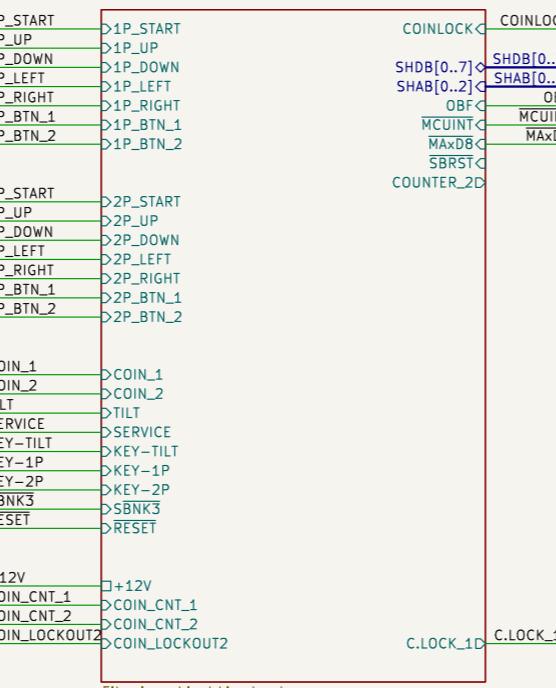
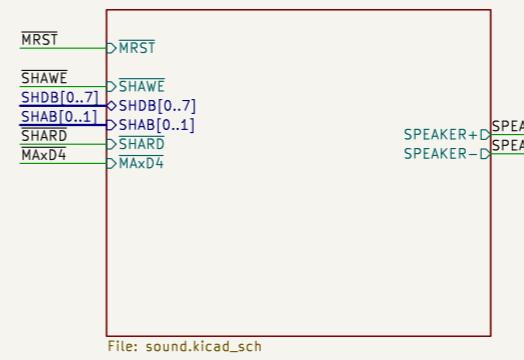


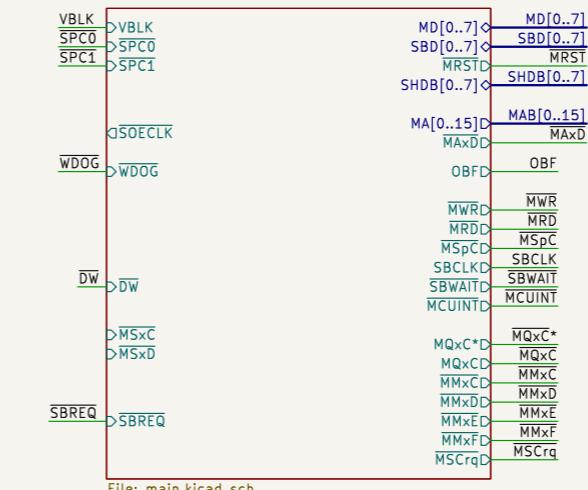
Cabinet



Sound



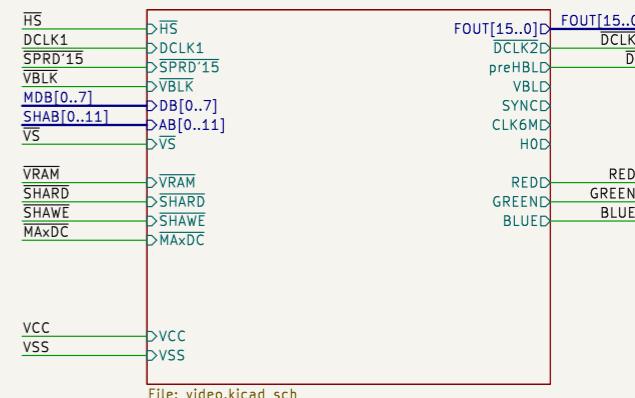
Main



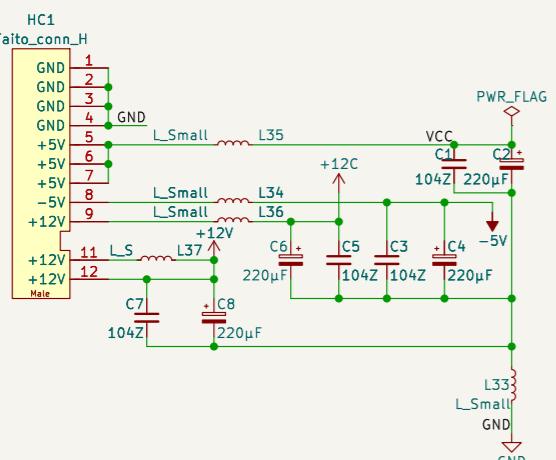
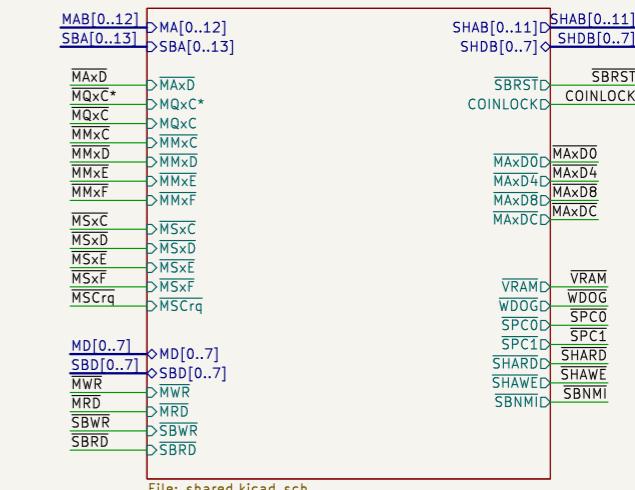
Sub



