

(Z50) - SN7404N can be replaced with a DIP 14 CAN Oscillator as the following Pins are assigned:

- \* Pin 1 = Output Enable
- \* Pin 7 = GND
- \* Pin 8 = Output
- \* Pin 16 = VCC

(Then discrete components Y1, R56, R57, C60, C61 can be excluded.)

## MAIN SYSTEM CLOCK

Mark Pruden

Sheet: /CLOCK/

File: TRS80IJP\_CLOCK.kicad\_sch

**Title: TRS-80 Model 1K**

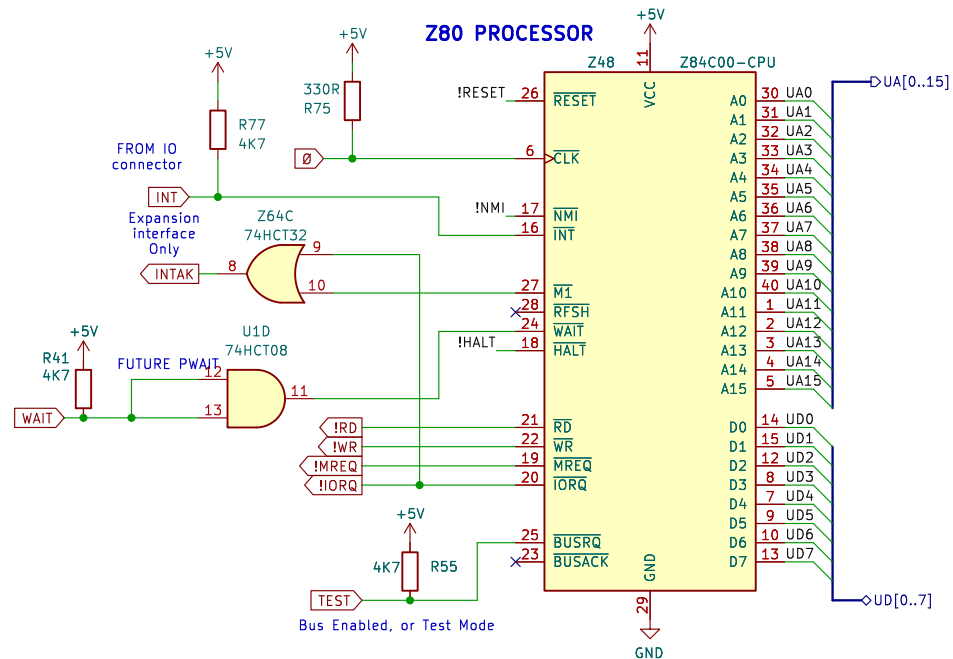
Size: A4

Date: 2025-09-29

Rev: 1c

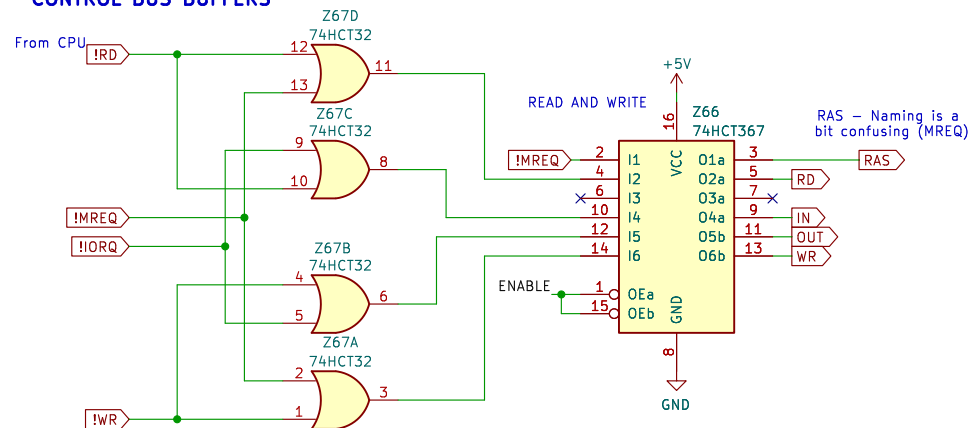
KiCad E.D.A. 8.0.8

Id: 2/21

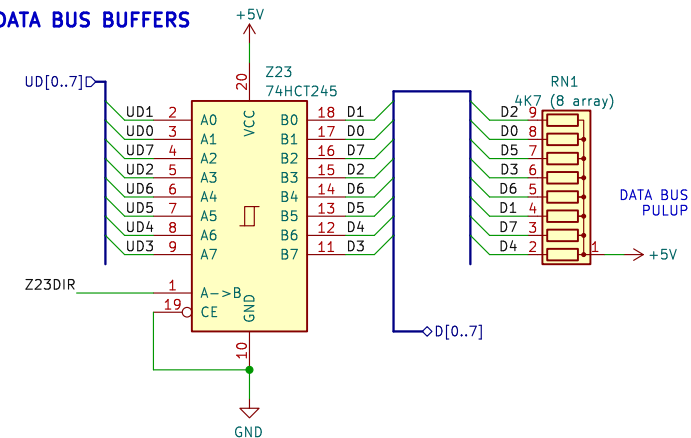


Id: 3/21

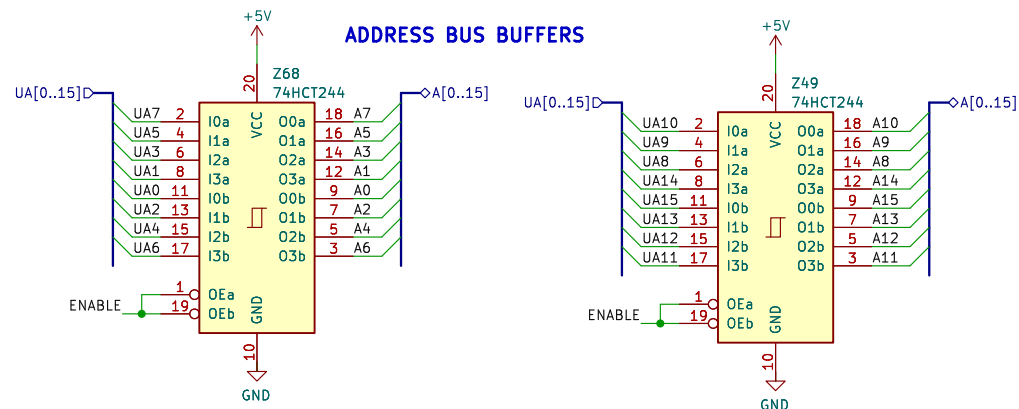
## CONTROL BUS BUFFERS



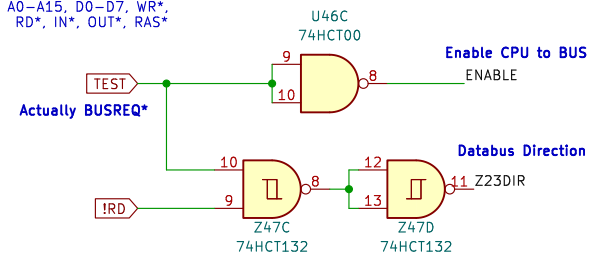
## DATA BUS BUFFERS



## ADDRESS BUS BUFFERS



A logic 0 on TEST\*  
input tri-states  
A0-A15, D0-D7, WR\*,  
RD\*, IN\*, OUT\*, RAS\*



