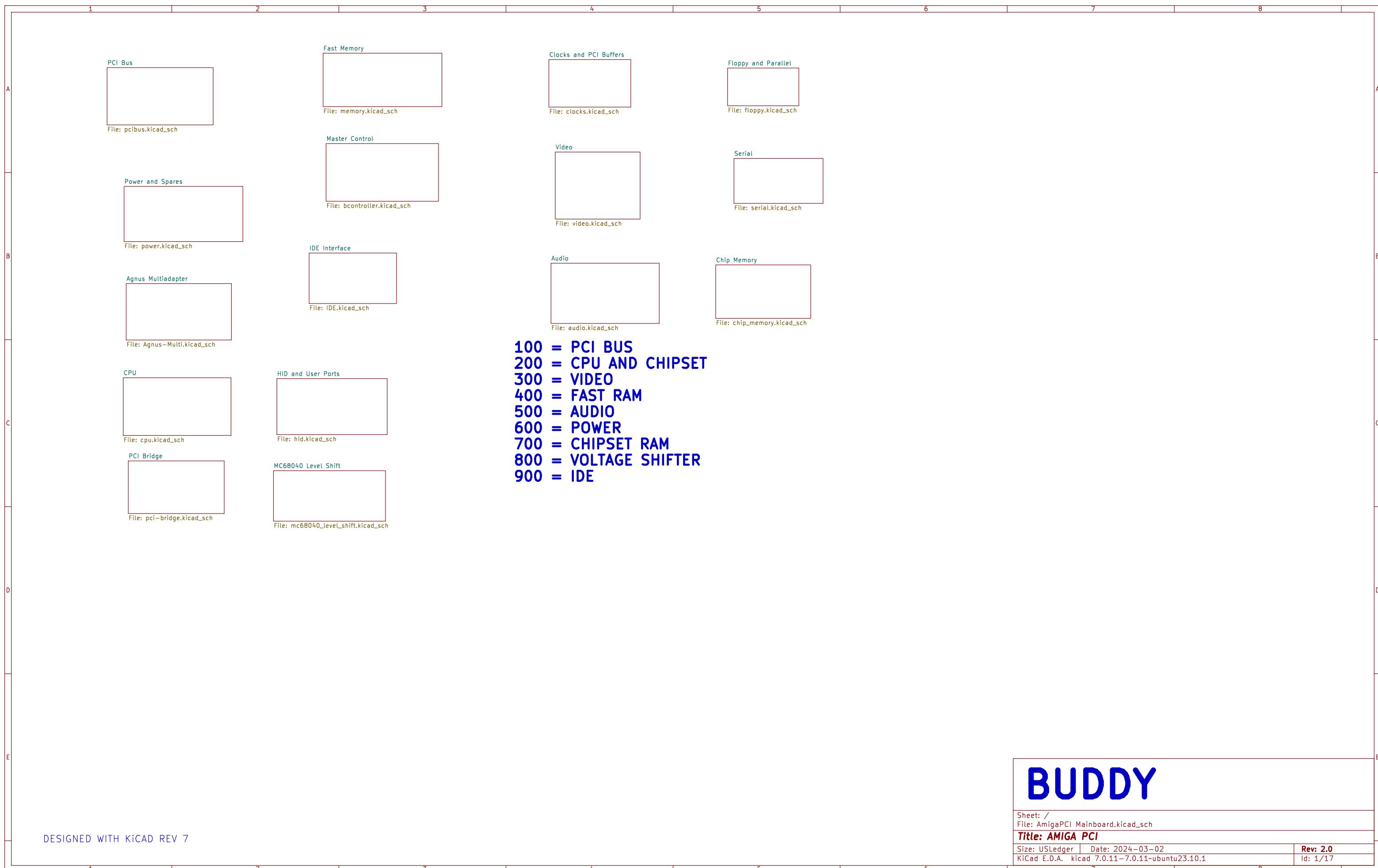


1 2 3 4 5 6 7 8



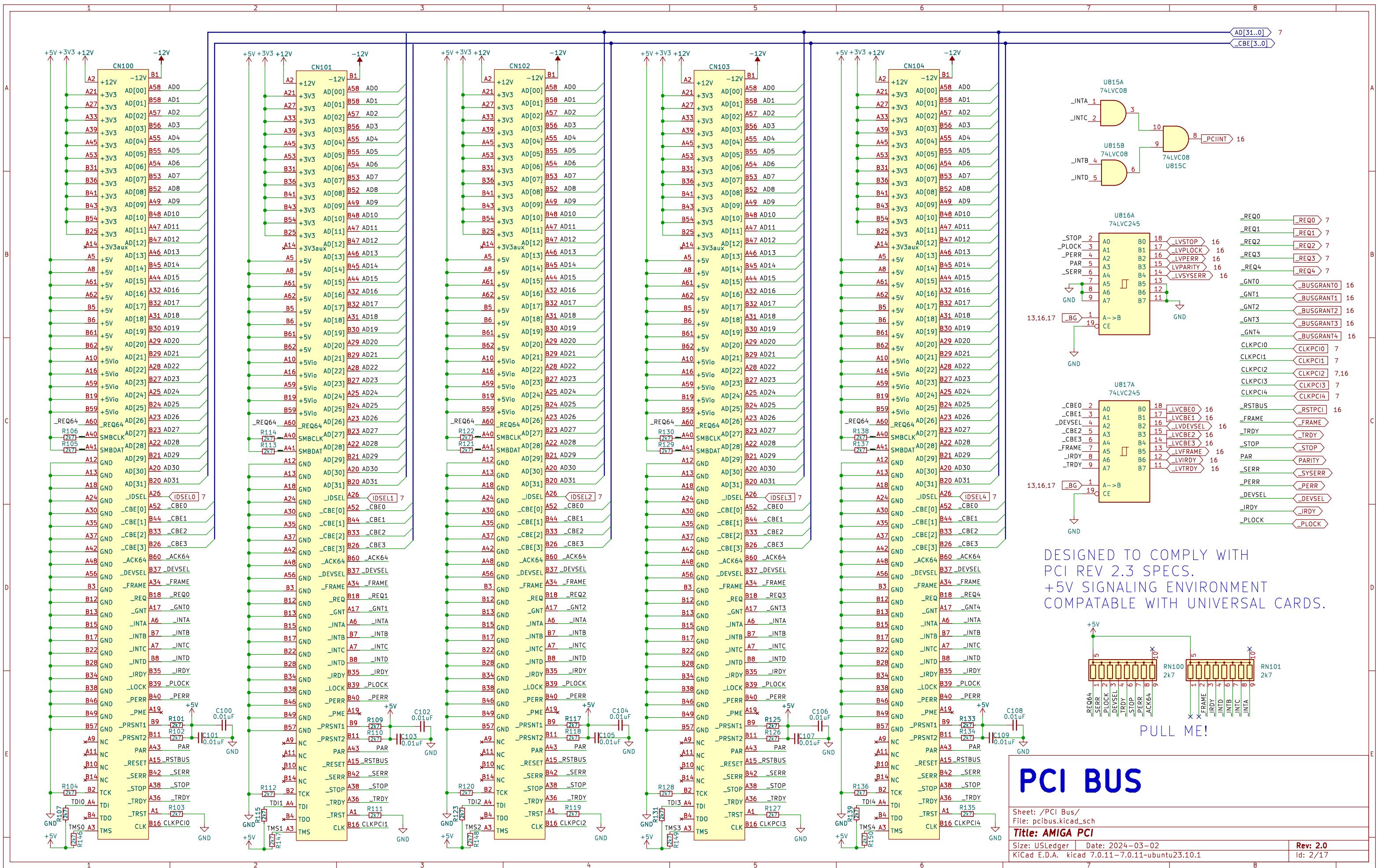
**BUDDY**

Sheet: /  
File: AmigaPCI Mainboard.kicad\_sch

Title: AMIGA PCI

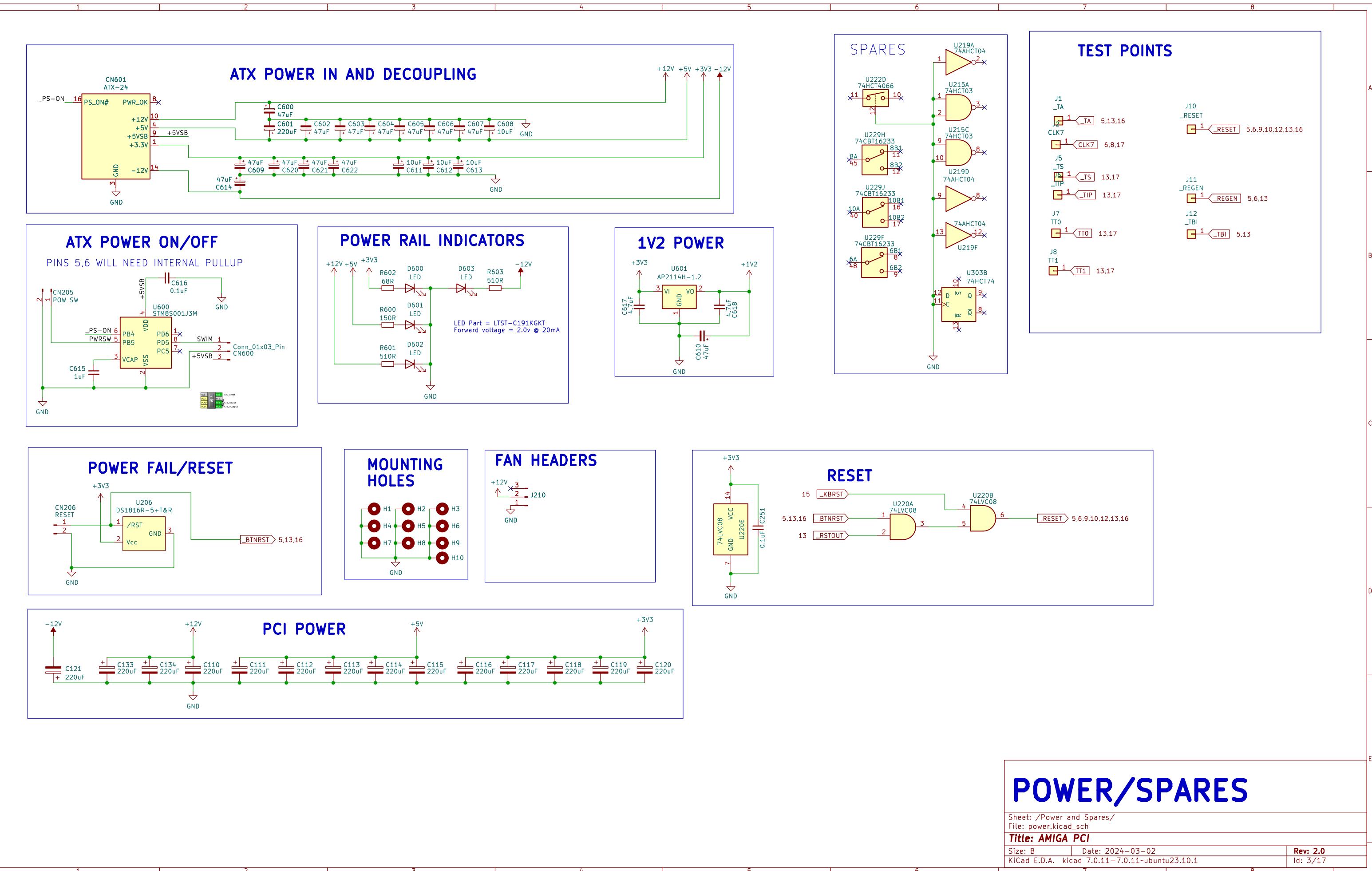
Size: USLetter Date: 2024-03-02  
KiCad E.D.A. kicad 7.0.11-7.0.11~ubuntu23.10.1

