

TIDA-01553 REV B Bill of Materials

Item #	Designator	Quantity	Value	PartNumber	Manufacturer	Description	PackageReference
1	IPC6	1		TIDA-01553	Any	Printed Circuit Board	
2	C1	1	470pF	GCM155R71H471KA37D	MuRata	CAP, CERM, 470 pF, 50 V, +/- 10%, X7R, AEC-Q200 Grade 1, 0402	0402
3	C2	1	10uF	GRM21BZ71E106KE15L	MuRata	CAP, CERM, 10 uF, 25 V, +/- 10%, X7R, 0805	0805
4	C3, Cx2	2	0.47uF	GRM21BR71H474KA88L	MuRata	CAP, CERM, 0.47 uF, 50 V, +/- 10%, X7R, 0805	0805
5	C3a, C3b, C3c, C3d	4	68uF	50SVVPF68M	Panasonic	CAP, Aluminum Polymer, 68 uF, 50 V, +/- 20%, 0.02 ohm, F12, SMD, 2-Leads, Body 10.5x10.5mm, Height 12.7mm SMD	F12, SMD, 2-Leads, Body 10.5x10.5mm, Height 12.7mm
6	C4, C5, C6, C7, C8, C9, C10, C11	8	4.7uF	GRM31CR71H475KA12L	MuRata	CAP, CERM, 4.7 uF, 50 V, +/- 10%, X7R, 1206	1206
7	C12	1	0.22uF	GRM188R71H224KAC4D	MuRata	CAP, CERM, 0.22 uF, 50 V, +/- 10%, X7R, 0603	0603
8	C13, C18	2	100pF	GRM1555C1H101JA01D	MuRata	CAP, CERM, 100 pF, 50 V, +/- 5%, COG/NPO, 0402	0402
9	C14	1	2200pF	GRM155R71E222KA01D	MuRata	CAP, CERM, 2200 pF, 25 V, +/- 10%, X7R, 0402	0402
10	C15	1	0.01uF	GRM155R71E103KA01D	MuRata	CAP, CERM, 0.01 uF, 25 V, +/- 10%, X7R, 0402	0402
11	C16	1	1uF	GRM21BR71H105KA12L	MuRata	CAP, CERM, 1 uF, 50 V, +/- 10%, X7R, 0805	0805
12	C17, C46	2	0.01uF	GRM155R71H103KA88D	MuRata	CAP, CERM, 0.01 uF, 50 V, +/- 10%, X7R, 0402	0402
13	C19, C20, C21, C22, C23, C24, C31, C32, C33, C36, C37, C38	12	10uF	GCM32ER71E106KA57L	MuRata	CAP, CERM, 10 uF, 25 V, +/- 10%, X7R, AEC-Q200 Grade 1, 1210	1210
14	C25, C28, C29, C30, C39, C44, C45	7	0.1uF	GRM155R71H104ME14D	MuRata	CAP, CERM, 0.1 uF, 50 V, +/- 20%, X7R, 0402	0402
15	C26, C27	2	2.2uF	GRM188R71A225KE15D	MuRata	CAP, CERM, 2.2 uF, 10 V, +/- 10%, X7R, 0603	0603
16	C34, C35	2	270uF	APSG160ELL271MH06S	Chem-Con	CAP, Aluminum Polymer, 270 uF, 16 V, +/- 20%, 0.022 ohm, TH	D8xL6mm
17	C40, C41	2	33pF	GRM1555C1H330JA01D	MuRata	CAP, CERM, 33 pF, 50 V, +/- 5%, COG/NPO, 0402	0402
18	C42	1	470pF	GRM155R71H471KA01D	MuRata	CAP, CERM, 470 pF, 50 V, +/- 10%, X7R, 0402	0402
19	C43	1	4700pF	GRM155R71H472KA01D	MuRata	CAP, CERM, 4700 pF, 50 V, +/- 10%, X7R, 0402	0402
20	C47	1	0.022uF	GRM155R71H223KA12D	MuRata	CAP, CERM, 0.022 uF, 50 V, +/- 10%, X7R, 0402	0402
21	C48	1	2.2uF	GRM31CR71H225KA88L	MuRata	CAP, CERM, 2.2 uF, 50 V, +/- 10%, X7R, 1206	1206
