bus

File: bus.kicad_sch

PPIDE

File: PPIDE.kicad_sch

GAL

File: GAL.kicad_sch

IO

File: IO.kicad_sch

power

File: power.kicad_sch

FDC

File: FDC.kicad_sch

buffers

File: buffers.kicad_sch

WIZNET

File: WIZNET.kicad_sch

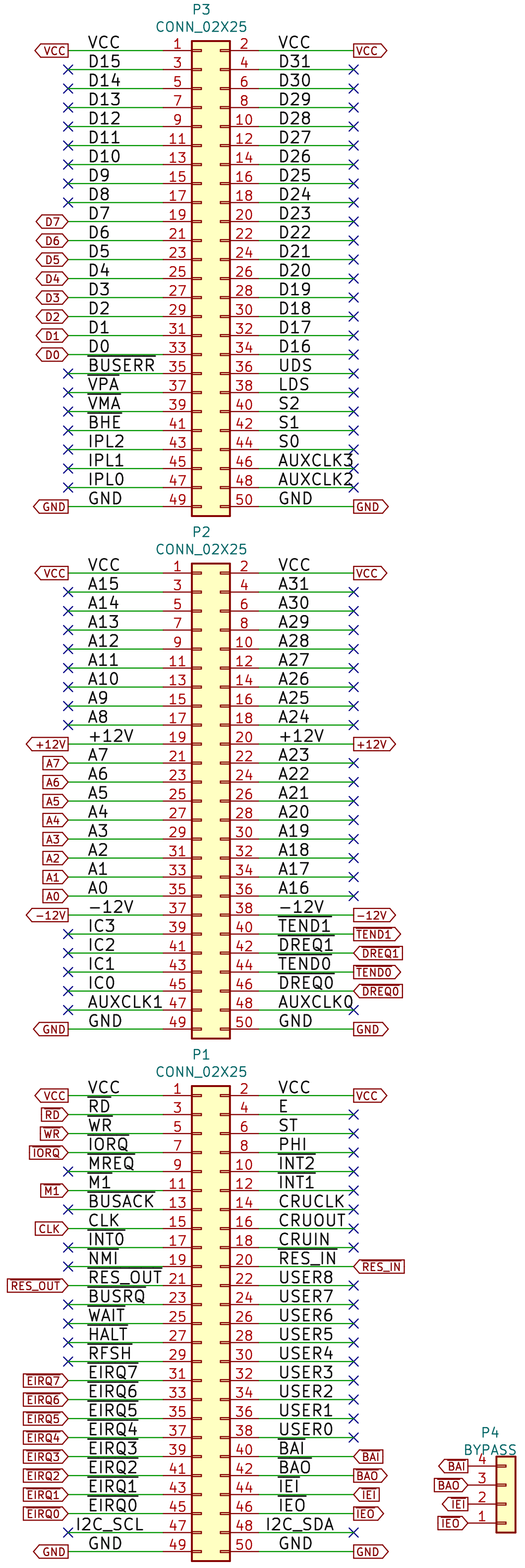
Sheet: /
File: input-output.Disk.kicad_sch

**Title:**

| | | |
|---|---|---|
| Size: B | Date: | **Rev:** |
| KiCad E.D.A. kicad (6.0.11) | | Id: 1/9 |