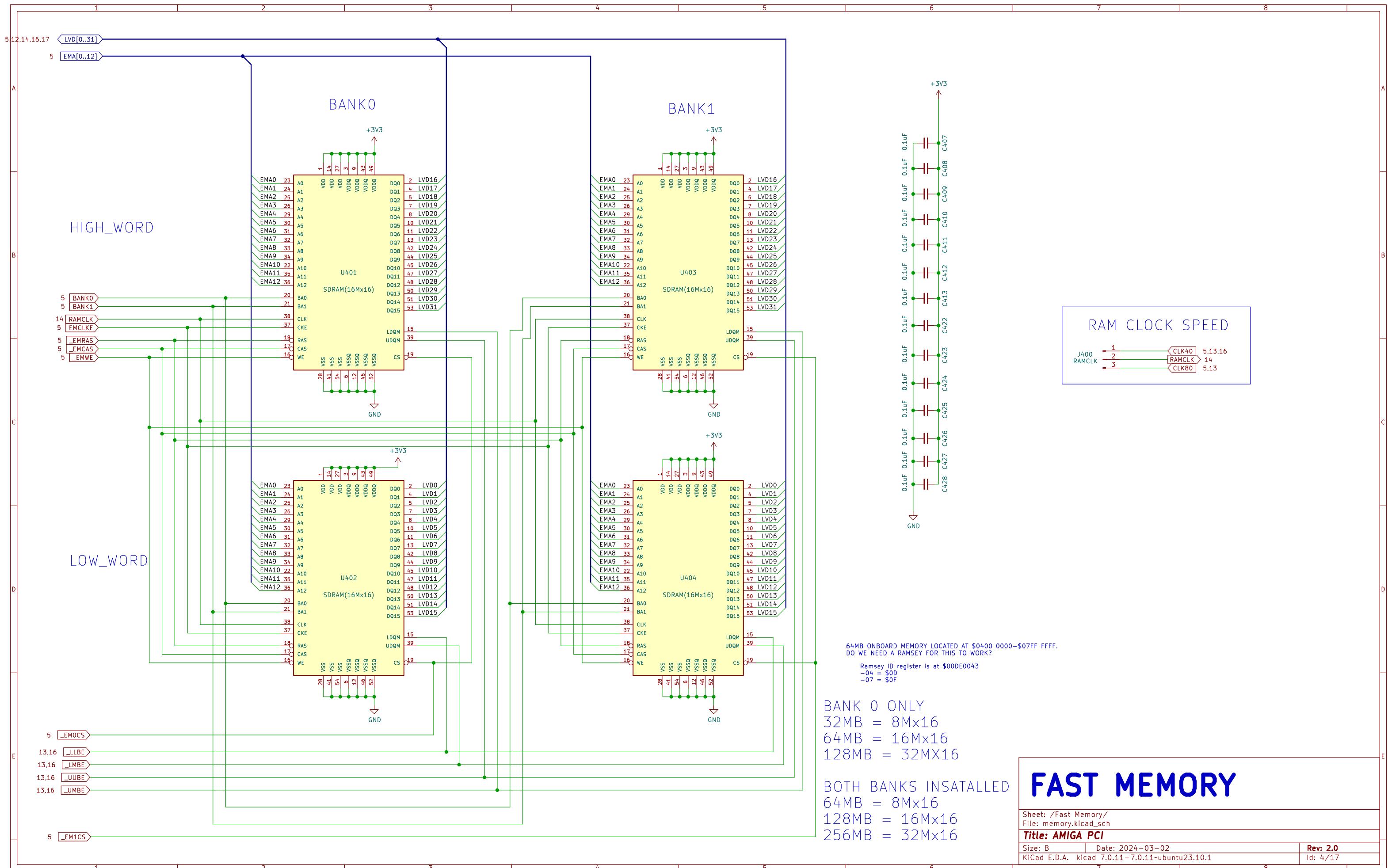
Rev: 2.0  
Id: 1/17

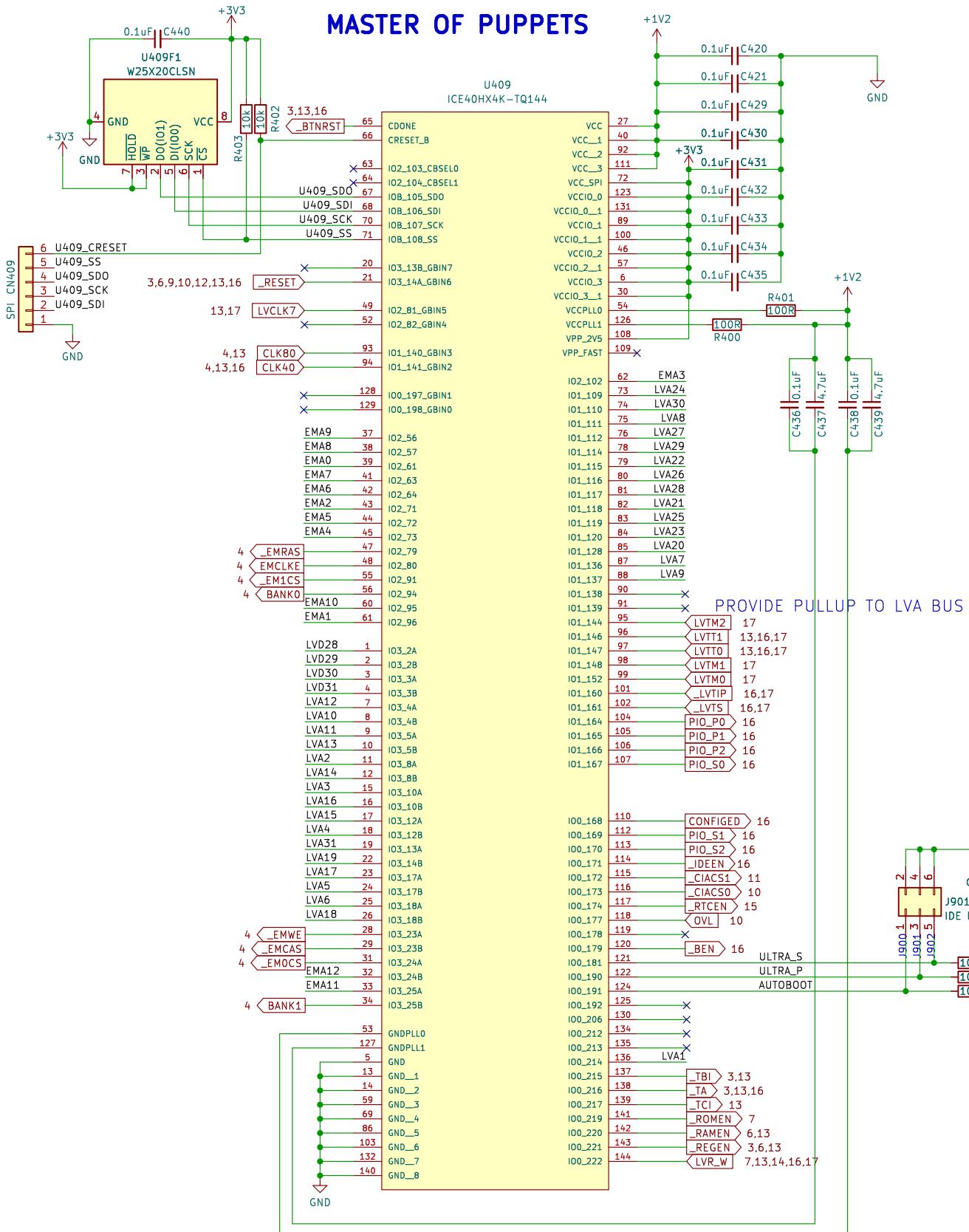


# PCI BUS

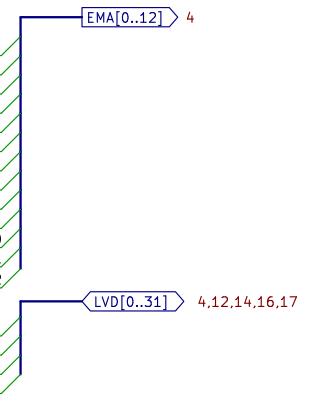
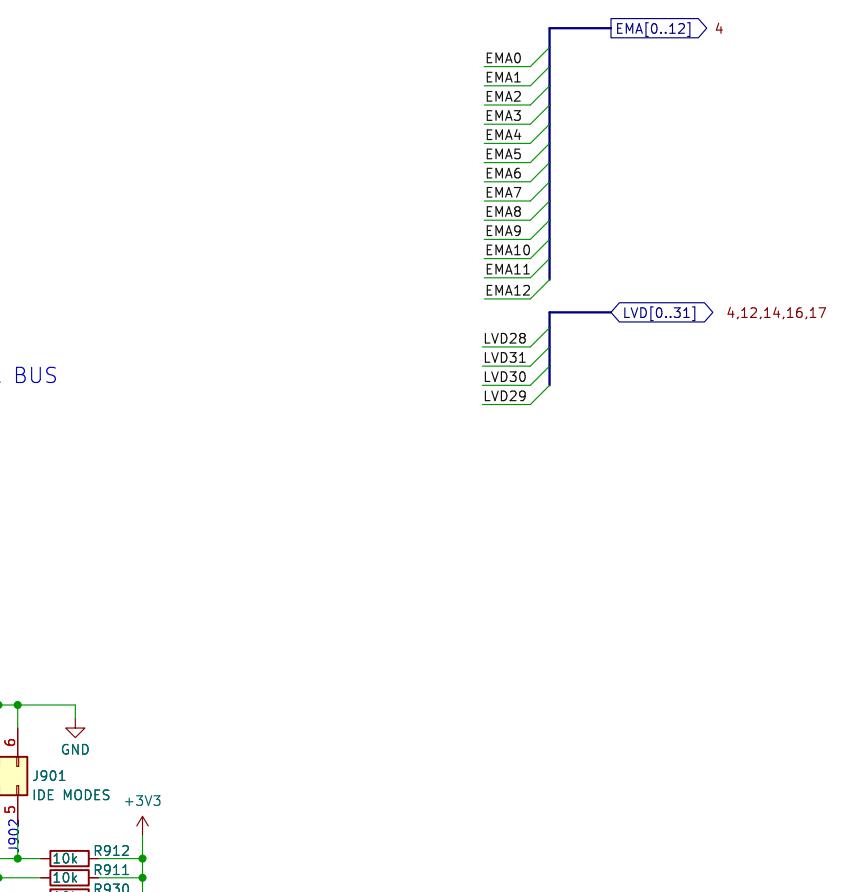
Sheet: /PCI Bus/  
File: pcibus.kicad\_sch  
Title: AMIGA PCI  
Size: USLetter Date: 2024-03-02  
KiCad E.D.A. kicad 7.0.11-7.0.11~ubuntu23.10.1 Rev: 2.0  
Id: 2/17







**U409 PROVIDES RAM, IDE, AND PCI BRIDGE AUTOCONFIG, ADDRESS DECODE, REPLACEMENT GARY FUNCTIONS, STARTUP AND KEYBOARD RESET, AND FAST RAM CONTROLLER.**



## MASTER CONTROL

Sheet: /Master Control/  
File: bcontroller.kicad\_sch

Title: AMIGA PCI

Size: B Date: 2024-03-02  
KiCad E.D.A. kicad 7.0.11~7.0.11~ubuntu23.10.1

Rev: 2.0  
Id: 5/17

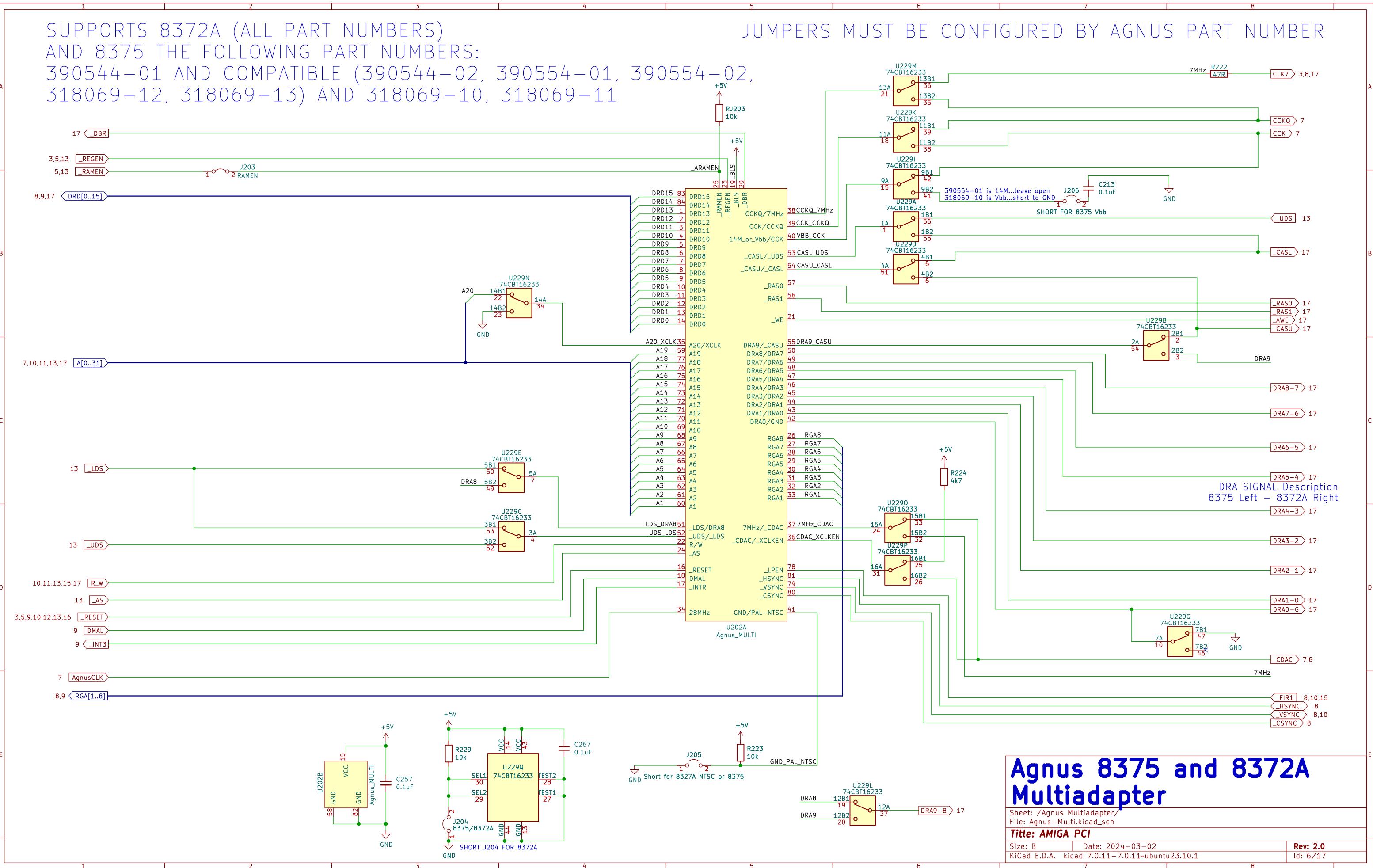
SUPPORTS 8372A (ALL PART NUMBERS)

AND 8375 THE FOLLOWING PART NUMBERS:

