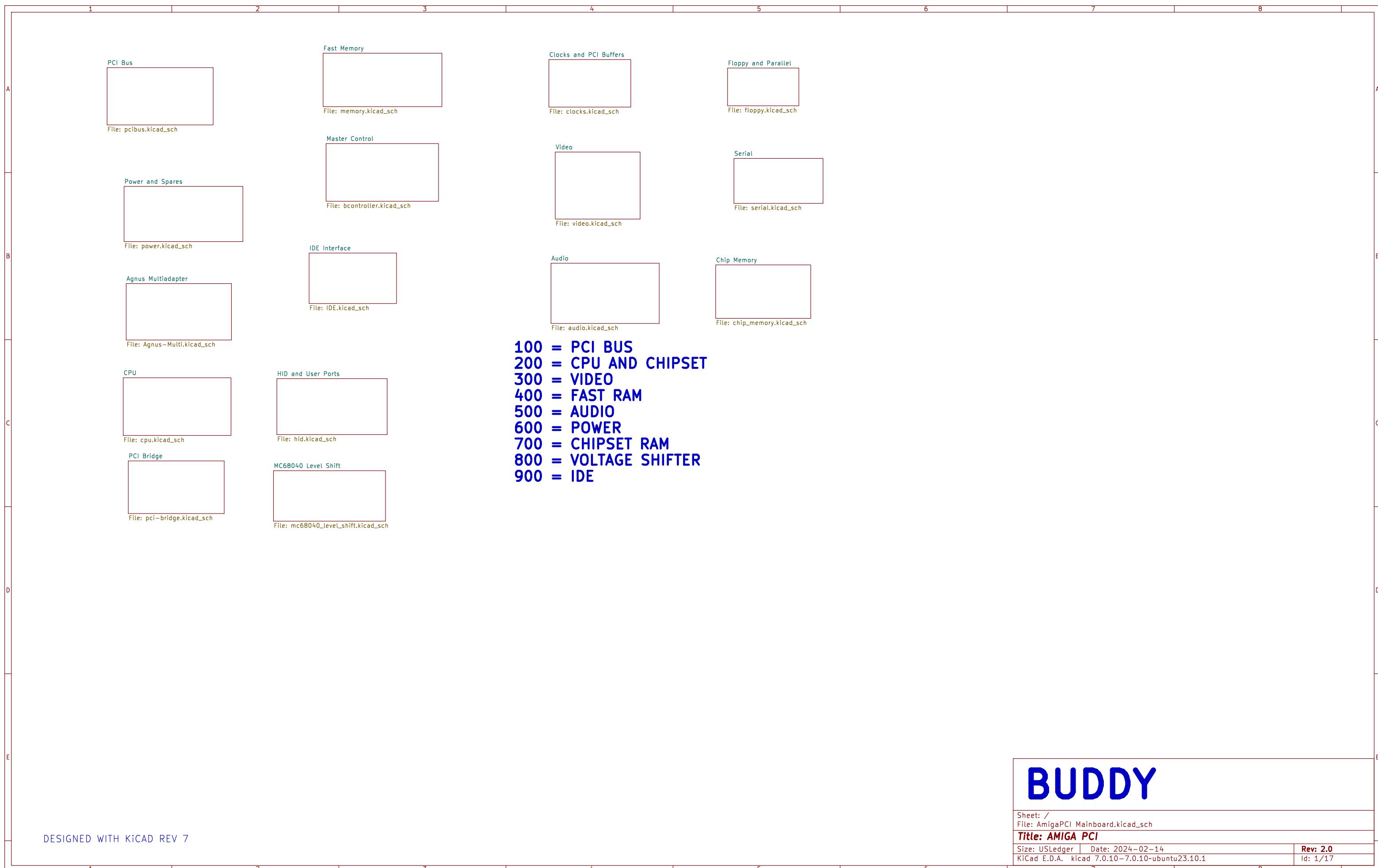


1 2 3 4 5 6 7 8



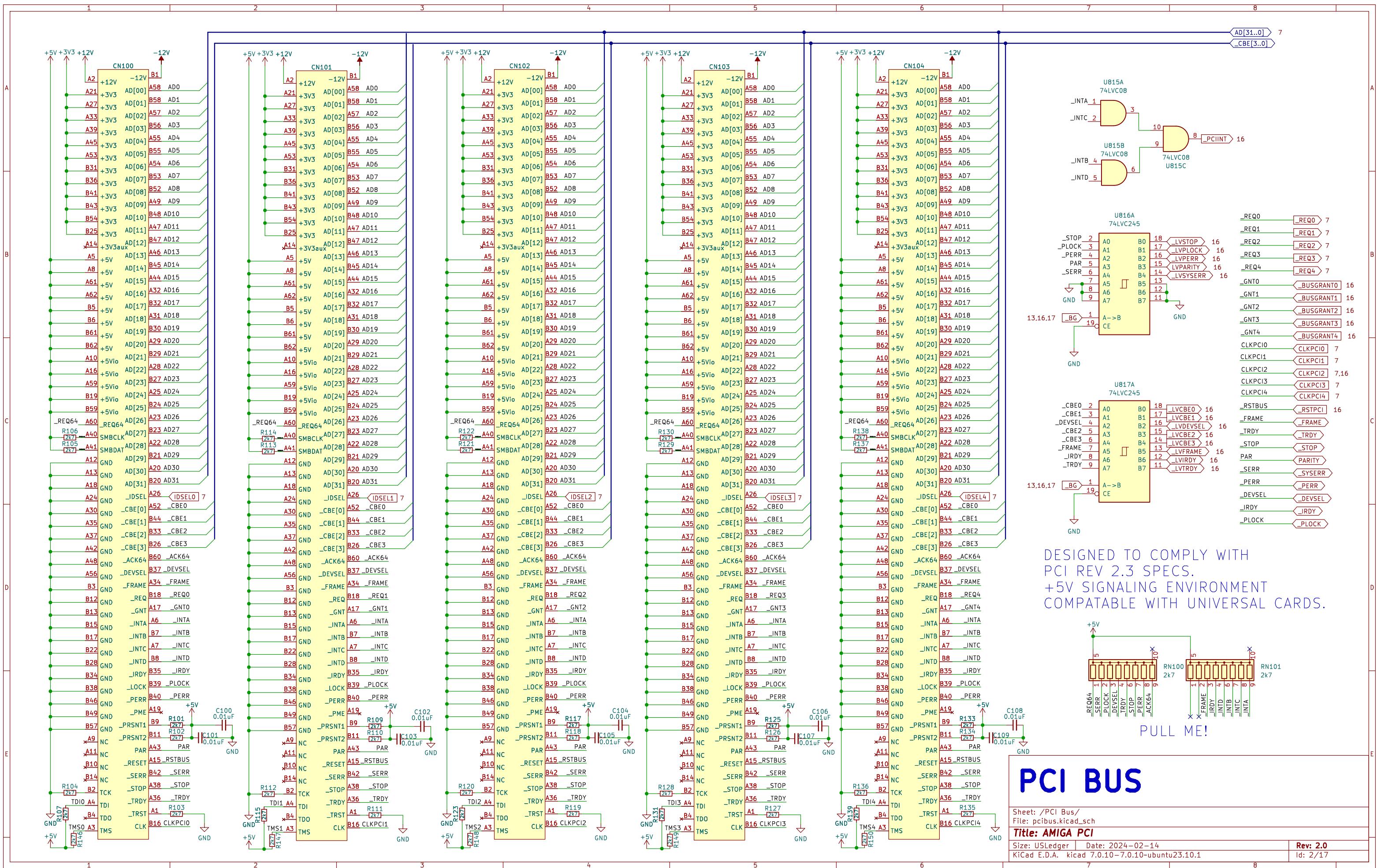
BUDDY

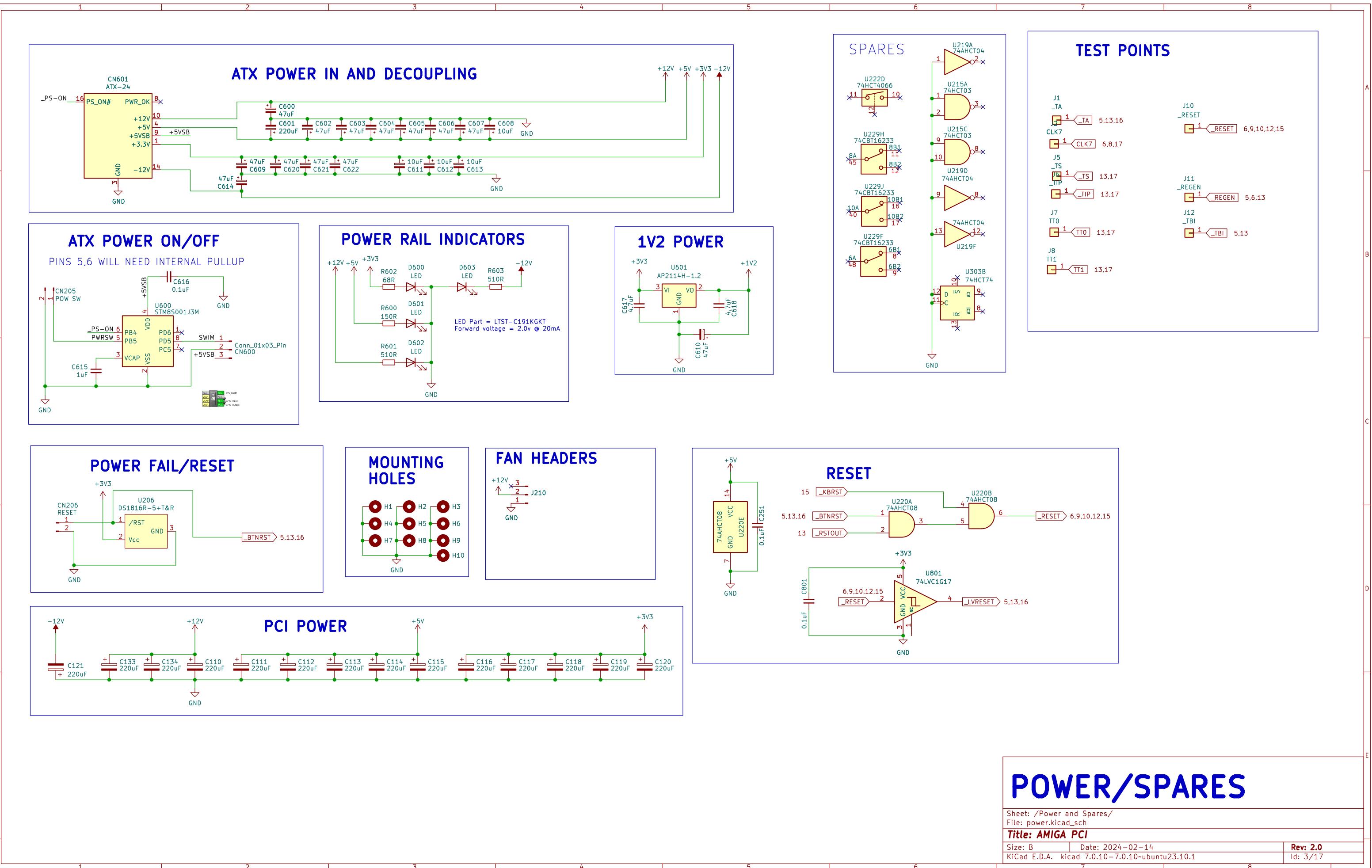
Sheet: /
File: AmigaPCI Mainboard.kicad_sch

