

Variant: 001
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TIDA-050071 REV A Bill of Materials

Item #	Designator	Quantity	Value	PartNumber	Manufacturer	Description	PackageReference
1	PCB1	1		TIDA-050071	Any	Printed Circuit Board	
2	C1, C3, C7, C8	4	0.1uF	CGA3E3X7S2A104K080AB	TDK	CAP, CERM, 0.1 uF, 100 V, +/- 10%, X7S, AEC-Q200 Grade 1, 0603	0603
3	C2	1	0.022uF	GCM155R71E223KA55D	MuRata	CAP, CERM, 0.022 uF, 25 V, +/- 10%, X7R, AEC-Q200 Grade 1, 0402	0402
4	C4, C18, C20, C22, C23, C27, C28	7	4.7uF	C0805C475J8RACAUTO	Kemet	CAP, CERM, 4.7 uF, 10 V, +/- 5%, X7R, AEC-Q200 Grade 1, 0805	0805
5	C5	1	0.01uF	CGA2B3X7S2A103K050BB	TDK	CAP, CERM, 0.01 uF, 100 V, +/- 10%, X7S, AEC-Q200 Grade 1, 0402	0402
6	C6	1	3300pF	CGA2B3X7S2A332K050BB	TDK	CAP, CERM, 3300 pF, 100 V, +/- 10%, X7S, AEC-Q200 Grade 1, 0402	0402
7	C9	1	0.47uF	GCM188R71C474KA55D	MuRata	CAP, CERM, 0.47 uF, 16 V, +/- 10%, X7R, AEC-Q200 Grade 1, 0603	0603
8	C10	1	2.2uF	CGA5L3X7S2A225K160AB	TDK	CAP, CERM, 2.2 uF, 100 V, +/- 10%, X7S, AEC-Q200 Grade 1, 1206	1206
9	C11, C12	2	10uF	CGA9N3X7S2A106K230KE	TDK	CAP, CERM, 10 uF, 100 V, +/- 10%, X7S, AEC-Q200 Grade 1, 2220	2220
10	C13	1	1uF	08051C105K4Z2A	AVX	CAP, CERM, 1 uF, 100 V, +/- 10%, X7R, AEC-Q200 Grade 1, 0805	0805
11	C14, C15, C16, C17, C26	5	22uF	GCM31CR71A226KE02L	MuRata	CAP, CERM, 22 uF, 10 V, +/- 10%, X7R, AEC-Q200 Grade 1, 1206	1206
12	C19, C21, C24, C29, C30	5	2.2uF	GRT155C71A225KE13	MuRata	CAP, CERM, 2.2 uF, 10 V, +/- 10%, X7S, AEC-Q200 Grade 1, 0402	0402
13	C25	1	0.1uF	C0402C104K8RACAUTO	Kemet	CAP, CERM, 0.1 uF, 10 V, +/- 10%, X7R, AEC-Q200 Grade 1, 0402	0402
14	C31, C32, C33	3	100uF	LMK325ABJ107MMHT	Taiyo Yuden	CAP, CERM, 100 uF, 10 V, +/- 20%, X5R, AEC-Q200 Grade 3, 1210	1210
15	FB1	1		FBMH3225HM102NT	Taiyo Yuden	1 kOhms @ 100 MHz 1 Power Line Ferrite Bead 1210 (3225 Metric) 2A 100mOhm	1210
16	H1, H2, H3, H4	4		SJ-5303 (CLEAR)	3M	Bumpon, Hemisphere, 0.44 X 0.20, Clear	Transparent Bumpon
17	J1, J6	2		22284030	Molex	Header, 2.54mm, 3x1, Tin, TH	Header, 2.54mm, 3x1, Tin, TH
18	J2	1		CT3151SP-2	Cal Test Electronics	Banana Jack Insul Nylon Red, R/A, TH	CTE CT3151SP-2
19	J3, J7	2		TSW-102-08-G-S	Samtec	Header, 2.54mm, 2x1, Gold, TH	Header, 2.54mm, 2x1, TH
20	J4	1		CT3151SP-0	Cal Test Electronics	Banana Jack Insul Nylon Black, R/A, TH	CTE CT3151SP-0
21	J5	1		FTSH-105-01-F-DV-K	Samtec	Header (Shrouded), 1.27mm, 5x2, Gold, SMT	Header(Shrouded), 1.27mm, 5x2, SMT
22	J8	1		800-10-010-10-001000	Mill-Max	Header, 100mil, 10x1, TH	Header, 10x1, 100mil, TH
23	L1	1	2.2uH	SRR1050A-2R2Y	Bourns	Inductor, Shielded, Ferrite, 2.2 uH, 7.2 A, 0.009 ohm, AEC-Q200 Grade 1, SMD	10.2x10.0x5.1mm
