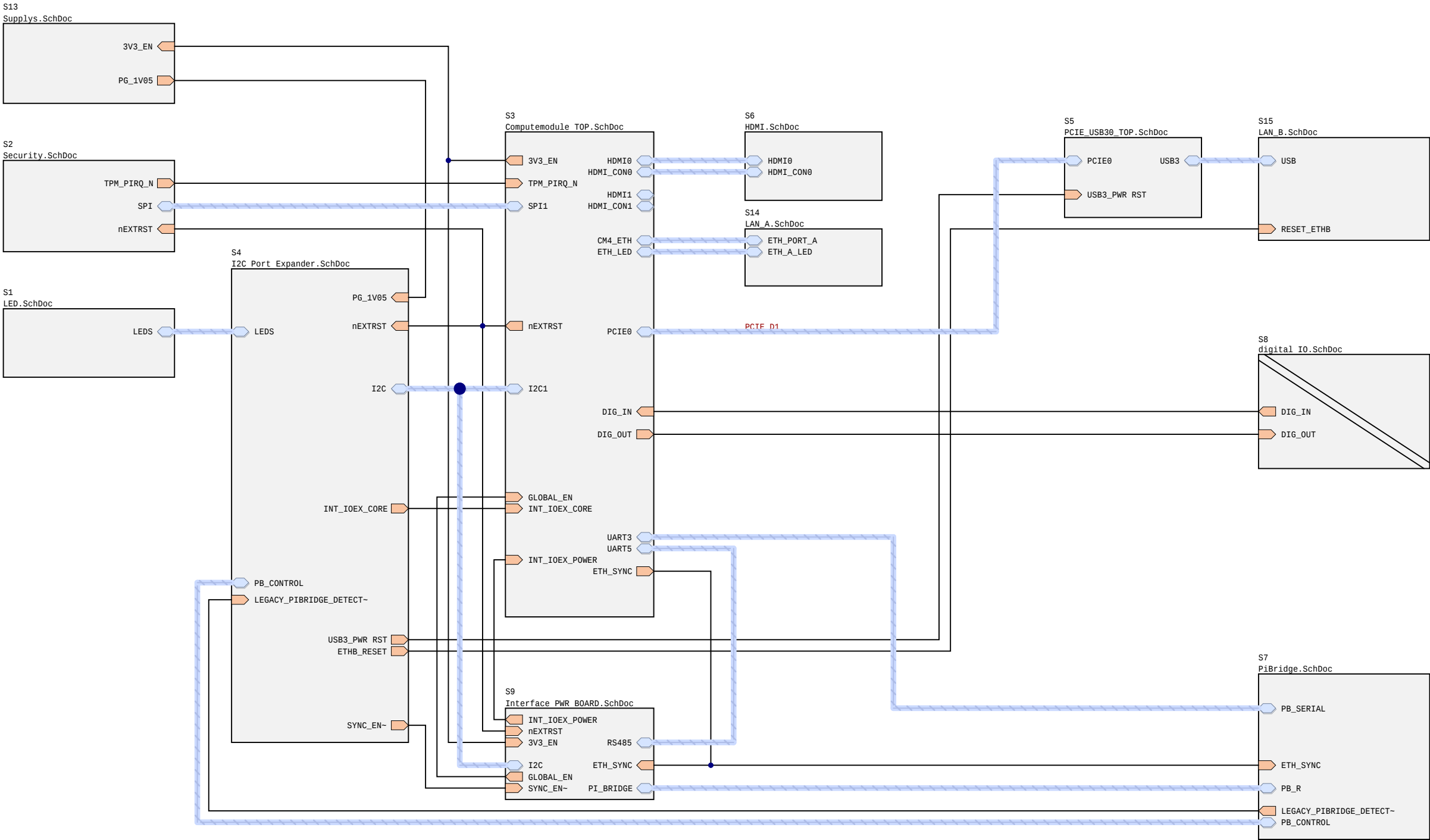


Connect4 Core



DR100

ICT 2.5mm

DR101

ICT 2.5mm

LP0228R02

DMC

5X5

PCBLabel

WOM

UL

10x8

REVOLUTION PI

a KUNBUS brand

KUNBUS GmbH

Magirusstr. 7

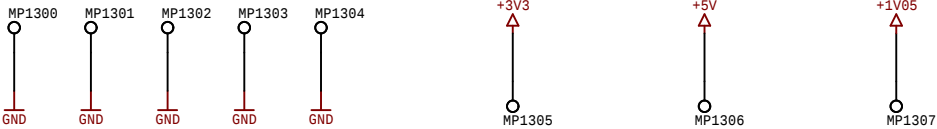
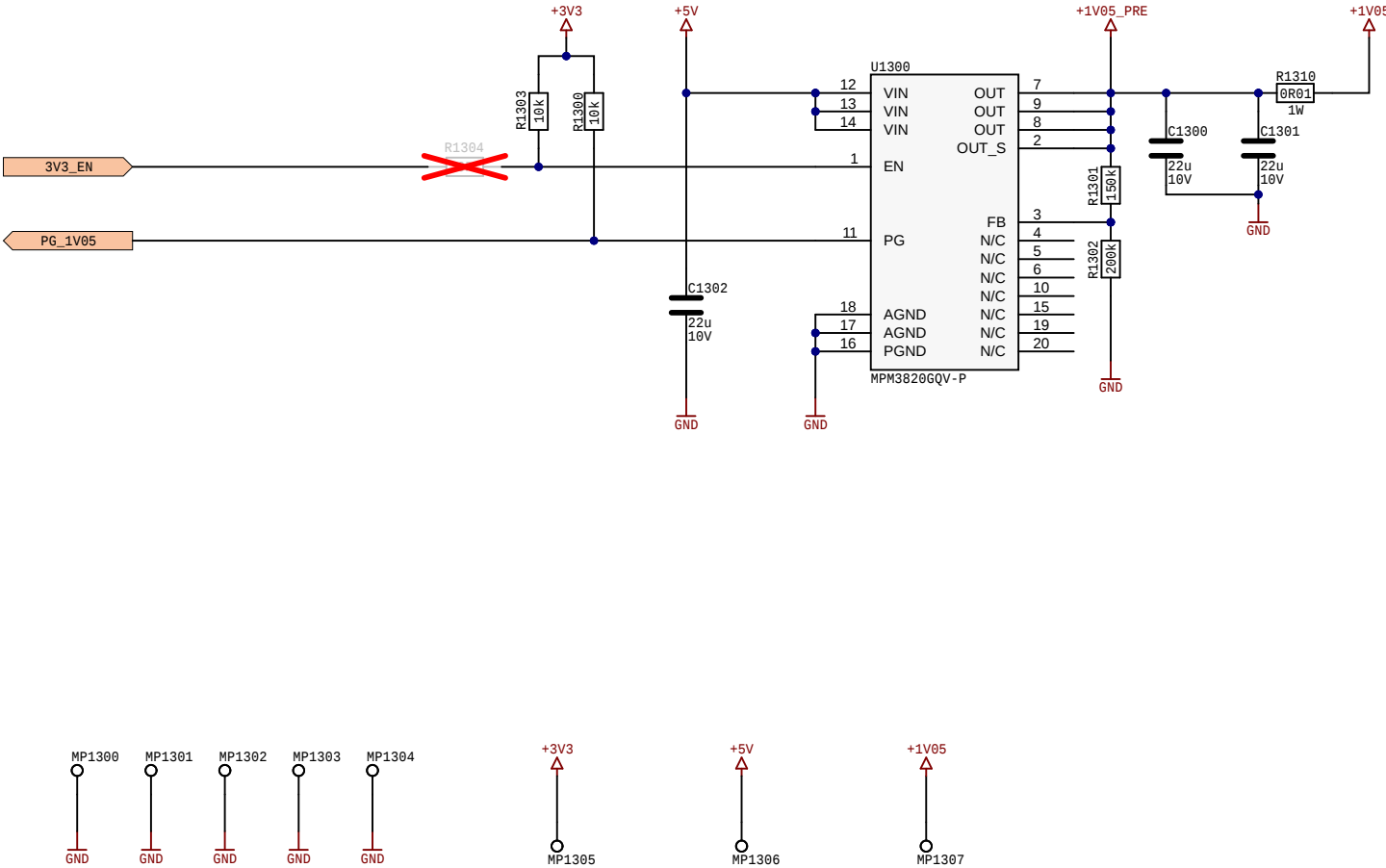
73760 Ostfildern

