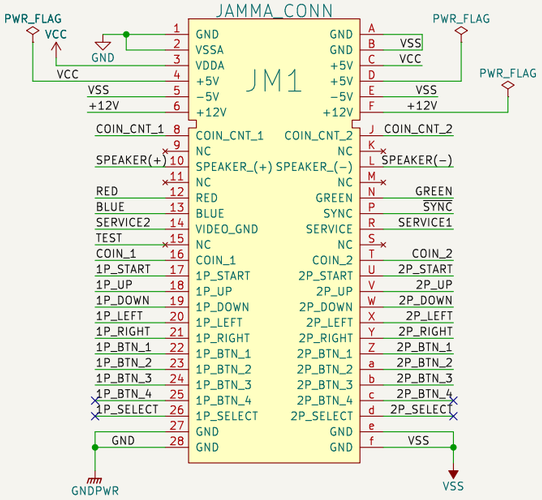

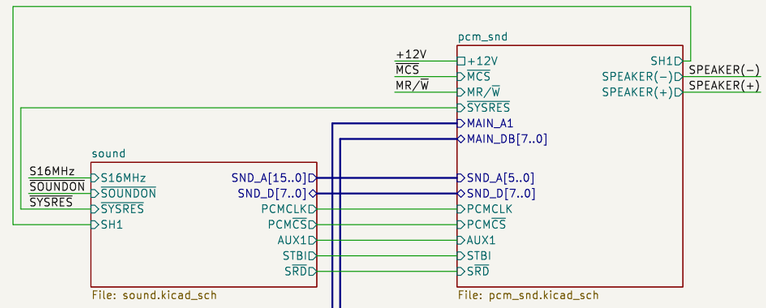

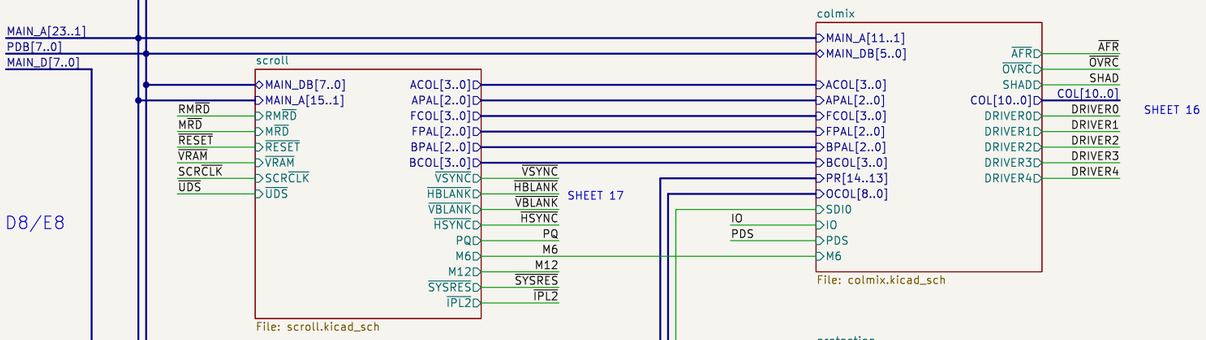

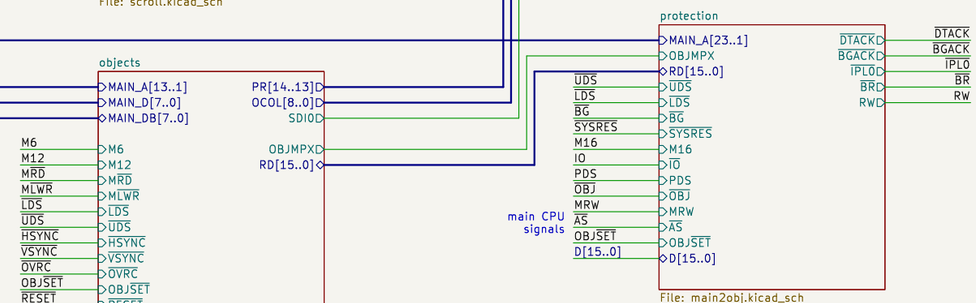

PDB[7:0] is either main CPU upper or lower byte depending on UDS/LDS See sch. page 18, D8/E8

PDS=$\overline{UDS}$&$\overline{LDS}$

These schematics cover the missing pages in the original ones published by the maker. Signal names existing in the original pages have been preserved. New signal names try to follow the maker style or are taken from similar schematics of the same maker.

