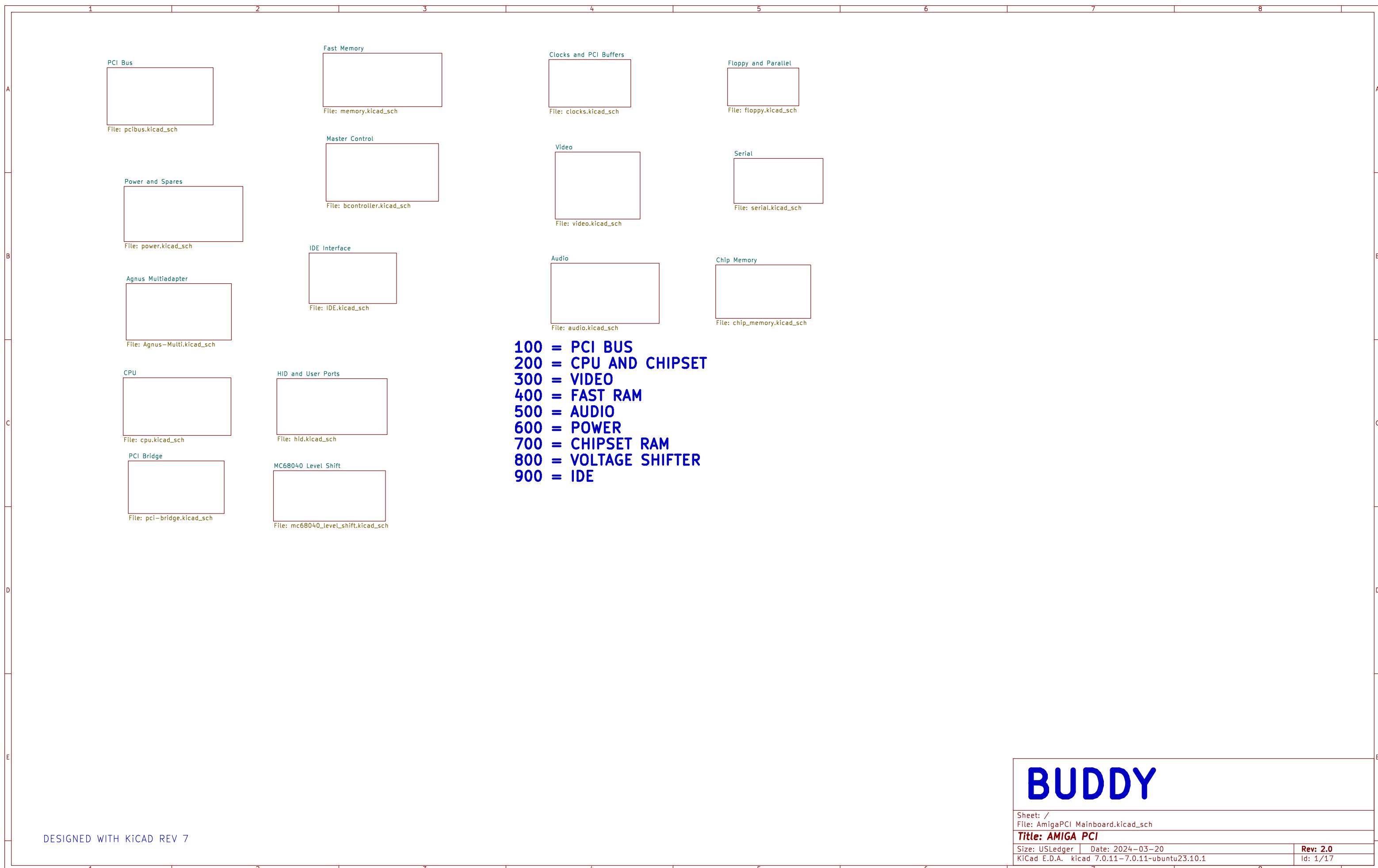


1 2 3 4 5 6 7 8



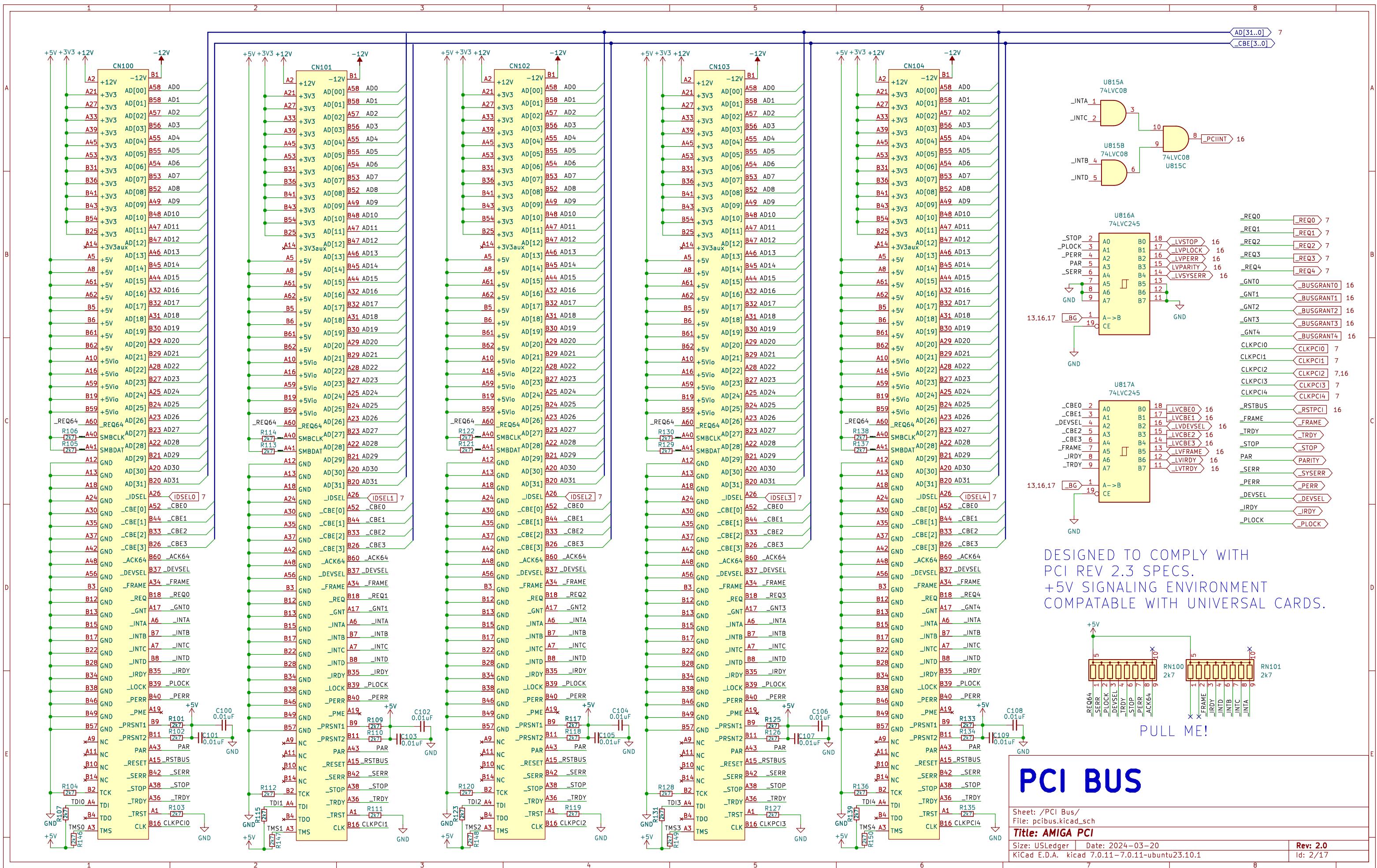
**BUDDY**

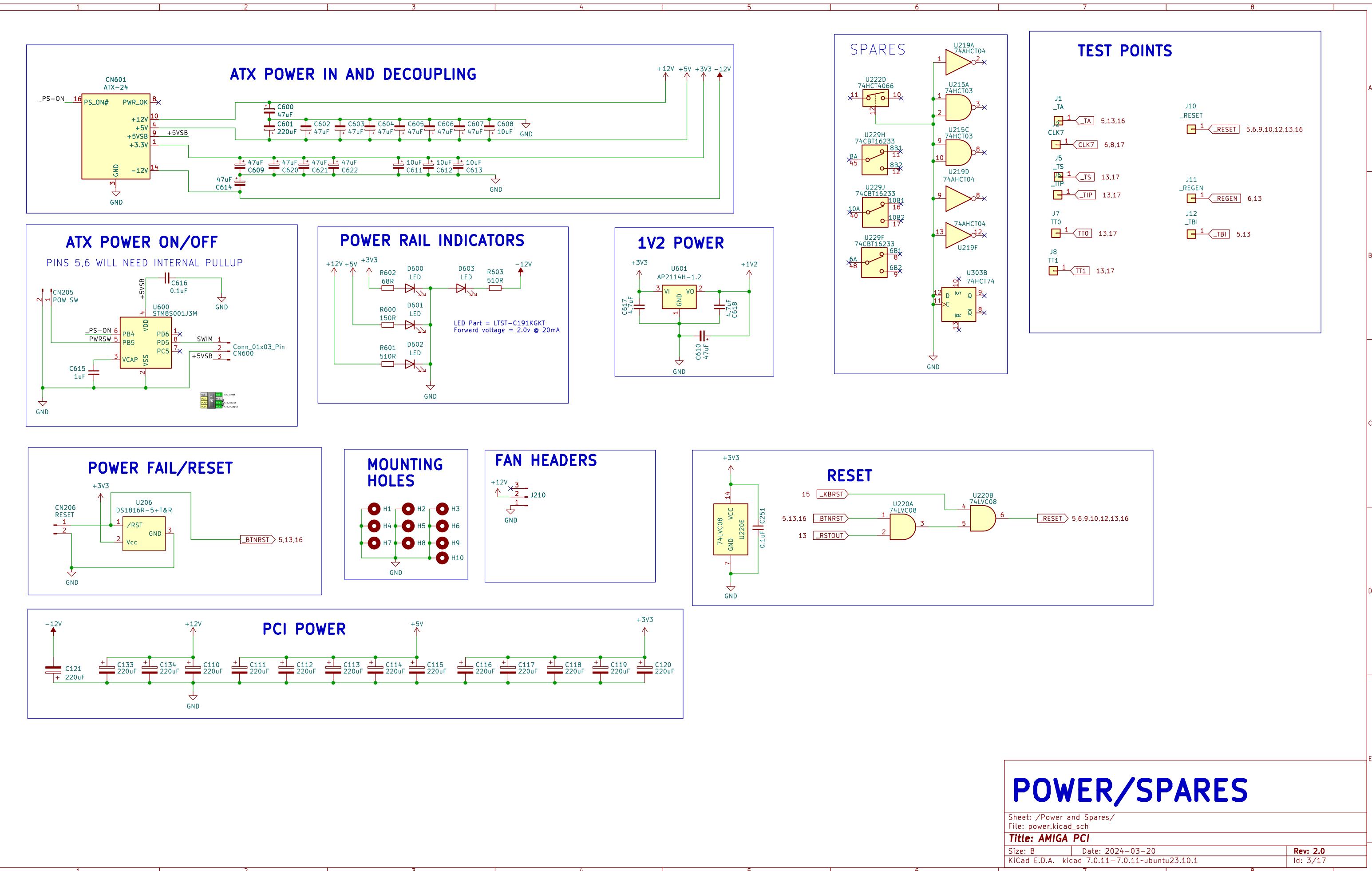
Sheet: /  
File: AmigaPCI Mainboard.kicad\_sch