Video



Shared



José Tejada
www.patreon.com/jotego
JOTEGO

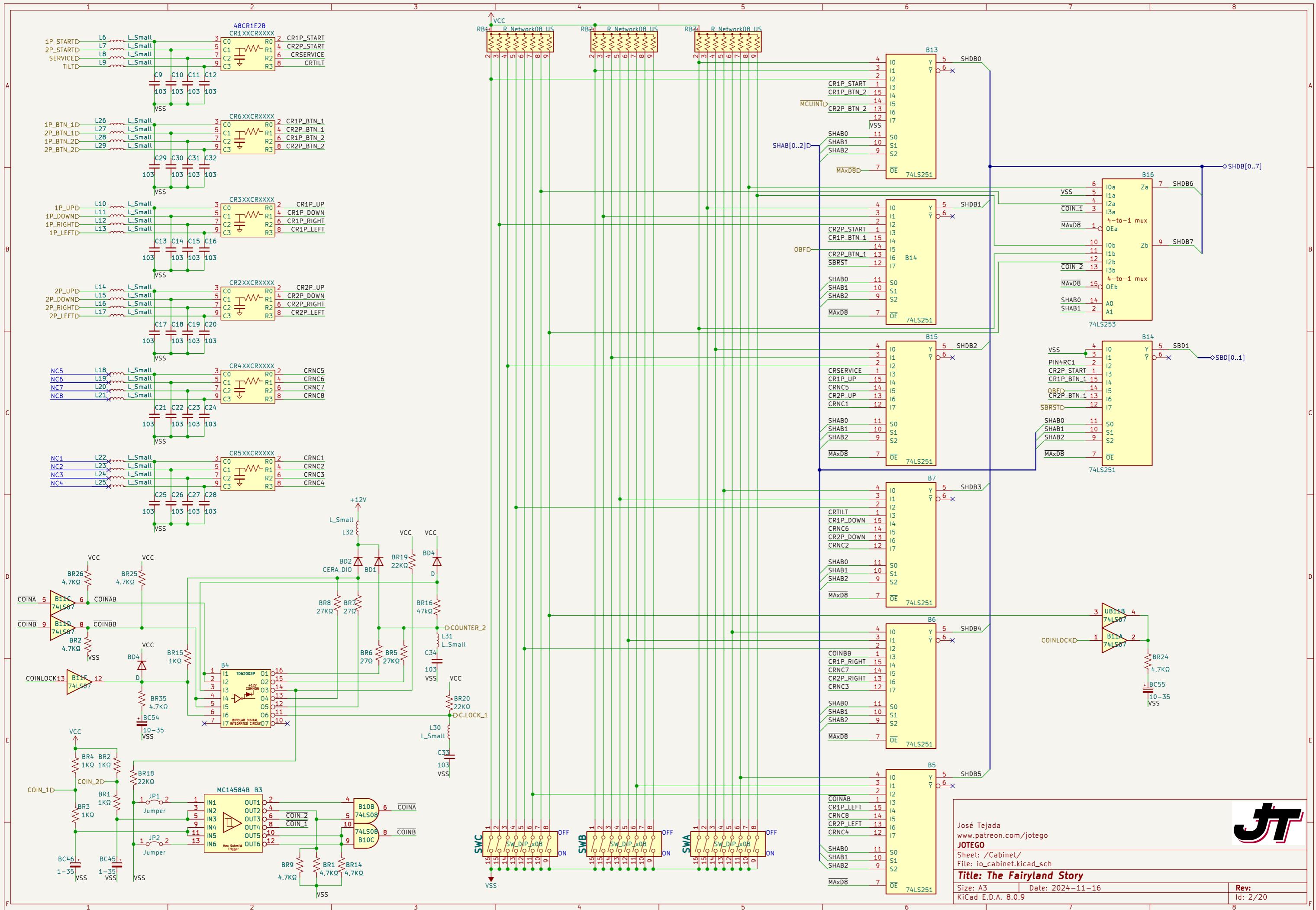
Sheet: /
File: fairyland.kicad_sch

Title: The Fairyland Story

Size: A3 Date: 2024-11-16
KiCad E.D.A. 8.0.9



Rev:
Id: 1/20



A

A

B

B

C

C

D

D

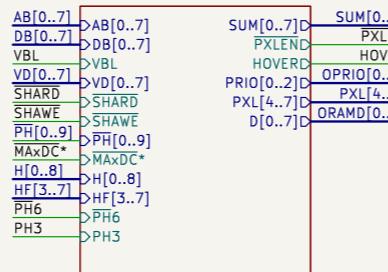
E

E

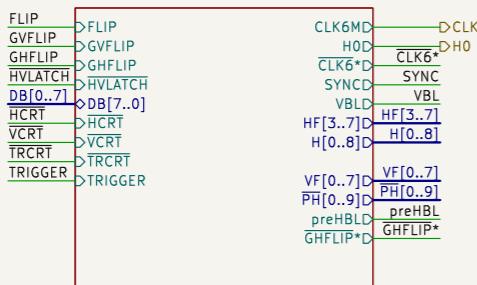
F

F

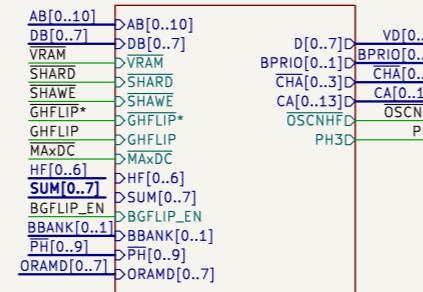
Object RAM



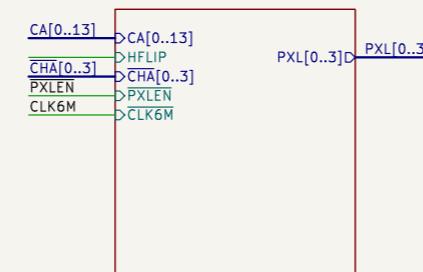
Timing



Video RAM



Tile ROM



1 2 3 4 5 6 7 8

1 2 3 4 5 6 7 8

1 2 3 4 5 6 7 8

1 2 3 4 5 6 7 8

1 2 3 4 5 6 7 8

1 2 3 4 5 6 7 8

1 2 3 4 5 6 7 8

1 2 3 4 5 6 7 8

1 2 3 4 5 6 7 8

1 2 3 4 5 6 7 8

1 2 3 4 5 6 7 8

1 2 3 4 5 6 7 8

1 2 3 4 5 6 7 8

1 2 3 4 5 6 7 8

1 2 3 4 5 6 7 8

1 2 3 4 5 6 7 8

1 2 3 4 5 6 7 8

1 2 3 4 5 6 7 8

1 2 3 4 5 6 7 8

1 2 3 4 5 6 7 8

1 2 3 4 5 6 7 8

1 2 3 4 5 6 7 8

1 2 3 4 5 6 7 8

1 2 3 4 5 6 7 8

1 2 3 4 5 6 7 8

1 2 3 4 5 6 7 8

1 2 3 4 5 6 7 8

1 2 3 4 5 6 7 8

1 2 3 4 5 6 7 8

1 2 3 4 5 6 7 8

1 2 3 4 5 6 7 8

1 2 3 4 5 6 7 8

1 2 3 4 5 6 7 8

1 2 3 4 5 6 7 8

1 2 3 4 5 6 7 8

1 2 3 4 5 6 7 8

1 2 3 4 5 6 7 8

1 2 3 4 5 6 7 8