JOTEGO
www.patreon.com/jotego
github.com/jotego/jtcores/tree/master/cores/riders/sch/ssriders
KONAMI PWB 352359C

Sheet: /
File: ssriders.kicad_sch

Title: Sunset Riders

Size: A3	Date: 2023-08-29	**Rev: José Tejada**
KiCad E.D.A. 8.0.4		Id: 1/7

MAIN_A[11..1]

G13

MAIN_A8 1
MAIN_A9 2
MAIN_A10 3
PDSD 6
IOD 5
MAIN_A11 4

A0 A1 A2 address decoder E3 E2 E1

O0 O1 O2 O3 O4 O5 O6 O7

15 DRIVER0
14 DRIVER1
13 DRIVER2
12 DRIVER3
11 AFR
10 OVRC
9 DRIVER4
7 PCUCS

74LS138

SHEET 16

DRIVER0 PIN1 B13
DRIVER1 PIN15 C18
DRIVER2 PIN11 C15
DRIVER3 PIN9 C14
DRIVER4 PIN5 F18

On the schematic it appears as 17F, but on the PCB it is 18F.

MAIN_DB[5..0]
PR[14..13]

MAIN_DB0 MAIN_DB1 MAIN_DB2 MAIN_DB3 MAIN_DB4 MAIN_DB5
MAIN_A1 MAIN_A2 MAIN_A3 MAIN_A4
CSDIO
6M M6

VCC
VSS

PR14 PR13
PR15 PR20 PR21 PR22 PR23 PR24 PR25
PRIORITY

CI00 CI01 CI02 CI03 CI04 CI05 CI06 CI07 CI08 CI10 CI11 CI12 CI13 CI14 CI15 CI16 CI17 CI18
COLOR INPUTS

OCOL[8..0]
OCOL0 OCOL1 OCOL2 OCOL3 OCOL4 OCOL5 OCOL6 OCOL7 OCOL8

J4
KONAMI
053251
PRIORITY CONTROL UNIT
30 pins top/bottom
20 pins left/right

CHIP SELECT INPUT
COLOR OUTPUTS

CS
CO00 CO01 CO02 CO03 CO04 CO05 CO06 CO07 CO08 CO09 CO10
PCUCS COL0 COL1 COL2 COL3 COL4 COL5 COL6 COL7 COL8 COL9 COL10

COL[10..0]

SDO1 SDO0 BRIT NCOL
SHAD
BRIT pdf page 17

VCC VCC VCC VCC N.C
VSS VSS VSS VSS VSS VSS VSS VSS

VSS

SEL SDIO SDI1 CLK

CI20 CI21 CI22 CI23 CI24 CI25 CI26 CI27 CI28 CI30 CI31 CI32 CI33 CI34 CI35 CI36 CI37 CI40 CI41 CI42 CI43 CI44 CI45 CI46 CI47

FCOL0 FCOL1 FCOL2 FCOL3 FPAL0 FPAL1 FPAL2
ACOL0 ACOL1 ACOL2 ACOL3 APAL0 APAL1 APAL2
BCOL0 BCOL1 BCOL2 BCOL3 BPAL0 BPAL1 BPAL2

FCOL[3..0]
FPAL[2..0]
ACOL[3..0]
APAL[2..0]
BCOL[3..0]
BPAL[2..0]