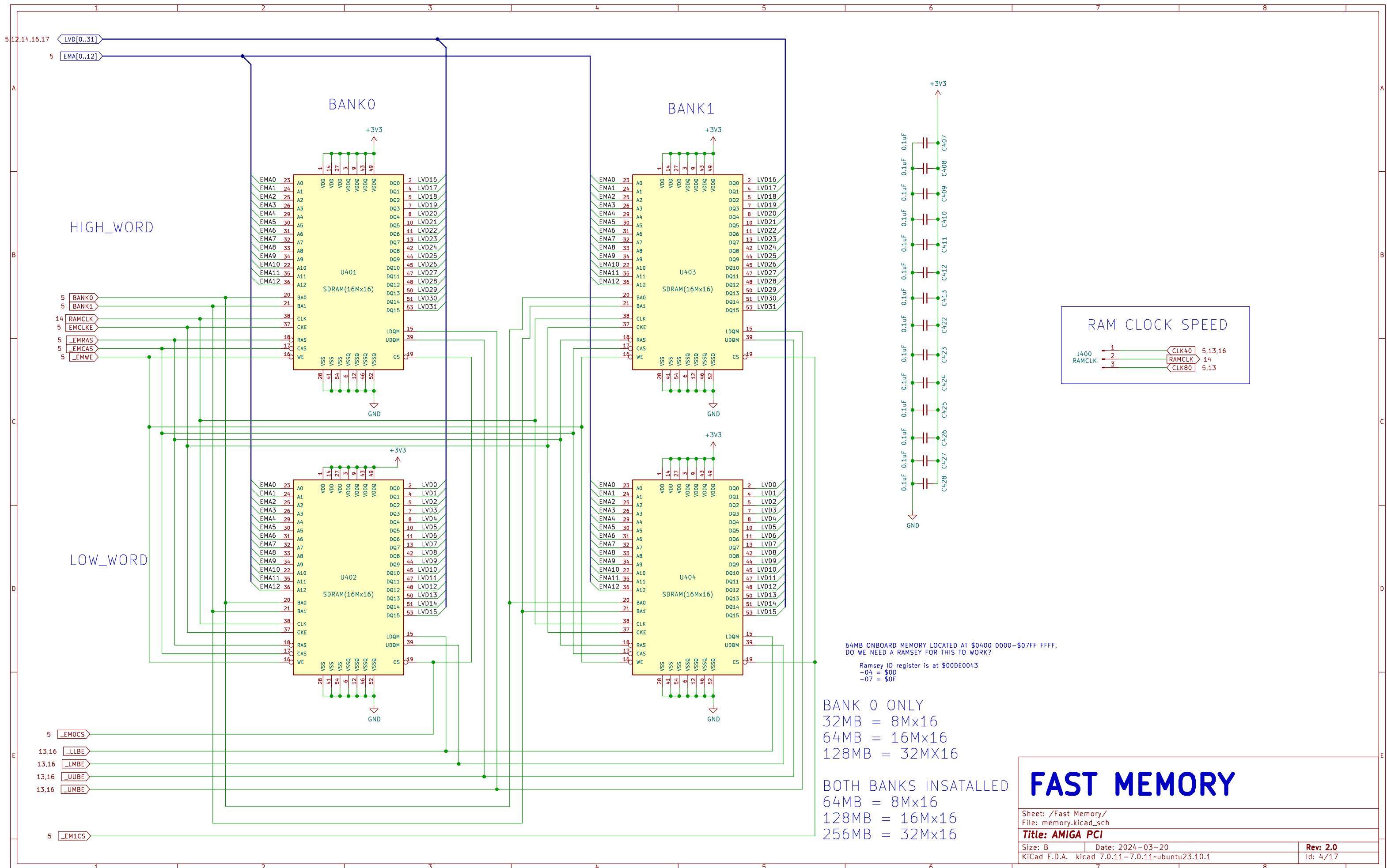
Title: AMIGA PCI

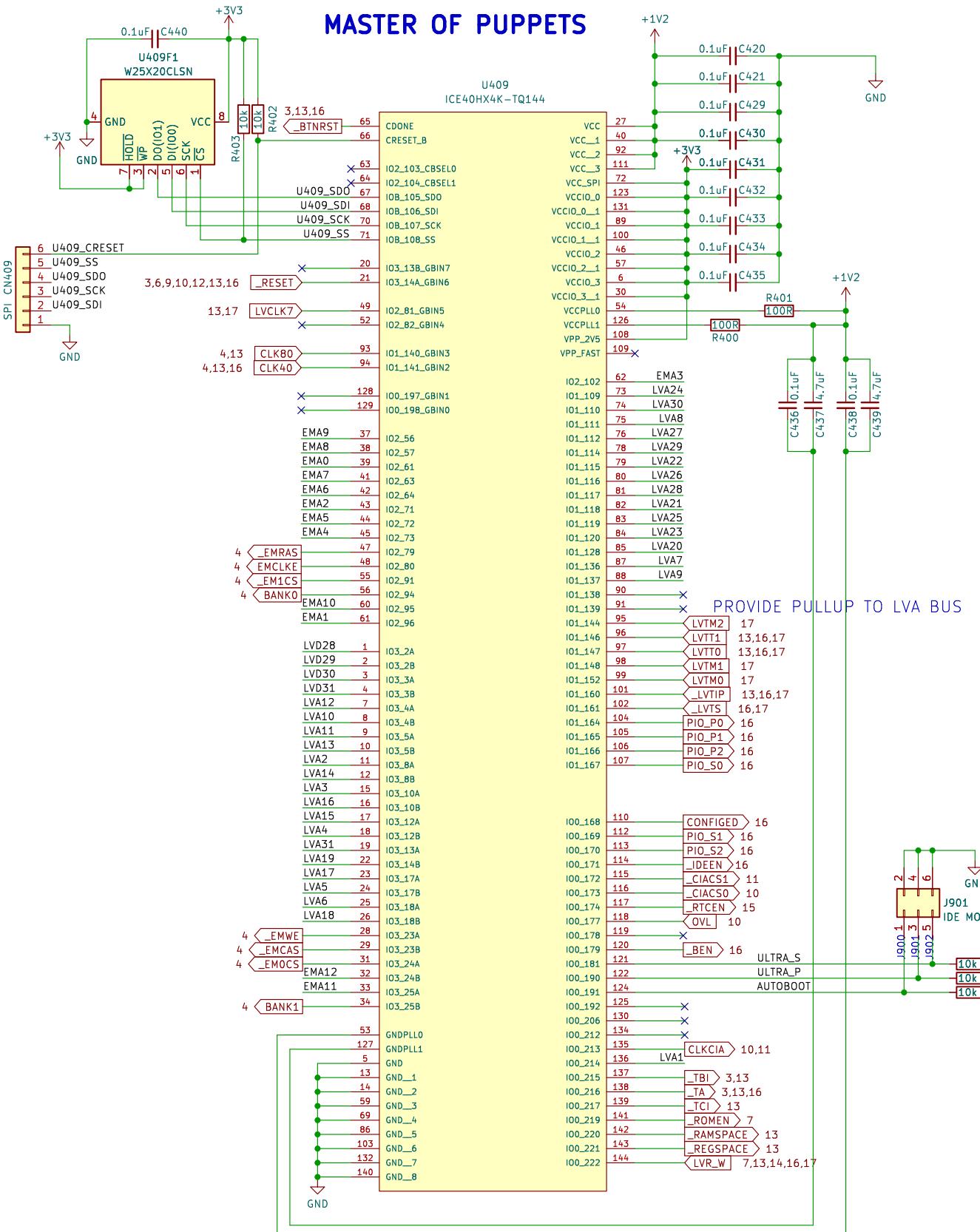
Size: USLetter Date: 2024-03-20  
KiCad E.D.A. kicad 7.0.11-7.0.11~ubuntu23.10.1

Rev: 2.0  
Id: 1/17

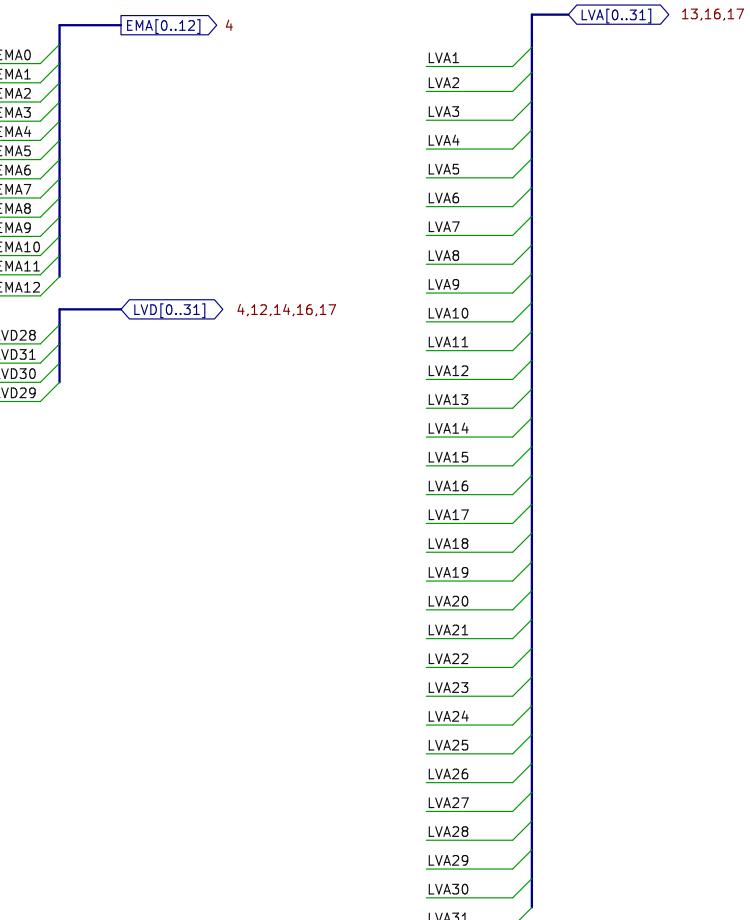








**U409 PROVIDES RAM, IDE, AND PCI BRIDGE AUTOCONFIG, ADDRESS DECODE,  
REPLACEMENT GARY FUNCTIONS, STARTUP AND KEYBOARD RESET,  
AND FAST RAM CONTROLLER.**



I'M PULLING YOUR STRINGS

# MASTER CONTROL

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

**Title:** AMIGA PCI

Size: B Date: 2024-03-20

KiCad E.D.A. kicad 7.0.11~ubuntu23.10.1 | Id: 5/17

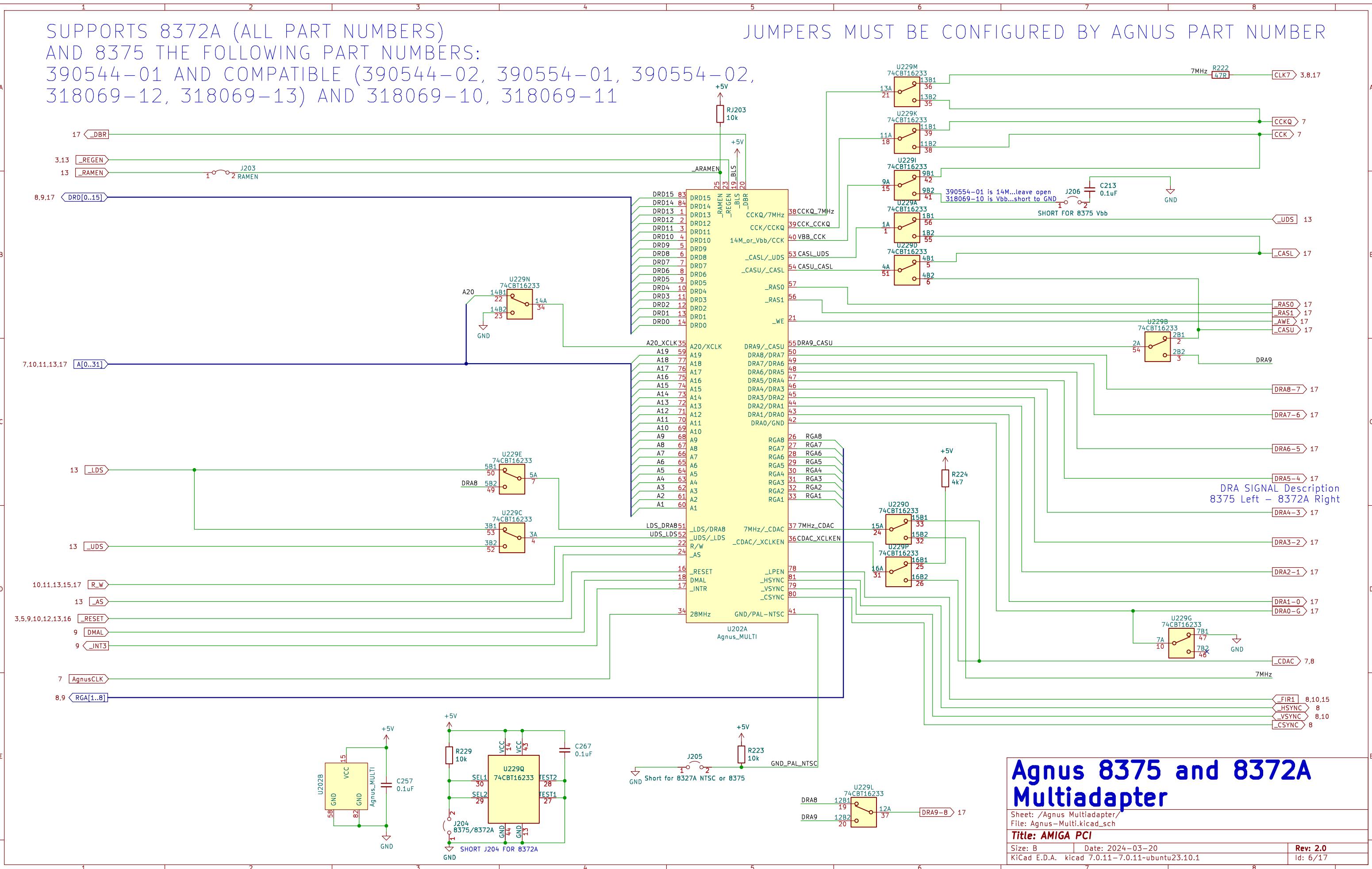
SUPPORTS 8372A (ALL PART NUMBERS)

