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Disc Controler Logic

File: beta128_disk_controler.kicad_sch

Memory Paging Logic

File: beta128_memory_circuit.kicad_sch

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Based on Rev 5 (Beta 128)

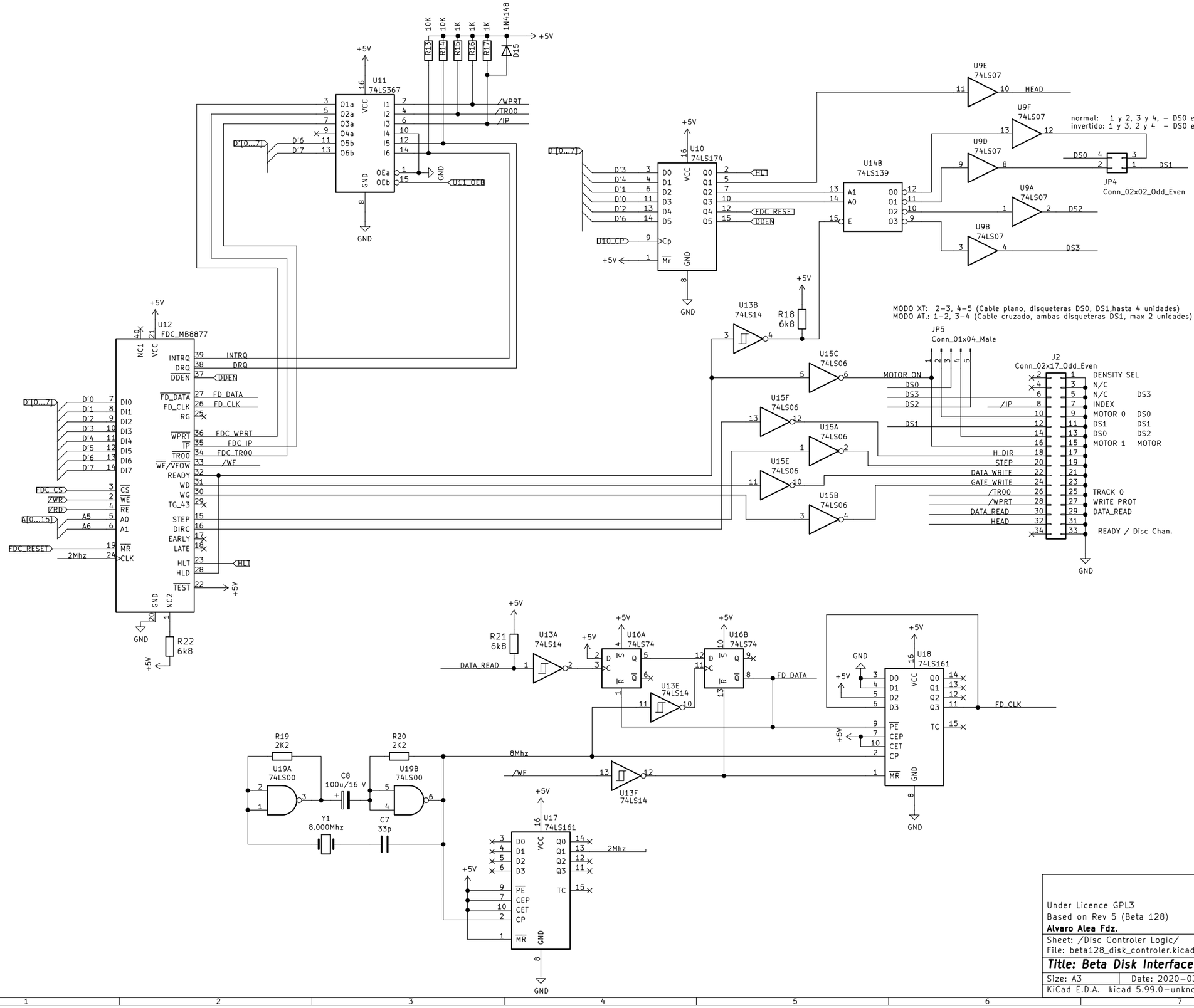
Alvaro Alea Fdz.