1 2 3 4 5 6 7 8

1 2 3 4 5 6 7 8

1 2 3 4 5 6 7 8

1 2 3 4 5 6 7 8

1 2 3 4 5 6 7 8

1 2 3 4 5 6 7 8

1 2 3 4 5 6 7 8

1 2 3 4 5 6 7 8

1 2 3 4 5 6 7 8

1 2 3 4 5 6 7 8

1 2 3 4 5 6 7 8

1 2 3 4 5 6 7 8

1 2 3 4 5 6 7 8

1 2 3 4 5 6 7 8

1 2 3 4 5 6 7 8

1 2 3 4 5 6 7 8

1 2 3 4 5 6 7 8

1 2 3 4 5 6 7 8

1 2 3 4 5 6 7 8

1 2 3 4 5 6 7 8

1 2 3 4 5 6 7 8

1 2 3 4 5 6 7 8

1 2 3 4 5 6 7 8

1 2 3 4 5 6 7 8

1 2 3 4 5 6 7 8

1 2 3 4 5 6 7 8

1 2 3 4 5 6 7 8

1 2 3 4 5 6 7 8

1 2 3 4 5 6 7 8

1 2 3 4 5 6 7 8

1 2 3 4 5 6 7 8

1 2 3 4 5 6 7 8

1 2 3 4 5 6 7 8

1 2 3 4 5 6 7 8

1 2 3 4 5 6 7 8

1 2 3 4 5 6 7 8

1 2 3 4 5 6 7 8

1 2 3 4 5 6 7 8

1 2 3 4 5 6 7 8

1 2 3 4 5 6 7 8

1 2 3 4 5 6 7 8

1 2 3 4 5 6 7 8

1 2 3 4 5 6 7 8

1 2 3 4 5 6 7 8

1 2 3 4 5 6 7 8

1 2 3 4 5 6 7 8

1 2 3 4 5 6 7 8

1 2 3 4 5 6 7 8

1 2 3 4 5 6 7 8

1 2 3 4 5 6 7 8

1 2 3 4 5 6 7 8

1 2 3 4 5 6 7 8

1 2 3 4 5 6 7 8

1 2 3 4 5 6 7 8

1 2 3 4 5 6 7 8

1 2 3 4 5 6 7 8

1 2 3 4 5 6 7 8

1 2 3 4 5 6 7 8

1 2 3 4 5 6 7 8

1 2 3 4 5 6 7 8

1 2 3 4 5 6 7 8

1 2 3 4 5 6 7 8

1 2 3 4 5 6 7 8

1 2 3 4 5 6 7 8

1 2 3 4 5 6 7 8

1 2 3 4 5 6 7 8

1 2 3 4 5 6 7 8