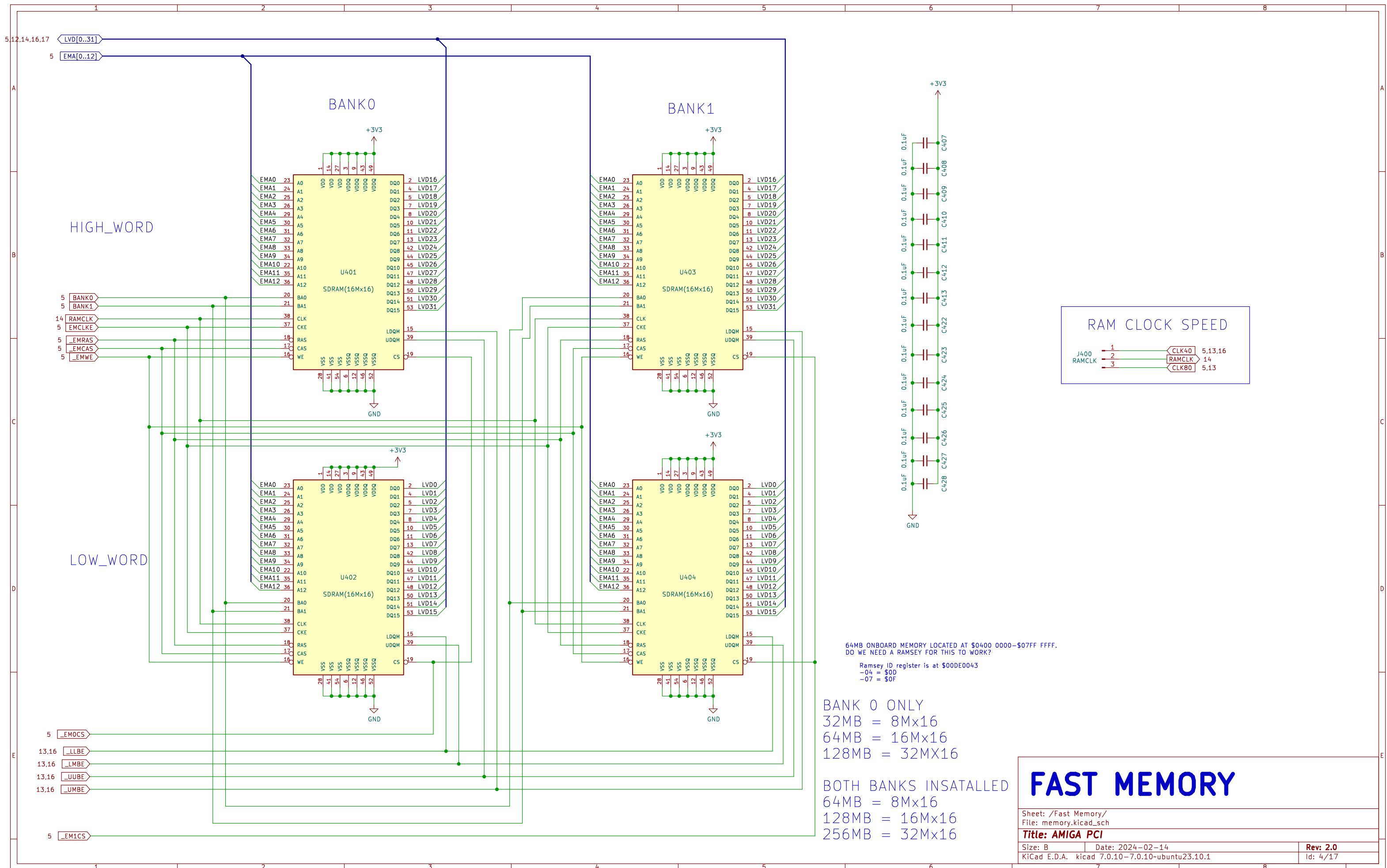
Title: AMIGA PCI

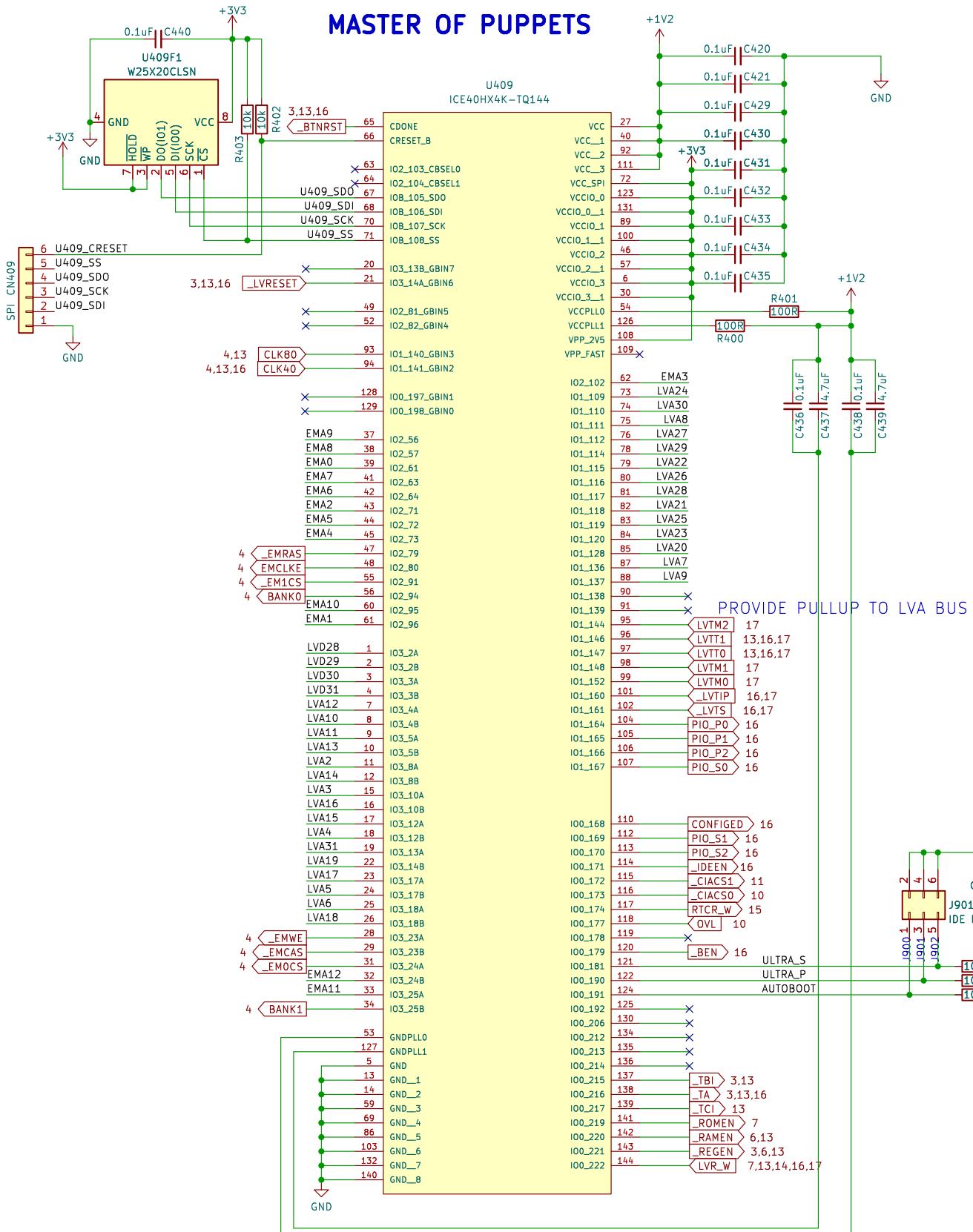
Size: USLetter Date: 2024-02-14
KiCad E.D.A. kicad 7.0.10~7.0.10~ubuntu23.10.1

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.

PROVIDE PULLUP TO LVA BUS

J901
IDE MODES
+3V3

I001_1
I002_5
R912
R911
R930



I'M PULLING YOUR STRINGS

MASTER CONTROL

Sheet: /Master Control/
File: bcontroller.kicad_sch

Title: AMIGA PCI

Size: B Date: 2024-02-14
KiCad E.D.A. kicad 7.0.10~ubuntu23.10.1

Rev: 2.0
Id: 5/17

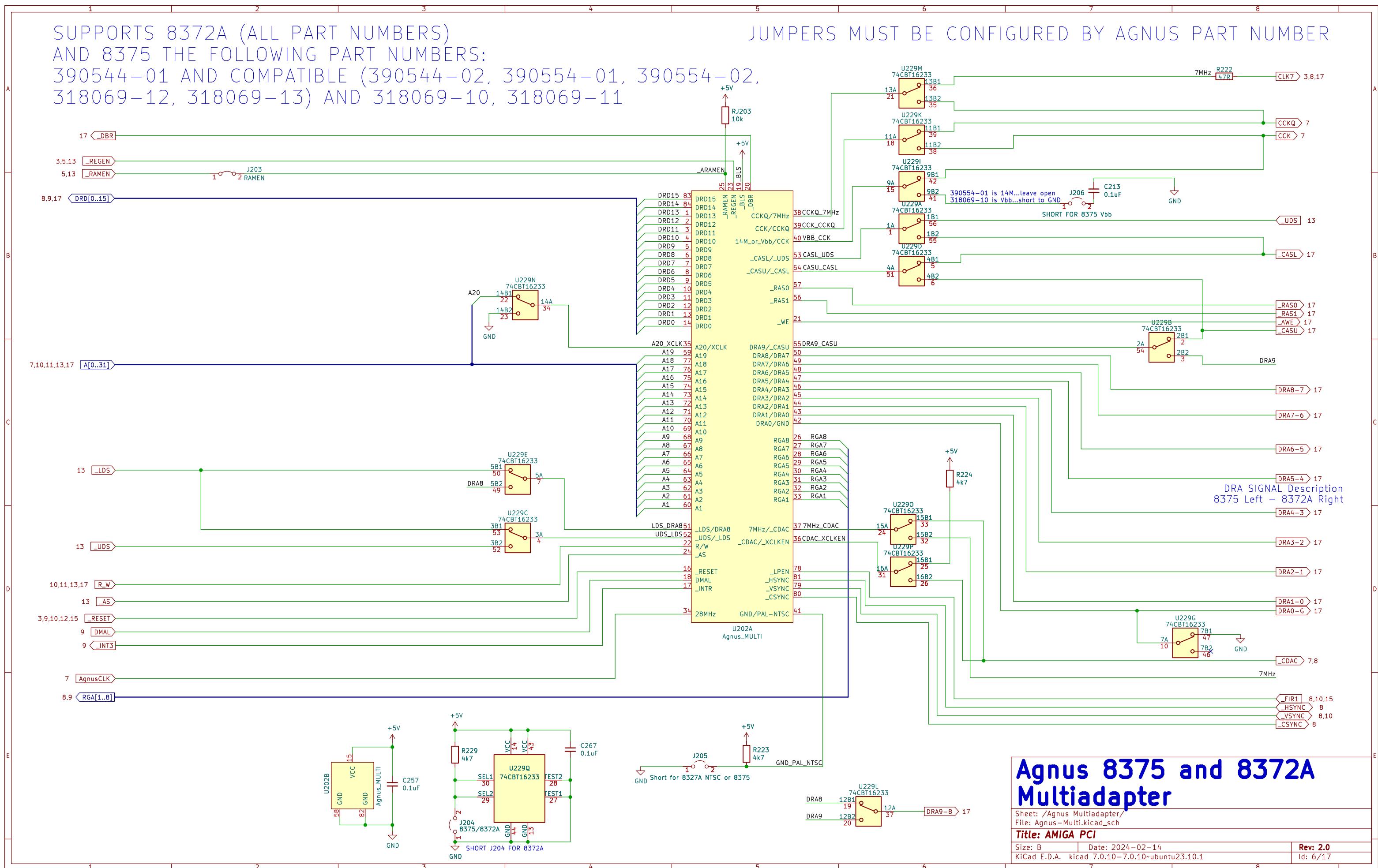
SUPPORTS 8372A (ALL PART NUMBERS)

