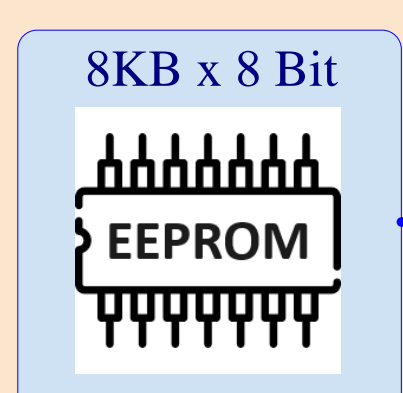
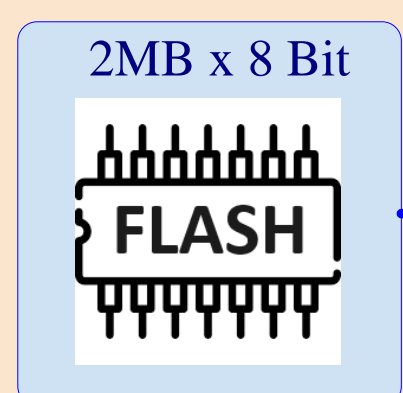
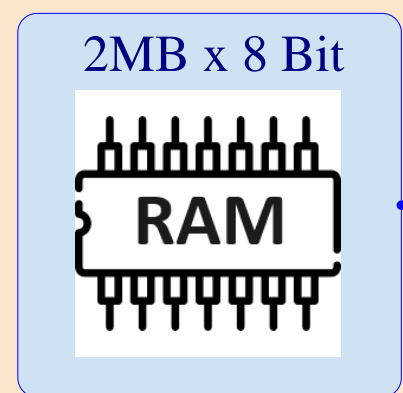


C64 ALL-IN-ONE Cartridge



FPGA

Xilinx SPARTAN 3A-DSP (XC3SD3400A)

Embedded BOOTLOADER (Bitstream 0) allow up to 15 user friendly uploadable fully custom user FPGA Bitstreams.

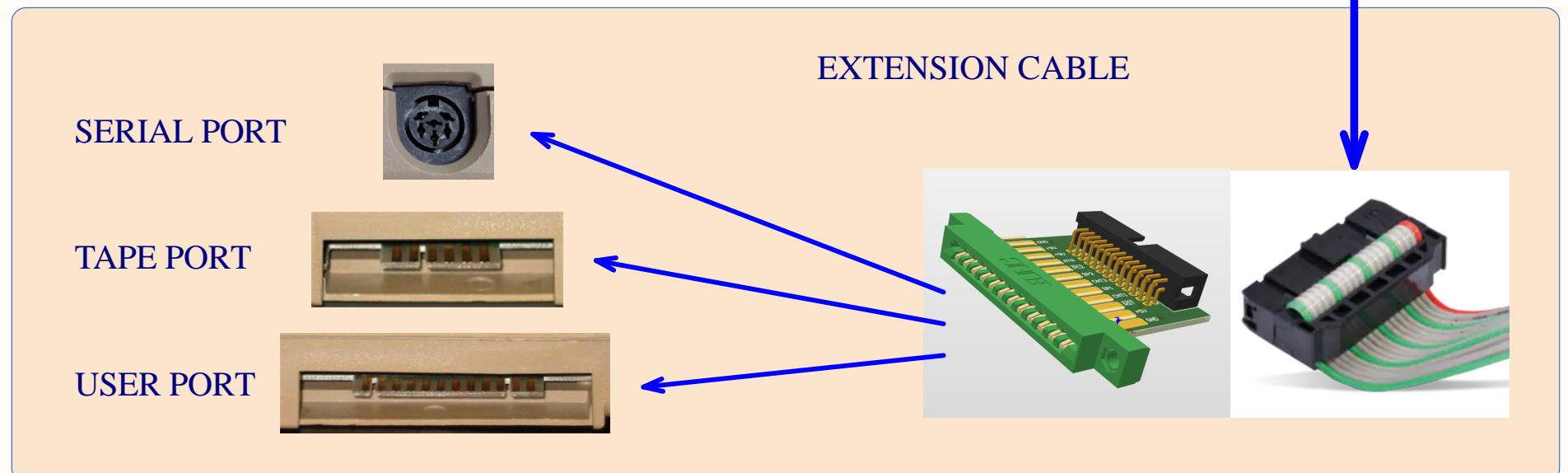
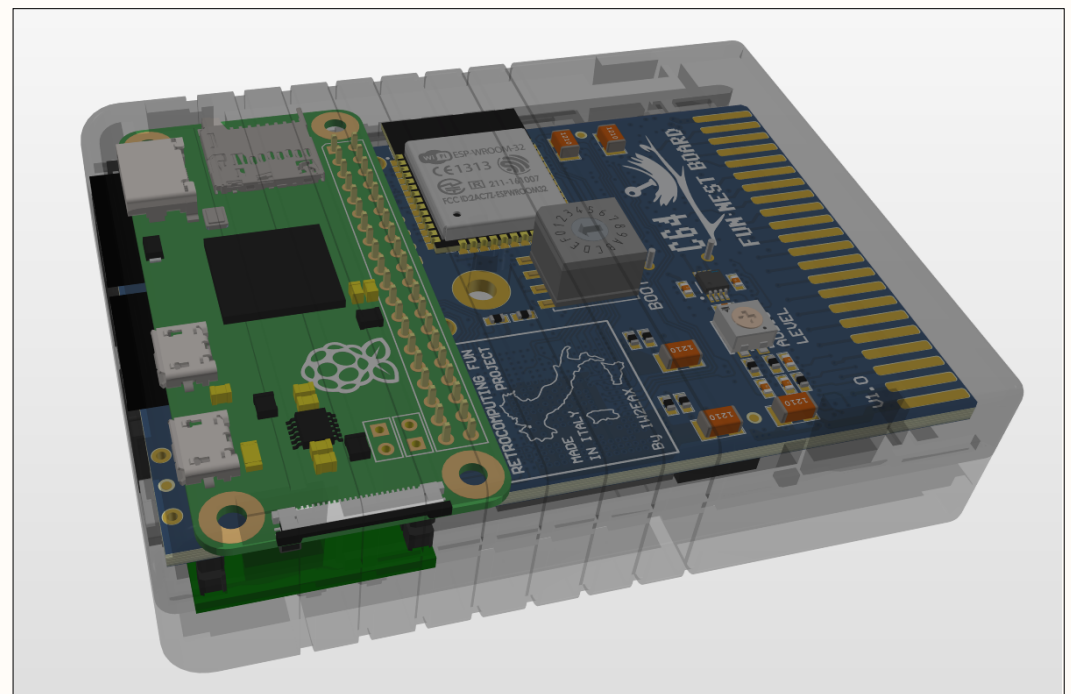
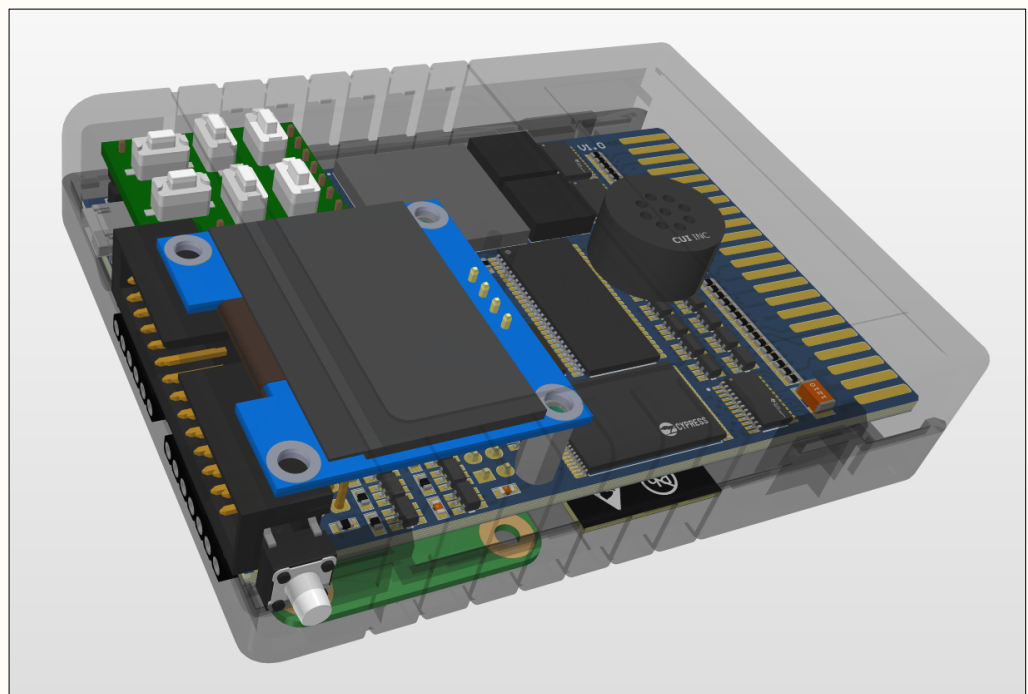
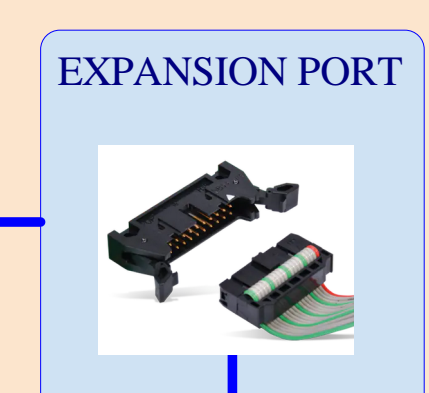
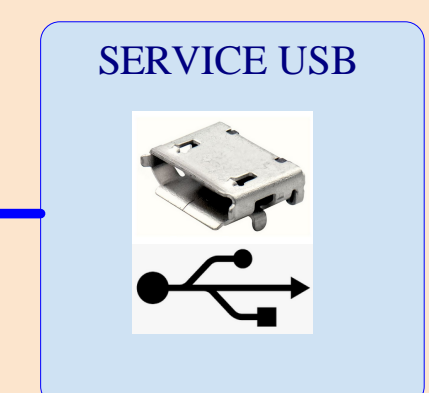
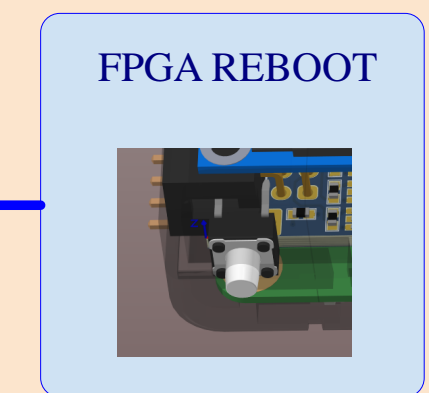
.bit file from the FPGA compiler can be directly uploaded.

