

## TIDA-050021-BOM

Designator	Quantity	Value	PartNumber	Manufacturer	Description	PackageReference
C1, C2	2	22uF	GRM31CR61C226KE15L	MuRata	CAP, CERM, 22 µF, 16 V,+/- 10%, X5R, 1206	1206
C3, C16	2	1uF	GRM188R71E105KA12D	MuRata	CAP, CERM, 1 µF, 25 V, +/- 10%, X7R, 0603	0603
C4, C5, C6, C7	4	22uF	GRM32ER71E226KE15L	MuRata	CAP, CERM, 22 µF, 25 V,+/- 10%, X7R, 1210	1210
C8	1	0.01uF	CGA2B3X7R1H103K050BB	TDK	CAP, CERM, 0.01 µF, 50 V,+/- 10%, X7R, AEC-Q200 Grade 1, 0402	0402
C9, C15	2	0.1uF	GRM155R61C104KA88D	MuRata	CAP, CERM, 0.1uF, 16V, +/-10%, X5R, 0402	0402
C10	1	47pF	GRM1555C1H470FA01D	MuRata	CAP, CERM, 47 pF, 50 V, +/- 1%, C0G, 0402	0402
C11	1	0.047uF	GRM155R71C473KA01D	MuRata	CAP, CERM, 0.047 µF, 16 V, +/- 10%, X7R, 0402	0402
C12	1	4700pF	GRM155R61H472KA01D	MuRata	CAP, CERM, 4700 pF, 50 V, +/- 10%, X5R, 0402	0402
C14	1	4.7uF	0603ZD475KAT2A	AVX	CAP, CERM, 4.7uF, 10V, +/-10%, X5R, 0603	0603
C17	1	0.1uF	GRM188R61E104KA01D	MuRata	CAP, CERM, 0.1 µF, 25 V,+/- 10%, X5R, 0603	0603
C18	1	0.1uF	GRM155R61A104KA01D	MuRata	CAP, CERM, 0.1 µF, 10 V,+/- 10%, X5R, 0402	0402
Csup	1	25000000uF	HV1625-2R7256-R	Eaton	CAP, Electric Double Layer, 25000000 µF, 2.7 V,+30/-10%, 0.027 ohm, TH	Dia 16mm
D1	1	30V	BAT54C-7-F	Diodes Inc.	Diode, Schottky, 30 V, 0.2 A, SOT-23	SOT-23
D2	1	75V	1N4148WT	Fairchild Semiconductor	Diode, Switching, 75 V, 0.3 A, SMD, 2-Leads, Body 1.2x0.8mm	SMD, 2-Leads, Body 1.2x0.8mm
Dbias	1	10V	MBRA210LT3G	ON Semiconductor	Diode, Schottky, 10 V, 2 A, SMA	SMA
J1, J2, J3, J4, J5, J6	6	Double	1502-2	Keystone	Terminal, Turret, TH, Double	Keystone1502-2
JP3, JP4	2		PEC03SAAN	Sullins Connector Solutions	Header, 100mil, 3x1, Tin, TH	Header, 3 PIN, 100mil, Tin
L1	1	1uH	XAL6030-102MEB	Coilcraft	Inductor, Shielded, Composite, 1 µH, 21.5 A, 0.01 ohm, SMD	IND_6.4x3.1x6.6
Q1	1	40 V	NSS40301MZ4T1G	ON Semiconductor	Transistor, NPN, 40 V, 3 A, SOT-223	SOT-223
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
R0	1	49.9	CRCW040249R9FKED	Vishay-Dale	RES, 49.9 ohm, 1%, 0.063W, 0402	0402
R1	1	56.2k	CRCW040256K2FKED	Vishay-Dale	RES, 56.2 k, 1%, 0.063 W, 0402	0402
R2	1	121k	CRCW0402121KFKED	Vishay-Dale	RES, 121 k, 1%, 0.063 W, 0402	0402
R3	1	255k	CRCW0402255KFKED	Vishay-Dale	RES, 255 k, 1%, 0.063 W, 0402	0402
R4, R22	2	10.0	MCR01MZPF10R0	Rohm	RES, 10.0, 1%, 0.063 W, 0402	0402
R5	1	4.99k	CRCW04024K99FKED	Vishay-Dale	RES, 4.99 k, 1%, 0.063 W, 0402	0402
R6	1	90.9k	CRCW040290K9FKED	Vishay-Dale	RES, 90.9 k, 1%, 0.063 W, 0402	0402
R7	1	6.04k	CRCW04026K04FKED	Vishay-Dale	RES, 6.04 k, 1%, 0.063 W, 0402	0402
R8, R21, R23	3	100k	CRCW0402100KFKED	Vishay-Dale	RES, 100 k, 1%, 0.063 W, 0402	0402
R9	1	20.0	CRCW120620R0FKEAHP	Vishay-Dale	RES, 20.0, 1%, 0.5 W, AEC-Q200 Grade 0, 1206	1206
R10	1	330	ERJ-2RKF3300X	Panasonic	RES, 330, 1%, 0.1 W, AEC-Q200 Grade 0, 0402	0402
R11, R12, R13, R14, R15, R16, R17, R18	8	3.6	CRCW12063R60JNEA	Vishay-Dale	RES, 3.6, 5%, 0.25 W, 1206	1206
R19	1	1.00k	CRCW04021K00FKED	Vishay-Dale	RES, 1.00 k, 1%, 0.063 W, 0402	0402
R20	1	150k	ERJ-2RKF1503X	Panasonic	RES, 150 k, 1%, 0.1 W, AEC-Q200 Grade 0, 0402	0402
R24	1	133k	CRCW0402133KFKED	Vishay-Dale	RES, 133 k, 1%, 0.063 W, 0402	0402
R25	1	221k	CRCW0402221KFKED	Vishay-Dale	RES, 221 k, 1%, 0.063 W, 0402	0402
R26	1	10.0k	CRCW040210K0FKED	Vishay-Dale	RES, 10.0 k, 1%, 0.063 W, 0402	0402

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R27	1	100	CRCW0402100RFKED	Vishay-Dale	RES, 100, 1%, 0.063 W, 0402	0402
Rjump	1	0	CRCW20100000Z0EF	Vishay-Dale	RES, 0, 5%, 0.75 W, AEC-Q200 Grade 0, 2010	2010
TP1, TP2, TP3, TP4	4	Orange	5003	Keystone	Test Point, Miniature, Orange, TH	Orange Miniature Testpoint
U1	1		TPS61088QRHLTQ1	Texas Instruments	10-A Fully-Integrated Synchronous Boost Converter, RHL0020A (VQFN-20)	RHL0020A
U2, U3	2		ATL431AIDBZR	Texas Instruments	2.5V Low Iq Adjustable Precision Shunt Regulator, DBZ0003A (SOT-23-3)	DBZ0003A
U4	1		LMV331IDBV	Texas Instruments	Single General Purpose Low-Voltage Comparator, DBV0005A	DBV0005A
C0	0	100uF	T495X107K016ATE100	Kemet	CAP, TA, 100 $\mu$ F, 16 V, +/- 10%, 0.1 ohm, SMD	7343-43

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