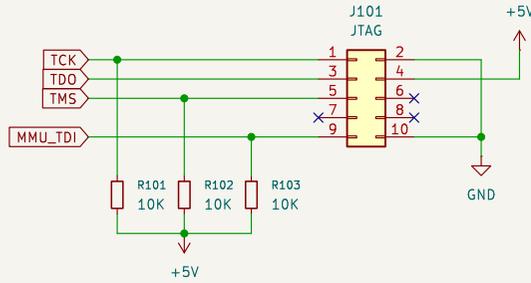


Top-level physical address map:
 00xx xxxx.xxxx xxxx.xxxx xxxx.xxxx - RAM
 01xx xxxx.xxxx xxxx.xxxx xxxx.xxxx - ROM
 10xx xxxx.xxxx xxxx.xxxx xxxx.xxxx - On-board I/O
 11xx xxxx.xxxx xxxx.xxxx xxxx.xxxx - (NQ)VME I/O

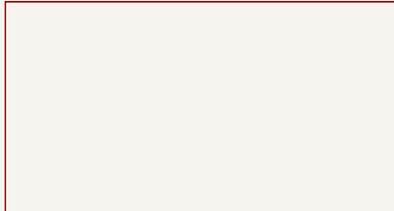
Control space (FC==4):
 xxxx.xxxx xxxx.xxxx xxxx.000x - see Control Space sheet
 xxxx.xxxx xxxx.xxxx xxxx.x1x - reserved for MMU
 xxxx.xxxx xxxx.xxxx xxxx.x1xx - reserved for MMU
 xxxx.xxxx xxxx.xxxx xxxx.1xxx - reserved for MMU



JTAG Chain: MMU (1508) -> IOCTL (1508) -> MEMCTL (1504)

- H101 MountingHole
- H102 MountingHole
- H103 MountingHole
- H104 MountingHole
- H105 MountingHole
- H106 MountingHole
- H107 MountingHole
- H108 MountingHole
- H109 MountingHole
- H112 MountingHole
- H110 MountingHole
- H111 MountingHole

CPU



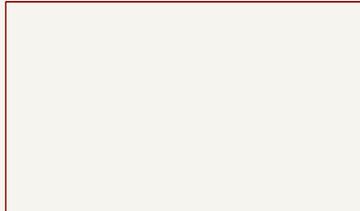
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MMU



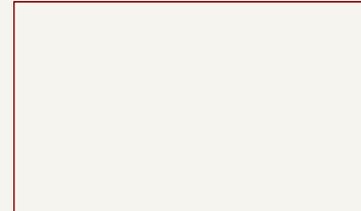
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Control Space