## CPU BUS BUFFERING

Mark Pruden

Sheet: /CPU\_BUS/

File: TRS80IJP\_MEMORY.kicad\_sch

Title: TRS-80 Model 1K

Size: A4

Date: 2025-09-29

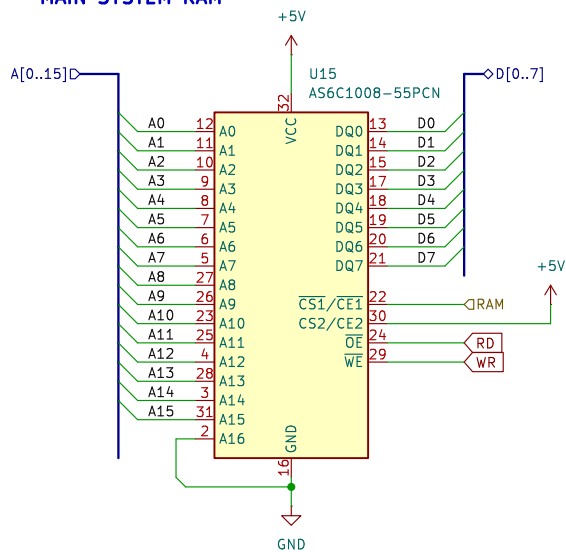
KiCad E.D.A. 8.0.8

Rev: 1c

Id: 4/21



MAIN SYSTEM RAM



Manufacturer : Alliance Memory, Inc.  
Part Number : AS6C1008-55PCN  
Description : SRAM - Asynchronous Memory IC 1Mbit Parallel 55 ns 32-SOP

MAIN SYSTEM RAM

Mark Pruden

Sheet: /RAM/  
File: TRS80IJP\_RAM.kicad\_sch

**Title: TRS-80 Model 1K**

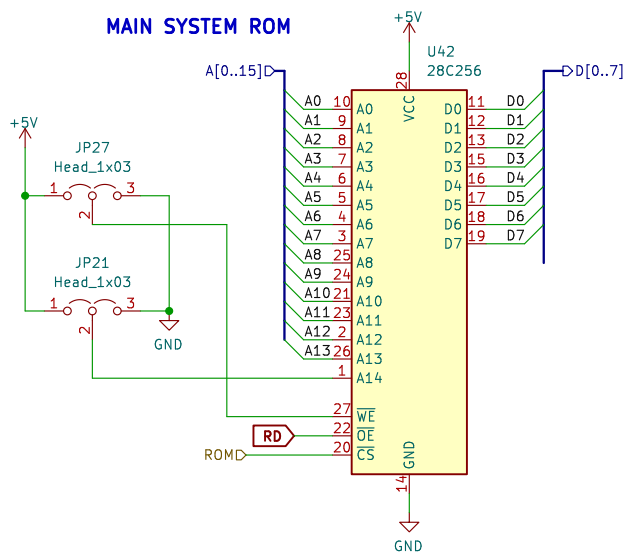
Size: A4 Date: 2025-09-29

KiCad E.D.A. 8.0.8

Rev: 1c

Id: 6/21

# MAIN SYSTEM ROM



Manufacturer : Microchip Technology  
Part Number : AT28C256-15PU  
Description : EEPROM Memory IC 256Kbit Parallel 150 ns 28-PDIP  
32kB - 28 pin - \$28

Manufacturer : Microchip Technology  
Part Number : SST39SF010A-70-4C-PHE  
Description : FLASH Memory IC 1Mbit Parallel 70 ns 32-PDIP  
128 KB - 32 Pin \$5