SHEET 02

JOTEGO
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github.com/jotego/jtcores/tree/master/cores/riders/sch/ssriders
KONAMI PWB 352359C

Sheet: /colmix/
File: colmix.kicad_sch

Title: Sunset Riders

Size: A3	Date: 2023-08-29	**Rev: José Tejada**
KiCad E.D.A. 8.0.4		Id: 2/7

OBJROMA[18..0]

BK[7..0]

K1
74LS367

L3
065A08
KONAMI
MASK 8M - 16BIT
CMOS ROM
054903

SHEET 18
74LS32
D18A

NOT POPULATED

K3
065A08
KONAMI
MASK 8M - 16BIT
CMOS ROM
054903

F18D
74LS04

BK6 instead of VSS
when mounted (?)

J2
KONAMI
053245
OBJECT GENERATOR

OBJECT ROM ADDRESS BUS
MAIN ADDRESS BUS
OBJECT RAM ADDRESS BUS
OBJECT RAM DATA BUS
GENERATOR TO DRAWING

F19F
74LS04

RA[12..0]

G2
MB8464A-80-10-15/L-LL
CMOS Static RAM
8K x 8 BITS

RAMOBJ

G3
MB8464A-80-10-15/L-LL
CMOS Static RAM
8K x 8 BITS

RD[15..0]

NOT POPULATED
RA1 4kX8
RA2 4kX8
RA3 4kX8
RA4 4kX8

CN1
Conn_02x32_Row_Letter_First

J3
KONAMI
053244
OBJECT DRAWING
MAIN
PRIORITY CONTROL UNIT
GENERATOR TO DRAWING

E18A
74LS08

74LS08 G15A
74LS08 G15B
74LS08 G15C

NOT POPULATED

G1
74LS245

G4
Quad Mux
SELECT_A-B
STROBE_G
74LS157

F4
Quad Mux
SELECT_A-B
STROBE_G
74LS157

HM6116P-3
2kB RAM

J1
MCM2018

SHEET 16

OBJROMD[31..0]

NOT POPULATED
K7
065A08
KONAMI
MASK 8M - 16BIT
CMOS ROM
054903

MAIN_A[13..1]
MAIN_D[7..0]
MAIN_DB[7..0]
AR[2..0]
BR[2..0]
HP[9..0]
PL[6..0]

