

# Bill of Materials

TI DESIGNS

TIDA-00475

Item	Qty	Reference	Value	Part Description	Manufacturer	Manufacturer Part Number	Alternate Part	PCB Footprint	Note
1	1	!PCB1		Printed Circuit Board	Any	TIDA-00475			
2	1	C1	1uF	CAP, CERM, 1 µF, 100 V, +/- 10%, X7R, 1206	MuRata	GRM31CR72A105KA01L		1206	
3	2	C2, C8	4.7uF	CAP, CERM, 4.7 µF, 6.3 V, +/- 20%, X5R, 0402	Würth Elektronik	885012105008		0402	
4	1	C3	1000pF	CAP, CERM, 1000 pF, 50 V, +/- 10%, X7R, 0402	Würth Elektronik	885012205061		0402	
5	2	C4, C7	2200pF	CAP, CERM, 2200 pF, 10 V, +/- 10%, X7R, 0402	Würth Elektronik	885012205008		0402	
6	2	C5, C6	10pF	CAP, CERM, 10 pF, 50 V, +/- 5%, C0G/NP0, 0402	MuRata	GRM1555C1H100JA01D		0402	
7	1	C9	0.1uF	CAP, CERM, 0.1 µF, 6.3 V, +/- 20%, X5R, 0402	Würth Elektronik	885012105001		0402	
8	1	D1	Red	LED, Red, SMD	Würth Elektronik	150060RS75000		LED_0603	
9	1	D2	60V	Diode, Schottky, 60V, 1A, SMA	ON Semiconductor	MBRA160T3G		SMA	
10	1	D3	18V	Diode, Zener, 18 V, 500 mW, SOD-123	Diodes Inc.	MMSZ5248B-7-F		SOD-123	
11	1	D4	75V	Diode, TVS, Uni, 75V, 1500W, SMC	Fairchild Semiconductor	SMCJ75A		SMC	
12	1	D8	Green	LED, Green, SMD	Würth Elektronik	150060GS75000		LED_0603	
13	3	H1, H2, H3		Machine Screw, Round, #4-40 x 1/4, Nylon, Philips panhead	B&F Fastener Supply	NY PMS 440 0025 PH		Screw	
14	3	H4, H5, H6		Standoff, Hex, 0.5"L #4-40 Nylon	Keystone	1902C		Standoff	
15	1	J1		Terminal Block, 2-pole, 200mil, TH	On-Shore Technology	OSTTC022162		THD, 2-Leads, Body 10.16x7.6mm, Pitch 5.08mm	
16	1	J2		Header, 2.54 mm, 2x1, Gold, TH	Würth Elektronik	61300211121		Header, 2.54mm, 2x1, TH	
17	3	J3, J4, J7		Header, 2.54 mm, 3x1, Gold, TH	Würth Elektronik	61300311121		Header, 2.54mm, 3x1, TH	
18	1	J5		Header, 2.54mm, 3x2, Gold, TH	Würth Elektronik	61300621121		Header, 2.54mm, 3x2, TH	
19	1	J6		Header, 2.54 mm, 4x1, Gold, TH	Würth Elektronik	61300411121		Header, 2.54mm, 4x1, TH	
20	1	Q1	-60V	MOSFET, P-CH, -60 V, -0.185 A, SOT-23	Vishay-Siliconix	TP0610K-T1-GE3		SOT-23	

Item	Qty	Reference	Value	Part Description	Manufacturer	Manufacturer Part Number	Alternate Part	PCB Footprint	Note
21	1	Q2	60V	MOSFET, N-CH, 60 V, 0.26 A, SOT-23	ON Semiconductor	2N7002ET1G		SOT-23	
22	2	R1, R19	1.0k	RES, 1.0 k, 5%, 0.063 W, 0402	Vishay-Dale	CRCW04021K00JNED		0402	
23	2	R2, R12	0	RES, 0, 5%, 0.063 W, 0402	Vishay-Dale	CRCW04020000Z0ED		0402	
24	1	R3	10k	RES, 10 k, 5%, 0.063 W, 0402	Vishay-Dale	CRCW040210K0JNED		0402	
25	31	R4, R10, R11, R14, R16, R20, R21, R22, R23, R24, R25, R26, R27, R28, R29, R30, R31, R32, R33, R34, R35, R36, R37, R38, R39, R40, R41, R42, R43, R44, R45	100	RES, 100, 5%, 0.063 W, 0402	Vishay-Dale	CRCW0402100RJNED		0402	
26	3	R5, R7, R15	100k	RES, 100 k, 5%, 0.063 W, 0402	Vishay-Dale	CRCW0402100KJNED		0402	
27	1	R6	10Meg	RES, 10 M, 5%, 0.063 W, 0402	Vishay-Dale	CRCW040210M0JNED		0402	
28	1	R8	130k	RES, 130 k, 1%, 0.063 W, 0402	Vishay-Dale	CRCW0402130KFKED		0402	
29	1	R9	10k	RES, 10 k, 5%, 0.1 W, 0603	Vishay-Dale	CRCW060310K0JNEA		0603	
30	2	R13, R18	10.0k	RES, 10.0 k, 1%, 0.063 W, 0402	Vishay-Dale	CRCW040210K0FKED		0402	
31	1	U1		Ultralow Power, Supply Voltage Supervisor, DBZ0003A	Texas Instruments	TPS3839G33DBZR		DBZ0003A	
32	1	U2		Single Output LDO, 100 mA, Fixed 3.3 V Output, 3 to 60 V Input, with Enable and Power Good, 8-pin MSOP (DGN), -40 to 125 degC, Green (RoHS & no Sb/Br)	Texas Instruments	TPS7A1633DGNR		DGN0008C	
33	1	U3		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	
34	0	D5, D6, D7, D9, D10, D11, D12, D13, D14, D15, D16, D17, D18, D19, D20, D21	3.9V	Diode, Zener, 3.9 V, 200 mW, SOD-323	Diodes Inc.	MMSZ5228BS-7-F		SOD-323	
35	0	FID1, FID2, FID3		Fiducial mark. There is nothing to buy or mount.	N/A	N/A		Fiducial	
36	0	R17	10k	RES, 10 k, 5%, 0.063 W, 0402	Vishay-Dale	CRCW040210K0JNED		0402	

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