1 2 3 4 5 6 7 8

1 2 3 4 5 6 7 8

1 2 3 4 5 6 7 8

1 2 3 4 5 6 7 8

1 2 3 4 5 6 7 8

1 2 3 4 5 6 7 8

1 2 3 4 5 6 7 8

1 2 3 4 5 6 7 8

1 2 3 4 5 6 7 8

1 2 3 4 5 6 7 8

1 2 3 4 5 6 7 8

1 2 3 4 5 6 7 8

1 2 3 4 5 6 7 8

1 2 3 4 5 6 7 8

1 2 3 4 5 6 7 8

1 2 3 4 5 6 7 8

1 2 3 4 5 6 7 8

1 2 3 4 5 6 7 8

1 2 3 4 5 6 7 8

1 2 3 4 5 6 7 8

1 2 3 4 5 6 7 8

1 2 3 4 5 6 7 8

1 2 3 4 5 6 7 8

1 2 3 4 5 6 7 8

1 2 3 4 5 6 7 8

1 2 3 4 5 6 7 8

1 2 3 4 5 6 7 8

1 2 3 4 5 6 7 8

1 2 3 4 5 6 7 8

1 2 3 4 5 6 7 8

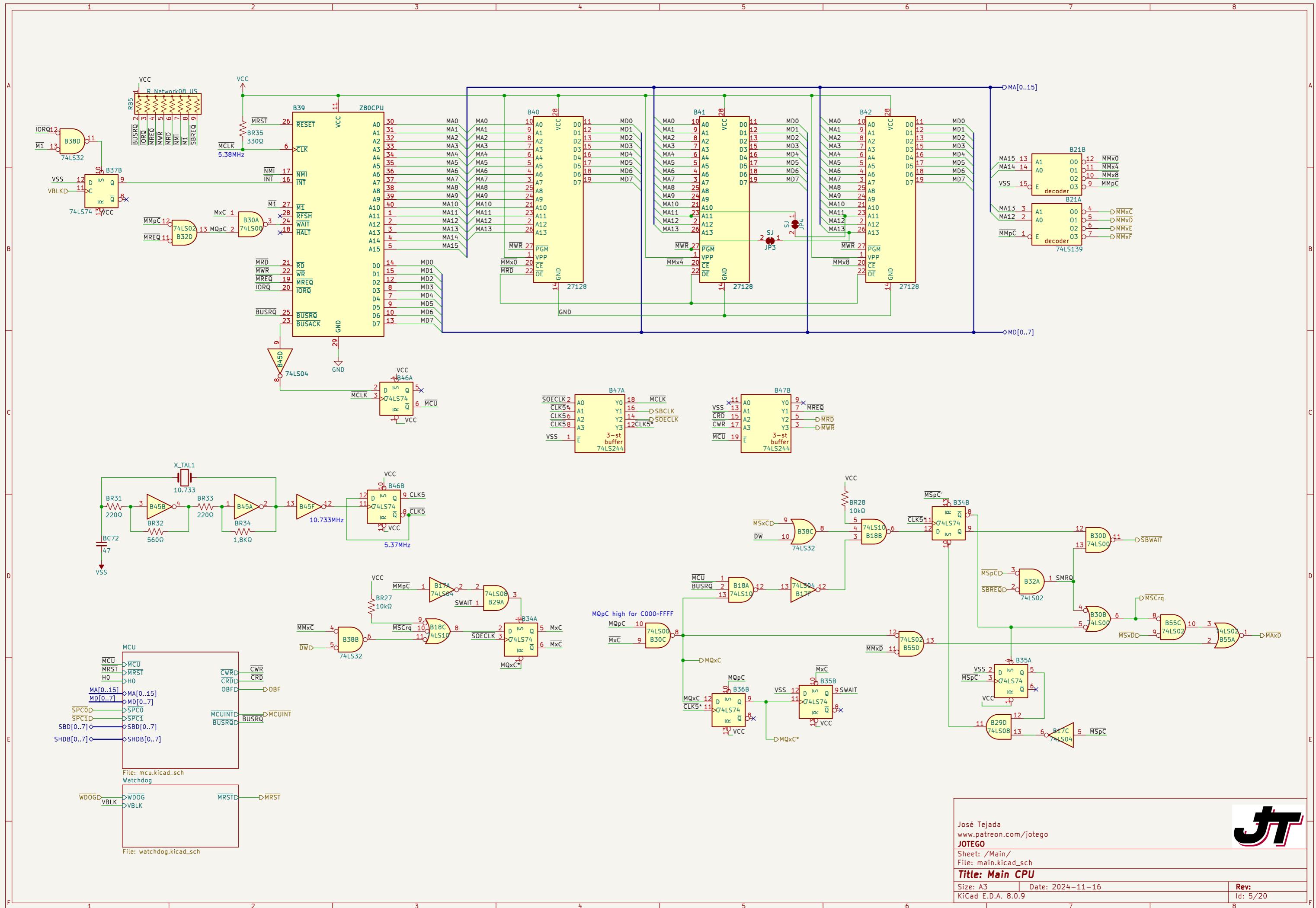
1 2 3 4 5 6 7 8

1 2 3 4 5 6 7 8

1 2 3 4 5 6 7 8

1 2 3 4 5 6 7 8

1 2 3 4 5 6 7 8





José Tejada
www.patreon.com/jotego
JOTEGO

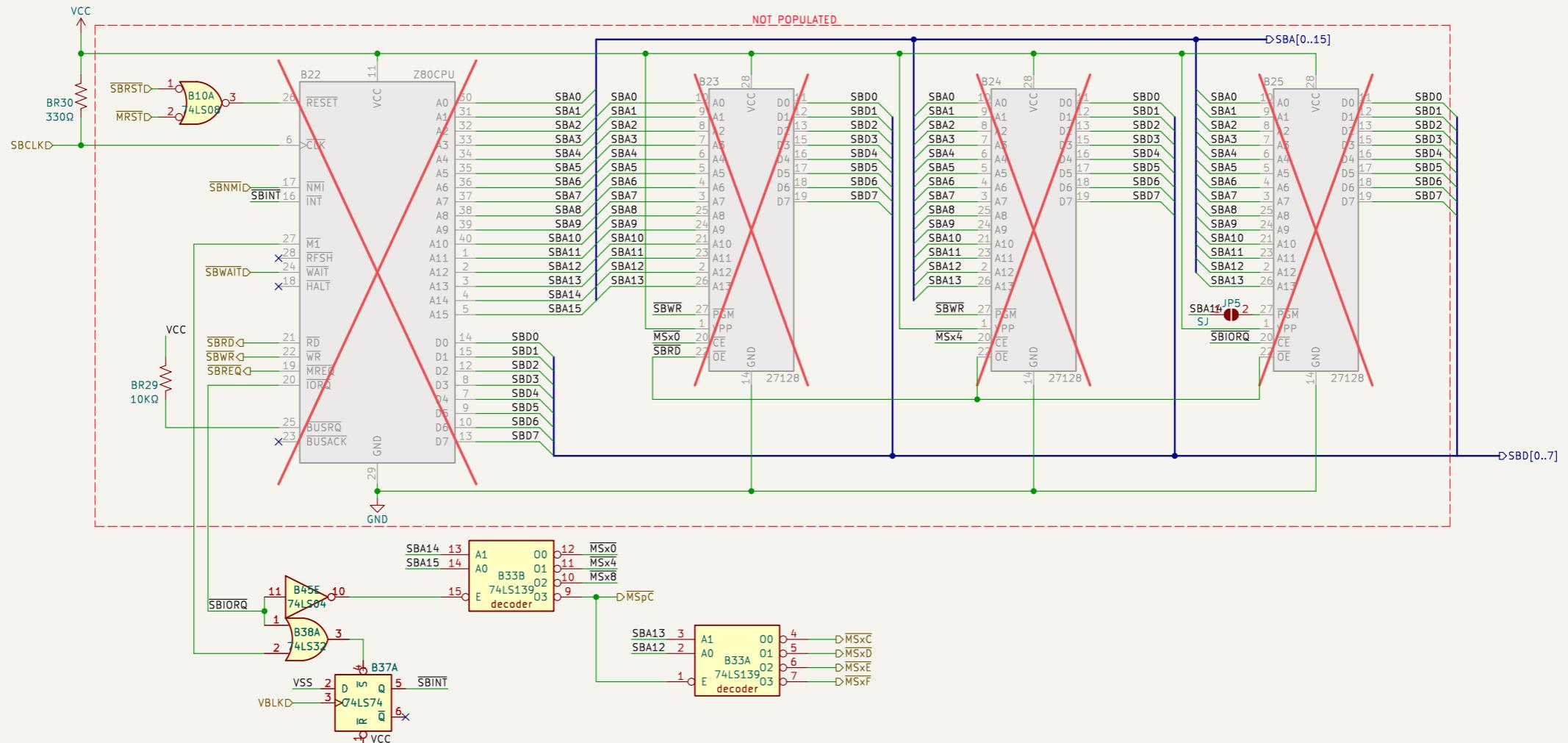
Sheet: /Sound/
 File: sound.kicad_sch

Title: Sound Board

Size: A3 | Date: 2024-11-16
 KiCad E.D.A. 8.0.9

Rev:
 Id: 7/20





José Tejada
www.patreon.com/jotego
JOTEGO

Sheet: /Sub/

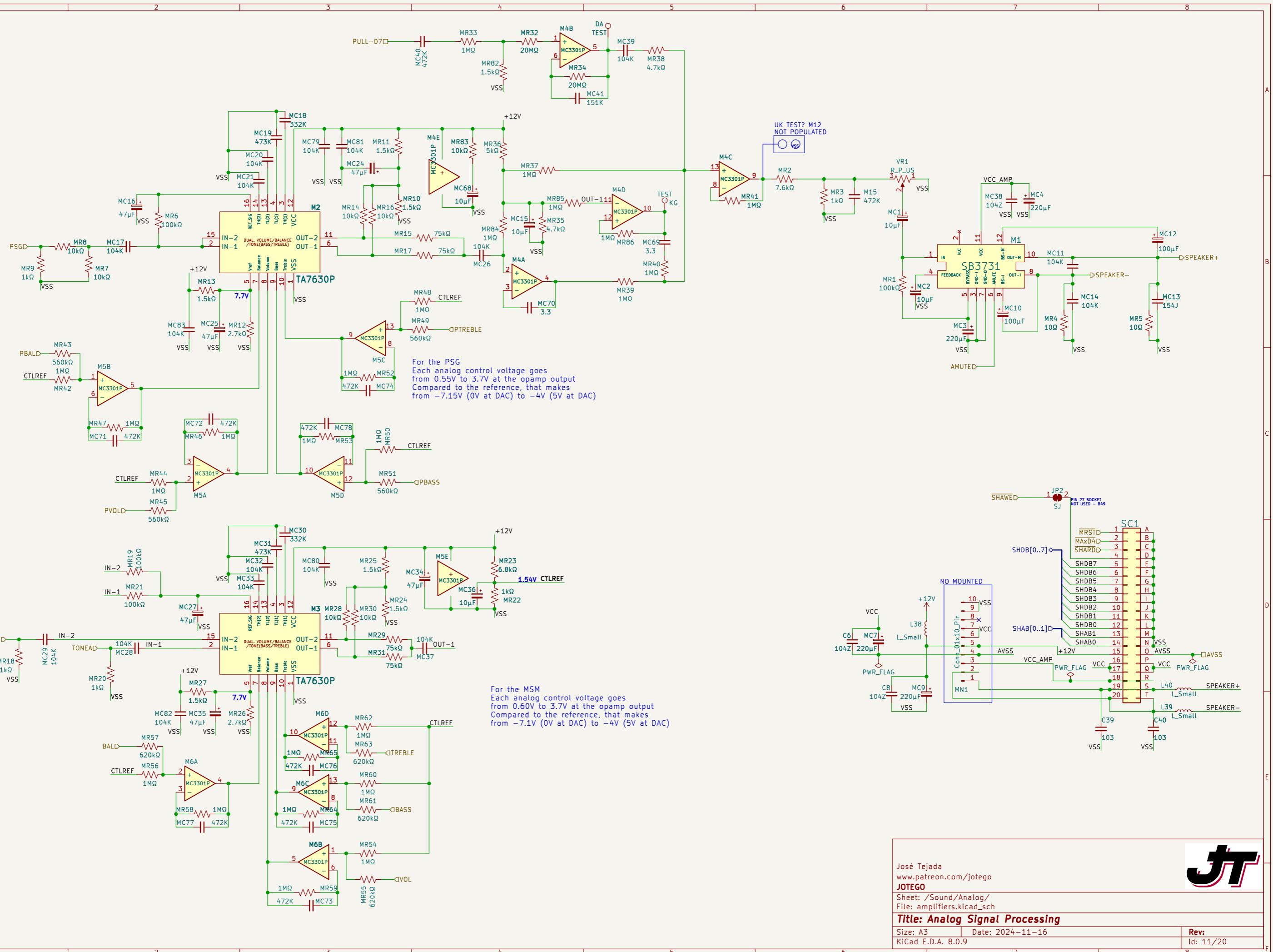
File: sub_main.kicad_sch

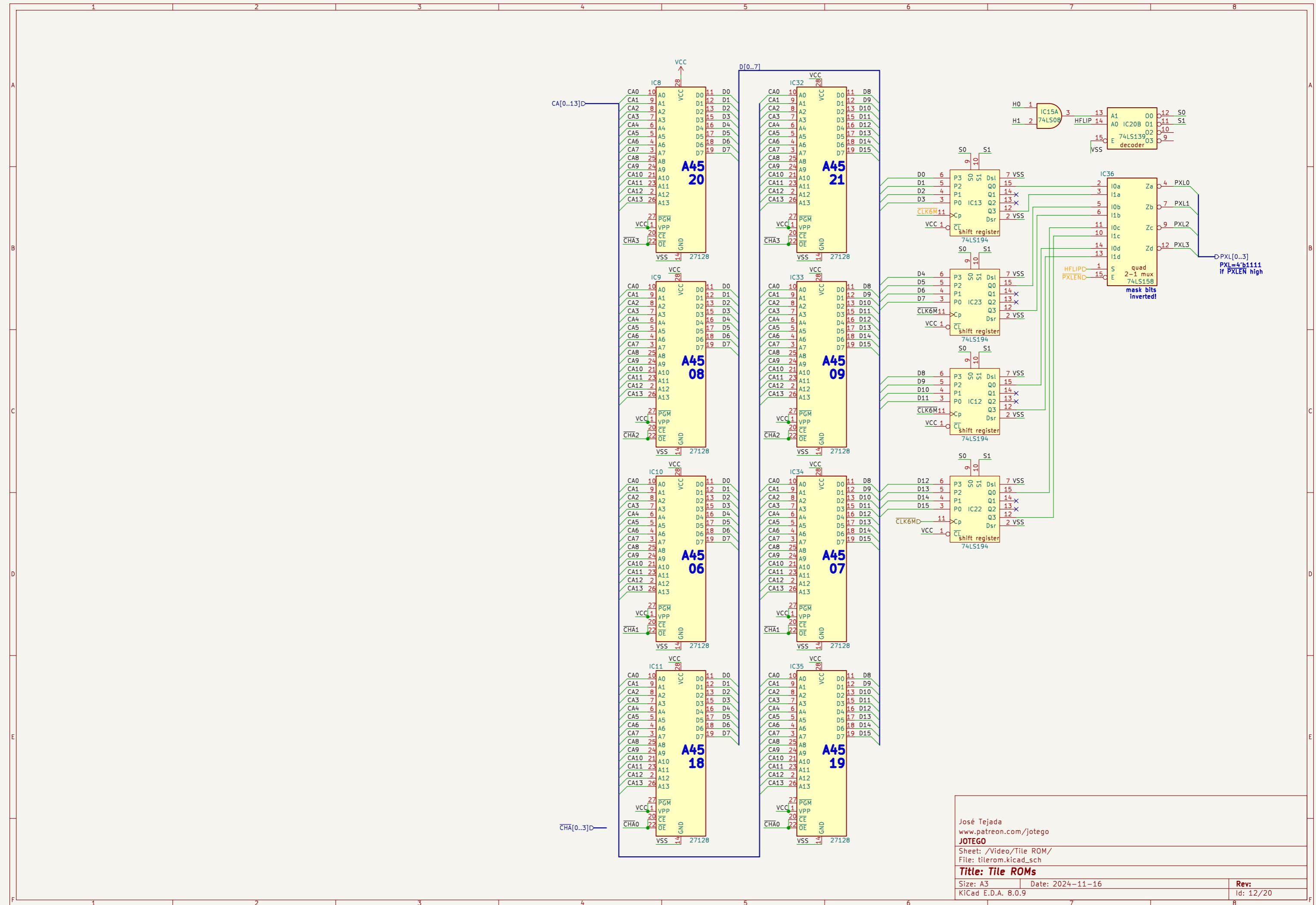
Title: Subsidiary CPU

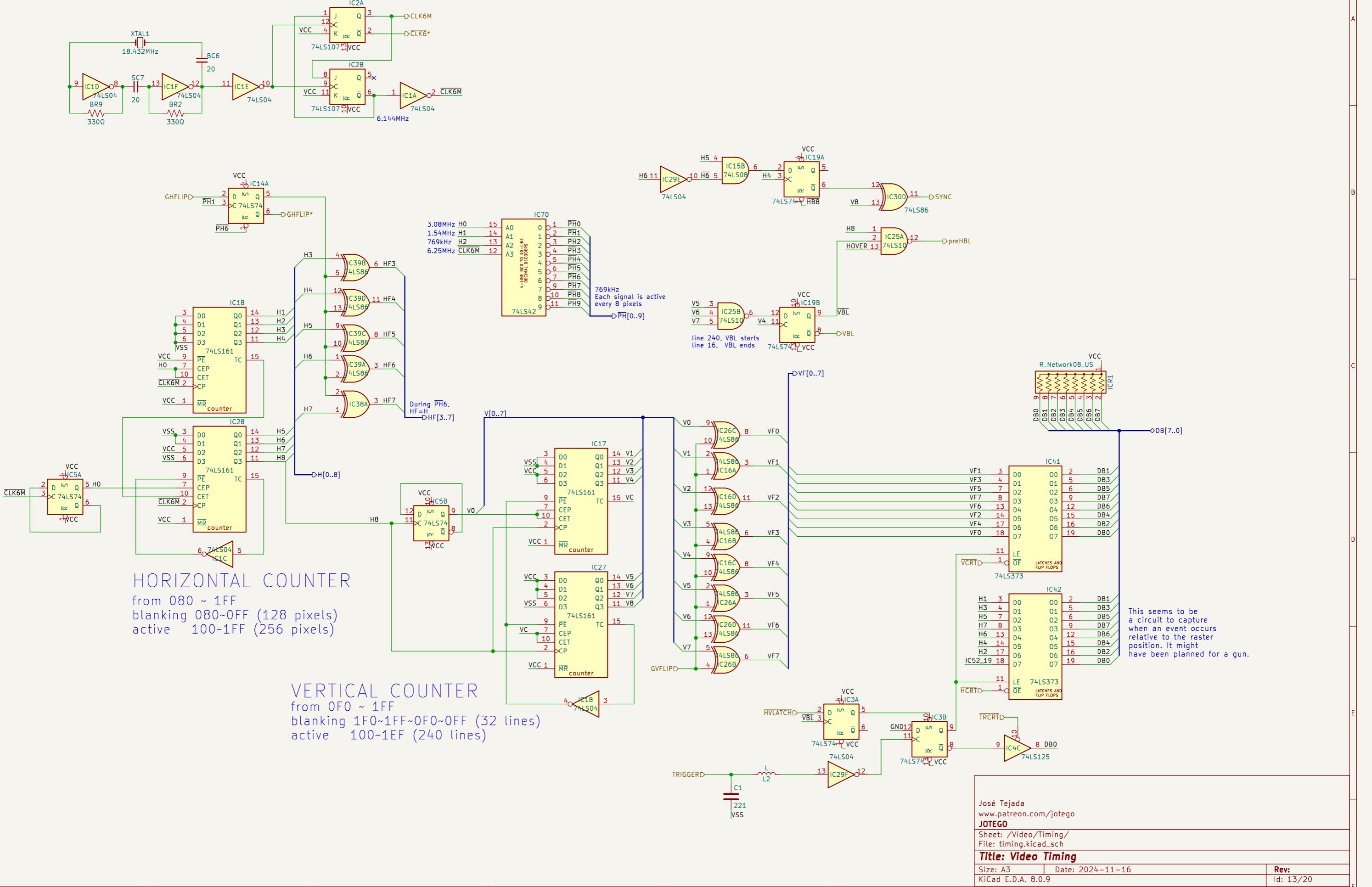
Size: A3 Date: 2024-11-16
KiCad EDA 8.0.8