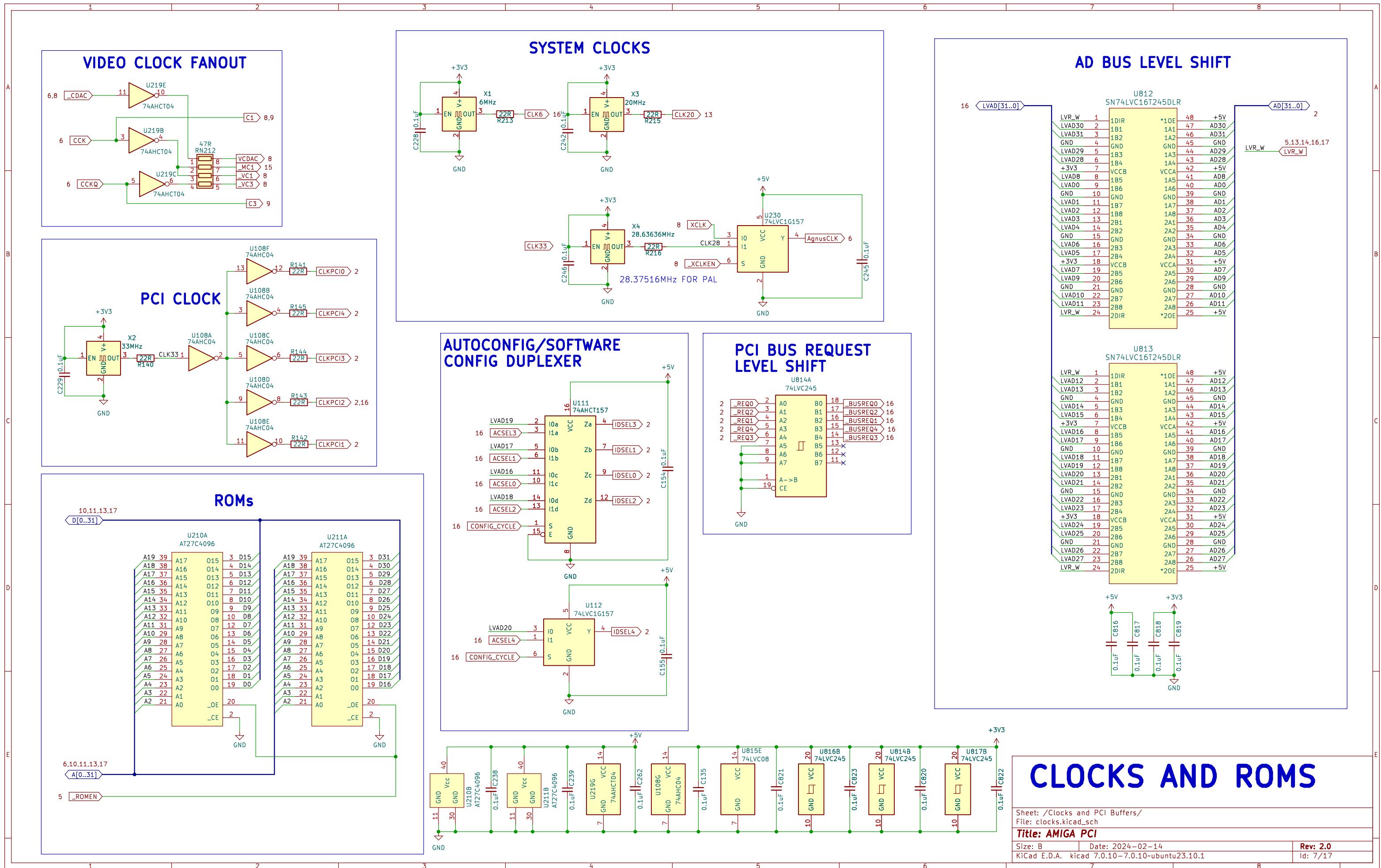
AND 8375 THE FOLLOWING PART NUMBERS:

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

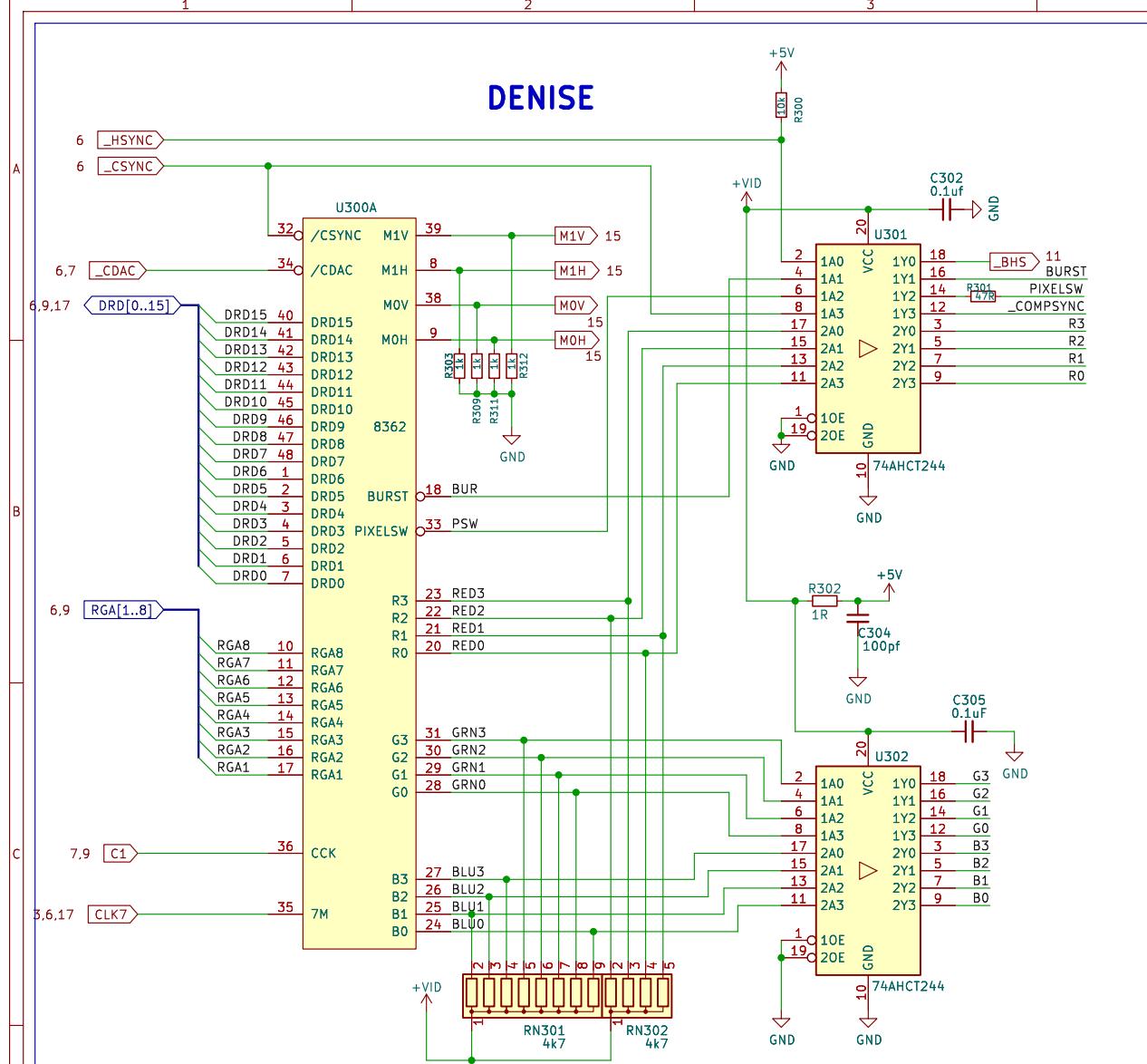
318069-12, 318069-13) AND 318069-10, 318069-11