Sheet: /

File: beta128_r0.3.kicad_sch

Title: Beta Disk Interface

Size: A3	Date: 2020-03-13	**Rev: 0.3**
KiCad E.D.A. kicad 5.99.0-unknown-bc0fc0b88ubuntu20.04.1		Id: 1/3



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Sheet: /Disc Controler Logic/
File: beta128_disk_controler.kicad_sch

Title: Beta Disk Interface

Size: A3	Date: 2020-03-13	**Rev: 0.3**
KiCad E.D.A. kicad 5.99.0-unknown-bc0fc0b88ubuntu20.04.1		Id: 2/3

J1
ZX_Spectrum_Connector_GENERIC_SORTED
12VAC_-12Vcc
+12Vcc
9V_N/C
+5Vcc
-5VCC_N/C
GND
GND
GND
N/C_RESET
RESET
INT
NMI
CLOCK
HALT
RD
WR
MREQ
BUSRQ
IOREQ
WAIT
M1
RFSH
IORQGE
BUSACK
ROMCS-N/C
N/C-ROM1_OE
VIDEO-ROM2_OE
Y-DISK_RD
V-DISK_WR
U-MOTOR_ON
/RESET
/NMI
/RD
/WR
/MREQ
/IORQ
/M1
/ROMCS
A[0...15]
D[0...7]
+9V
plus3_5V
U3
W27C512
VCC
GND
/OE/Vpp
/CE
ROM_A14
ROM_A15
ROM_CE
JP2
D'7
D'0
D'1
D'2
D'3
D'4
D'5
D'6
U2
74LS245
DIR
A->B
CE
SW1
SW_DIP_x02
R1
10K
R2
10K
+5V
GND
U4
GAL22V10
/IORQ
/WR
/RD
BETA_ON
A0
A1
A7
A9
A14
A15
/ROM_CE
DIR
/P123
/P0
FDC_CS
U10_CP
U11_OEB
/A9
IO_WR1
/ROM_CE = /(BETA_ON + A14 + A15) (no usa + /RD)
ROM_CE = BETA_ON+ A14 + A15 (no usa + /RD)
DIR = /RD + ROM_CE + BETA_ON + /IORQ
noP123 = /(A14+A15)
noP0 = A14 + A15
FDC_CS = /(A0 + A1) + BETA_ON + /IOREQ + /A7
U10_CP = /(A0 + A1) + BETA_ON + /IOREQ + A7 + /RD
U11_OEB = /(A0 + A1) + BETA_ON + /IOREQ + A7 + /WR
/A9 = /A9
IO_WR1= A1+A15+/WR+/IORQ
R4
120k
R5
5k6
C6
10u/16 V
C5
100n
U7A
74LS123
U7B
74LS123
Cext
RCext
/Q
Clr
S1
10-XX
R3
1k
/PO
/NMI
/RAMCOPY
U6A
74LS30
U5B
74LS32
U5C
74LS32
U5D
74LS32
U8A
74LS74
/P123
/A9
/RESET
D4
IO_WR1
R6
470
R7
5k6
1N4148
D1
1N4148
D2
S2
255SB
D4
1N4148
/RESET
R9
680
D5
LED
U9C
74LS07
74LS74
U8B
BLOQ IO
BETA ON
/IORQ_EXT
74LS32
U5A
JP1
Conn_01x03
U1
L7805
IN
OUT
C1
100n
C2
220u/16 V
C3
220u/16 V
C4
100n
C103
C199
C104
C106
C114
C111
C117
C109
C115
C110
C122
C108
C107
C112
C119
C116
C113
C118
U5E
U6B
U7C
U16C
U9G
U13G
U14C
U15G
U8C
U19E
74LS32
74LS30
74LS123
74LS74
74LS07
74LS14
74LS139
74LS06
74LS74
74LS00
VCC
GND
PWR_FLAG
R8
680
D3
LED
H1
MountingHole
H2
MountingHole
H3
MountingHole
H4
MountingHole

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