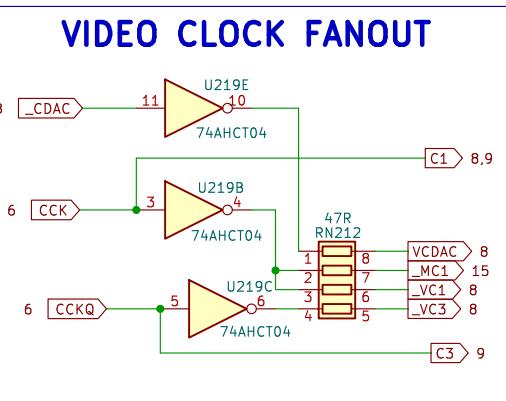
390544-01 AND COMPATIBLE (390544-02, 390554-01, 390554-02,

318069-12, 318069-13) AND 318069-10, 318069-11

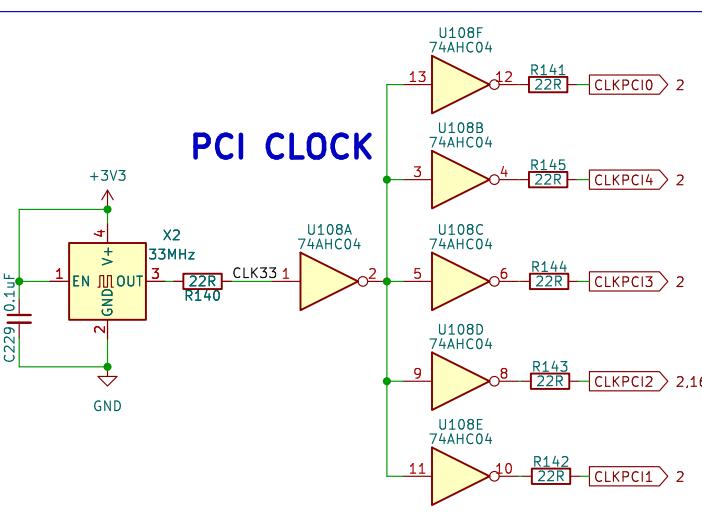
JUMPERS MUST BE CONFIGURED BY AGNUS PART NUMBER