JUMPERS MUST BE CONFIGURED BY AGNUS PART NUMBER

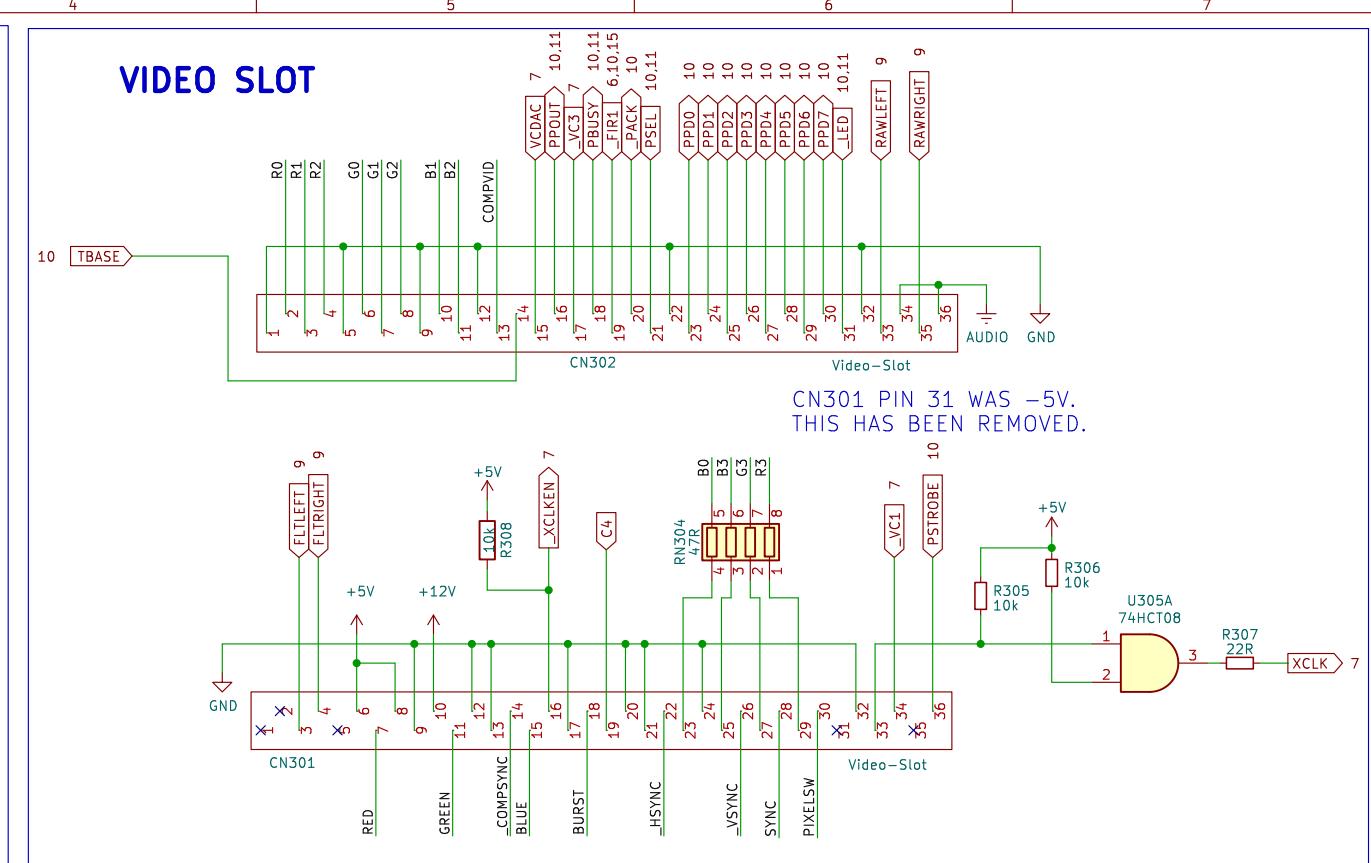




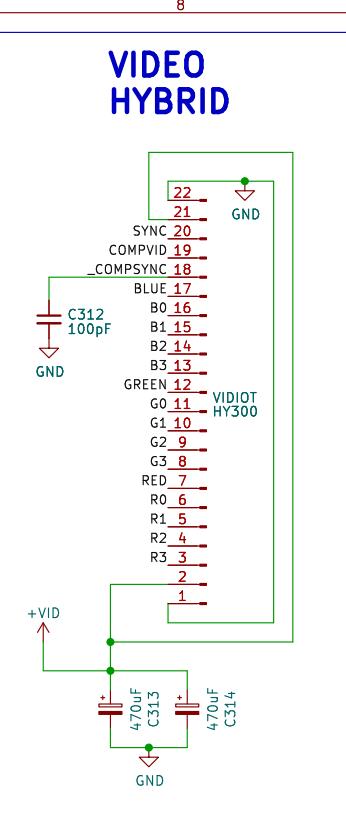
DENISE



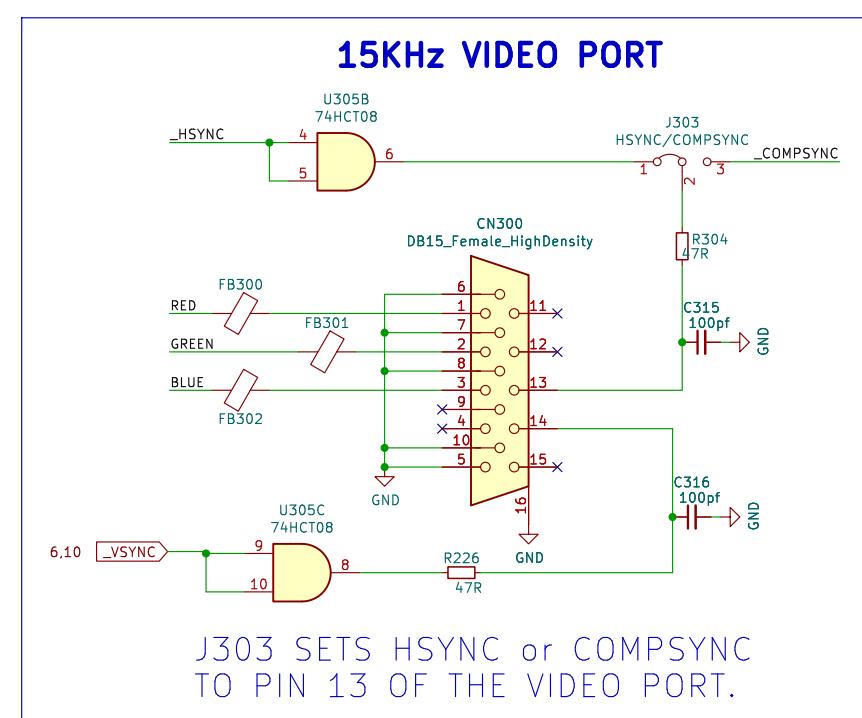
VIDEO SLOT



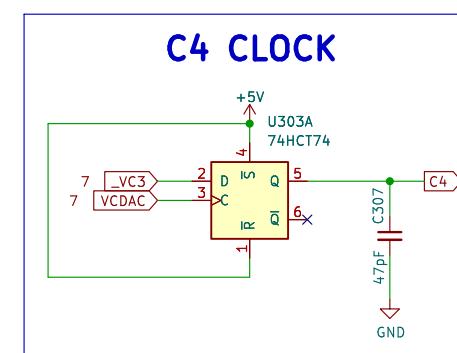
VIDEO HYBRID



15KHz VIDEO PORT



C4 CLOCK



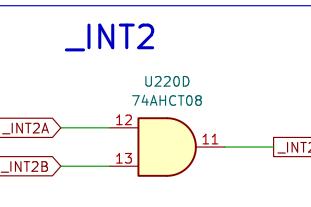
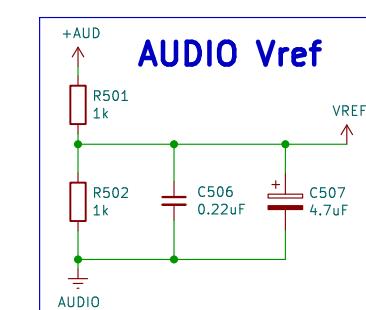
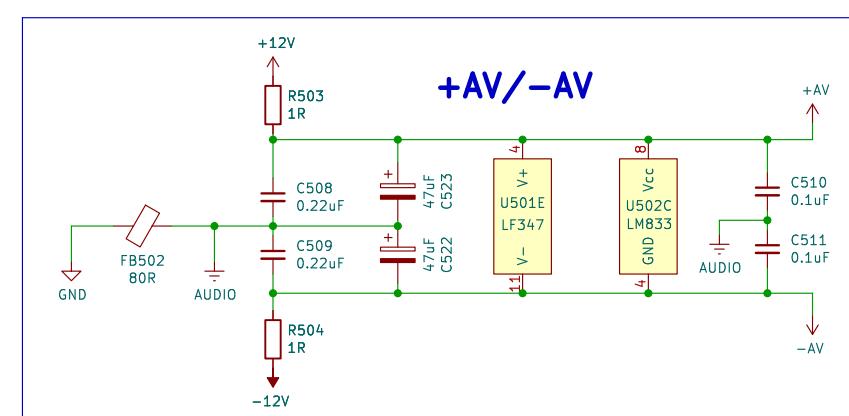
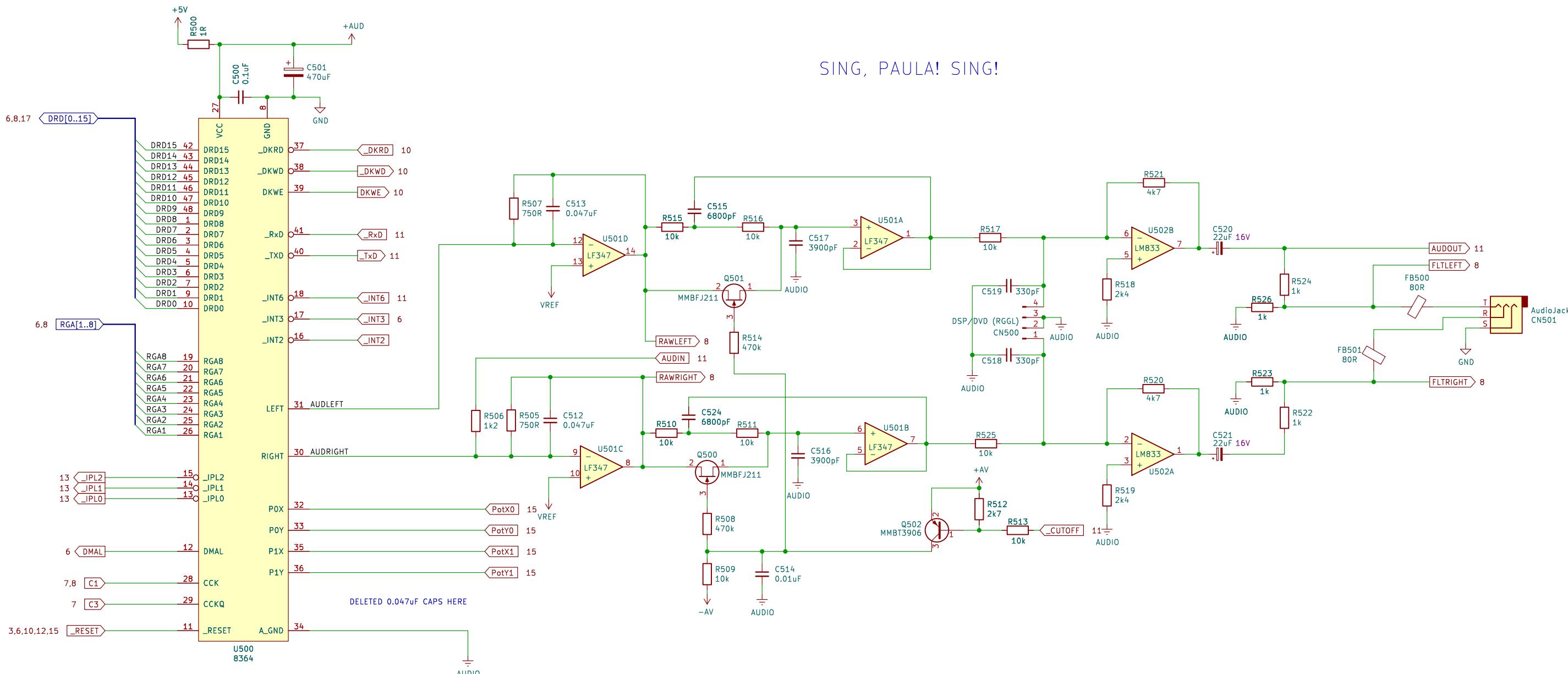
VIDEO

Sheet: /Video/
File: video.kicad_sch

Title: AMIGA PCI

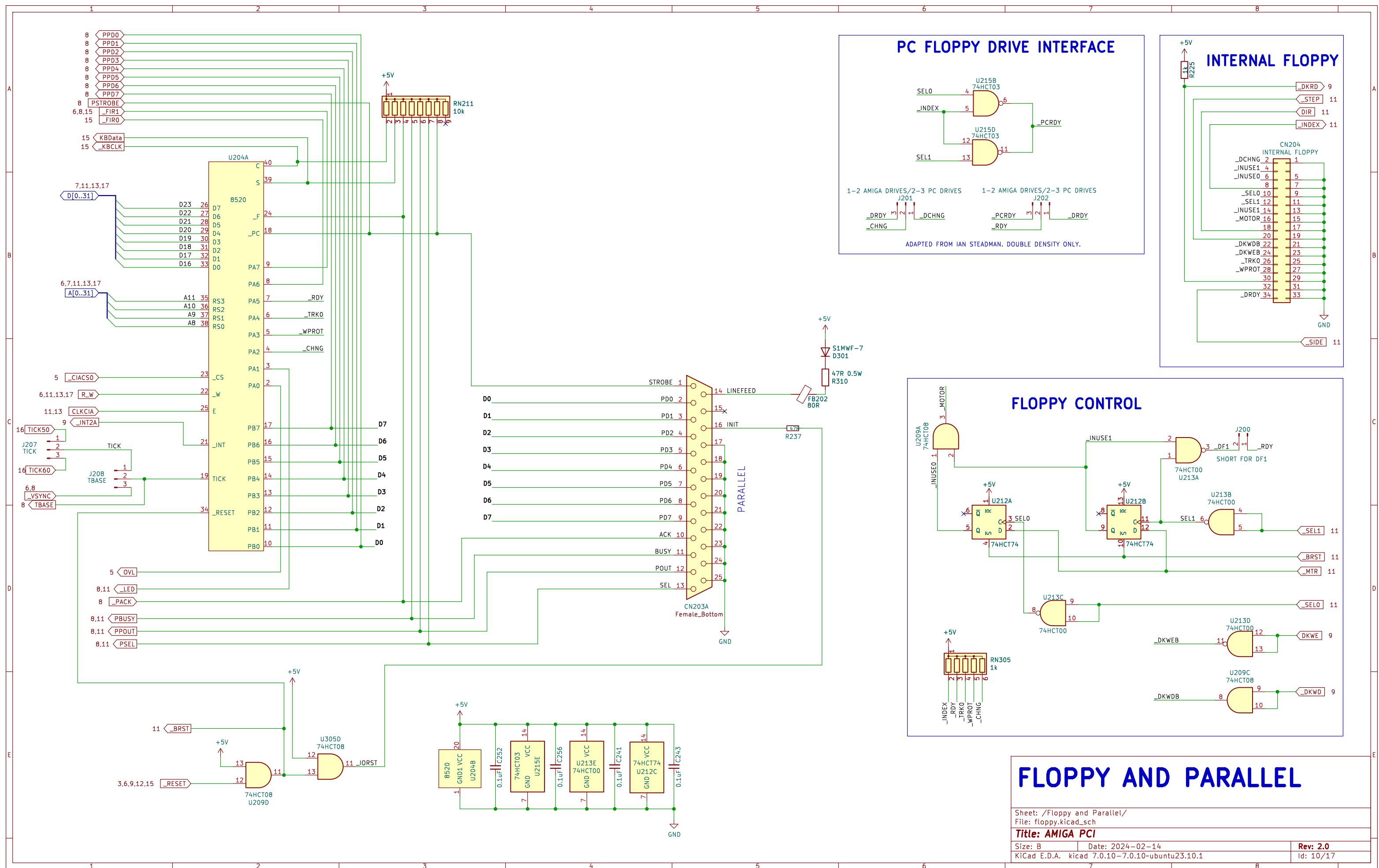
Size: B Date: 2024-02-14
KiCad E.D.A. kicad 7.0.10~7.0.10~ubuntu23.10.1

