

Bill Of Materials

Design Title	1PhUlcossi sch
Author	
Document Number	
Revision	
Design Created	1
Design Last Modified	1
Total Parts In Design	82

0 Modules

Quantity	References	Value	Stock Code	Description
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Sub-totals:

14 Capacitors

Quantity	References	Value	Stock Code	Description
8	C1,C3,C5-C7,C9-C10,C13	0.47u	Farnell 2320881	SMD Multilayer Ceramic Capacitor, 1206
1	C2	680u	Farnell 2346594	Electrolytic Capacitor, Miniature, 680 µF, 35 V, Radial Leaded, 10mm
3	C4,C11,C15	47u	Farnell 2508125	Electrolytic Capacitor, Low ESR, 47 µF, 25 V,
1	C8	10u	Farnell 2508125	Electrolytic Capacitor, Low ESR, 47 µF, 25 V,
1	C12	220u	Farnell 2841916	Electrolytic Capacitor, 220 µF, 25 V, PW Series, ± 20%, Radial Leaded, 8 mm

Sub-totals:

28 Resistors

Quantity	References	Value	Stock Code	Description
1	R1	100K	Farnell 1900114	Through Hole Resistor, 100 kohm, ROX Series, 3 W, ± 5%, Axial Leaded, 350 V
1	R2	1K	Farnell 1083251	Through Hole Resistor, 1 kohm, R Series, 250 mW, ± 0.1%
4	R3,R9,R12,R19	12K	Farnell 9341234	METAL FILM RESISTOR, 12KOHM, 250mW, 1%
1	R4	33K	Farnell 2328532	Trimmer Potentiometer, 30 kohm, 1 Turns, Through Hole
1	R5	1K	Farnell 1083251	Through Hole Resistor, 1 kohm, R Series, 250 mW, ± 0.1%
2	R6,R16	10K	Farnell 2434183	Through Hole Resistor, 10 kohm 250mW, ± 5%
2	R7,R20	12K	Farnell 9341234	Through Hole Resistor, 12 kohm, MF25 Series, 250 mW, ± 1%, Axial Leaded, 250 V
2	R8,R15	24K	Farnell	Through Hole Resistor, 24 kohm, MF25 Series, 250 mW, ± 1%
1	R10	680R	Farnell 1127004	METAL FILM RESISTOR, 680 OHM, 250mW, 1%
2	R11,R14	1K	Farnell 1083251	Through Hole Resistor, 1 kohm, R Series, 250 mW, ± 0.1%
3	R13,R17-R18	10k	Farnell 9355030	Trimmer Potentiometer, 10 kohm, 1 Turns, Through Hole
1	R25	10K	Farnell 9339060	Through Hole Resistor, 10 kohm 250mW, ± 5%
1	R26	33K	Farnell 1128023	CARBON FILM RESISTOR, 33KOHM, 250mW, 5%
2	R27-R28	6K8	Farnell 1129161	CARBON FILM RESISTOR, 6.8KOHM, 250mW 5%

3	R29-R31	1K	Farnell 1083251	Through Hole Resistor, 1 kohm 250mW, ± 5%
1	R32	47K	Farnell	Through Hole Resistor, 47 kohm 250mW, ± 5%

Sub-totals:

8 Integrated Circuits

Quantity	References	Value	Stock Code	Description
1	U1	7805		5V Fixed 1A Positive Power Supply Regulator.
1	U2	IA0512S	Farnell 8727503	Isolated Board Mount DC/DC Converter, 2 Output, 1 W, 12 V, 42 mA, -12 V, 42 mA
2	U3-U4	LM193	Farnell 2294230	Analogue Comparator, Dual, Differential, 2 Comparators, 300 ns, 2V to 36V, DIP, 8 Pins
1	U5	PC817A	Farnell 1244544	Optocoupler, Transistor Output, 1 Channel, DIP, 4 Pins, 50 mA
1	U6	ACS755XCB-050	Farnell 1791392	Fully Integrated, Hall Effect-Based Linear Current Sensor with High Voltage Isolation and a Low-Resistance Current Conductor.
1	U7	LM6132A		Dual Low Power 10 MHz Rail-to-Rail I/O Operational Amplifier
1	U8	ATMEGA8		8 KBytes Flash, 1088 Bytes SRAM, 512 Bytes EEPROM, ADC, Analog Comparator, TWI, SPI, 3 Ports, 3 Timers, 1 USART

Sub-totals:

2 Transistors

Quantity	References	Value	Stock Code	Description
1	Q1	BC337	Farnell 2453779	Silicon NPN Low Power High Frequency Bipolar Transistor (625mW, 150°C)
1	Q2	2N5193	Farnell 4719815	BIPOLAR TRANSISTOR, PNP, -40V 1A

Sub-totals:

19 Diodes

Quantity	References	Value	Stock Code	Description
3	D1-D3	1N4007	Farnell 9549129	Si; 1.00kV 1.00A 3.00us
9	D4-D6,D8-D10,D12-D14	1N4148	Farnell 9843680	Small Signal Diode, Single, 100 V, 200 mA, 1 V
3	D7,D11,D15	BAT54S	Farnell 2677691	Small Signal Schottky Diode, Dual Series, 30 V, 200 mA, 1 V, 600 mA,
1	D16	1N4007		Si; 1.00kV 1.00A 3.00us
3	D17-D19	LED-RED		Animated LED model (Red)

Sub-totals:

11 Miscellaneous

Quantity	References	Value	Stock Code	Description
1	BOX1	MC001144	Farnell 2544975	Plastic Enclosure, DIN Rail, ABS, Polycarbonate, 90.2 mm, 106.25 mm, 57.5 mm
1	BUZ1	ABT-414-RC	Farnell 2098836	Transducer, 3 V to 8 V, 85 dB, Sounder, 40 mA
1	J1	TBLOCK-M3		Metric pitch terminal block
1	LCD1	MC21605C6W-SPR-V2	Farnell 2675590	16x2 Alphanumeric LCD
1	RL1	5V	Farnell 2311438	Relay, Power, SPDT, 5 VDC, 10 A
1	RV1	12K	Farnell 9355030	Trimmer Potentiometer, 10 kohm, 1 Turns, Through Hole
2	RV2-RV3	10k	Farnell 9355030	Trimmer Potentiometer, 10 kohm, 1 Turns, Through Hole
2	SW1-SW2	MC8MSLP1B06VS2QES	Farnell 2008743	Pushbutton Switch, On-On, SPDT, 250 V, 28 V, 3 A, Solde

1	TR1	TRAN-2P2S	Farnell 1689075	Isolation Transformer, EI 38 x 13.6, 3.2 VA, 12V, 267 mA, 1 x 230V, PCB MOUNTED
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Sub-totals:

Totals: