

EXPANSION CONNECTOR

A11 21
 A12 22
 A13 23
 A14 24
 A15 25
 CLK 26
 D4 27
 D3 28
 D5 29
 D6 30
 VCC 31
 D2 32
 D7 33
 D0 34
 D1 35
 nINT 36
 nNMI 37
 nHALT 38
 nMREQ 39
 nIORQ 40

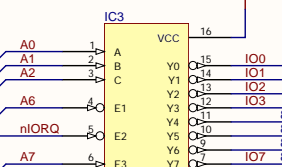
CN3
40 WAY IDC

10 A0
 11 A1
 12 A2
 13 A3
 14 A4
 15 A5
 16 A6
 17 A7
 18 A8
 19 A9
 20 A10
 21 A11
 22 A12
 23 A13
 24 A14
 25 A15

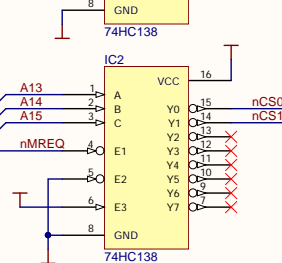
34 D0
 35 D1
 32 D2
 28 D3
 27 D4
 29 D5
 30 D6
 33 D7

5 nBUSREQ
 3 nBUSACK
 38 nHALT
 4 nWAIT
 8 nRFSH
 37 nNMI
 36 nINT
 1 nRD
 2 nWR
 39 nMREQ
 40 nIORQ
 7 nM1
 26 CLK
 6 nRESET

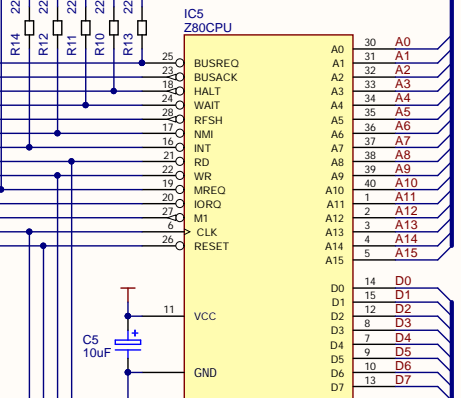
I/O ADDRESS DECODER



MEMORY ADDRESS DECODER



MICROPROCESSOR



ADDRESS BUS

A[0..15]

DATA BUS

D[0..7]

EPROM

27C64

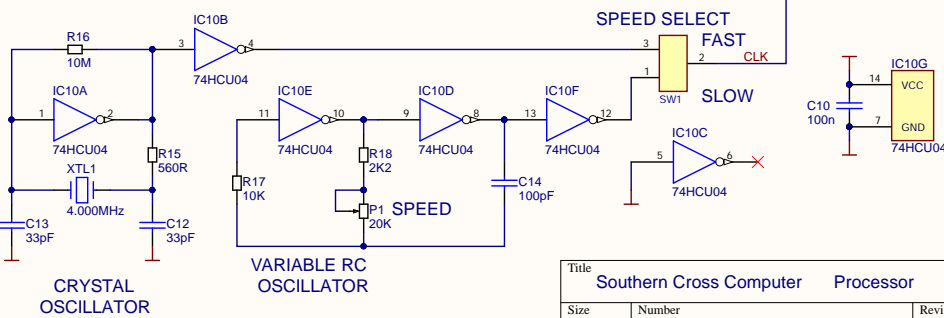
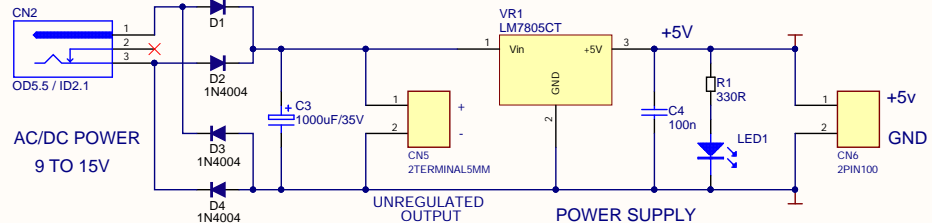
SRAM

6264

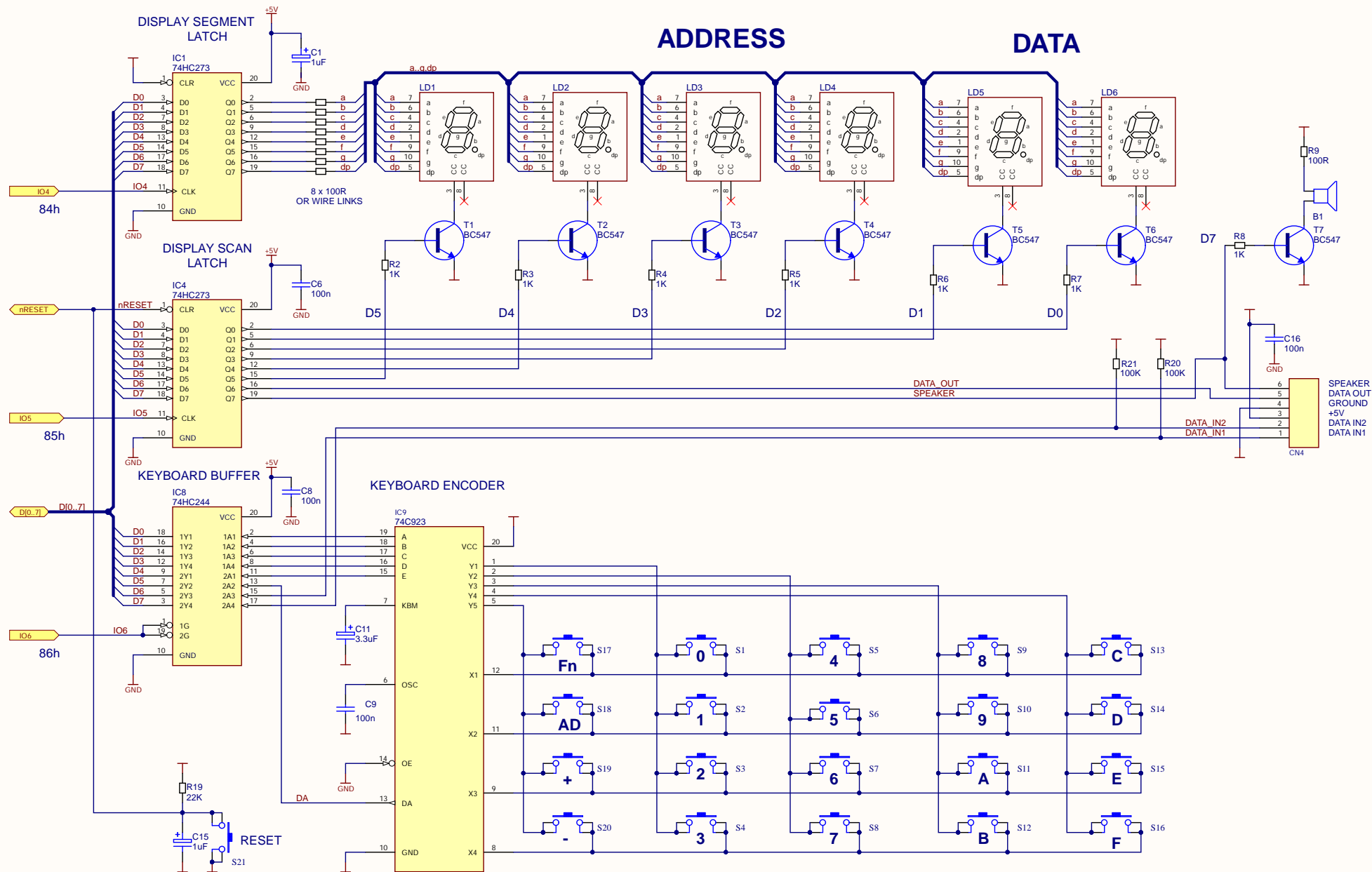
I/O CONNECTOR

D0 9
 D1 10
 D2 11
 D3 12
 GND 13
 IO3 (83H) 14
 IO1 (81H) 15
 nRESET 16

8 D7
 7 D6
 6 D5
 5 D4
 4 GND
 3 IO2 (82H)
 2 IO0 (80H)
 1 VCC



Title		
Southern Cross Computer Processor		
Size	Number	Revision
A3		3.0
Date:	15/03/2021	Sheet 1 of 2
File:	D:\SC_30\SC_Processor03.SchDoc	Drawn By: CRSJ





Southern Cross Computer Version 3.0 Component Overlay

Southern Cross Computer Version 3.0 Bill of Materials

Designator	Comment	Quantity
B1	MINI SPEAKER 6.35mm (0.25") pitch	1
C1, C15	1uF Electrolytic Capacitor	2
C2, C5	10uF Electrolytic Capacitor	2
C3	1000uF/35V Electrolytic Capacitor	1
C4, C6, C7, C8, C9, C10, C16	100n Monolithic Ceramic Capacitor	7
C11	3.3uF Electrolytic Capacitor	1
C12, C13	33pF Ceramic Capacitor	2
C14	100pF Ceramic Capacitor	1
CN1	16 WAY IDC Straight or R/A	1
CN2	OD5.5 / ID2.1 POWER JACK	1
CN3	40 WAY IDC Straight or R/A	1
CN4	SIL6 6 Way Connector 2.54mm (0.1") pitch	1
CN5	2 TERMINAL 5MM Terminal Block	1
CN6	2PIN100 2 way connector 2.54mm (0.1") pitch	1
D1, D2, D3, D4	1N4004 Diode	4
IC1, IC4	74HC273	2
IC2, IC3	74HC138	2
IC5	Z80CPU	1
IC6	27C64 8k x 8 CMOS EPROM	1
IC7	6264 8k x 8 SRAM	1
IC8	74HC244	1
IC9	74C923	1
IC10	74HCU04	1
LD1, LD2, LD3, LD4, LD5, LD6	FND500/560 or CM1-5615S 7 Segment LED	6
LED1	5mm RED LED	1
P1	20K Trimpot	1
R1	330R	1
R2, R3, R4, R5, R6, R7, R8	1K	7
R9	100R	1
R10, R11, R12, R13, R14, R19	22K	6
R15	560R	1
R16	10M	1
R17	10K	1
R18	2K2	1
R20, R21	100K	2
S1, S2, S3, S4, S5, S6, S7, S8, S9, S10, S11, S12, S13, S14, S15, S16, S17, S18, S19, S20, S21	PUSHBUTTON	21
SIL1, SIL2	4 INDIVIDUAL RESISTORS 100R	2
SW1	SPDT SWITCH 2.54mm (0.1") pitch	1
T1, T2, T3, T4, T5, T6, T7	BC547	7
VR1	LM7805CT	1
XTL1	4.000MHz	1
HS1	TO-220 Heatsink	1