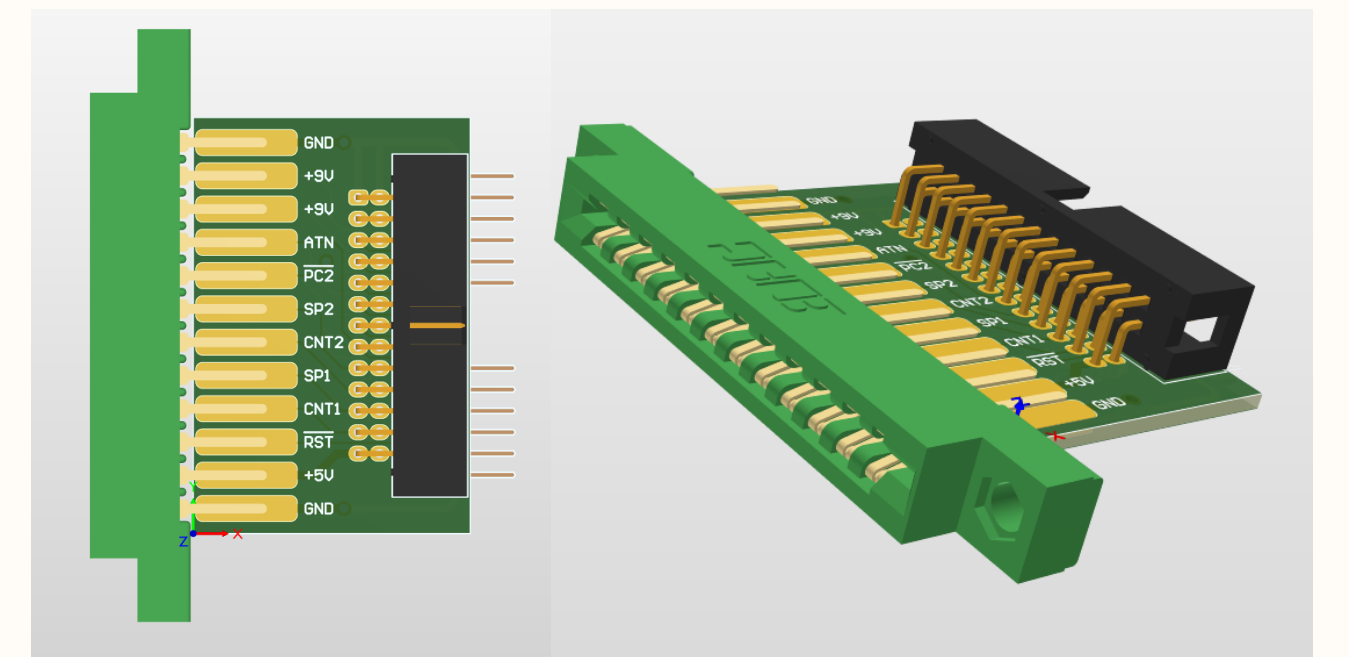
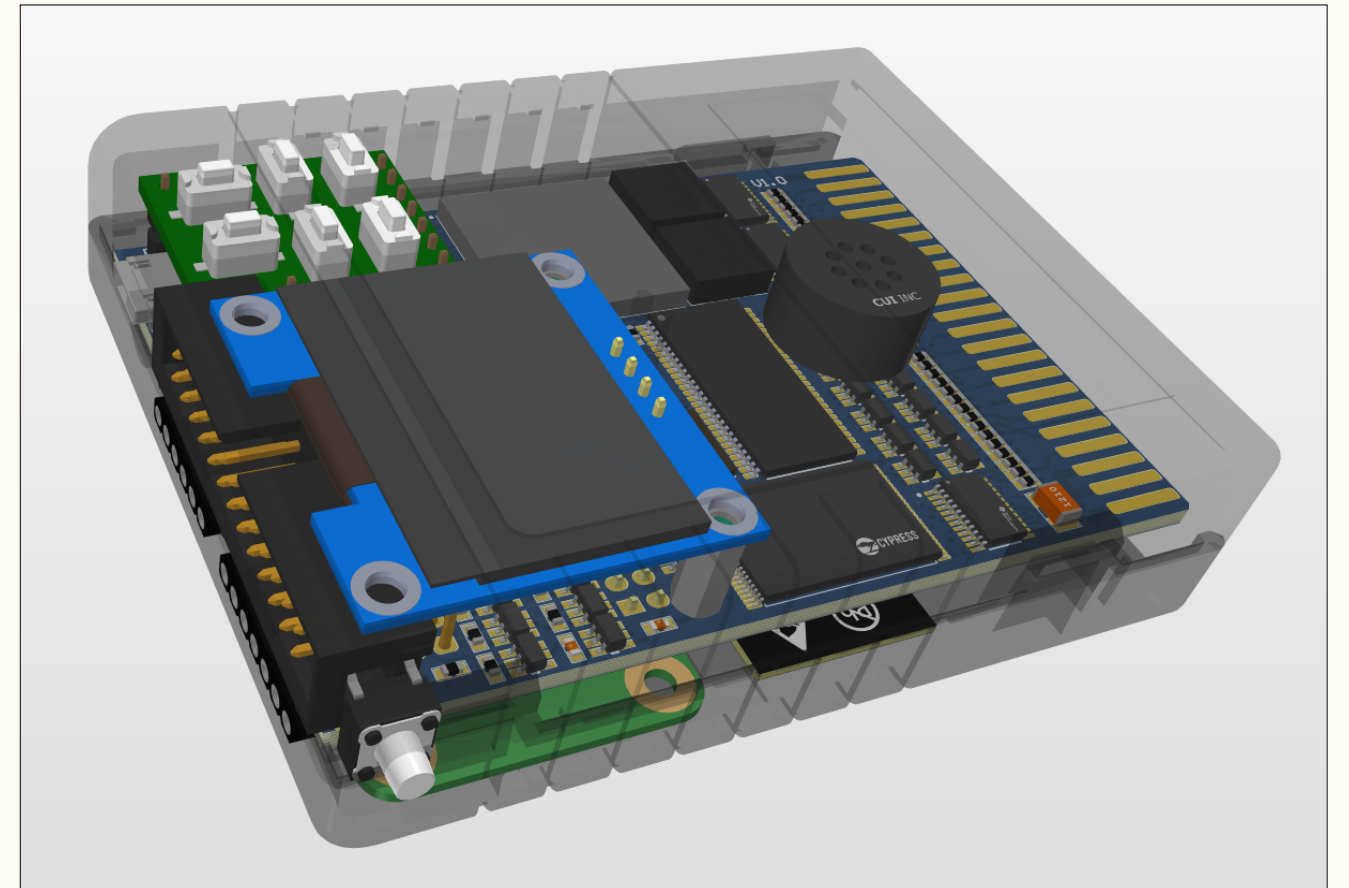
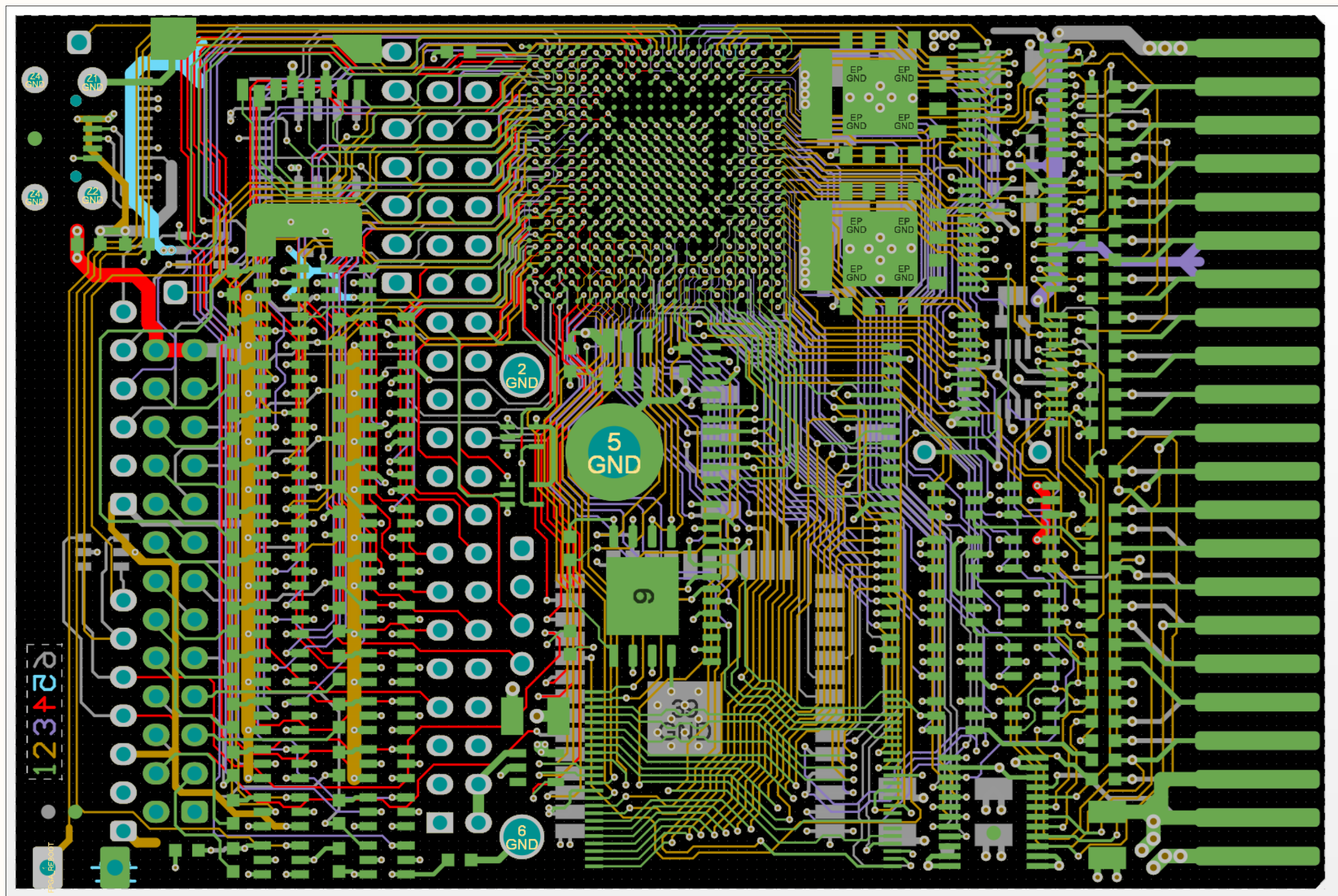
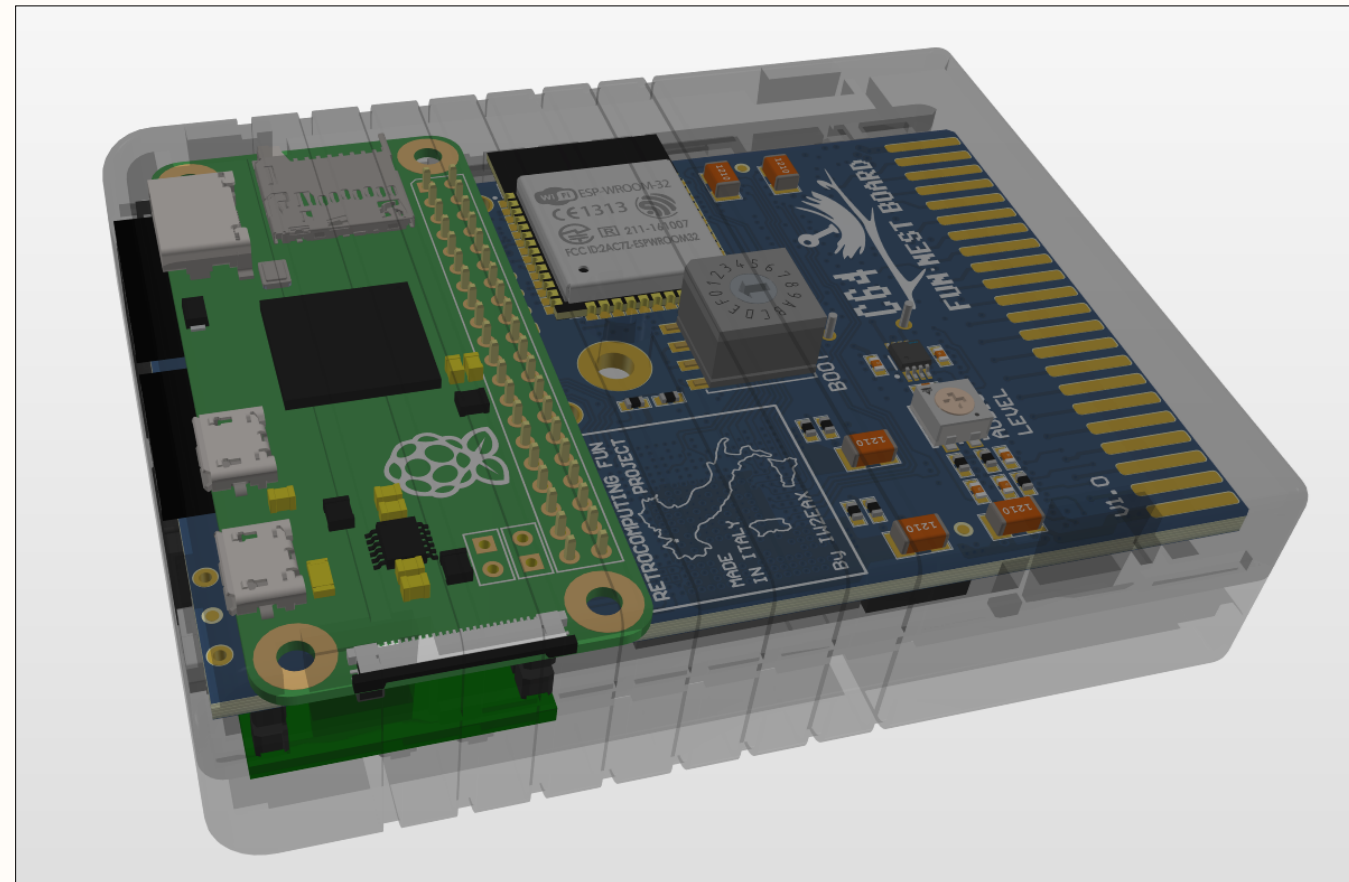
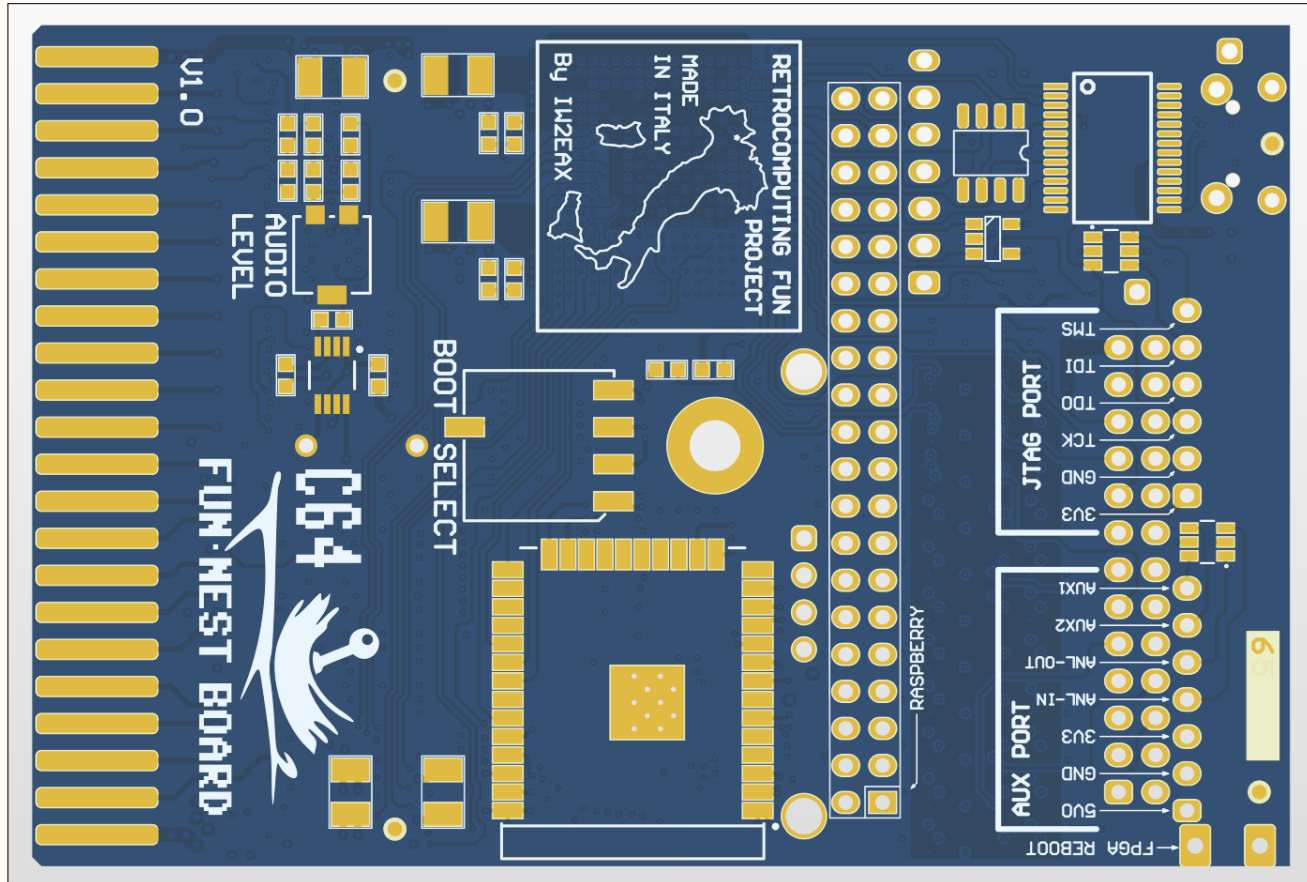
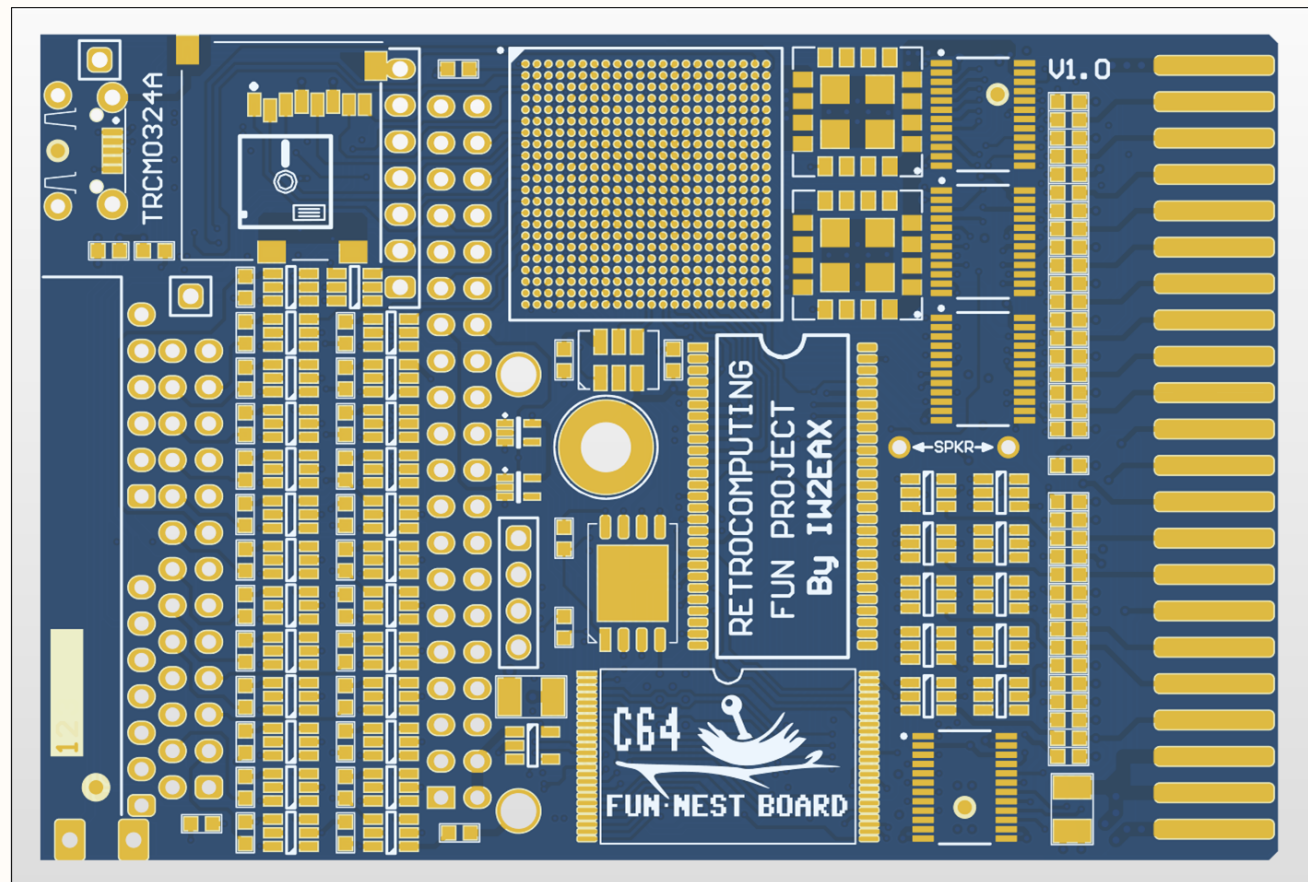
No format conversion is needed.

