

TIDA-050031 REV E1 Bill of Materials

Designator	Quantity	Value	PartNumber	Manufacturer	Description	PackageReference
C1, C2, C28, C32	4	22uF	GRM31CR61C226KE15L	MuRata	CAP, CERM, 22 uF, 16 V, +/- 10%, X5R, 1206	1206
C3	1	1uF	GRM188R71E105KA12D	MuRata	CAP, CERM, 1 uF, 25 V, +/- 10%, X7R, 0603	0603
C4, C5, C26, C27	4	22uF	GRM32ER71E226KE15L	MuRata	CAP, CERM, 22 uF, 25 V, +/- 10%, X7R, 1210	1210
C8	1	4700pF	GRM155R61H472KA01D	MuRata	CAP, CERM, 4700 pF, 50 V, +/- 10%, X5R, 0402	0402
C9, C12, C15	3	0.1uF	GRM155R61C104KA88D	MuRata	CAP, CERM, 0.1 uF, 16 V, +/- 10%, X5R, 0402	0402
C10	1	47pF	GRM1555C1H470FA01D	MuRata	CAP, CERM, 47 pF, 50 V, +/- 1%, C0G/NP0, 0402	0402
C11	1	0.047uF	GRM155R71C473KA01D	MuRata	CAP, CERM, 0.047 uF, 16 V, +/- 10%, X7R, 0402	0402
C13	1	1000pF	GRM188R72A102KA01D	MuRata	CAP, CERM, 1000 pF, 100 V, +/- 10%, X7R, 0603	0603
C14, C29	2	4.7uF	0603ZD475KAT2A	AVX	CAP, CERM, 4.7 uF, 10 V, +/- 10%, X5R, 0603	0603
C20	1	68uF	EEHZA1H680P	Panasonic	CAP, Polymer Hybrid, 68 uF, 50 V, +/- 20%, 30 ohm, 8x10 SMD	8x10
C21, C22	2	10uF	CGA5L1X7R1H106K160AC	TDK	CAP, CERM, 10 uF, 50 V, +/- 10%, X7R, AEC-Q200 Grade 1, 1206	1206
C23, C24	2	1uF	C1608X5R1H105K080AB	TDK	CAP, CERM, 1 uF, 50 V, +/- 10%, X5R, 0603	0603
C25	1	0.47uF	C1608X5R1H474K080AB	TDK	CAP, CERM, 0.47 uF, 50 V, +/- 10%, X5R, 0603	0603
C30	1	220uF	EEHZA1E221P	Panasonic	CAP, Polymer Hybrid, 220 uF, 25 V, +/- 20%, 27 ohm, 8x10 SMD	8x10
C31, C33	2	470uF	ECA-0JM471B	Panasonic	CAP, AL, 470 uF, 6.3 V, +/- 20%, TH	D6.3xL11.2mm
D1	1	20V	SL12-E3/61T	Vishay-Semiconductor	Diode, Schottky, 20 V, 1.5 A, SMA	SMA
D2	1	100V	1N4148W-7-F	Diodes Inc.	Diode, Ultrafast, 100 V, 0.15 A, SOD-123	SOD-123
J1	1	Double	1502-2	Keystone	Terminal, Turret, TH, Double	Keystone1502-2
J2, J3, J4, J5, J6, J7	6		1502-2	Keystone	Terminal, Turret, TH, Double	Keystone1502-2
JP1, JP2, JP3	3		PEC03SAAN	Sullins Connector Solutions	Header, 100mil, 3x1, Tin, TH	Header, 3 PIN, 100mil, Tin
L1	1	2.2uH	XAL6030-222MEB	Coilcraft	Inductor, Shielded, Composite, 2.2 uH, 12.7 A, 0.012 ohm, SMD	IND_6.4x3.1x6.6
L2	1	2.2uH	XAL4020-222MEB	Coilcraft	Inductor, Shielded, Composite, 2.2 uH, 5.5 A, 0.04 ohm, SMD	4x2.1x4mm
Q1	1	32 V	2DD1664R-13	Diodes Inc.	Transistor, NPN, 32 V, 1 A, SOT-89	SOT-89
Q2	1	45 V	BC857C-7-F	Diodes Inc.	Transistor, PNP, 45 V, 0.1 A, SOT-23	SOT-23
Q3	1	45 V	BC847CLT1G	ON Semiconductor	Transistor, NPN, 45 V, 0.1 A, SOT-23	SOT-23
Q4	1	50V	BSS138	Fairchild Semiconductor	MOSFET, N-CH, 50 V, 0.22 A, SOT-23	SOT-23
R1	1	280k	CRCW0402280KFKED	Vishay-Dale	RES, 280 k, 1%, 0.063 W, 0402	0402
R2, R13	2	49.9k	CRCW040249K9FKED	Vishay-Dale	RES, 49.9 k, 1%, 0.063 W, 0402	0402
R3	1	392k	CRCW0402392KFKED	Vishay-Dale	RES, 392 k, 1%, 0.063 W, AEC-Q200 Grade 0, 0402	0402
R4, R12, R16	3	0	RC0402JR-070RL	Yageo America	RES, 0, 5%, 0.063 W, 0402	0402
R5, R15, R37	3	17.4k	CRCW040217K4FKED	Vishay-Dale	RES, 17.4 k, 1%, 0.063 W, AEC-Q200 Grade 0, 0402	0402
R6	1	49.9k	CRCW040249K9FKED	Vishay-Dale	RES, 49.9 k, 1%, 0.063 W, AEC-Q200 Grade 0, 0402	0402
R7	1	2.05	CRCW06032R05FKEA	Vishay-Dale	RES, 2.05, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
R9	1	49.9	CRCW040249R9FKED	Vishay-Dale	RES, 49.9, 1%, 0.063 W, AEC-Q200 Grade 0, 0402	0402
R10, R14	2	402k	CRCW0402402KFKED	Vishay-Dale	RES, 402 k, 1%, 0.063 W, 0402	0402
R11	1	133k	CRCW0402133KFKED	Vishay-Dale	RES, 133 k, 1%, 0.063 W, 0402	0402
R27	1	100	CRCW0603100RFKEA	Vishay-Dale	RES, 100, 1%, 0.1 W, 0603	0603
R28	1	33	CRCW120633R0JNEA	Vishay-Dale	RES, 33, 5%, 0.25 W, 1206	1206
R29, R34	2	100k	CRCW0402100KFKED	Vishay-Dale	RES, 100 k, 1%, 0.063 W, 0402	0402
R30	1	40.2k	CRCW040240K2FKED	Vishay-Dale	RES, 40.2 k, 1%, 0.063 W, 0402	0402
R31, R32	2	6.49	RC1206FR-076R49L	Yageo America	RES, 6.49, 1%, 0.25 W, 1206	1206
R33	1	499	CRCW0603499RFKEA	Vishay-Dale	RES, 499, 1%, 0.1 W, 0603	0603