1 2 3 4 5 6 7 8

A B C D E



Sheet: /bus/
File: bus.kicad_sch

**Title:**

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Date:
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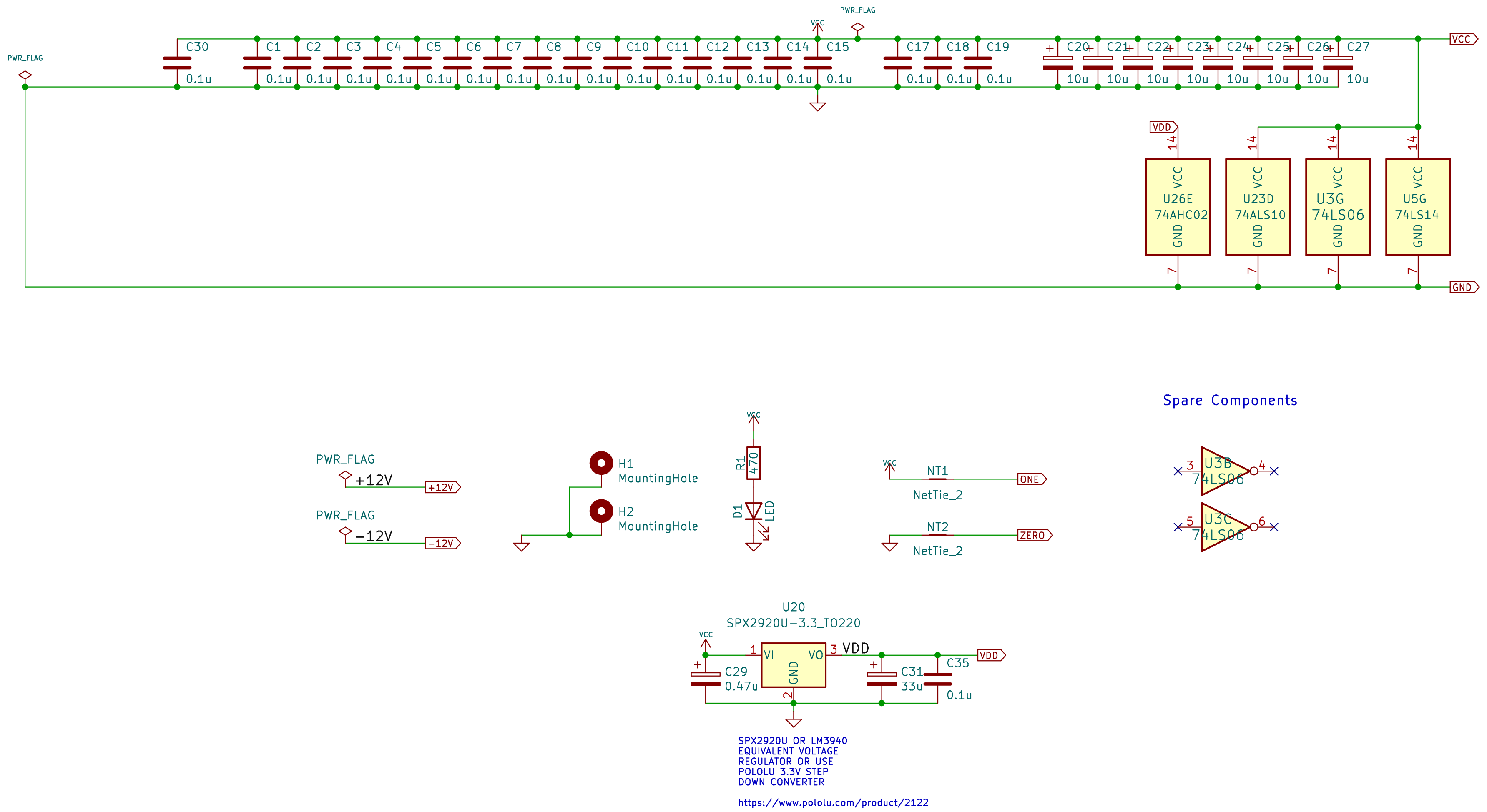
KiCad E.D.A. kicad (6.0.11)
Id: 2/9



