

TIDA-01520 REV B Bill of Materials

Item #	Designator	Quantity	Value	PartNumber	Manufacturer	Description	PackageReference
1	IPCBB1	1		TIDA-01520	Any	Printed Circuit Board	
2	C1, C11, C16, C28, C29, C40	6	0.1uF	CGA3E2X7R1H104K080AA	TDK	CAP, CERM, 0.1 uF, 50 V, +/- 10%, X7R, AEC-Q200 Grade 1, 0603	0603
3	C2, C3, C4, C30, C41	5	4.7uF	CGA4J3X5R1H475M125AB	TDK	CAP, CERM, 4.7 uF, 50 V, +/- 20%, X5R, AEC-Q200 Grade 3, 0805	0805
4	C5, C13	2	1000pF	CGA3E2X7R2A102K080AA	TDK	CAP, CERM, 1000 pF, 100 V, +/- 10%, X7R, AEC-Q200 Grade 1, 0603	0603
5	C6, C23, C25, C36, C38	5	0.1uF	CGA3E3X7S2A104K080AB	TDK	CAP, CERM, 0.1 uF, 100 V, +/- 10%, X7S, AEC-Q200 Grade 1, 0603	0603
6	C7, C8, C21, C22, C24, C34, C35, C37	8	2.2uF	CGA5L3X7S2A225K160AB	TDK	CAP, CERM, 2.2 uF, 100 V, +/- 10%, X7S, AEC-Q200 Grade 1, 1206	1206
7	C9	1	680pF	GRM216R71E681KA01D	MuRata	CAP, CERM, 680 pF, 25 V, +/- 10%, X7R, 0805	0805
8	C12	1	4.7uF	GCM21BR71C475KA73L	MuRata	CAP, CERM, 4.7 uF, 16 V, +/- 10%, X7R, AEC-Q200 Grade 1, 0805	0805
9	C14, C17	2	100pF	CGA3E2NP01H101J080AA	TDK	CAP, CERM, 100 pF, 50 V, +/- 5%, COG/NP0, AEC-Q200 Grade 0, 0603	0603
10	C15	1	0.47uF	CGA3E3X7R1H474K080AE	TDK	CAP, CERM, 0.47 uF, 50 V, +/- 10%, X7R, AEC-Q200 Grade 1, 0603	0603
11	C18	1	0.22uF	CGA3E3X8R1E224K080AB	TDK	CAP, CERM, 0.22 uF, 25 V, +/- 10%, X8R, AEC-Q200 Grade 0, 0603	0603
12	C19, C31	2	10uF	GRM188R60J106ME84	MuRata	CAP, CERM, 10 uF, 6.3 V, +/- 20%, X6R, 0603	0603
13	C20, C33	2	1uF	CGA3E1X7R1V105K080AC	TDK	CAP, CERM, 1 uF, 35 V, +/- 10%, X7R, AEC-Q200 Grade 1, 0603	0603
14	C26, C39	2	470pF	GRM1885C1H471JA01D	MuRata	CAP, CERM, 470 pF, 50 V, +/- 5%, COG/NP0, 0603	0603
15	C27, C32	2	0.047uF	CGA3E2X7R1H473K080AA	TDK	CAP, CERM, 0.047 uF, 50 V, +/- 10%, X7R, AEC-Q200 Grade 1, 0603	0603
16	D1, D4	2	60V	PMEG6010CEH,115	Nexperia	Diode, Schottky, 60 V, 1 A, SOD-123F	SOD-123F
17	D2, D5	2	100V	V12P10-M3/86A	Vishay-Semiconductor	Diode, Schottky, 100 V, 12 A, AEC-Q101, TO-277A	TO-277A
18	D3	1	26V	TPSMD26A	Littelfuse	Diode, TVS, Uni, 26 V, 42.1 Vc, AEC-Q101, SMC	SMC
19	D6, D10	2	100V	MMSD4148T1G	ON Semiconductor	Diode, Switching, 100 V, 0.2 A, SOD-123	SOD-123
20	D7, D12	2	100V	PDS3100Q-13	Diodes Inc.	Diode, Schottky, 100 V, 3 A, AEC-Q101, PowerDI5	PowerDI5
21	D8, D11, D13	3	30V	RB520S30,115	Nexperia	Diode, Schottky, 30 V, 0.2 A, SOD-523	SOD-523
22	D9	1	70V	BAS70-05-7-F	Diodes Inc.	Diode, Schottky, 70 V, 0.07 A, SOT-23	SOT-23
23	J1, J2, J3, J4	4		1725656	Phoenix Contact	Terminal Block, 100mil, 2x1, 6A, 63V, TH	6.2x8.5x5.54 mm
24	L1	1	15uH	XAL1010-153MEB	Coilcraft	Inductor, Shielded, Composite, 15 uH, 13.8 A, 0.02 ohm, SMD	Inductor, 11.3x10x10mm
25	L2	1	2.2uH	XAL5030-222MEB	Coilcraft	Inductor, Shielded, Composite, 2.2 uH, 9.2 A, 0.01 ohm, SMD	5.3x31.x5.5mm
26	L3, L4	2	47uH	784771470	Würth Elektronik	Inductor, Wirewound, Ferrite, 47 uH, 2.3 A, 0.064 ohm, AEC-Q200 Grade 1, SMD	SMD, 2-Leads, Body 12x12mm
