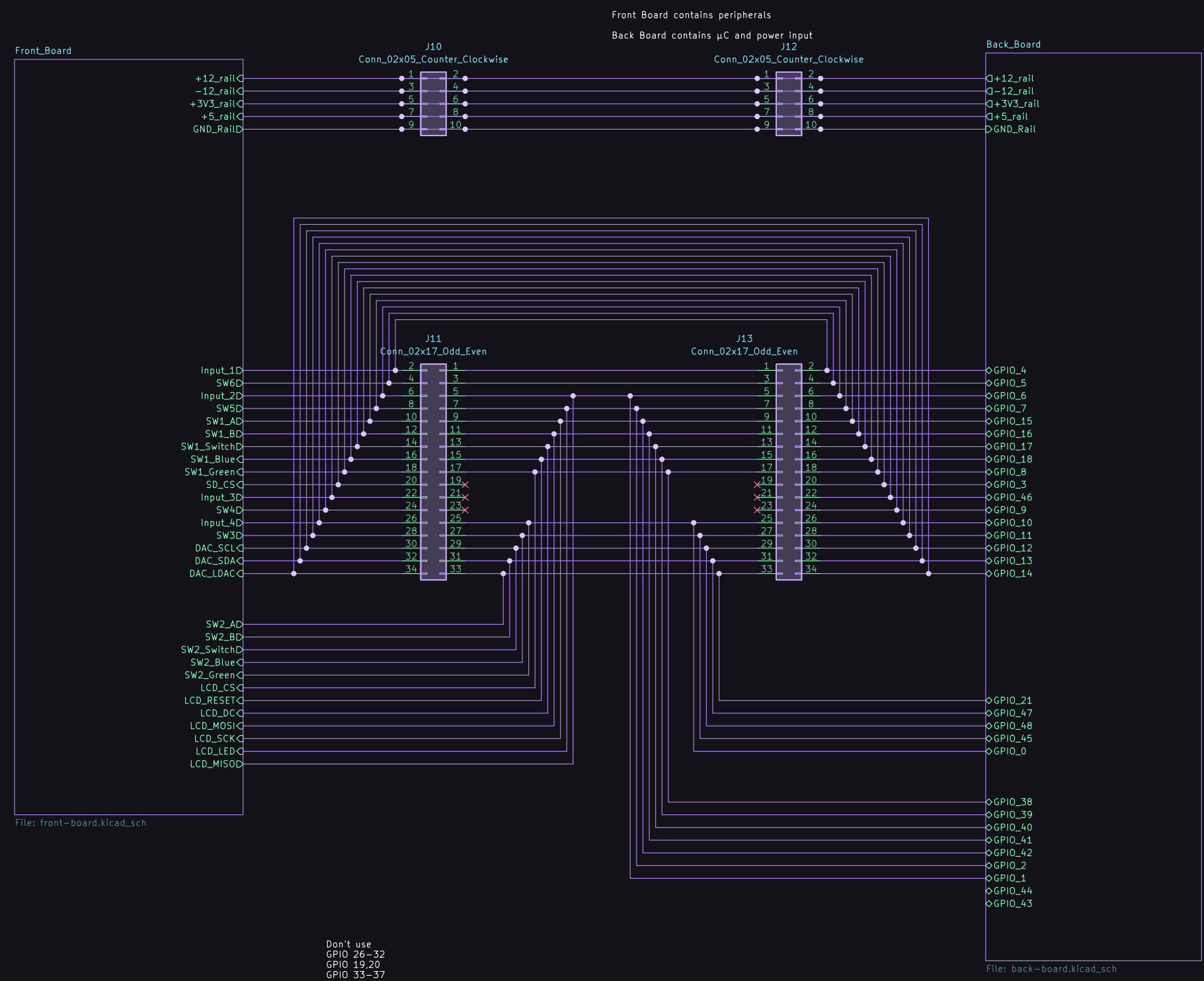


ESP32 Generic Eurorack Module

v0.2.0



Andrew Steinke

Sheet: /
File: esp32-eurorack-generic.kicad_sch

Title: ESP32 Generic Eurorack Module

Size: A3
KiCad E.D.A. kicad (6.0.11)

Date: 2023-02-15

Rev: v0.2.0

Id: 1/3

ESP32 Generic Eurorack Module – Front Board

v0.2.0

Rotary Encoders

SW1 Rotary_Encoder_12CE2H25B12C24

SW2 Rotary_Encoder_12CE2H25B12C24

Buttons

SW3 Switch_MX1A

SW4 Switch_MX1A

SW5 Switch_MX1A

SW6 Switch_MX1A

Power Input

+12V

+5V

+3V3

-12V

GND

+12V_rail

-12V_rail

+5V_rail

+3V3_rail

GND_Rail

DAC 12bit

U2 MCP4728

DAC_SCL

DAC_SDA

DAC_LDAC

SCL

SDA

LDAC

RDY/BSY

VDD

VSS

VOUTA

VOUTB

VOUTC

VOUTD

DAC_A

DAC_B

DAC_C

DAC_D

Don't use ESP32 internal pullups for pins 2,3,4

0 -> -VDD out

Inputs

J1 Input_1

J2 Input_2

J3 Input_3

J4 Input_4

U4A TL084

U4B TL084

U4C TL084

U4D TL084

U5A TL084

U5B TL084

U5C TL084

U5D TL084

U4E TL084

U5E TL084

Outputs

J5 Output_1

J6 Output_2

J7 Output_3

J8 Output_4

U6A TL084

U6B TL084

U6C TL084

U6D TL084

U6E TL084

LCD

U3 ILI9341_Generic_TFT_LCD_DRIVER

SD_CS

SD_MOSI

SD_MISO

SD_SCK

FLASH_CD

VCC

D/C

CS

MOSI

MISO

SCK

LED

RESET

QLCD_DC

QLCD_CS

QLCD_MOSI

QLCD_MISO

QLCD_SCK

QLCD_LED

QLCD_RESET

+3V3

GND

output op amp buffer may not be needed with DAC having internal buffering capacity

Andrew Steinke

Sheet: /Front_Board/

File: front-board.kicad_sch

Title: ESP32 Eurorack Generic Module – Front Board

Size: A3

Date: 2023-02-15

Rev: v0.2.0

Id: 2/3

ESP32 Generic Eurorack Module – Back Board

v0.2.0