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R35	1	165k	CRCW0402165KFKED	Vishay-Dale	RES, 165 k, 1%, 0.063 W, 0402	0402
R36, R39	2	499k	CRCW0402499KFKED	Vishay-Dale	RES, 499 k, 1%, 0.063 W, 0402	0402
R38, R40	2	1.00k	CRCW04021K00FKED	Vishay-Dale	RES, 1.00 k, 1%, 0.063 W, 0402	0402
TP1, TP2, TP3, TP4, TP5, TP6, TP7, TP8	8	Orange	5003	Keystone	Test Point, Miniature, Orange, TH	Orange Miniature Testpoint
U1	1		TPS61088QRHLRQ1	Texas Instruments	10-A Fully-Integrated Synchronous Boost Converter, RHL0020A (VQFN-20)	RHL0020A
U2	1		LMR33630AQRNXRQ1	Texas Instruments	Automotive 3.8-V to 36-V 3-A Synchronous Step-Down Voltage Regulator, RNX0012B (VQFN-HR-12)	RNX0012B
U3	1		ATL431AIDBZR	Texas Instruments	2.5V Low Iq Adjustable Precision Shunt Regulator, DBZ0003A (SOT-23-3)	DBZ0003A
U4	1		TPS7A2501DRVR	Texas Instruments	300-mA, 18-V, Low IQ, Low Dropout Voltage Regulator with Power Good, DRV0006A (WSON-6)	DRV0006A

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