SPX2920U OR LM3940
EQUIVALENT VOLTAGE
REGULATOR OR USE
POLOLU 3.3V STEP
DOWN CONVERTER

https://www.pololu.com/product/2122

Sheet: /power/
File: power.kicad_sch

**Title:**

Size: B
Date:
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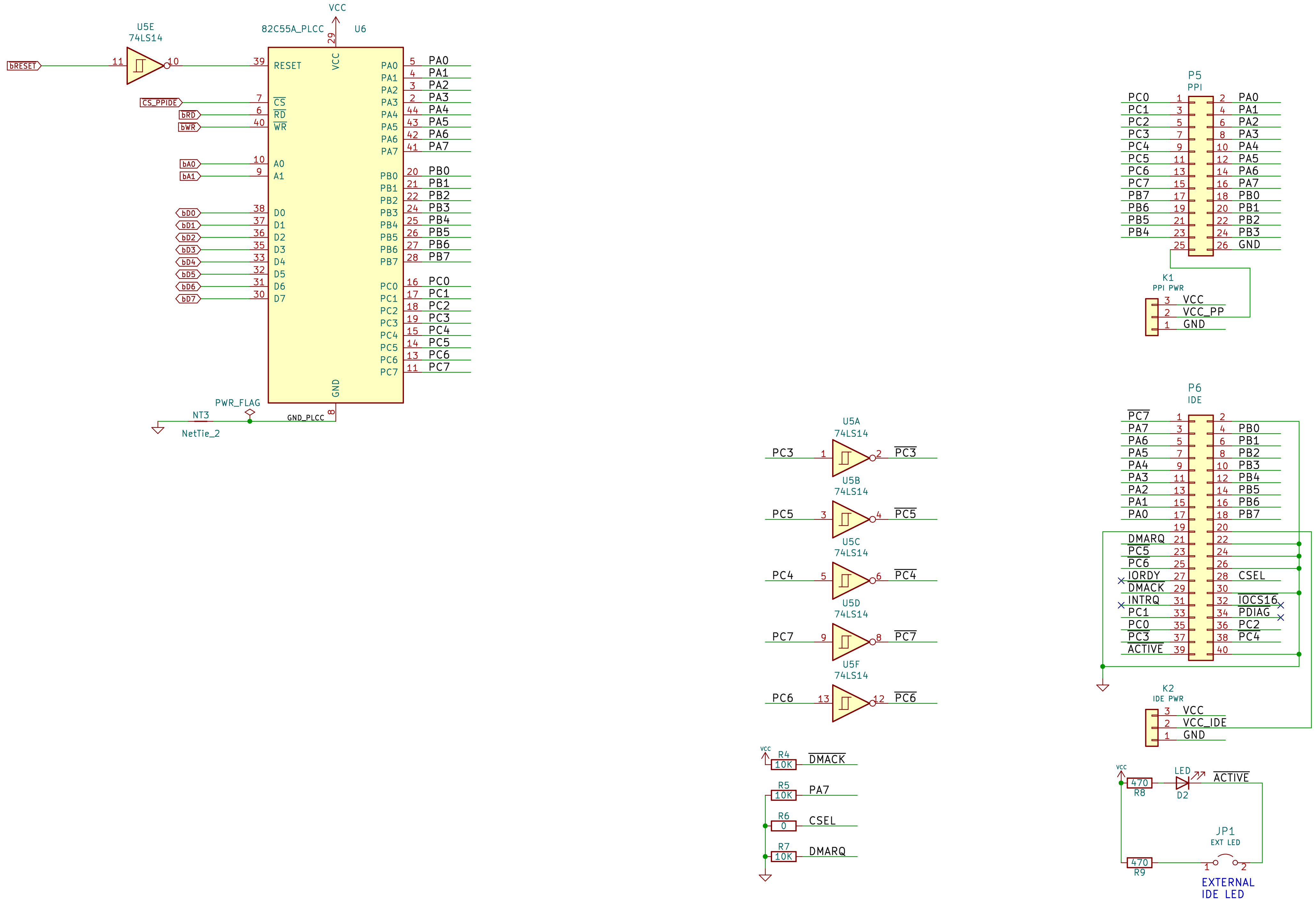