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

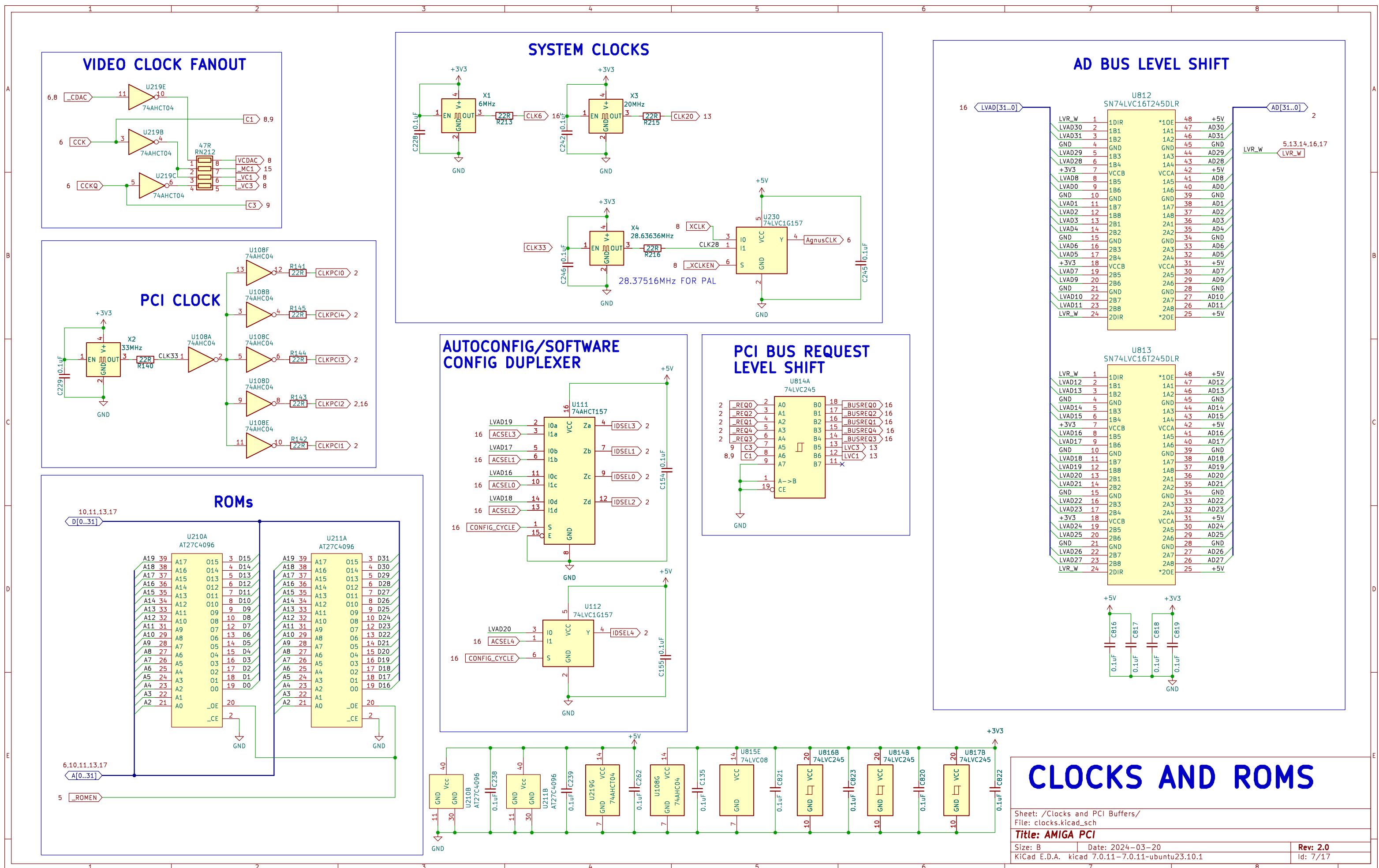


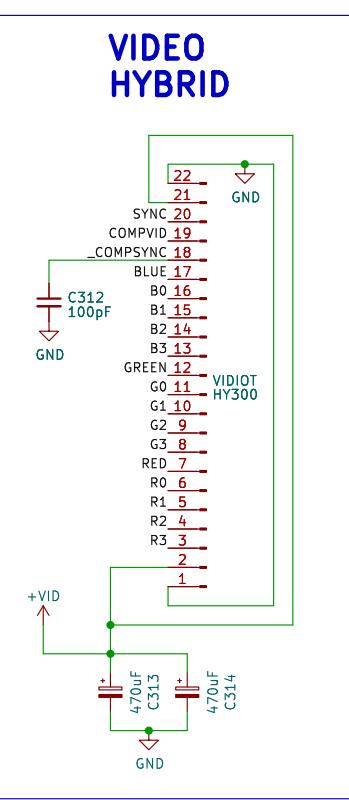
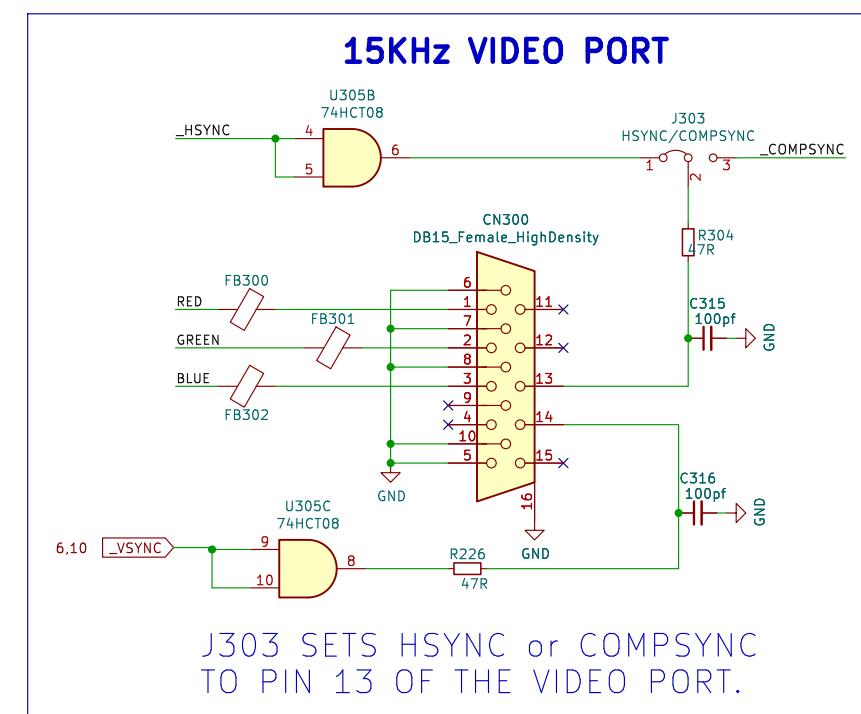
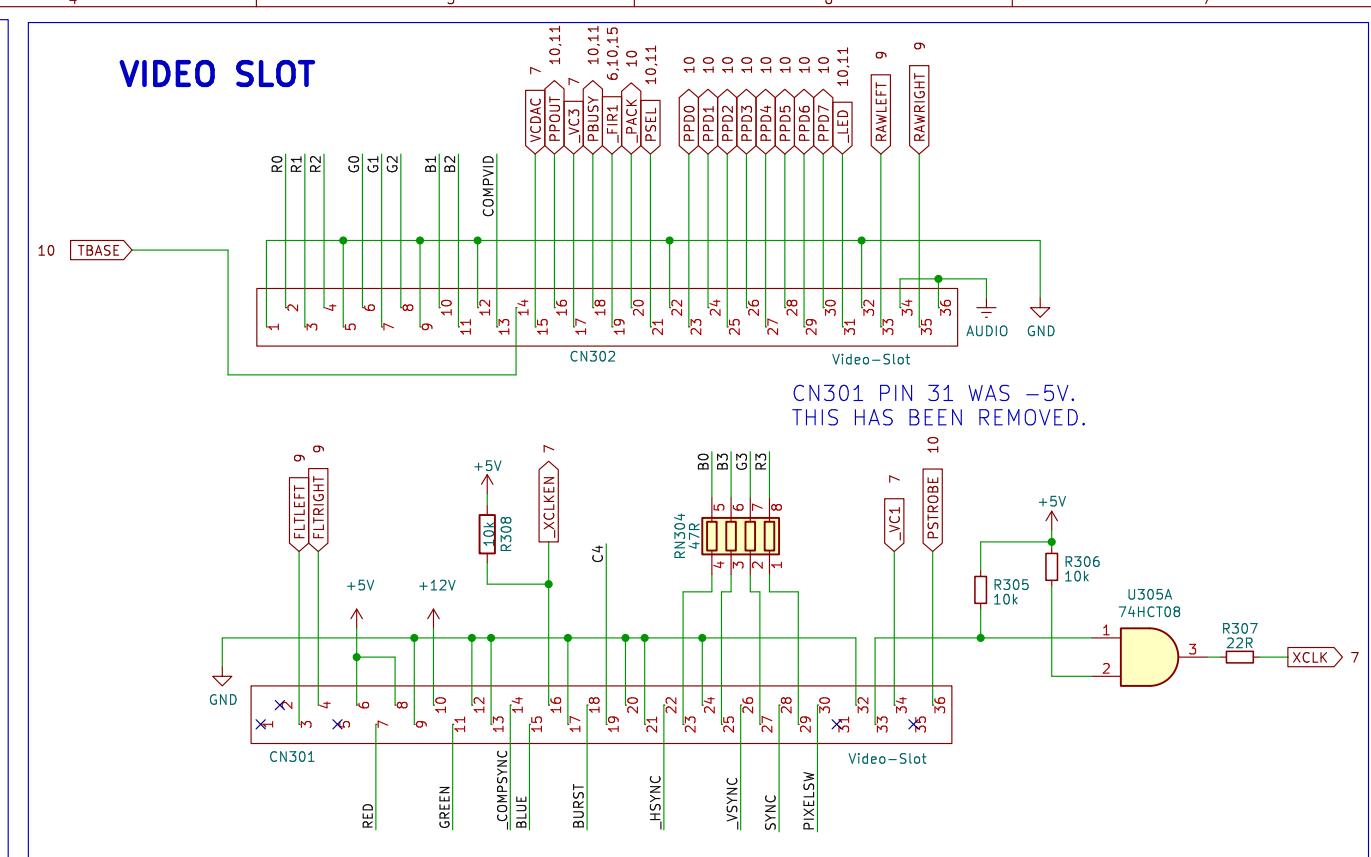
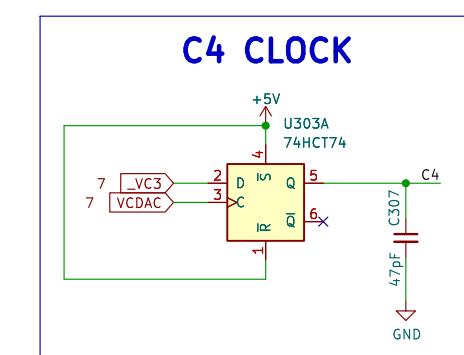
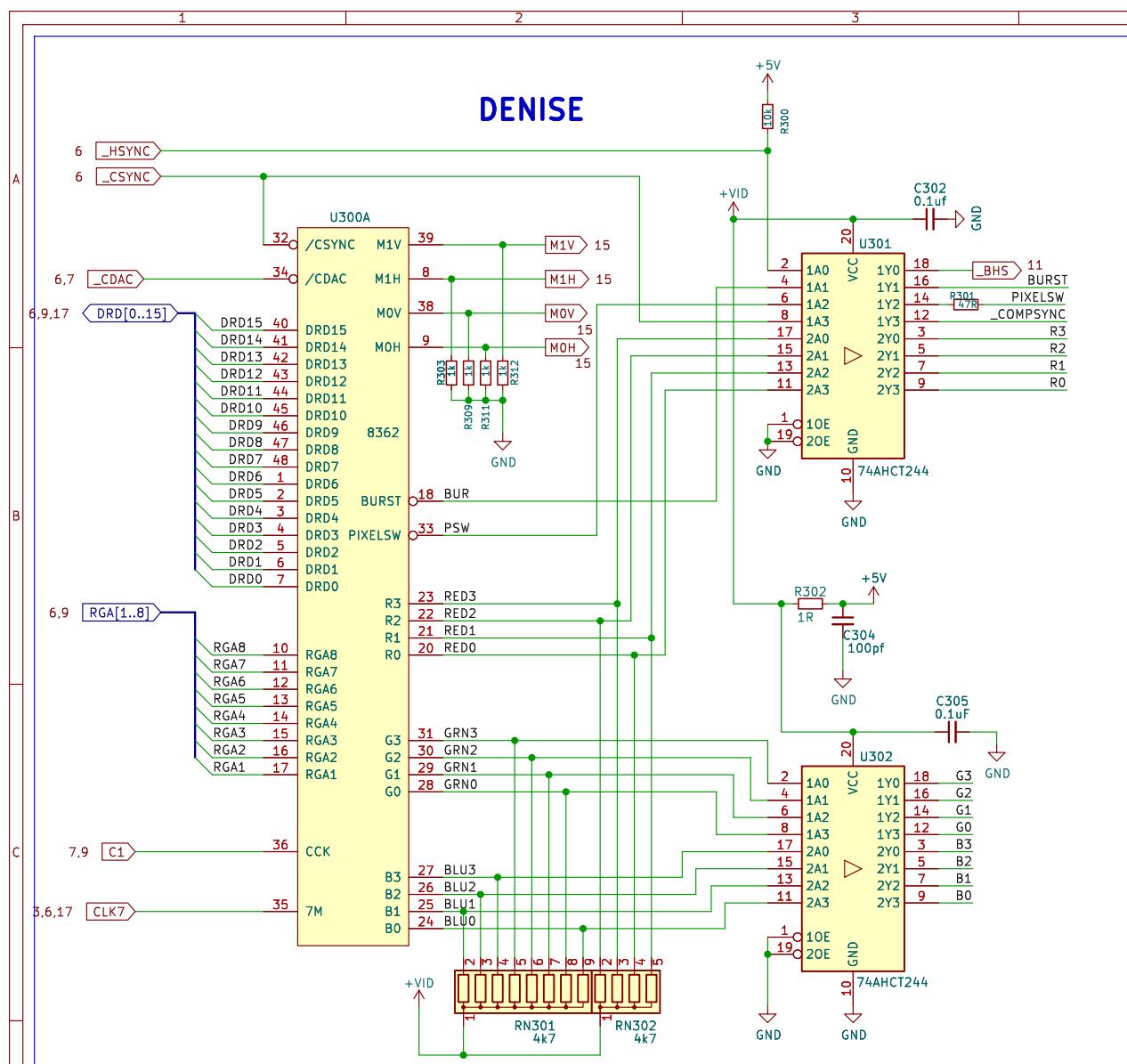
## Agnus 8375 and 8372A Multiadapter