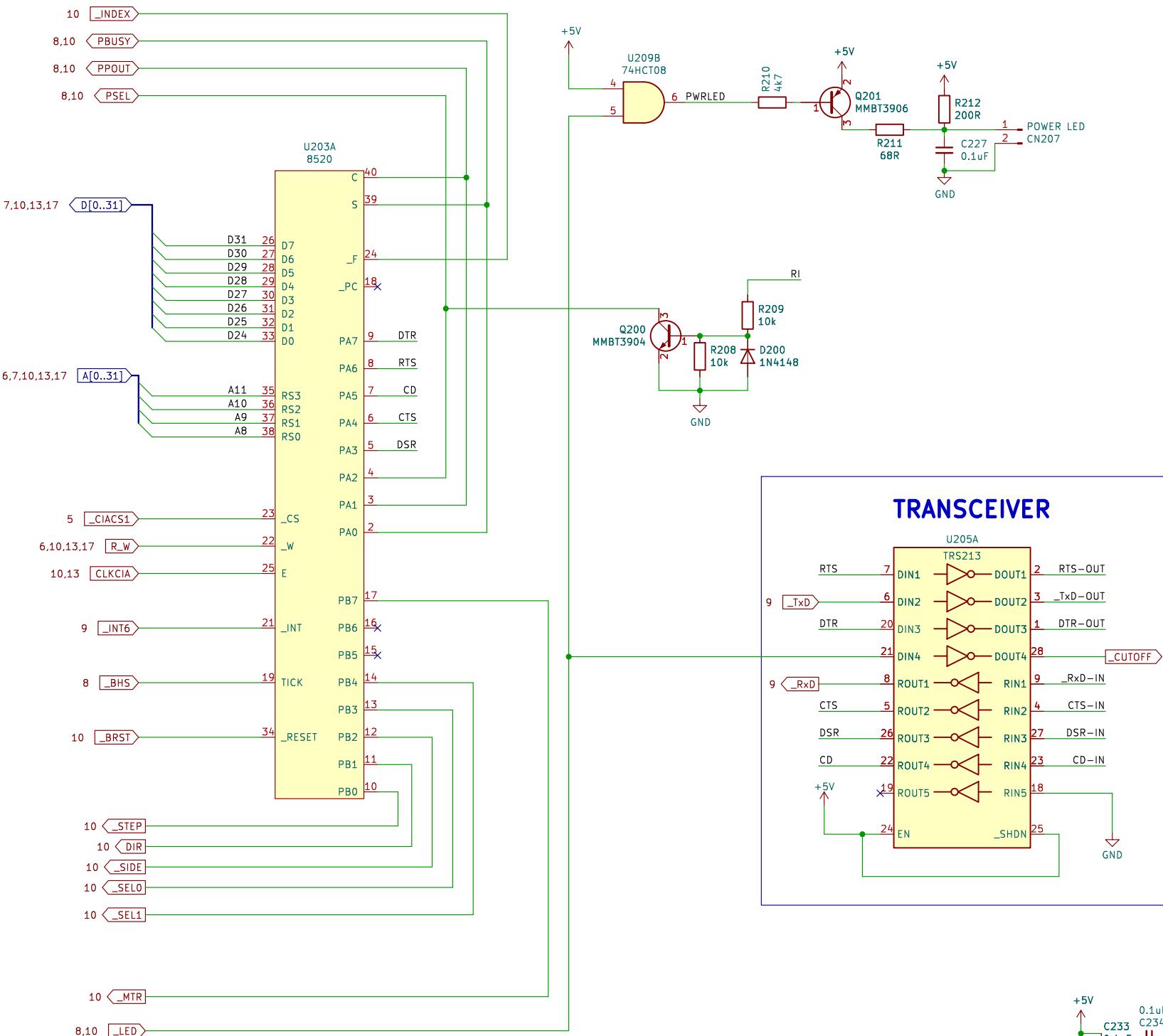
Rev: 2.0
Id: 8/17



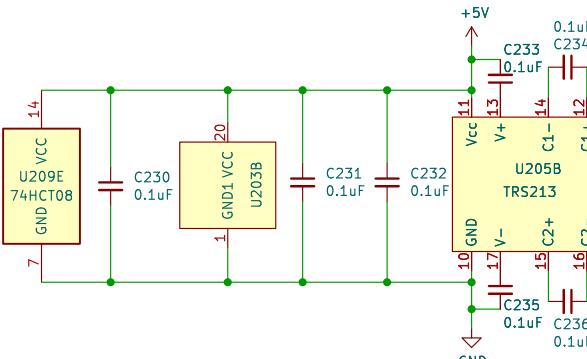
PAULA/AUDIO

Sheet: /Audio/
File: audio.kicad_sch
Title: AMIGA PCI
Size: B Date: 2024-02-14 Rev: 2.0
KiCad E.D.A. kicad 7.0.10~7.0.10~ubuntu23.10.1 Id: 9/17

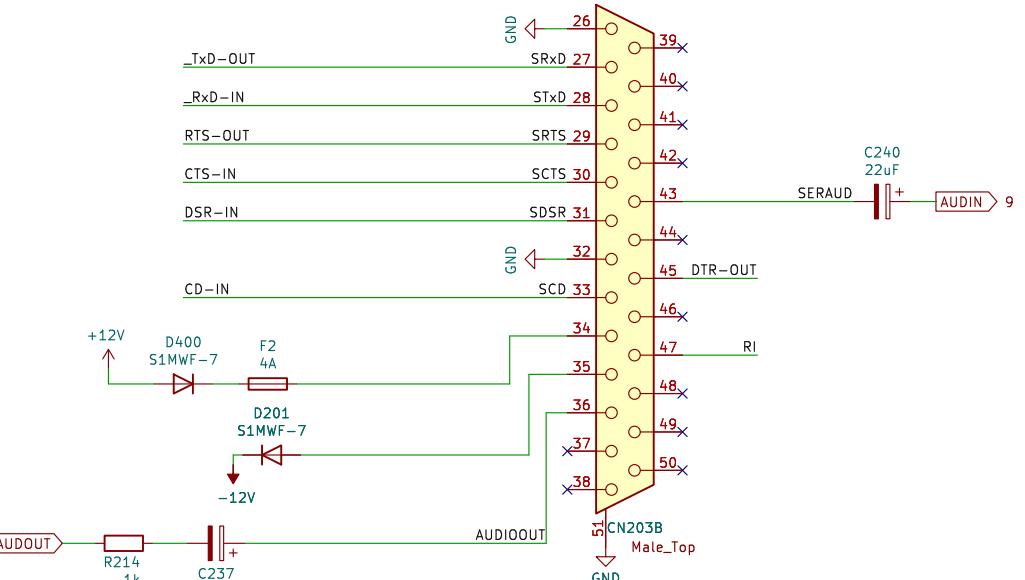




TRANSCEIVER



SERIAL PORT



SERIAL

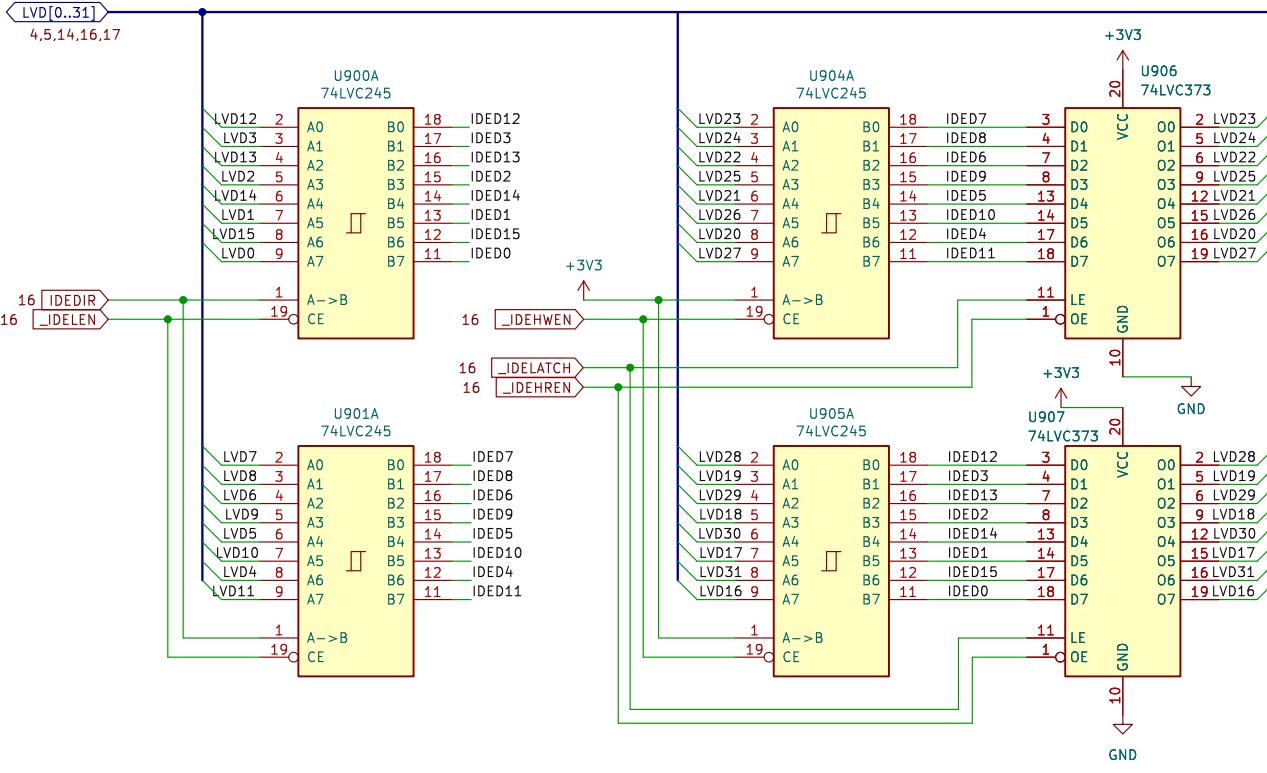
Sheet: /Serial/
File: serial.kicad_sch
Title: AMIGA PCI
Size: B Date: 2024-02-14
KiCad E.D.A. kicad 7.0.10~7.0.10~ubuntu23.10.1 Rev: 2.0
Id: 11/17

74LVC245 ENABLED FOR FIRST WORD DURING WRITES.
DATA ALWAYS FLOWS A->B.
74LVC373 LATCHES DATA FOR FIRST WORD DURING READS.

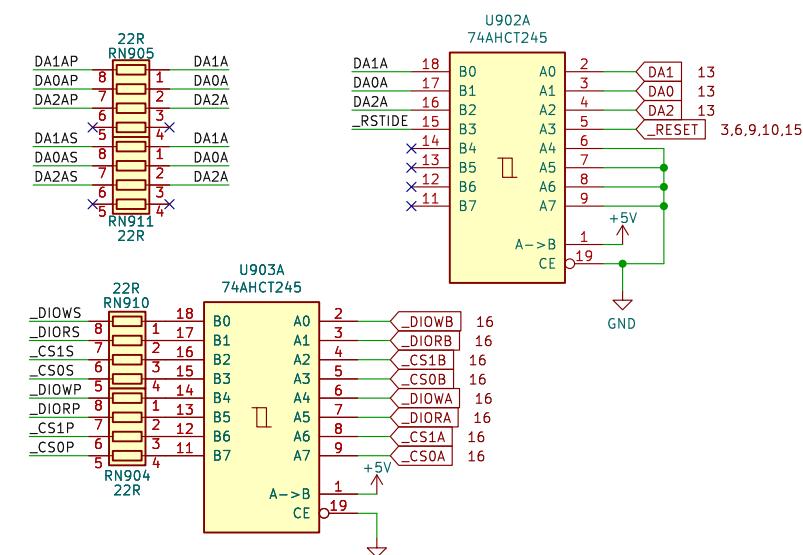
DATA BUFFERS

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.

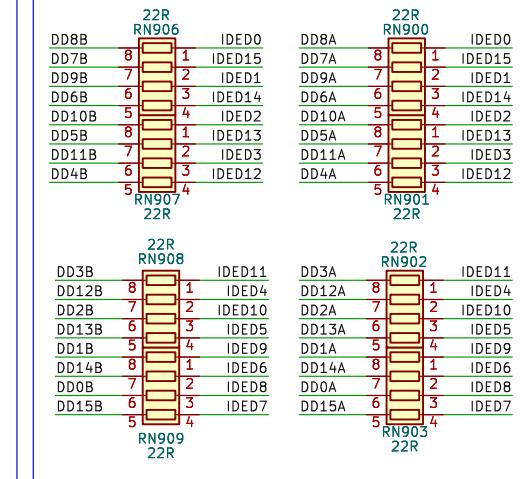
DURING READ CYCLES, D16..31 IS LATCHED
AFTER THE FIRST READ COMMAND FROM THE IDE DEVICE.
THE SECOND READ FROM THE IDE DEVICE DRIVES
D0..15 LIVE. THE DATA IS THEN LATCHED BY THE MC68040.



