

1 2 3 4 5 6 7 8

Jetson Orin Baseboard

github.com/antmicro/jetson-orin-baseboard

A

A

B

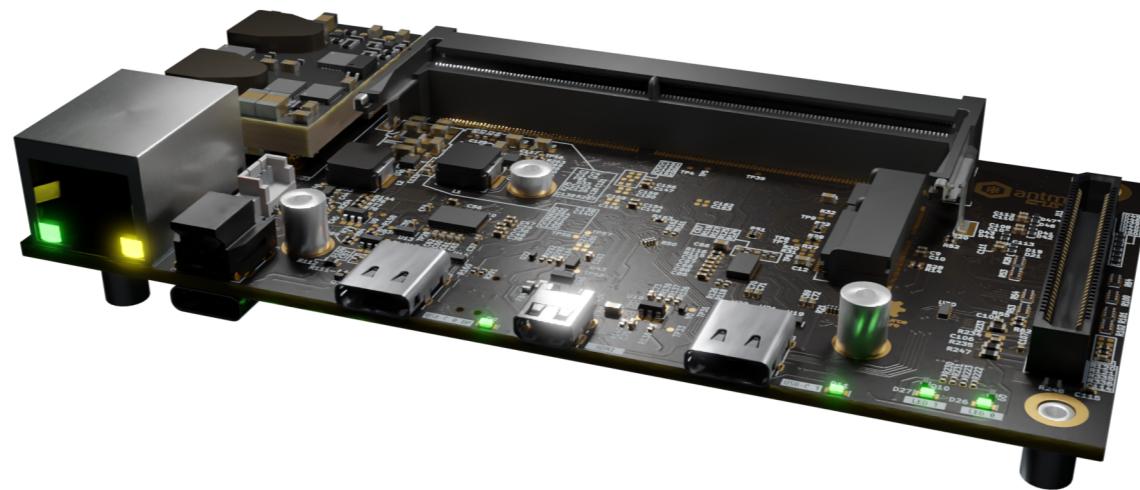
B

C

C

D

D



File: som.kicad_sch



File: m_2.kicad_sch



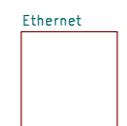
File: usb.kicad_sch



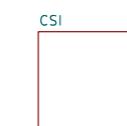
File: usb3.kicad_sch



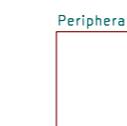
File: hdmi.kicad_sch



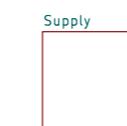
File: ethernet.kicad_sch



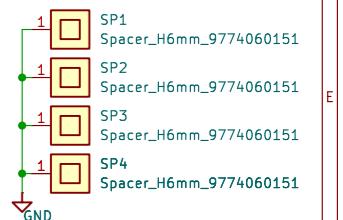
File: csi.kicad_sch



File: peripherals.kicad_sch



File: supply.kicad_sch



www.antmicro.com

Antmicro Ltd