Sheet: /Agnus Multiadapter/  
File: Agnus-Multi.kicad\_sch

Title: AMIGA PCI

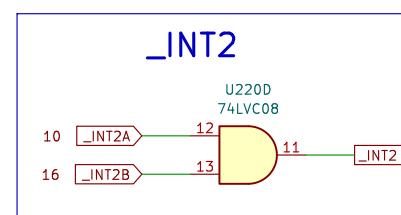
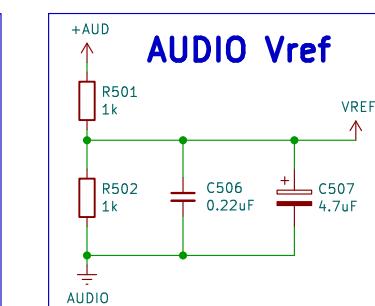
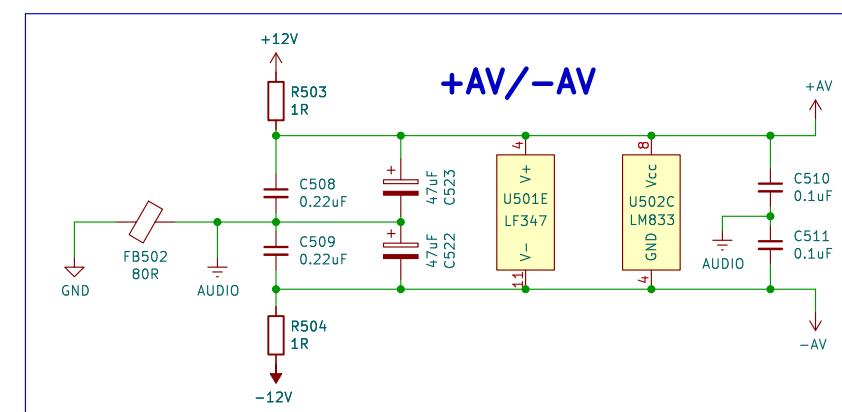
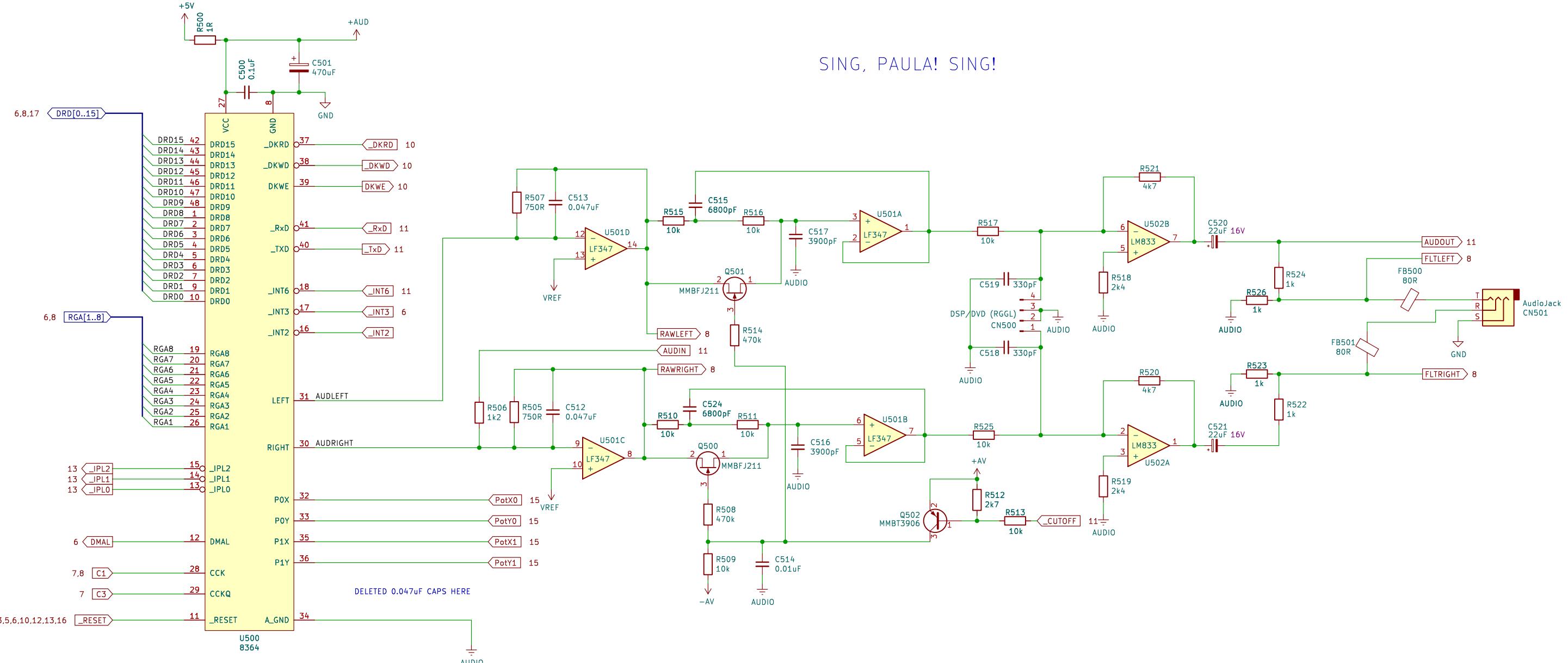
Size: B	Date: 2024-03-20	Rev: 2.0
KiCad E.D.A. kicad 7.0.11~7.0.11~ubuntu23.10.1		Id: 6/17





VIDEO

Sheet: /Video/  
File: video.kicad\_sch  
**Title: AMIGA PCI**  
Size: B Date: 2021-01-10  
KiCad EDA kicad 7.0.11

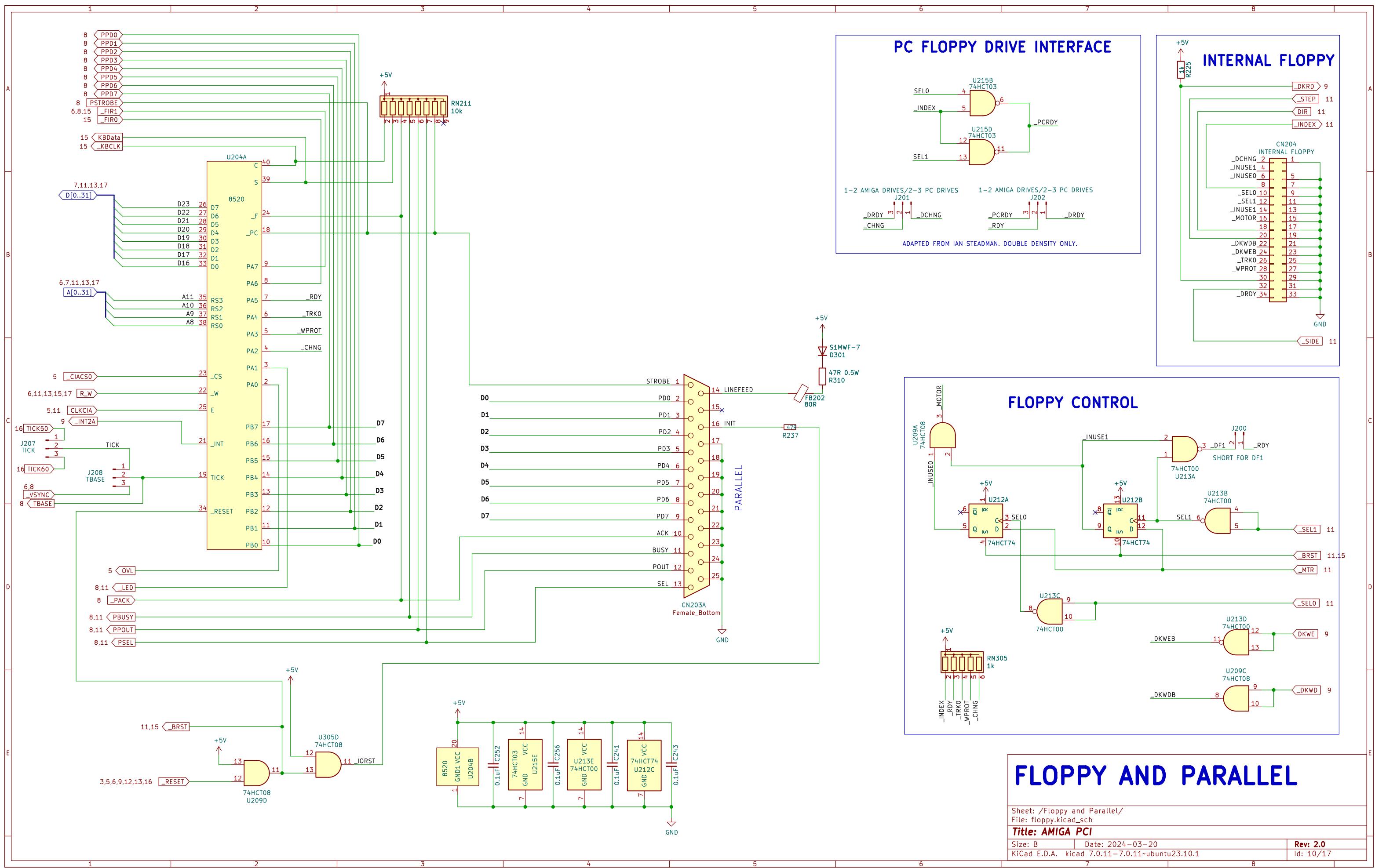


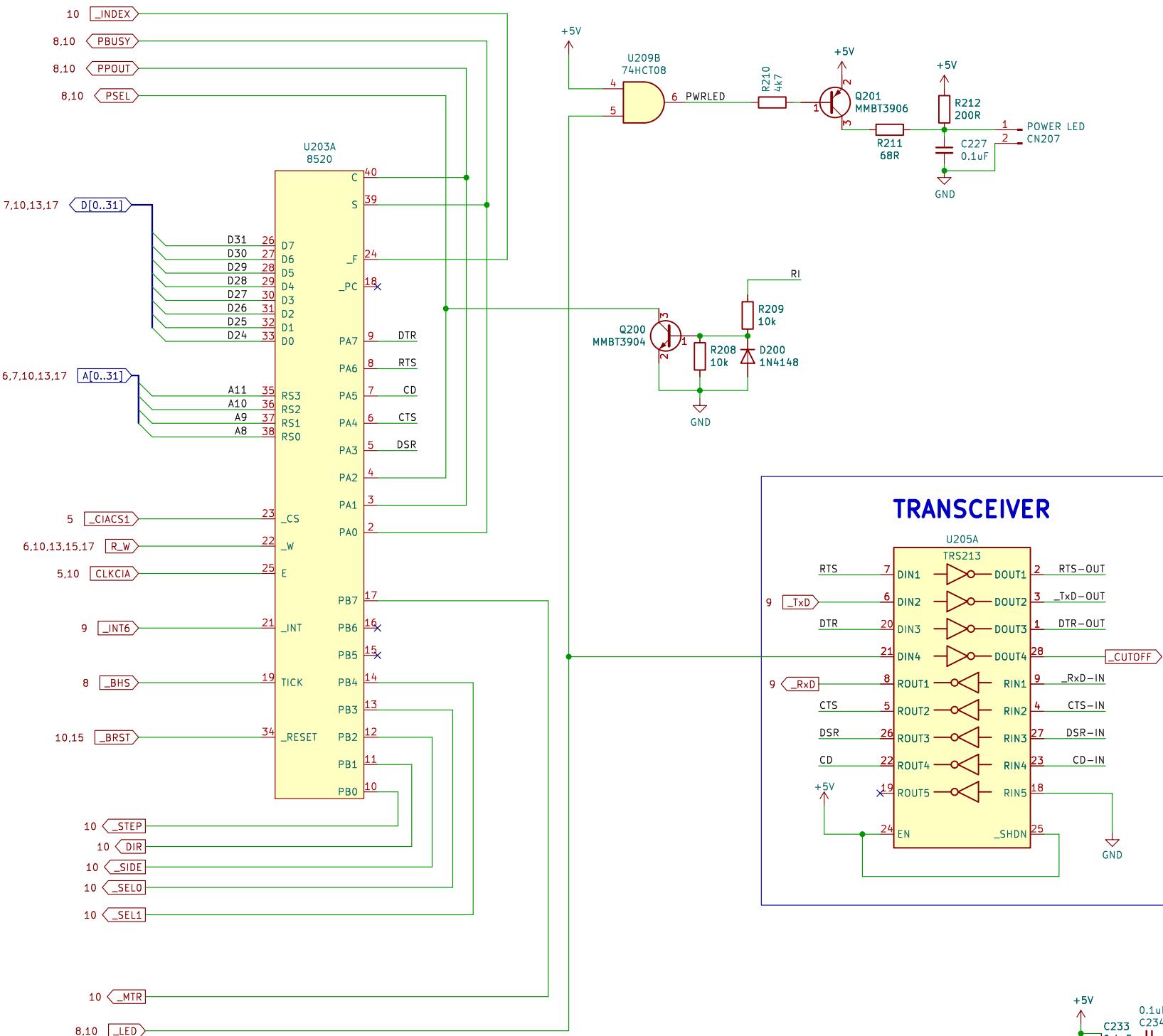
# PAULA/AUDIO

Sheet: /Audio/  
File: audio.kicad\_sch

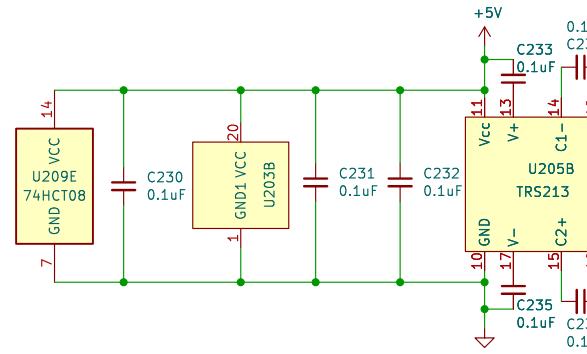
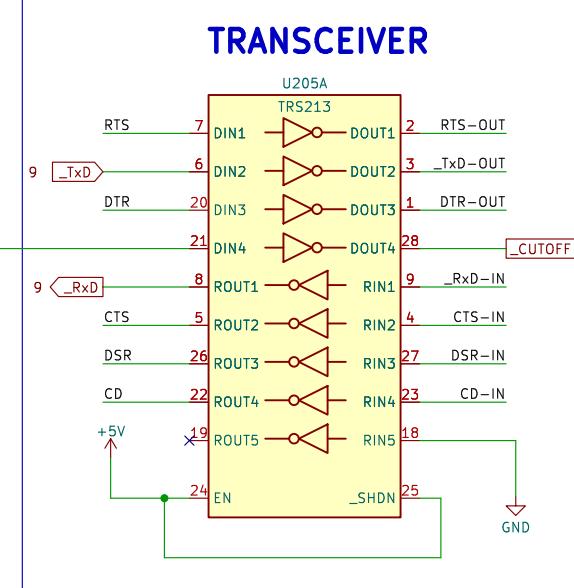
Title: AMIGA PCI	
Size: B	Date: 2024-03-20
VGA	PCI