JOTEGO
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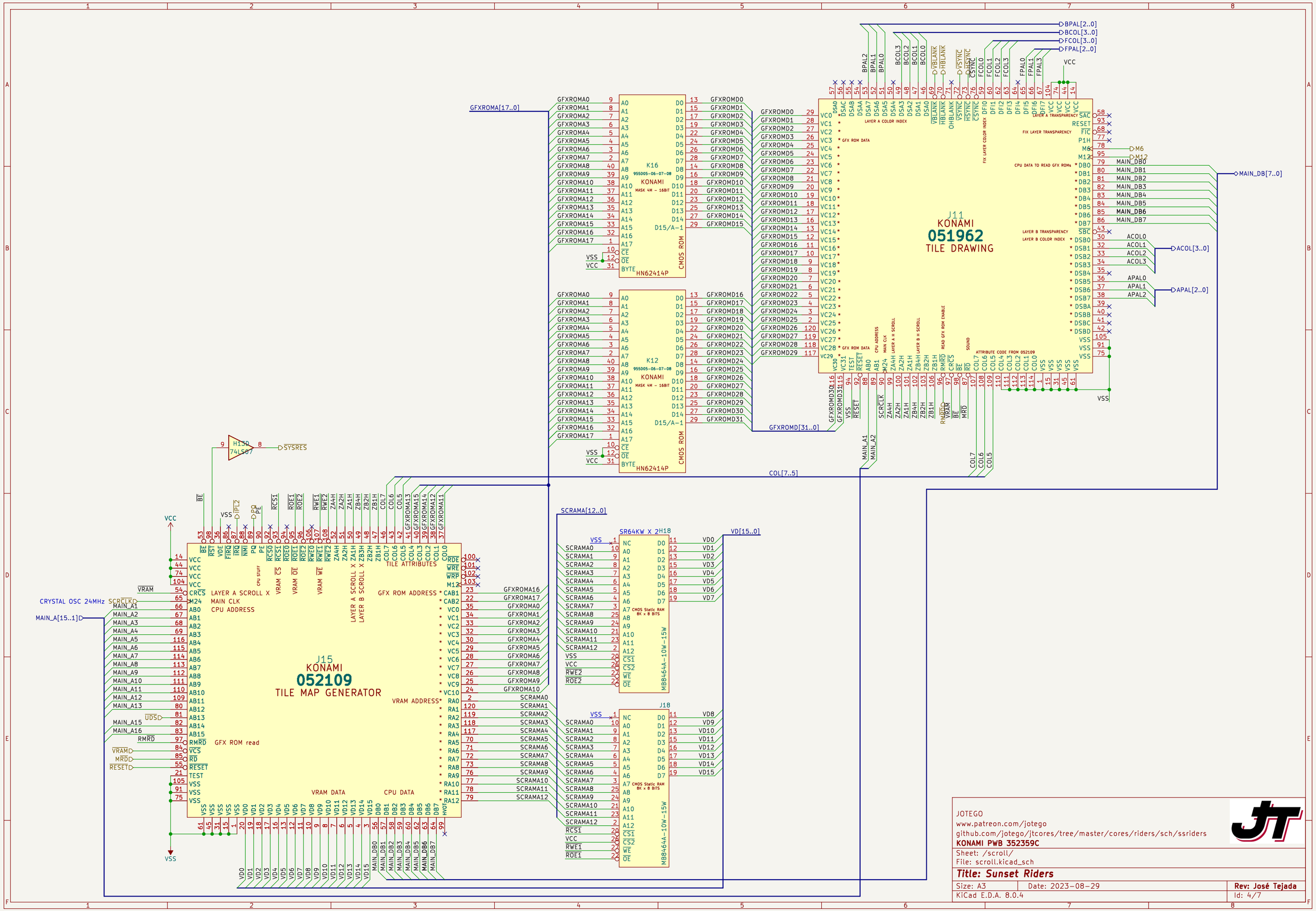
github.com/jotego/jtcores/tree/master/cores/riders/sch/ssriders