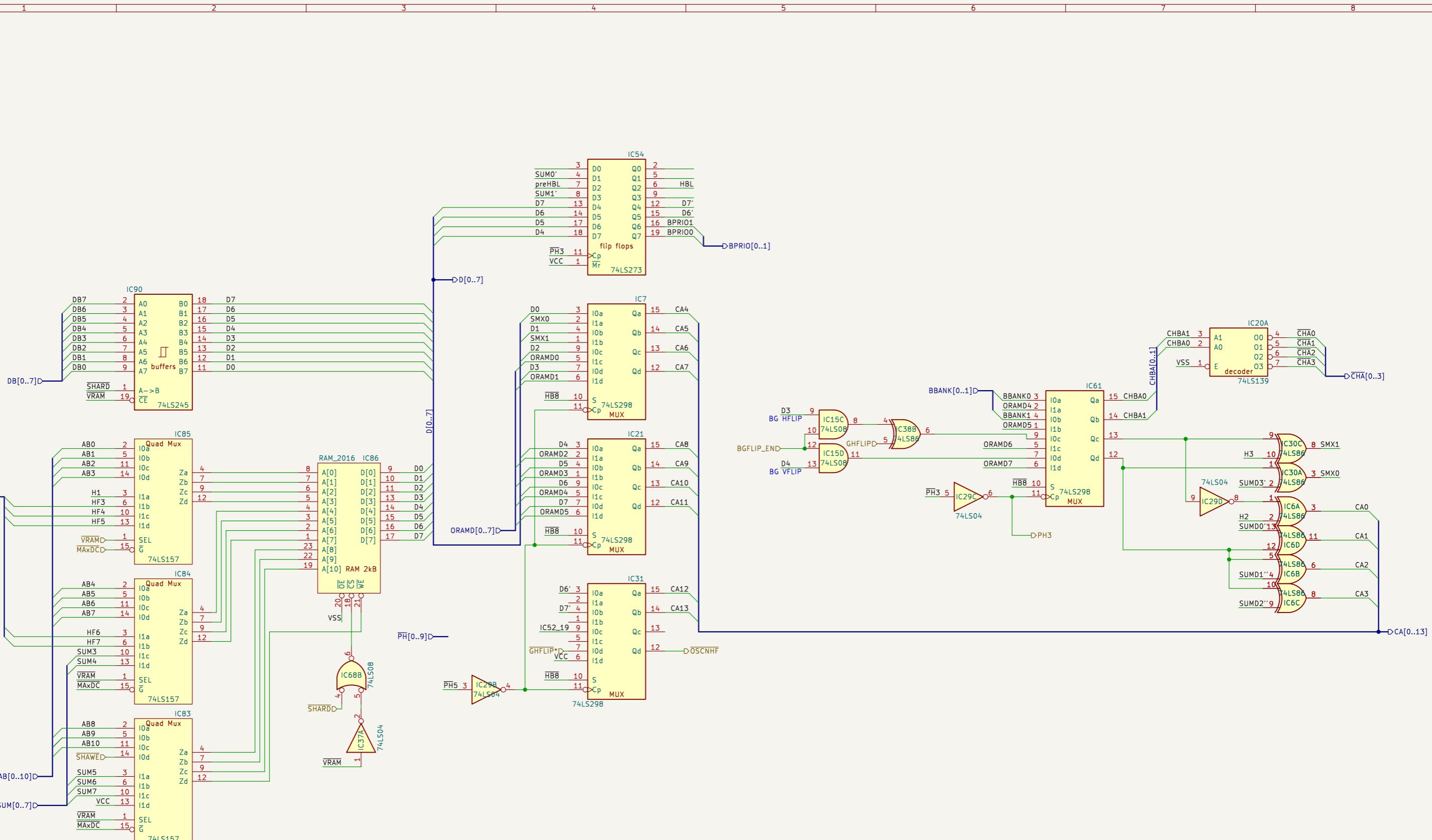
KICad E.D.A. 8.0.9

Digitized by srujanika@gmail.com









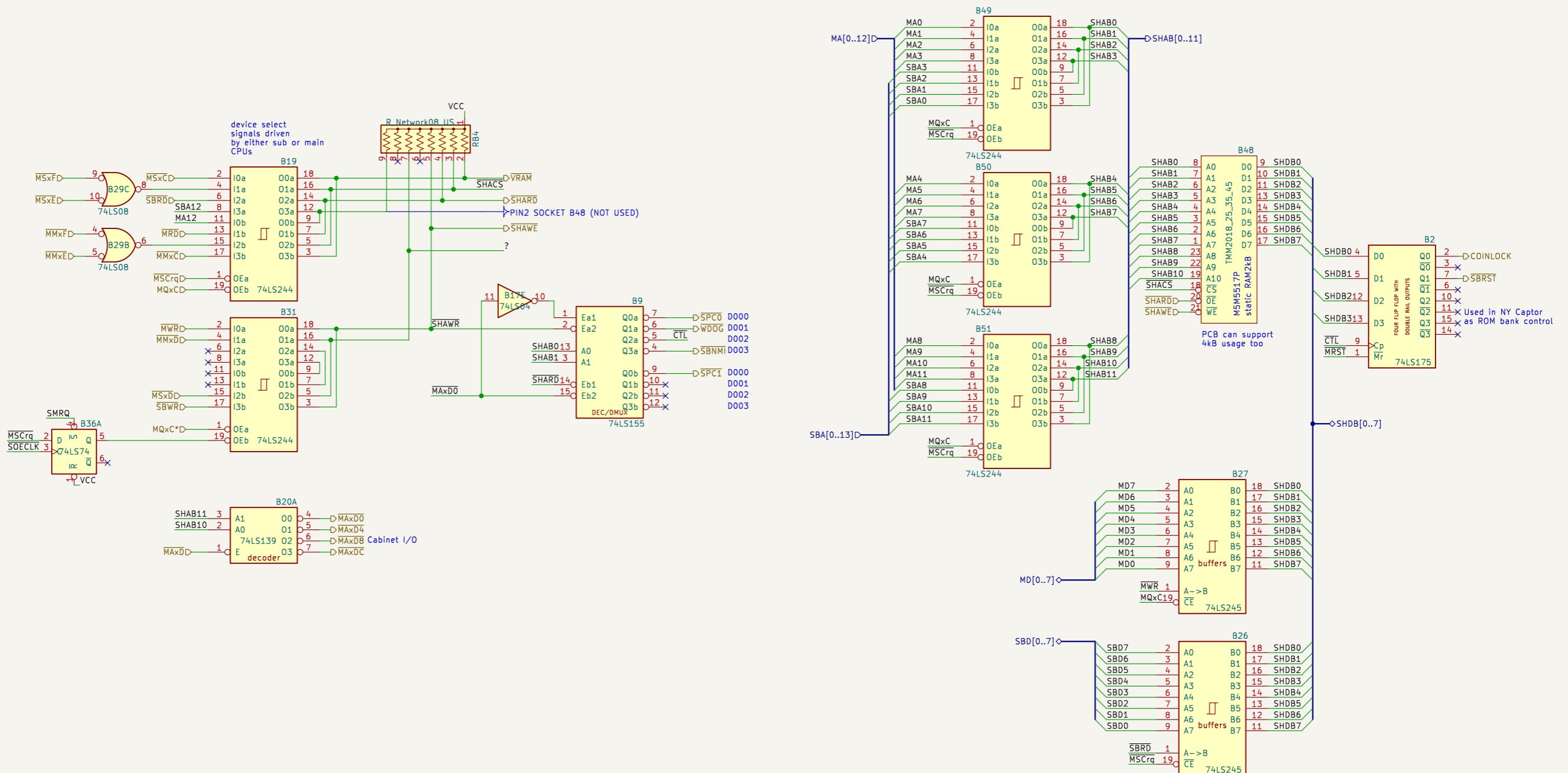
José Tejada
www.patreon.com/jotego
JOTEGO