Project: RevPi Connect 4

Overview

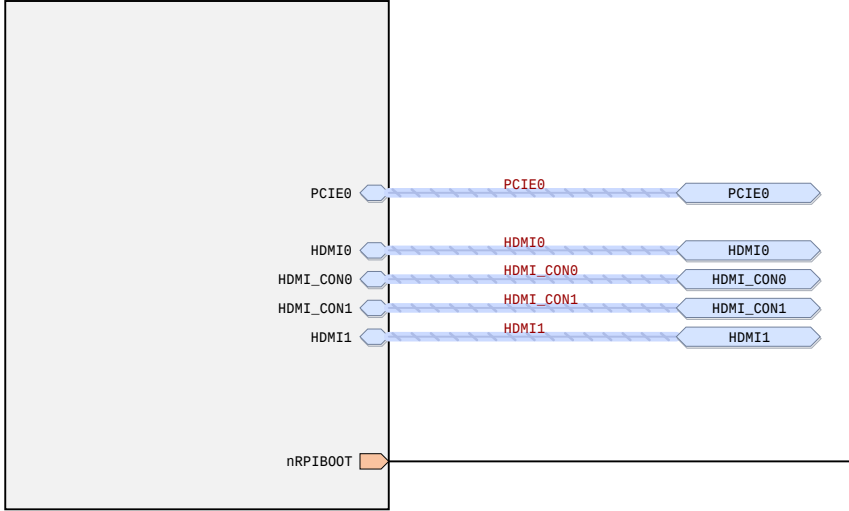
LP: LP0228R02	BG: BG0263R02	
Author: VS/VM		
Date : 08.08.2023	Size: A3	Sheet 1 of 16

Supplies

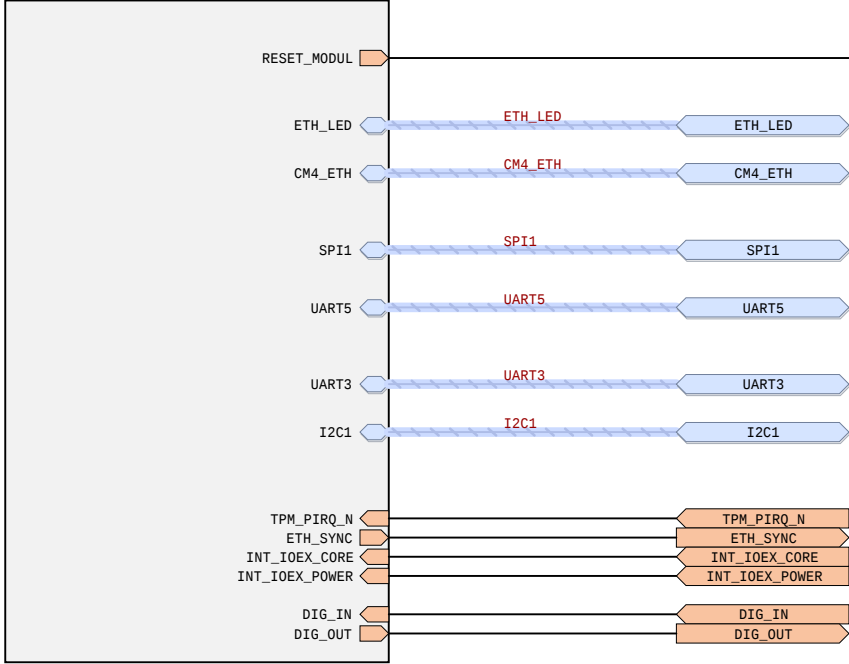


Computemodule 4

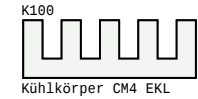
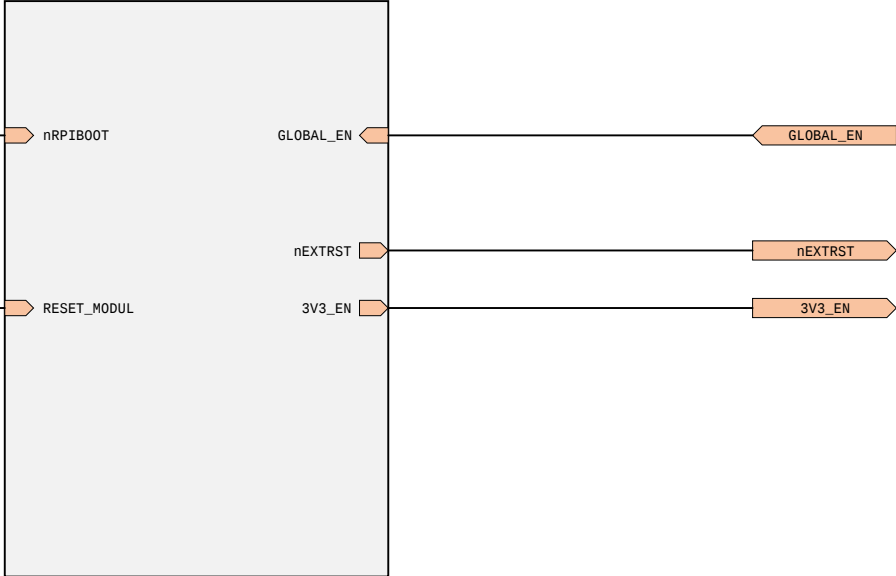
S31
CM4_Display.SchDoc