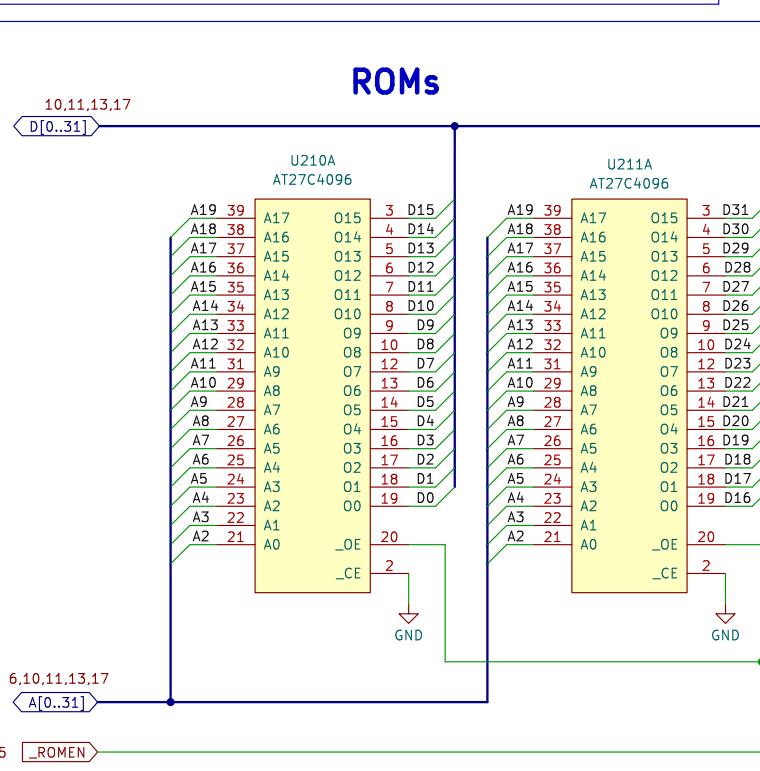
### VIDEO CLOCK FANOUT



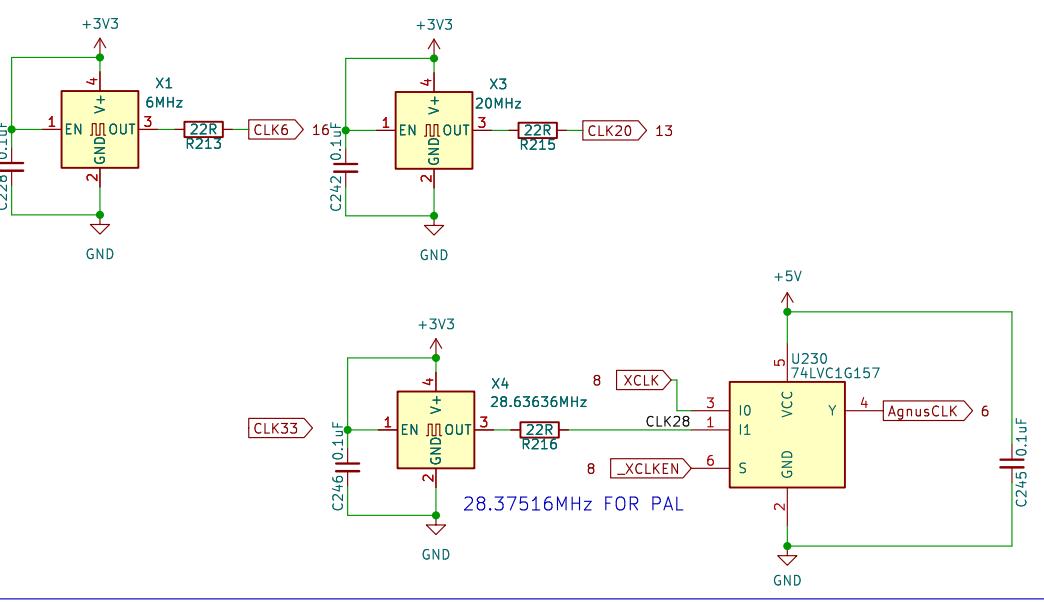
### PCI CLOCK



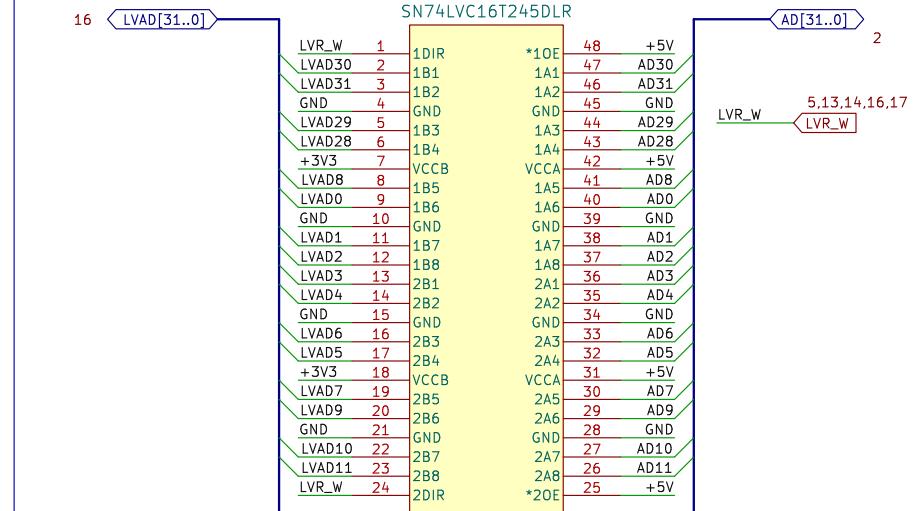
### ROMs



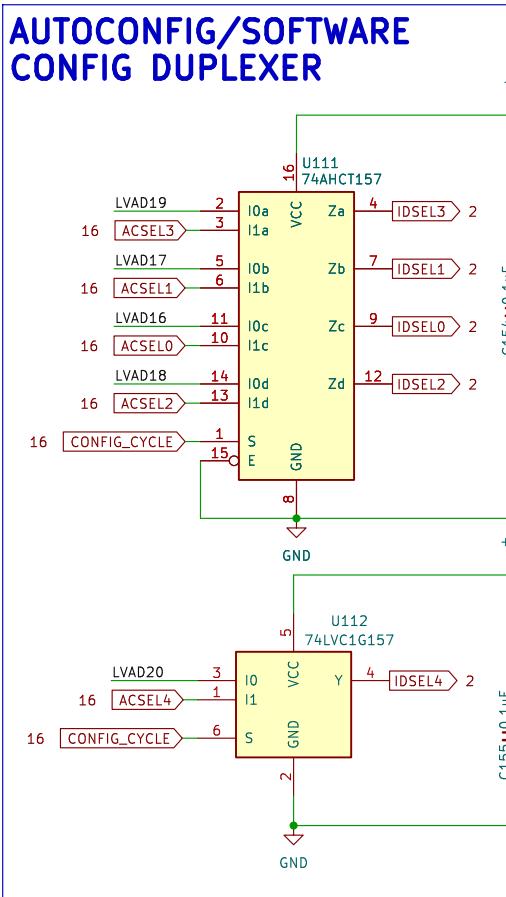
### SYSTEM CLOCKS



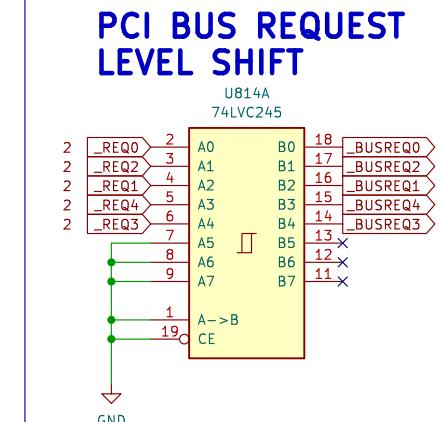
### AD BUS LEVEL SHIFT



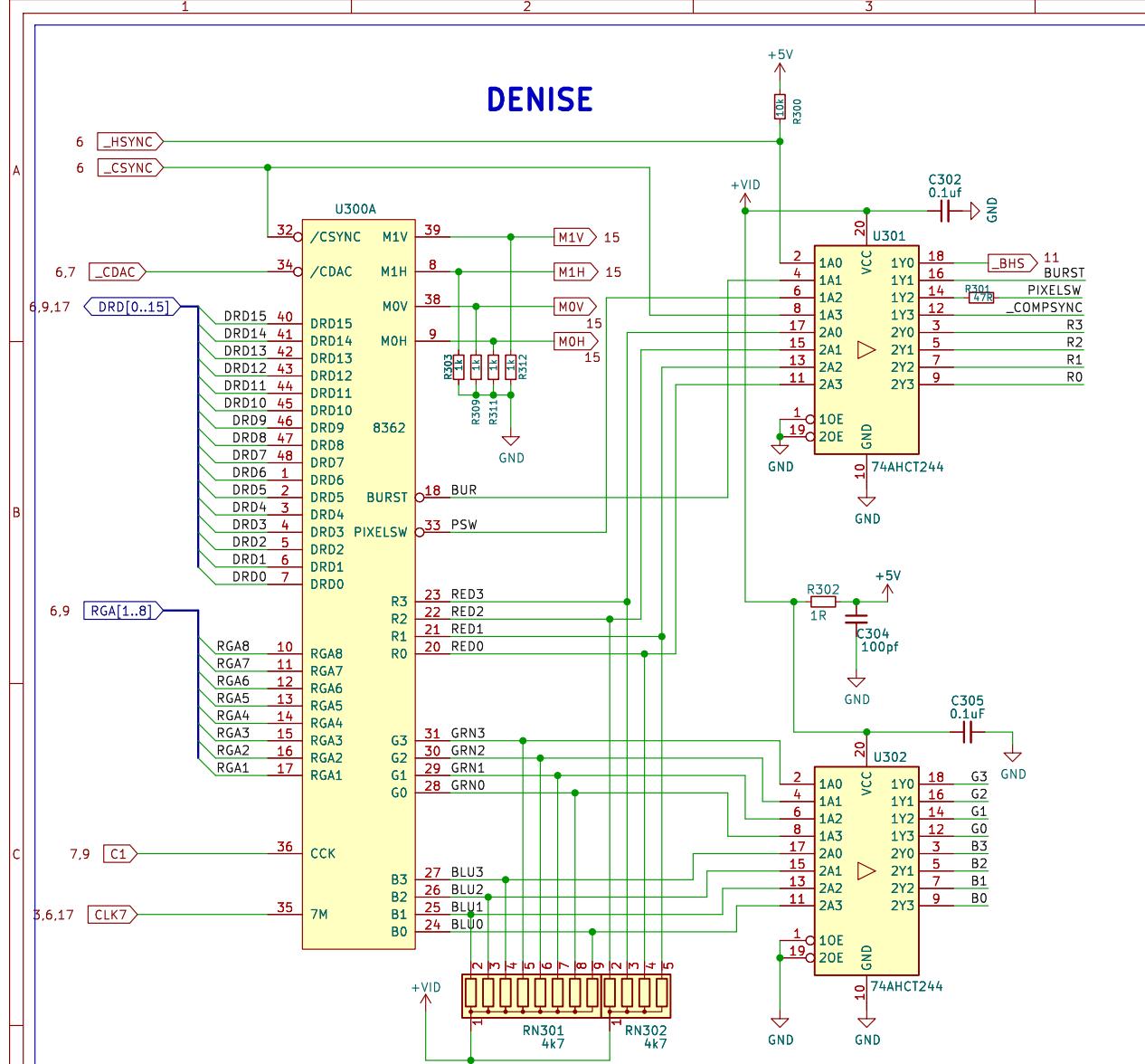
### AUTOCONFIG/SOFTWARE CONFIG DUPLEXER



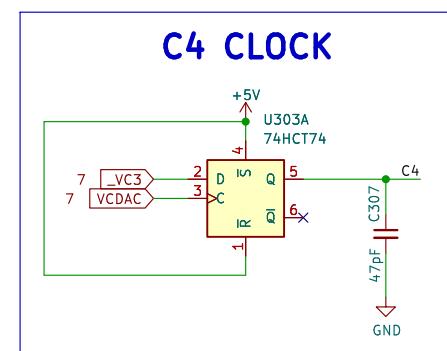
### PCI BUS REQUEST LEVEL SHIFT



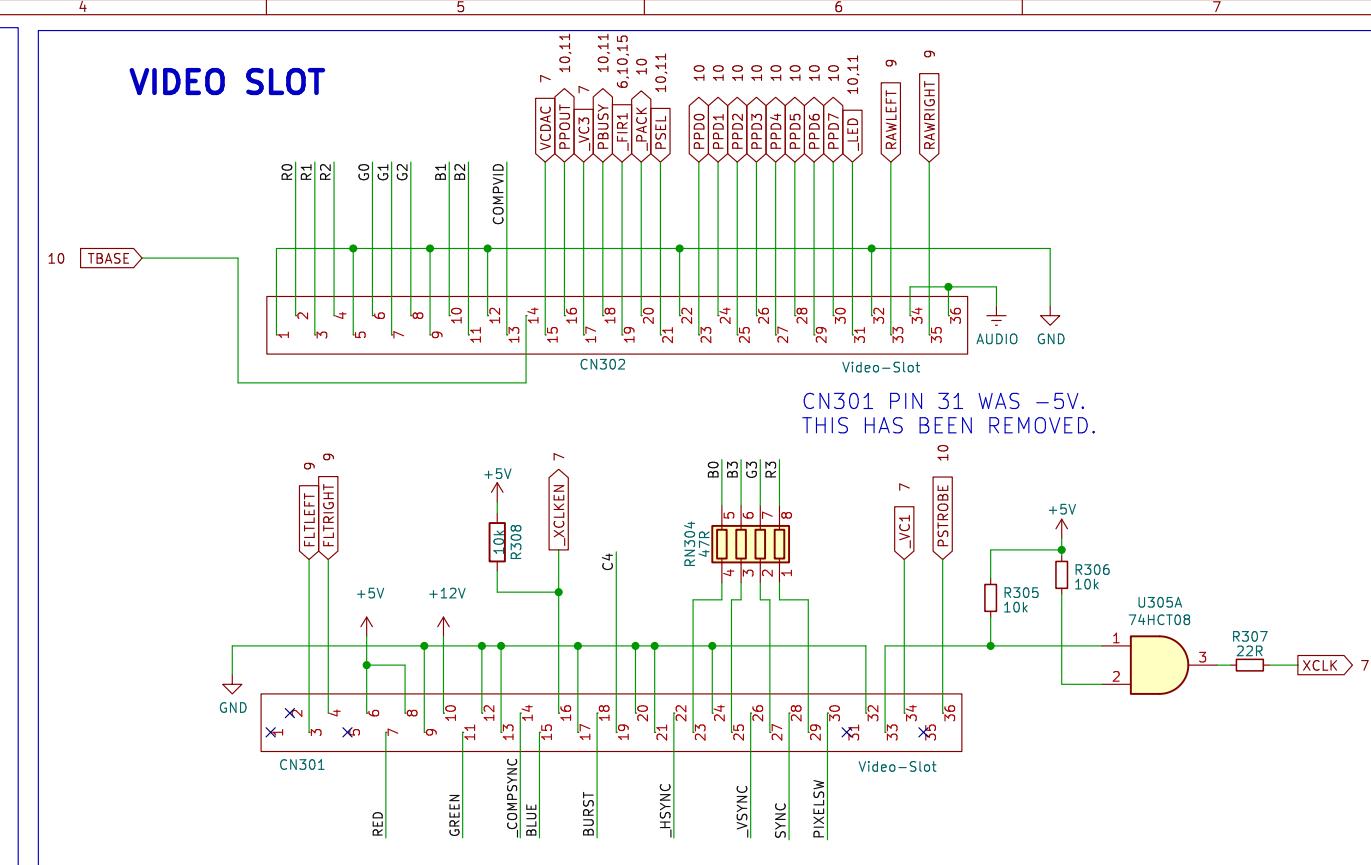
## DENISE



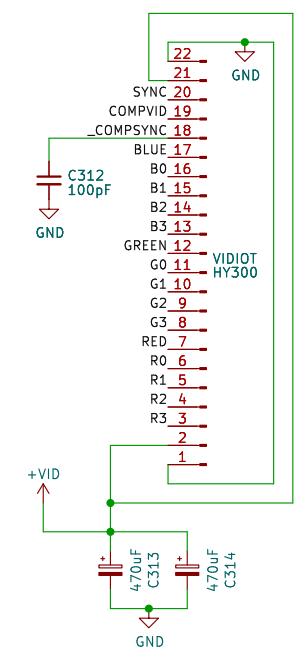
## C4 CLOCK



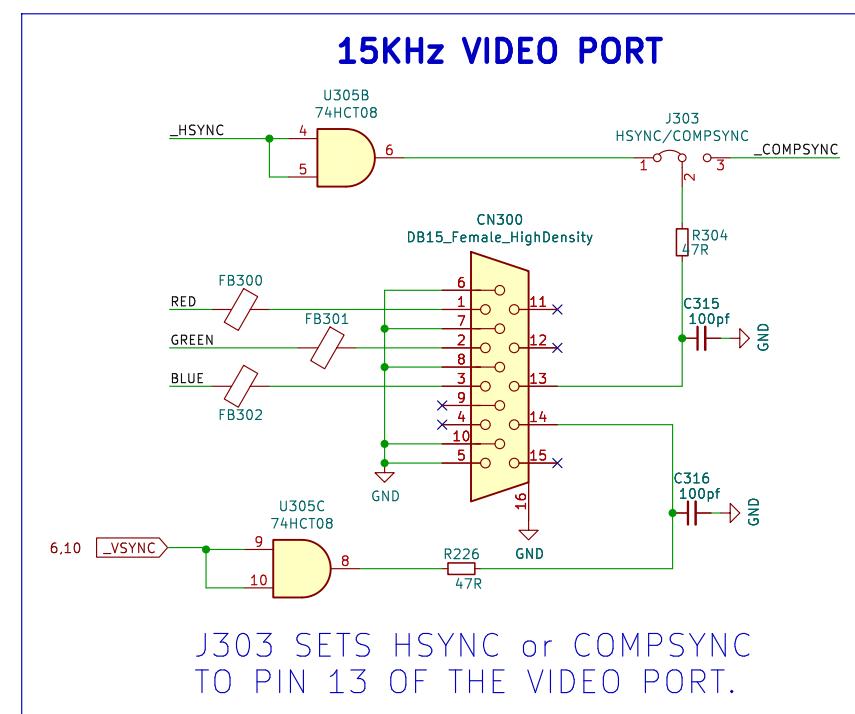
## VIDEO SLOT



## VIDEO HYBRID



## 15KHz VIDEO PORT



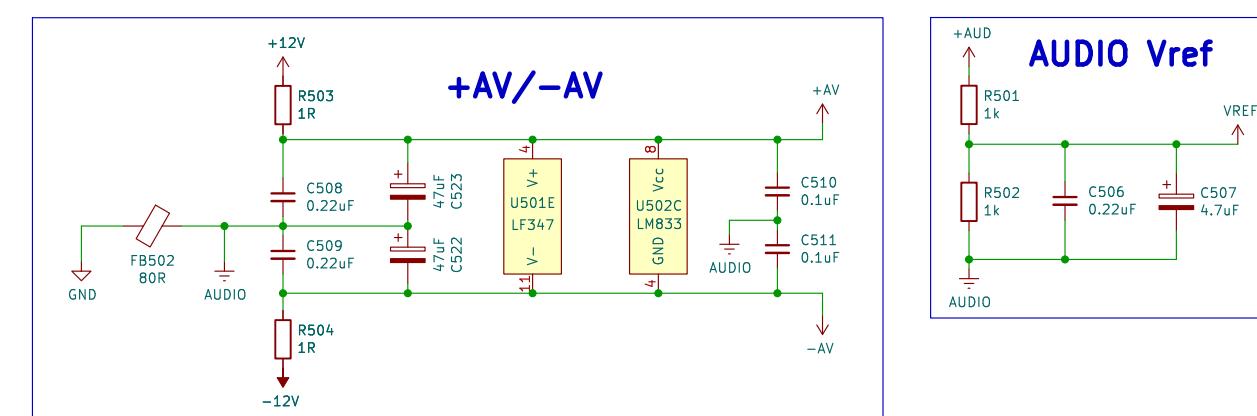
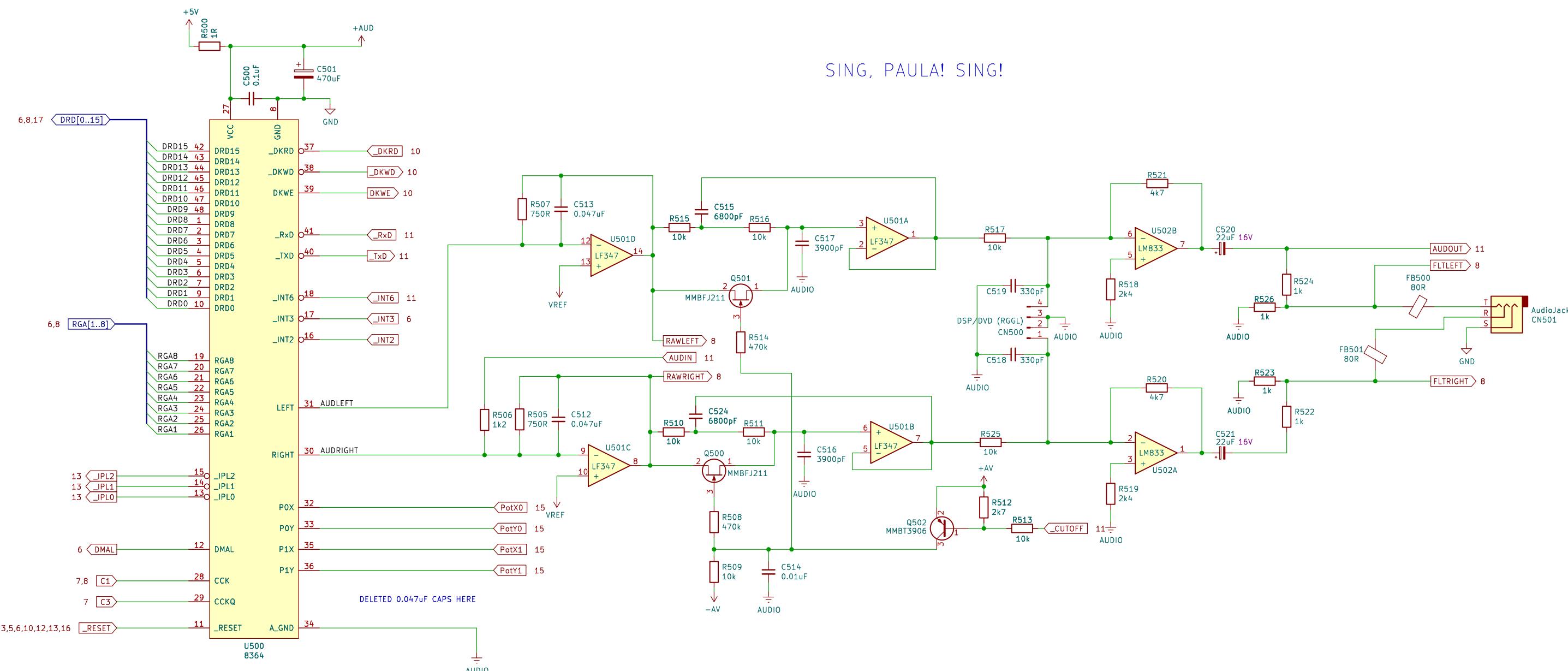
## VIDEO