Sheet: /Video/Video RAM/
File: vram.kicad_sch

Title: Background Video RAM

Size: A3 | Date: 2024-11-16
KiCad E.D.A. 8.0.9

Rev:
Id: 13/20





The MCU can take control of the share bus by requesting the main CPU bus

The MCU can communicate with both CPUs via latches B52 and B53

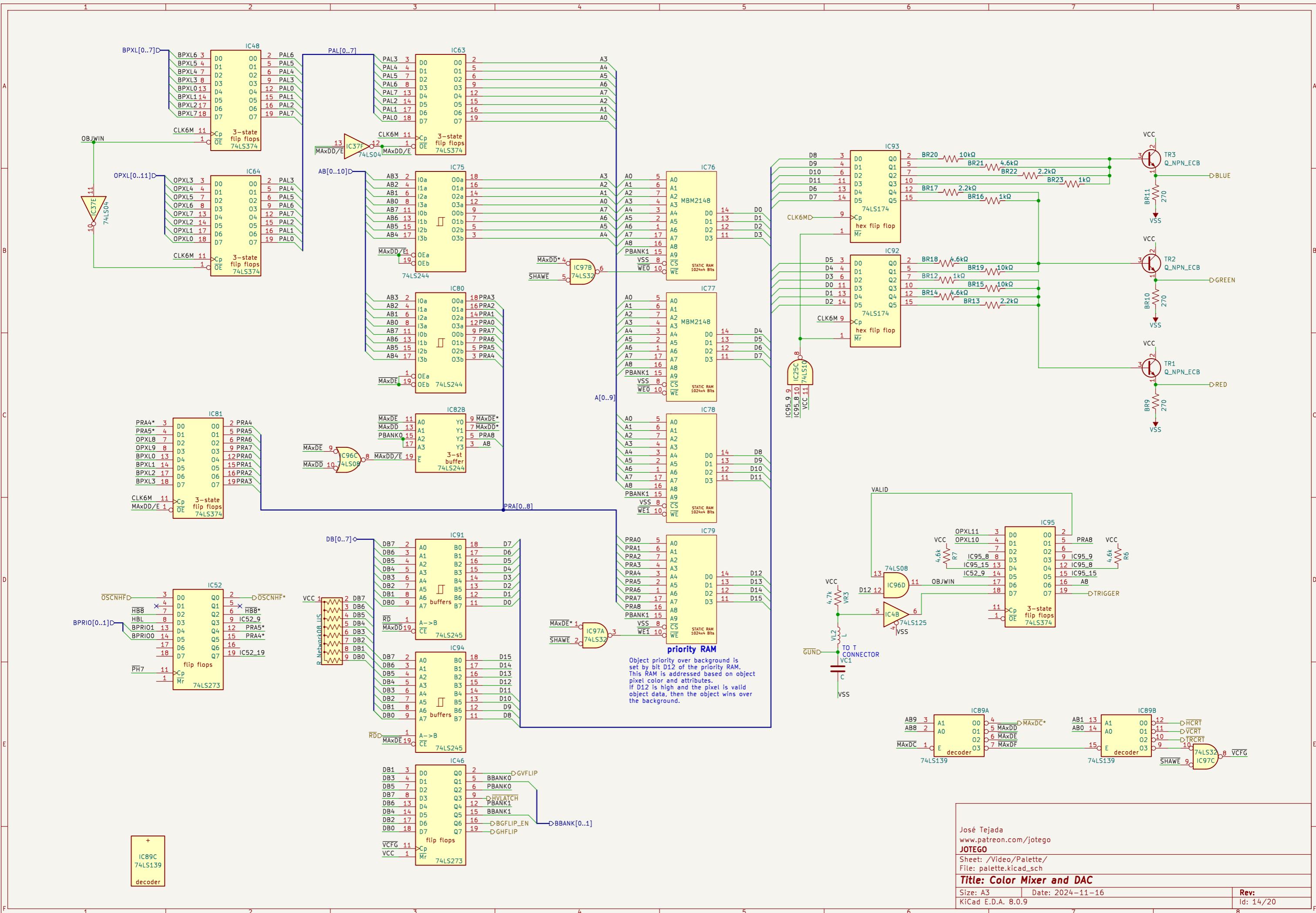
José Tejada
www.patreon.com/jotego
JOTEGO

Sheet: /Main/MCU/
File: mcu.kicad_sch

Title: MCU

Size: A3 Date: 2024-11-16
KiCad E.D.A. 8.0.9

Rev: Id: 14/20



A

B

C

D

E

F

A

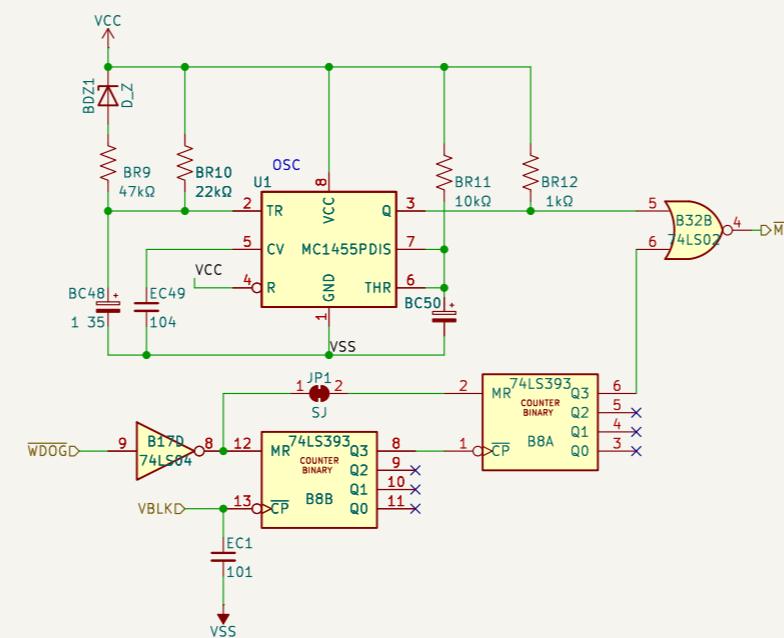
B

C

D

E

F



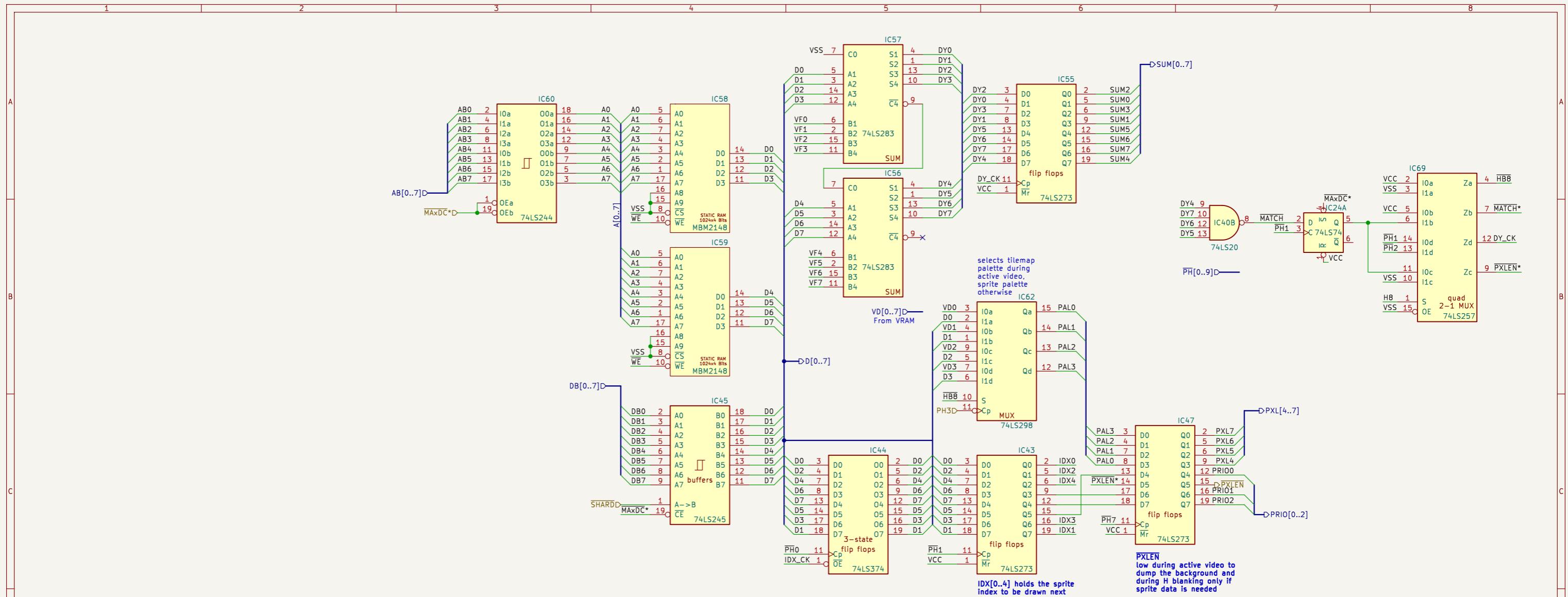
José Tejada
www.patreon.com/jotego
JOTEGO