MAIN SYSTEM ROM

Mark Pruden

Sheet: /ROM/

File: TRS80IJP\_ROM.kicad\_sch

Title: TRS-80 Model 1K

Size: A4

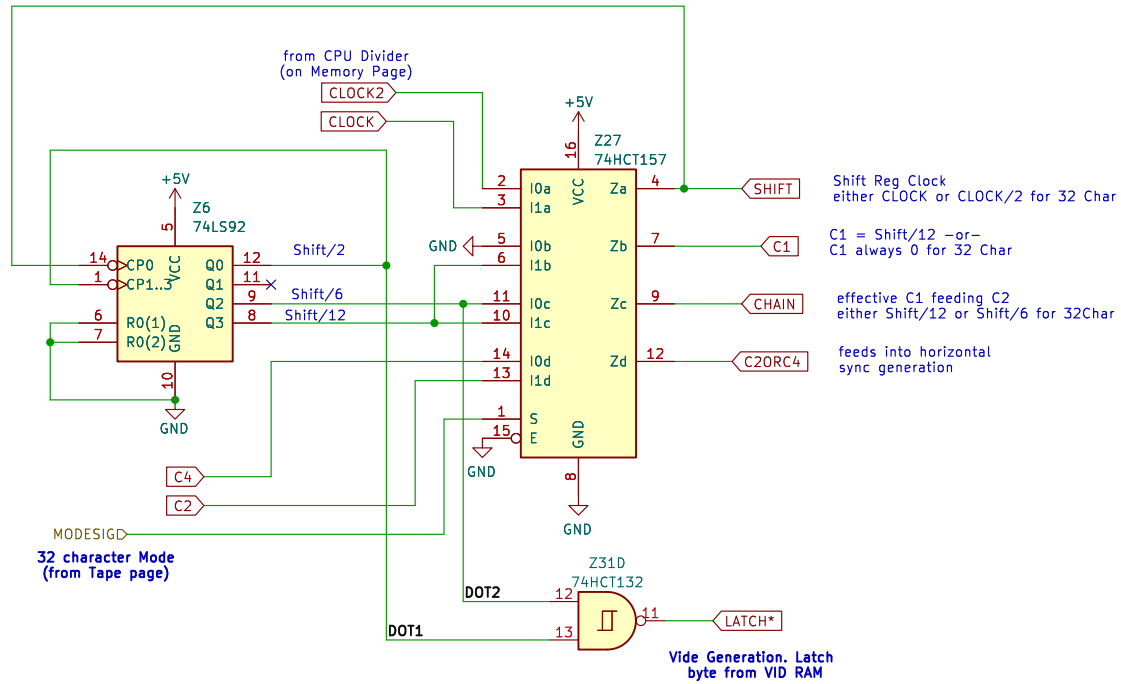
Date: 2025-09-29

Rev: 1c

KiCad E.D.A. 8.0.8

Id: 7/21

## 32 CHAR MODE CONTROL



VIDEO 32 CHARACTER MODE SELECTION

Mark Pruden

Sheet: /VIDEO MODE/  
File: TRS80IJP\_VIDMODE.kicad\_sch

Title: TRS-80 Model 1K

Size: A4 Date: 2025-09-29

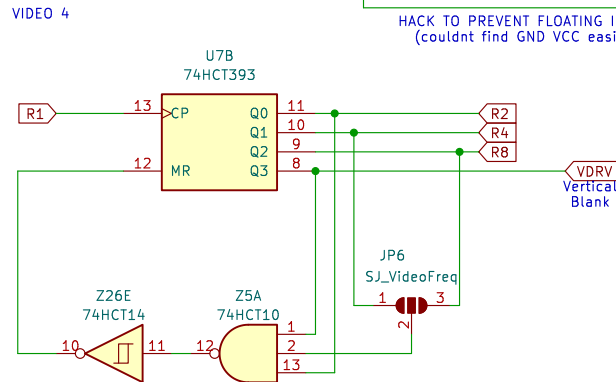
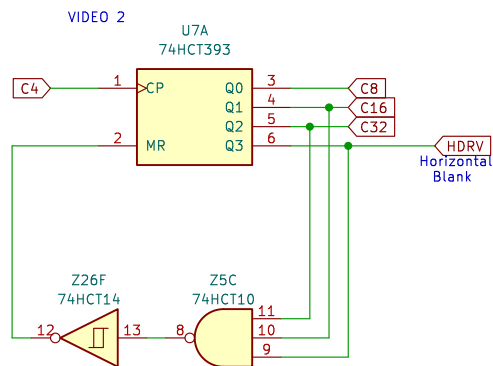
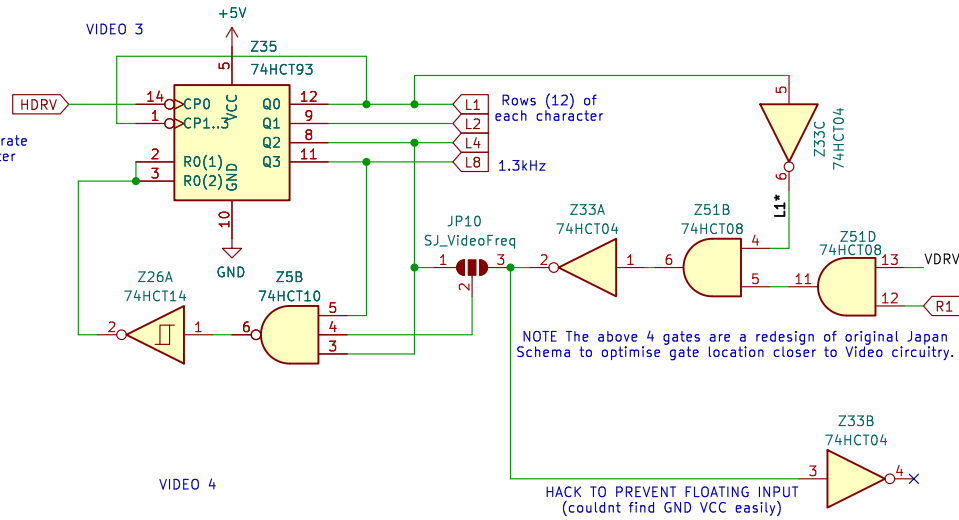
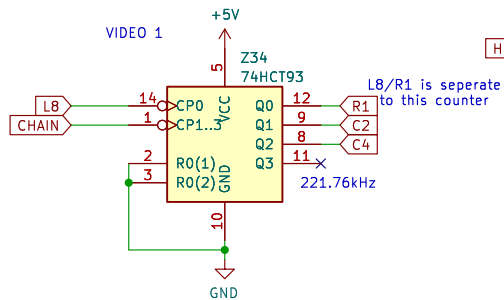
KiCad E.D.A. 8.0.8

Rev: 1c

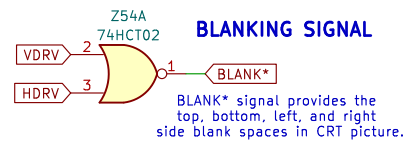
Id: 10/21



## VIDEO TIMING (COUNTERS)



Jumpers JP6 JP7 JP8 JP10  
Control Video Frequency  
Shorting 1,2 -> 60 Hz  
Shorting 2,3 -> 50 Hz