Sheet: /Video/  
File: video.kicad\_sch

Title: AMIGA PCI

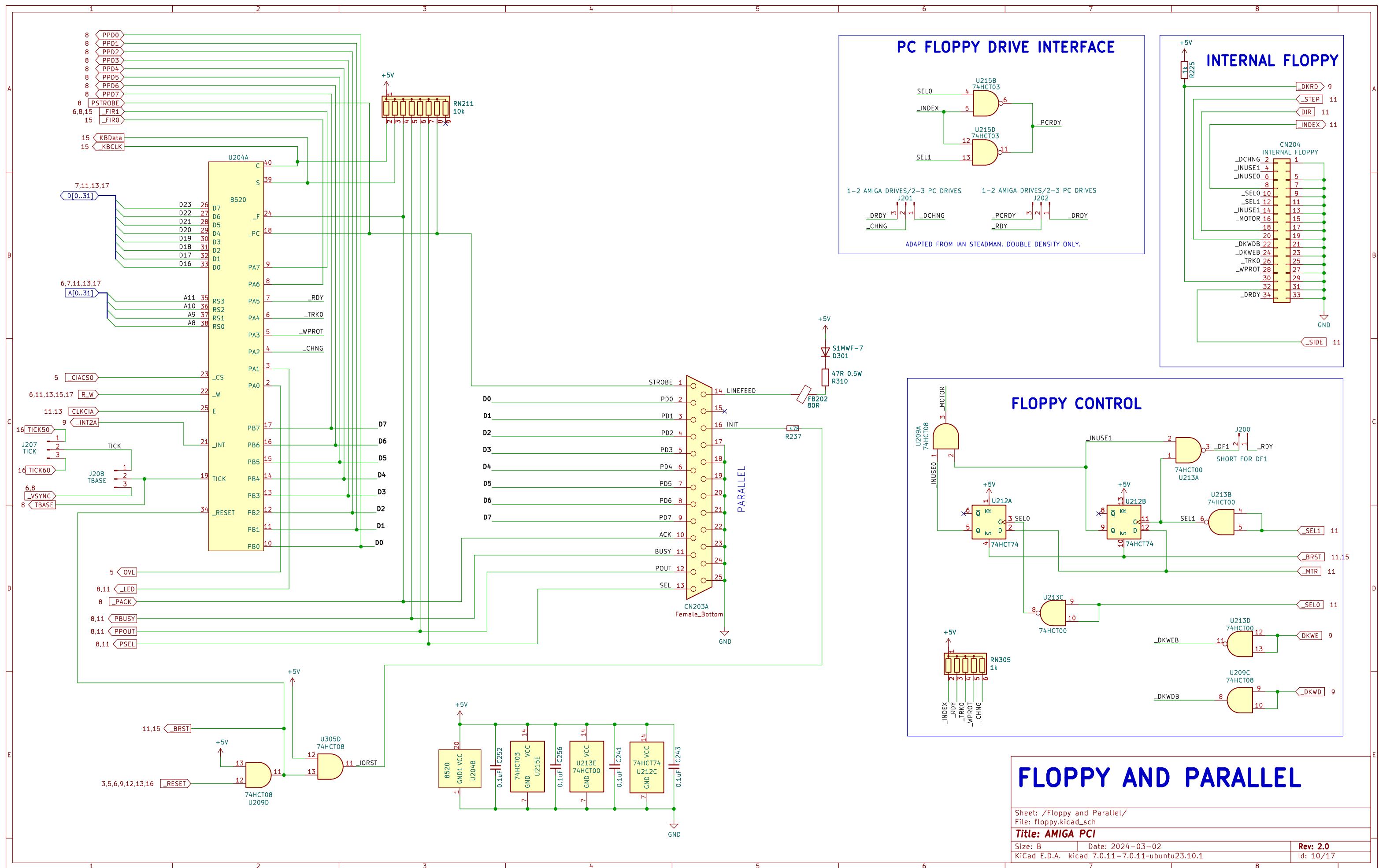
Size: B Date: 2024-03-02  
KiCad E.D.A. kicad 7.0.11~7.0.11~ubuntu23.10.1

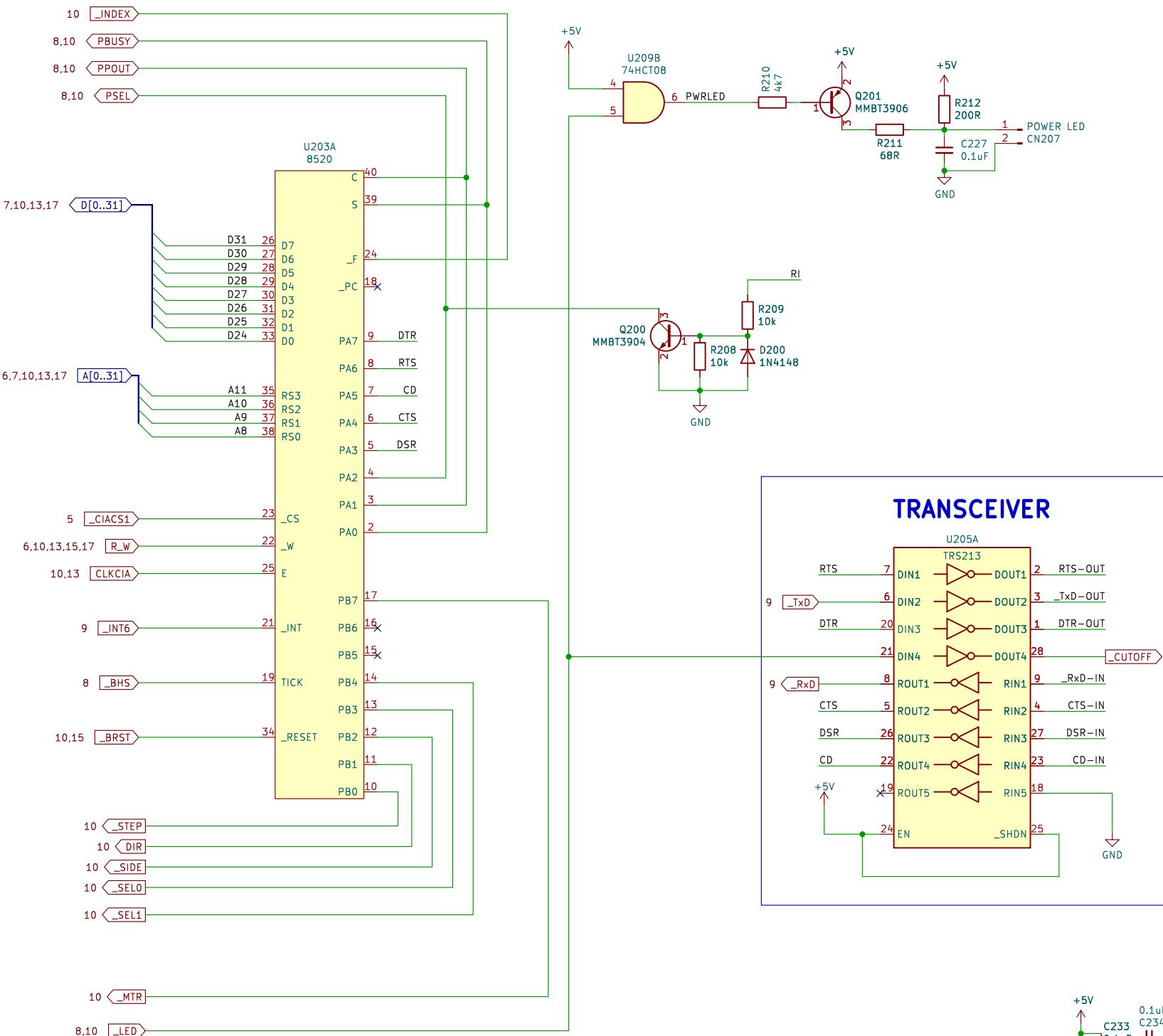
Rev: 2.0  
Id: 8/17



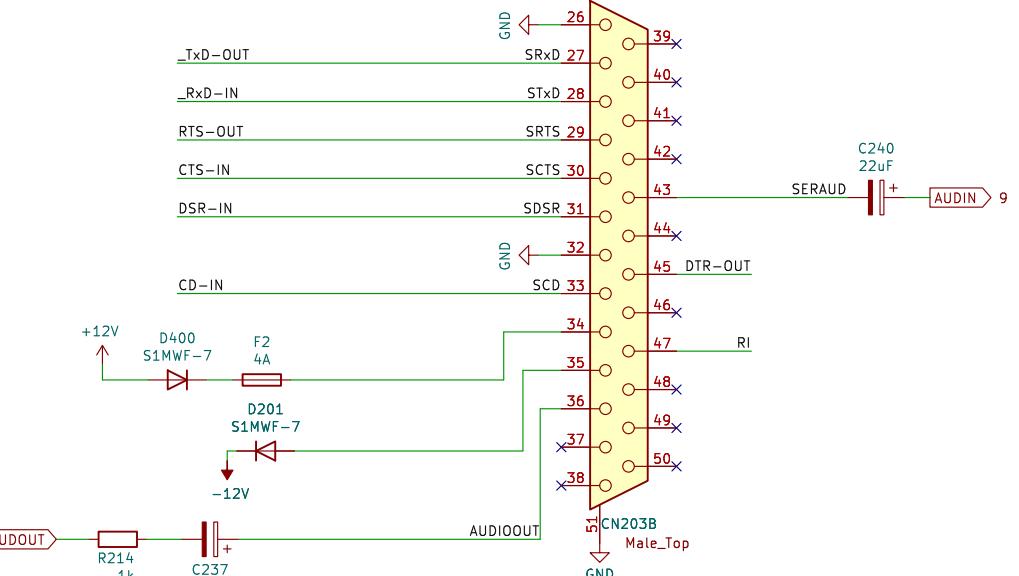
# PAULA/AUDIO

Sheet: /Audio/  
File: audio.kicad\_sch  
**Title: AMIGA PCI**  
Size: B Date: 2024-03-02  
KiCad E.D.A. kicad 7.0.11~7.0.11~ubuntu23.10.1  
Rev: 2.0  
Id: 9/17





## SERIAL PORT



## SERIAL

Sheet: /Serial/  
File: serial.kicad\_sch  
**Title: AMIGA PCI**  
Size: B Date: 2024-03-02  
KiCad E.D.A. kicad 7.0.11~7.0.11~ubuntu23.10.1

Rev: 2.0  
Id: 11/17

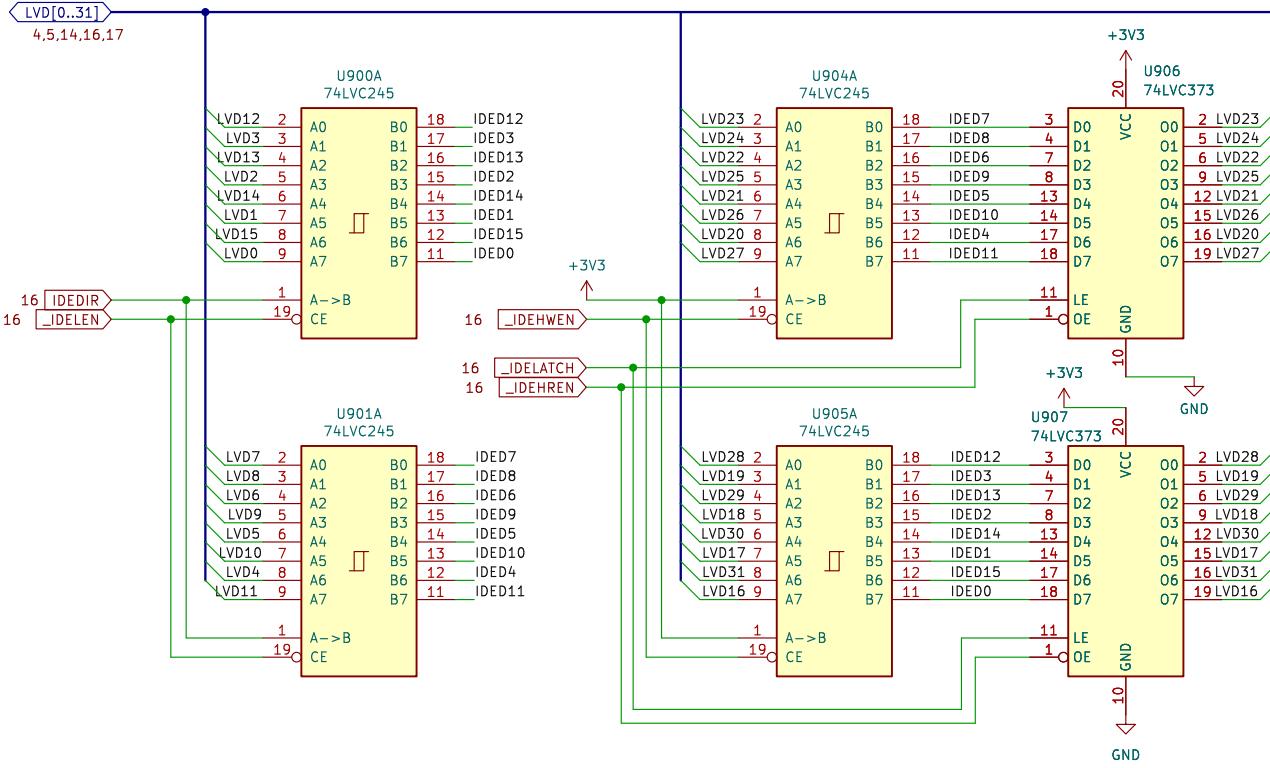
74LVC245 ENABLED FOR FIRST WORD DURING WRITES.  
DATA ALWAYS FLOWS A->B.

74LVC373 LATCHES DATA FOR FIRST WORD DURING READS.

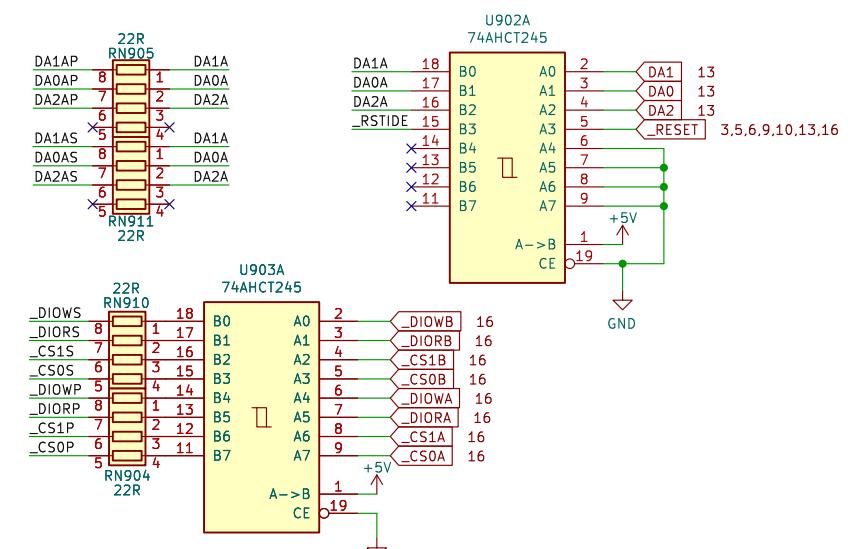
## DATA BUFFERS

DURING WRITE CYCLES, ALL DATA IS REAL-TIME.  
FOR THE FIRST WRITE COMMAND, D16..31 IS ENABLED.  
FOR THE SECOND WRITE COMMAND, D0..15 IS ENABLED.