S32
CM4_GPIO.SchDoc



S33
CM4_Power.SchDoc



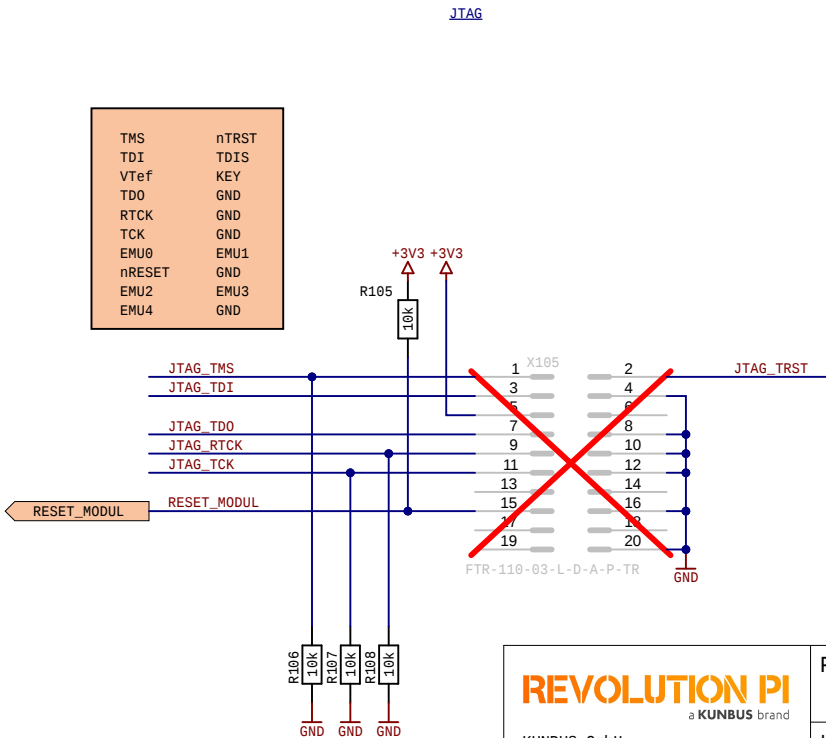
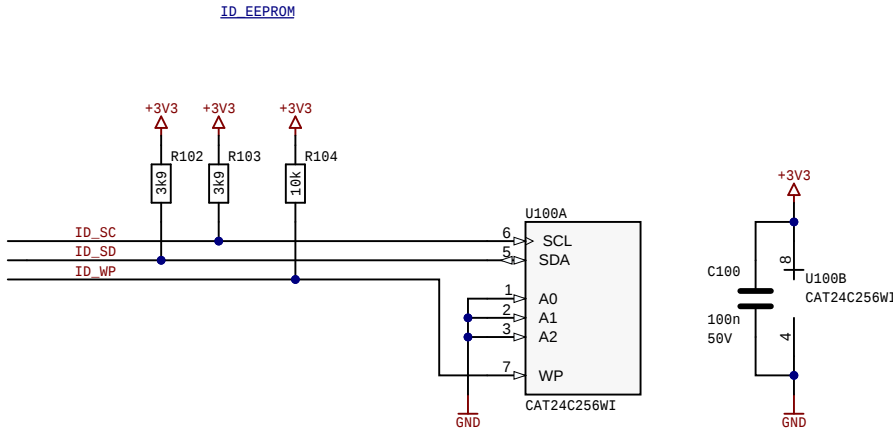
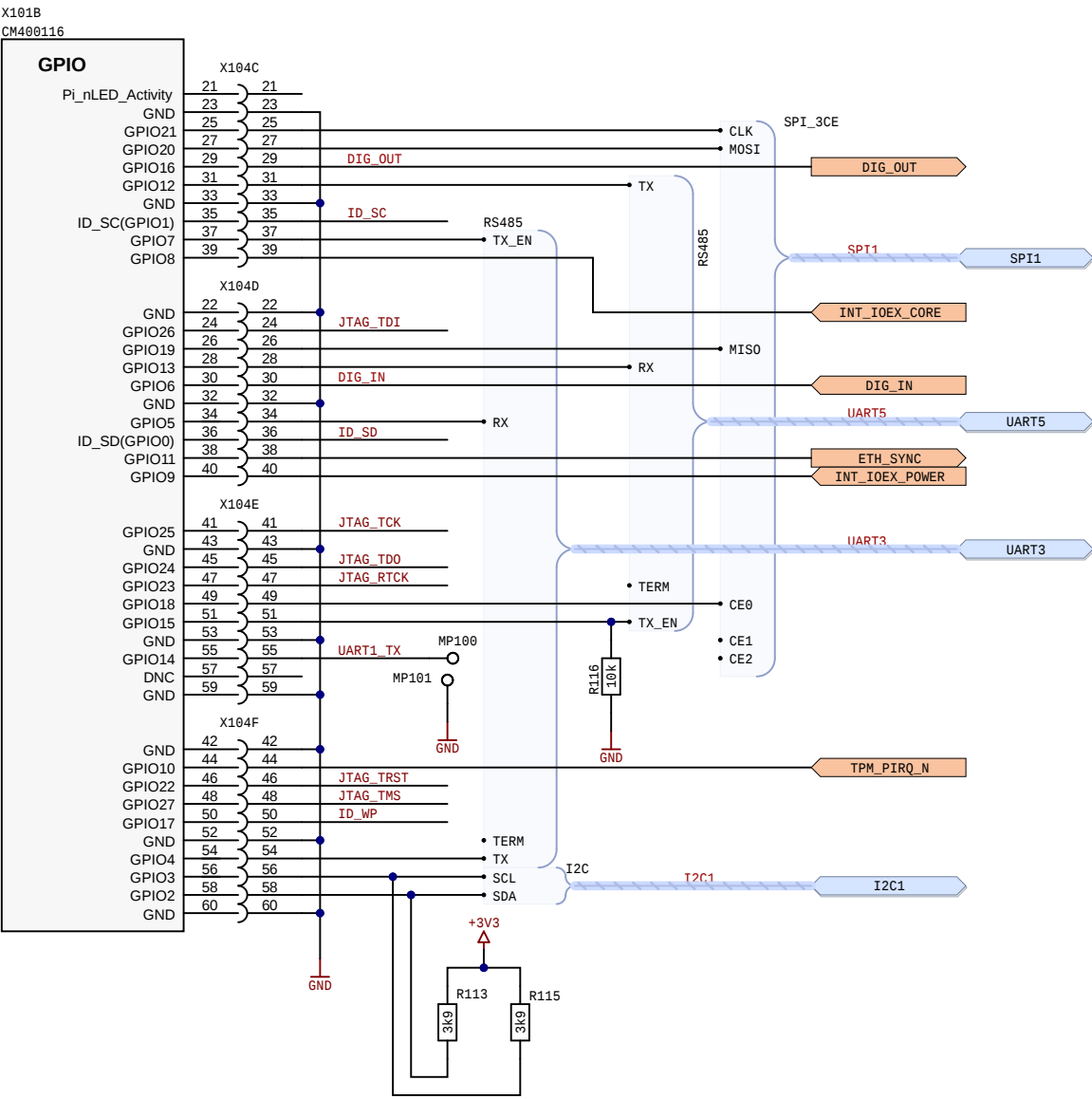
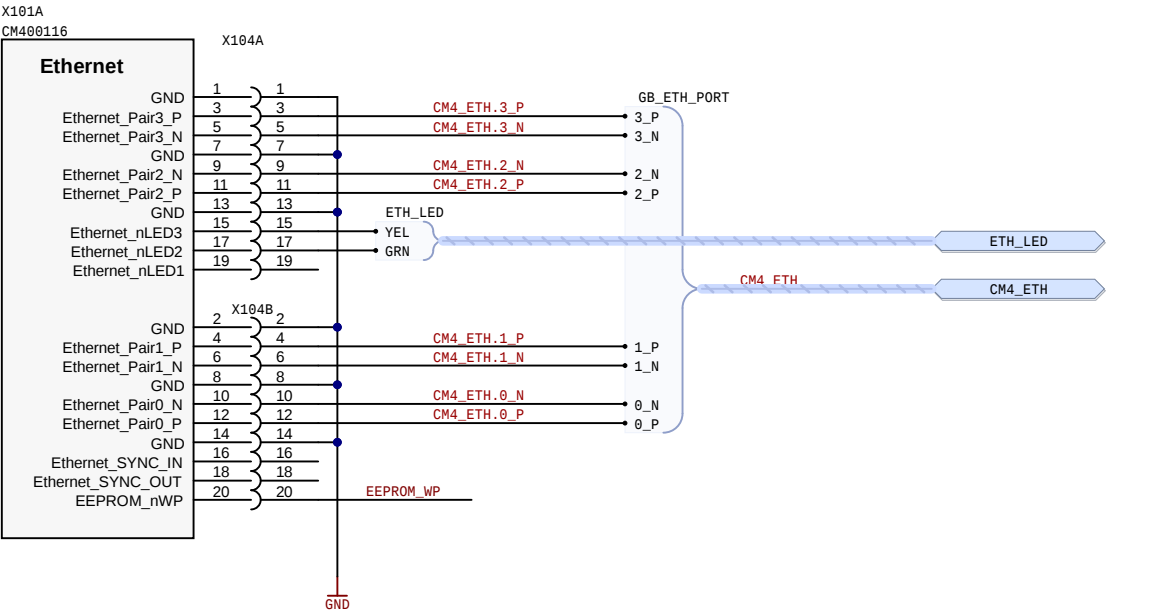
REVOLUTION PI
a KUNBUS brand

KUNBUS GmbH
Magirusstr. 7
73760 Ostfildern

Project: RevPi Connect 4
Computemodule 4

LP: LP0228R02	BG: BG0263R02	
Author: VS/VM Date : 08.08.2023	Size: A3	Sheet 3 of 16

CM4 GPIO



REVOLUTION PI
a KUNBUS brand

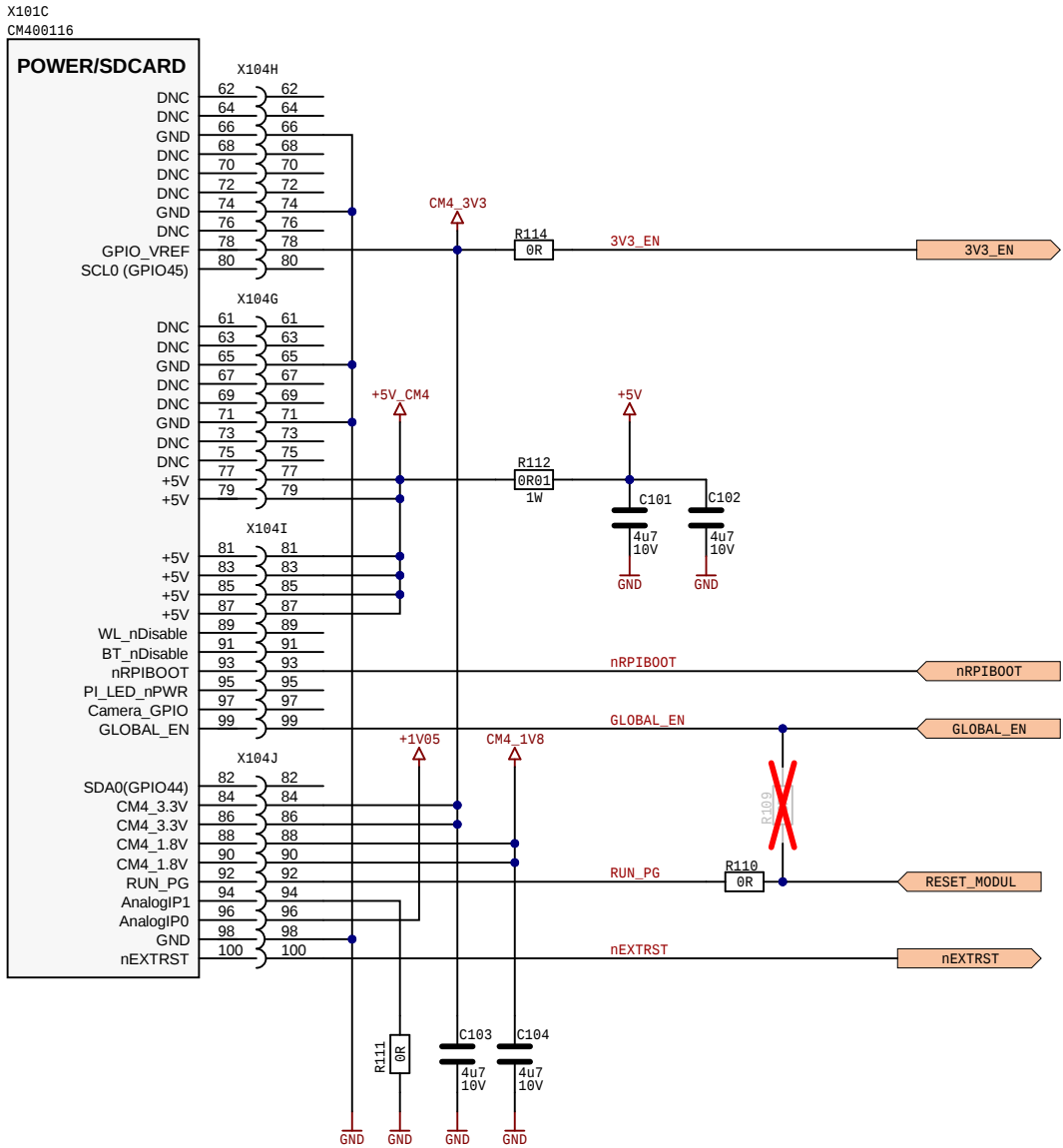
KUNBUS GmbH
Magirusstr. 7
73760 Ostfildern