Rev: 2.0

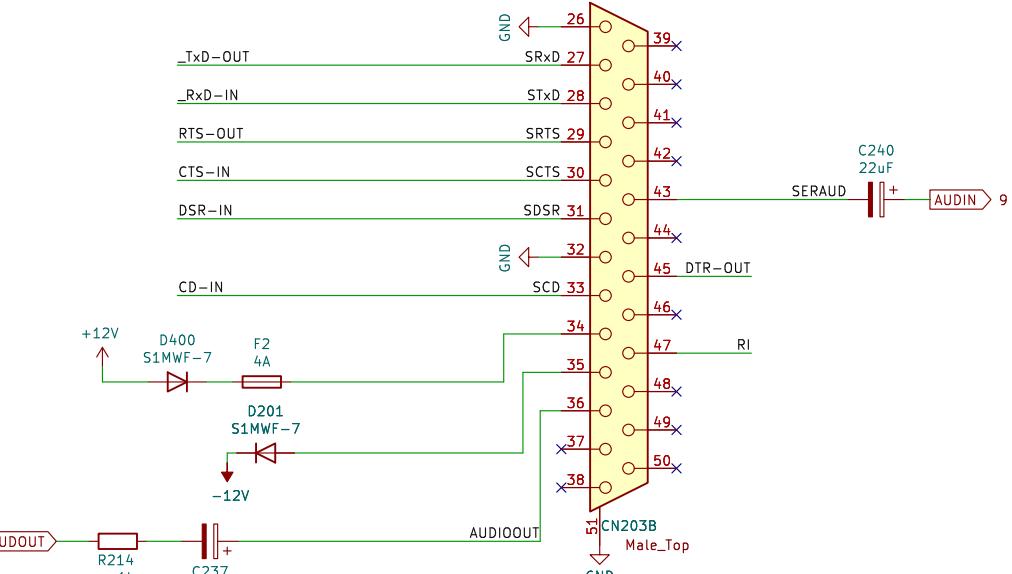




### TRANSCEIVER



### SERIAL PORT



### SERIAL

Sheet: /Serial/  
File: serial.kicad\_sch  
**Title: AMIGA PCI**  
Size: B Date: 2024-03-20  
KiCad E.D.A. kicad 7.0.11~7.0.11~ubuntu23.10.1 Rev: 2.0  
Id: 11/17

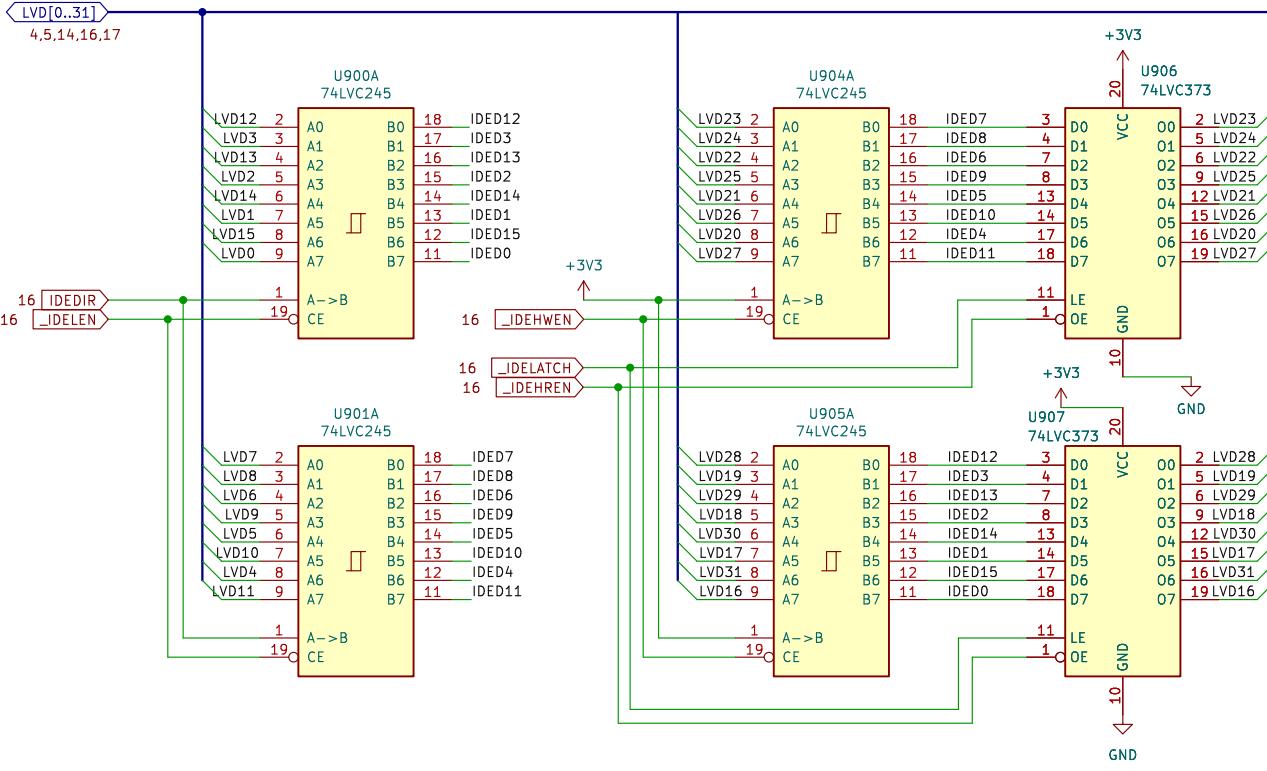
74LVC245 ENABLED FOR FIRST WORD DURING WRITES.  
DATA ALWAYS FLOWS A->B.

74LVC373 LATCHES DATA FOR FIRST WORD DURING READS.

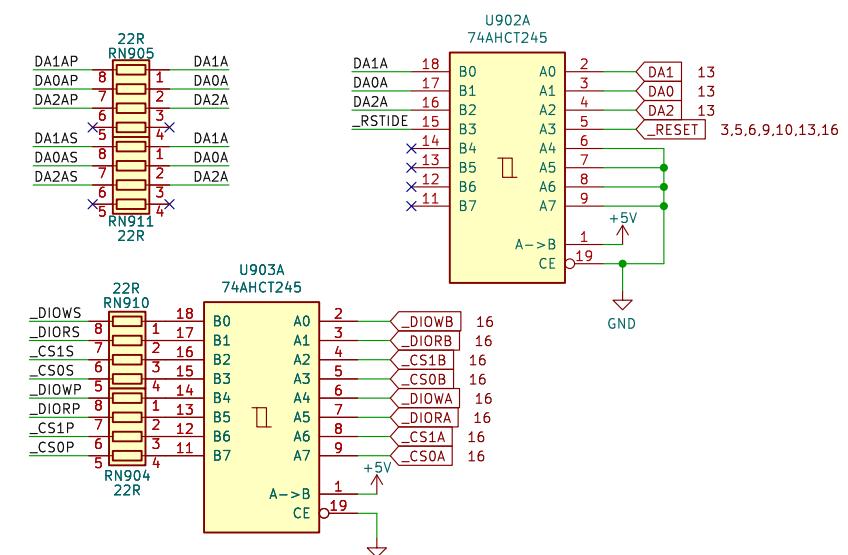
## DATA BUFFERS

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.

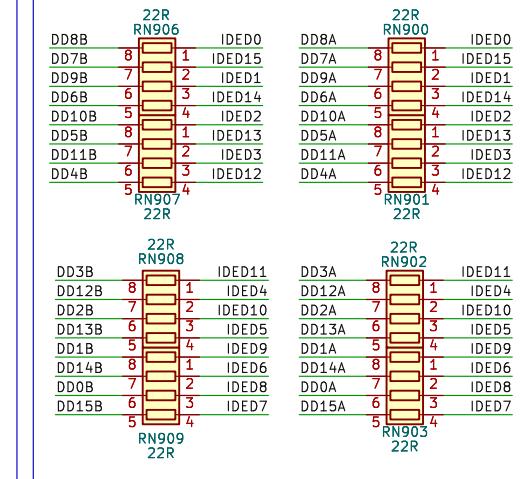
DURING READ CYCLES, D16..31 IS LATCHED  
AFTER THE FIRST READ COMMAND FROM THE IDE DEVICE.  
THE SECOND READ FROM THE IDE DEVICE DRIVES  
D0..15 LIVE. THE DATA IS THEN LATCHED BY THE MC68040.