22	C49, C50	2	0.1uF	GRM188R71H104KA93D	MuRata	CAP, CERM, 0.1 uF, 50 V, +/- 10%, X7R, 0603	0603
23	C54	1	0.047uF	GRM155R71E473KA88D	MuRata	CAP, CERM, 0.047 uF, 25 V, +/- 10%, X7R, 0402	0402
24	Cx1	1	2000uF	B41605A820M002	TDK	CAP, AL, 2000 uF, 63 V, +/- 20%, 0.035 ohm, AEC-Q200 Grade 1, TH	D22xL40mm
25	D1, D3, D4	3	60V	PMEG6010CEJ.115	NXP Semiconductor	Diode, Schottky, 60 V, 1 A, SOD-323F	SOD-323F
26	D2	1	5.6V	MMSZ4690T1G	ON Semiconductor	Diode, Zener, 5.6 V, 500 mW, SOD-123	SOD-123
27	D5	1	36V	SMAJ36CA	Littelfuse	Diode, TVS, Bi, 36 V, SMA	SMA
28	Dx1	1	100V	PMEG10010ELRX	NXP Semiconductor	Diode, Schottky, 100 V, 1 A, AEC-Q101, SOD-123W	SOD-123W
29	Dx2	1	75V	BAS16W-7-F	Diodes Inc.	Diode, Switching, 75 V, 0.15 A, SOT-323	SOT-323
30	J1, J2	2		CB35-36-CY	Panduit	Terminal 50A Lug	CB35-36-CY
31	J3, J4, J5, J6	4		575-8	Keystone	Standard Banana Jack, Uninsulated, 8.9mm	Keystone575-8
32	J7	1		68001-403HLF	FCI	Header, 2.54mm, 3x1, Tin, TH	Header, 2.54mm, 3x1, TH
33	L1	1	700nH	7443630070	Würth Elektronik	Inductor, Shielded Drum Core, Mn-Zn, 700 nH, 32 A, 0.000829 ohm, SMD	21.8x14.5x21.5mm
34	L2, L3	2	3.3uH	IHLP5050EZER3R3M01	Vishay-Dale	Inductor, Shielded Drum Core, Powdered Iron, 3.3 uH, 15 A, 0.0077 ohm, SMD	IHLP-5050EZ
35	Q1, Q2, Q3, Q4, Q5, Q6, Q8	7	40V	SQJ886EP-T1-GE3	Vishay-Siliconix	MOSFET, N-CH, 40 V, 60 A, PowerPAK_SO-8L	PowerPAK_SO-8L
36	Qx1	1	45 V	BC847BW.115	NXP Semiconductor	Transistor, NPN, 45 V, 0.1 A, AEC-Q101, SOT-323	SOT-323
37	R1	1	10.0	CRCW120610R0FKEA	Vishay-Dale	RES, 10.0, 1%, 0.25 W, 1206	1206
38	R2, R3	2	0.002	ERJM1WTF2M0U	Panasonic	RES, 0.002, 1%, 1 W, 2512	2512
39	R4, R5, R7, R9	4	100	RG1005P-101-B-T5	Susumu Co Ltd	RES, 100, 0.1%, 0.063 W, 0402	0402
40	R6	1	2.49k	CRCW25122K49FKEG	Vishay-Dale	RES, 2.49 k, 1%, 1 W, AEC-Q200 Grade 0, 2512	2512
41	R8, R30, R31	3	49.9	CRCW040249R9FKED	Vishay-Dale	RES, 49.9, 1%, 0.063 W, 0402	0402
42	R10	1	40.2k	CRCW040240K2FKED	Vishay-Dale	RES, 40.2 k, 1%, 0.063 W, 0402	0402
43	R11	1	280k	CRCW0402280KFKED	Vishay-Dale	RES, 280 k, 1%, 0.063 W, 0402	0402
44	R12	1	8.25k	CRCW04028K25FKED	Vishay-Dale	RES, 8.25 k, 1%, 0.063 W, 0402	0402
45	R13, R16, R19, R20, R29, R32, R33, R34, R36, R47, R52, R53	12	0	CRCW0402000Z0ED	Vishay-Dale	RES, 0, 5%, 0.063 W, 0402	0402
