

## Rev. 3.2



## Bill of Material

Qty	Designator	Description
1	R1	330R 1/4W Resistor
7	R2,R3,R4,R5,R6,R7,R8	1k 1/4W Resistor
1	R9	100R 1/4W Resistor
6	R10,R11,R12,R13,R14,R19	22k 1/4W Resistor
1	R15	560R 1/4W Resistor
1	R16	10M 1/4W Resistor
1	R17	10k 1/4W Resistor
1	R18	2k2 1/4W Resistor
2	R20,R22	2k7 1/4W Resistor
1	R21	100k 1/4W Resistor
4	D1,D2,D3,D4	1N4004 Diode
1	IC10	14 Pin Dual Wipe IC Socket
2	IC2,IC3	16 Pin Dual Wipe IC Socket
4	IC1,IC4,IC8,IC9	20 Pin Dual Wipe IC Socket
2	IC6,IC7	28 Pin Dual Wipe IC Socket
1	IC5	40 Pin Dual Wipe IC Socket
2	C1,C15	1uF 0.1" / 2.54mm
2	C2,C5	10uF 25V
1	C3	1000uF 25V / 35 V
7	C4,C6,C7,C8,C9,C10,C16	100nF 50V
1	C11	3u3F 63V
2	C12,C13	33pF Monolithic Ceramic 100V
1	C14	100pF Monolithic Ceramic 100V
6	LD1,LD2,LD3,LD4,LD5,LD6	0.56" 7 Segment LED Display, Common Cathode
7	T1,T2,T3,T4,T5,T6,T7	NPN Transistor TO-92 General Purpose
1	CN1	Straight Box Header, 16 Way 2 x 8 Rows
1	CN2	Power Jack for Barrel Connector O.D. 5.5 / I.D. 2.1 mm
1	CN3	Straight Box Header 40 Way 2 x 20 Rows
1	CN4	6 Way 0.1" / 2.54mm Pin Header
1	CN5	2 Way Screw Terminal Block
1	CN6	2 Way 0.1" / 2.54mm Pin Header
1	SW1	3 Way 0.1" / 2.54mm Pin Header + Shunt

Continued

# Southern Cross Computer Rev. 3.2

## Bill of Material Continued

Qty	Designator	Description
21	S1,S2,S3,S4,S5,S6,S7,S8,S9, S10,S11,S12,S13,S14,S15,S16, S17,S18,S19,S20,S21	Pushbuttons, Tactile Switch OMRON B3F 6mm or C&K Momentary Keyswitch D6 5mm
2	SIL1,SIL2	4 x 100R Isolated Resistor Network 8 Pin SIL (Single In Line) or 4 x 100R 1/4W Resistor mounted upright
1	LED1	3mm Red LED
1	P1	20k Trimpot
1	B1	Mini Magnetic Transducer 0.25" 6.35mm
1	VR1	LM7805CT 5V Fixed Voltage Regulator TO-220
1	XTL1	4MHz Crystal HC49 / HC49U
1	HS1	TO-220 Heatsink M3x10 Machine Screw Zn, M3 Hex Nut Zn, M3 split washer.
2	IC1,IC4	74HC273 Octal D Flip-Flops with Clear
2	IC2,IC3	74HC138 3-to-8 Line Decoder
1	IC5	Z80 CPU
1	IC6	27C64 8k x 8 EPROM or AT28C64A EEPROM
1	IC7	6264 8k x 8 SRAM
1	IC8	74HC244 Octal TRI_STATE Buffer
1	IC9	MM74C923N 20 Key Keyboard Encoder *Note3
1	IC10	74HCU04 Hex Inverter

### NOTES:

- Designators Increment from the top left to right, top to bottom of the PCB.  
(apart from the additional resistors added to this version R20, R21, R22 which are located near CN4)
- Voltage Regulator VR1 is loaded on the top of the PCB above C4.
- The MM74C923 is obsolete and no longer manufactured, however they can still be found on Ebay.  
Alternatively you can use the software scanned keyboard built into the monitor and not use a MM74C923 at all. There is a modification procedure for the board in the docs folder.