## BUFFERS AND TERMINATION

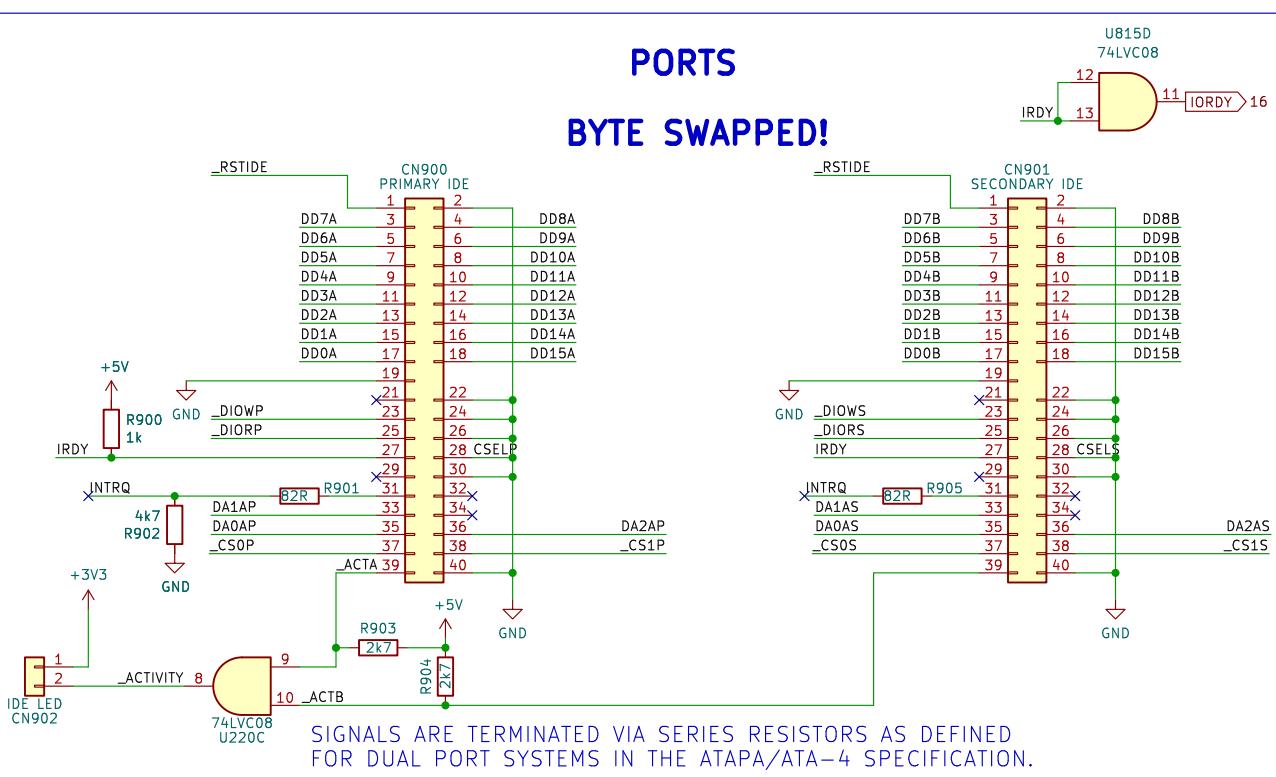


## DATA TERMINATION



## PORTS

### BYTE SWAPPED!



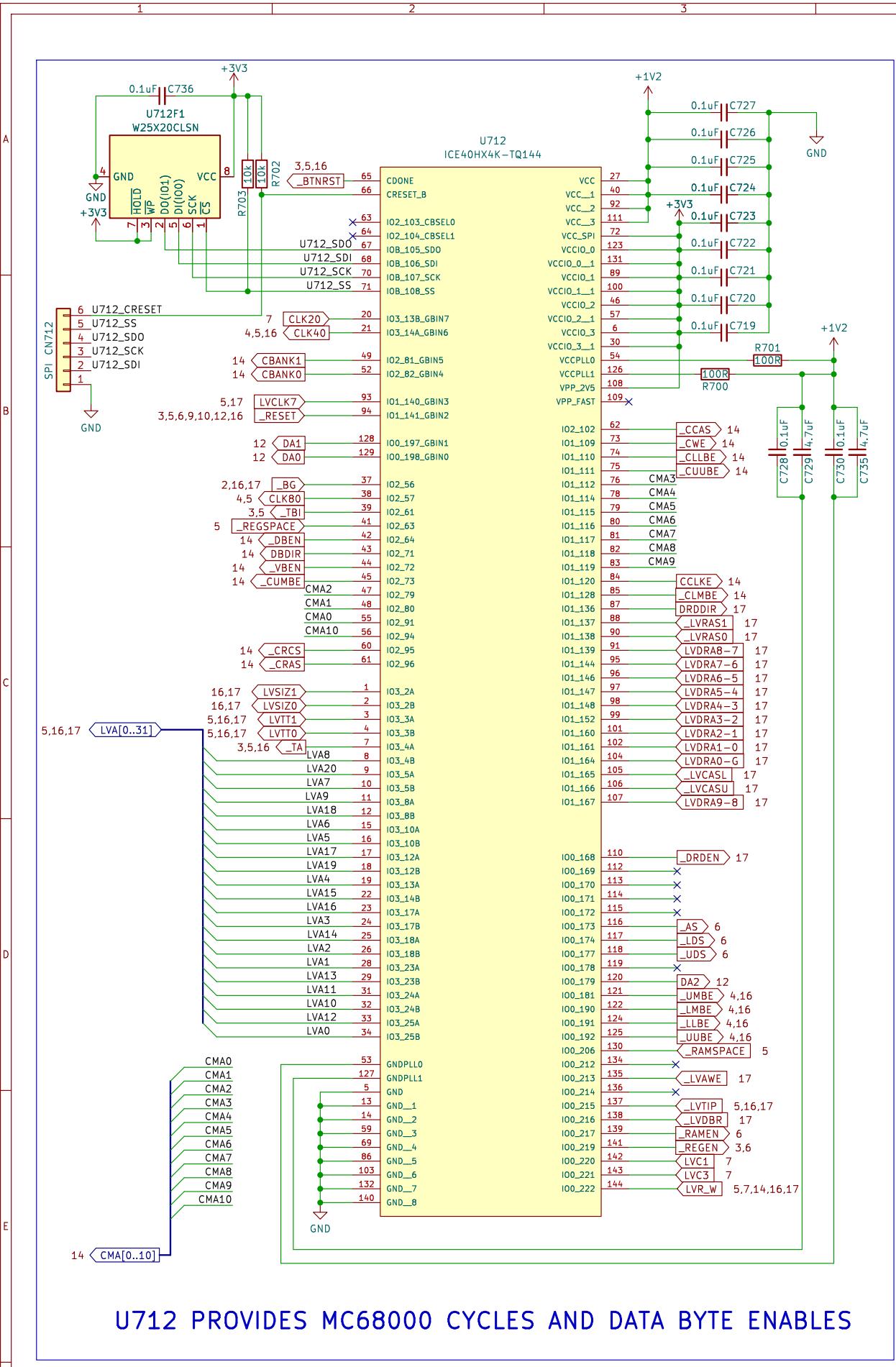
SIGNALS ARE TERMINATED VIA SERIES RESISTORS AS DEFINED  
FOR DUAL PORT SYSTEMS IN THE ATAPA/ATA-4 SPECIFICATION.

## IDE INTERFACE

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

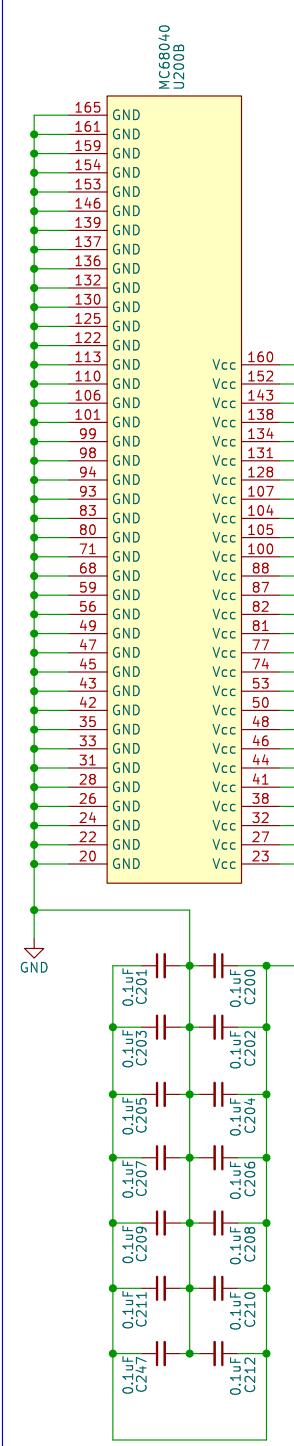
Title: AMIGA PCI

Size: B	Date: 2024-03-20	Rev: 2.0
KiCad E.D.A. kicad 7.0.11~7.0.11~ubuntu23.10.1		Id: 12/17