The FPGA have access to:

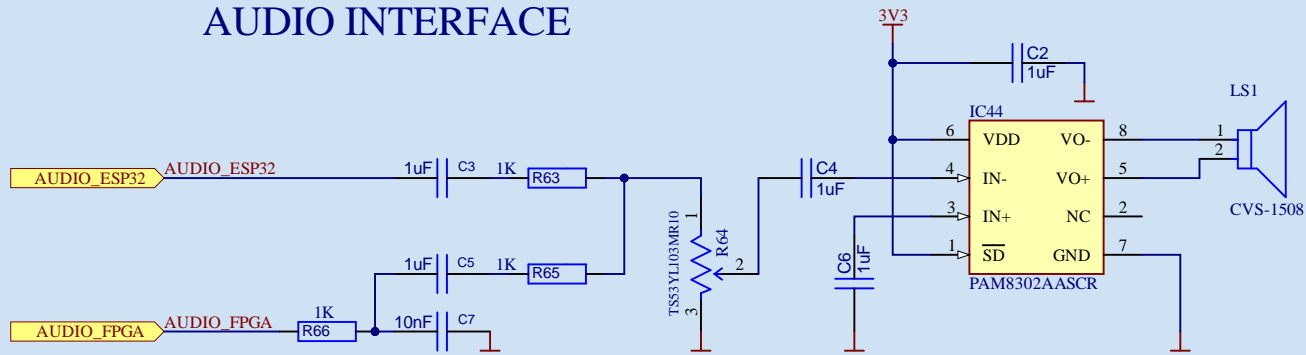
- ALL the C64 Cartridge BUS signals
- ALL the USER-PORT signals
- ALL the SERIAL & TAPE signals

Complex designs can be implemented including 1541 emulation, parallel SPEEDDOS, 256Kb / 512Kb RAM expansion Z80 CPM Cartridge and many more.