Sheet: / File: jetson-orin-baseboard.kicad_sch

Title: Jetson Orin Baseboard

Size: A3 Date: 2023-10-16

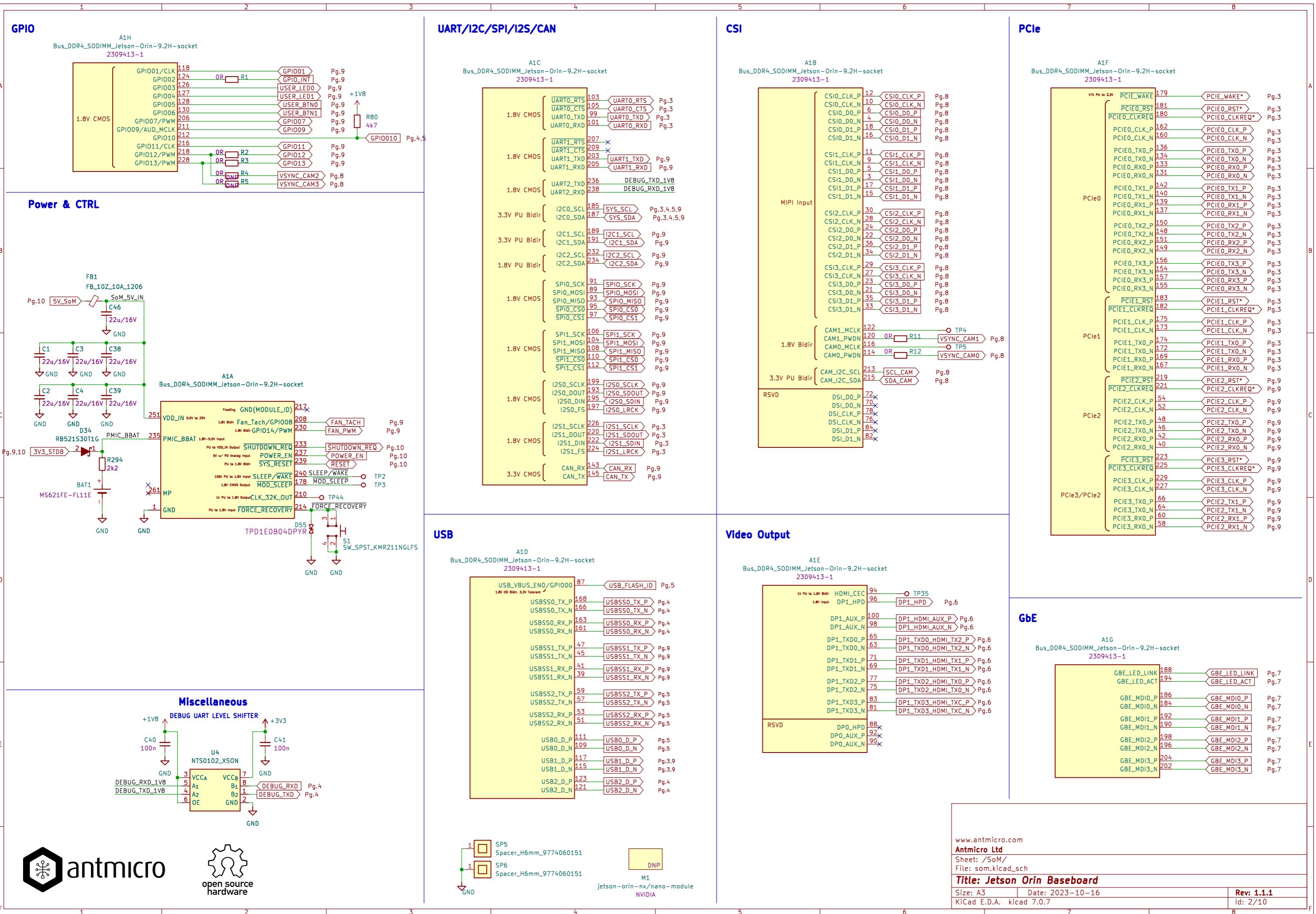
KiCad E.D.A. kicad 7.0.7

Rev: 1.1.1

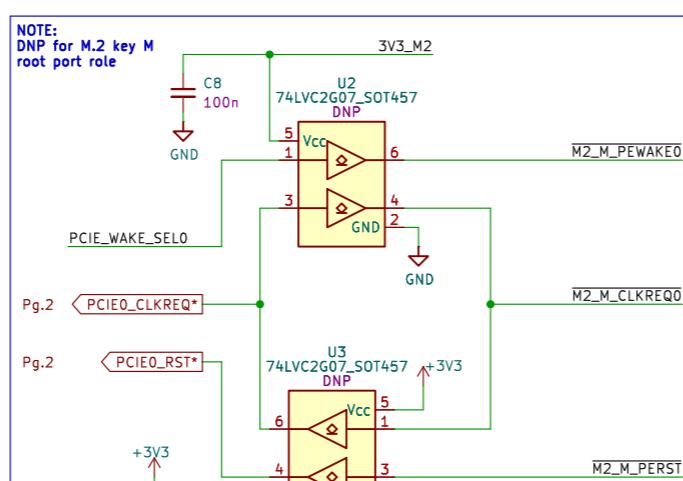
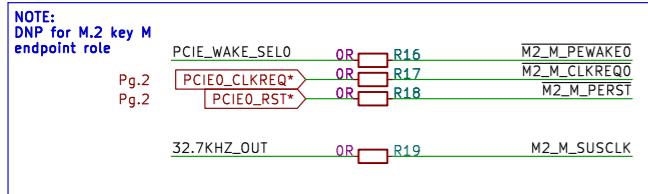
Id: 1/10

1 2 3 4 5 6 7 8

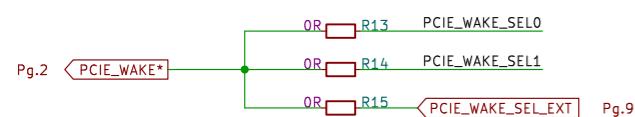
F



PCIe0 Root Port / Endpoint mode selector

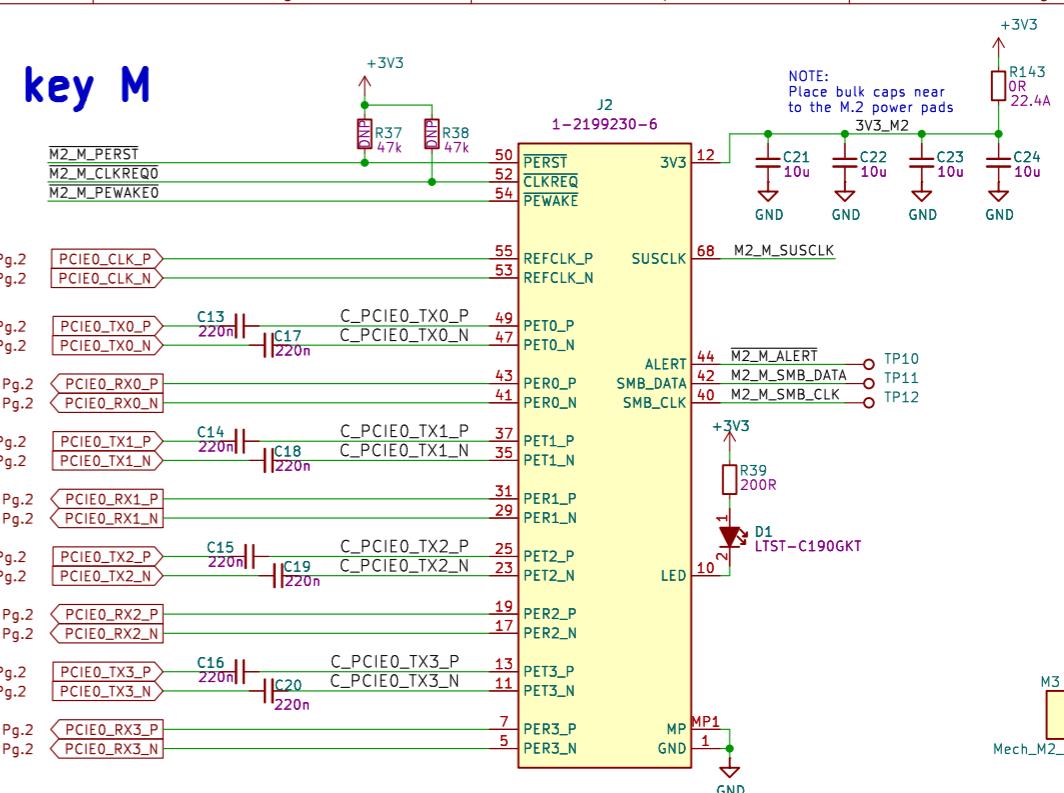


M.2 PCIE_WAKE selector



NOTE about PCIe 0 role switching:
For details, refer to the PCIe section of
'Jetson Orin NX Series Product Design Guide'
<https://developer.nvidia.com/jetson-orin-nx-series-design-guide>