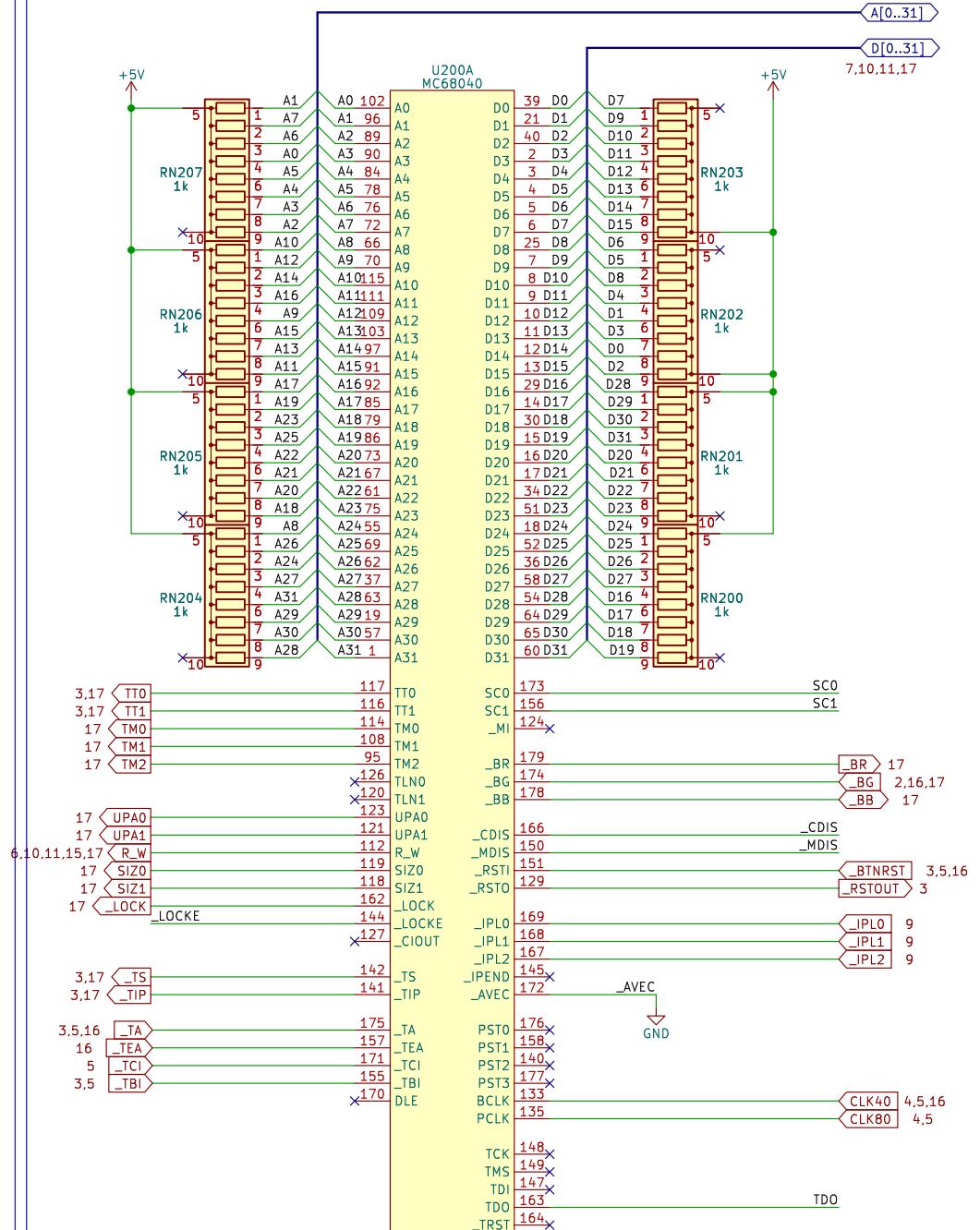


U712 PROVIDES MC68000 CYCLES AND DATA BYTE ENABLER

**MC68040  
POWER**



MC68040

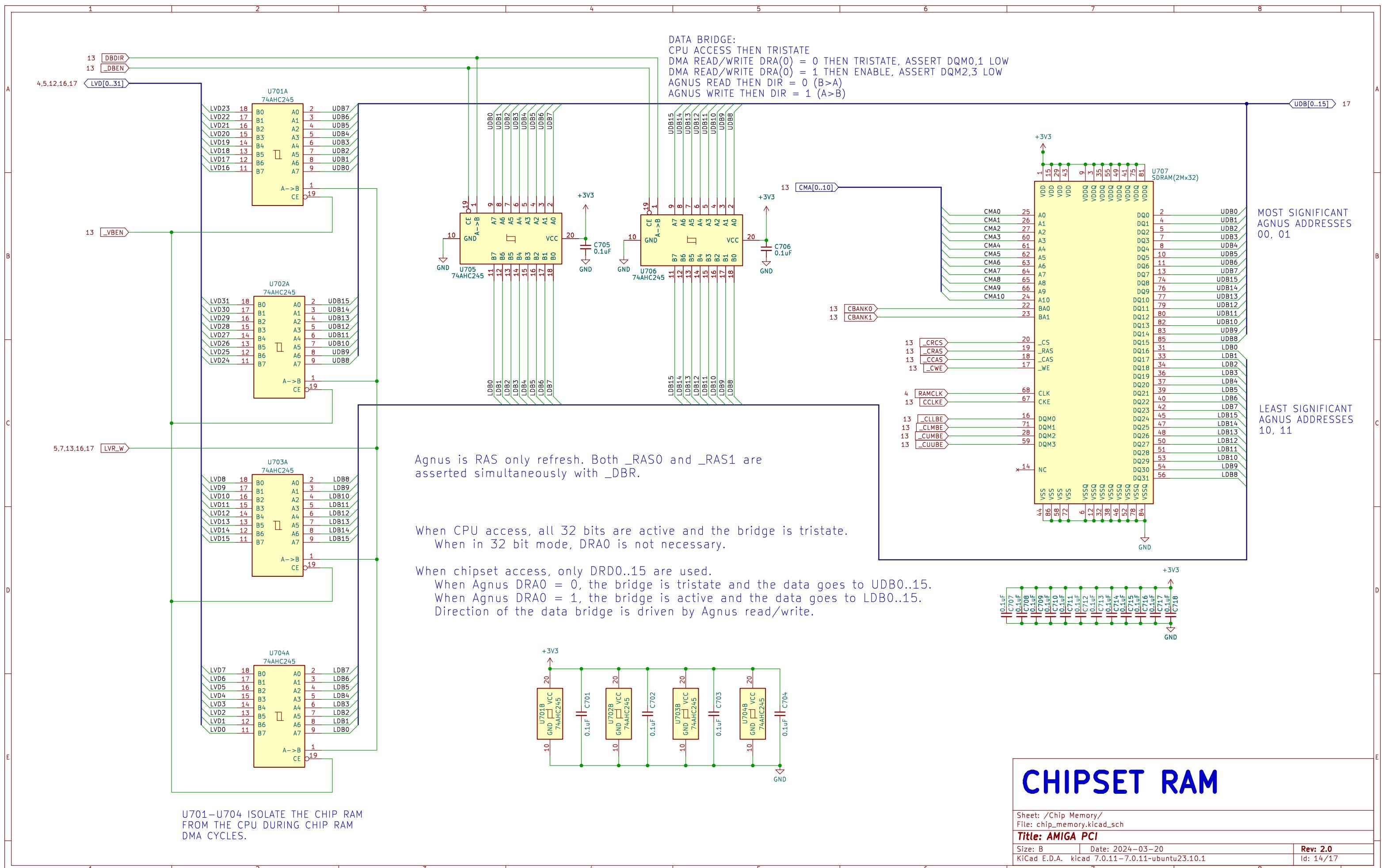


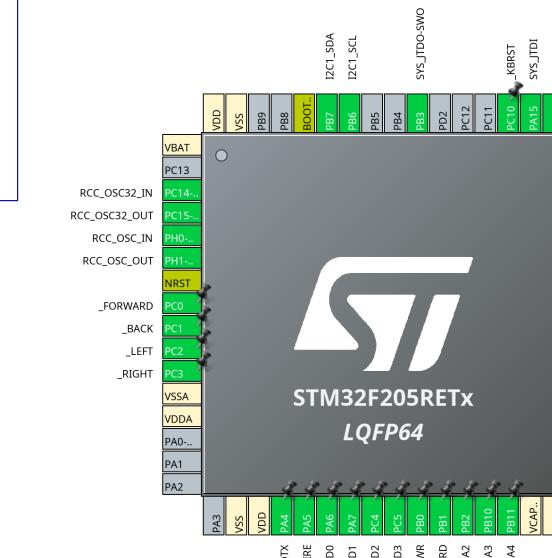
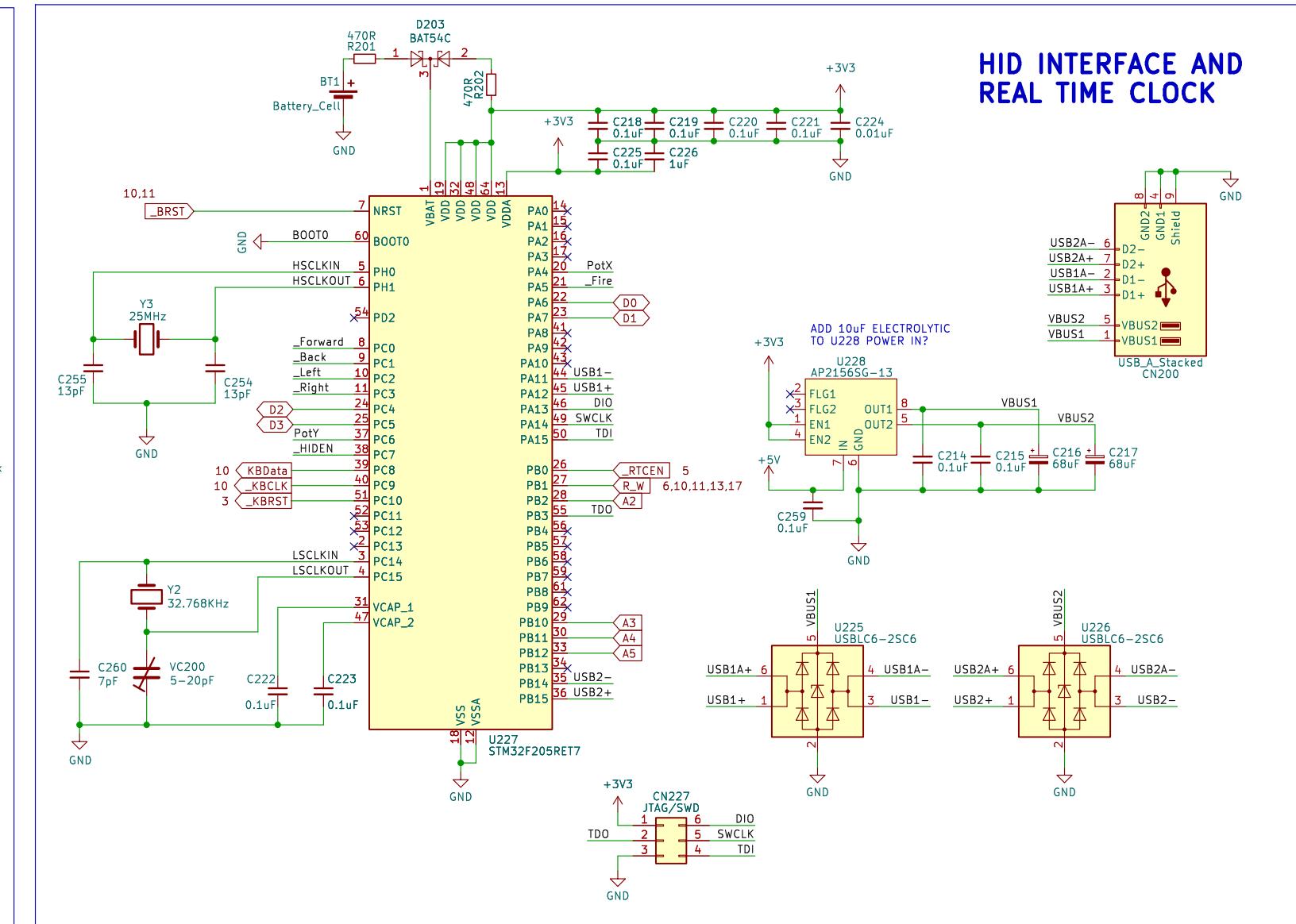
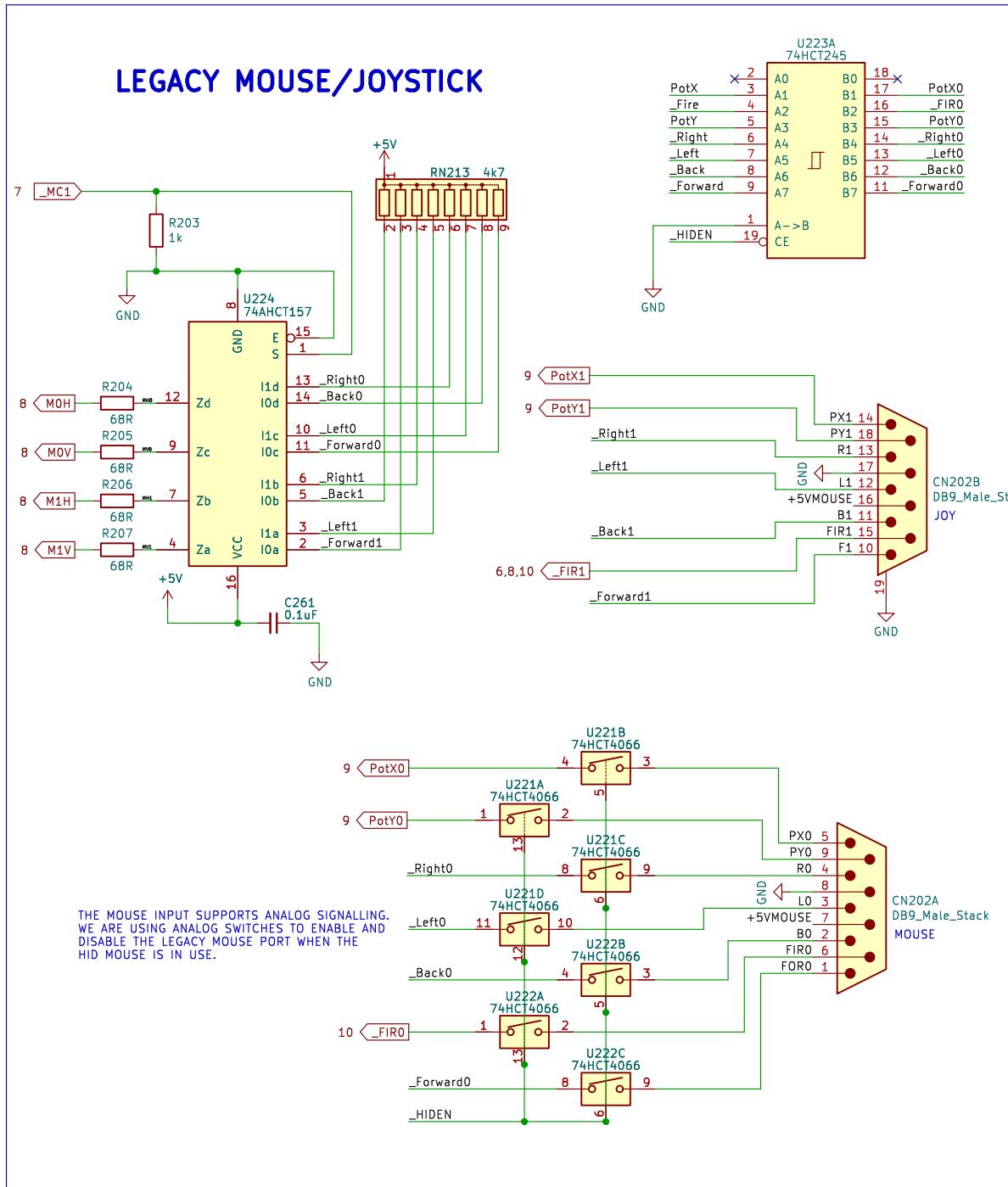
MC68040 PREFERRED HEATSINK:  
ATS-CPX060060025-132-C1-R0 x 1  
ATS-HK127-R0 x 4

## ALTERNATE HEATSINK: BDN18-6CB/A01

# CPU/CHIP RAM CONT

Sheet: /CPU/  
File: cpu.kicad\_sch  
**Title: AMIGA PCI**  
Size: B | Date: 2024-03-20  
KiCad E.D.A. kicad 7.0.11-7.0.11-ubuntu23.10.1