File: cpu010-control.kicad_sch

On-board memory



File: cpu010-obmem.kicad_sch

On-board IO



File: cpu010-obio.kicad_sch

Expansion



File: cpu010-expansion.kicad_sch

Power Supply



File: cpu010-psu.kicad_sch

VME termination



File: cpu010-vme-term.kicad_sch

Sheet: /
 File: cpu010.kicad_sch

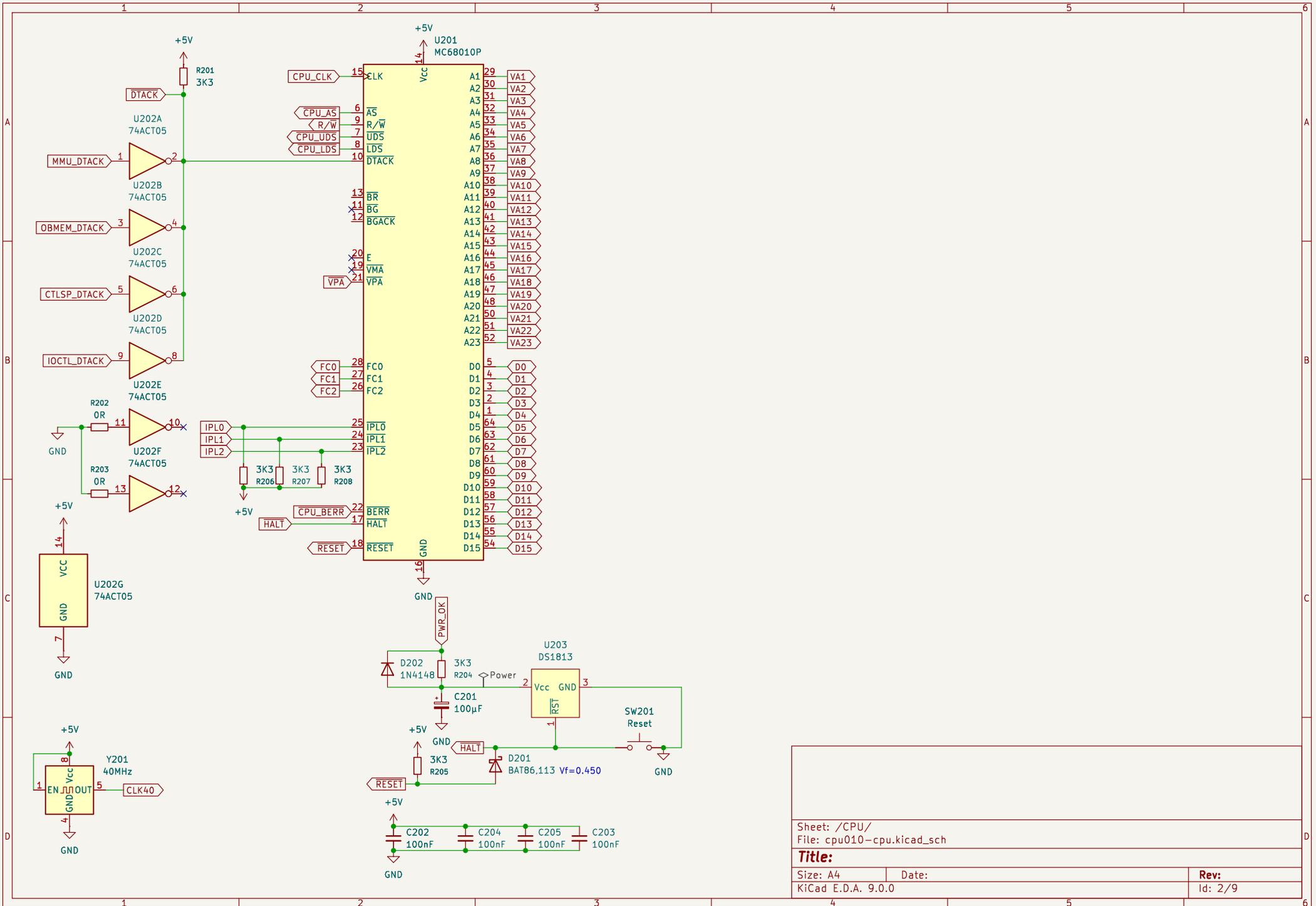
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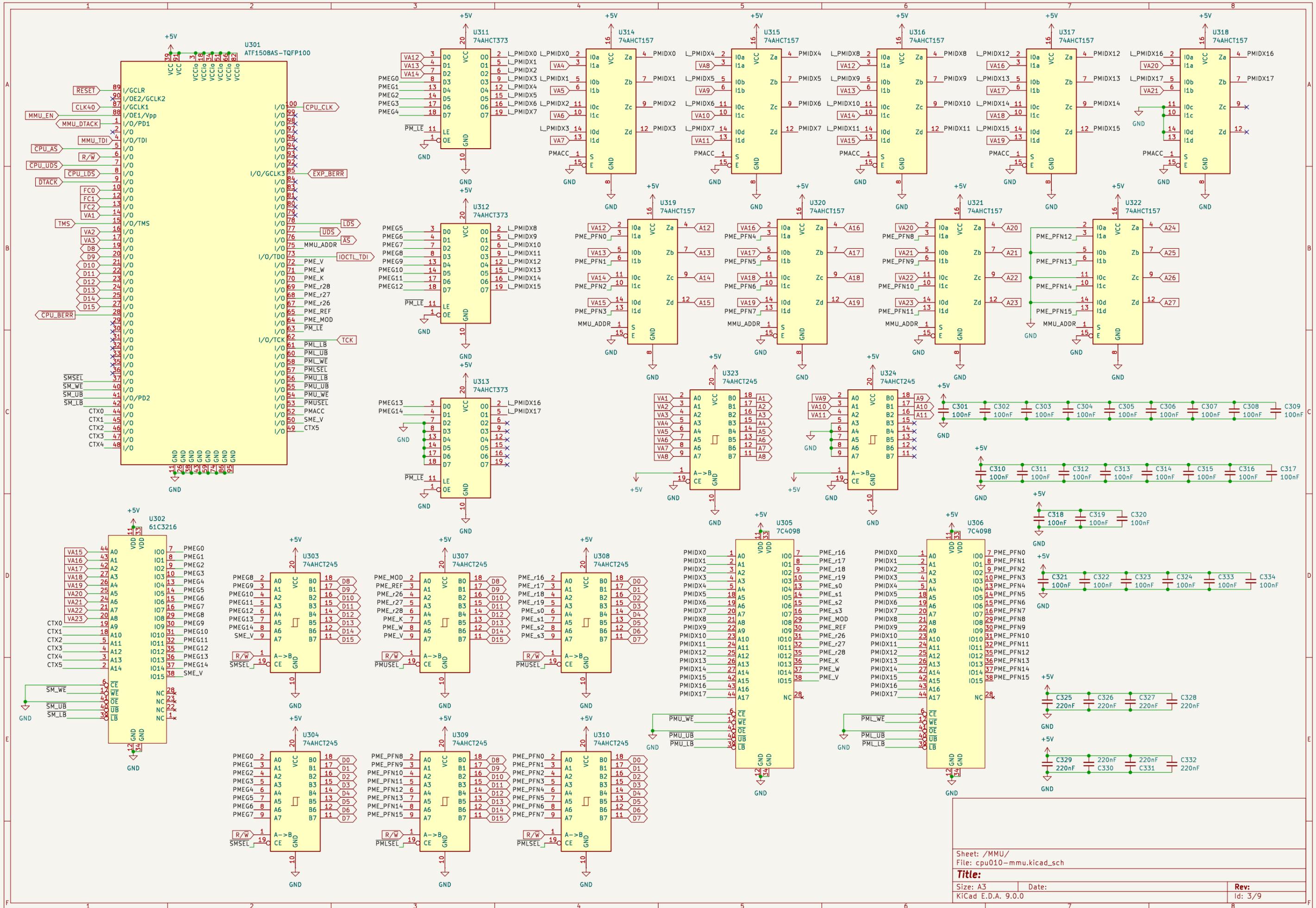
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Rev:

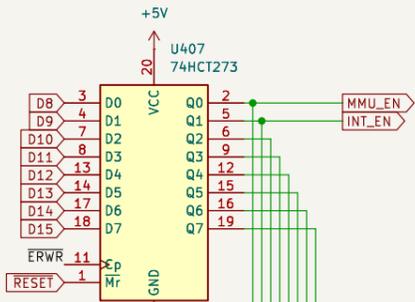
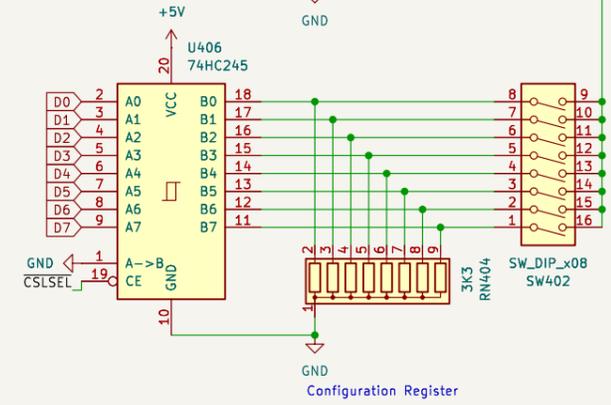
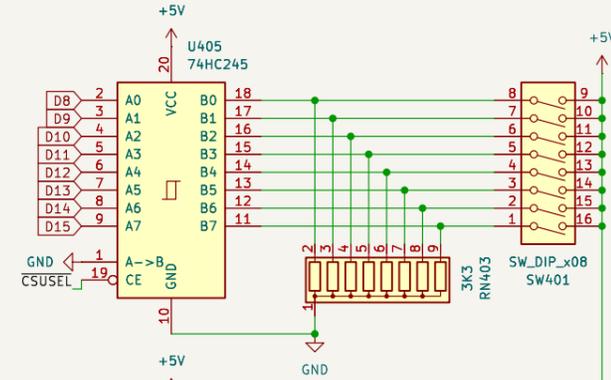
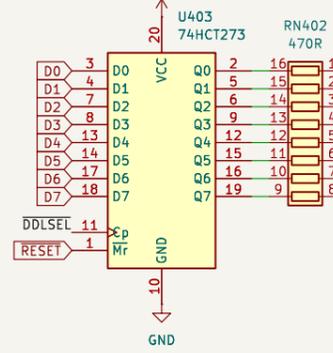
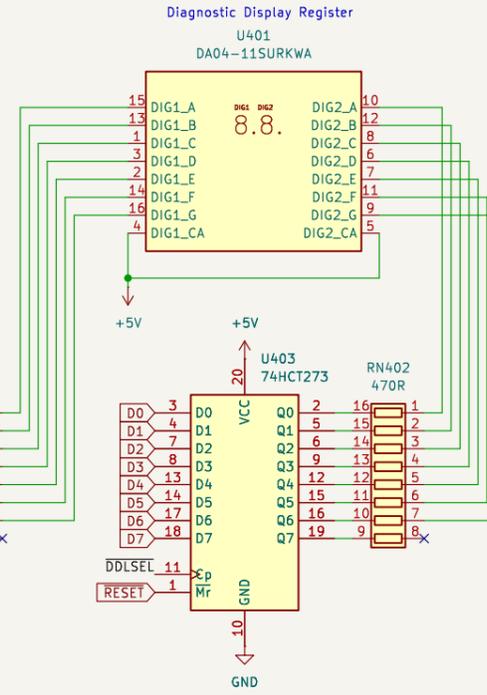
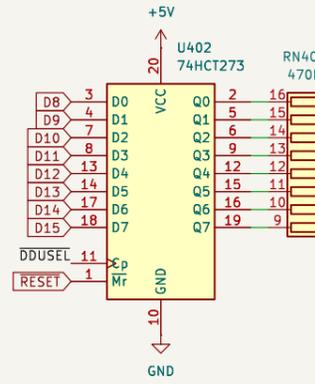
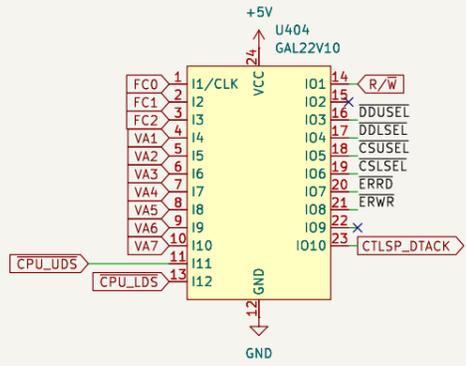
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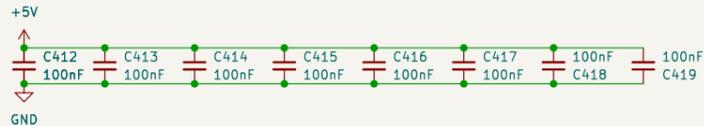
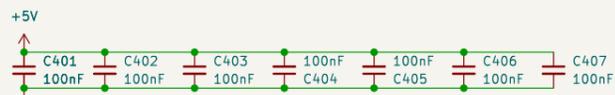
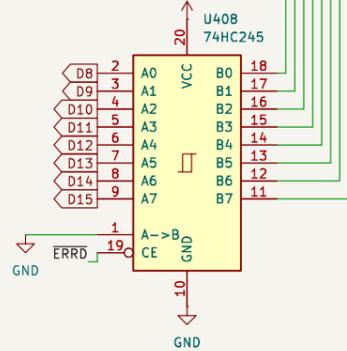
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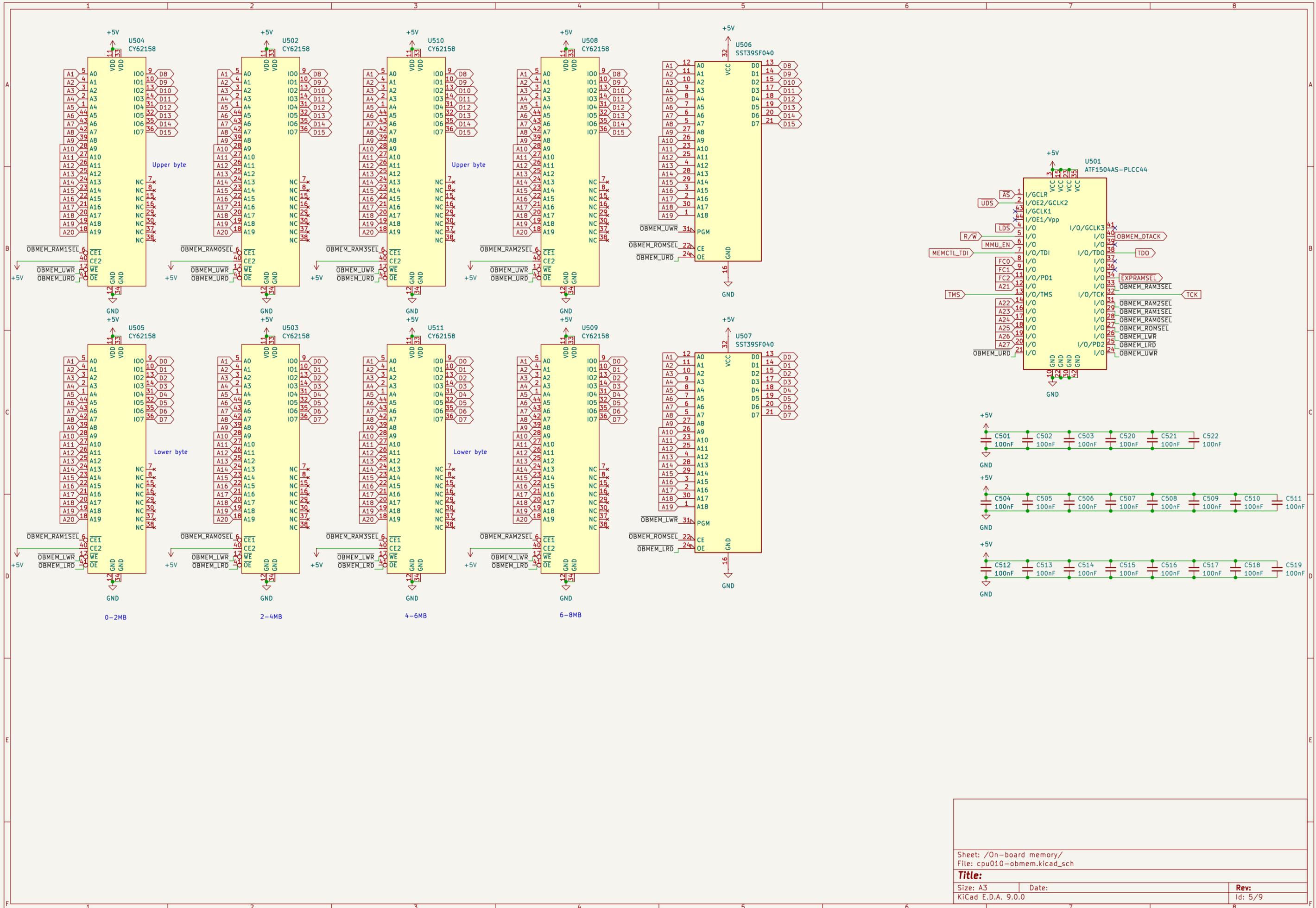