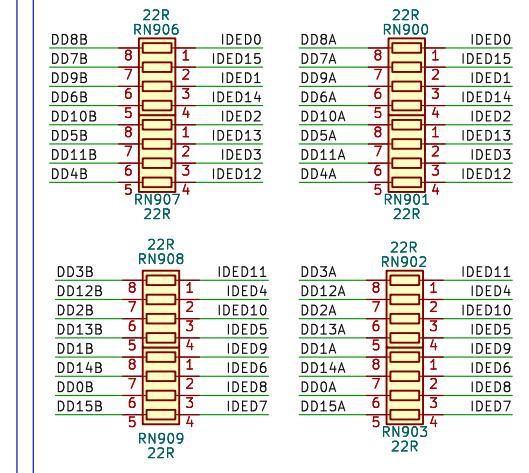
DURING READ CYCLES, D16..31 IS LATCHED  
AFTER THE FIRST READ COMMAND FROM THE IDE DEVICE.  
THE SECOND READ FROM THE IDE DEVICE DRIVES  
D0..15 LIVE. THE DATA IS THEN LATCHED BY THE MC68040.



## BUFFERS AND TERMINATION

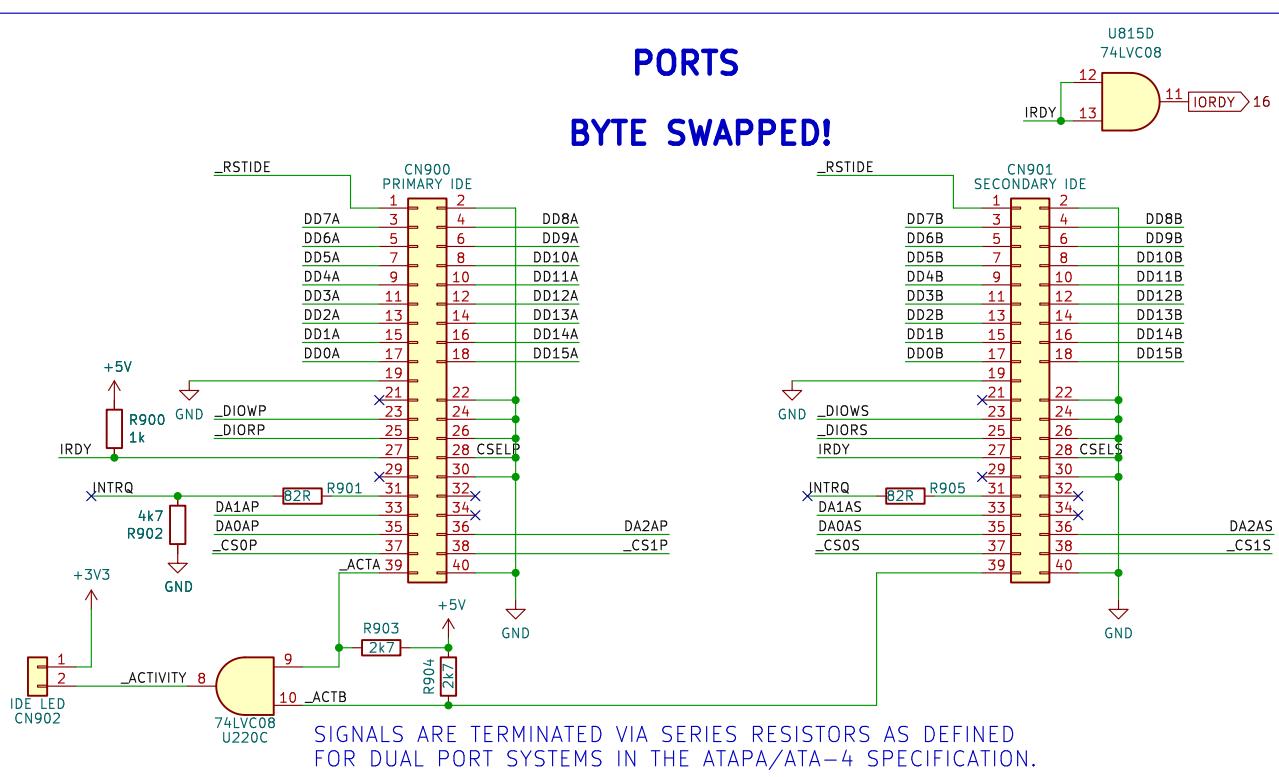


## DATA TERMINATION



## PORTS

BYTE SWAPPED!



SIGNALS ARE TERMINATED VIA SERIES RESISTORS AS DEFINED  
FOR DUAL PORT SYSTEMS IN THE ATAPA/ATA-4 SPECIFICATION.