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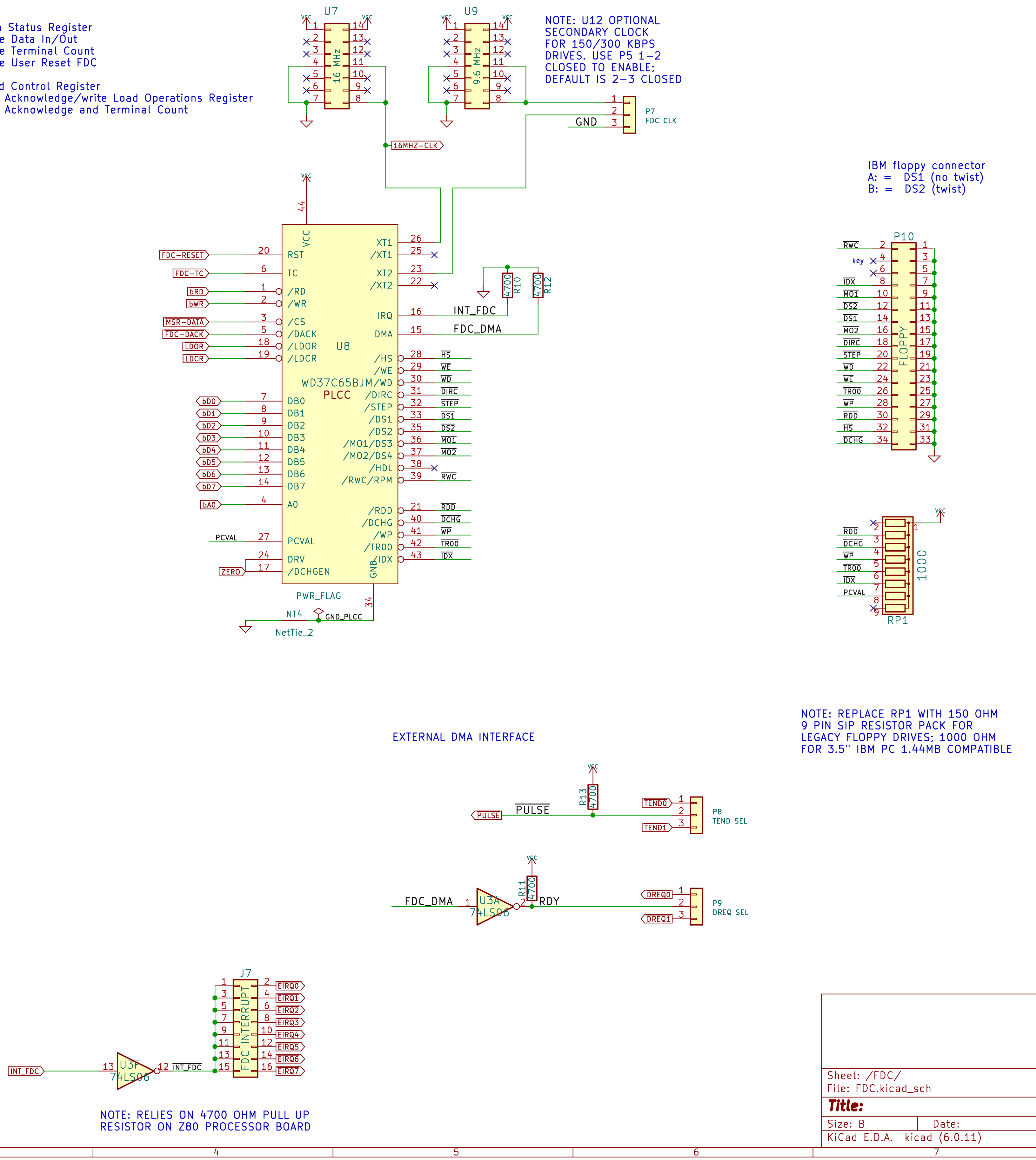
File: PPIDE.kicad_sch

**Title:**

Size: B
Date:
**Rev:**
KiCad E.D.A.  kicad (6.0.11)
Id: 4/9

FLOPPY DRIVE INTERFACE

IO Ports
x0 read Main Status Register
x1 read/write Data In/Out
x2 read/write Terminal Count
x3 read/write User Reset FDC
x4 <none>
x5 write Load Control Register
x6 read DMA Acknowledge/write Load Operations Register
x7 read DMA Acknowledge and Terminal Count



NOTE: U12 OPTIONAL
SECONDARY CLOCK
FOR 150/300 KBPS
DRIVES. USE P5 1-2
CLOSED TO ENABLE:
DEFAULT IS 2-3 CLOSED

IBM floppy connector
A: = DS1 (no twist)
B: = DS2 (twist)

NOTE: REPLACE RP1 WITH 150 OHM
9 PIN SIP RESISTOR PACK FOR
LEGACY FLOPPY DRIVES; 1000 OHM
FOR 3.5" IBM PC 1.44MB COMPATIBLE