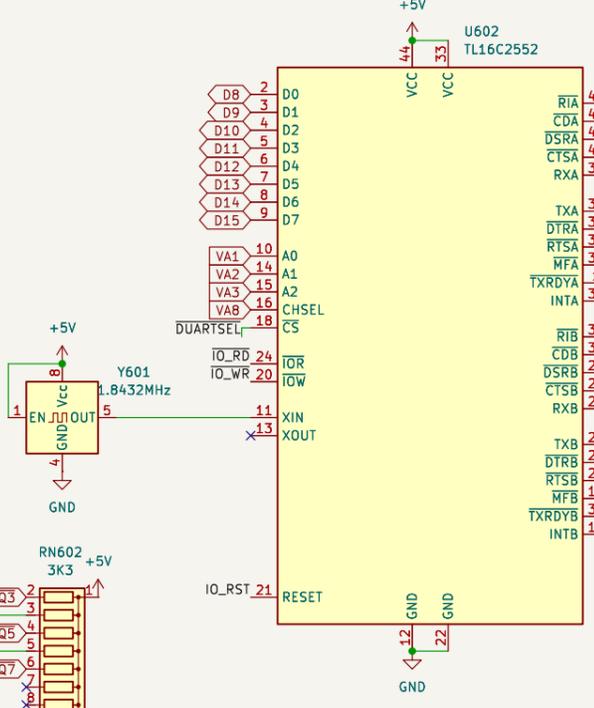
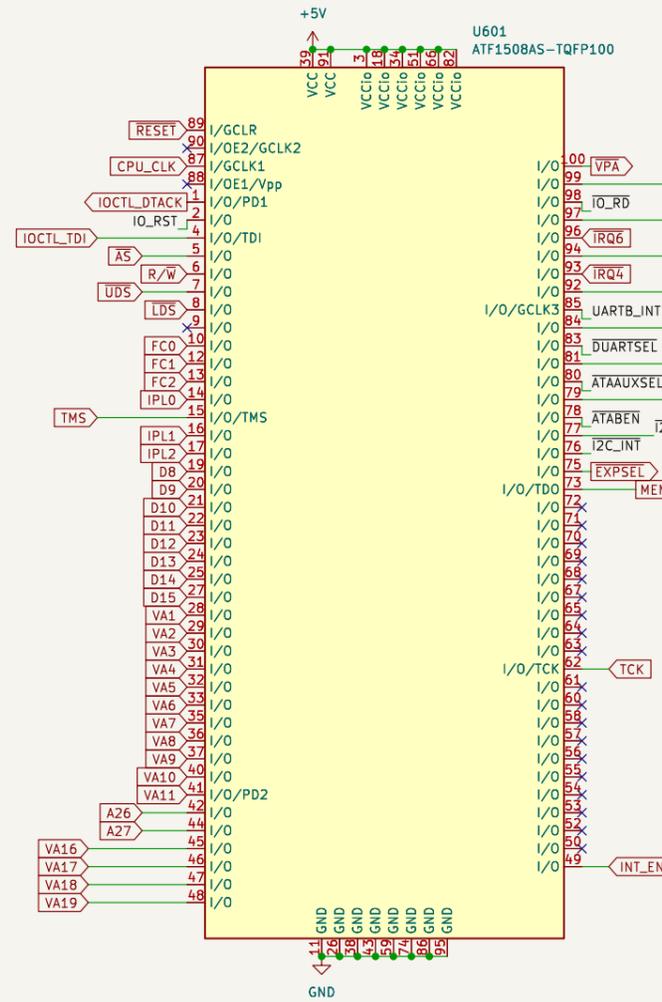
Control space (FC==4):
 [CTLSPDEC]
 xxxx.xxxx xxxx.xxxx 0000.0000 - Diagnostic display (upper digit)
 xxxx.xxxx xxxx.xxxx 0000.0001 - Diagnostic display (lower digit)
 xxxx.xxxx xxxx.xxxx 0001.000x - Configuration switches
 xxxx.xxxx xxxx.xxxx 0010.0000 - System Enable register
 [IOCTL010]
 xxxx.xxxx xxxx.xxxx 0100.0000 - Interrupt Set
 xxxx.xxxx xxxx.xxxx 0101.0000 - Interrupt Clear