Project: RevPi Connect 4

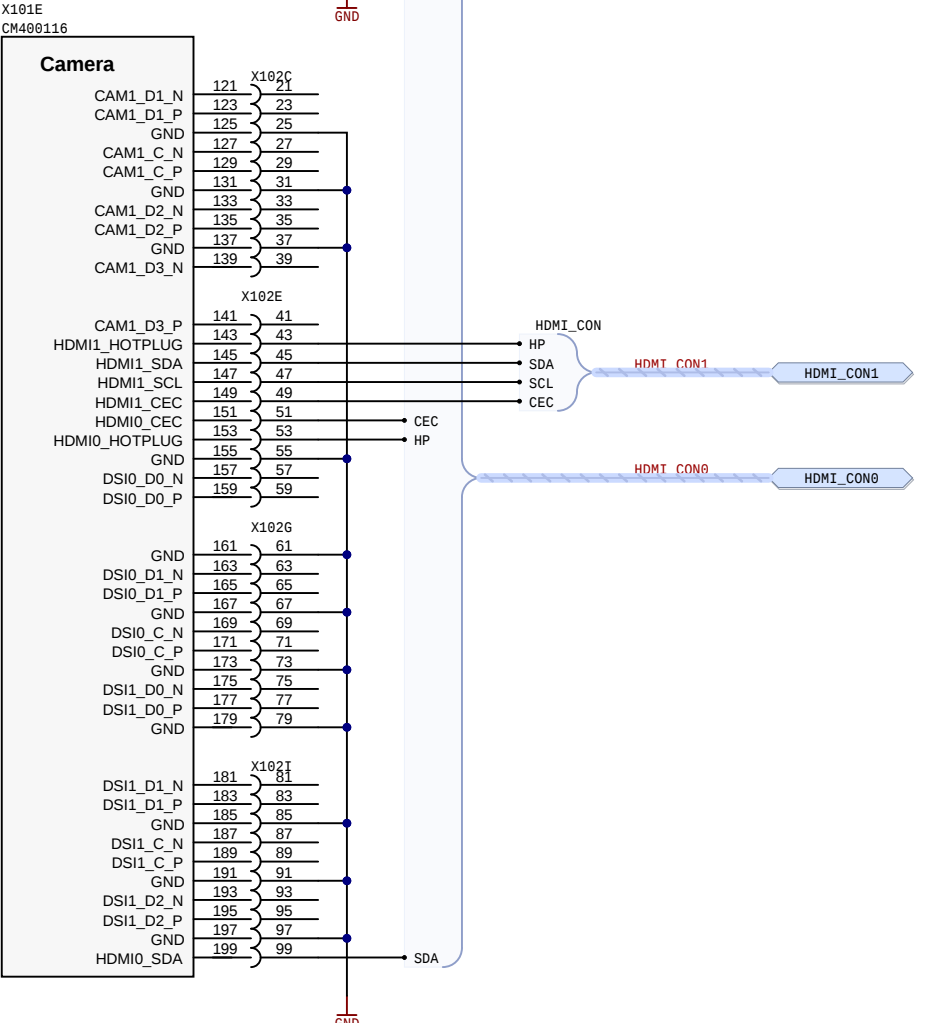
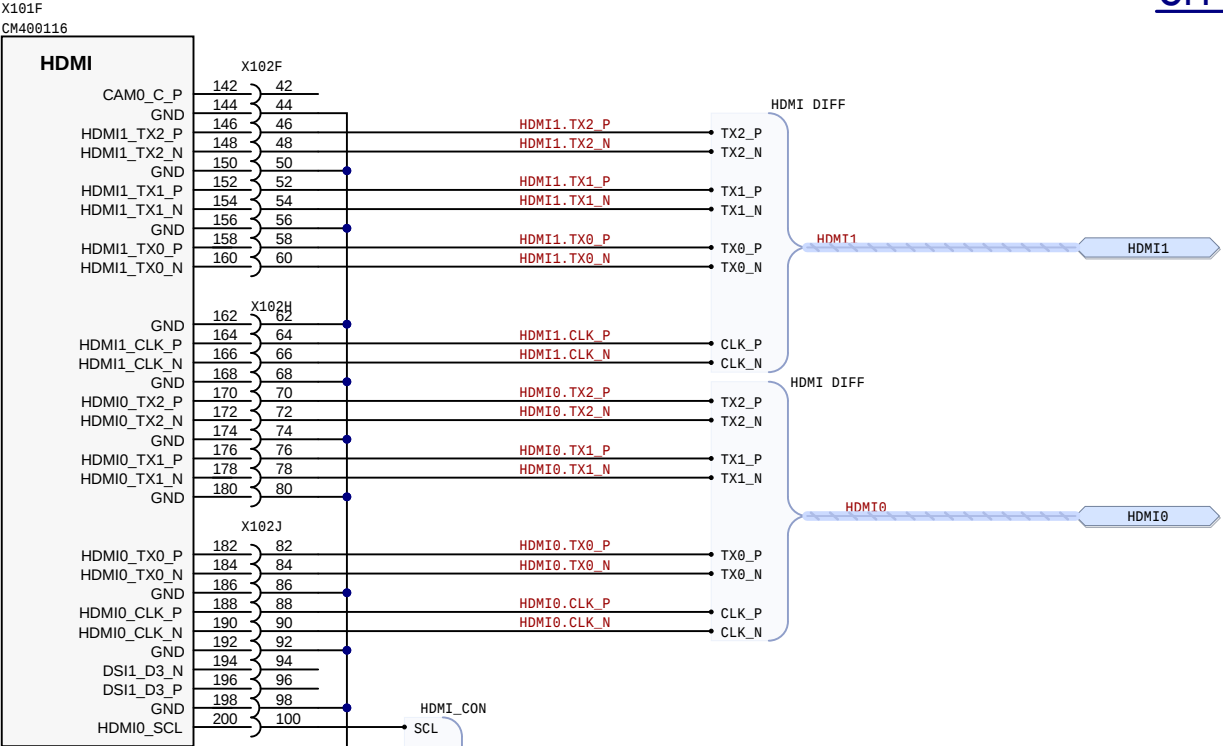
CM4 GPIO

LP: LP0228R02	BG: BG0263R02	
Author: VS/VM	Size: A3	Sheet 4 of 16
Date : 08.08.2023		