## VIDEO TIMING COUNTERS

Mark Pruden

Sheet: /VIDEO TIMING/  
File: TRS80IJP\_TIMING.kicad\_sch

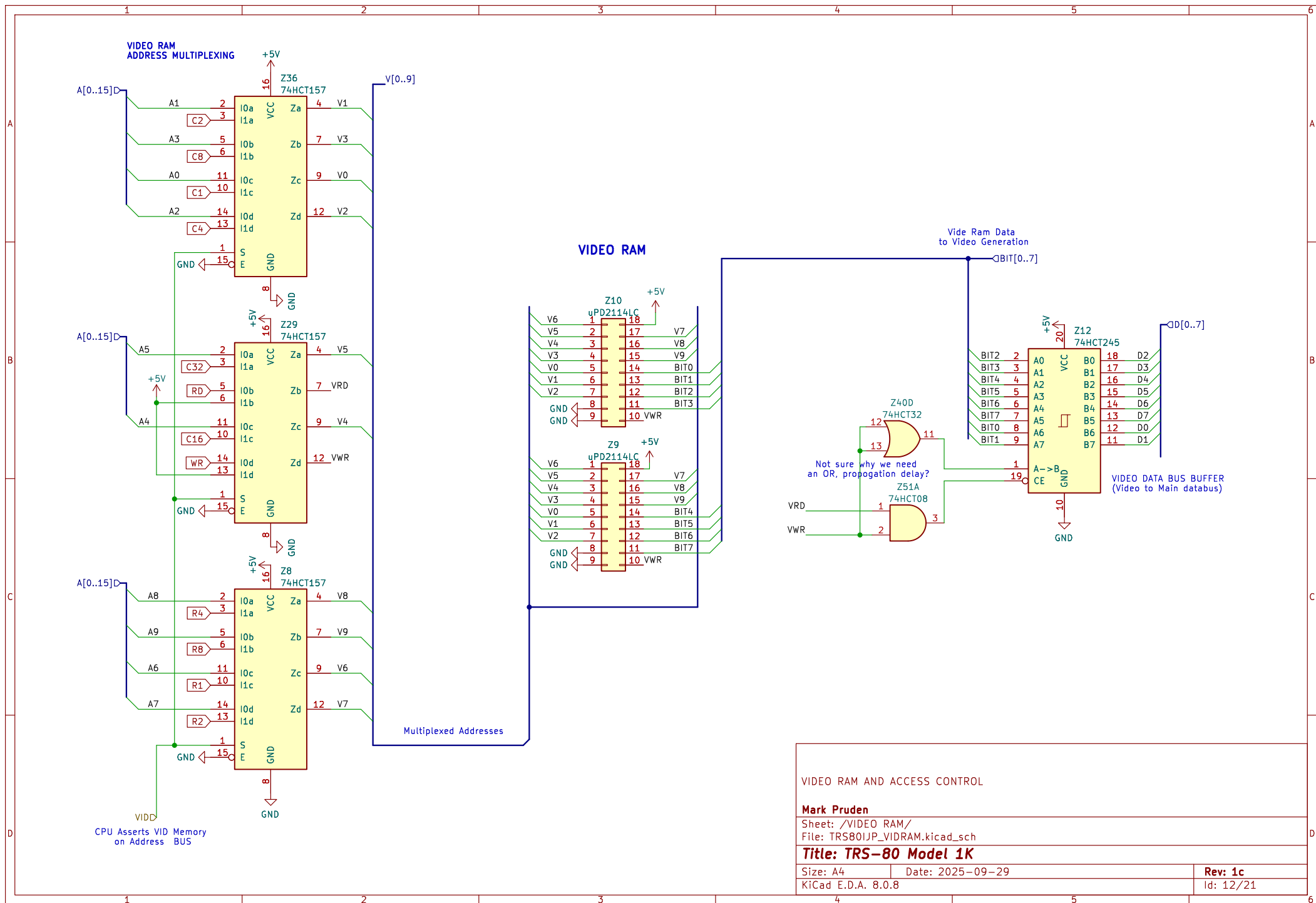
**Title: TRS-80 Model 1K**

Size: A4 Date: 2025-09-29

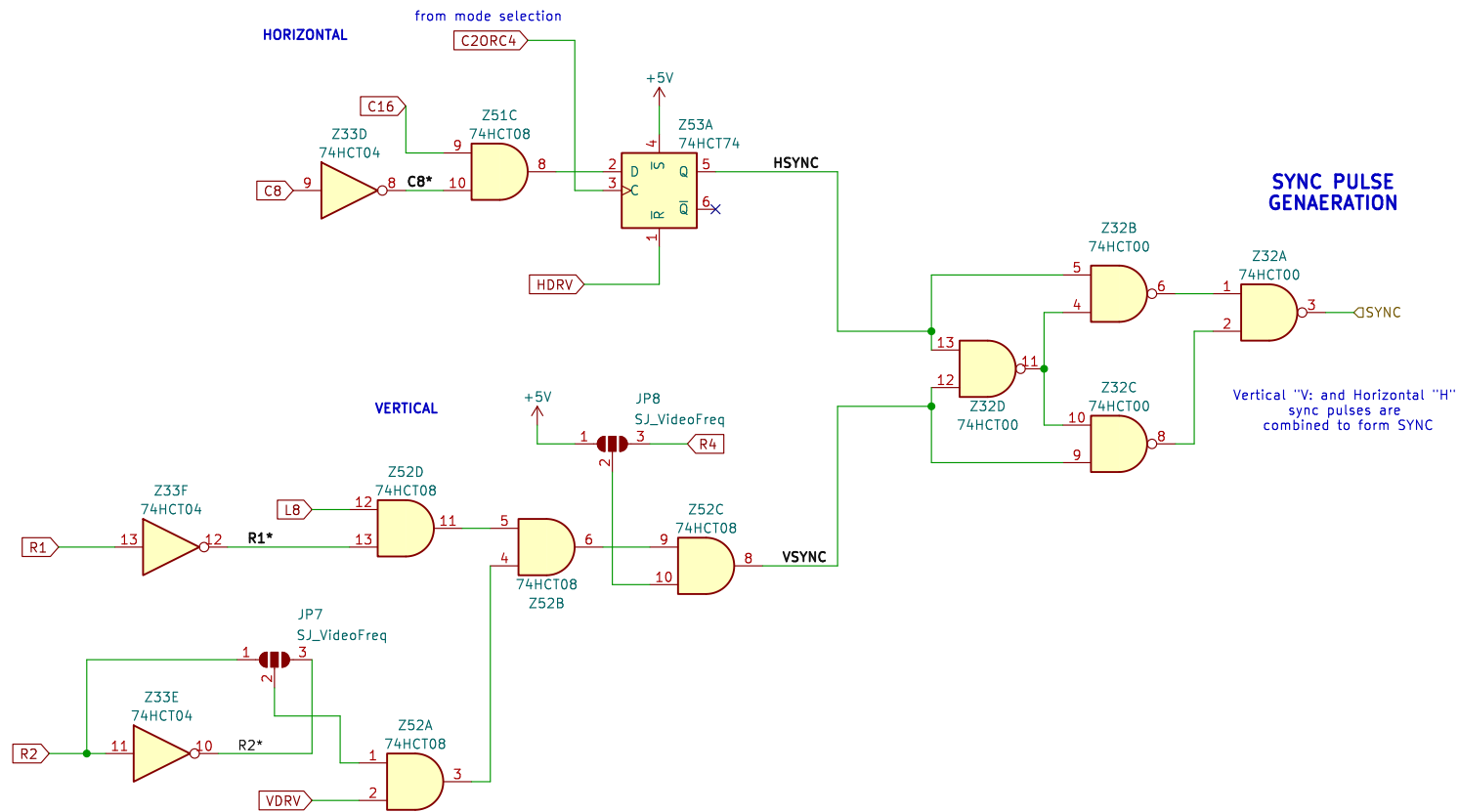
KiCad E.D.A. 8.0.8

Rev: 1c

Id: 11/21







Jumpers JP6 JP7 JP8 JP10  
Control Video Frequency  
Shorting 1,2 -> 60 Hz  
Shorting 2,3 -> 50 Hz