## IDE INTERFACE

Sheet: /IDE Interface/  
File: IDE.kicad\_sch

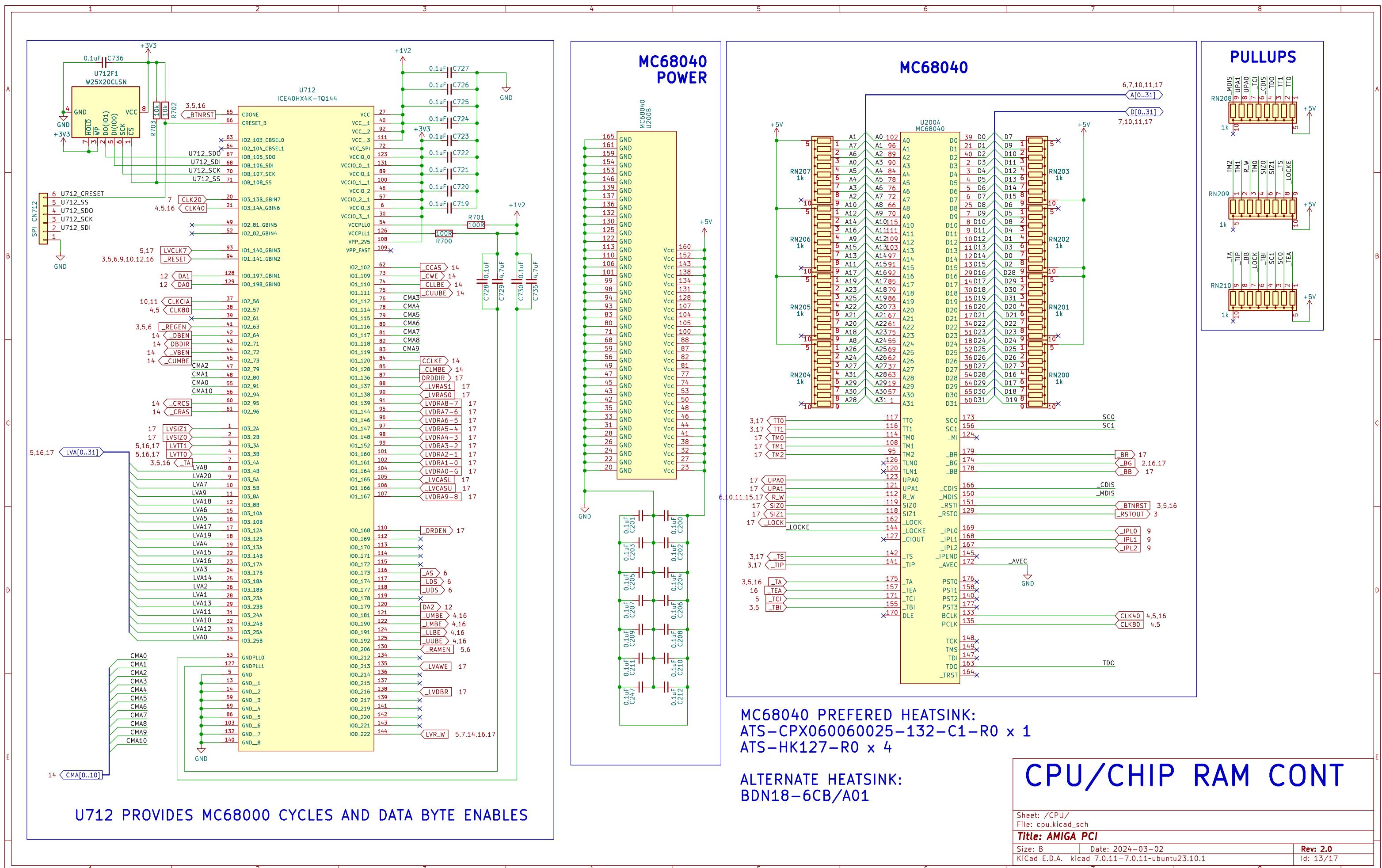
Title: AMIGA PCI

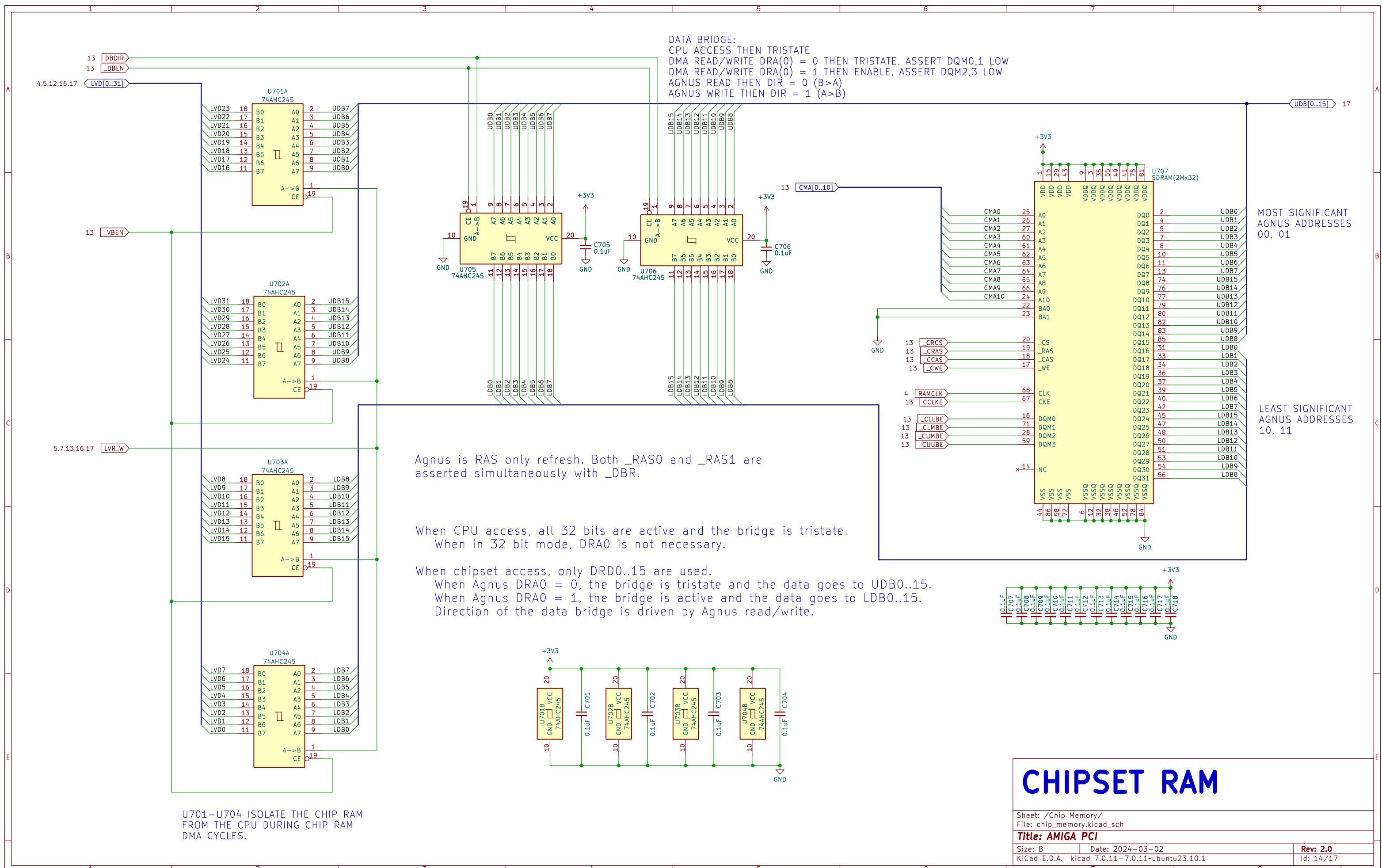
Size: B Date: 2024-03-02

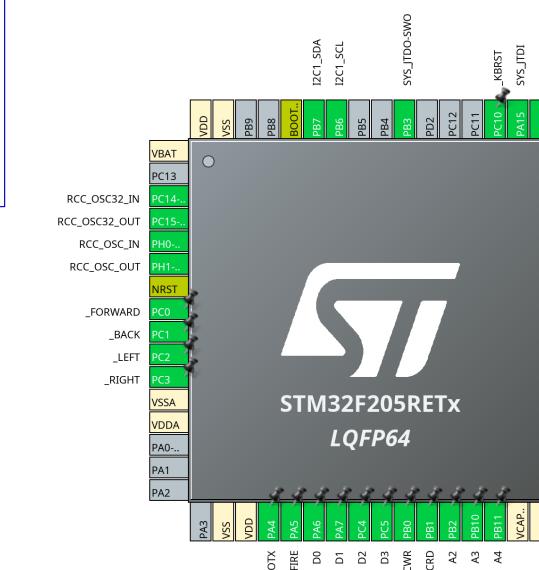
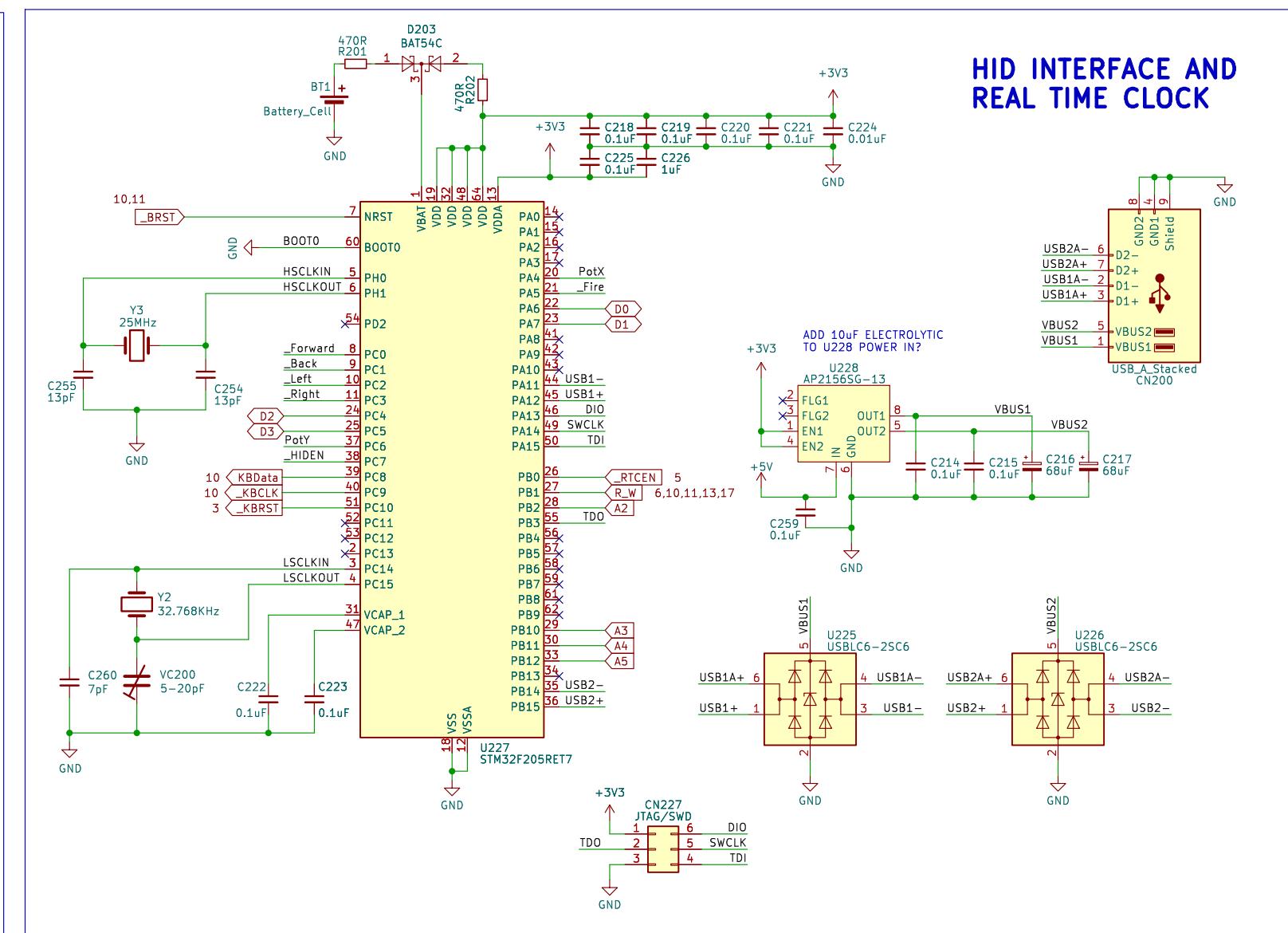
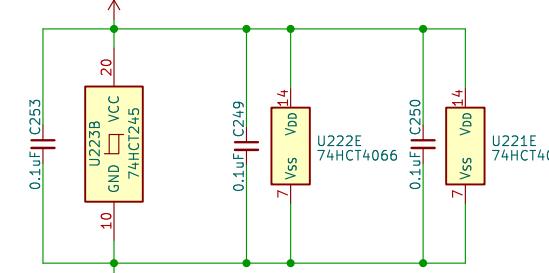
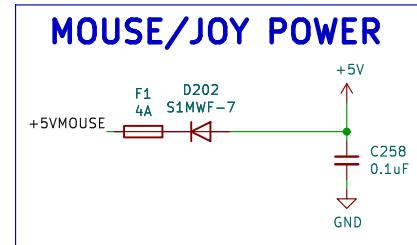
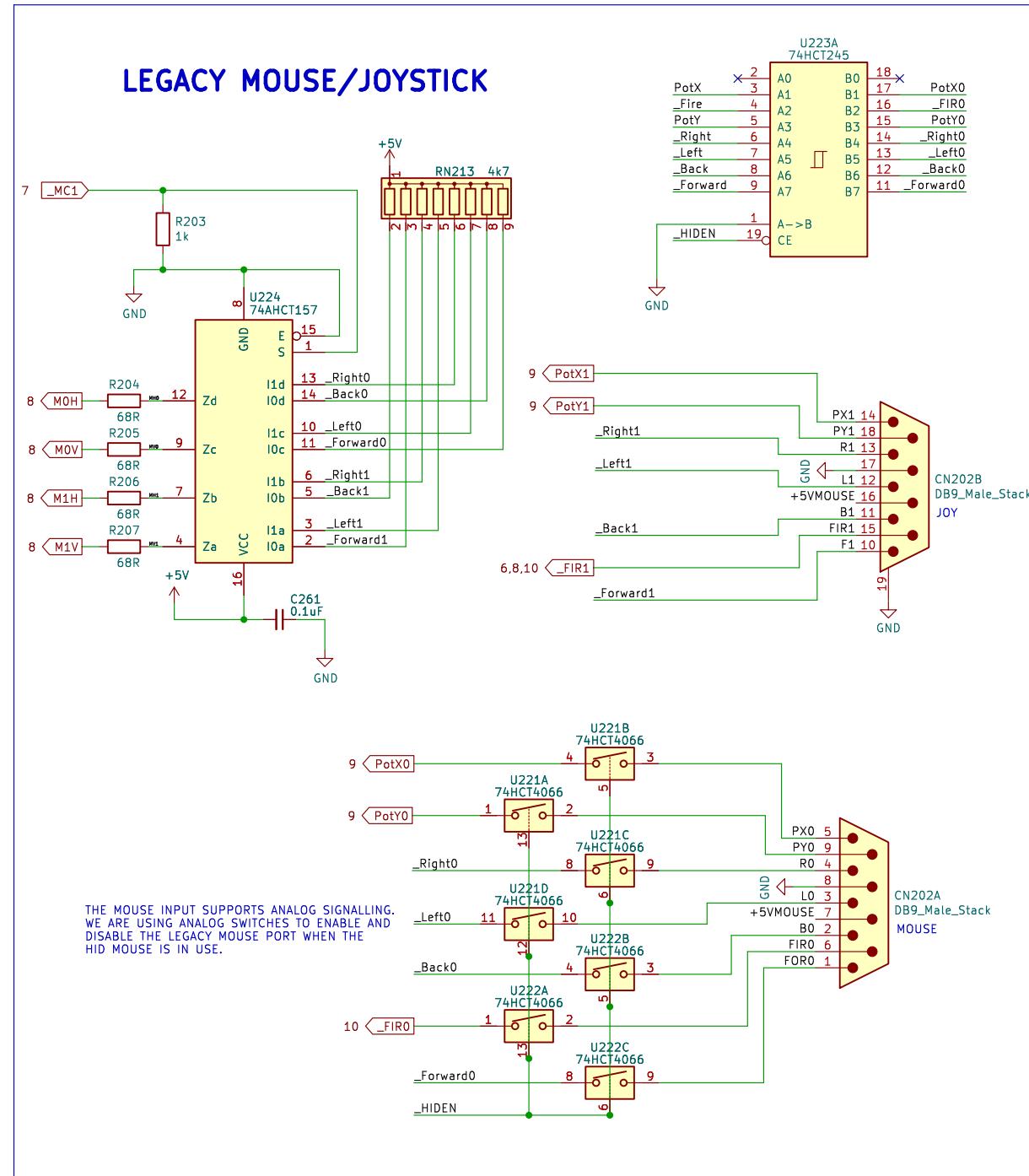
KiCad E.D.A. kicad 7.0.11~7.0.11~ubuntu23.10.1