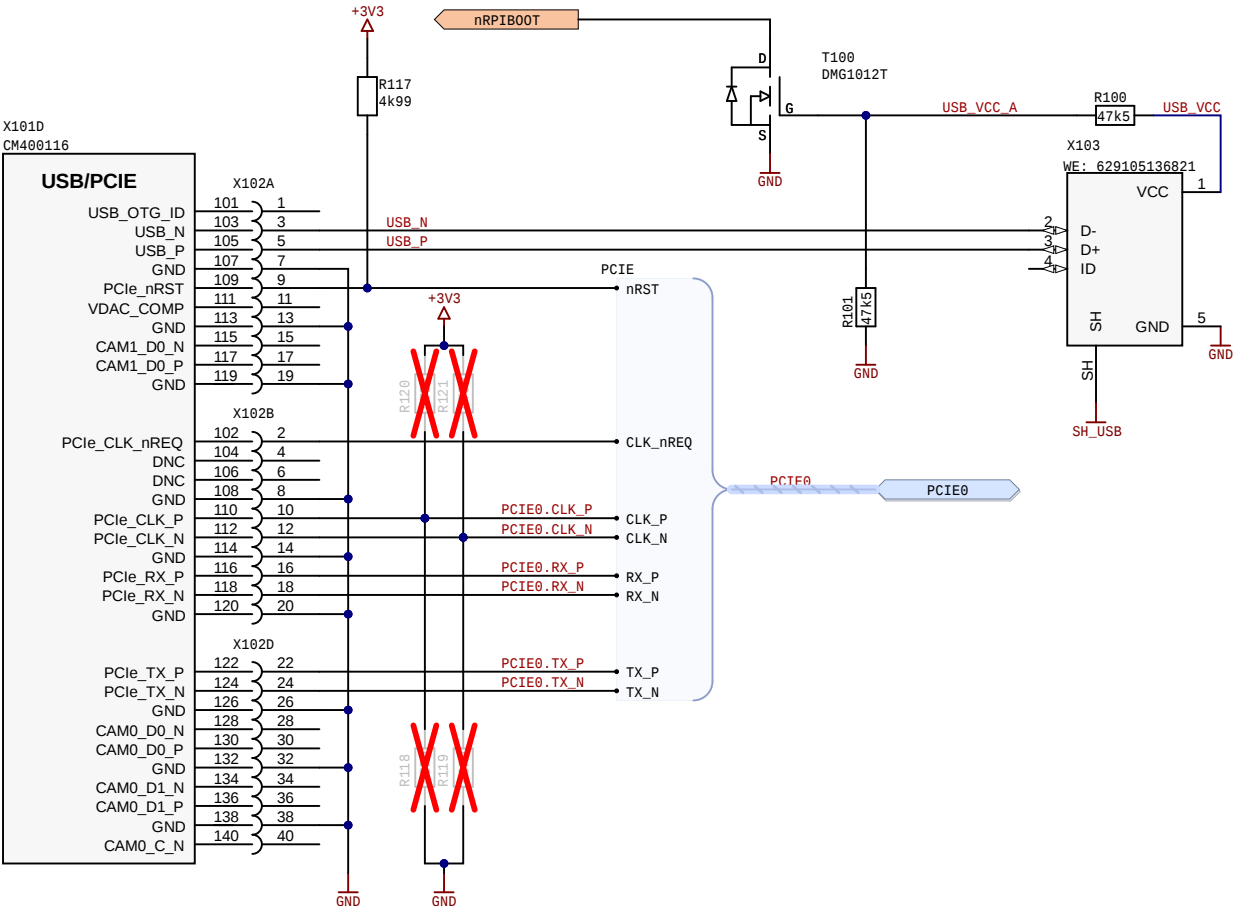
CM4 Power



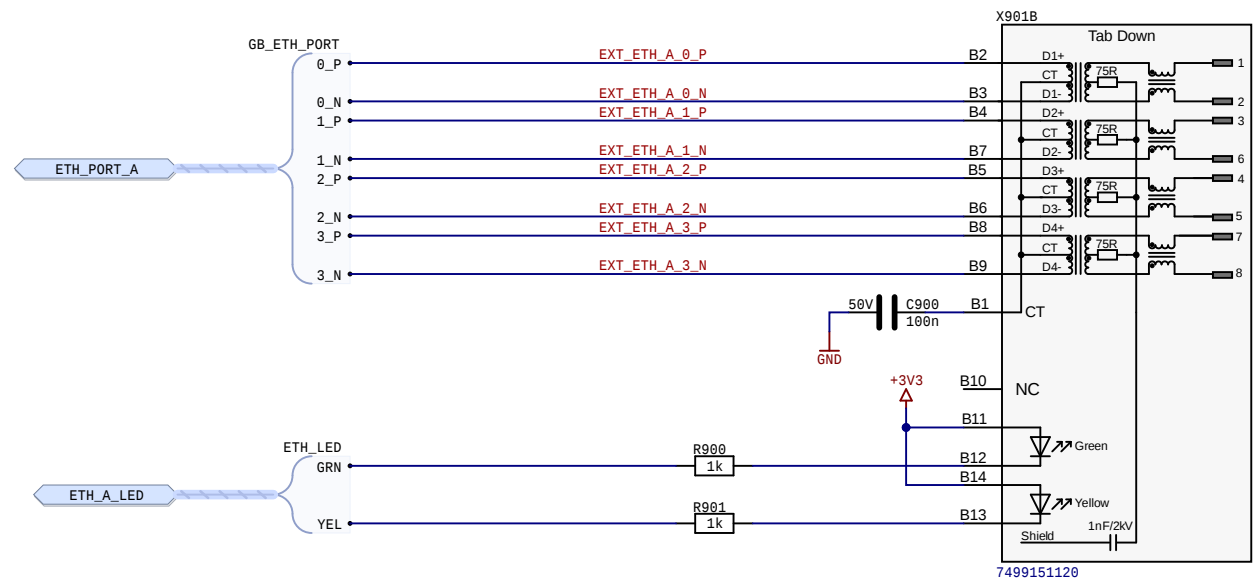
CM4 Video



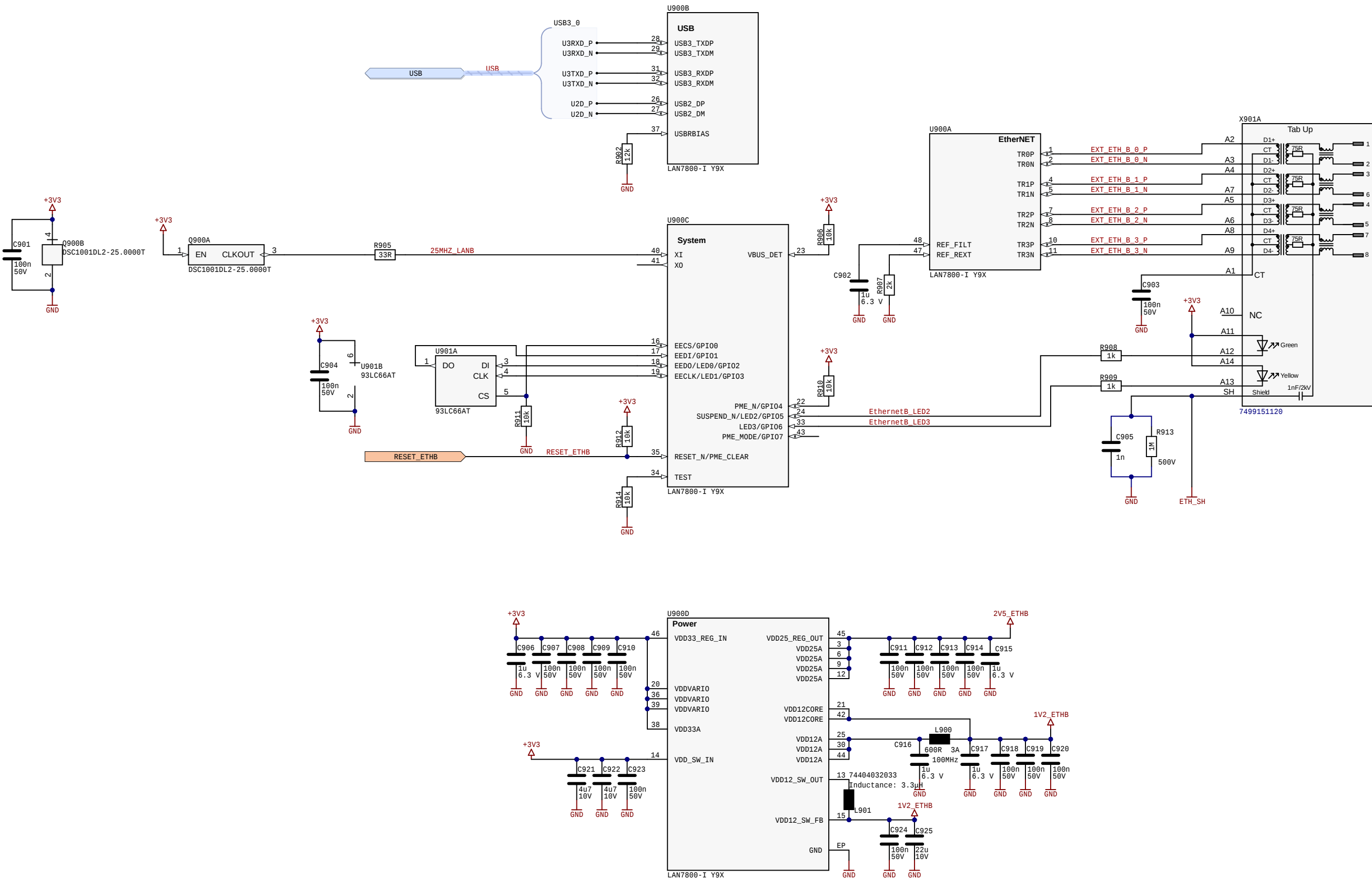
CM4 μUSB



LAN A



USB3 LAN B



REVOLUTION PI
a KUNBUS brand

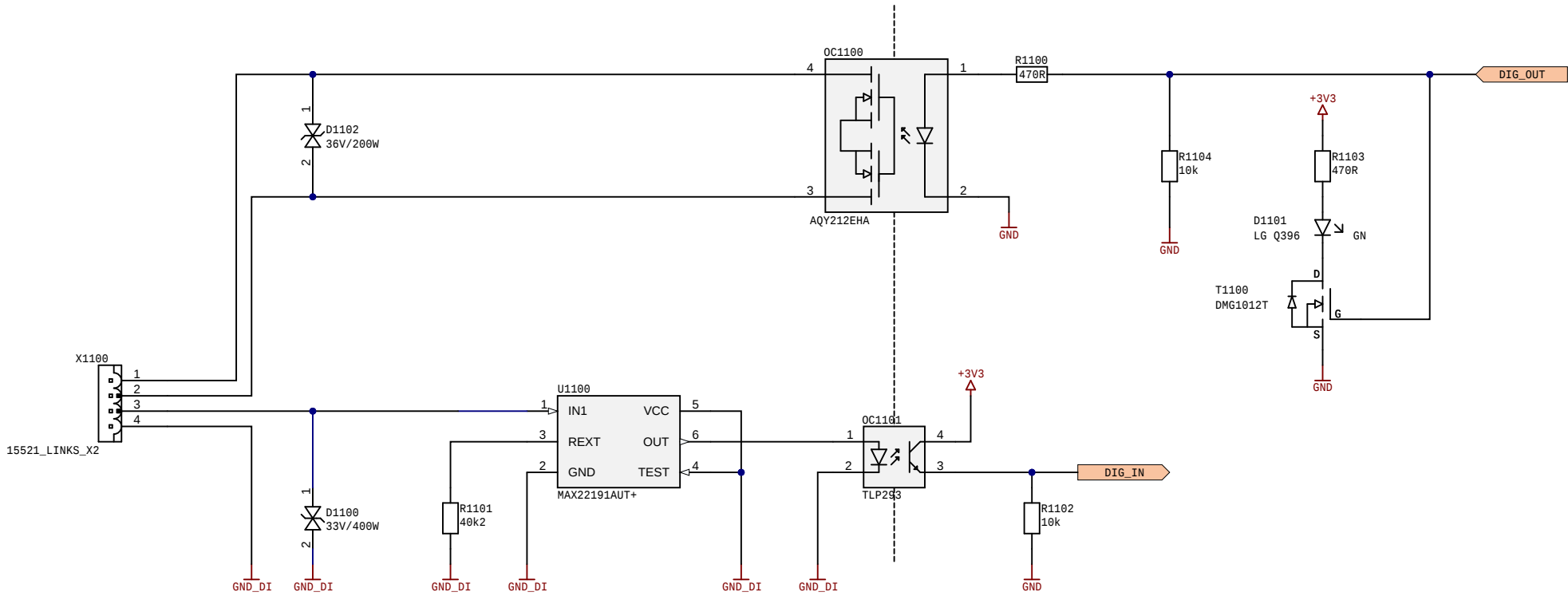
KUNBUS GmbH
Magirusstr. 7
73760 Ostfildern