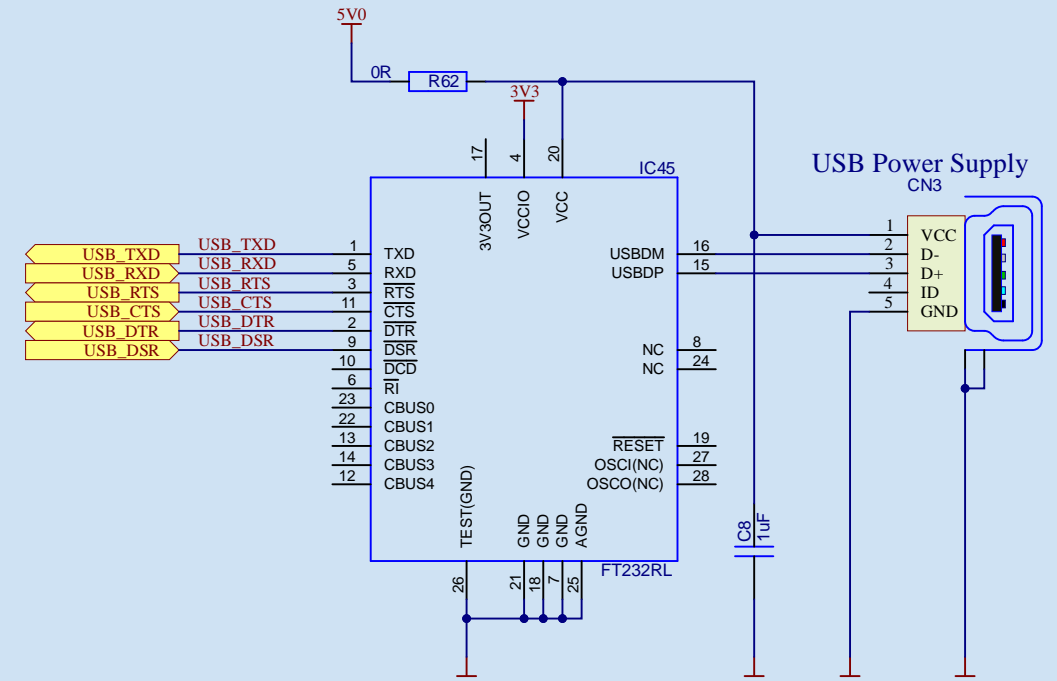




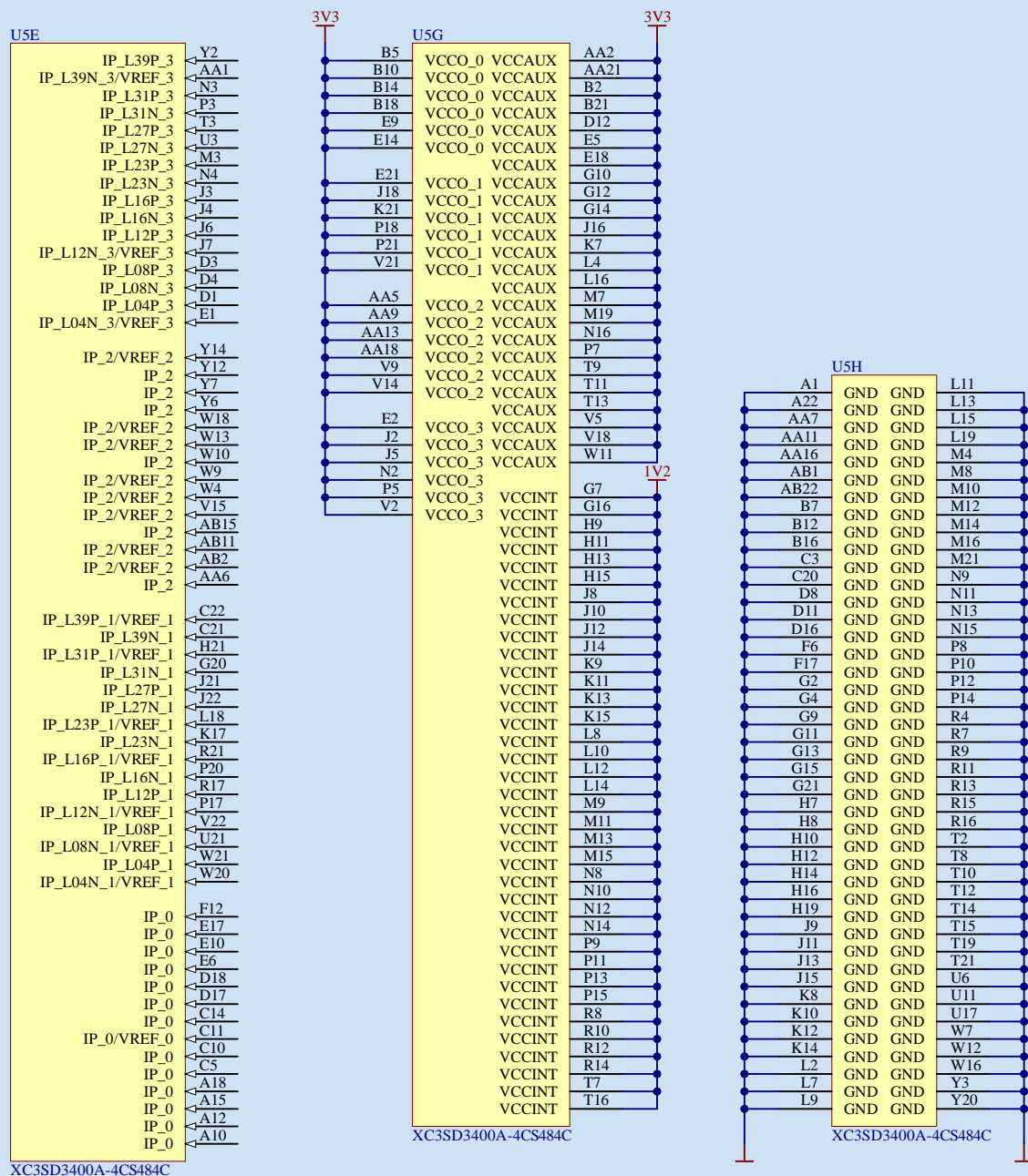
AUDIO INTERFACE



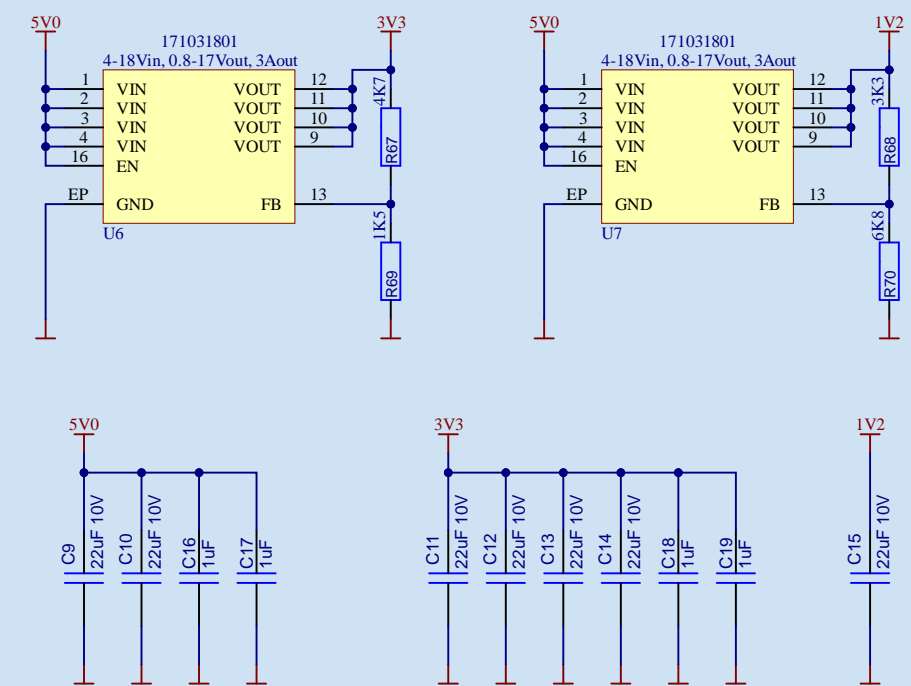
USB INTERFACE



FPGA POWER CONNECTIONS



DC-DC POWER SUPPLY



Title **FUN-NEST (C64 Cartridge)**

Size: A3 Author: Lorenzo Bolla

Date: 24-Jun-24 Time: 08:50:29

Note:

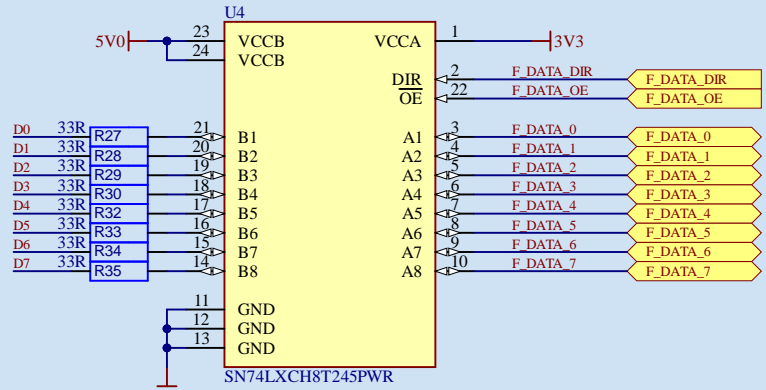
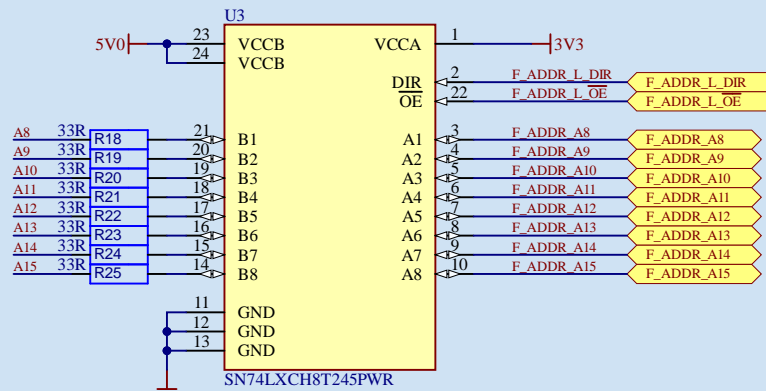
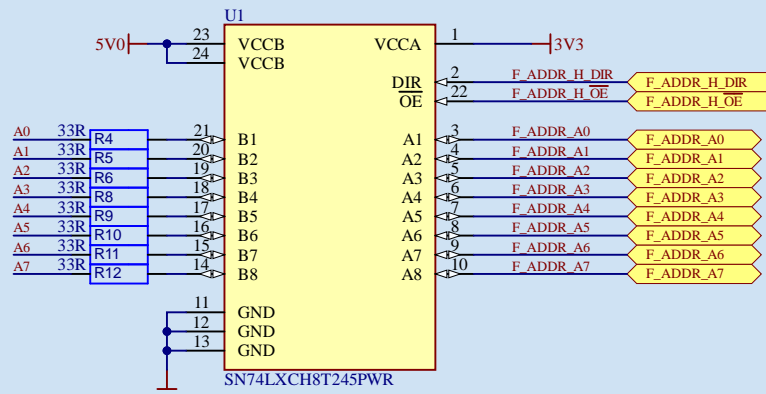
Revision: 1.0

