

TIDA-020009 REV A Bill of Materials

Item #	Designator	Quantity	Value	PartNumber	Manufacturer	Description	PackageReference
1	PCB1	1		TIDA-020009	Any	Printed Circuit Board	
2	C2, C3	2	100pF	GCM2165C2A101JA16D	MuRata	CAP, CERM, 100 pF, 100 V, +/- 5%, C0G/NP0, AEC-Q200 Grade 1, 0805	0805
3	C4, C7, C14, C16	4	2.2uF	CGA4J3X7R1H225K125AB	TDK	CAP, CERM, 2.2 uF, 50 V, +/- 10%, X7R, AEC-Q200 Grade 1, 0805	0805
4	C5	1	22uF	EEE-FK1H220P	Panasonic	CAP, AL, 22 uF, 50 V, +/- 20%, 0.88 ohm, AEC-Q200 Grade 2, SMD	SMT Radial D
5	C6, C15	2	4.7uF	CGA6P3X7R1H475M250AB	TDK	CAP, CERM, 4.7 uF, 50 V, +/- 20%, X7R, AEC-Q200 Grade 1, 1210	1210
6	C8, C21, C22, C23, C24, C28, C29, C30, C31, C32, C33, C34, C35, C36, C37, C38, C39	17	0.1uF	CGA3E2X7R1H104K080AA	TDK	CAP, CERM, 0.1 uF, 50 V, +/- 10%, X7R, AEC-Q200 Grade 1, 0603	0603
7	C9, C10, C11, C12	4	4.7uF	CGA4J1X7R1E475K125AC	TDK	CAP, CERM, 4.7 uF, 25 V, +/- 10%, X7R, AEC-Q200 Grade 1, 0805	0805
8	C13	1	1uF	CGA3E1X7R1C105K080AC	TDK	CAP, CERM, 1 uF, 16 V, +/- 10%, X7R, AEC-Q200 Grade 1, 0603	0603
9	C17	1	100pF	CGA3E2NP01H101J080AA	TDK	CAP, CERM, 100 pF, 50 V, +/- 5%, C0G/NP0, AEC-Q200 Grade 0, 0603	0603
10	C18	1	0.047uF	CGA3E2X7R1H473K080AA	TDK	CAP, CERM, 0.047 uF, 50 V, +/- 10%, X7R, AEC-Q200 Grade 1, 0603	0603
11	C19	1	4.7pF	06035A4R7CAT2A	AVX	CAP, CERM, 4.7 pF, 50 V, +/- 5%, C0G/NP0, 0603	0603
12	C20	1	0.01uF	GCM188R71H103KA37D	MuRata	CAP, CERM, 0.01 uF, 50 V, +/- 10%, X7R, AEC-Q200 Grade 1, 0603	0603
13	D1, D2, D3, D4	4	60V	PMEG6010CEGWJ	Nexperia	Diode, Schottky, 60 V, 1 A, AEC-Q101, SOD-123	SOD-123
14	D5	1	20V	SM4T23AY	STMicroelectronics	Diode, TVS, Uni, 20 V, 42.8 Vc, AEC-Q101, SMA	SMA
15	D6	1	40V	B340A-13-F	Diodes Inc.	Diode, Schottky, 40 V, 3 A, SMA	SMA
16	D7, D8, D9, D10	4	100V	BAS316,115	Nexperia	Diode, Ultrafast, 100 V, 0.25 A, SOD-323	SOD-323
17	D11, D12, D13, D14, D15, D16, D17, D18, D19, D20, D21, D22, D23, D24, D25, D26, D27, D28, D29, D30	20	Red	LR G6SP-CBEA-1-1-Z	OSRAM	LED, Red, SMD	LED, RED, 3.5x2.1x3.2mm
18	D31, D33, D35, D37, D38	5	Amber	LA G6SP-DAFA-24-1	OSRAM	LED, Amber, SMD	3.3x3mm
19	D32, D34, D36	3	White	LW G6SP-EAFA-JKQL-1-Z	OSRAM	LED, White, SMD	3.3x3mm
20	J1	1		1725698	Phoenix Contact	Terminal Block, 6x1, 2.54mm, TH	Terminal Block, 6x1, 2.54mm, TH
21	J8, J9, J13, J14, J15, J19	6		1725656	Phoenix Contact	Terminal Block, 100mil, 2x1, 6A, 63V, TH	6.2x8.5x5.54 mm
22	J10, J11, J12, J16, J17, J18	6		1725669	Phoenix Contact	Terminal Block, 3x1, 2.54 mm, TH	Terminal Block, 3x1, 2.54 mm, TH
23	L1	1	1uH	VCHA042A-1R0MS6	Cyntec	Inductor, 1 uH, 6.7 A, 0.0105 ohm, AEC-Q200 Grade 0, SMD	4.2x4.0x2.1mm
24	L2, L3	2	10uH	XAL4040-103MEB	Coilcraft	Inductor, Shielded, Composite, 10 uH, 3 A, 0.084 ohm, SMD	4.0x4.1x4.0mm
25	L4	1		ACM4520-421-2P-T000	TDK	Coupled inductor, 2.8 A, 0.055 ohm, SMD	4.7x4.5mm
26	Q1	1	40V	SQS840EN-T1-GE3	Vishay-Siliconix	MOSFET, N-CH, 40 V, 12 A, AEC-Q101, PowerPAK 1212	PowerPAK 1212
27	R1, R2	2	10.0	CRCW120610R0FKFA	Vishay-Dale	RES, 10.0, 1%, 0.25 W, AEC-Q200 Grade 0, 1206	1206