# VIDEO SYNC GENERATION

Mark Pruden

Sheet: /VIDEO SYNC/  
File: TRS80IJP\_VIDSYNC.kicad\_sch

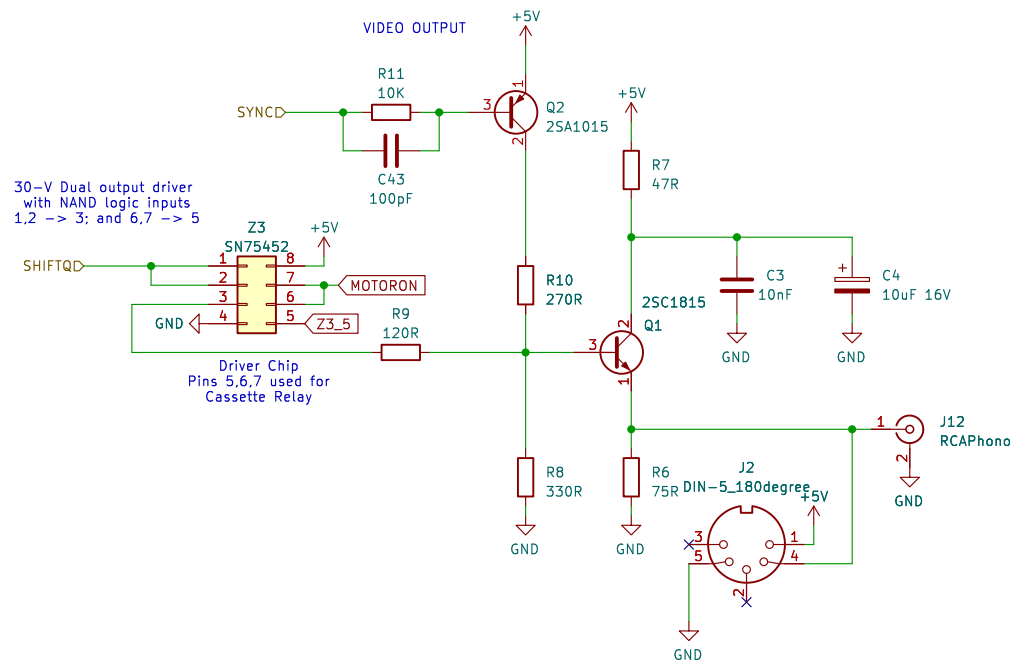
**Title: TRS-80 Model 1K**

Size: A4 Date: 2025-09-29

KiCad E.D.A. 8.0.8

Rev: 1c

Id: 14/21



# VIDEO OUTPUT MIXER

Mark Pruden

Sheet: /VIDEO OUT/  
File: TRS80JP\_VIDOUT.kicad\_sch

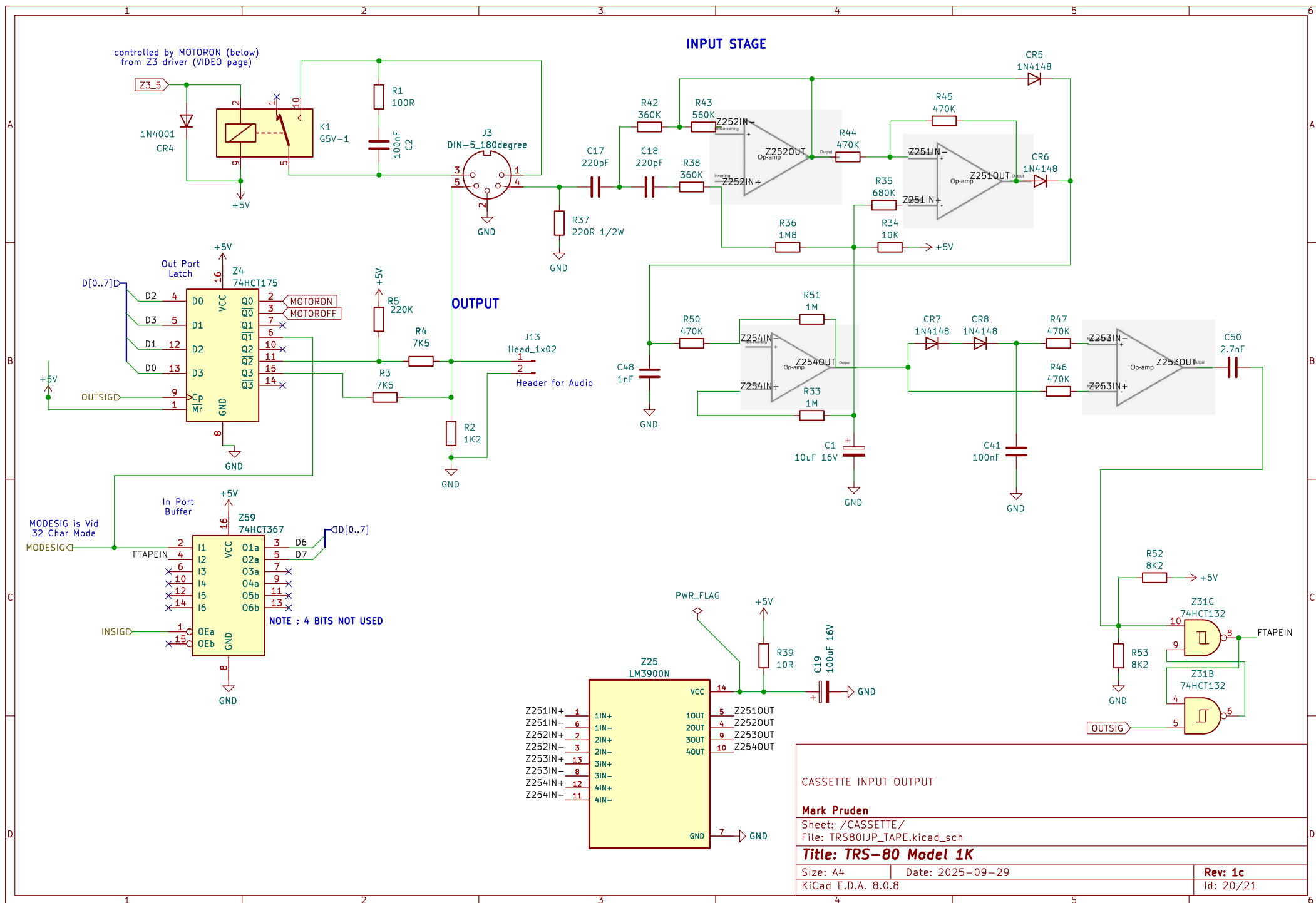
Title: TRS-80 Model 1K

Size: A4 Date: 2025-09-29

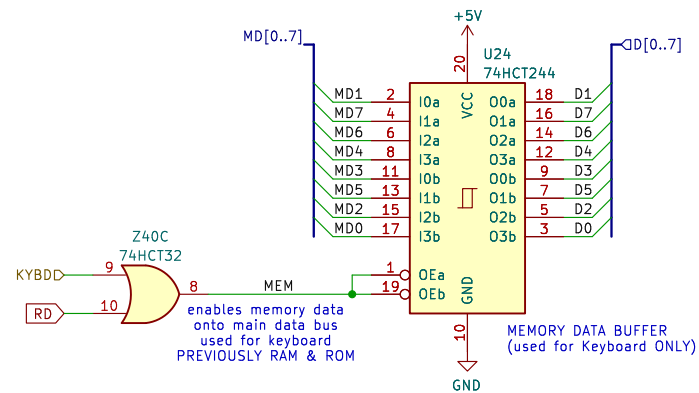
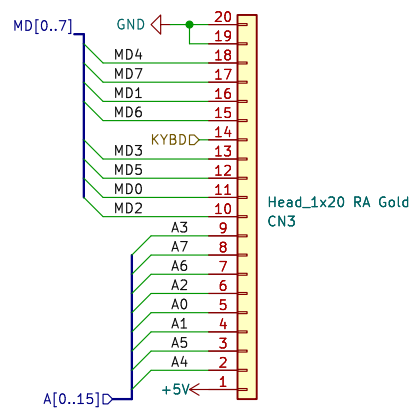
KiCad E.D.A. 8.0.8

Rev: 1c

Id: 15/21



# KEYBOARD CONNECTOR



## KEYBOARD CONNECTOR AND DATA BUS ACCESS

Mark Pruden

Sheet: /KEYBOARD/  
 File: TRS801JP\_KB\_CONN.kicad\_sch

Title: TRS-80 Model 1K

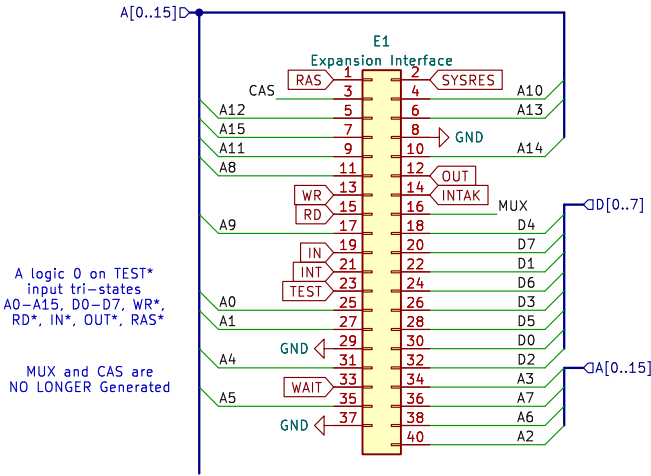
Size: A4 Date: 2025-09-29

KiCad E.D.A. 8.0.8

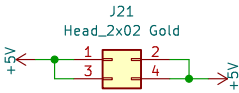
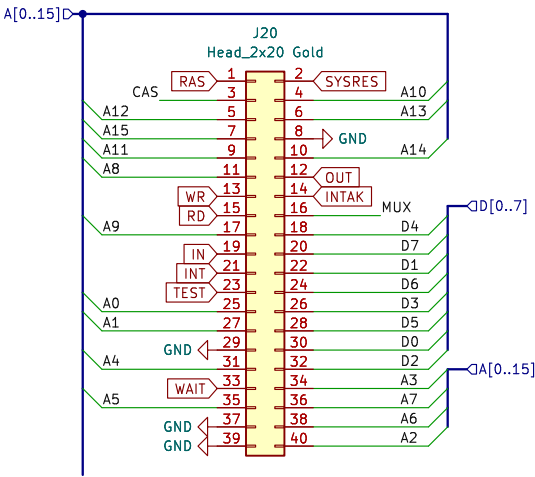
Rev: 1c