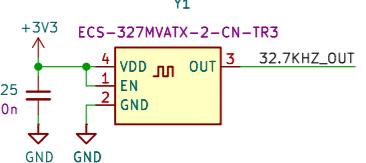
PCIe0 1x4 key M



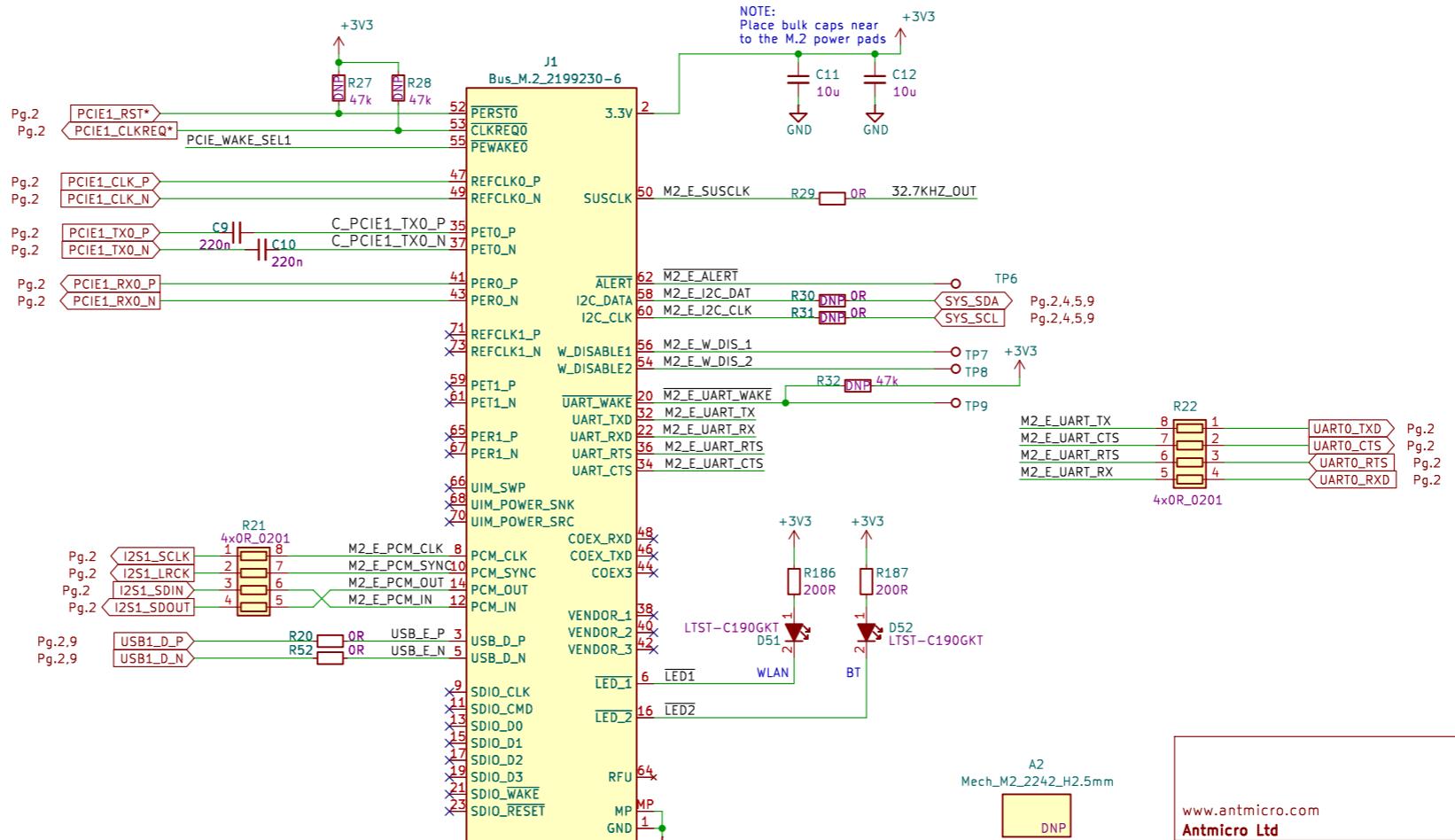
M3
DNP
Mech_M2_2280_H2.5mm

SP8
1
GND
Spacer_H2.5mm_9774025151

SUSCLK SOURCE



PCIe1 1x1 key E



A2
Mech_M2_2242_H2.5mm
