

# Bill of Materials

TIDA-00620

Item	Qty	Reference	Value	Part Description	Manufacturer	Manufacturer Part Number	PCB Footprint
1	1	!PCB		Printed Circuit Board	Any	TIDA-00620	
2	1	C1	0.1uF	CAP, CERM, 0.1uF, 10V, +/-10%, X7R, 0603	Kemet	C0603C104K8RACTU	0603
3	1	C2	4.7uF	CAP, CERM, 4.7uF, 10V, +/-20%, X7R, 0805	TDK	C2012X7R1A475M	0805
4	1	C3	1000pF	CAP, CERM, 1000pF, 16V, +/-10%, X7R, 0603	MuRata	GRM188R71C102KA01D	0603
5	3	C4, C10, C12	0.1uF	CAP, CERM, 0.1 μF, 50 V, +/-10%, X7R, 1206	MuRata	GRM319R71H104KA01D	1206
6	1	C5	10uF	CAP, CERM, 10 μF, 50 V, +/-10%, X7R, 1210	MuRata	GRM32ER71H106KA12L	1210
7	2	C6, C7	1uF	CAP, CERM, 1 μF, 6.3 V, +/- 10%, X5R, 0603	MuRata	GRM188R60J105KA01D	0603
8	1	C8	1uF	CAP, CERM, 1 μF, 16 V, +/- 10%, X7R, 1206	MuRata	GRM319R71C105KAA3D	1206
9	1	C9	0.1uF	CAP, CERM, 0.1 μF, 16 V, +/-10%, X7R, 0402	MuRata	GRM155R71C104KA88D	0402
10	2	C11, C13	470uF	CAP, AL, 470 μF, 35 V, +/- 20%, 0.03 ohm, TH	Panasonic	EEU-FR1V471LB	RCAP, 8x20mm
11	1	C14	1000pF	CAP, CERM, 1000pF, 16V, +/-10%, X7R, 0402	MuRata	GRM155R71C102KA01D	0402
12	1	C15	0.01uF	CAP, CERM, 0.01 μF, 6.3 V, +/-10%, X7R, 0603	MuRata	GRM188R70J103KA01D	0603
13	1	C16	0.47uF	CAP, CERM, 0.47 μF, 10 V, +/-10%, X5R, 0402	MuRata	GRM155R61A474KE15D	0402

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14	1	C17	0.1uF	CAP, CERM, 0.1 $\mu$ F, 16 V, +/- 10%, X7R, 0402	MuRata	GCM155R71C104KA55D	0402
15	1	D1	Red	LED, Red, SMD	Lite-On	LTST-C170KRKT	LED_0805
16	1	D2	Green	LED, Green, SMD	Lite-On	LTST-C171GKT	LED_0805
17	1	D3	3.3V	Diode, Zener, 3.3 V, 300 mW, SOD-523	Diodes Inc.	BZT52C3V3T-7	SOD-523
18	1	D4	100V	Diode, Switching, 100 V, 0.2 A, SOT-23	ON Semiconductor	MMBD7000LT1G	SOT-23
19	1	F1		Fuse, 30 A, 72 V, SMD	Littelfuse	0456030.ER	10.1x3.12mm
20	3	FID1, FID2, FID3		Fiducial mark. There is nothing to buy or mount.	N/A	N/A	Fiducial
21	1	J1		SOCKET .050" GRID SIP 4 POS R/A, TH	Mill-Max	851-43-004-20-001000	R/A 4x1 receptacle
22	2	J2, J3		Terminal Block, 5 mm, 2x1, Tin, TH	Wurth Elektronik	691 101 710 002	Terminal Block, 5 mm, 2x1, TH
23	4	Q1, Q2, Q3, Q4	60V	MOSFET, N-CH, 60 V, 28 A, SON 5x6mm	Texas Instruments	CSD18540Q5B	SON 5x6mm
24	11	R1, R2, R3, R4, R5, R6, R7, R12, R13, R14, R15	0	RES, 0, 5%, 0.063 W, 0402	Vishay-Dale	CRCW04020000Z0ED	0402
25	1	R8	47k	RES, 47k ohm, 5%, 0.1W, 0603	Vishay-Dale	CRCW060347K0JNEA	0603
26	1	R9	0	RES, 0 ohm, 5%, 0.1W, 0603	Vishay-Dale	CRCW06030000Z0EA	0603
27	2	R10, R11	10.0k	RES, 10.0 k, 1%, 0.1 W, 0402	Panasonic	ERJ-2RKF1002X	0402
28	1	R16	0.005	RES, 0.005, 1%, 6 W, 4320_WIDE	Susumu Co Ltd	KRL11050-C-R005-F-T1	4320_WIDE
29	2	R17, R18	330	RES, 330, 1%, 0.1 W, 0603	Yageo America	RC0603FR-07330RL	0603
30	2	R21, R22	200k	Trimmer, 200 K, 0.5 W, TH	Bourns	3352P-1-204LF	Thumbwheel Trimmer
31	1	R23	13.3k	RES, 13.3 k, 1%, 0.063 W, 0402	Vishay-Dale	CRCW040213K3FKED	0402
32	1	R24	1.0k	RES, 1.0 k, 5%, 0.063 W, 0402	Vishay-Dale	CRCW04021K00JNED	0402
33	1	R25	1.00k	RES, 1.00 k, 1%, 0.063 W, 0402	Vishay-Dale	CRCW04021K00FKED	0402

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34	1	S1		Switch, SPDT, On-On, 2 Pos, TH	E-Switch	200USP1T1A1M2RE	Switch, 7x4.5mm
35	1	U1		16 MHz Mixed Signal Microcontroller with 16 KB Flash, 512 B SRAM and 24 GPIOs, -40 to 85 degC, 20-pin SOP (PW), Green (RoHS & no Sb/Br)	Texas Instruments	MSP430G2553IPW20	PW0020A
36	1	U2		H-Bridge Gate Driver, RGE0024F	Texas Instruments	DRV8701ERGER	RGE0024F
37	1	U3		Analog Temperature Sensors with Class-AB Output, DCK0005A	Texas Instruments	LMT86DCKT	DCK0005A
38	0	R19	68k	RES, 68 k, 5%, 0.063 W, 0402	Vishay-Dale	CRCW040268K0JNED	0402
39	0	R20	0	RES, 0, 5%, 0.063 W, 0402	Vishay-Dale	CRCW04020000Z0ED	0402
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