# HID and USER PORTS

Sheet: /HID and User Ports/  
File: hid.kicad\_sch

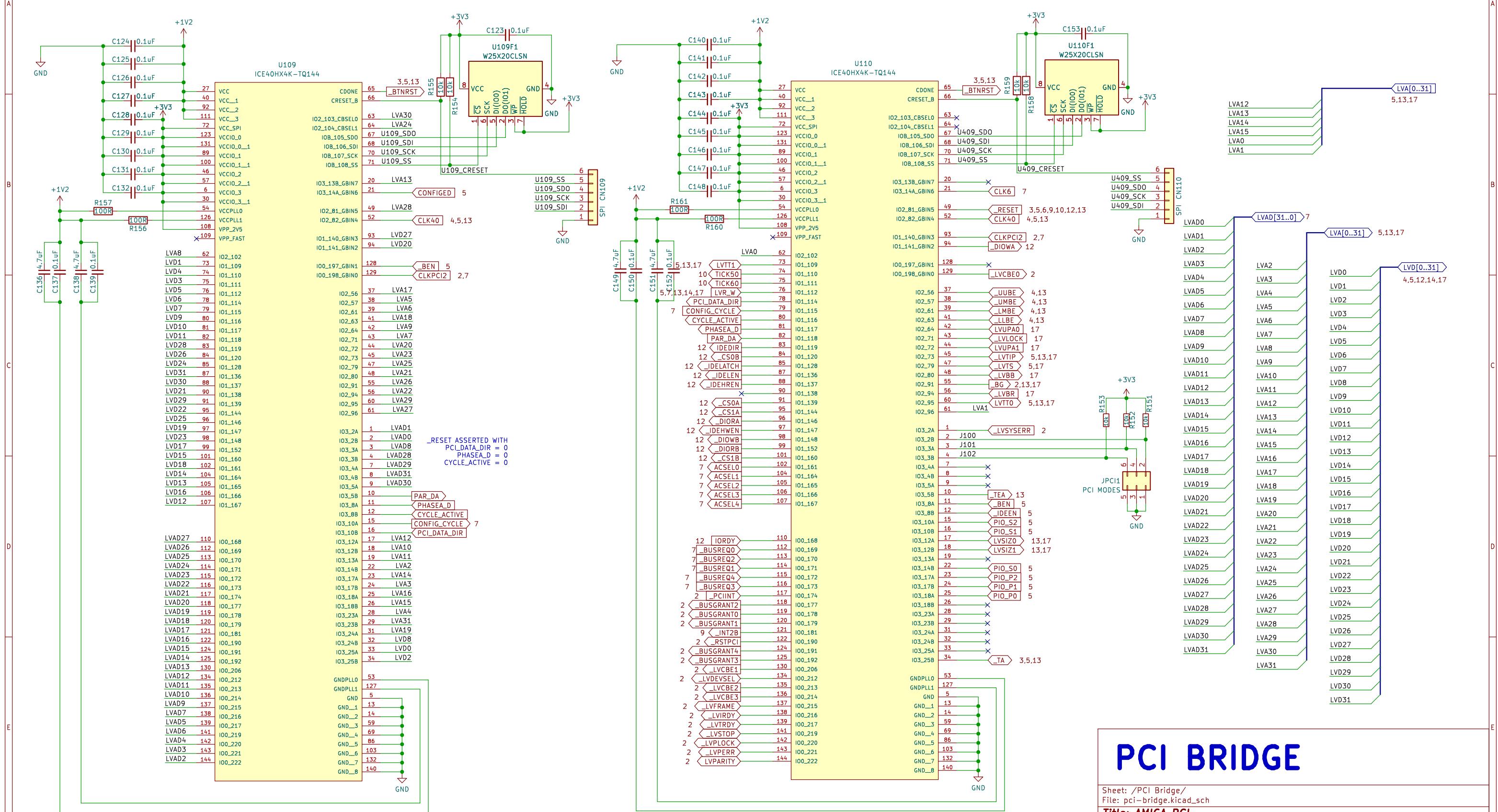
## **Title: AMIGA PCI**

Size: B Date: 2024-03-20  
KiCad E.D.A. kicad 7.0.11-7.0.11~ubuntu23.10.1

ev: 2.0  
d: 15/17

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

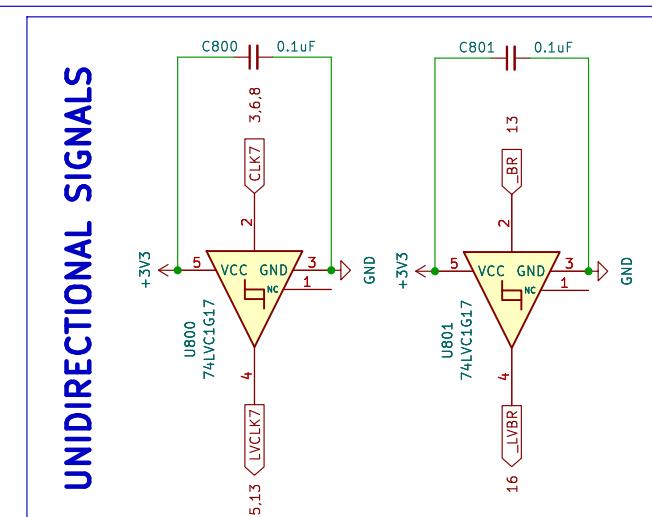
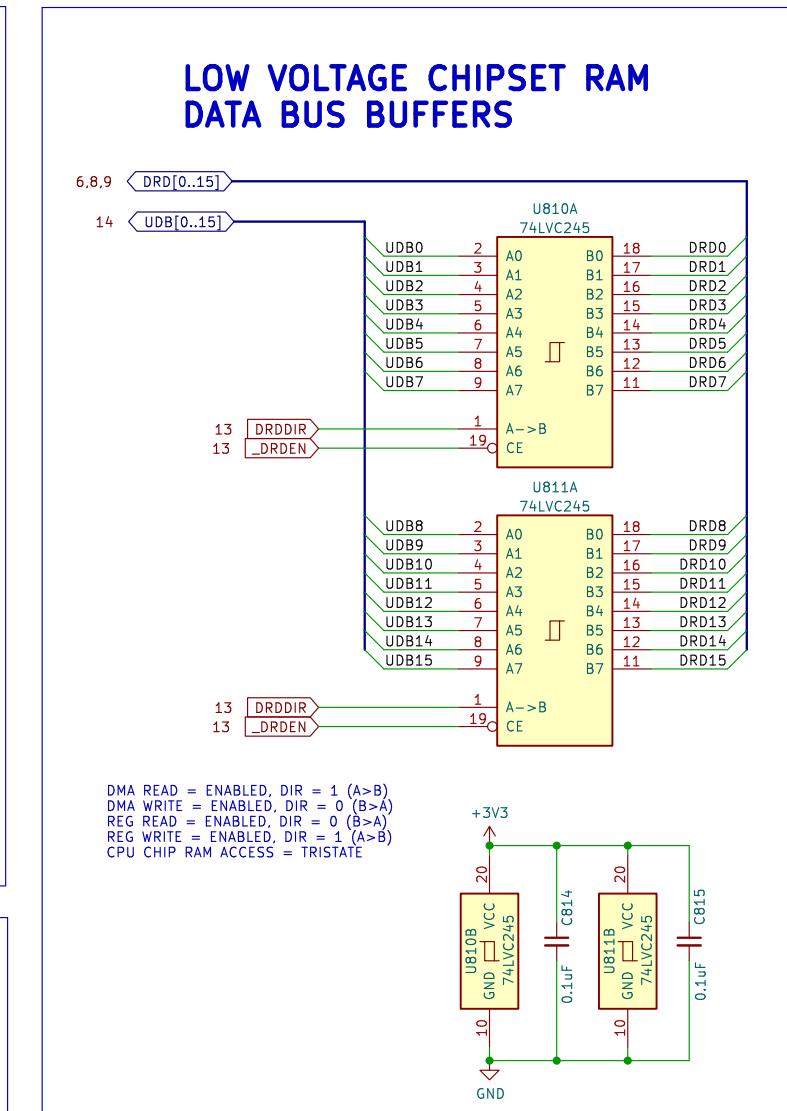
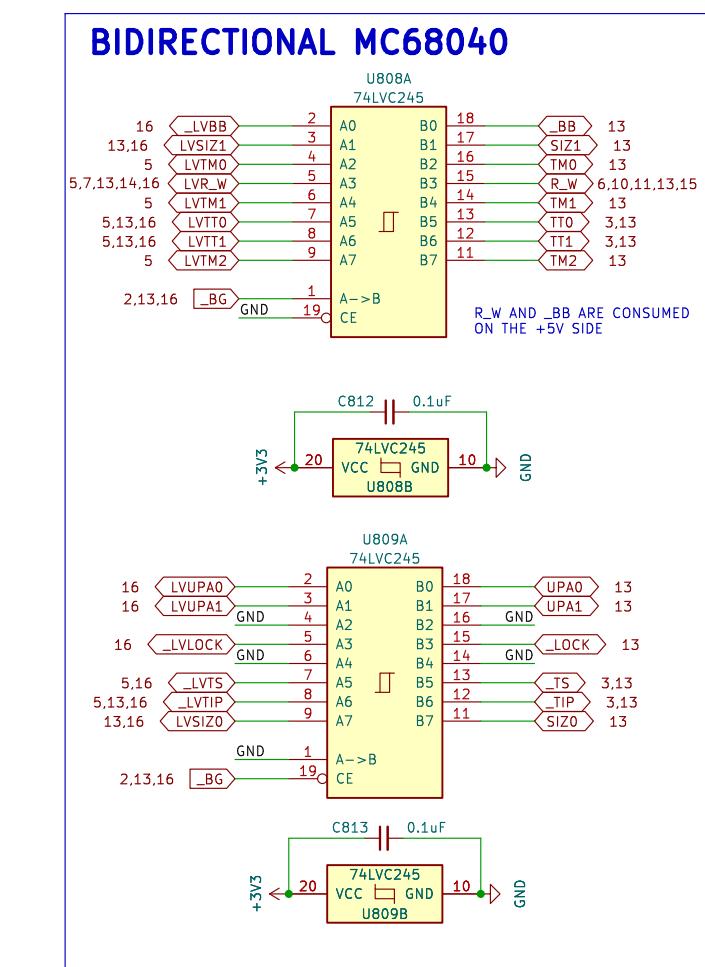
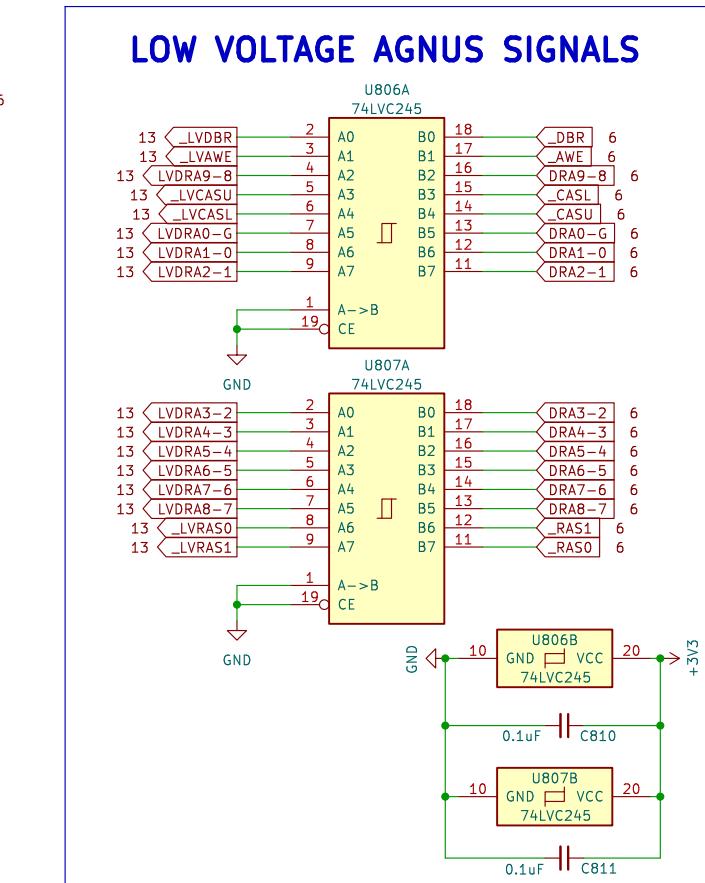
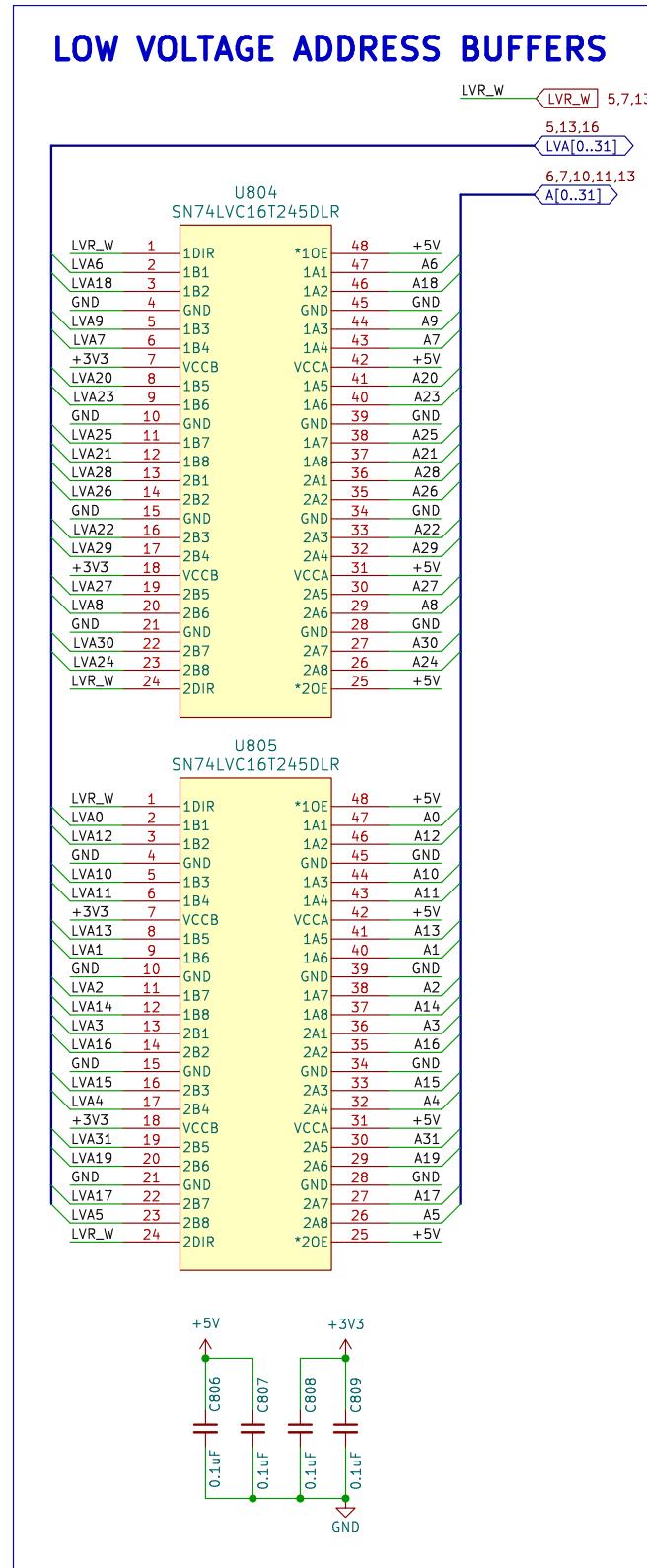
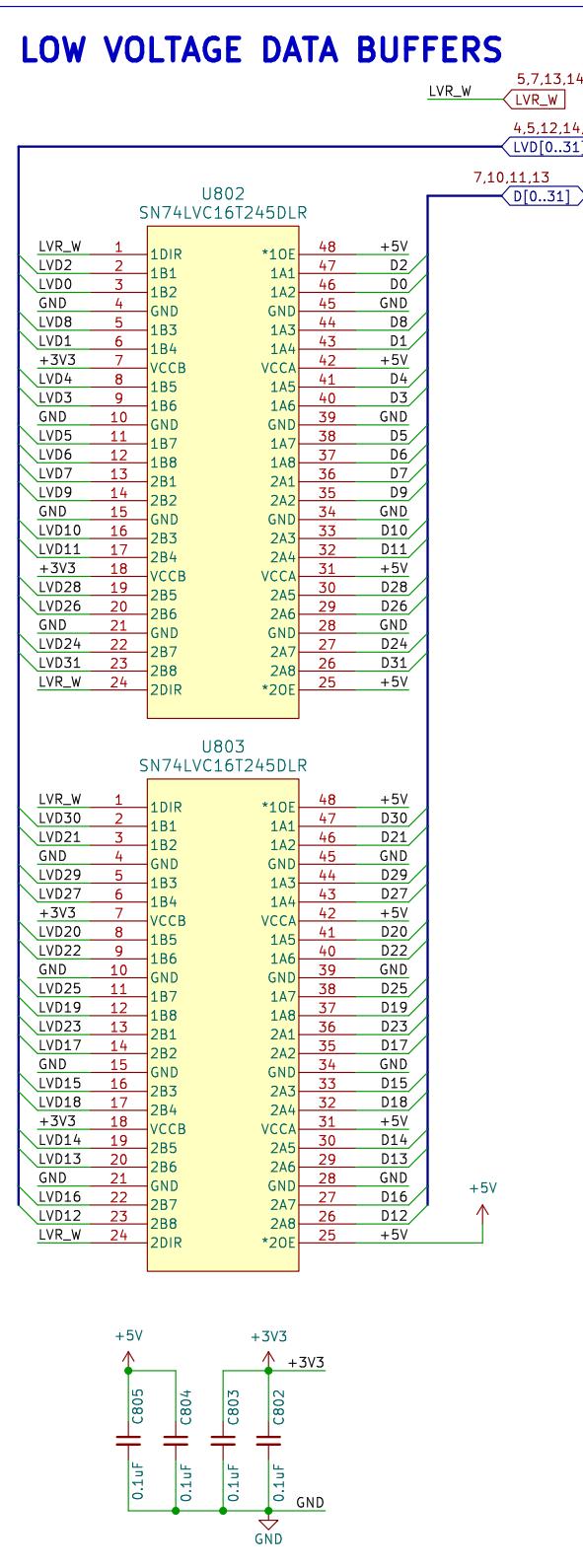
U110: PCI STATE MACHINE, BUS ARBITRATOR, INTERRUPT HANDLING, PARITY ERROR DETECTION, IDE CONTROLLER



# PCI BRIDGE

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

**Title: AMIGA PCI**



# MC68040 LEVEL SHIFT

Sheet: /MC68040\_Level\_Shift/  
File: mc68040\_level\_shift.kicad\_sch

**Title: AMIGA PCI**

Size: B Date: 2024-03-

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

d: 17/17