

Name	Value/Part	Description	Source	Quant.1	Cost2	Total
PCB		Printed Circuit Board	SUNSTONE Circuits	1	TBD	
CN1	38720-6303	Barrier strip 3 circ. .375	DK WM5740-ND	1	2.02	2.02
CN2	38720-6306	Barrier strip 6 circ. .375	DK WM5746-ND	1	3.27	3.27
CN3,8	3-641216-4	Conn header 4pos .100 30AU	DK A30796-ND	2	1.35	2.70
CN4	1734354-2	Conn D-sub rcpt R/A 9pos gold	DK A35108-ND	1	2.33	2.33
CN5	XG4C-1434	Conn plug 14pos 3A R/A DIP	DK OR985-ND	1	1.04	1.04
CN6, 7	3-641216-2	Conn header 2pos .100 30AU	DK A30794-ND	2	0.73	1.46
CN9	3-641216-3	Conn header 3pos .100 30AU	DK A30795-ND	1	1.02	1.02
CN10,11	5747845-5	Conn D-sub rcpt R/A 15pos gold	DK A32122-ND	2	4.70	9.40
CN12	TD-120-6A	Conn header .100 40pos AU	DK SAM1113-20-ND	0.125	9.67	1.21
P1	PTN78000WAH	DC-to-DC converter (24V to 12V)	DK 296-20506-ND	1	13.50	13.50
U1	PIC32MX795F512L	Microcontroller (Microchip)	DK PIC32MX795F512L-80I/PT-ND	1	9.41	9.41
U2	CB3LV-3C-8M0000	8 MHz oscillator	DK CTX264LVCT-ND	1	1.29	1.29
U3, 8	REF5030	low-noise, precision, volt. ref. (3V)	DK 296-22205-5-ND	2	4.16	8.32
U4	LM1117MPX-3.3V	voltage regulator (3.3V)	DK LM1117MPX-3.3/NOPBCT-ND	1	1.10	1.10
U5	uA7805	voltage regulator (5V)	DK 296-20796-1-ND	1	0.86	0.86
U6	SP3232EB	RS-232 transceiver	DK 1016-1798-1-ND	1	1.13	1.13
U7,14	PLVA650A	avalanche regulator diode (5V)	DK 568-6471-1-ND	2	0.45	0.90
U9,12	MCP6001	operational amplifier	DK MCP6001T-E/OTCT-ND	2	0.35	0.70
U10	74LVC1G06	open-collector single inverter	DK 296-8483-1-ND	1	0.21	0.21
U11	SP3485	RS-485 transceiver	DK 1016-1817-1-ND	1	2.40	2.40
U13	TC1410N	non-inverting MOSFET driver	DK TC1410NEOA-ND	1	1.14	1.14
U15	LM3525	power switch	DK LM3525MX-H/NOPBCT-ND	1	1.45	1.45
U16	TC74	digital thermal sensor	DK TC74A0-3.3VCTCT-ND	1	0.87	0.87
U17	SST25VF064C	64 Mbit flash memory	DK SST25VF064C-80-4I-S3AE-ND	1	4.57	4.57
Q1,2	MJD31C	general purpose NPN transistor	DK MJD31C-13DICT-ND	2	0.57	1.14
D1	LH R974-LP-1	SMD 0805 red LED	DK 475-1415-1-ND	1	0.08	0.08
D2	STTH102A	flyback diode	DK 497-2500-1-ND	1	0.38	0.38
K1	G5LE-14 DC24	Omron 24V power relay	DK Z1013-ND	1	1.28	1.28
B1	SEN-10955	MMA8452Q 3-axis accelerometer	SF SEN-10955	1	8.96	8.96
C1	1uF	tantalum 16V 10% 1206	DK 399-3678-1-ND	1	0.34	0.34
C2,3,10,11	1uF	tantalum 35V 10% 1411 ESR 1.7	DK 399-4975-1-ND	4	1.54	6.16

C4	10uF	tantalum 16V 10% 1411 ESR 0.8	DK 399-3830-ND	1	1.11	1.11
C8	10uF	tantalum 16V 10% 1411	DK 399-10138-ND	1	0.42	0.42
C5	4.7uF	tantalum 50V 10% 2917	DK 399-3792-1-ND	1	1.21	1.21
C6,7	100uF	tantalum 20V 20% 2917 ESR 0.05	DK 478-3638-1-ND	2	8.27	16.54
C12	100uF	tantalum 10V 10% 2917	DK 399-3769-1-ND	1	1.08	1.08
C9	47uF	tantalum 10V 10% 1411	DK 399-9728-1-ND	1	0.53	0.53
Cx	0.1uF	SMD 0805 decoupling capacitor	DK 399-7367-2-ND	30	0.01	0.30
R1	?	SMD 0805 1/8W resistor 5%		1	0.08	0.08
R2,21,23,26,32,33	10K	SMD 0805 1/8W resistor 5%	DK 541-10KACT-ND	6	0.08	0.48
R3	100	SMD 0805 1/8W resistor 5%	DK 541-100ACT-ND	1	0.08	0.08
R4	1	SMD 1210 1/2W resistor 5%	DK P1.0VCT-ND	1	0.33	0.33
R5	680	SMD 0805 1/8W resistor 1%	DK 541-680CCT-ND	1	0.09	0.09
R6	150	SMD 0805 1/8W resistor 5%	DK 541-150ACT-ND	1	0.08	0.08
R7,11	470	SMD 0805 1/8W resistor 5%	DK 541-470ACT-ND	2	0.08	0.16
R8,10,12,15,16	1K	SMD 0805 1/8W resistor 5%	DK 541-1.0KACT-ND	5	0.08	0.40
R9,13	1.8K	SMD 0805 1/8W resistor 5%	DK 541-1.8KACT-ND	2	0.08	0.16
R14	300K	SMD 0805 1/8W resistor 1%	DK 541-300KCCT-ND	1	0.09	0.09
R17	220	SMD 0805 1/8W resistor 5%	DK 541-220ACT-ND	1	0.08	0.08
R18	?	SMD 0805 1/8W resistor 5%		1	0.08	0.08
R19	3.0K	SMD 0805 1/8W resistor 1%	DK 541-3.00KCCT-ND	1	0.09	0.09
R20	1.0K	SMD 0805 1/8W resistor 1%	DK 541-1.00KCCT-ND	1	0.09	0.09
R22,27	10	SMD 0805 1/8W resistor 5%	DK 541-10ACT-ND	2	0.08	0.16
R24	3K	SMD 0805 1/8W resistor 5%	DK 541-3.0KACT-ND	1	0.08	0.08
R25	3.9K	SMD 0805 1/8W resistor 5%	DK 541-3.9KACT-ND	1	0.08	0.08
R28,29	2.4K	SMD 0805 1/8W resistor 5%	DK 541-2.4KACT-ND	2	0.08	0.16
R30,31	3.3K	SMD 0805 1/8W resistor 5%	DK 541-3.3KACT-ND	2	0.08	0.16

¹ Quantity specified as number of components required per board

114.76

² Cost specified as per component when purchased in lots of 10 or greater

DK prefix (in column D) - refers to Digikey (www.digikey.com)

SF prefix (in column D) - refers to Sparkfun (www.sparkfun.com)