Id: 21/21

EXPANSION EDGE CONNECTOR



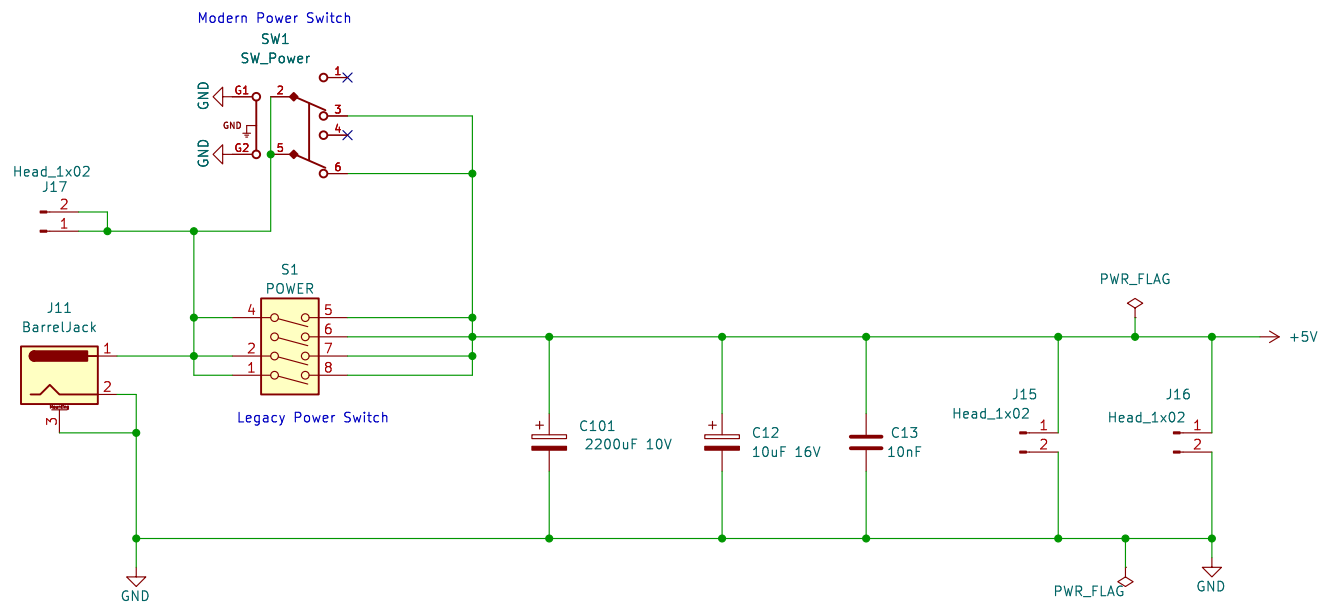
INTERNAL EXPANSION HEADER



EXPANSION IO CONNECTOR

Mark Pruden  
Sheet: /EXPANSION-I-O/  
File: TRS80IJP\_KEYBOARD.kicad\_sch  
**Title: TRS-80 Model 1K**  
Size: A4 Date: 2025-09-29 Rev: 1c  
KiCad E.D.A. 8.0.8 Id: 22/21