Sheet 3 of 5

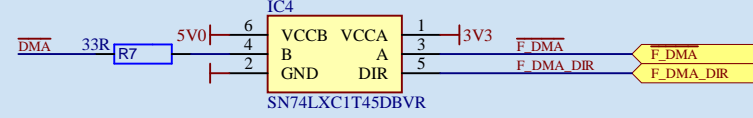
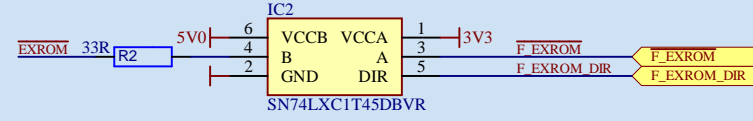
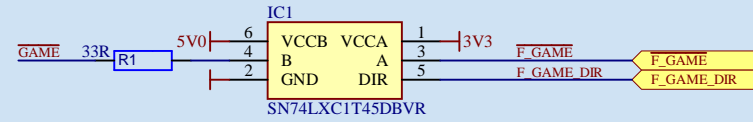
HAM Radio & other
Hobby projects
ITALY

IW2EAX

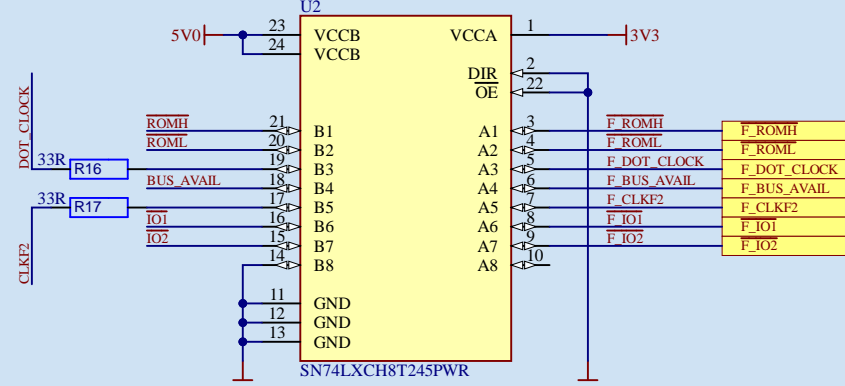
C64 EXPANSION PORT (CPU BUS)



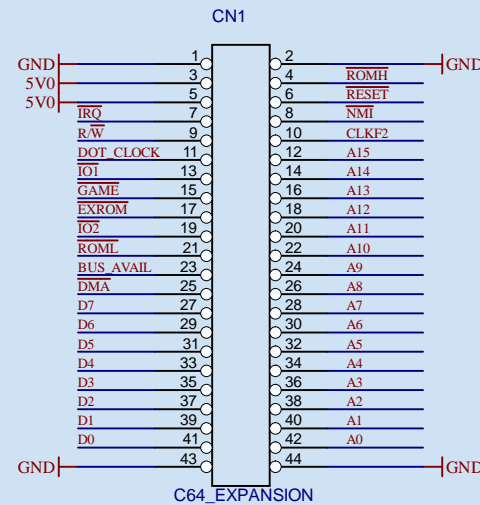
C64 EXPANSION PORT (INPUTS)



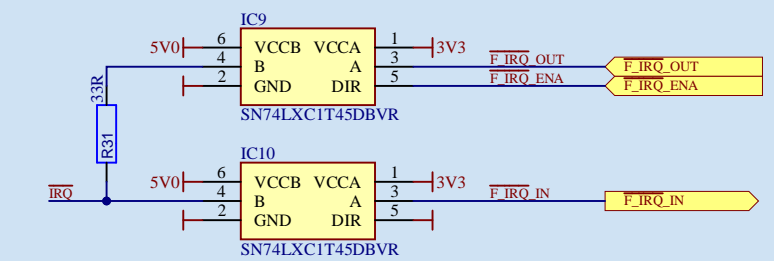
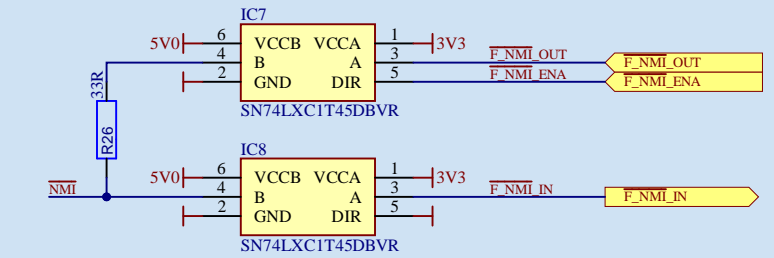
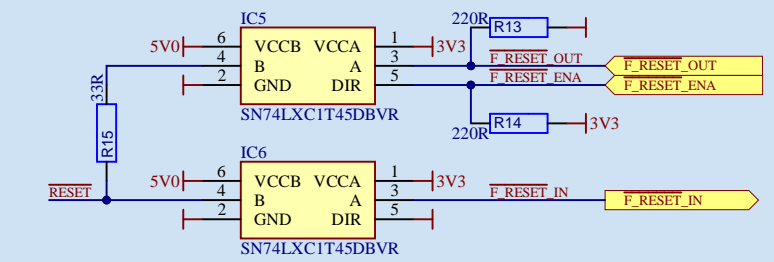
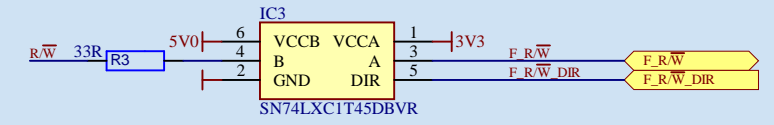
C64 EXPANSION PORT (OUTPUTS)



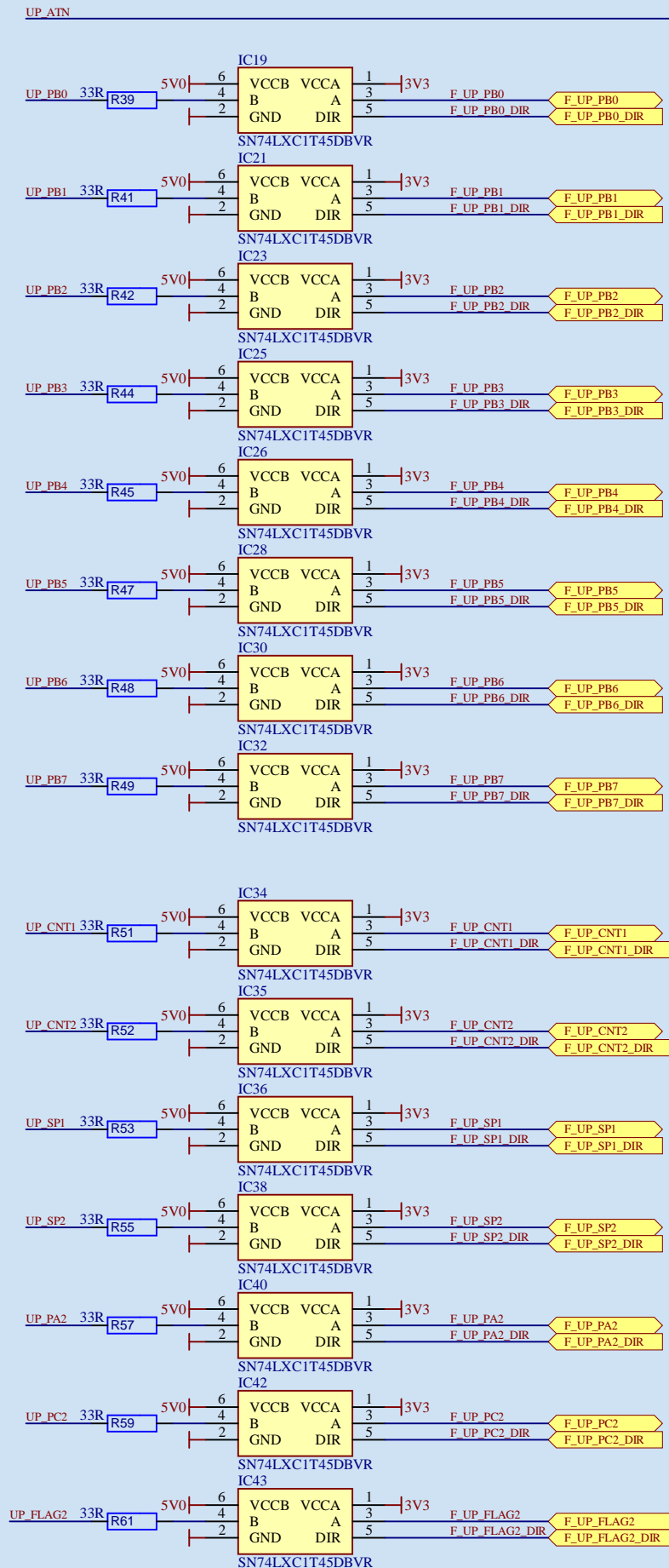
C64 EXPANSION PORT PCB-CONNECTOR



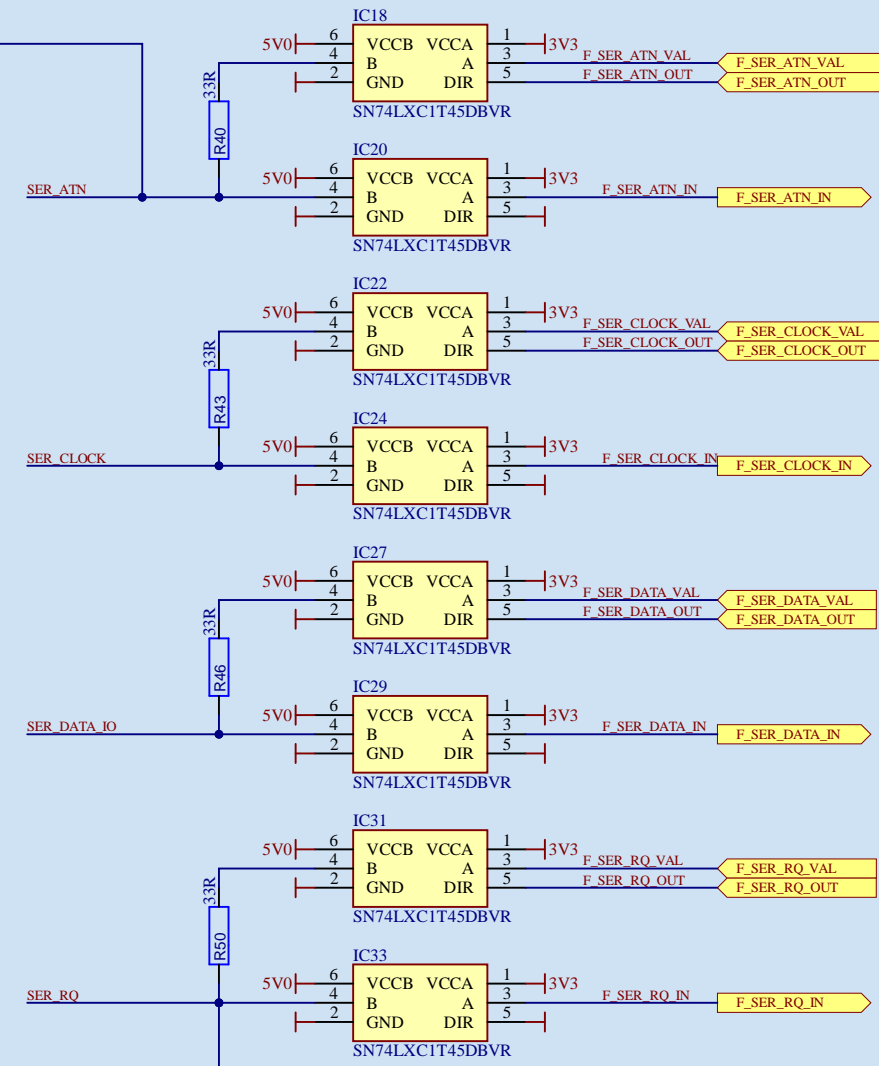
C64 EXPANSION PORT (IN / OUT)