46	R14	1	4.75k	CRCW04024K75FKED	Vishay-Dale	RES, 4.75 k, 1%, 0.063 W, 0402	0402
47	R15	1	93.1k	CRCW040293K1FKED	Vishay-Dale	RES, 93.1 k, 1%, 0.063 W, 0402	0402
48	R17	1	48.7k	CRCW040248K7FKED	Vishay-Dale	RES, 48.7 k, 1%, 0.063 W, 0402	0402
49	R18	1	18.7k	CRCW040218K7FKED	Vishay-Dale	RES, 18.7 k, 1%, 0.063 W, 0402	0402
50	R21, R22, R27, R28, R44, R45	6	10.0	CRCW060310R0FKEA	Vishay-Dale	RES, 10.0, 1%, 0.1 W, 0603	0603
51	R23, R24	2	0	CRCW0603000Z0EA	Vishay-Dale	RES, 0, 5%, 0.1 W, 0603	0603
52	R25, R26	2	0.003	PA2512FKF07R003E	Yageo America	RES, 0.003, 1%, 1 W, AEC-Q200 Grade 0, 2512	2512
53	R35, R40, R41	3	10.0k	CRCW040210K0FKED	Vishay-Dale	RES, 10.0 k, 1%, 0.063 W, 0402	0402
54	R43, R46	2	100k	CRCW0805100KFKEA	Vishay-Dale	RES, 100 k, 1%, 0.125 W, 0805	0805
55	R49	1	10k	CRCW040210K0JNED	Vishay-Dale	RES, 10 k, 5%, 0.063 W, 0402	0402
56	R50	1	4.99k	CRCW04024K99FKED	Vishay-Dale	RES, 4.99 k, 1%, 0.063 W, 0402	0402
57	R51	1	2.21k	CRCW04022K21FKED	Vishay-Dale	RES, 2.21 k, 1%, 0.063 W, 0402	0402
58	Rx1	1	10k	CRCW120610K0JNEA	Vishay-Dale	RES, 10 k, 5%, 0.25 W, 1206	1206
59	TP1, TP4, TP9, TP10, TP13	5		5010	Keystone	Test Point, Multipurpose, Red, TH	Red Multipurpose Testpoint
60	TP2, TP3, TP6, TP8	4		5012	Keystone	Test Point, Multipurpose, White, TH	White Multipurpose Testpoint
61	TP5, TP7, TP11, TP12, TP14	5		5011	Keystone	Test Point, Multipurpose, Black, TH	Black Multipurpose Testpoint
62	U1	1		LM25122QPWPTQ1	Texas Instruments	Automotive Grade, 3-42V Wide Vin, Synchronous Boost Controller with Multiphase Capability, PWP0020A (TSSOP-20)	PWP0020A
63	U2	1		LM5140QRWGRQ1	Texas Instruments	Wide Vin Dual 2.2MHz low Iq Synchronous Buck Controller, RWG0040A (VQFN-40)	RWG0040A
64	U3	1		LM74700QDBVTQ1	Texas Instruments	Low Iq Always ON Smart Diode Controller, DBV0006A (SOT-23-6)	DBV0006A
65	C51, C52, C53	0	330pF	GRM188R71H331KA01D	MuRata	CAP, CERM, 330 pF, 50 V, +/- 10%, X7R, 0603	0603
66	C55	0	2.2uF	GRM31CR71H225KA88L	MuRata	CAP, CERM, 2.2 uF, 50 V, +/- 10%, X7R, 1206	1206
67	R37, R38, R39	0	10.0	CRCW120610R0FKEA	Vishay-Dale	RES, 10.0, 1%, 0.25 W, 1206	1206
68	U4	0		LM74610QDGRQ1	Texas Instruments	Zero Iq Reverse Polarity Protection Smart Diode Controller, DGK0008A (VSSOP-8)	DGK0008A

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