Sheet: /Main/Watchdog/
File: watchdog.kicad_sch

Title:

Size: A3	Date: 2024-11-16
KiCad E.D.A. 8.0.9	

Rev:	Id: 15/20
------	-----------



Complex multiplexer driving
the 256-byte memory because it holds
three kinds of information
00-7F: 4-byte sprite data (32 sprites)
80-9F: sprite drawing order (bits 4:0) and sprite priority (bit 7)
A0-BF: column scroll
D0-DF: matched sprites for next line

José Tejada
www.patreon.com/jotego

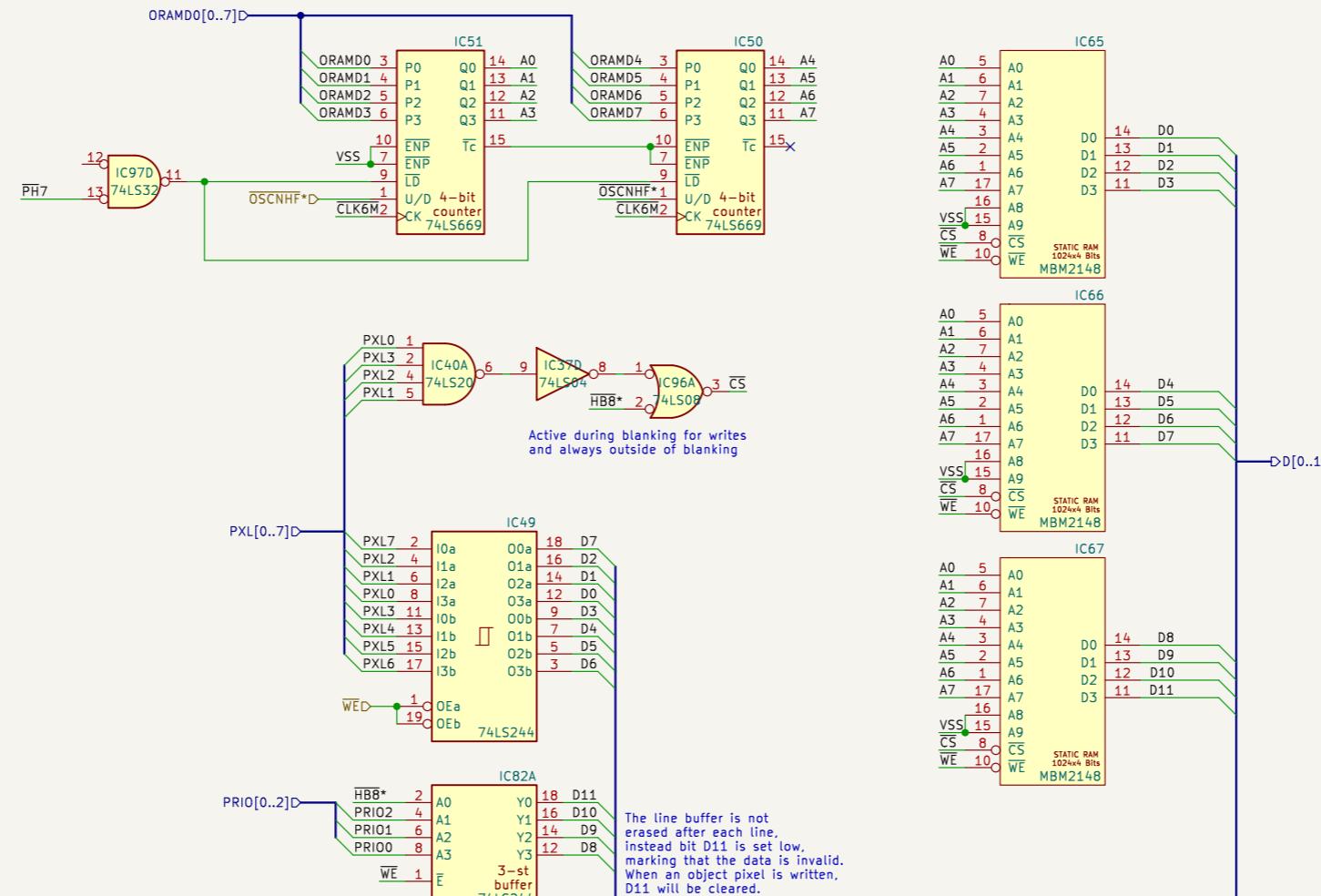
JOTEGO

Title: Object Information

Size: A3 Date: 2024-11-16

KiCad E.D.A. 8.0.9

1 / 1

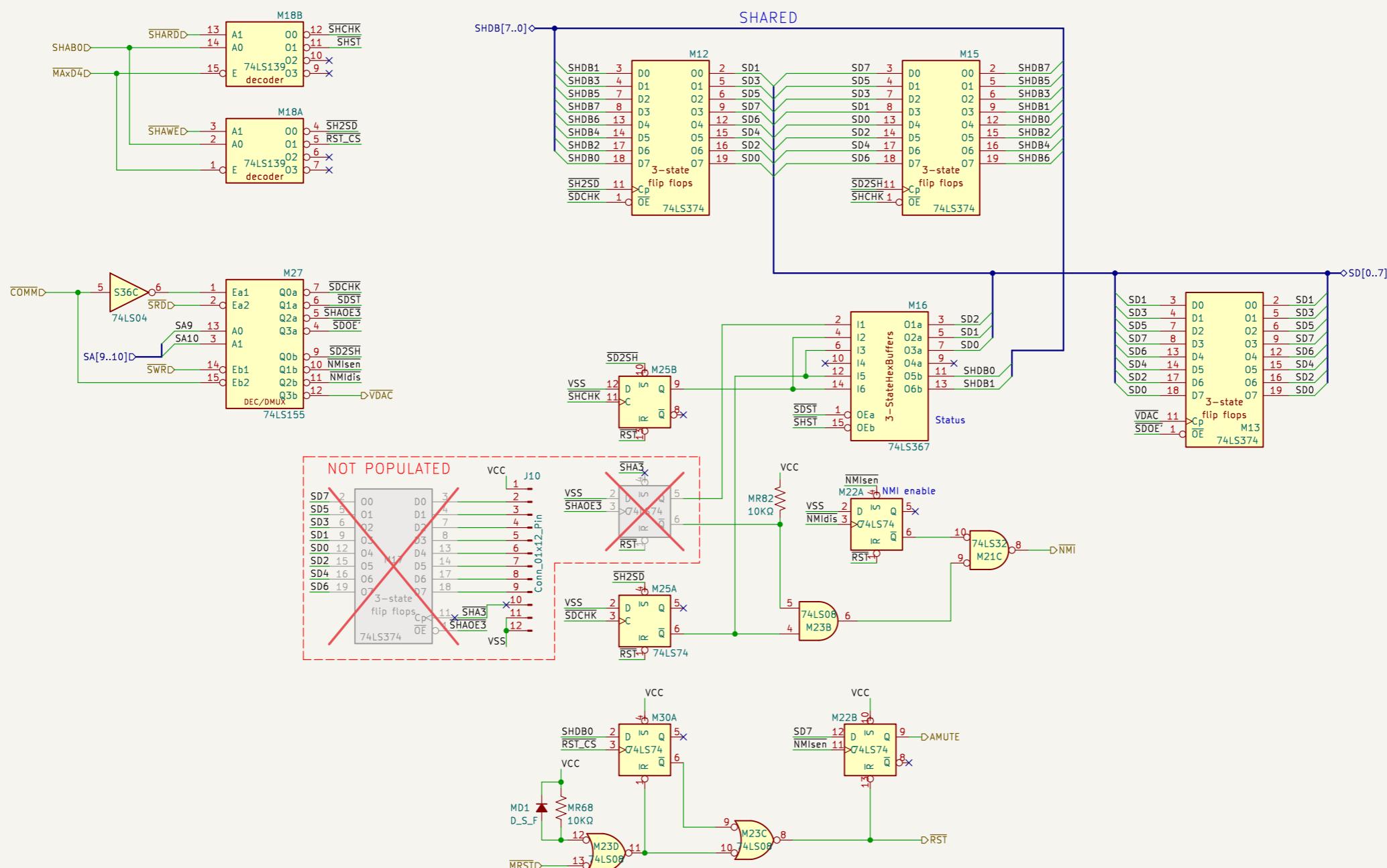


José Tejada
www.patreon.com/jotego
JOTEGO

Sheet: /Video/Line buffer/
File: linebuf.kicad_sch

Title: Single Line Video Buffer

Size: A3	Date: 2024-11-16