BUFFERS AND TERMINATION

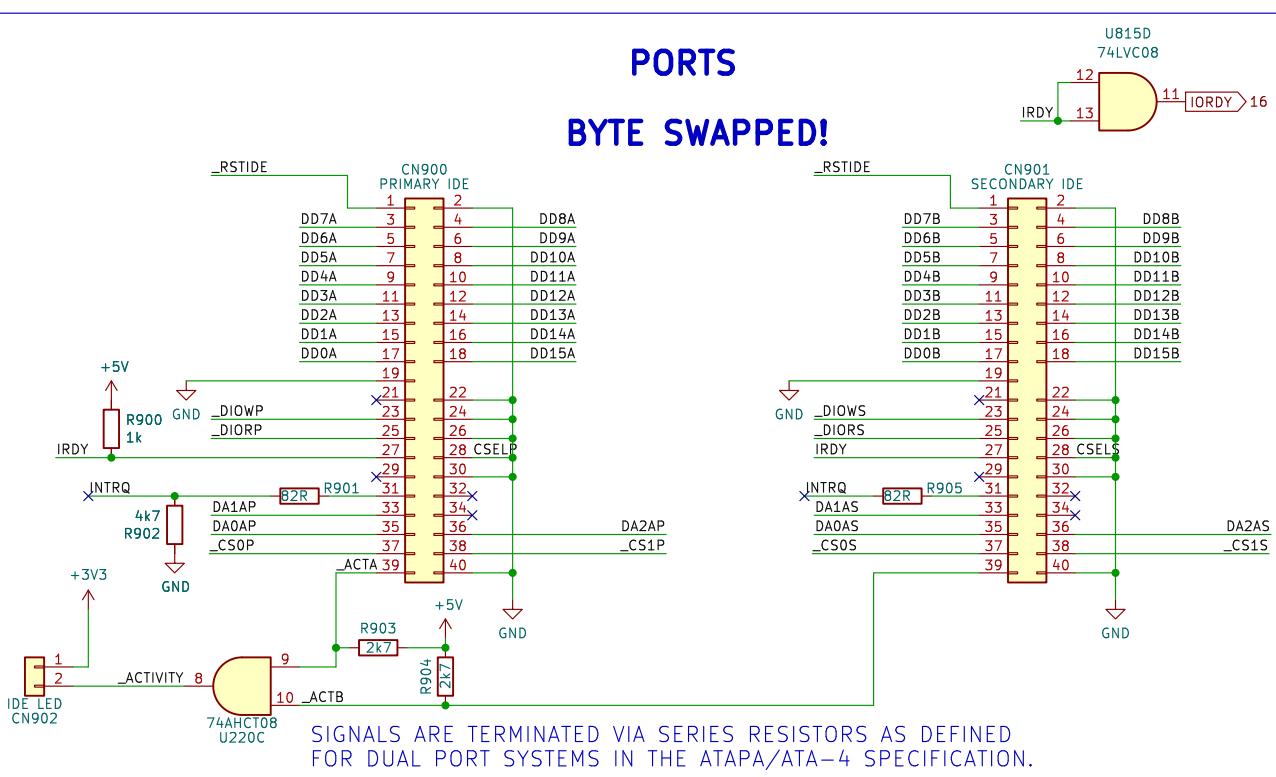


DATA TERMINATION



PORTS

BYTE SWAPPED!



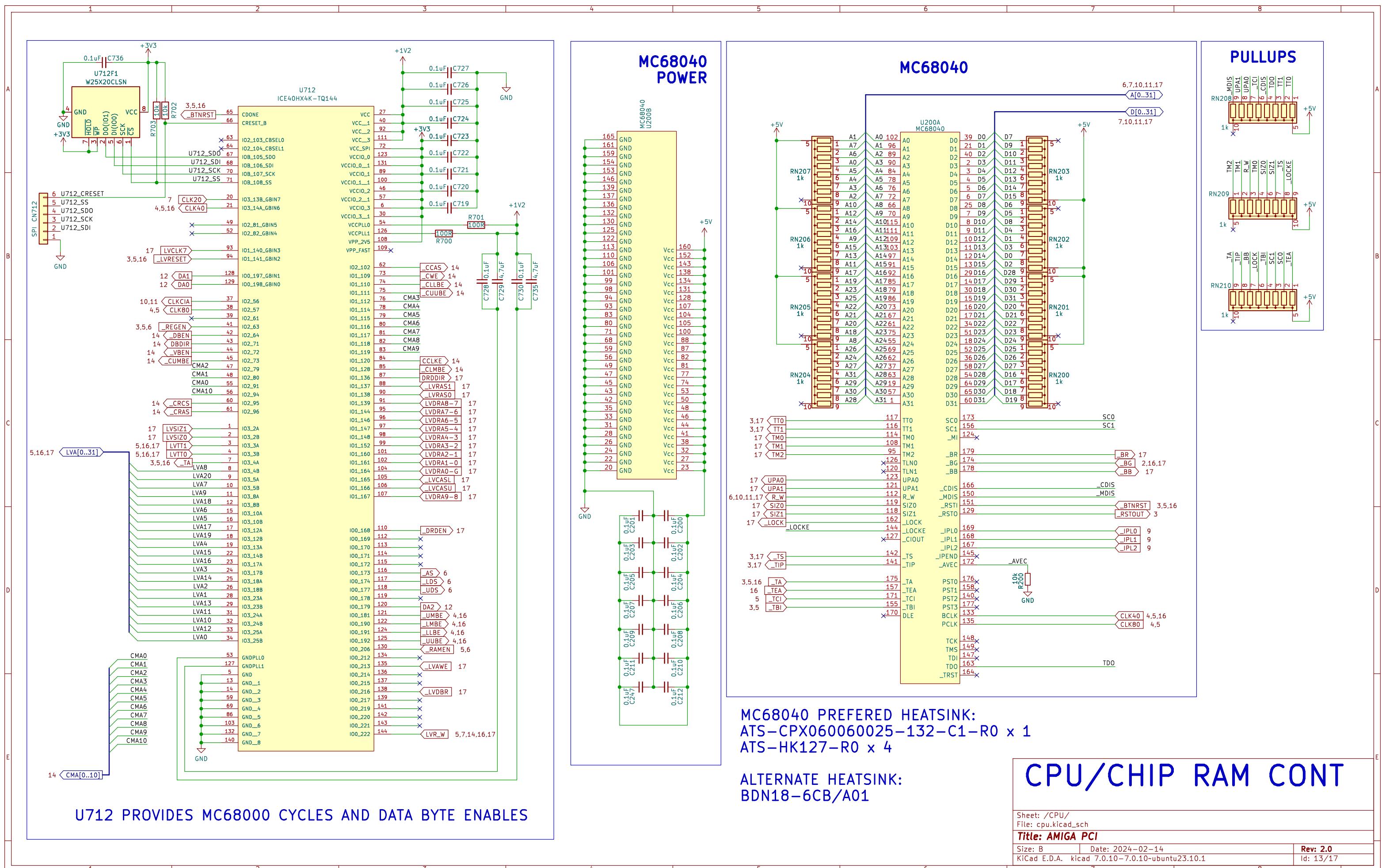
IDE INTERFACE

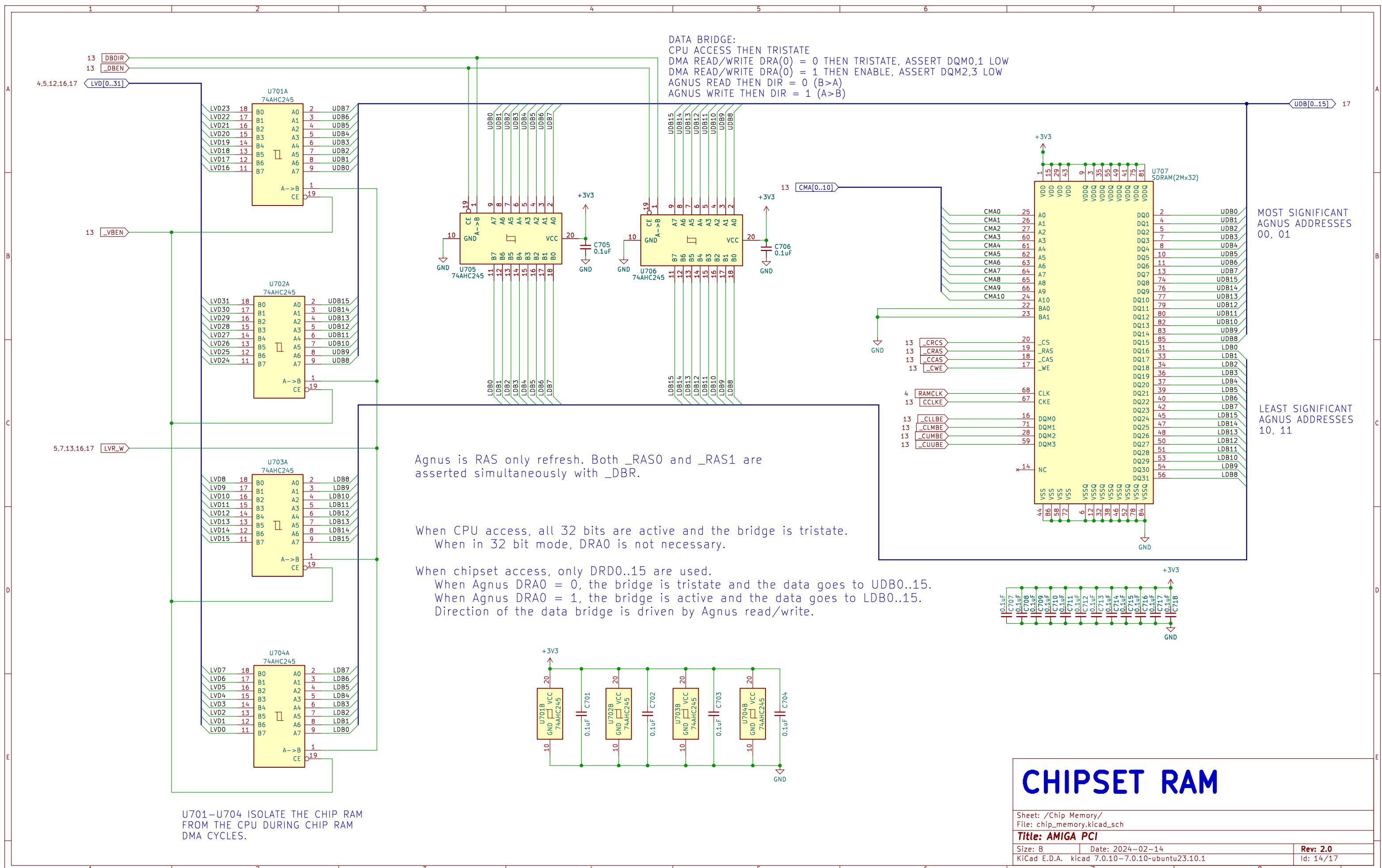
Sheet: /IDE Interface/
File: IDE.kicad_sch