24	L2, L3, L4	3				Surface Mount Power Inductor, AEC-Q200 SRP4020TA Series, 15 H, 20%, Shielded, 0.374 ohm, 1.5 A	
25	Q1, Q2	2		TQM050NB06CR RLG	Taiwan Semiconductor	MOSFET N-Channel 60 V 16A (Ta), 104A (Tc) 3.1W (Ta), 136W (Tc) Surface Mount, Wettable Flank 8-PDFNU (5x6)	PDFN56U
26	R1	1	2.05k	CRCW04022K05FKED	Vishay-Dale	RES, 2.05 k, 1%, 0.063 W, AEC-Q200 Grade 0, 0402	0402
27	R2	1	20.5k	CRCW040220K5FKED	Vishay-Dale	RES, 20.5 k, 1%, 0.063 W, AEC-Q200 Grade 0, 0402	0402
28	R3	1	100k	CRCW0402100KDHPD	Vishay-Dale	RES, 100 k, 0.5%, 0.063 W, AEC-Q200 Grade 0, 0402	0402
29	R4	1	28.0k	CRCW040228K0FKED	Vishay-Dale	RES, 28.0 k, 1%, 0.063 W, AEC-Q200 Grade 0, 0402	0402
30	R5	1	120k	CRCW0402120KFKED	Vishay-Dale	RES, 120 k, 1%, 0.063 W, AEC-Q200 Grade 0, 0402	0402
31	R6	1	2m	CSS0603FT2L00	Stackpole Electronics	Chip Resistor 2 mOhms ±1% 0.33W 0603 (1608 Metric) Automotive AEC-Q200	0603 (1608 Metric)
32	R7, R8	2	49.9	ERJ-2RKF49R9X	Panasonic	RES, 49.9, 1%, 0.1 W, AEC-Q200 Grade 0, 0402	0402
33	R9, R11, R12, R13, R14, R15, R16, R17	8	10.0k	RMCF0402FT10K0	Stackpole Electronics Inc	RES, 10.0 k, 1%, 0.063 W, AEC-Q200 Grade 0, 0402	0402
34	R10	1	100	MCS0402MD1000BE100	Vishay/Beyschlag	RES, 100, 0.1%, 0.1 W, AEC-Q200 Grade 0, 0402	0402
35	R18	1	10.0k	ERJPA2F1002X	Panasonic	RES, 10.0 k, 1%, 0.2 W, AEC-Q200 Grade 0, 0402	0402
36	R19, R20	2	4.99k	CRCW04024K99FKED	Vishay-Dale	RES, 4.99 k, 1%, 0.063 W, AEC-Q200 Grade 0, 0402	0402
37	S1	1		PTS645SM43SMTR92 LFS	C&K Components	Switch, SPST-NO, Off-Mom, 0.05 A, 12 VDC, SMD	6x6mm
38	U1	1		TPS7B4255QDBVRQ1	Texas Instruments	Automotive, 70-mA, 40-V, Voltage-Tracking LDO With 5-mV Tracking Tolerance, SOT23-5	SOT23-5
39	U2	1		P_LM749XX	Texas Instruments	Ideal Diode with Circuit Breaker, Under and Over Voltage Protection with Fault Output	VQFN24
40	U3	1		MSPM0L1306SRHB	Texas Instruments	MSPM0L130x Mixed-Signal Microcontrollers	VQFN32
41	U4	1		LMQ66430MC3RBRQ1	Texas Instruments	3 V-36 V, 3-A Synchronous Buck Converter Optimized for Ultra Low EMI and Light Load Efficiency	WQFN-FCRLF14
42	U5	1		TPS51200AQDRCRQ1	Texas Instruments	Sink and Source DDR Termination Regulator, DRC0010J (VSON-10)	DRC0010J
43	U6	1		TPS6521901RHBR	Texas Instruments	Integrated Power Management IC for ARM Cortex—A53 Processors and FPGAs, VQFN32	VQFN32
44	U7, U8	2		TPS22995HQDDCRQ1	Texas Instruments	5V, 25mΩ, 3A Load Switch with Adjustable Rise Time and Humidity Resistance	SOT6
45	FID1, FID2, FID3	0		N/A	N/A	Fiducial mark. There is nothing to buy or mount.	N/A

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