28	R4	1	360k	CRCW0603360KJNEA	Vishay-Dale	RES, 360 k, 5%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
29	R5	1	1.00	CRCW06031R00FKFA	Vishay-Dale	RES, 1.00, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
30	R6, R7, R8, R9	4	4.7k	CRCW06034K70JNEA	Vishay-Dale	RES, 4.7 k, 5%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
31	R10, R32, R33, R40, R41, R42, R43, R52, R53, R54	10	120k	CRCW0603120KJNEA	Vishay-Dale	RES, 120 k, 5%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
32	R12	1	0	CRCW0603000020EA	Vishay-Dale	RES, 0, 5%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
33	R13	1	100	CRCW0603100RJNEA	Vishay-Dale	RES, 100, 5%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
34	R14	1	150k	CRCW0603150KFKEA	Vishay-Dale	RES, 150 k, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
35	R15	1	100k	CRCW0603100KFKEA	Vishay-Dale	RES, 100 k, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
36	R16	1	0.015	WSL0805R0150FEA18	Vishay-Dale	RES, 0.015, 1%, 0.25 W, 0805	0805
37	R17	1	47.0k	CRCW060347K0FKFA	Vishay-Dale	RES, 47.0 k, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
38	R18	1	13.0k	CRCW060313K0FKFA	Vishay-Dale	RES, 13.0 k, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
39	R19, R20, R22, R23	4	10k	CRCW060310K0JNEA	Vishay-Dale	RES, 10 k, 5%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
40	R21	1	3.9k	CRCW06033K90JNEA	Vishay-Dale	RES, 3.9 k, 5%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
41	R30, R31	2	1.96	CRCW06031R96FKFA	Vishay-Dale	RES, 1.96, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
42	R34, R35, R44, R46, R55, R57	6	27k	CRCW060327K0JNEA	Vishay-Dale	RES, 27 k, 5%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
43	R38, R39, R48	3	0.82	ERJ-3RQFR82V	Panasonic	RES, 0.82, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
44	R45, R47, R56	3	30.0k	ERJ-3EKF3002V	Panasonic	RES, 30.0 k, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
45	R50	1	0.47	ERJ-3RQFR47V	Panasonic	RES, 0.47, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
46	U1	1		LM5155QDSSTQ1	Texas Instruments	Automotive Grade 2.2-MHz Wide Input Non-synchronous Boost Controller, DSS0012C (WSON-12)	DSS0012C
47	U3, U4	2		TPS92611QDGNRQ1	Texas Instruments	Automotive Single Channel LED Driver, DGN0008D (VSSOP-8)	DGN0008D
48	U5, U6, U8	3		TPS92610QPWPRQ1	Texas Instruments	Automotive Single-Channel LED Driver, PWP0014E (TSSOP-14)	PWP0014E
49	C1	0	22uF	T495D226K035ATE300	Kemet	CAP, TA, 22 uF, 35 V, +/- 10%, 0.3 ohm, SMD	7343-31
50	FID1, FID2, FID3	0		N/A	N/A	Fiducial mark. There is nothing to buy or mount.	N/A
51	H5	0		BMI-S-209-C	Laird-Signal Integrity Products	Standard Shield Cover, 19.10 x 30.4 mm	Shield Cover
52	H6	0		BMI-S-209-F	Laird-Signal Integrity Products	Standard Surface Mount Shield, Height 7mm	29.36x7.0x18.50mm
53	J2, J3, J4, J5, J6, J7	0		TSW-101-08-G-S	Samtec	Header, 2.54mm, 1x1, Gold, TH	Header, 2.54mm, 1x1, TH

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