 60 V, 15 A, DQJ0008A (VSONP-8)	DQJ0008A
22	Q2	1	25V	CSD16408Q5C	Texas Instruments	MOSFET, N-CH, 25 V, 113 A, DualCool SON 5x6mm	DualCool SON 5x6mm
23	R1, R4, R6, R7, R17, R19, R22, R26	8	0	CRCW04020000Z0ED	Vishay-Dale	RES, 0, 5%, 0.063 W, 0402	0402
24	R2	1	2.67k	CRCW04022K67FKED	Vishay-Dale	RES, 2.67 k, 1%, 0.063 W, 0402	0402
25	R3	1	5.11k	CRCW04025K11FKED	Vishay-Dale	RES, 5.11 k, 1%, 0.063 W, 0402	0402
26	R5, R10, R11, R12	4	100k	CRCW0402100KJNED	Vishay-Dale	RES, 100 k, 5%, 0.063 W, 0402	0402
27	R9	1	37.4k	CRCW040237K4FKED	Vishay-Dale	RES, 37.4 k, 1%, 0.063 W, 0402	0402
28	R13	1	10.0k	CRCW040210K0FKED	Vishay-Dale	RES, 10.0 k, 1%, 0.063 W, 0402	0402
29	R14	1	2.55k	CRCW04022K55FKED	Vishay-Dale	RES, 2.55 k, 1%, 0.063 W, 0402	0402
30	R15, R16	2	19.1k	CRCW040219K1FKED	Vishay-Dale	RES, 19.1 k, 1%, 0.063 W, 0402	0402
31	R18	1	49.9	CRCW040249R9FKED	Vishay-Dale	RES, 49.9, 1%, 0.063 W, 0402	0402
32	R20	1	21.0k	CRCW040221K0FKED	Vishay-Dale	RES, 21.0 k, 1%, 0.063 W, 0402	0402
33	R21	1	20.0k	CRCW040220K0FKED	Vishay-Dale	RES, 20.0 k, 1%, 0.063 W, 0402	0402
34	R23	1	2.00k	CRCW06032K00FKEA	Vishay-Dale	RES, 2.00 k, 1%, 0.1 W, 0603	0603
35	R24	1	20.5k	CRCW040220K5FKED	Vishay-Dale	RES, 20.5 k, 1%, 0.063 W, 0402	0402
36	TP1, TP2	2		5000	Keystone	Test Point, Miniature, Red, TH	Red Miniature Testpoint
37	TP3	1		5002	Keystone	Test Point, Miniature, White, TH	White Miniature Testpoint
38	TP4	1		5001	Keystone	Test Point, Miniature, Black, TH	Black Miniature Testpoint
39	U1	1		LM74610QDGKRQ1	Texas Instruments	Smart Diode Controller, DGK0008A	DGK0008A
40	U2	1		LMS3655AQRNLRQ1	Texas Instruments	5.5A Synchronous Buck Regulator for Automotive Applications, RNL0022A (VQFN-HR-22)	RNL0022A
41	U3	1		TPS2549001RVCQRQ1	Texas Instruments	Automotive USB Charging Port Controller and Power Switch with Short to BAT protection, RVC0020A	RVC0020A
42	U4	1		TPS2511DGNR	Texas Instruments	USMB Dedicated Charging Port Controller and Current Limiting Power Switch, DGN0008E	DGN0008E
43	U5	1		LM358AD	Texas Instruments	Dual Low Power Op Amp, D0008A	D0008A
44	U6	1		TL431ACDBVRG4A	Texas Instruments	Adjustable Precision Shunt Regulator, 34 ppm / degC, 100 mA, 0 to 70 degC, 5-pin SOT-23 (DBV), Green (RoHS & no Sb/Br)	DBV0005A
45	C4	0	330pF	GRM155R71H331KA01D	MuRata	CAP, CERM, 330 pF, 50 V, +/- 10%, X7R, 0402	0402
46	R8	0	0	CRCW04020000Z0ED	Vishay-Dale	RES, 0, 5%, 0.063 W, 0402	0402
47	R25	0	20	CRCW060320R0JNEA	Vishay-Dale	RES, 20, 5%, 0.1 W, 0603	0603

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