KiCad E.D.A. 8.0.9	Rev: 17/20



José Tejada
www.patreon.com/jotego
JOTEGO

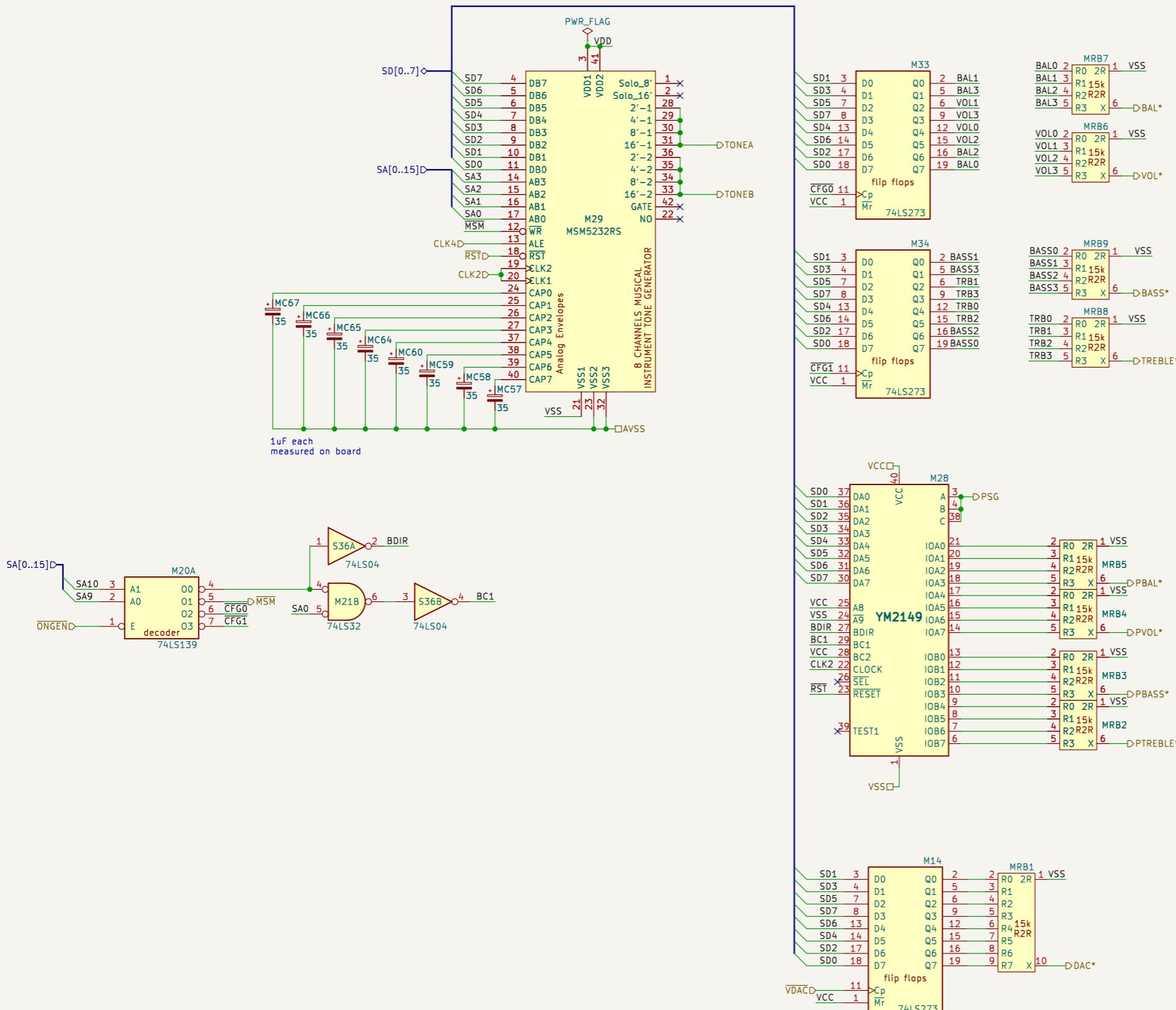
Sheet: /Sound/Latches/
File: latches.kicad_sch

Title: Communication Latches

Size: A3 Date: 2024-11-16
KiCad EDA 8.0.9

KiCad E.D.A. 8.0.9

Digitized by srujanika@gmail.com



José Tejada
www.patreon.com/jotego
JOTEGO

Sheet: /Sound/Sound Generators/
File: ongen.kicad_sch

Title: Sound Generators

Size: A3 Date: 2024-11-16
KiCad E.D.A. 8.0.9

Rev: Id: 19/20

A

A

B

B

C

C

D

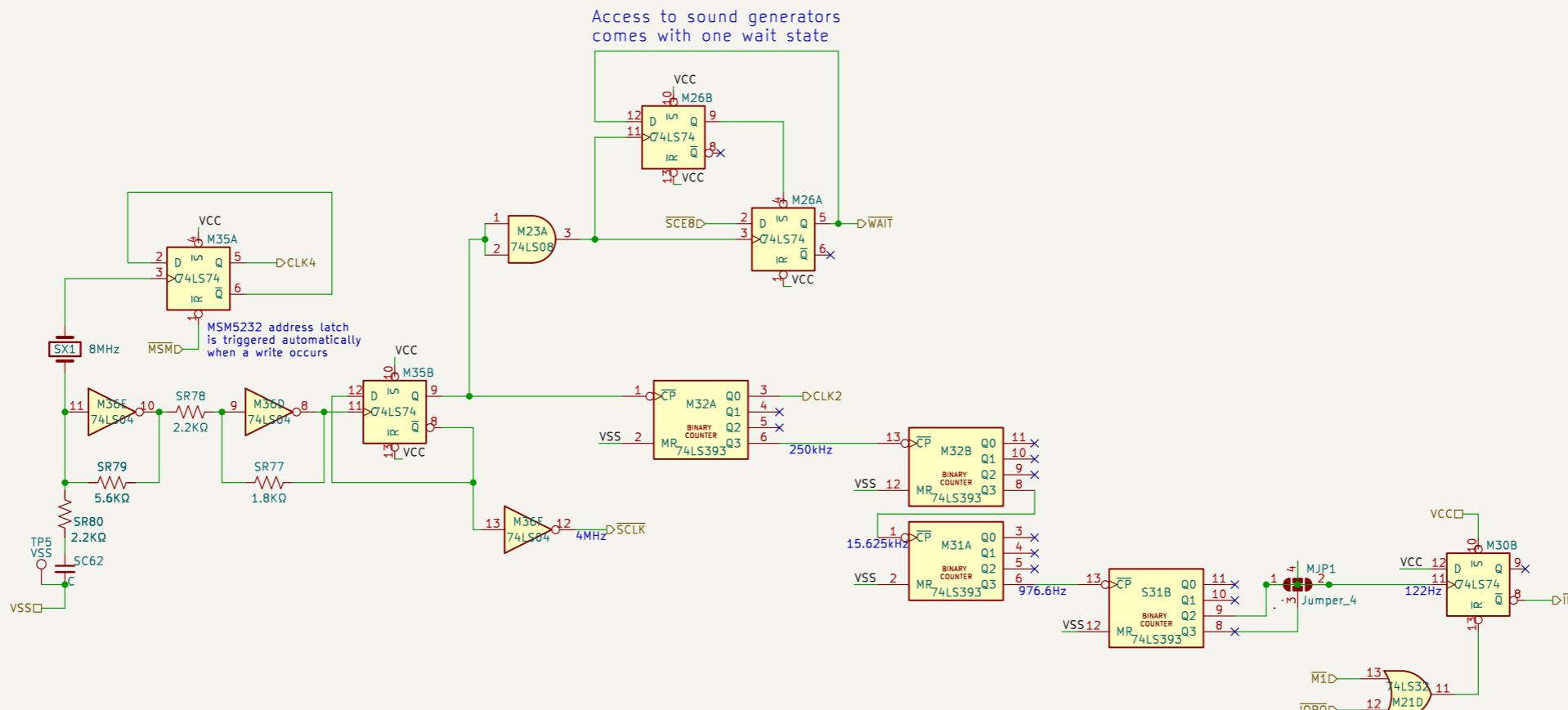
D

E

E

F

F



José Tejada
www.patreon.com/jotego
JOTEGO

Sheet: /Sound/Clocks/
File: snd_clocks.kicad_sch

Title: Sound Clock Generation

Size: A3 Date: 2024-11-16
KiCad E.D.A. 8.0.9

Rev:
Id: 20/20