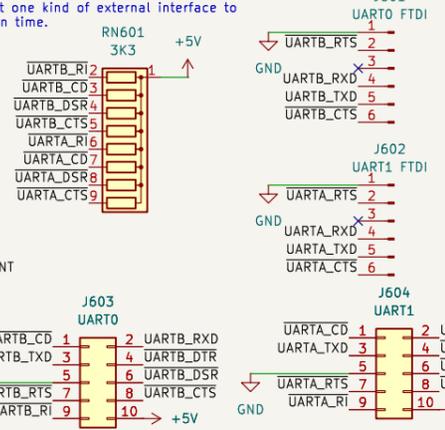
System Enable Register
 Bits in the register:
 SYSEN_MMU 0x01
 SYSEN_INT 0x02
 SYSEN_SW7 0x80
 All other bits reserved for future expansion.



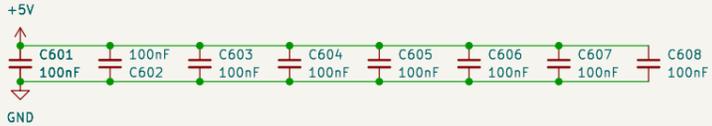
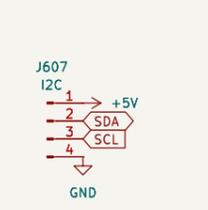
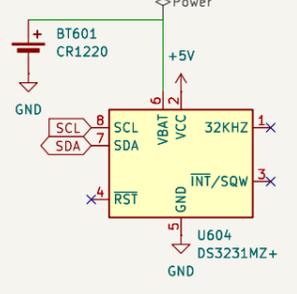
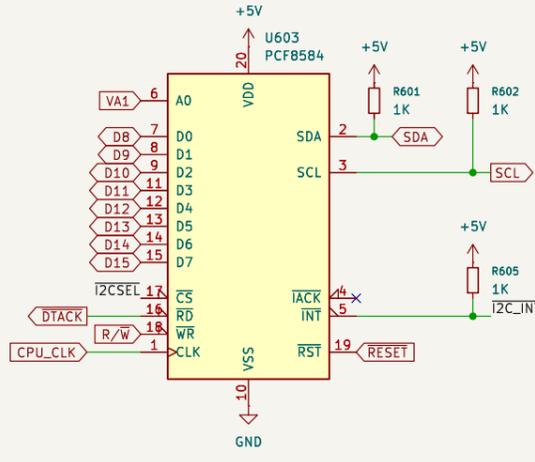
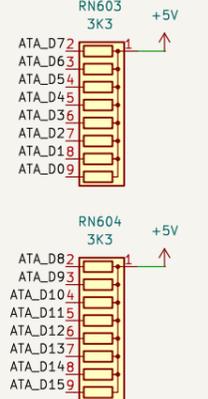
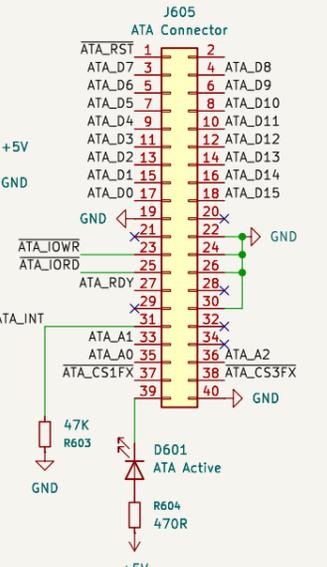
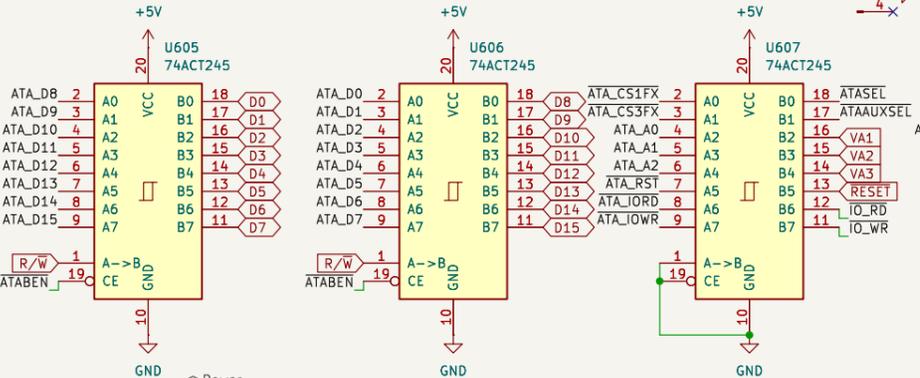
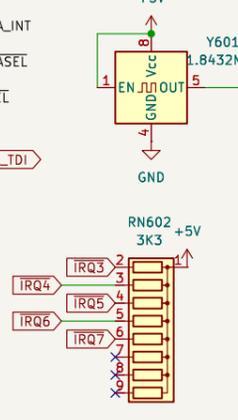