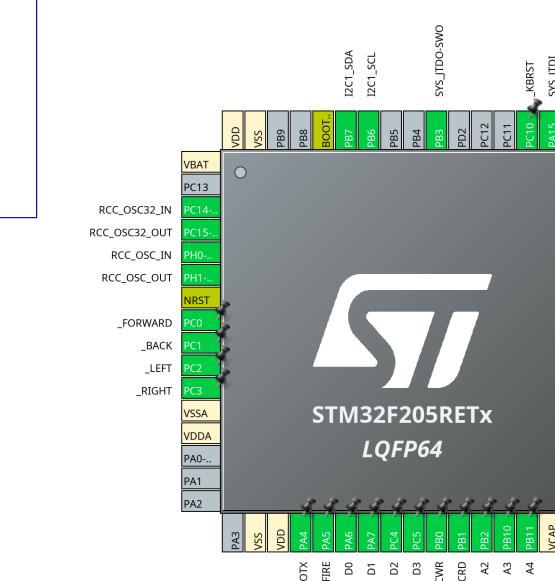
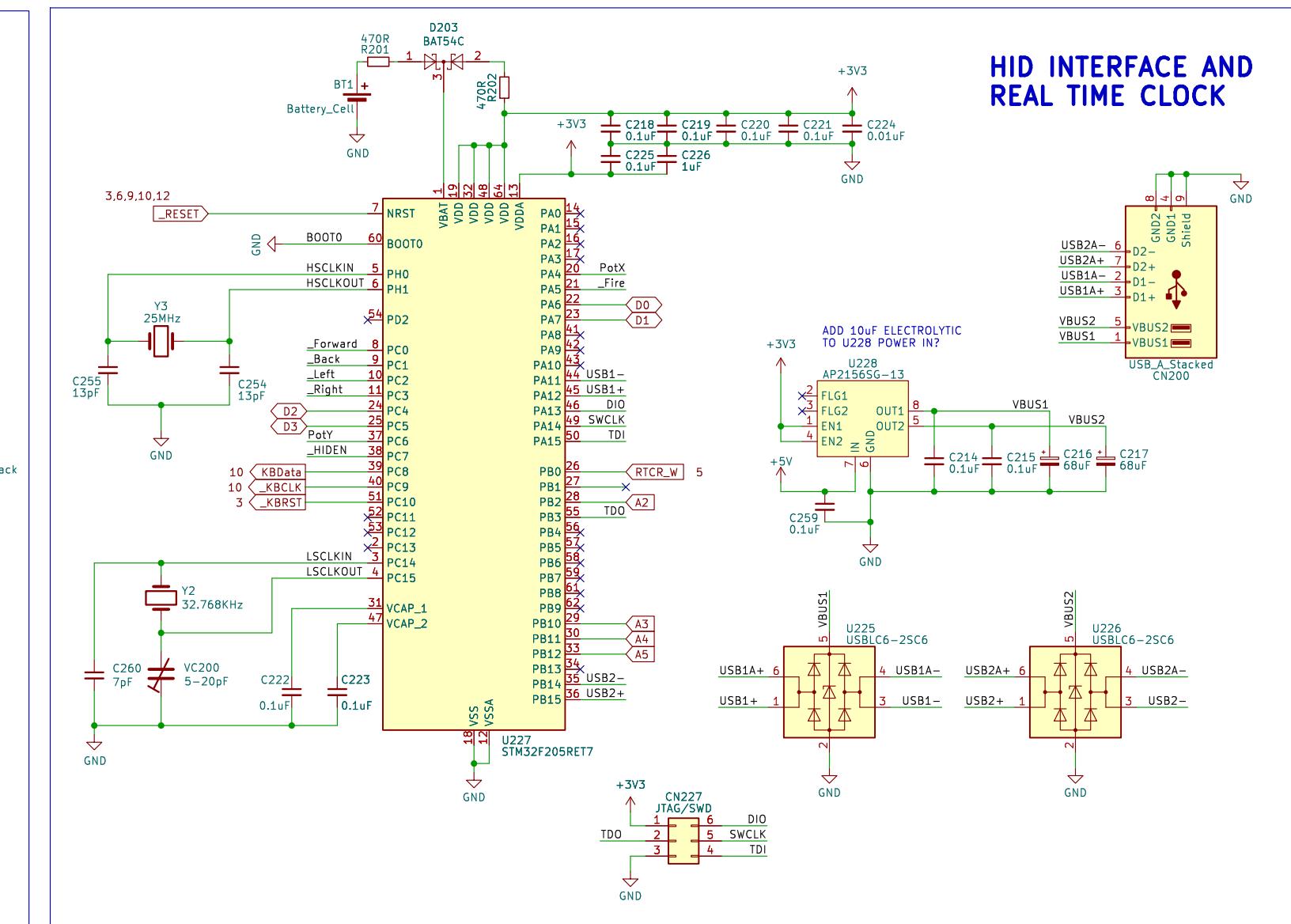
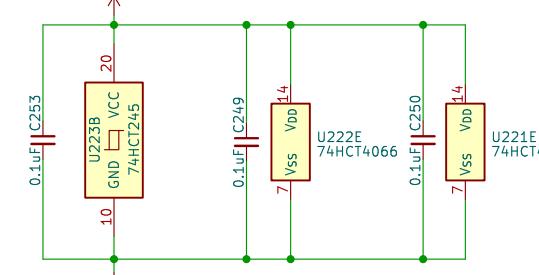
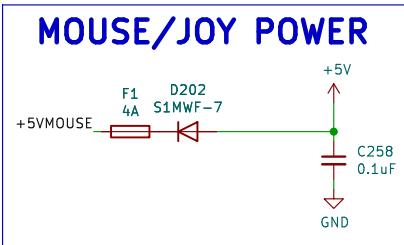
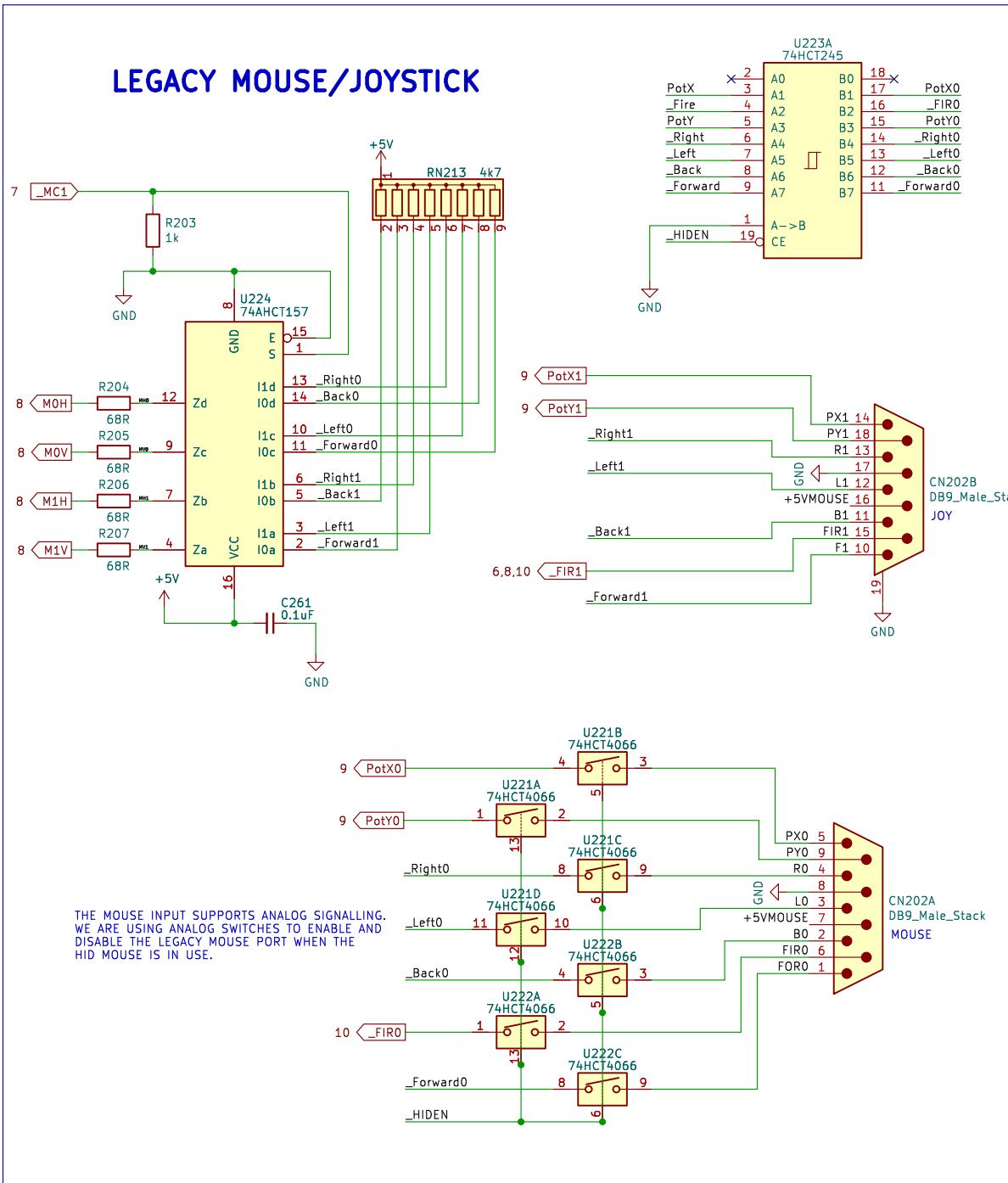
Title: AMIGA PCI