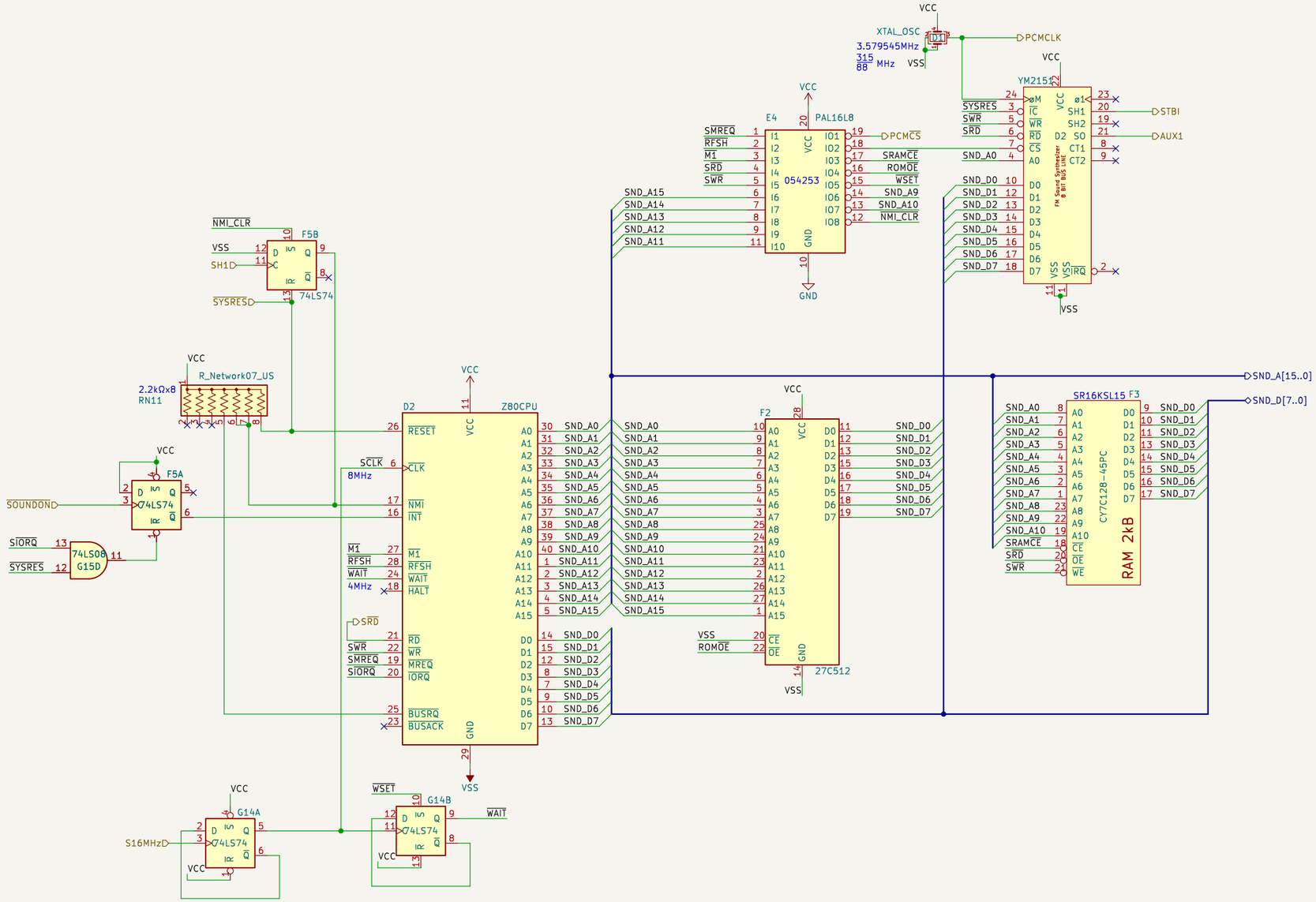
KONAMI PWB 352359C

Sheet: /objects/
File: objects.kicad_sch

Title: Sunset Riders

Size: A3	Date: 2023-08-29	Rev: José Tejada
KiCad E.D.A. 8.0.4		Id: 3/7


BPAL[2..0]
BCOL[3..0]
FCOL[3..0]
FPAL[2..0]
VCC
GFXROMA[17..0]
GFXROMD[31..0]
COL[7..5]
SCRAMA[12..0]
VD[15..0]
MAIN_DB[7..0]
ACOL[3..0]
APAL[2..0]
K16
K12
955D05-06-07-08
KONAMI
MASK 4M - 16BIT
HN62414P
CMOS ROM
J11
KONAMI
051962
TILE DRAWING
LAYER A COLOR INDEX
GFX ROM DATA
FIX LAYER COLOR INDEX
LAYER A TRANSPARENCY
FIX LAYER TRANSPARENCY
CPU DATA TO READ GFX ROMs
LAYER B TRANSPARENCY
LAYER B COLOR INDEX
ATTRIBUTE CODE FROM 052109
J15
KONAMI
052109
TILE MAP GENERATOR
LAYER A SCROLL X
LAYER A SCROLL Y
LAYER B SCROLL X
LAYER B SCROLL Y
TILE ATTRIBUTES
GFX ROM ADDRESS
VRAM ADDRESS
VRAM DATA
CPU DATA
CRYSTAL OSC 24MHz
MAIN_A[15..1]
SR64KW X 2H18
J18
MB8464A-10W-15W
CMOS Static RAM
8K x 8 BITS
H13D
74LS07
SYSRES
JOTEGO
www.patreon.com/jotego
github.com/jotego/jtcores/tree/master/cores/riders/sch/ssriders
KONAMI PWB 352359C
Sheet: /scroll/
File: scroll.kicad_sch
Title: Sunset Riders
Size: A3
Date: 2023-08-29
KiCad E.D.A. 8.0.4
Rev: José Tejada
Id: 4/7