DNP
SP7
1
GND
Spacer_H2.5mm_9774025151

www.antmicro.com
Antmicro Ltd

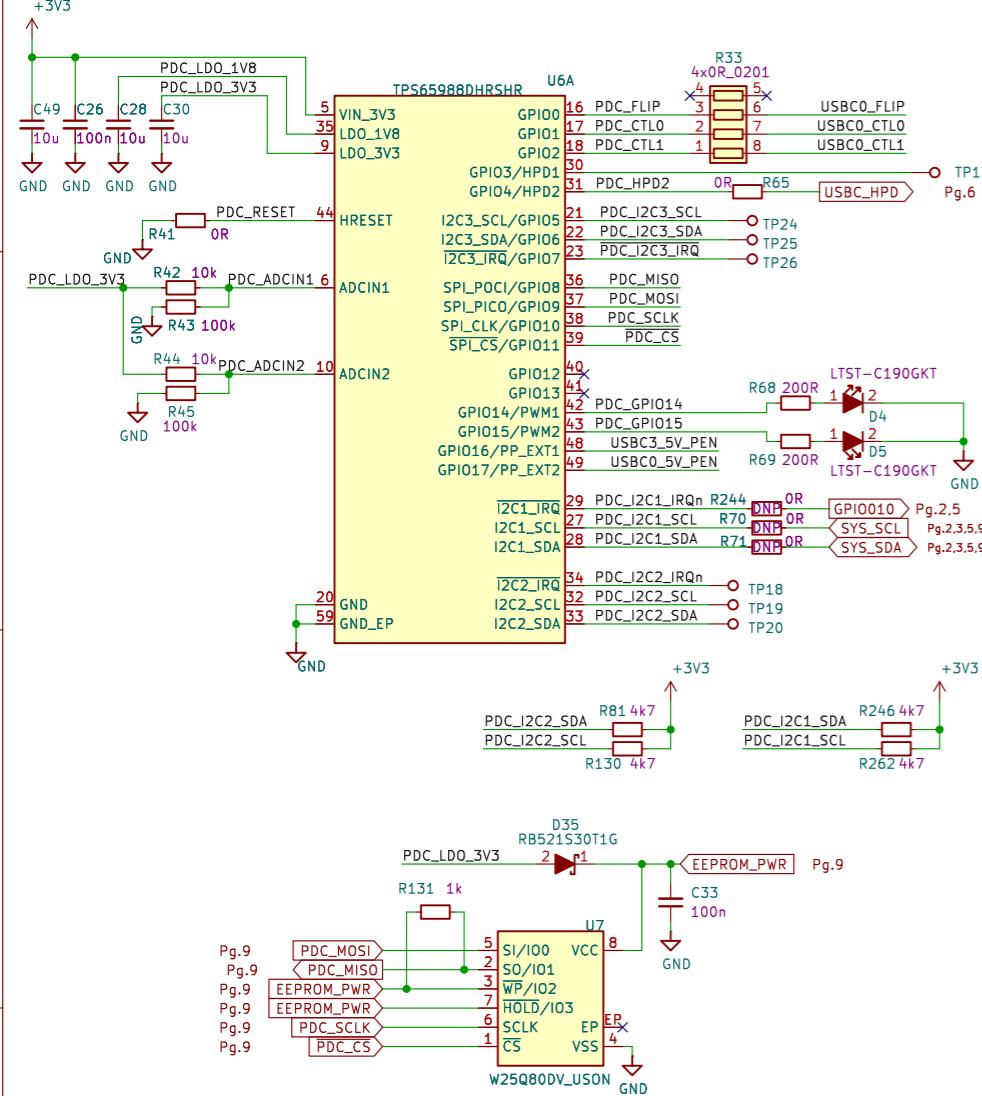
Sheet: /M.2/
File: m-2.kicad_sch

Title: Jetson Orin Baseboard

Size: A3 Date: 2023-10-16