Size: B Date: 2024-02-14
KiCad E.D.A. kicad 7.0.10~7.0.10~ubuntu23.10.1

Rev: 2.0
Id: 12/17







HID and USER PORTS

Sheet: /HID and User Ports/
File: hid.kicad_sch

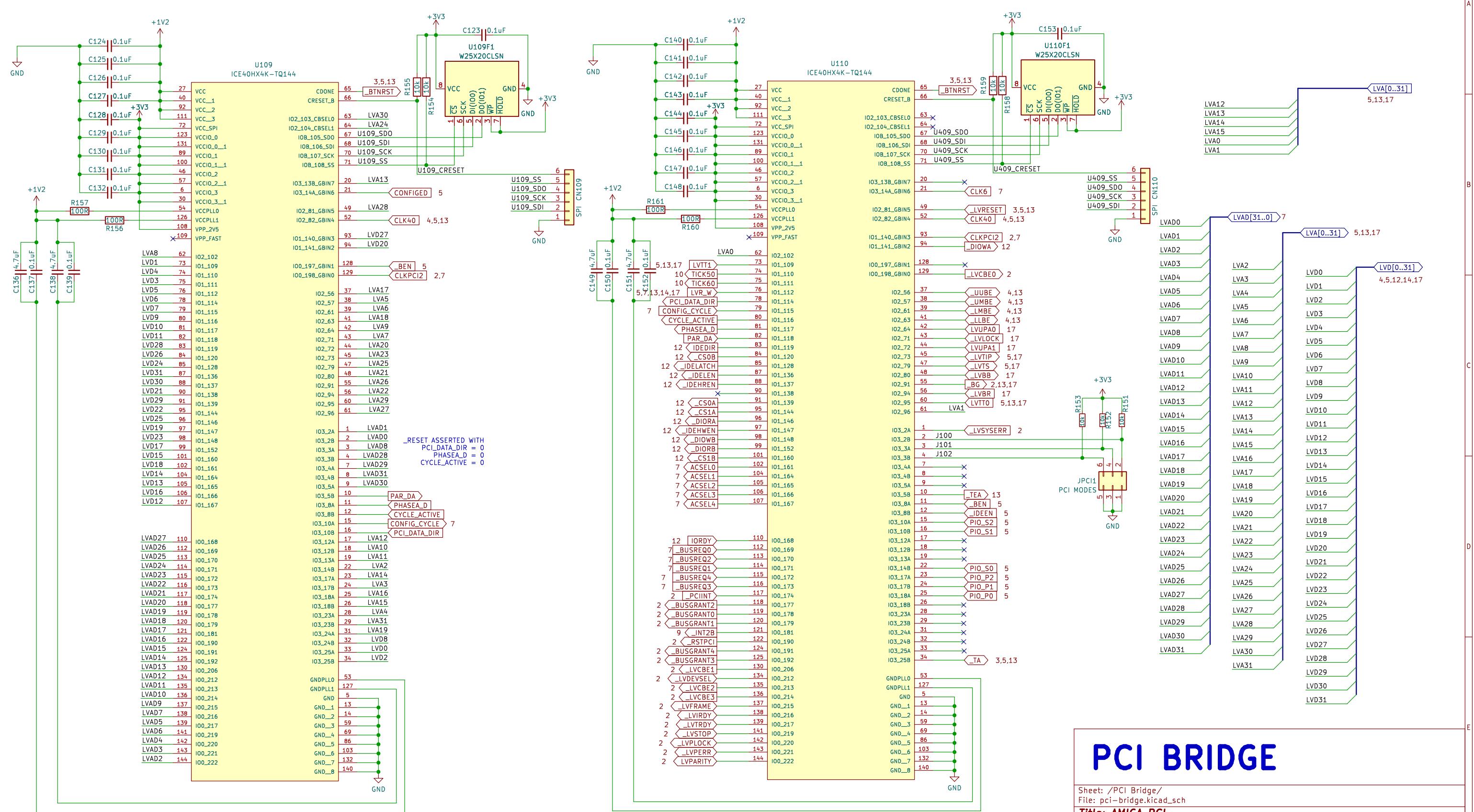
Title: AMIGA PCI

Size: B Date: 2024-02-14
KiCad E.D.A. kicad 7.0.10~7.0.10~ubuntu23.10.1

Rev: 2.0
Id: 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

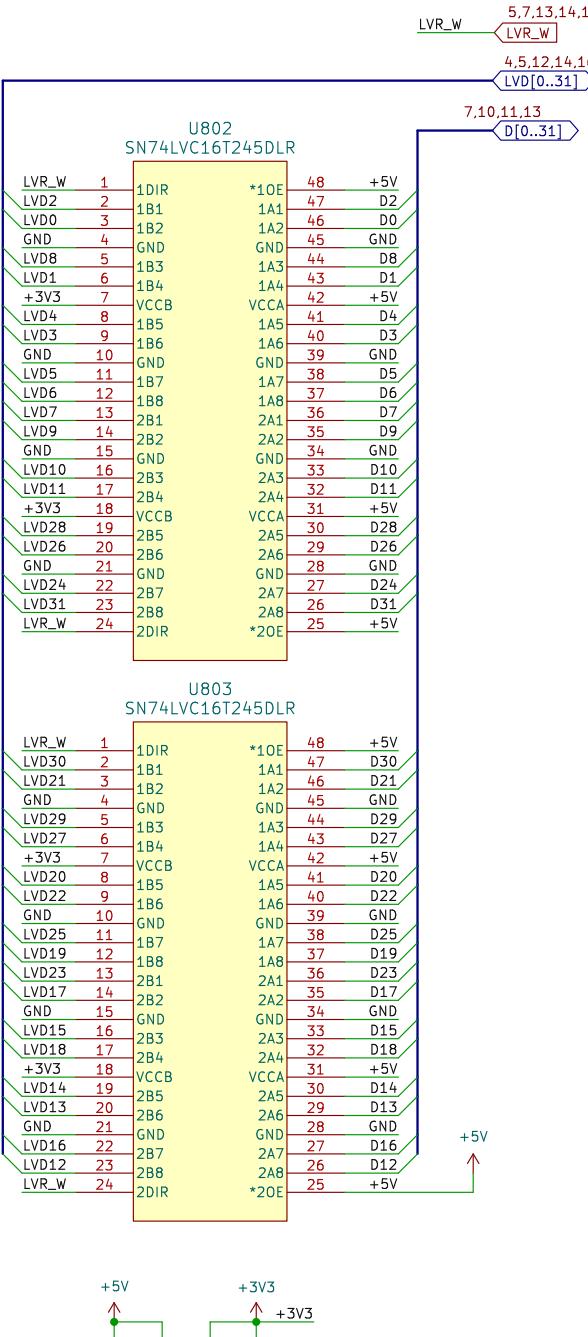
Sheet: /PCI Bridge/
File: pci-bridge.kicad_sch

Title: AMIGA PCI

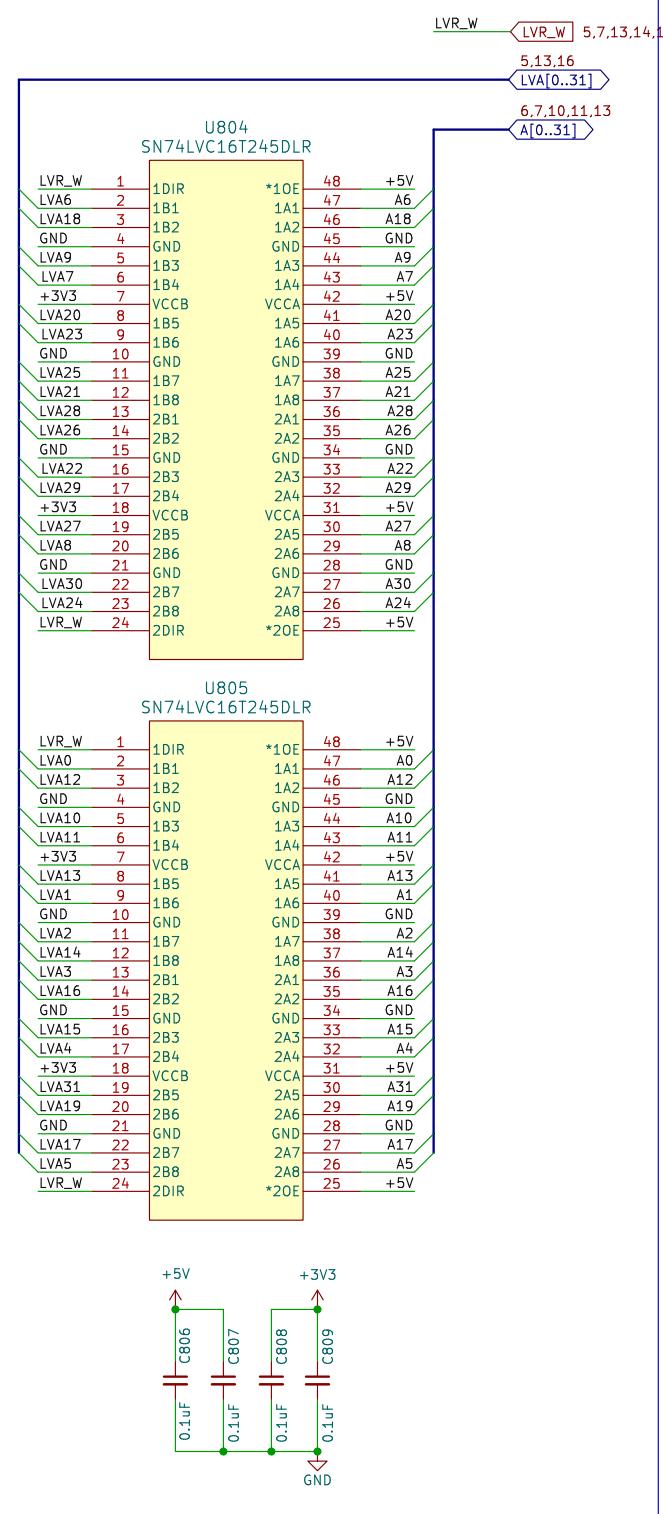
Size: B Date: 2024-02-14
KiCad E.D.A. kicad 7.0.10~7.0.10~ubuntu23.10.1

Rev: 2.0
Id: 16/17

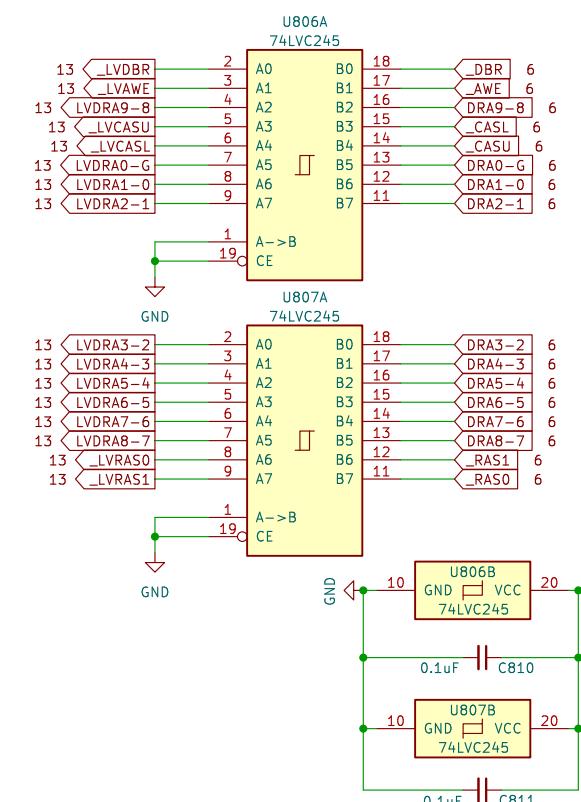
LOW VOLTAGE DATA BUFFERS



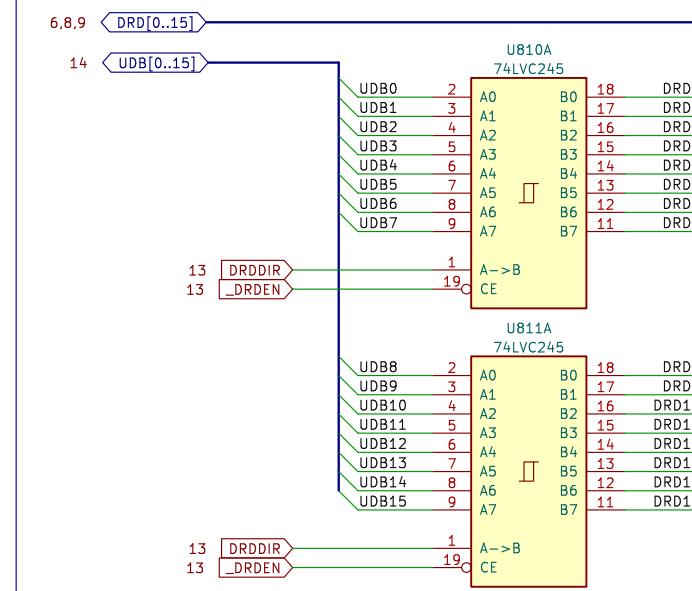
LOW VOLTAGE ADDRESS BUFFERS



LOW VOLTAGE AGNUS SIGNALS

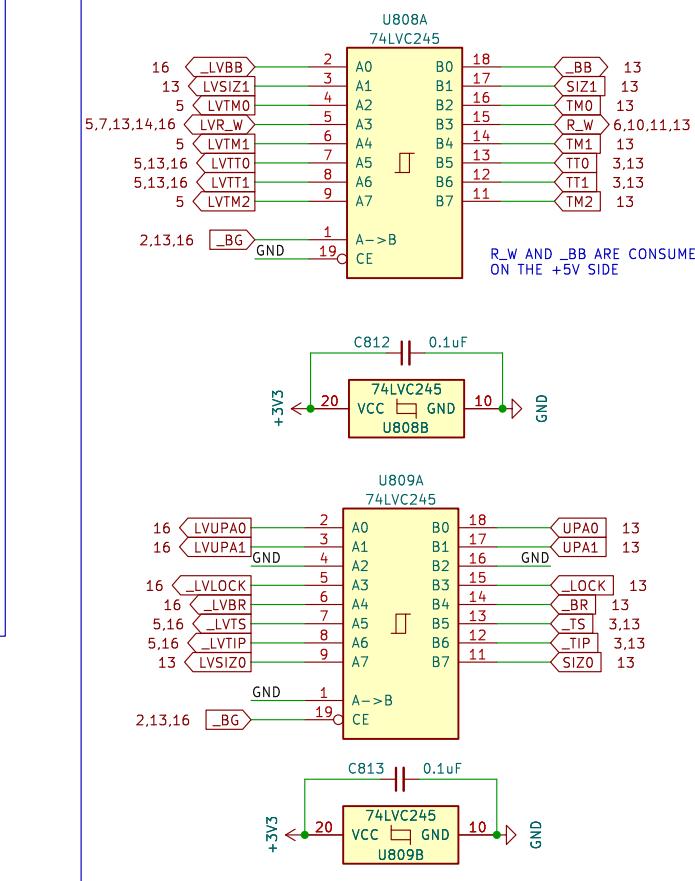


LOW VOLTAGE CHIPSET RAM DATA BUS BUFFERS

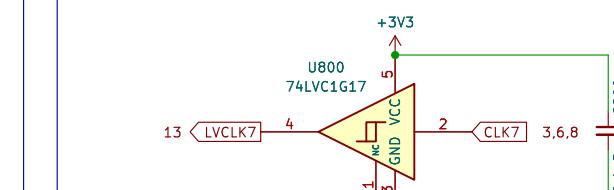


DMA READ = ENABLED, DIR = 1 (A>B)
DMA WRITE = ENABLED, DIR = 0 (B>A)
REG READ = ENABLED, DIR = 0 (B>A)
REG WRITE = ENABLED, DIR = 1 (A>B)
CPU CHIP RAM ACCESS = TRISTATE

BIDIRECTIONAL MC68040



UNIDIRECTIONAL SIGNALS



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: 2024-02-14

KiCad E.D.A. kicad 7.0.10~7.0.10~ubuntu23.10.1

Rev: 2.0

Id: 17/17