Rev: 2.0

Id: 12/17

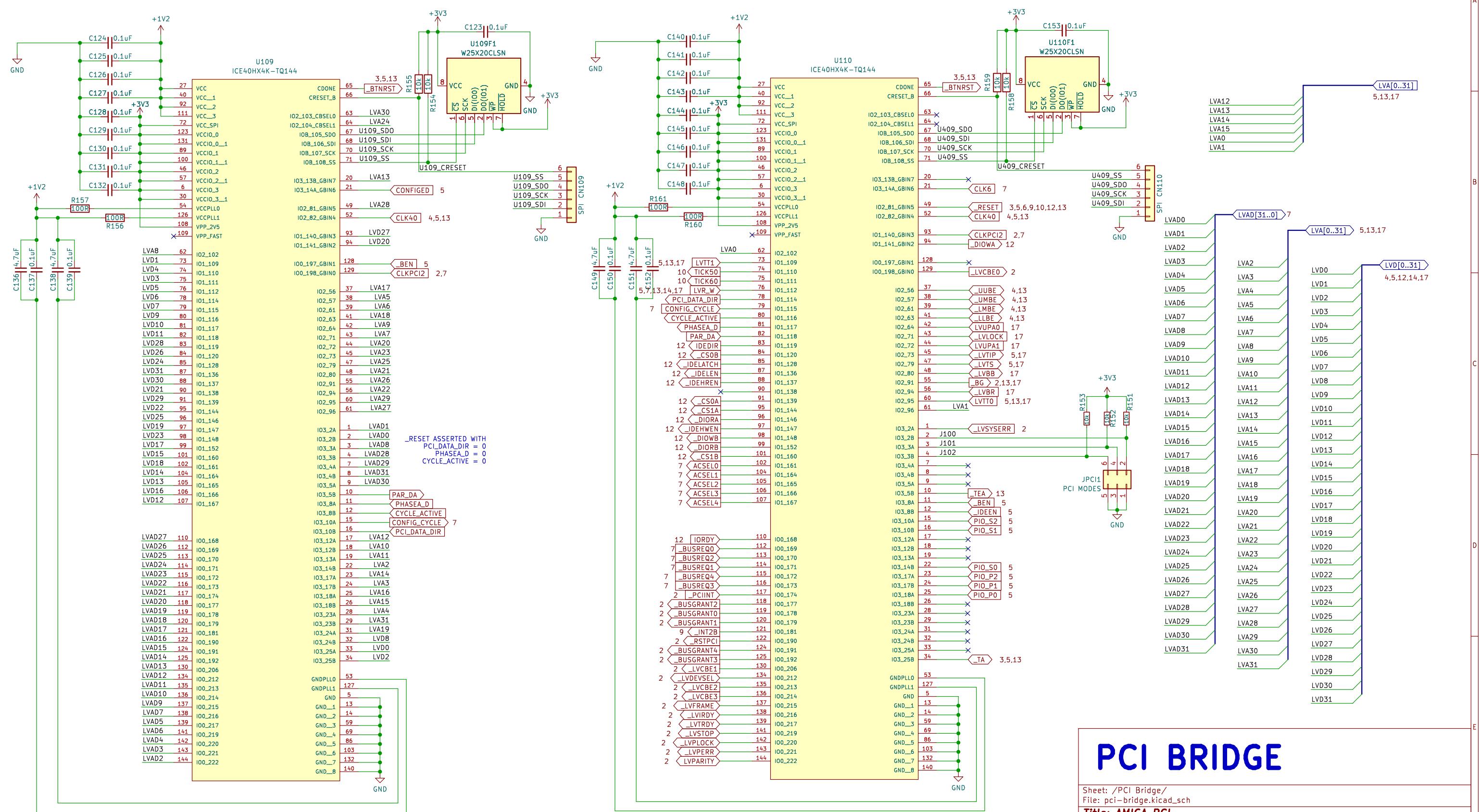






**U109: BUFFERS AD/D/A BUSSES, AD PARITY CALC, AUTOCONFIG, BRIDGE REGISTERS**

U110: PCI STATE MACHINE, BUS ARBITRATOR, INTERRUPT HANDLING, PARITY ERROR DETECTION, IDE CONTROLLER

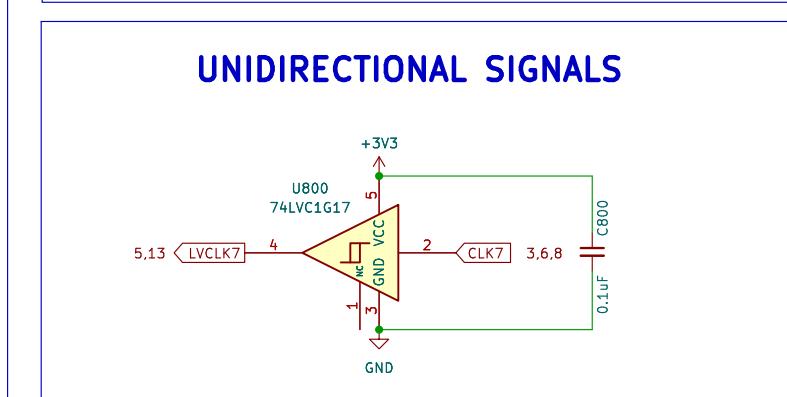
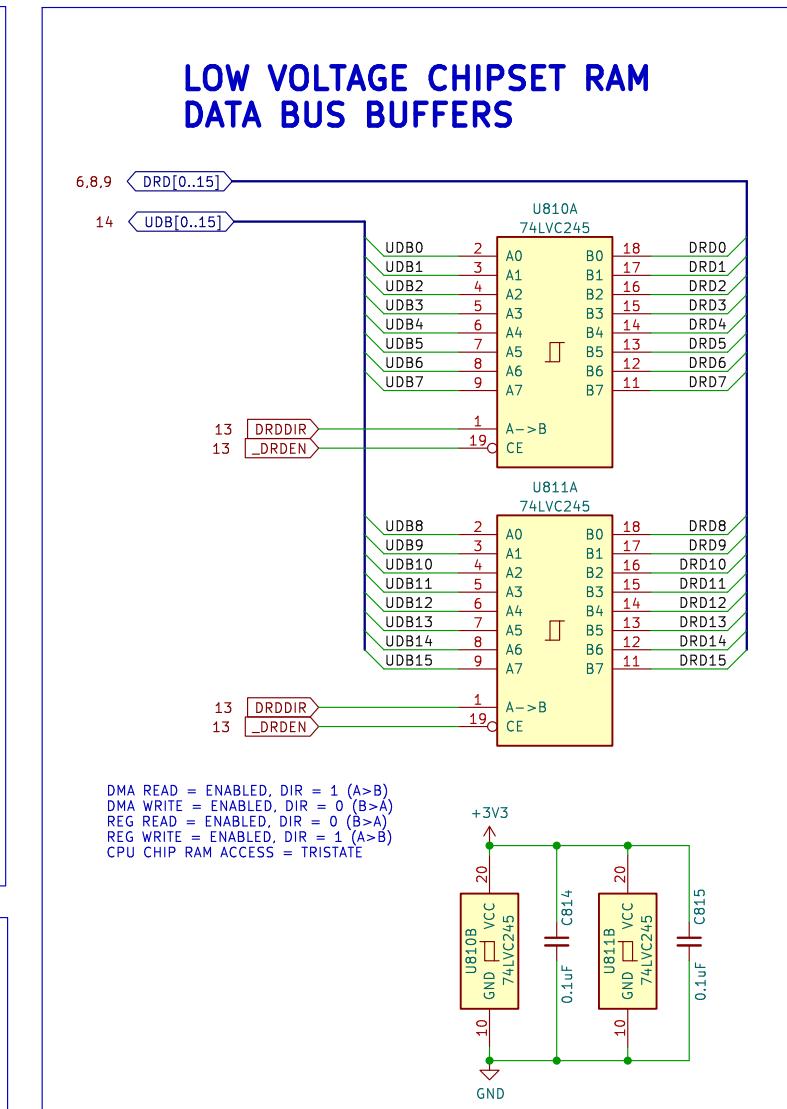
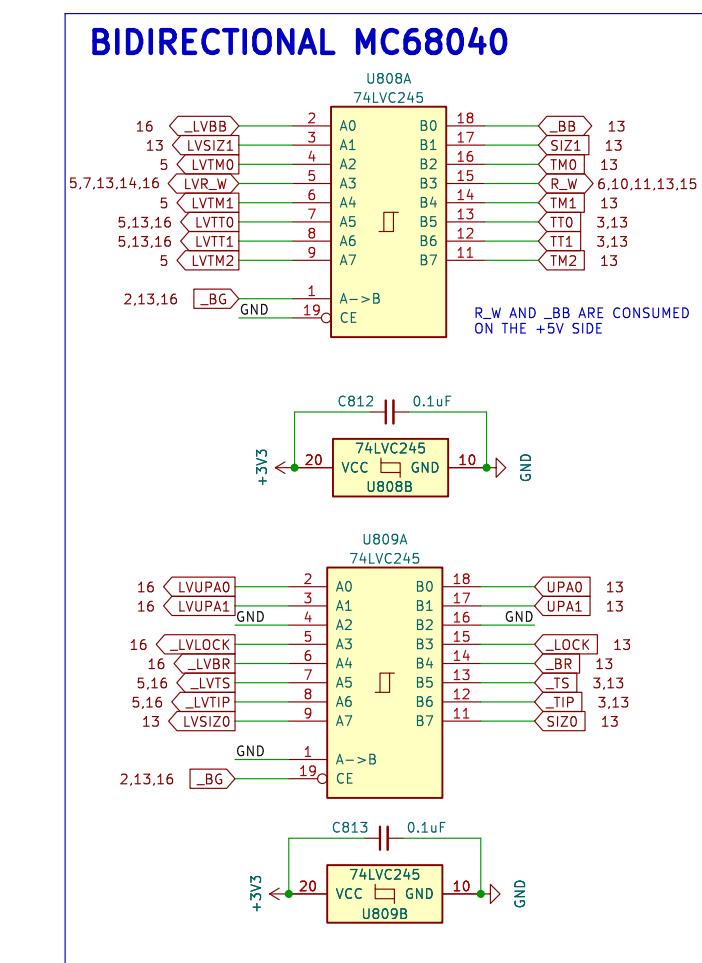
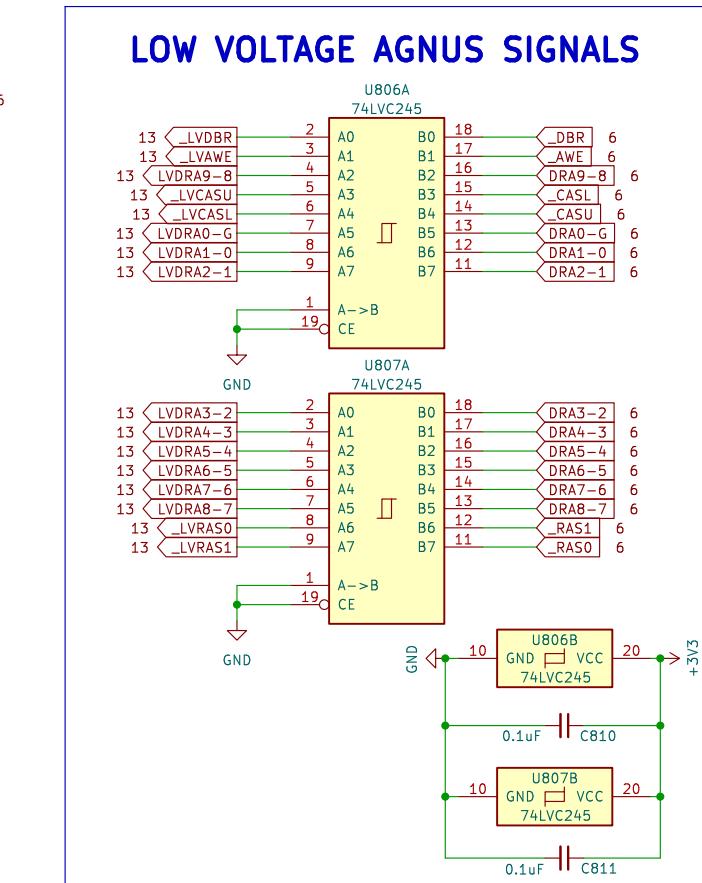
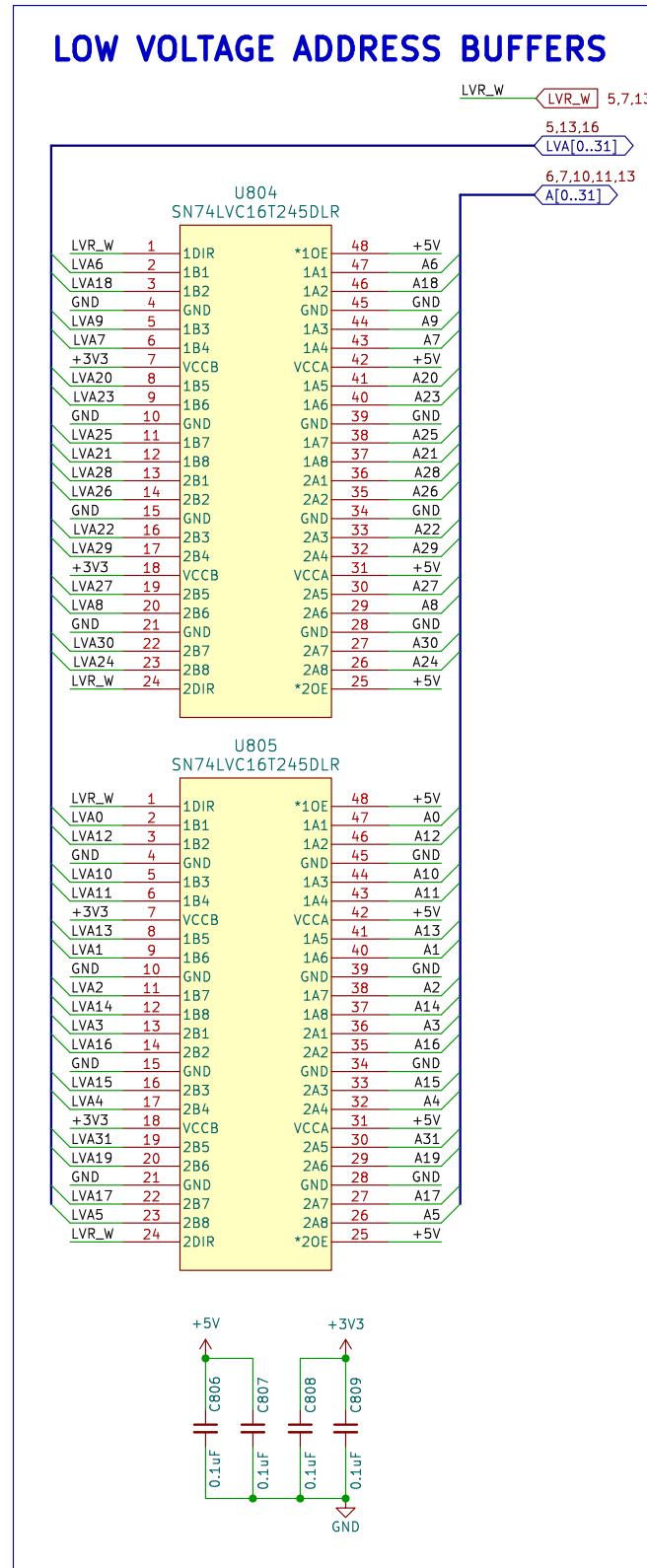
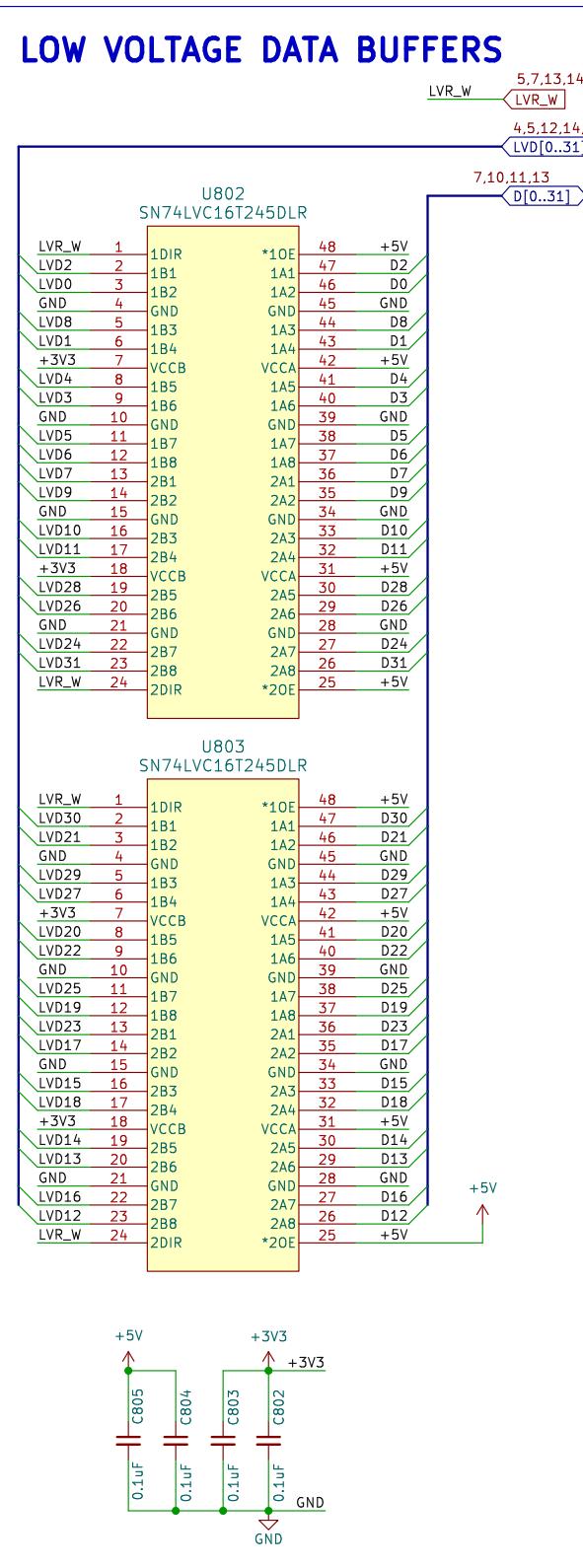


# PCI BRIDGE

Sheet: /PCI Bridge/  
File: pci-bridge.kicad\_sch

KiCad E.D.A. kicad 7.0.11-7.0.11~ubuntu23.10.1

16/17



IT SEEMS MY ONLY CHANCE IS GIVING UP THE FIGHT.

# MC68040 LEVEL SHIFT

Sheet: /MC68040 Level Shift/  
File: mc68040\_level\_shift.kicad\_sch

**Title: AMIGA PCI**

Size: B Date: 2024-03-14

KiCad E.D.A. kicad 7.0.11-7.0.11~ubuntu23.10.1

Rev: 2.0