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github.com/jotego/jtcores/tree/master/cores/riders/sch/ssriders
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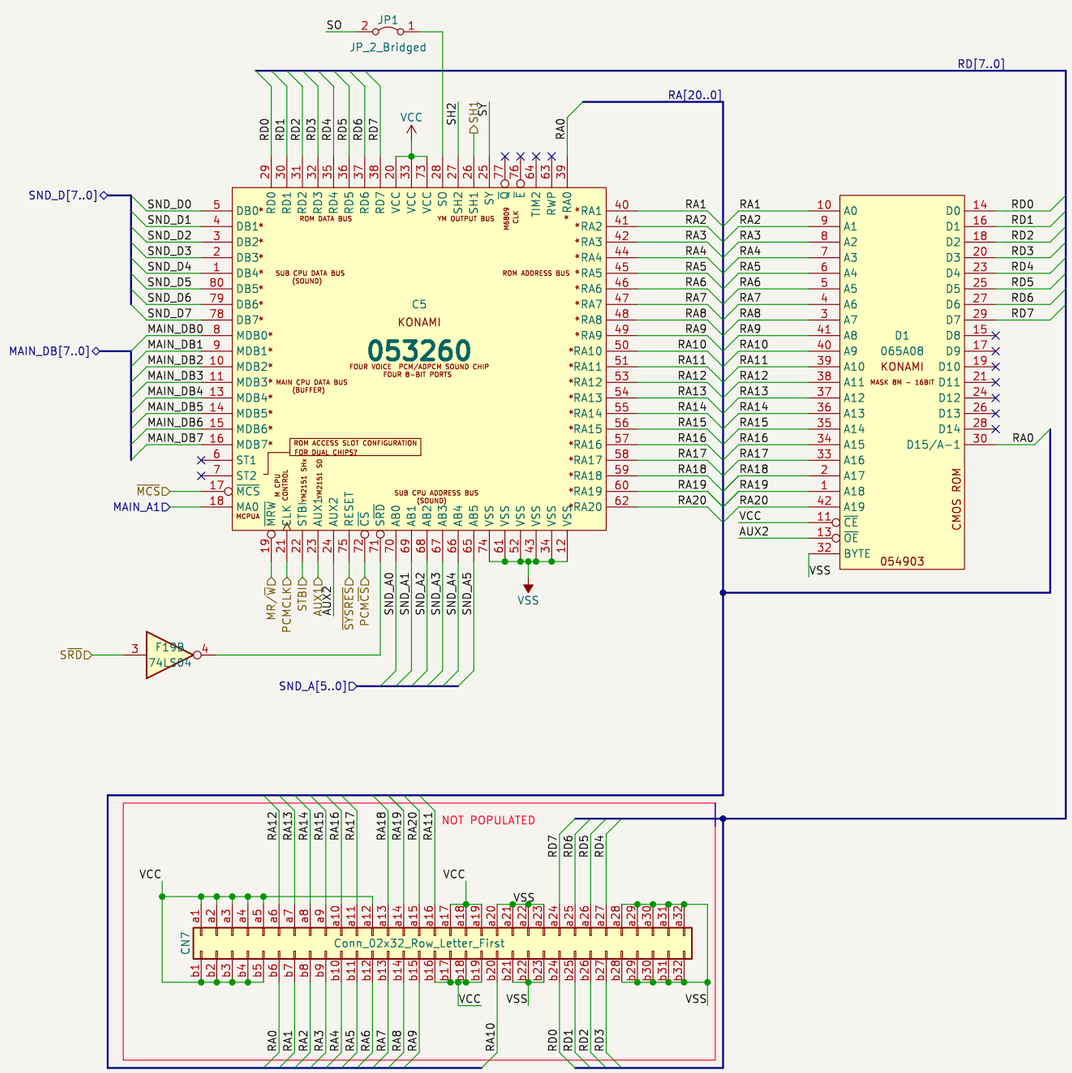
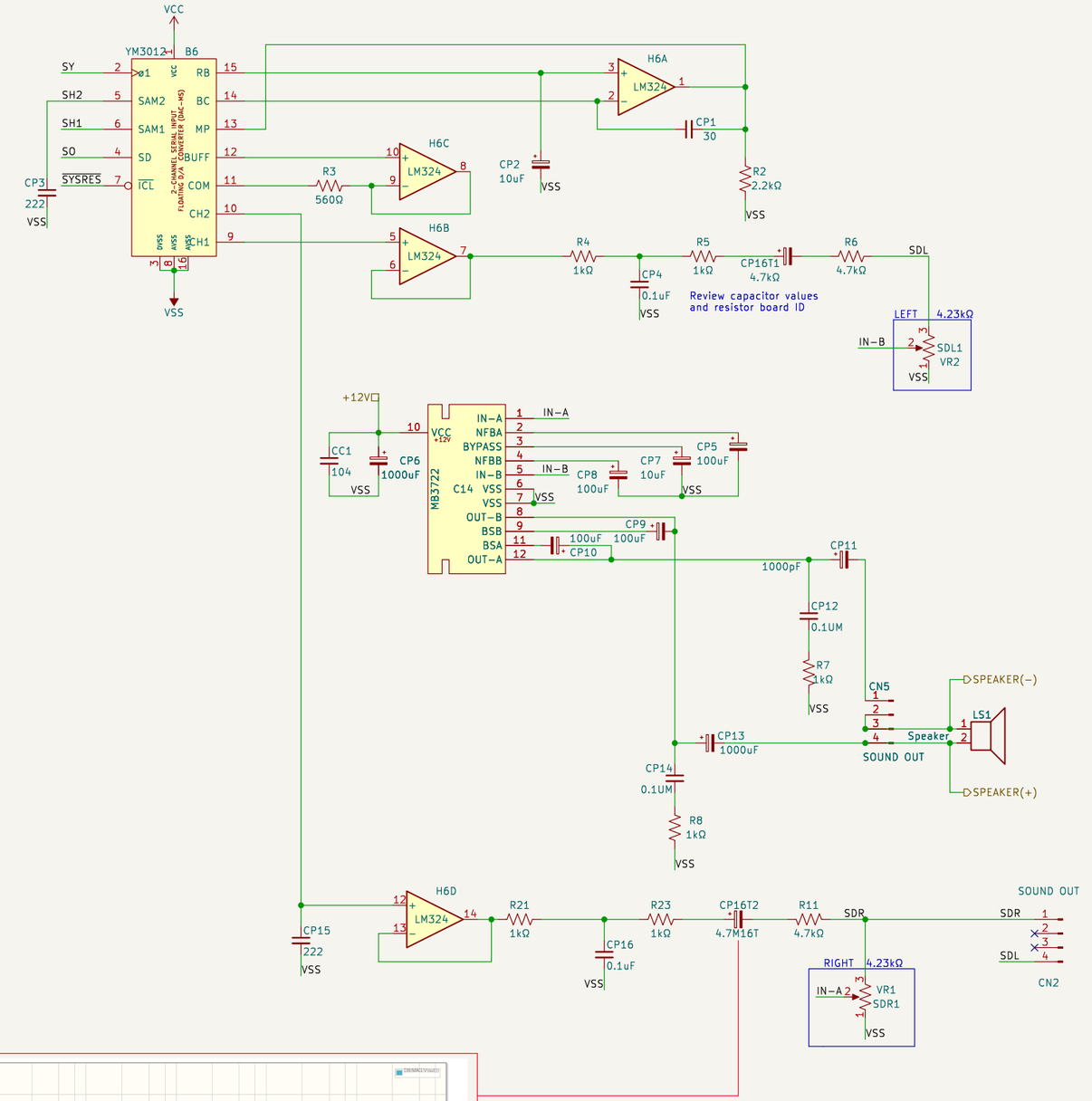
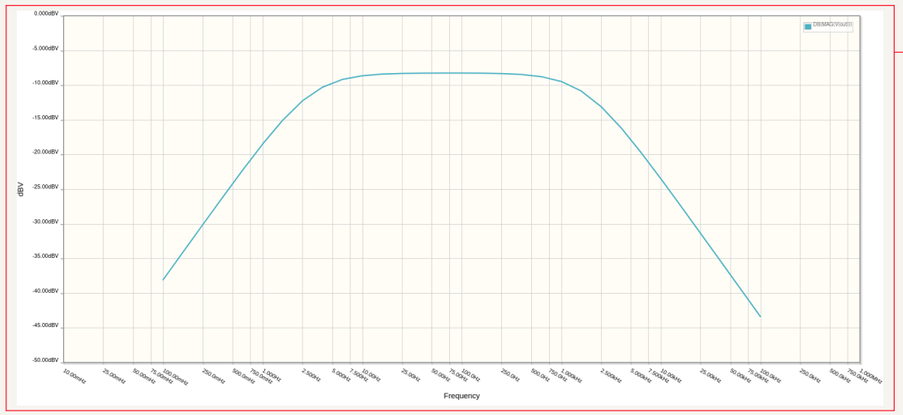
Sheet: /sound/
File: sound.kicad_sch