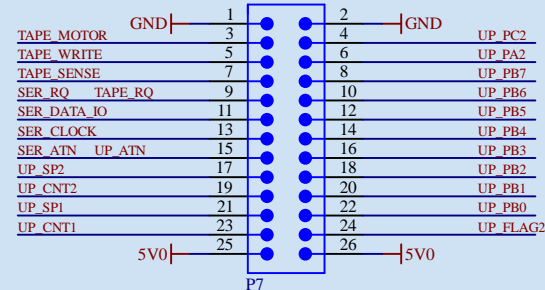
USER PORT SIGNALS



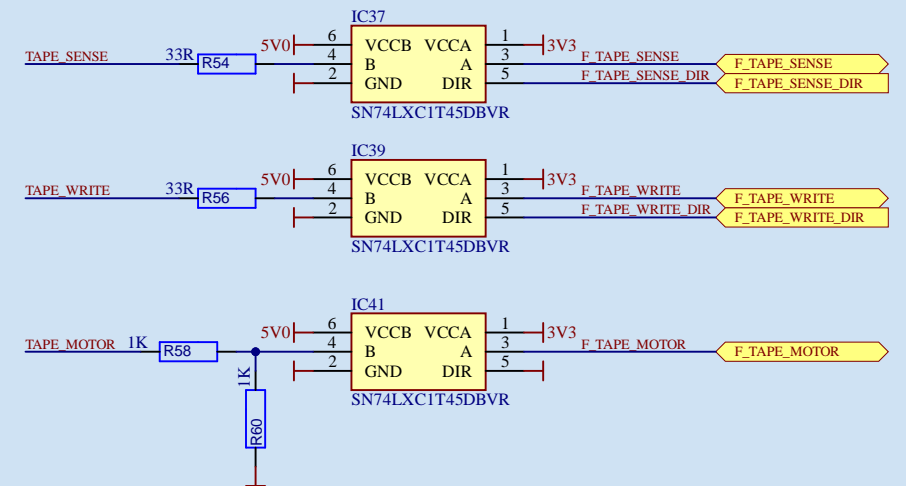
1541 DISK SIGNALS



FLAT CABLE CONNECTOR



TAPE SIGNALS



Title **FUN-NEST (C64 Cartridge)**

Size: A3 Author: Lorenzo Bolla Revision: 1.0

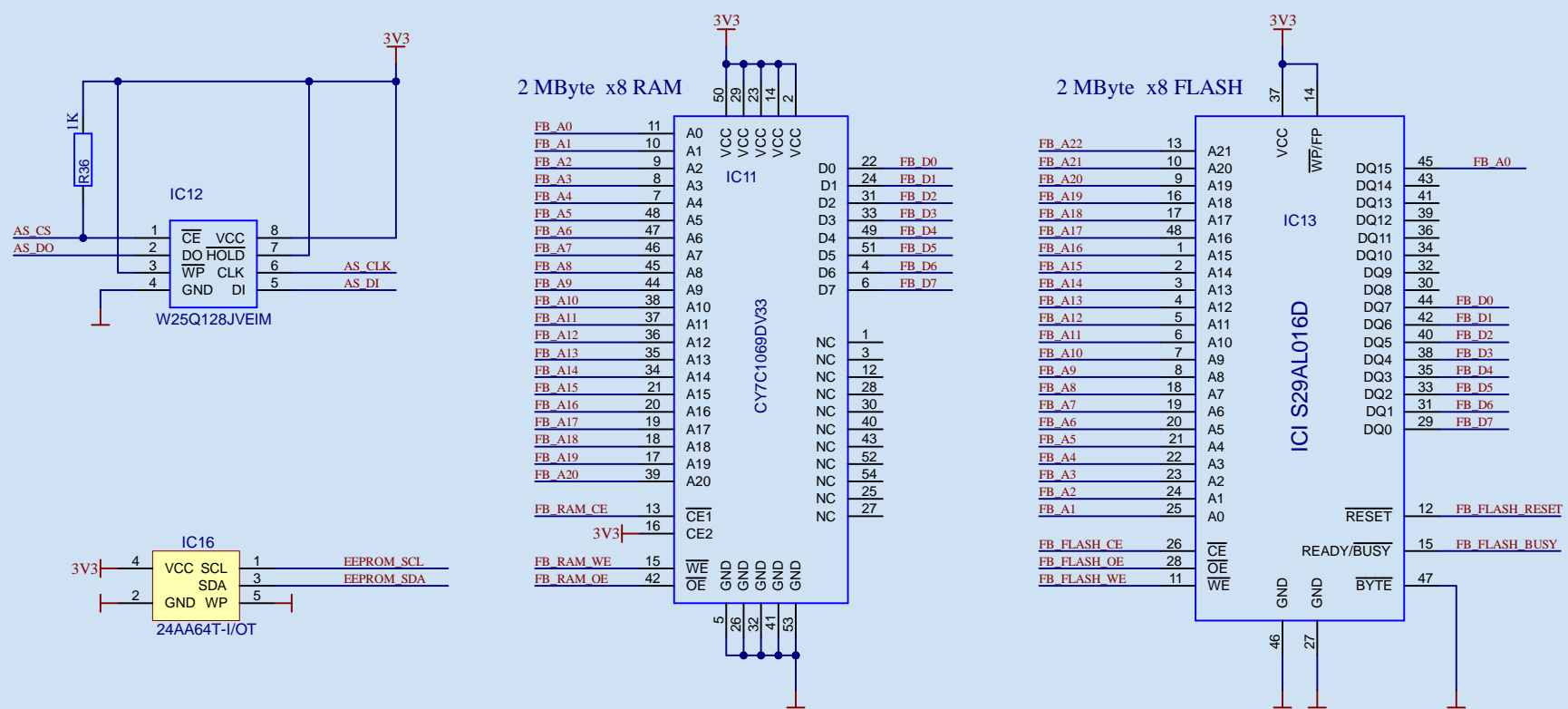
Date: 24-Jun-24 Time: 08:50:29 Sheet 5 of 5

Note:

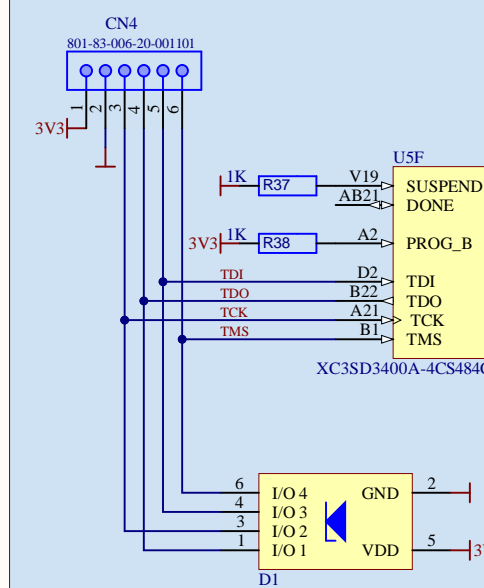
HAM Radio & other
Hobby projects
ITALY

IW2EAX

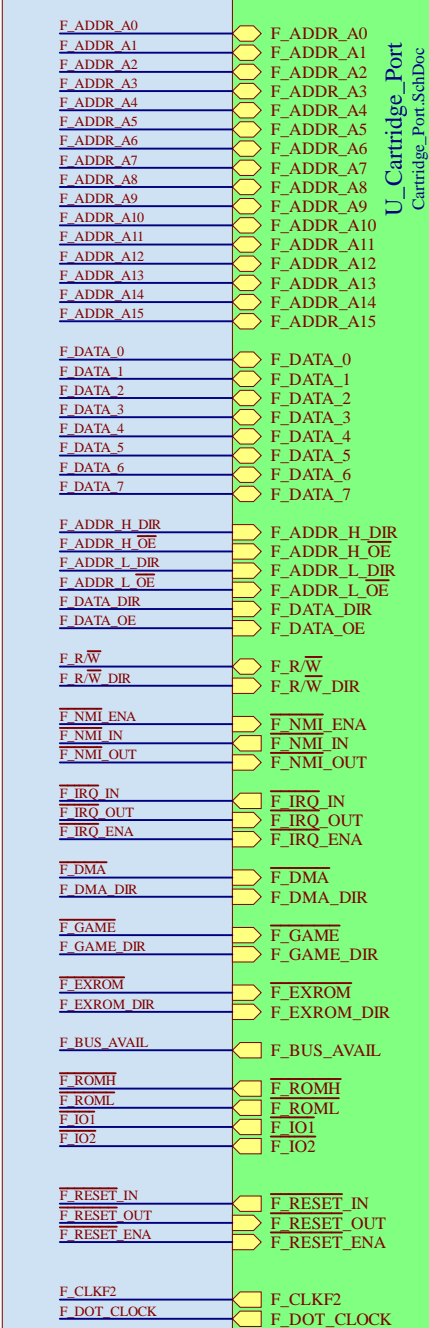
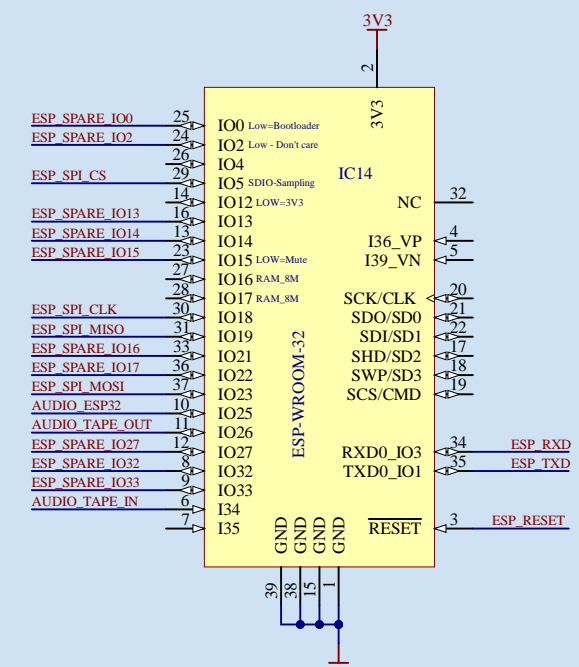
SYSTEM MEMORIES