KiCad E.D.A. kicad 7.0.7

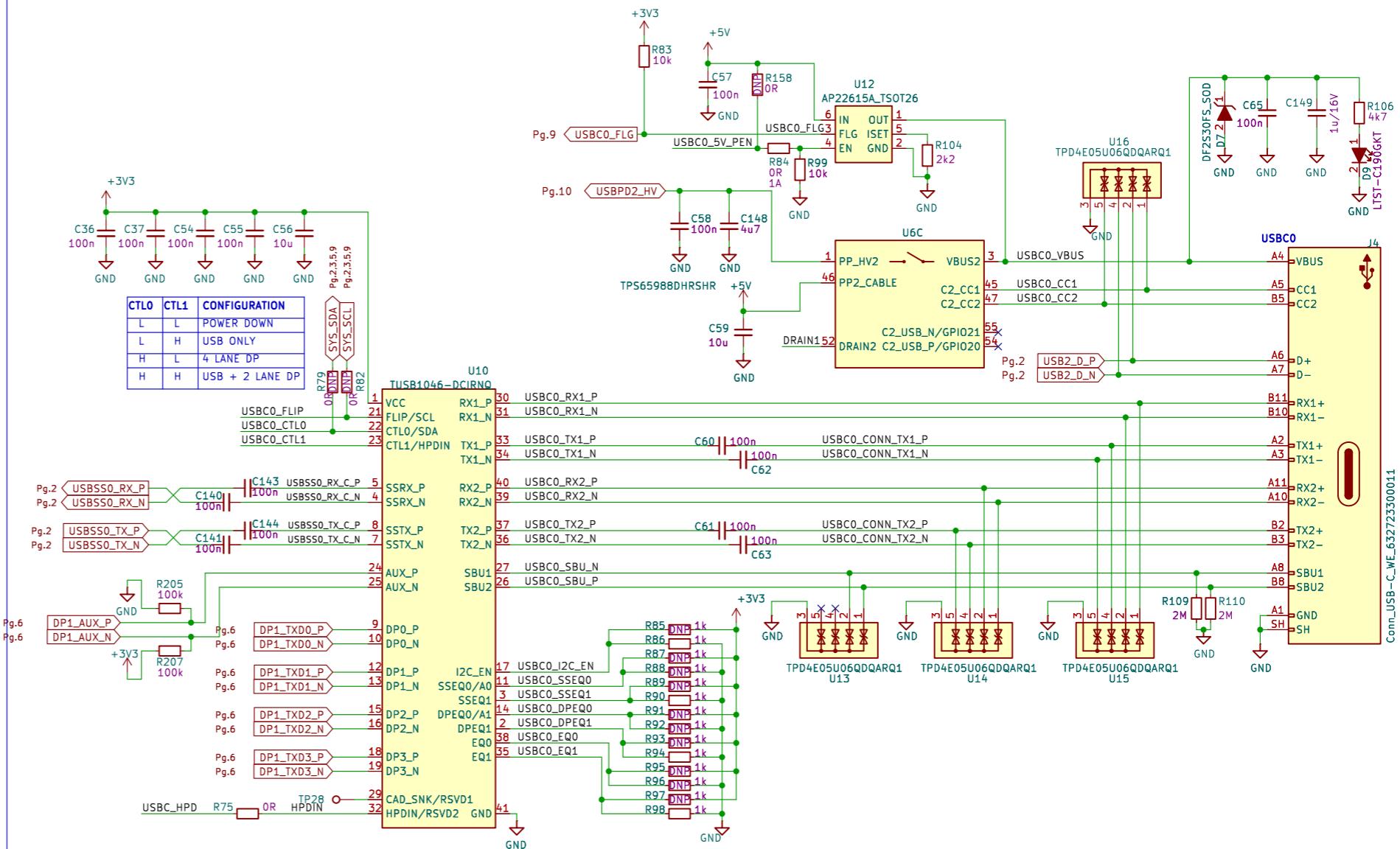
Rev: 1.1.1
Id: 3/10

USB PD Controller

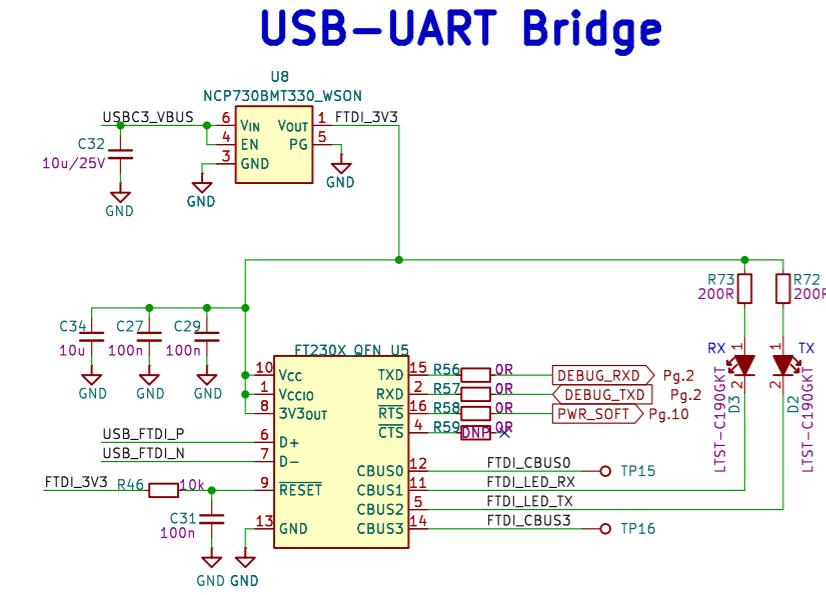


USB-C 0 Display Port alt mode

USB-PD Source/Sink