Title: Sunset Riders

Size: A3	Date: 2023-08-29	**Rev: José Tejada**
KiCad E.D.A. 8.0.4		Id: 5/7







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github.com/jotego/jtcores/tree/master/cores/riders/sch/ssriders
KONAMI PWB 352359C

Sheet: /pcm_snd/
File: pcm_snd.kicad_sch

Title: Sunset Riders

Size: A3	Date: 2023-08-29	**Rev: José Tejada**
KiCad E.D.A. 8.0.4		Id: 6/7

main CPU data bus
to object RAM

D[15..0]
main CPU
data bus

RD[15..0]

K8
J8
74LS245
buffers
A->B
CE

H7
KONAMI
054358

-DMA access to main CPU 520us
-Returns a number based on
a CPU written RAM value
-updates obj priority data

19 pins top/bottom
13 pins left/right
64 pins total

MAIN_A[23..1]

to M68000

R1
1KΩ

VCC
VSS
GND

F19F
74LS04
D17B
74LS00
E18C
74LS08
D17A
74LS00
D17C
74LS00
E18D
74LS08

IO
PDS
MAIN_A11
MRW
OBJMPX
OBJSET
OBJ

PAL MAIN
SHEET 18

F5
PAL20RS10
054618

VPAD
AS
OBJMPX
MAIN_A23
MAIN_A22
MAIN_A21
MAIN_A20
MAIN_A19
MAIN_A18
MAIN_A17
MDTACK
VRAM
OBJ
OBJSET
COLOR
IO
MBOE
MRAMOEWR
MROMOE2
MROMOE1

F15A
74LS74
PQ

SHEET 09

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github.com/jotego/jtcores/tree/master/cores/riders/sch/ssriders
KONAMI PWB 352359C

Sheet: /protection/
File: main2obj.kicad_sch

Title: Sunset Riders

Size: A3	Date: 2023-08-29	**Rev: José Tejada**
KiCad E.D.A. 8.0.4		Id: 7/7