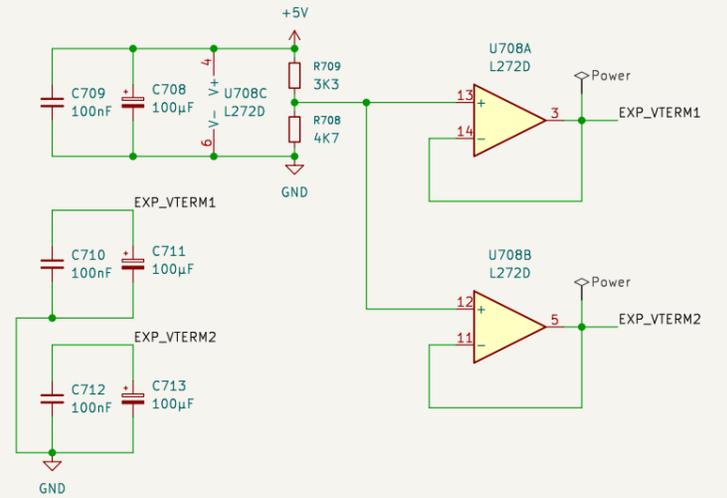
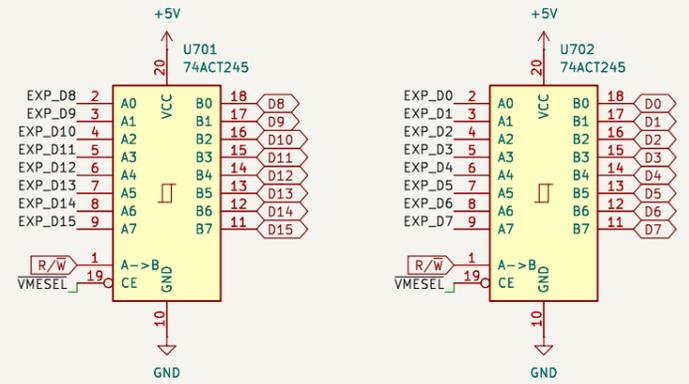
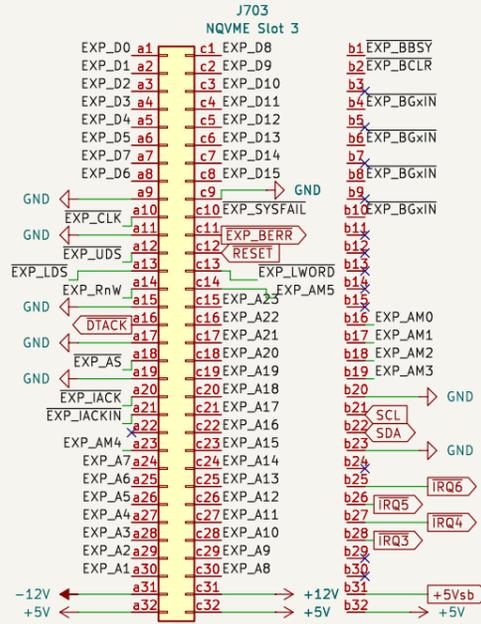
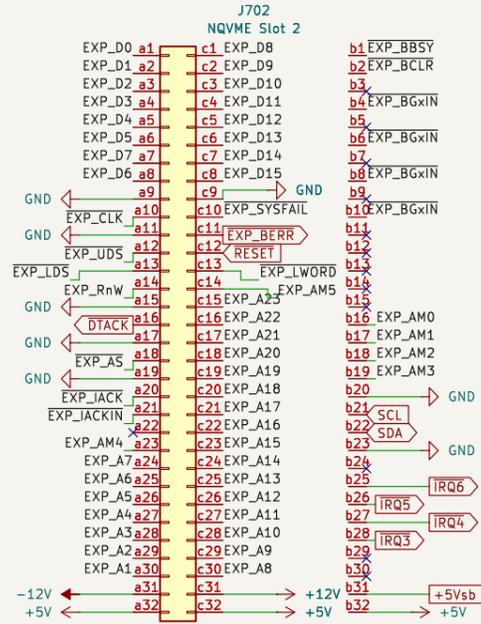
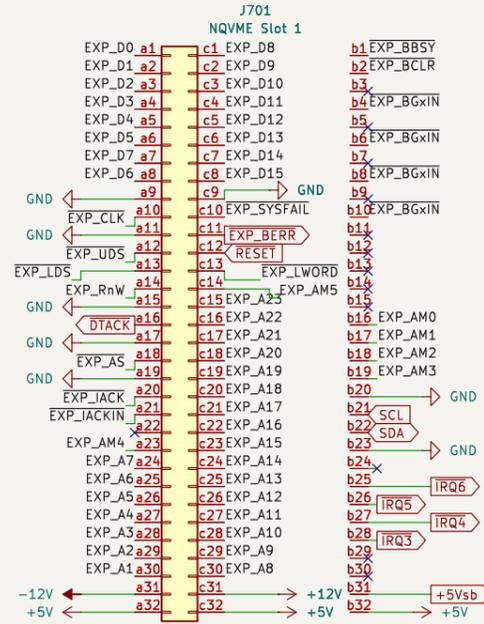
NOTE: UART0 (console) -> channel B (A8=0)
 IDC 10 connectors are pinned the same as RS232 DB9, with +5V being provided on pin 10. This allows for a remote board with RS232 line drivers to be added.
 Note: Only connect one kind of external interface to a port at any given time.



