

TIDA-01610 REV A Bill of Materials

Designator	Quantity	Value	PartNumber	Manufacturer	Description	PackageReference
I PCB1	1		TIDA-01610	Any	Printed Circuit Board	
C2, C3, C4, C5, C6, C7, C20, C21, C22, C23, C26, C27, C28, C29, C30, C31	16	4.7uF	GRM32ER71K475KE14L	MuRata	CAP, CERM, 4.7 μ F, 80 V, +/- 10%, X7R, 1210	1210
C8, C13, C32, C35	4	0.47uF	CGA3E3X7R1H474K080AE	TDK	CAP, CERM, 0.47 μ F, 50 V, +/- 10%, X7R, AEC-Q200 Grade 1, 0603	0603
C9, C18, C33	3	100pF	GRM1555C1H101JA01D	MuRata	CAP, CERM, 100 pF, 50 V, +/- 5%, C0G/NP0, 0402	0402
C10, C34	2	1uF	GRM188R71E105KA12D	MuRata	CAP, CERM, 1uF, 25V, +/-10%, X7R, 0603	0603
C11, C16, C17	3	0.1uF	GRM155R71H104ME14D	MuRata	CAP, CERM, 0.1 μ F, 50 V, +/- 20%, X7R, 0402	0402
C12	1	0.01uF	GRM155R71H103KA88D	MuRata	CAP, CERM, 0.01 μ F, 50 V, +/- 10%, X7R, 0402	0402
C14, C15	2	0.22uF	GRM155R71C224KA12D	MuRata	CAP, CERM, 0.22 μ F, 16 V, +/- 10%, X7R, 0402	0402
C19	1	0.01uF	GRM155R71C103KA01D	MuRata	CAP, CERM, 0.01 μ F, 16 V, +/- 10%, X7R, 0402	0402
C25	1	68uF	EEH-ZA1H680V	Panasonic	CAP, Aluminum Polymer, 68 μ F, 50 V, +/- 20%, 0.03 ohm, AEC-Q200 Grade 2, D8xL10.2mm SMD	D8xL10.2mm
C36, C37	2	180uF	EEE-FK1H181SP	Panasonic	CAP, AL, 180 μ F, 50 V, +/- 20%, 0.34 ohm, AEC-Q200 Grade 2, SMD	SMT Radial F
D1, D3	2	1.8V	MMSZ4678T1G	ON Semiconductor	Diode, Zener, 1.8 V, 500 mW, SOD-123	SOD-123
D2, D4	2	60V	PMEG6010CEJ,115	Nexperia	Diode, Schottky, 60 V, 1 A, SOD-323F	SOD-323F
H1, H2, H3, H4	4		NY PMS 440 0025 PH	B&F Fastener Supply	Machine Screw, Round, #4-40 x 1/4, Nylon, Philips panhead	Screw
H5, H6, H7, H8	4		1902C	Keystone	Standoff, Hex, 0.5"L #4-40 Nylon	Standoff
J1, J2, J3, J4	4		575-4	Keystone	Standard Banana Jack, Uninsulated, 5.5mm	Keystone_575-4
L1, L4	2	10uH	SER2918H-103KL	Coilcraft	Inductor, Shielded E Core, Ferrite, 10 μ H, 28 A, 0.0026 ohm, SMD	29.7x17.78x27.94mm
L3	1	800nH	XAL7070-801MEB	Coilcraft	Inductor, Shielded, Composite, 800 nH, 25.8 A, 0.00208 ohm, SMD	7.2x7x7.5mm
Q2, Q3, Q4, Q5, Q7, Q8	6	60V	DMT6005LPS-13	Diodes Inc.	MOSFET, N-CH, 60 V, 17.9 A, AEC-Q101, 8-PowerTDFN	8-PowerTDFN
R2, R23	2	0.001	CRE2512-FZ-R001E-3	Bourns	RES, 0.001, 1%, 3 W, AEC-Q200 Grade 0, 2512	2512
R3, R4, R24, R25	4	100	CRCW0402100RFKED	Vishay-Dale	RES, 100, 1%, 0.063 W, 0402	0402
R5, R26	2	6.49k	CRCW04026K49FKED	Vishay-Dale	RES, 6.49 k, 1%, 0.063 W, 0402	0402
R6, R27	2	10.0k	CRCW040210K0FKED	Vishay-Dale	RES, 10.0 k, 1%, 0.063 W, 0402	0402
R7	1	49.9	CRCW040249R9FKED	Vishay-Dale	RES, 49.9, 1%, 0.063 W, 0402	0402
R8, R17, R19, R28, R31, R32	6	0	CRCW04020000Z0ED	Vishay-Dale	RES, 0, 5%, 0.063 W, 0402	0402
R9, R18	2	49.9k	CRCW040249K9FKED	Vishay-Dale	RES, 49.9 k, 1%, 0.063 W, 0402	0402
R10, R29	2	3.3	CRCW06033R30JNEA	Vishay-Dale	RES, 3.3, 5%, 0.1 W, 0603	0603
R11	1	2.87k	CRCW04022K87FKED	Vishay-Dale	RES, 2.87 k, 1%, 0.063 W, 0402	0402
R12, R13	2	1.00k	CRCW04021K00FKED	Vishay-Dale	RES, 1.00 k, 1%, 0.063 W, 0402	0402
R14	1	5.11k	CRCW04025K11FKED	Vishay-Dale	RES, 5.11 k, 1%, 0.063 W, 0402	0402
R15	1	1.96k	CRCW04021K96FKED	Vishay-Dale	RES, 1.96 k, 1%, 0.063 W, 0402	0402
R16, R30	2	174k	CRCW0402174KFKED	Vishay-Dale	RES, 174 k, 1%, 0.063 W, 0402	0402
R20	1	60.4k	CRCW040260K4FKED	Vishay-Dale	RES, 60.4 k, 1%, 0.063 W, 0402	0402
R21	1	9.53k	CRCW04029K53FKED	Vishay-Dale	RES, 9.53 k, 1%, 0.063 W, 0402	0402
Sync, TP1, TP2, TP3, TP6	5	White	5002	Keystone	Test Point, TH, Miniature, White	Keystone5002
TP4, TP5	2	Black	5001	Keystone	Test Point, TH, Miniature, Black	Keystone5001
U1, U2	2		LM25122QPWPTQ1	Texas Instruments	Automotive Grade, 3-42V Wide Vin, Synchronous Boost Controller with Multiphase Capability, PWP0020A (TSSOP-20)	PWP0020A

Designator	Quantity	Value	PartNumber	Manufacturer	Description	PackageReference
Vin1, Vout	2	Red	5000	Keystone	Test Point, TH, Miniature, Red	Keystone5000
C1, C24	0	470pF	GRM2165C2A471JA01D	MuRata	CAP, CERM, 470pF, 100V, +/-5%, C0G/NP0, 0805	0805
L2, L5	0	10uH	IHLP8787MZER100M5A	Vishay-Dale	Inductor, Shielded, 10 uH, 28 A, 0.00404 ohm, AEC-Q200 Grade 0, SMD	22x22.48mm
Q1, Q6	0	60V	DMT6005LPS-13	Diodes Inc.	MOSFET, N-CH, 60 V, 17.9 A, AEC-Q101, 8-PowerTDFN	8-PowerTDFN
R1, R22	0	7.5	ERJ-12ZYJ7R5U	Panasonic	RESISTOR 7.5 OHM 3/4W 5% 2010	2010

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