FPGA JTAG

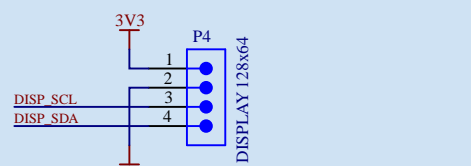


ESP32 FOR WIFI EXTENSIONS

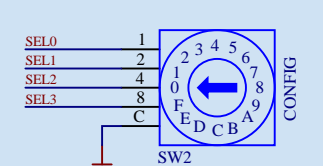


CARTRIDGE BUS SIGNALS

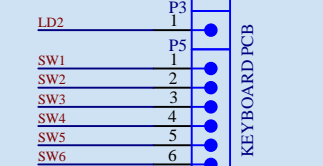
1.3" DISPLAY



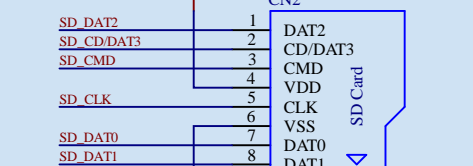
BOOT SELECTOR



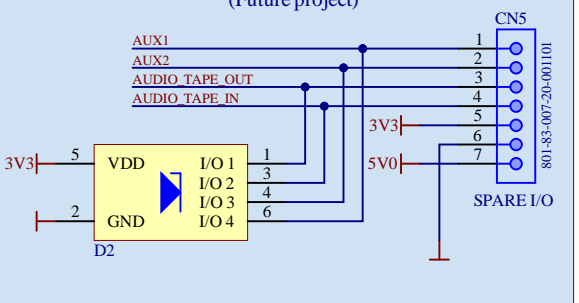
CARTRIDGE KEYBOARD



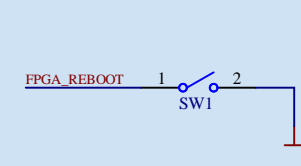
FPGA SD-CARD



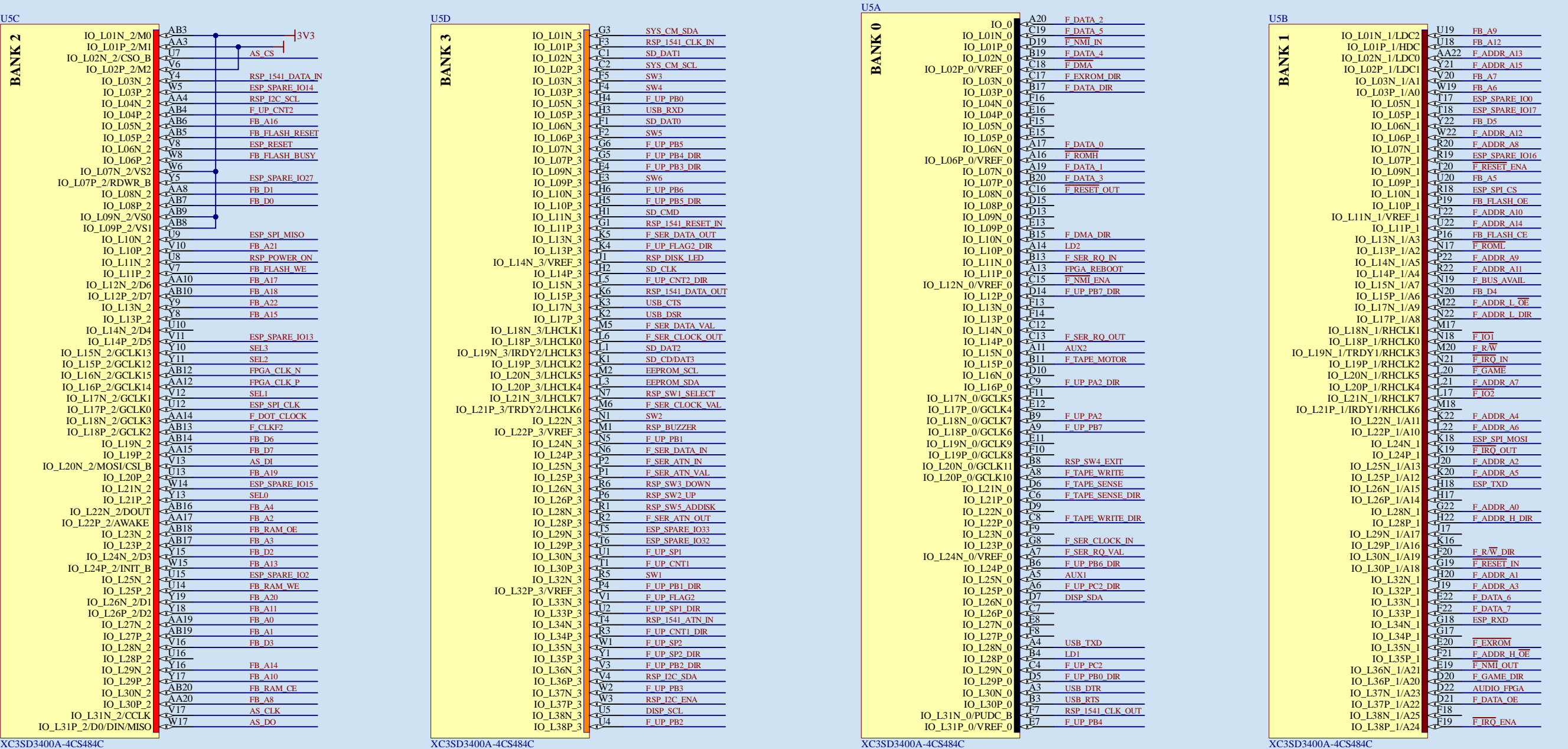
ZX-SPECTRUM AUDIO TAPE



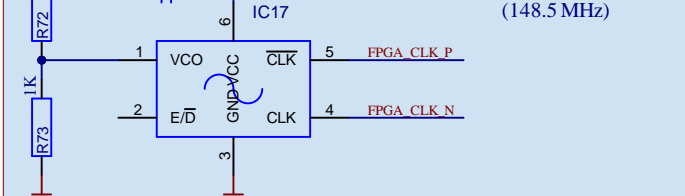
FPGA REBOOT



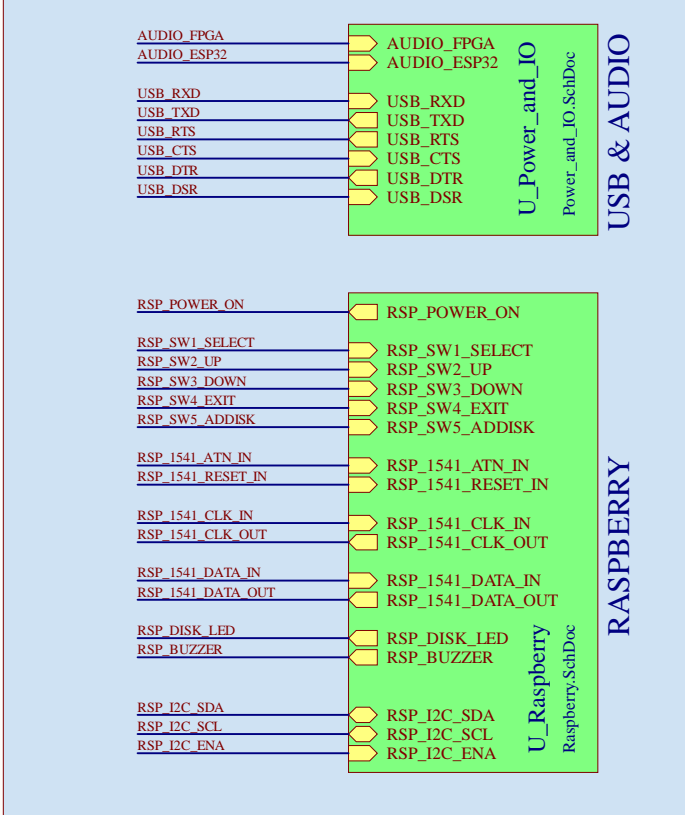
FPGA CONNECTIONS



SYSTEM CLOCK



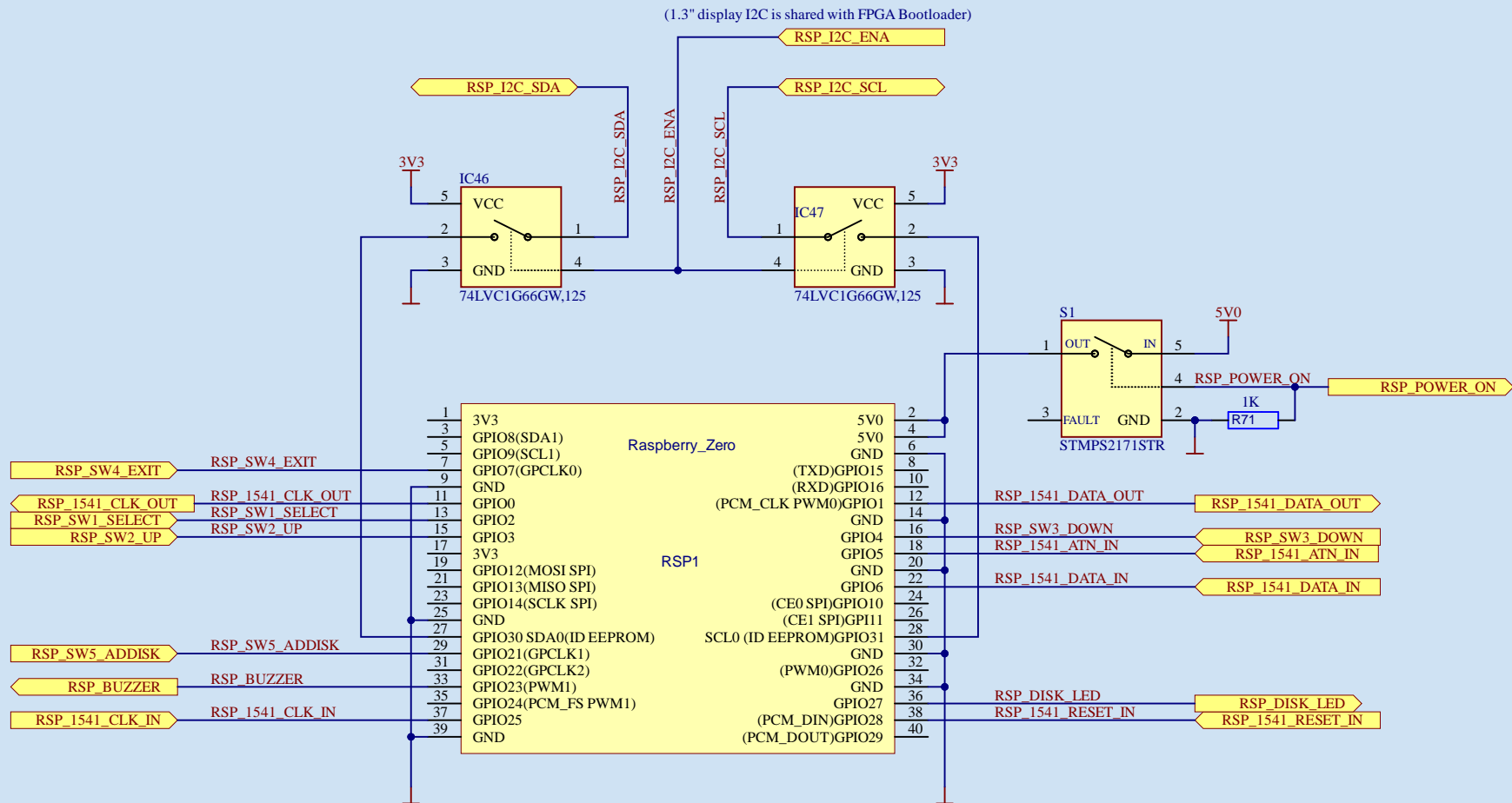
SHEET CONNECTIONS



USER PORT SIGNALS

RASPBERRY BOARD

(Signals named for 1541 emulation)