FTDI connector:
 1=GND
 2=CTS
 3=Vcc
 4=TxD
 5=RxD
 6=CTS
 Both ports configured as NULL modem.

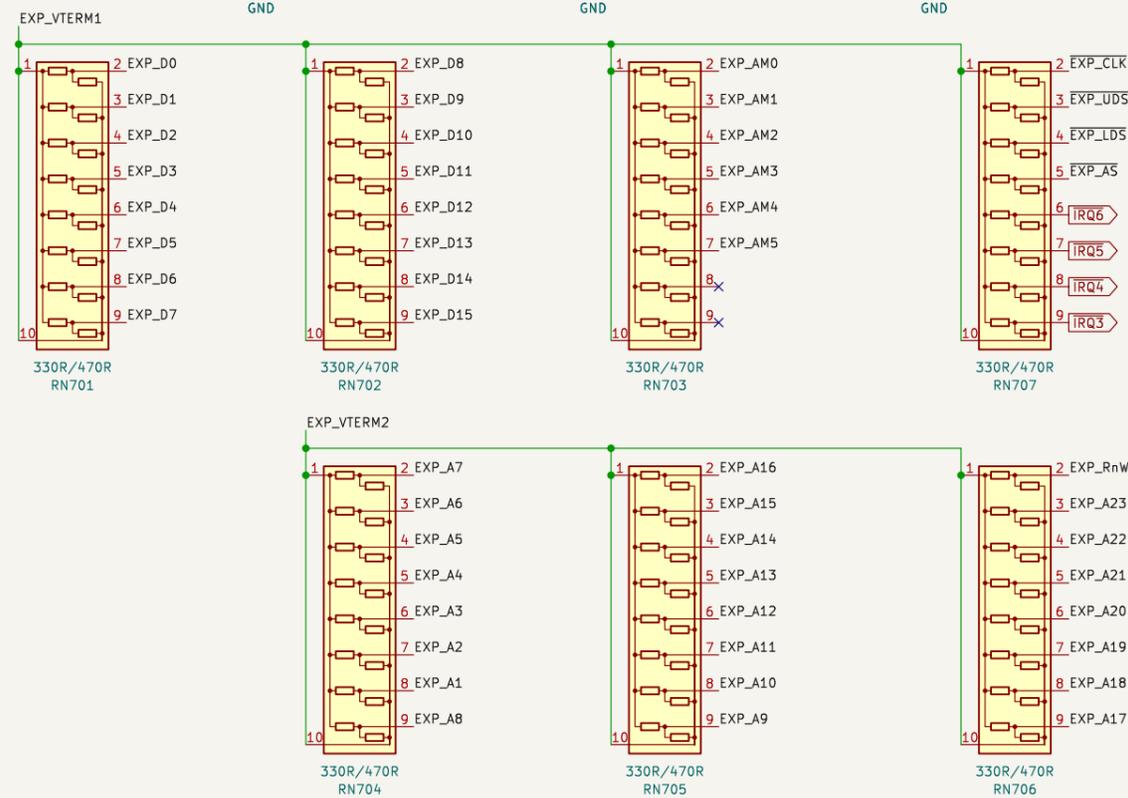
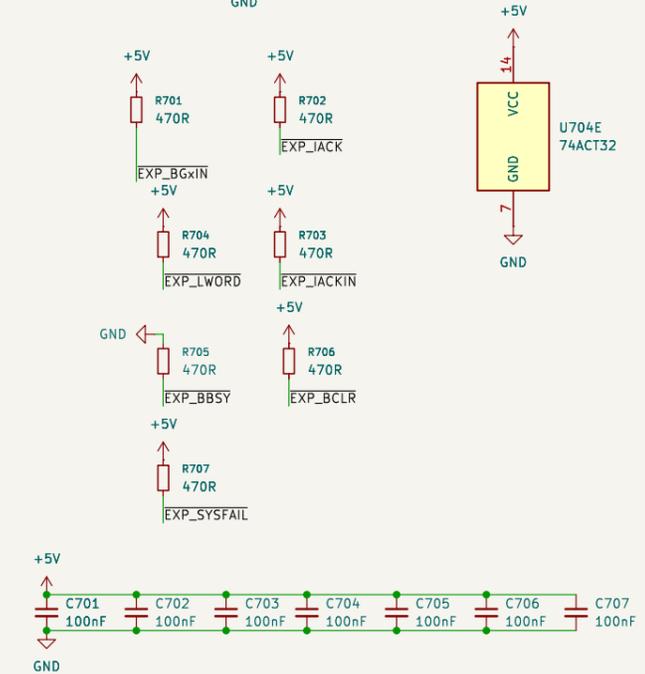
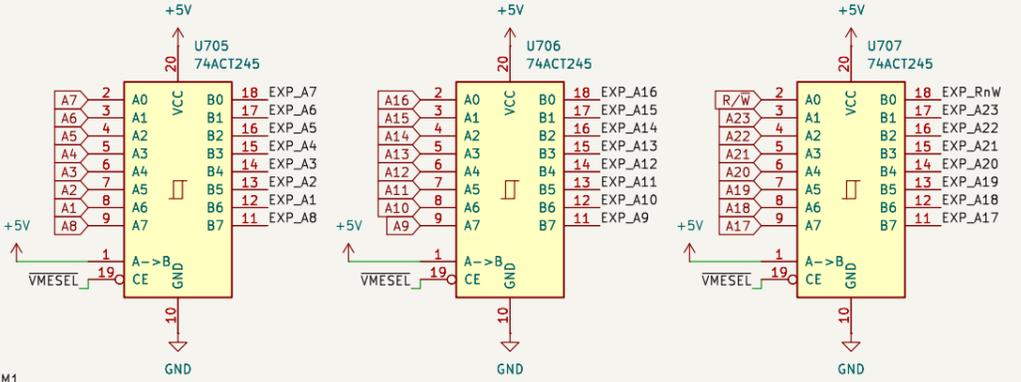
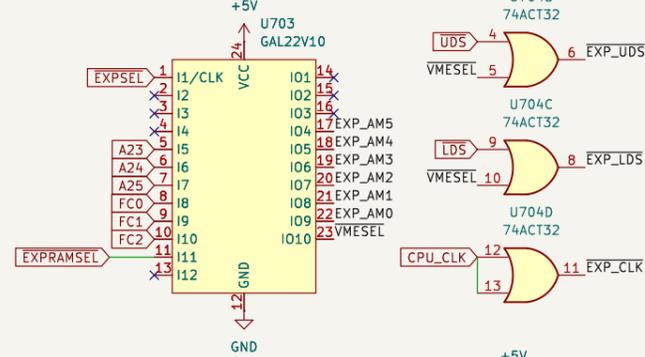