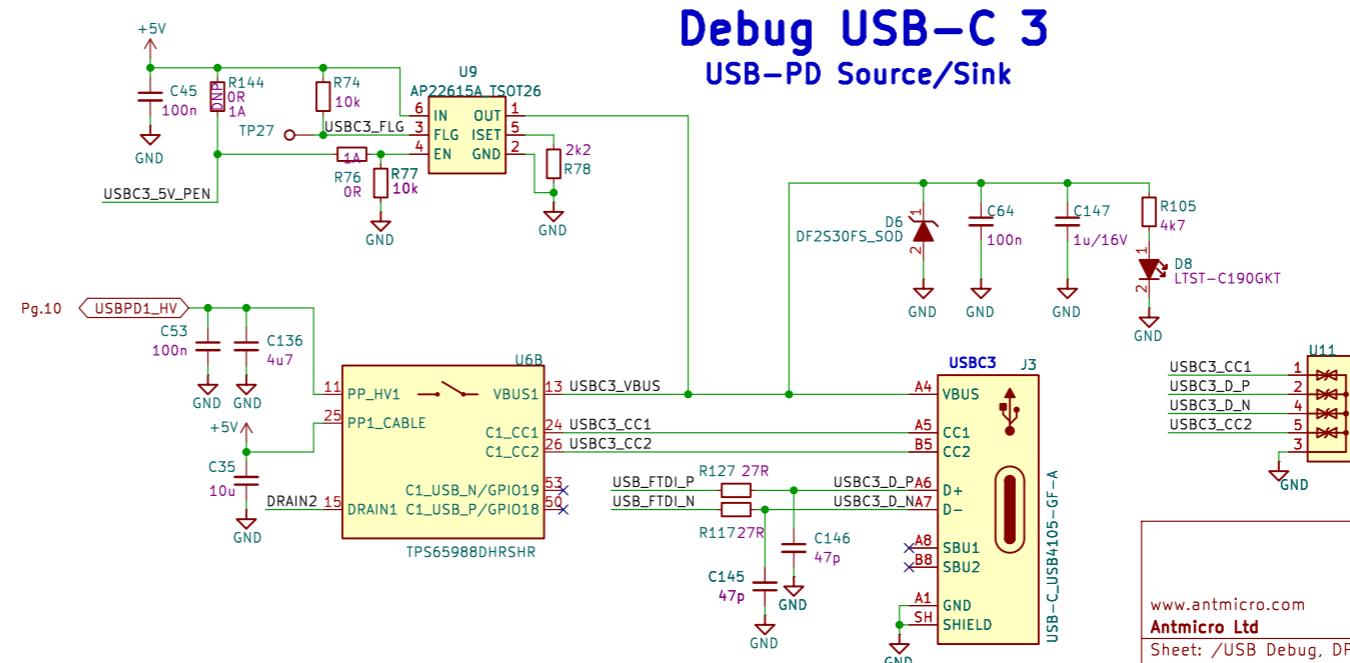


USB–UART Bridge

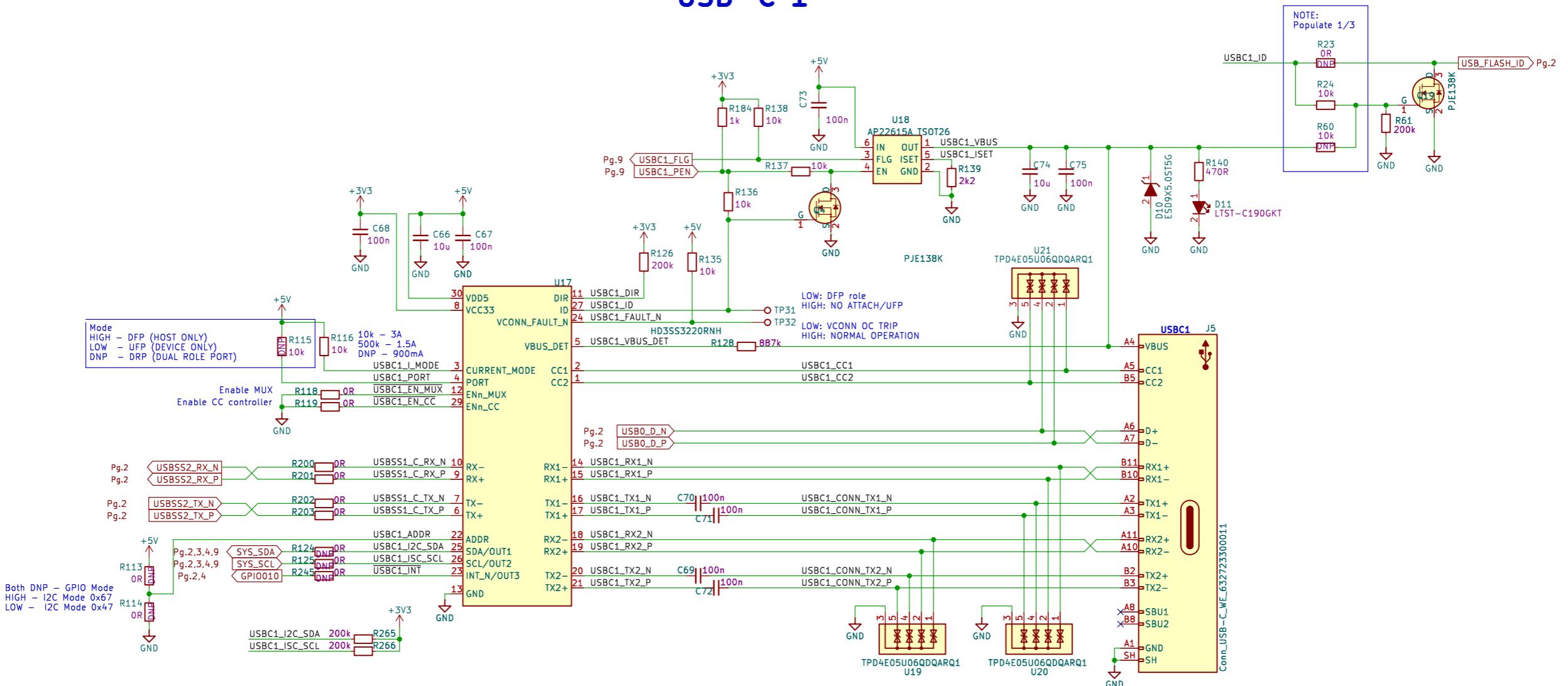


Debug USB-C 3

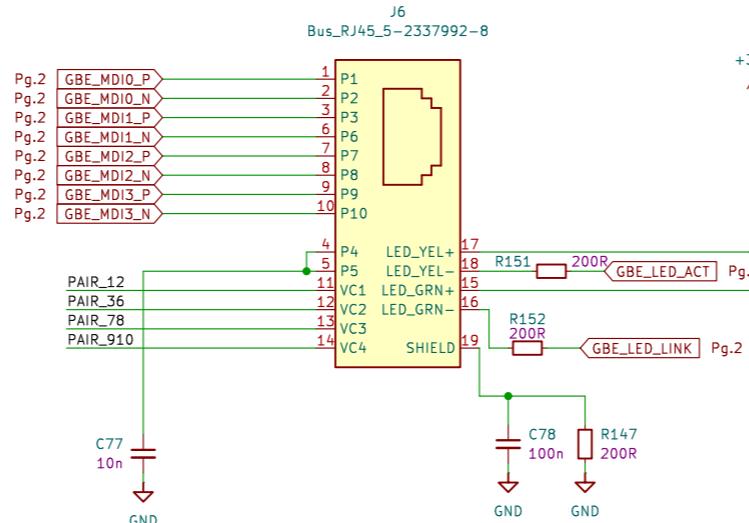
USB-PD Source/Sink



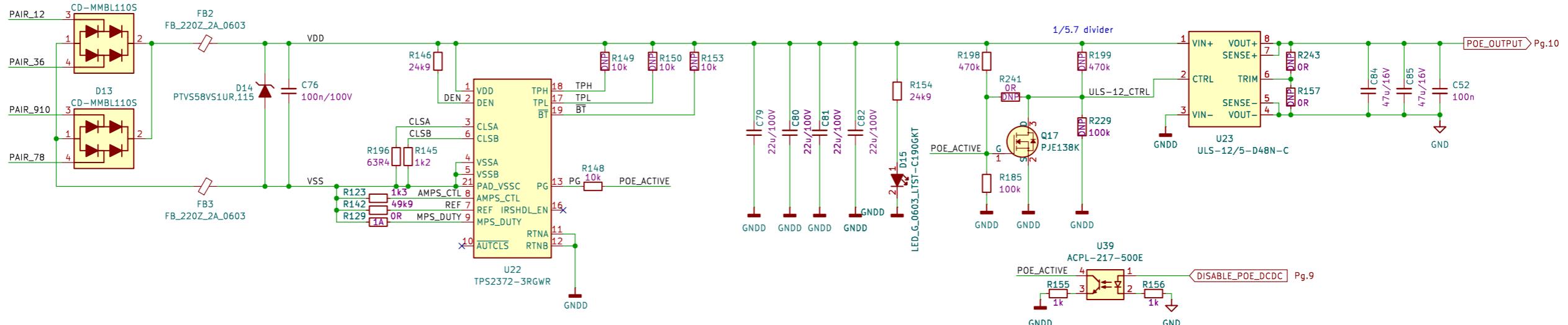
USB-C 1