# POWER INPUT AND SWITCHING

**Mark Pruden**

Sheet: /POWER/  
File: TRS80IJP\_POWER.kicad\_sch

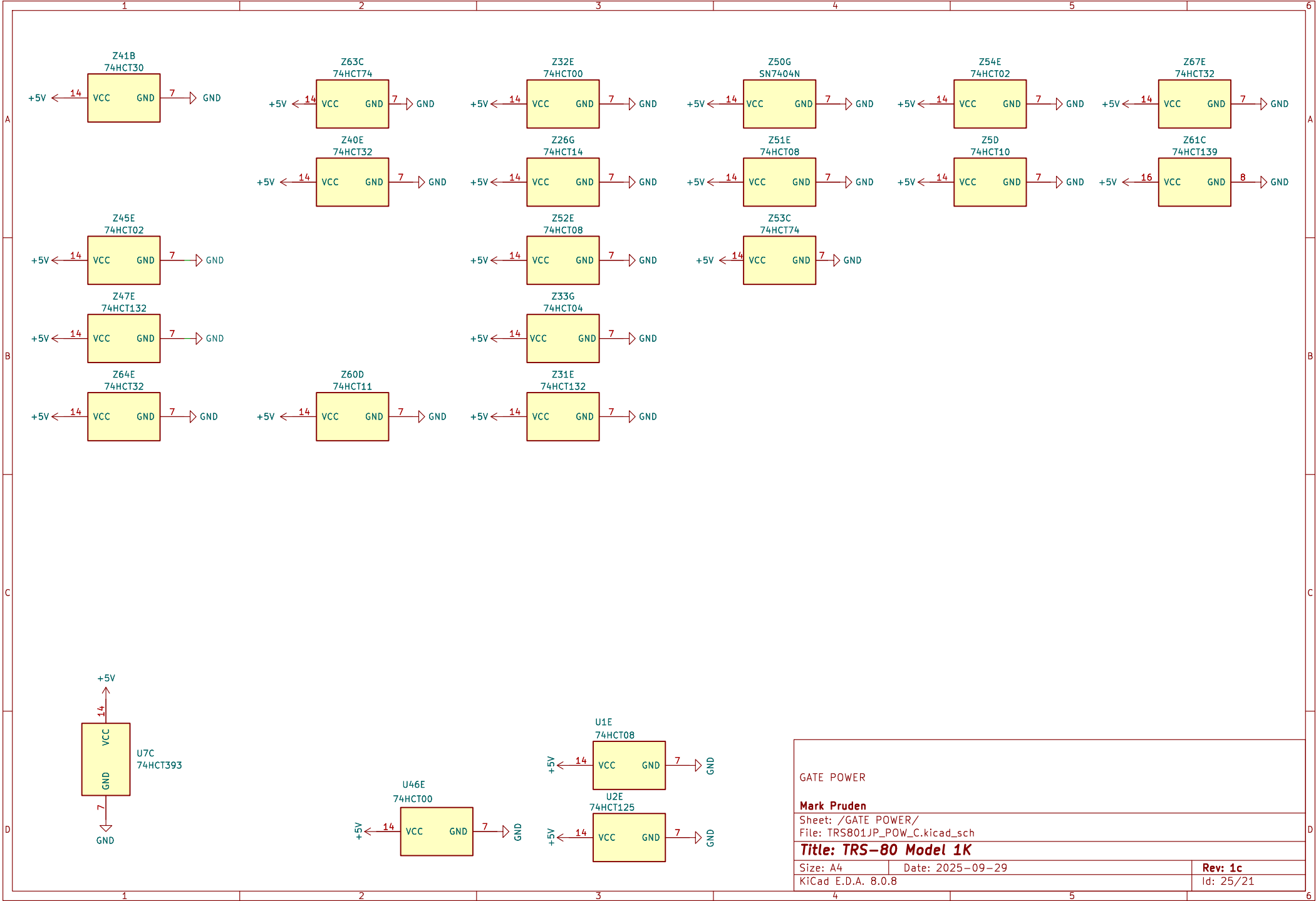
**Title: TRS-80 Model 1K**

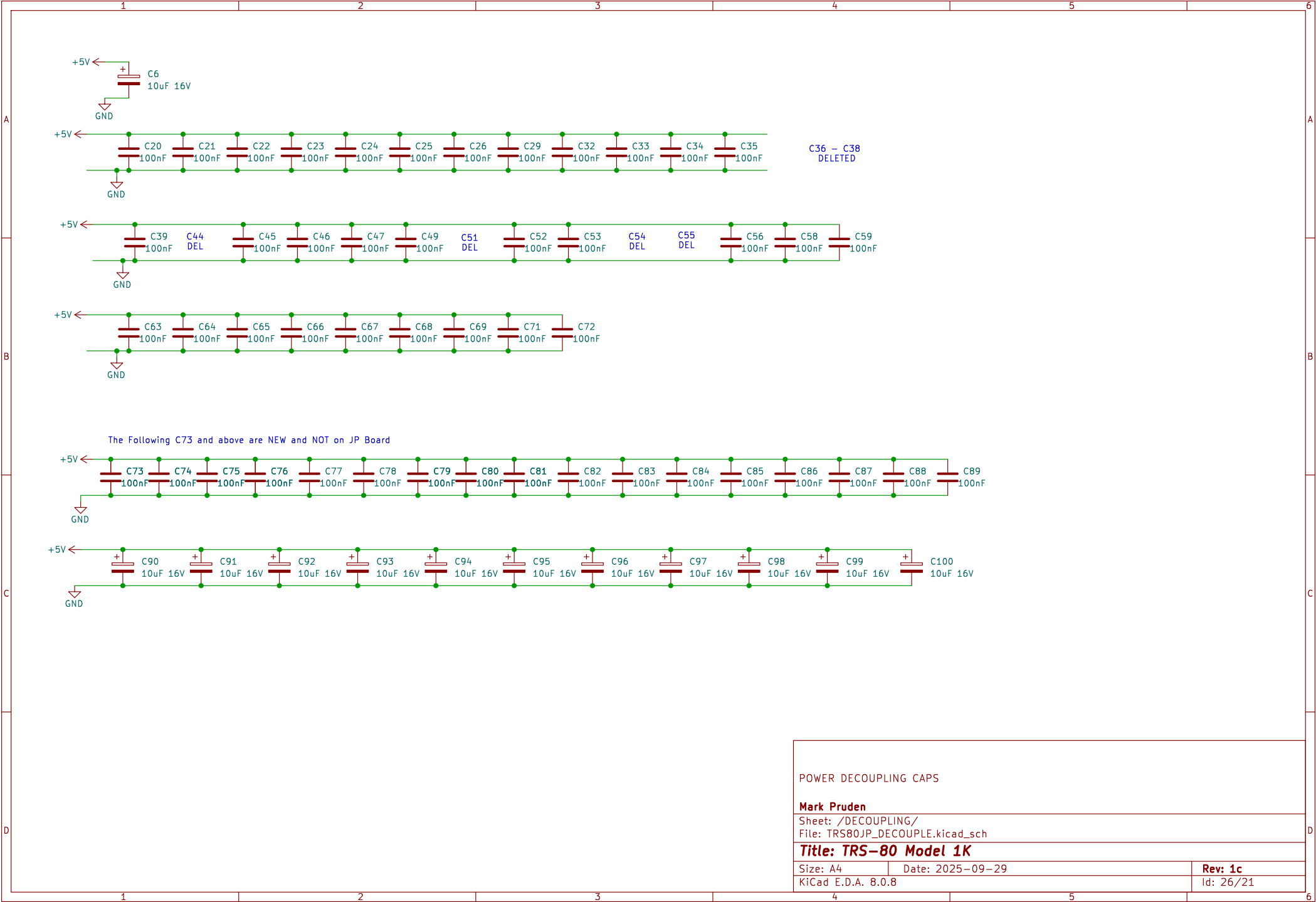
Size: A4 Date: 2025-09-29

KiCad E.D.A. 8.0.8

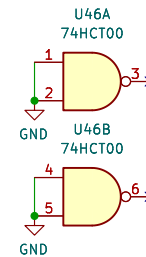
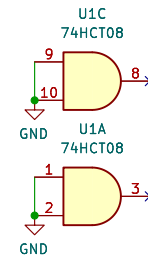
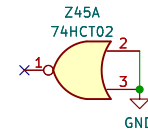
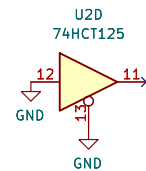
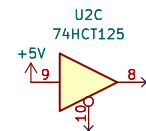
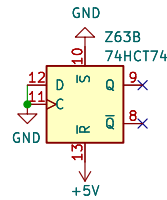
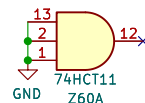
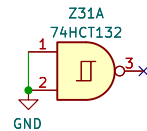
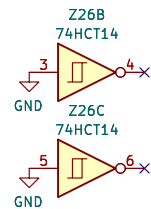