Project: RevPi Connect 4

USB3 LAN B

LP: LP0228R02	BG: BG0263R02	
Author: VS/VM		
Date : 08.08.2023	Size: A3	Sheet 9 of 16

Digital I/O



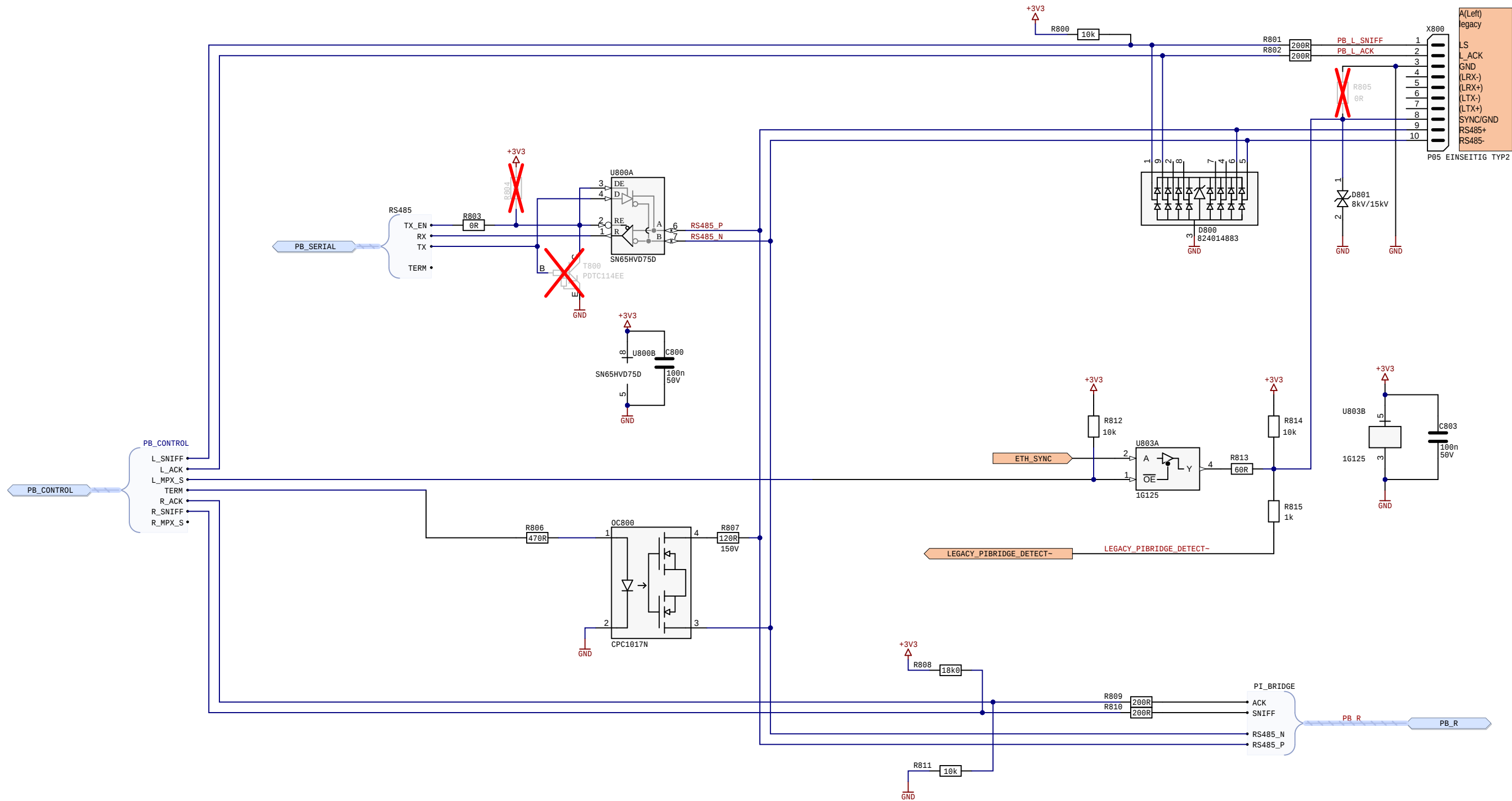
REVOLUTION PI
a KUNBUS brand

KUNBUS GmbH
Magirusstr. 7
73760 Ostfildern

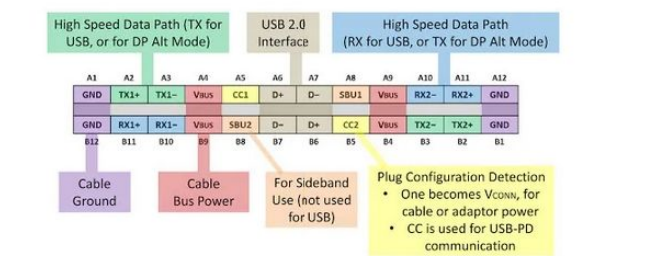
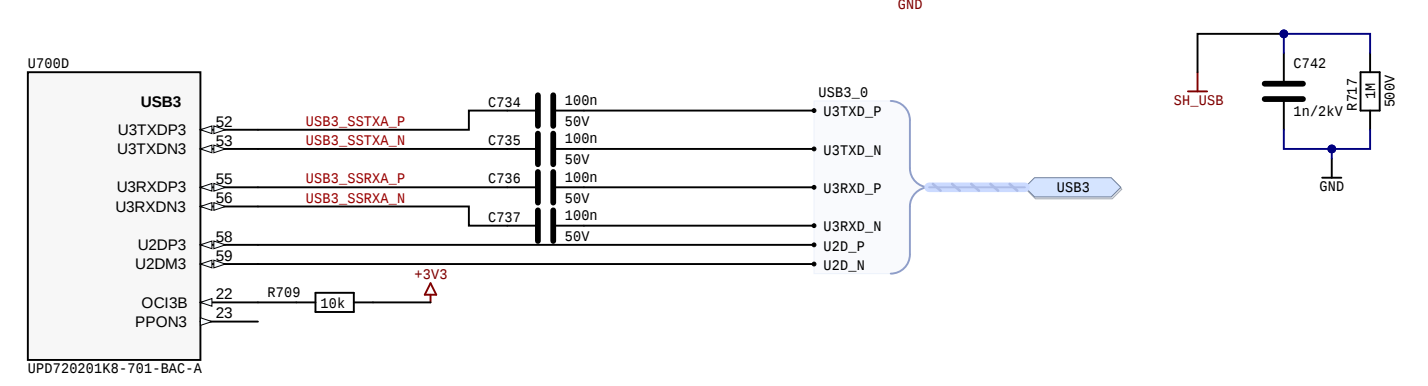