EXTERNAL DMA INTERFACE

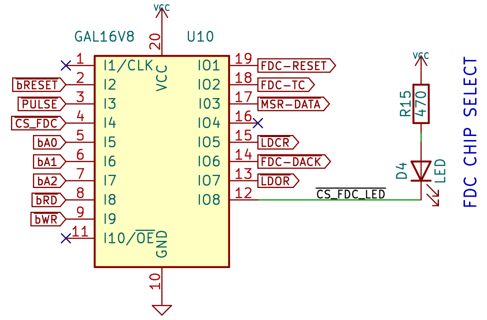
NOTE: RELIES ON 4700 OHM PULL UP
RESISTOR ON Z80 PROCESSOR BOARD

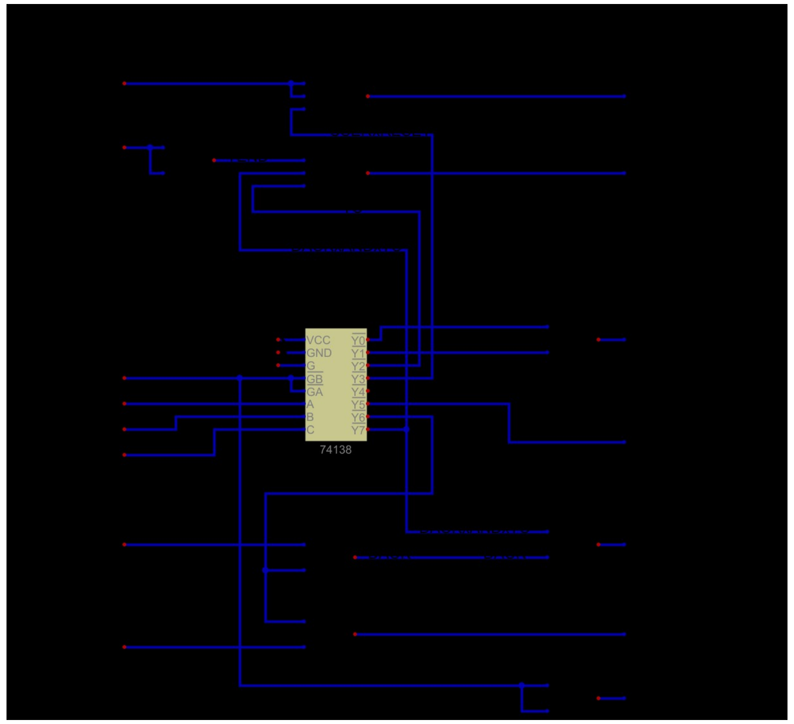
Sheet: /FDC/
File: FDC.kicad_sch

**Title:**

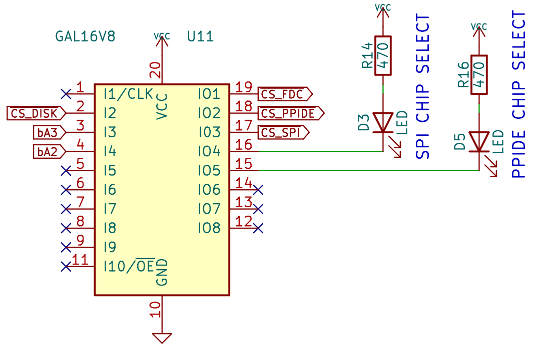
| Size: B | Date: | **Rev:** |
|---|---|---|
| KiCad E.D.A. kicad (6.0.11) | | Id: 5/9 |