N.B. DS1 = UDS, DS0 = LDS
(It's absolutely VITAL to use clear terminology!)



N.B. The system board is "VME slot 0".
The Arbitor, and will never grant to any other slot.

Similarly, no slot will ever see an IACK cycle. Interrupts will simply be autovectored by the interrupt controller and handled as such by the operating system.



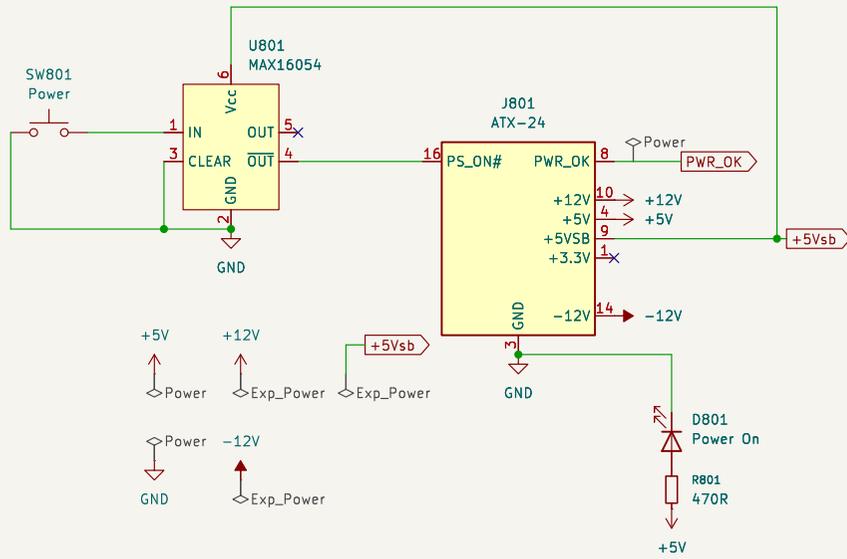
VME-like, but not VME, if you know what I mean.
Address and data lines, GND and voltage rails in the same places. But no fancy stuff.

SERCLK and SERDATA pins on the connector are connected to the I2C SCL and SDA lines.

IRQ2 and IRQ1 are both "software interrupts" on this platform, but we'll leave them connected as in VME anyway.

Sheet: /Expansion/
File: cpu010-expansion.kicad_sch

Title:		Rev:
Size: A3	Date:	Id: 7/9
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Sheet: /Power Supply/
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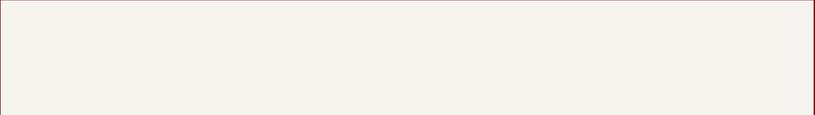
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Date:

Rev:
 Id: 8/9

	1	2	3	4	5	6
A						
B						
C						
D						
	1	2	3	4	5	6



Sheet: /VME termination/ File: cpu010-vme-term.kicad_sch	
Title:	
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KiCad E.D.A. 9.0.0	Rev: 9/9