**Rev: 1c**

Id: 23/21





Spare Gates are SHOWN in general PHYSICAL LOCATION on the Board



UNUSED GATES

Mark Pruden

Sheet: /SPARE GATES/

File: TRS80IJP\_SPARE.kicad\_sch

Title: TRS-80 Model 1K

Size: A4

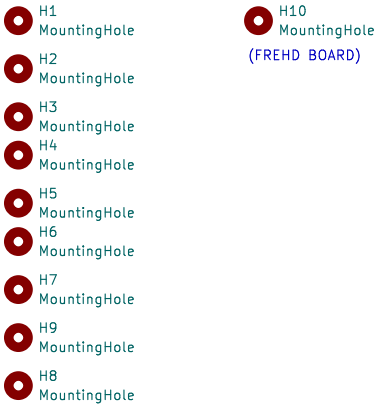
Date: 2025-09-29

Rev: 1c

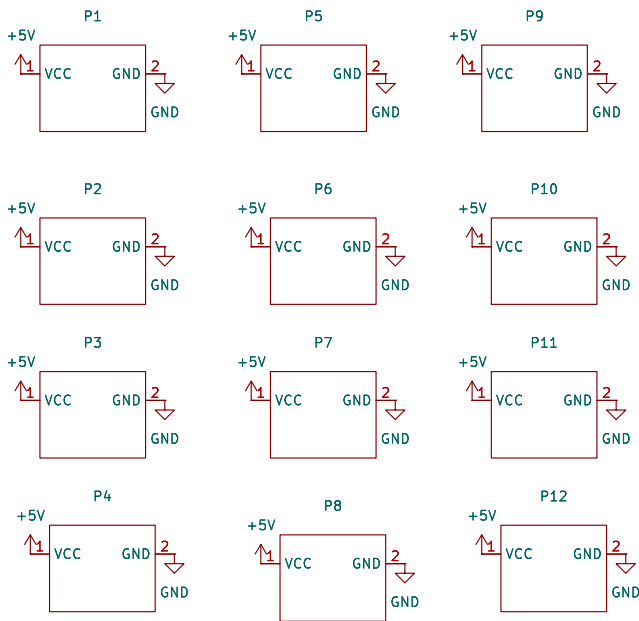
KiCad E.D.A. 8.0.8

Id: 27/21

MOUNTING HOLES



PROTOTYPE AREAS



Jumpers for BOM (only) used to bridge Config Pin Headers

HARDWARE

Mark Pruden

Sheet: /HARDWARE/  
File: TRS801JP\_HW.kicad\_sch

**Title: TRS-80 Model 1K**

Size: A4

Date: 2025-09-29

Rev: 1c

KiCad E.D.A. 8.0.8

Id: 28/21