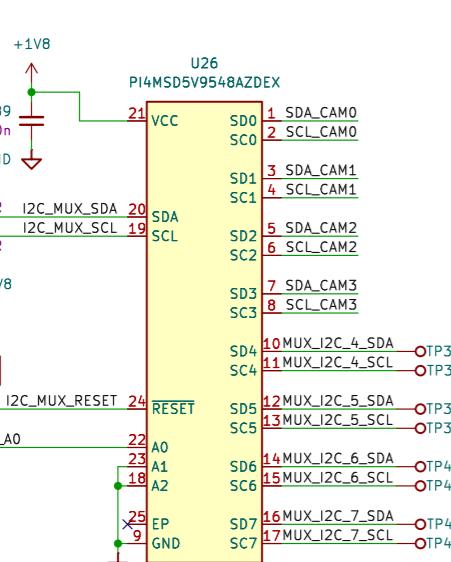
Ethernet Connector



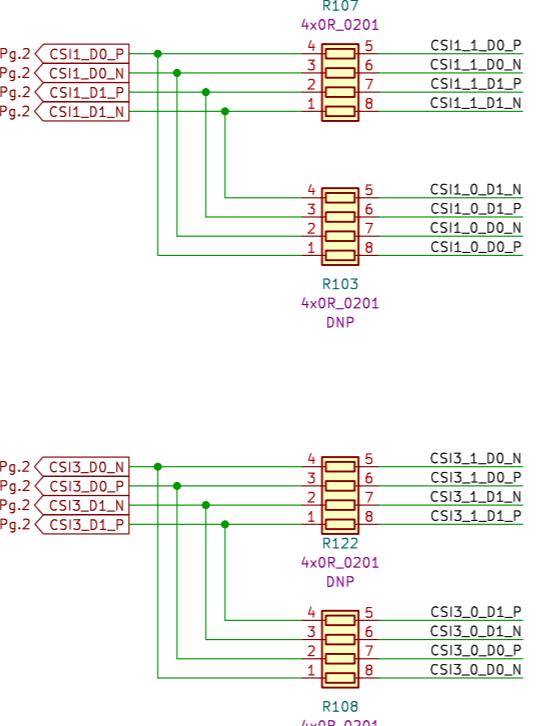
Power over Ethernet



I2C Mux



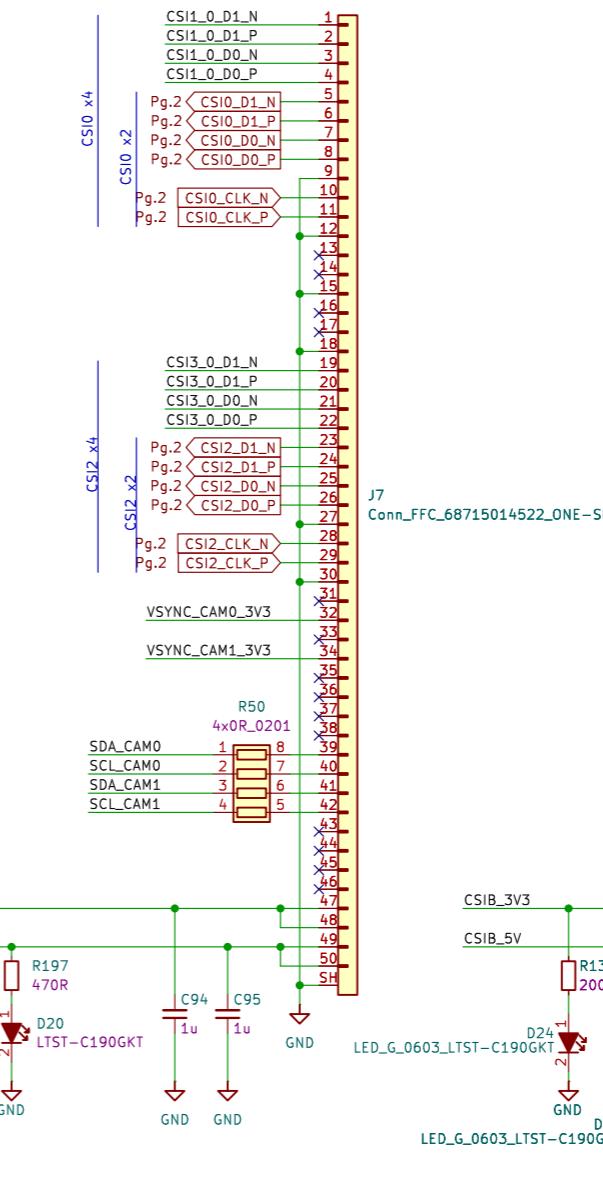
CSI Mux



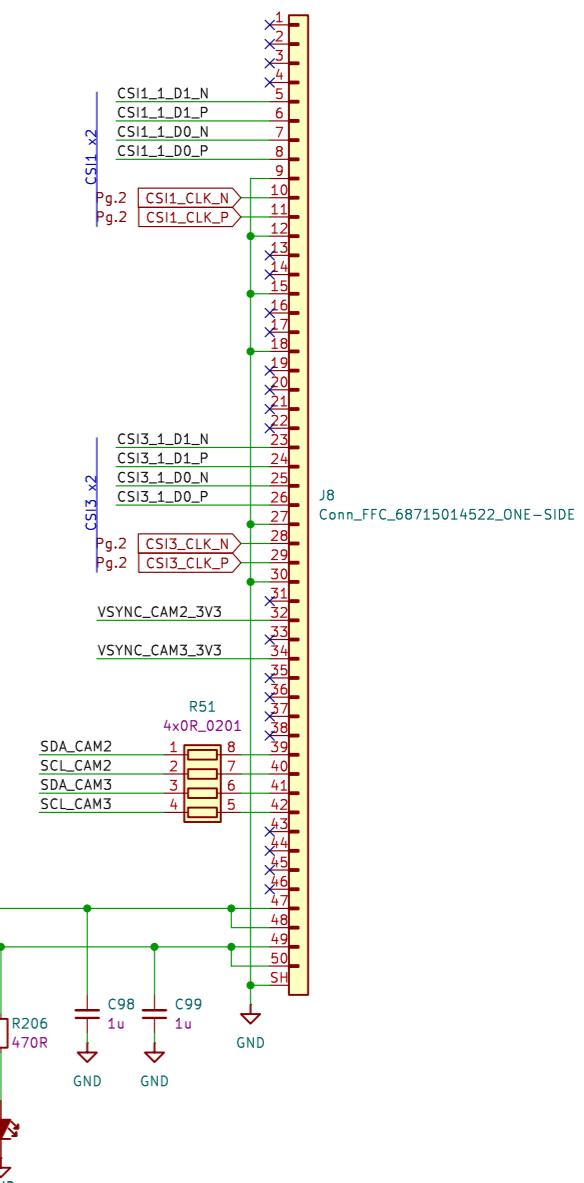