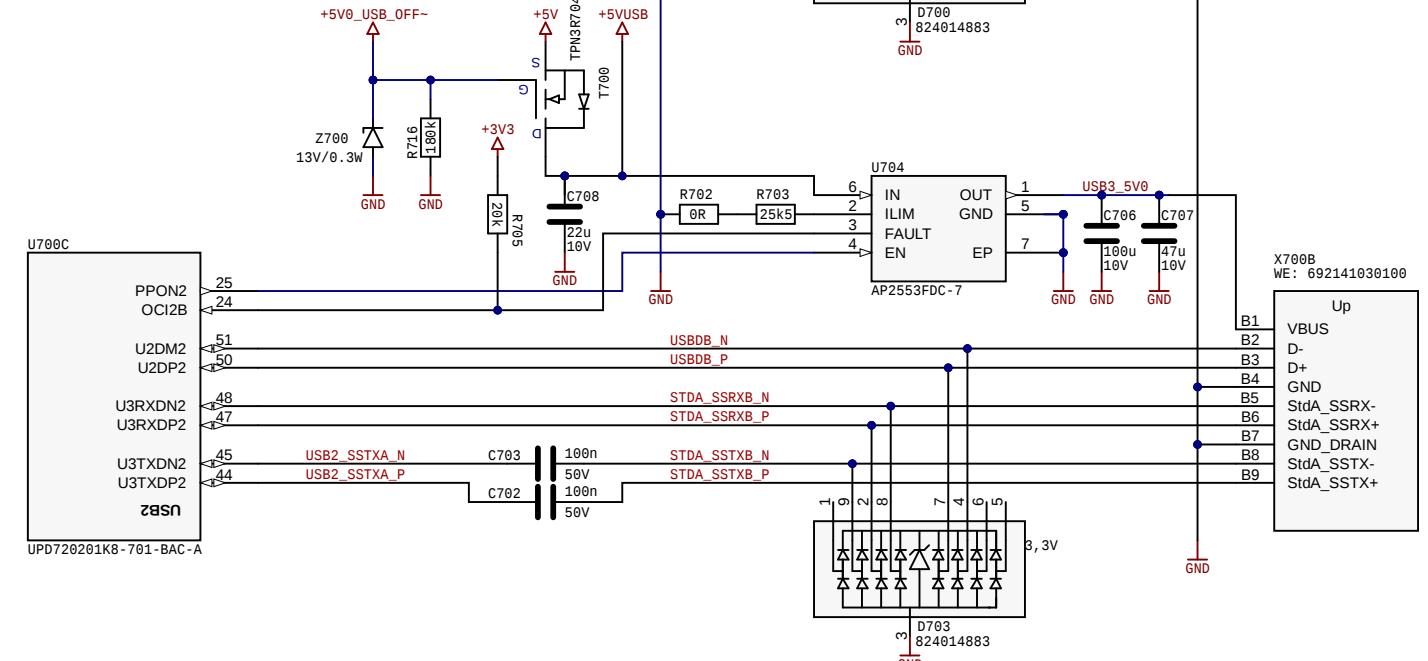
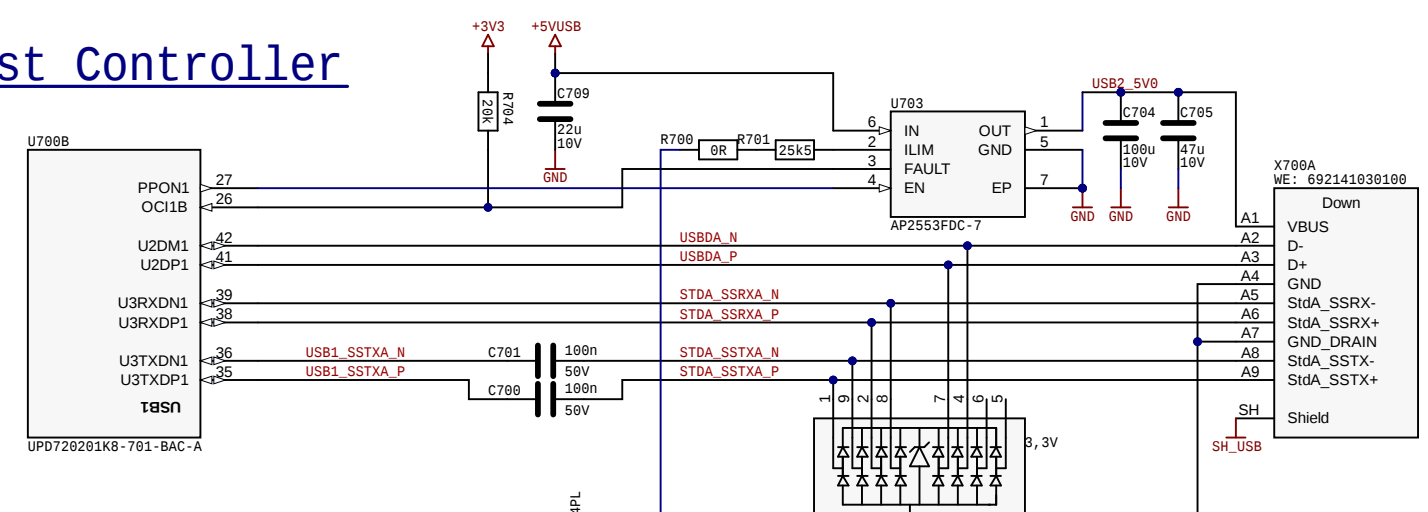
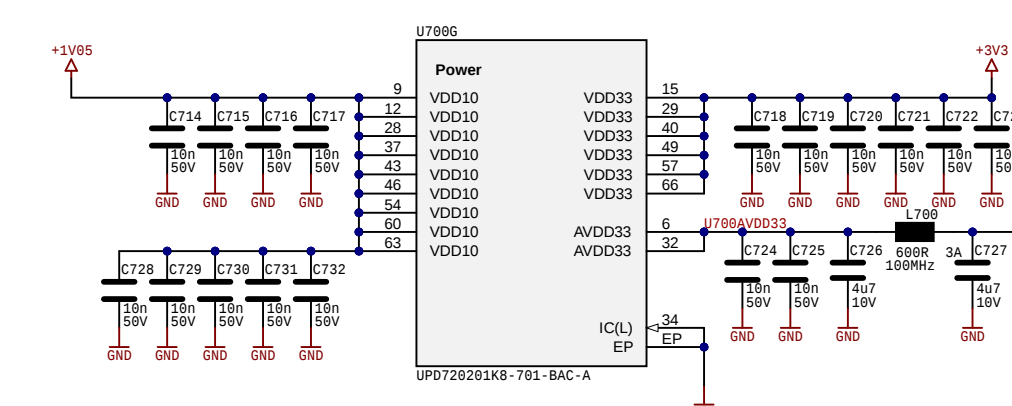
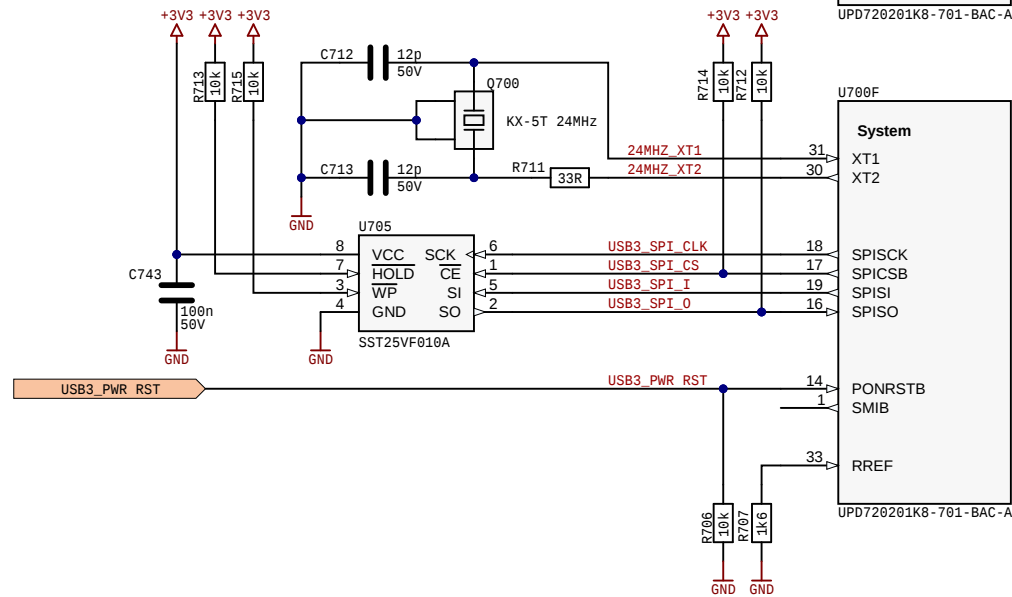
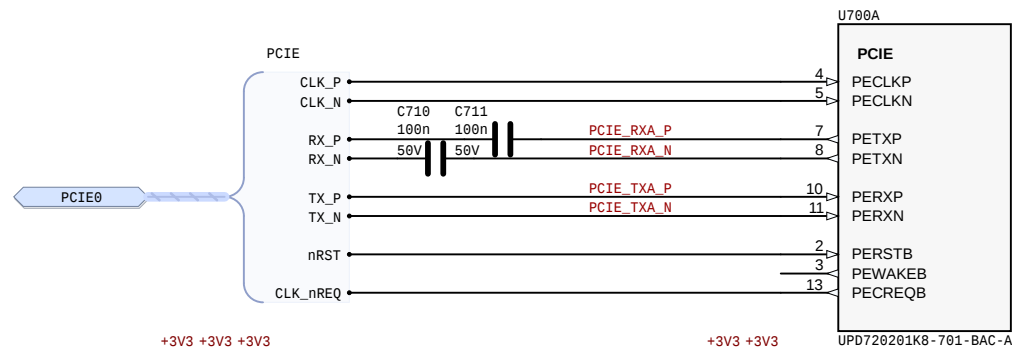
Project: RevPi Connect 4
Digital I/O

LP: LP0228R02	BG: BG0263R02	
Author: VS/VM		
Date : 08.08.2023	Size: A3	Sheet 10 of 16