Title **FUN-NEST (C64 Cartridge)**

Size: A4

Author: Lorenzo Bolla

Revision: 1.0

Date: 24-Jun-24

Time: 08:50:29

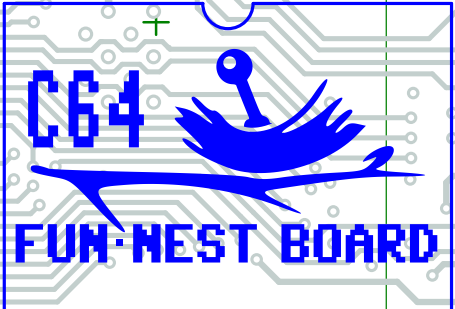
Sheet 7 of 5

Note:

HAM Radio & other
 Hobby projects
 ITALY

IW2EAX

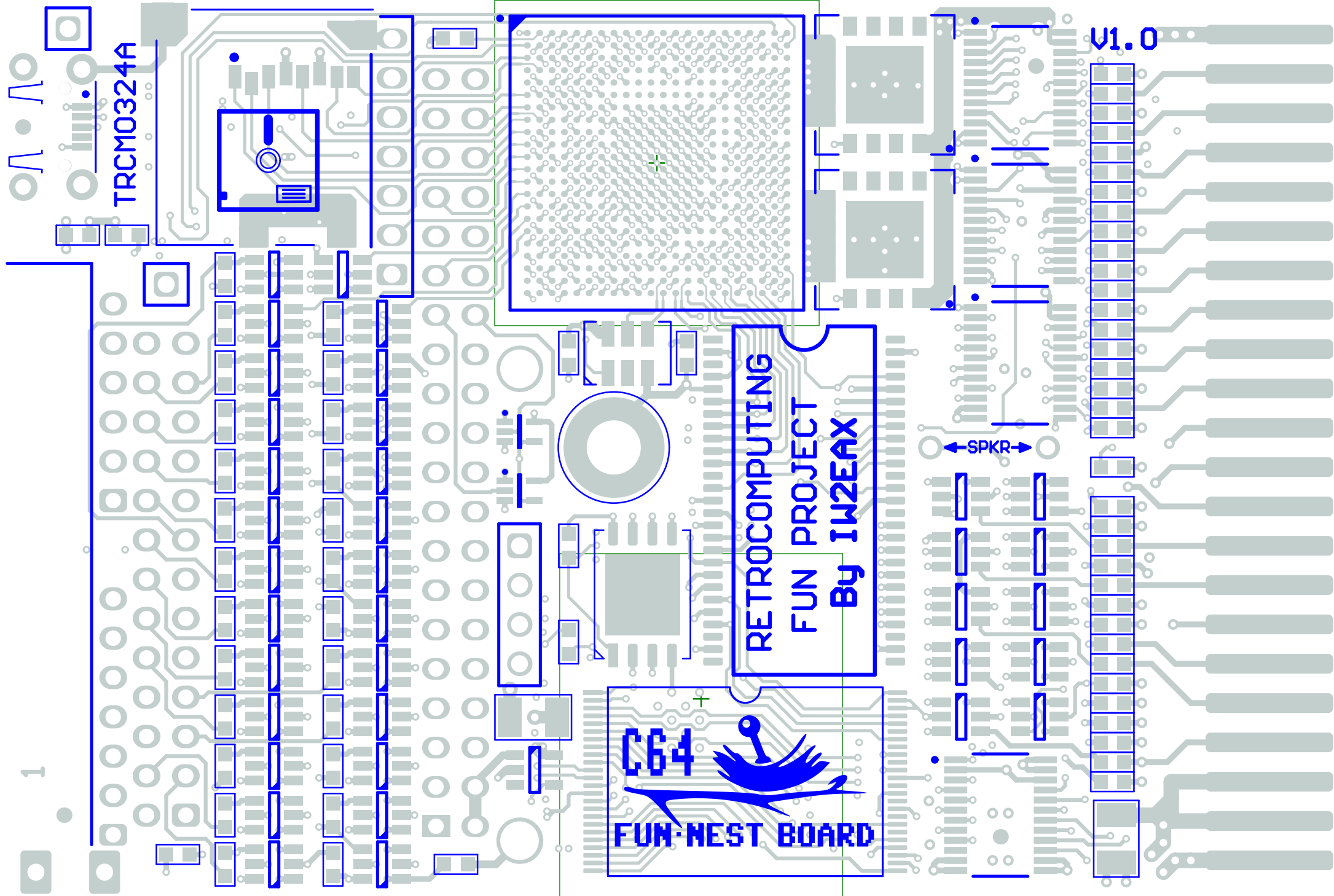
TRCM0324A

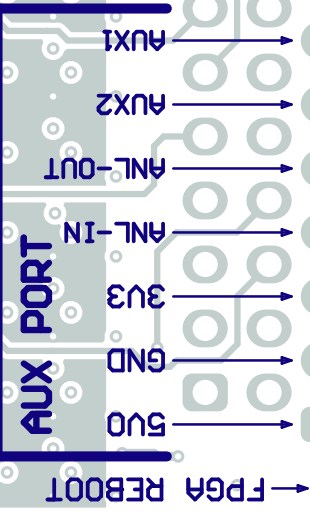
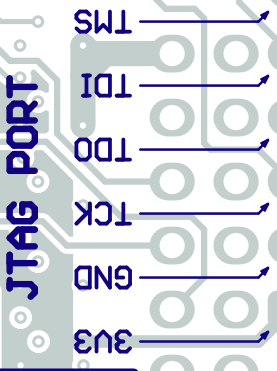


RETROCOMPUTING
FUN PROJECT
By IW2EAX

V1.0

← SPKR →





RASPBERRY

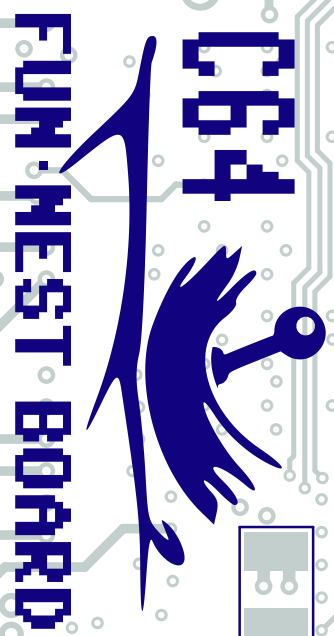
RETROCOMPUTING FUN PROJECT

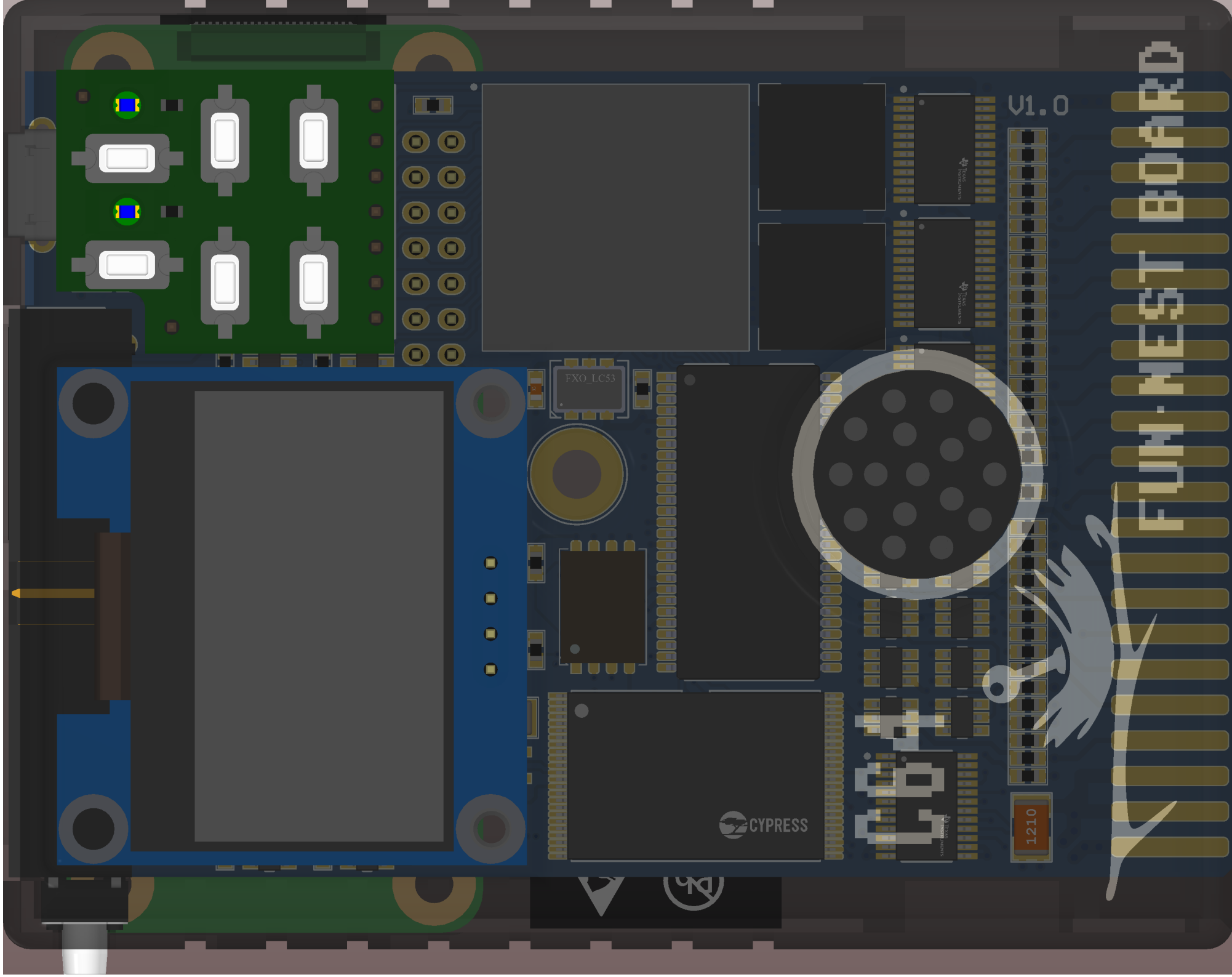
MADE IN ITALY
By IMZEAX

BOOT SELECT

AUDIO LEVEL

V1.0





FUR-VEST BOARD

v1.0

1210

CYPRESS

FXO_LC53

STAVROS ANTONAKIS
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