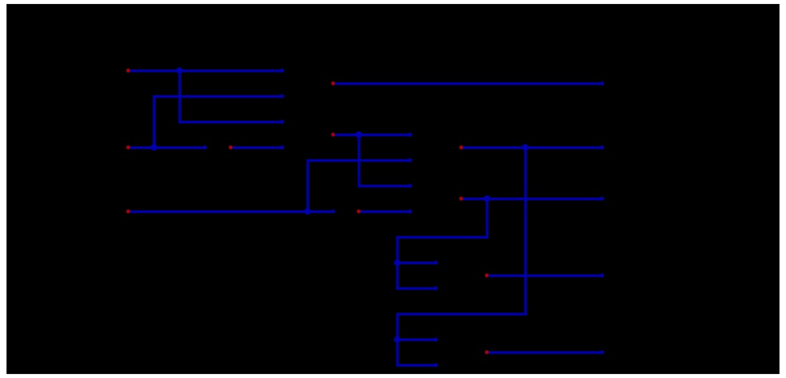
## FDC DMA GAL16V8





## DISK CS GAL16V8



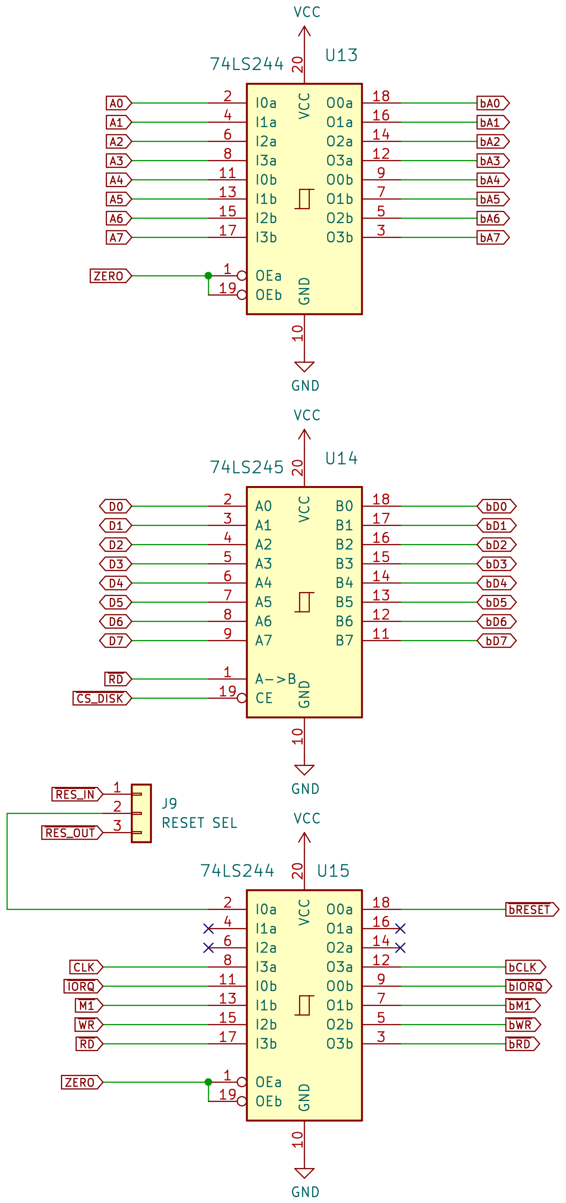


Sheet: /GAL/
File: GAL.kicad_sch

**Title:**

Size: B
Date:
**Rev:**
KiCad E.D.A. kicad (6.0.11)
Id: 6/9

Z80 BUS INTERFACE



Note: Buffers and Transceivers
respond to IO and MEM cycles

Sheet: /buffers/
File: buffers.kicad_sch

**Title:**

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**Rev:**
KiCad E.D.A. kicad (6.0.11)
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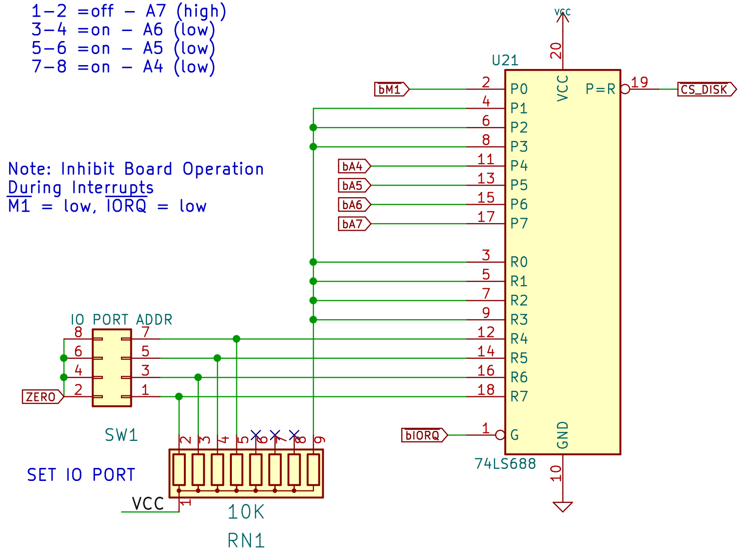
IO SELECTION CIRCUIT
FDC, PPIDE, SPI–SD

Note: IO Address Port $80–$8F
1–2 =off – A7 (high)
3–4 =on – A6 (low)
5–6 =on – A5 (low)
7–8 =on – A4 (low)

Note: Inhibit Board Operation
During Interrupts
$\overline{\text{M1}}$ = low, $\overline{\text{IORQ}}$ = low