27	Q1, Q2	2	60V	SQJA60EP	Vishay-Siliconix	MOSFET, N-CH, 60 V, 30 A, AEC-Q101, PowerPAK_SO-8L	PowerPAK_SO-8L
28	R1	1	6.8	CRCW20106R80JNEF	Vishay-Dale	RES, 6.8, 5%, 0.75 W, AEC-Q200 Grade 0, 2010	2010
29	R2	1	0.006	PRL1632-R006-F-T1	Susumu Co Ltd	RES, 0.006, 1%, 1 W, 0612	0612
30	R3	1	0	CRCW1210000Z0EA	Vishay-Dale	RES, 0, 1%, 0.5 W, AEC-Q200 Grade 0, 1210	1210
31	R5	1	100k	CRCW0603100KJNEA	Vishay-Dale	RES, 100 k, 5%, 0.1 W, 0603	0603
32	R6	1	3.3	CRCW06033R30JNEA	Vishay-Dale	RES, 3.3, 5%, 0.1 W, 0603	0603
33	R8, R9, R13	3	1.00k	CRCW06031K00FKEA	Vishay-Dale	RES, 1.00 k, 1%, 0.1 W, 0603	0603
34	R10	1	100k	CRCW0603100FKEA	Vishay-Dale	RES, 100 k, 1%, 0.1 W, 0603	0603
35	R11	1	30	CRCW060330R0JNEA	Vishay-Dale	RES, 30, 5%, 0.1 W, 0603	0603
36	R12, R17, R18	3	0	CRCW0603000Z0EA	Vishay-Dale	RES, 0, 5%, 0.1 W, 0603	0603
37	R14	1	2.74k	CRCW06032K74FKEA	Vishay-Dale	RES, 2.74 k, 1%, 0.1 W, 0603	0603
38	R15	1	22k	CRCW060322K0JNEA	Vishay-Dale	RES, 22 k, 5%, 0.1 W, 0603	0603
39	R19	1	49.9k	CRCW060349K9FKEA	Vishay-Dale	RES, 49.9 k, 1%, 0.1 W, 0603	0603
40	R20	1	27.0k	RC0603FR-0727KL	Yageo America	RES, 27.0 k, 1%, 0.1 W, 0603	0603
41	R21, R34	2	0.22	ERJ-6RQFR22V	Panasonic	RES, 0.22, 1%, 0.125 W, 0805	0805
42	R22, R28, R30, R35	4	10.0k	CRCW060310K0FKEA	Vishay-Dale	RES, 10.0 k, 1%, 0.1 W, 0603	0603
43	R23, R27, R33, R36	4	2.00k	CRCW06032K00FKEA	Vishay-Dale	RES, 2.00 k, 1%, 0.1 W, 0603	0603
44	R24, R37	2	330	CRCW0603330RJNEA	Vishay-Dale	RES, 330, 5%, 0.1 W, 0603	0603
45	R25, R32	2	300k	CRCW0603300KFKEA	Vishay-Dale	RES, 300 k, 1%, 0.1 W, 0603	0603
46	R26	1	18.0k	RC0603FR-0718KL	Yageo America	RES, 18.0 k, 1%, 0.1 W, 0603	0603
47	R29	1	13.3k	CRCW060313K3FKEA	Vishay-Dale	RES, 13.3 k, 1%, 0.1 W, 0603	0603
48	R31	1	22.0k	RC0603FR-0722KL	Yageo America	RES, 22.0 k, 1%, 0.1 W, 0603	0603
49	U1	1		LM5122QMHX/NOPB	Texas Instruments	Wide Input Synchronous Boost Controller with Multiple Phase Capability, PWP0020A	PWP0020A
50	U2, U4	2		TPS92515HVQDQGRQ1	Texas Instruments	2-A, Buck LED Driver with Integrated N-channel FET, High-Side Current Sense, and Shunt FET PWM Dimming Capability, DGQ0010E (VSSOP-10)	DGQ0010E
51	U3	1		OPA348AQDBVRQ1	Texas Instruments	Automotive, 1MHz, 45uA, RRIO Single Operational Amplifier, DBV0005A (SOT-23-5)	DBV0005A
52	C10	0	680pF	GRM2165C2A681JA01D	MuRata	CAP, CERM, 680 pF, 100 V, +/- 5%, COG/NP0, 0805	0805
53	FID1, FID2, FID3	0		N/A	N/A	Fiducial mark. There is nothing to buy or mount.	Fiducial
54	R4	0	10.0	PHP01206E10R0BST5	Vishay-Dale	RES, 10.0, 0.1%, 1 W, 1206	1206
55	R7	0	49.9	CRCW080549R9FKEA	Vishay-Dale	RES, 49.9, 1%, 0.125 W, 0805	0805
56	R16	0	0	CRCW0603000Z0EA	Vishay-Dale	RES, 0, 5%, 0.1 W, 0603	0603
57	TP1, TP2, TP3, TP4, TP5	0		5001	Keystone	Test Point, Miniature, Black, TH	Black Miniature Testpoint

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