PiBridge



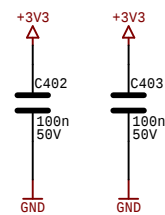
PCIe USB3 Host Controller



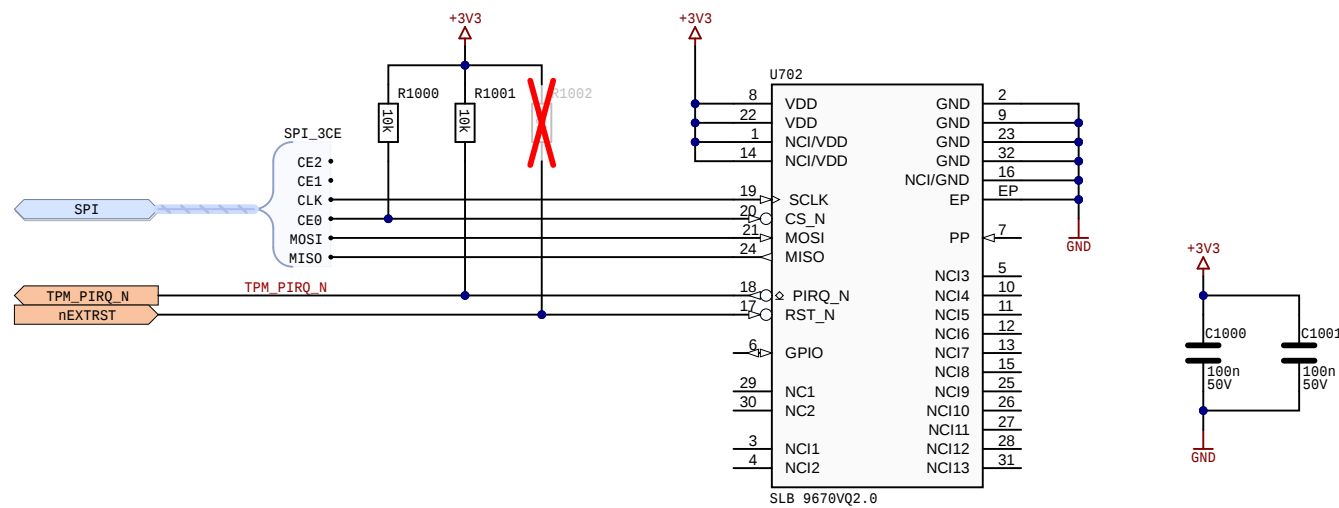
REVOLUTION PI
a KUNBUS brand
KUNBUS GmbH
Magirusstr. 7
73760 Ostfildern

Project: RevPi Connect 4
PCIe USB3 Host Controller
LP: LP0228R02
BG: BG0263R02
Author: VS/VM
Date: 08.08.2023
Size: A3
Sheet 12 of 16

I²C Port Expander



TPM



KUNBUS GmbH
Magirusstr. 7
73760 Ostfildern

Project: RevPi Connect 4

TPM

LP: LP0228R02

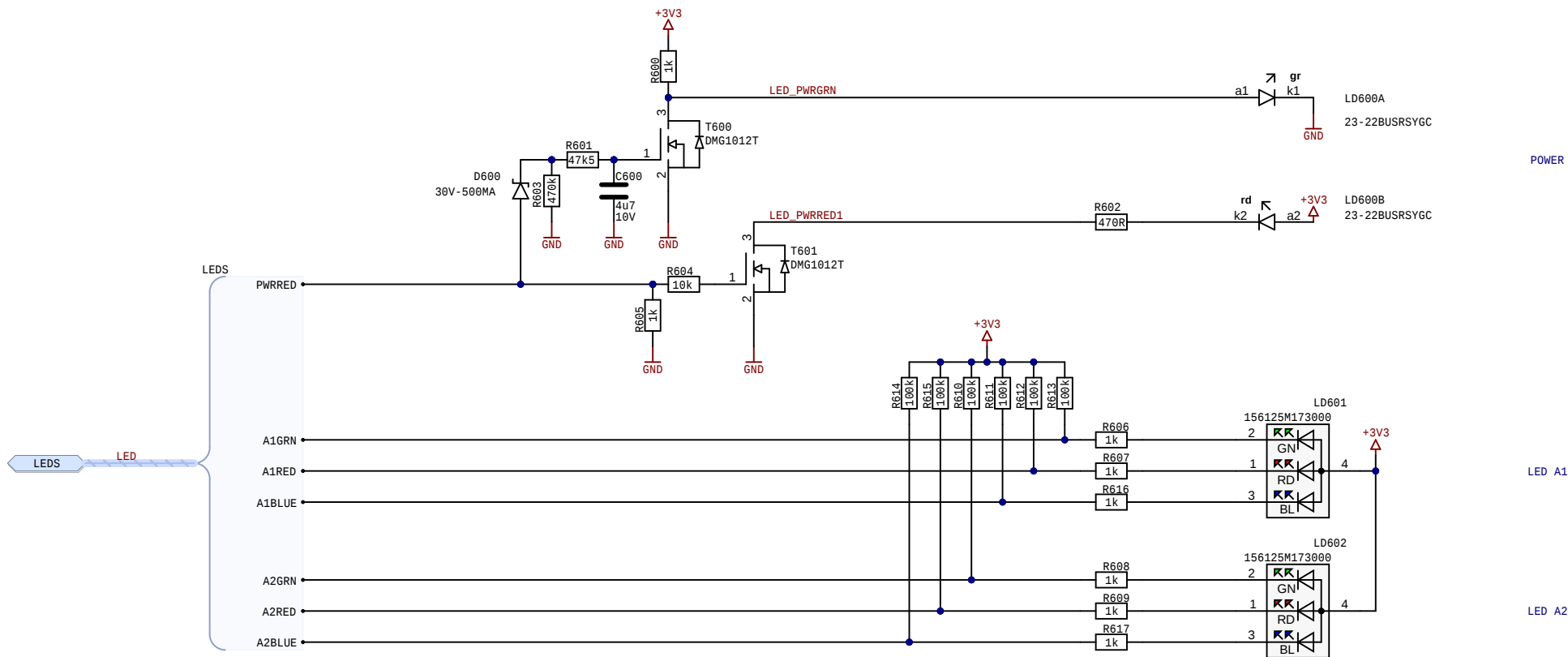
BG: BG0263R02

Author: VS/VM
Date : 08.08.2023

Size: A3

Sheet 14 of 16

LEDs



Green Power LED function:

When system is switched on capacity draws gate of green LED to GND. Thus FET is off and LED_PWgm is high and green LED is on.

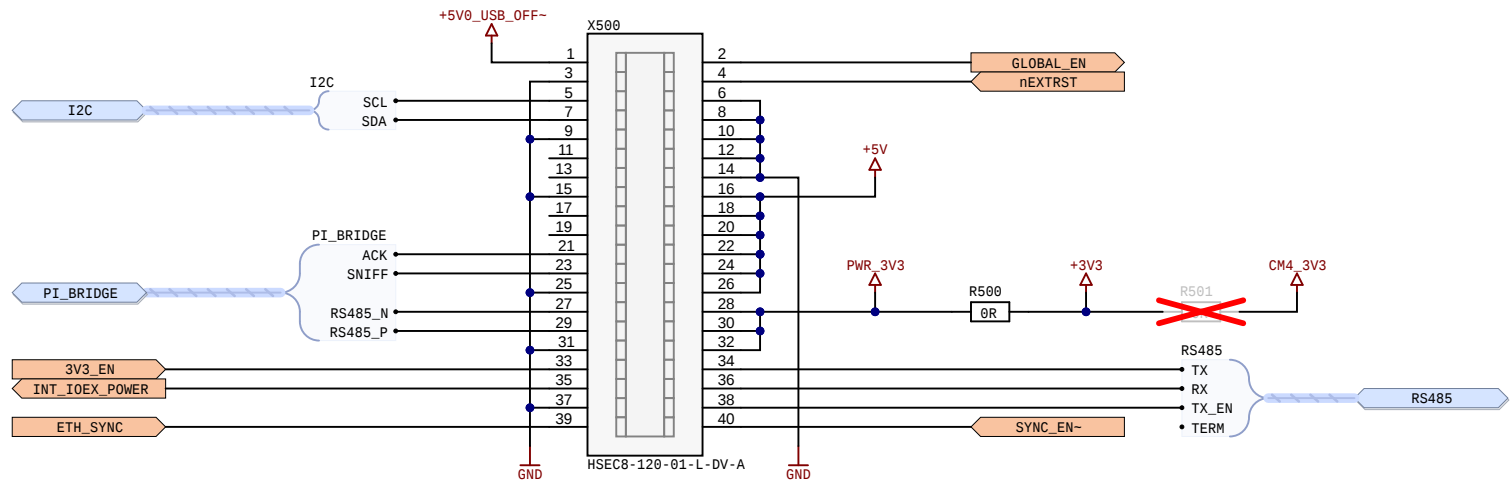
During startup LED_PWRRED is high impedance pulled up by Broadcom and pulled down by 1k. Thus FET is off and LED_PWgm is high and green LED is on.

After booting Broadcom changes LED_PWred to output low. Thus FET is off and LED_PWgm is high and green LED is on.

On severe error Broadcom sets LED_PWred to output high. After charging Capacitor to 1.5 V FET will turn on (max. 1 s delay). Thus LED_PWgm is low and green LED is off. This mode pulls $2 \times 3.3V/1k = 6.6 \text{ mA}$ current.

On fault condition Braodcom sets LED_PWred to 1Hz high / low oscillation. After charging Capacitor to 1.5 V (during high phase) FET will turn on. Discharge during low phase of LED_PWred is much slower and capacitor is not discharged. Thus LED_PWgm keeps low and green LED stays off. LED turns on again when LED_PWred is low for more than 3 seconds.

Interface to Power Board



REVOLUTION PI
a KUNBUS brand

KUNBUS GmbH
Magirusstr. 7
73760 Ostfildern

Project: RevPi Connect 4

Interface Power Board

LP: LP0228R02	BG: BG0263R02	
Author: VS/VM		
Date : 08.08.2023	Size: A3	Sheet 16 of 16