Sheet: /IO/
File: IO.kicad_sch

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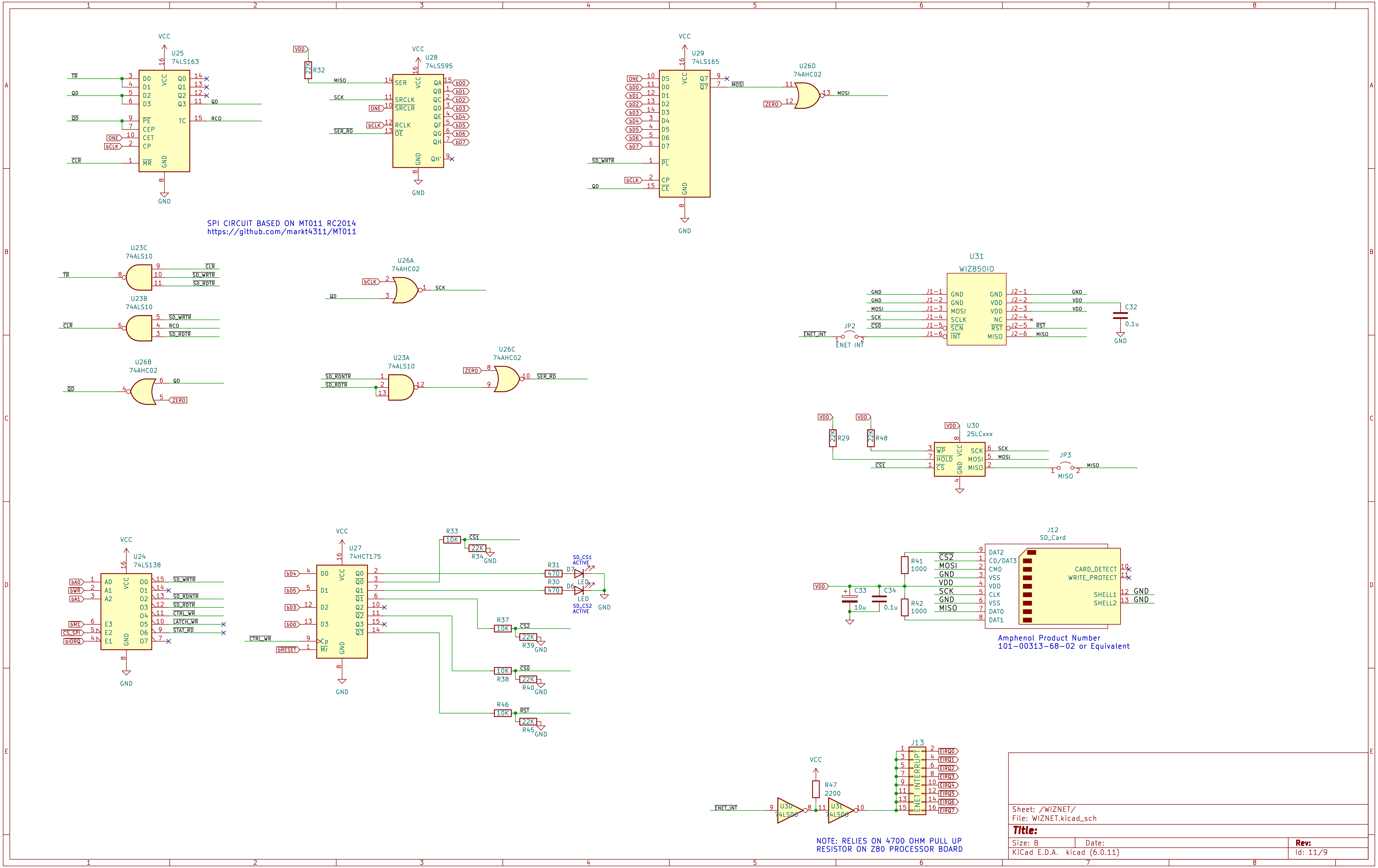

SPI CIRCUIT BASED ON MT011 RC2014
https://github.com/markt4311/MT011

Amphenol Product Number
101-00313-68-02 or Equivalent

NOTE: RELIES ON 4700 OHM PULL UP
RESISTOR ON Z80 PROCESSOR BOARD

Sheet: /WIZNET/
File: WIZNET.kicad_sch

**Title:**

Size: B
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Rev:
KiCad E.D.A. kicad (6.0.11)
Id: 11/9