AVAILABLE CSI CONFIGURATIONS:

CONNECTOR J7	CONNECTOR J8
CSI0x4	CSI2x4
CSI0x4	CSI2x2
CSI0x2	CSI2x4
CSI0x2	CSI2x2
	CSI3x2
	CSI1x2
	CSI3x2 CSI1x2

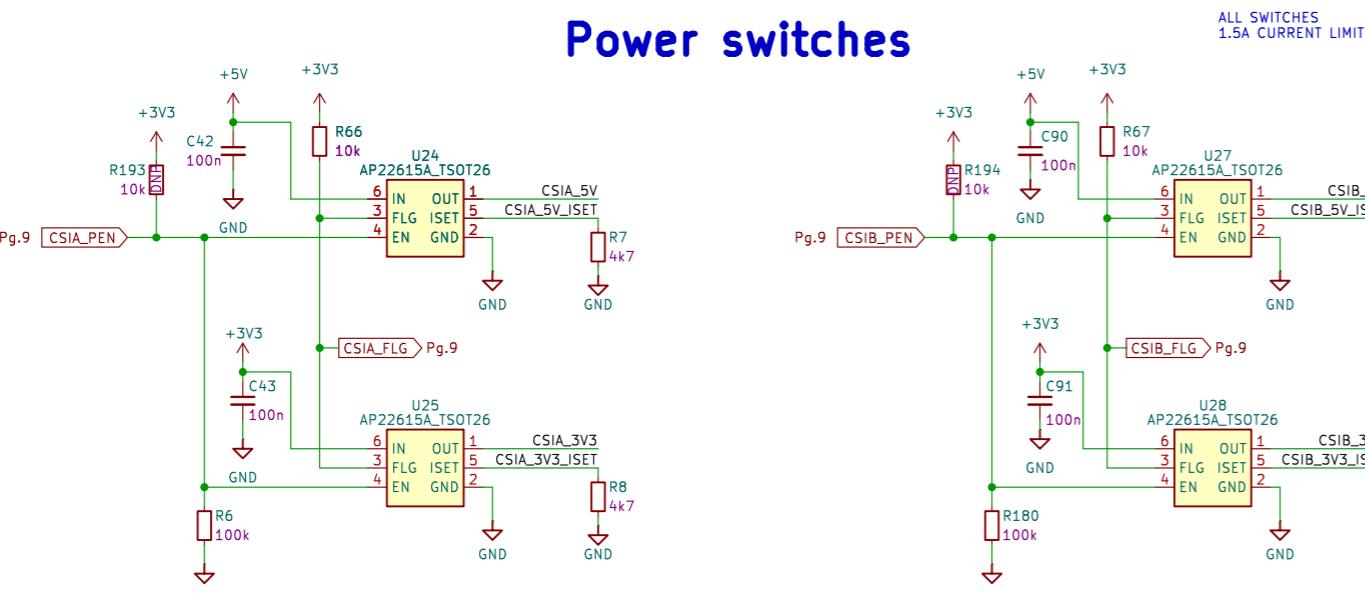
CSI connector J7



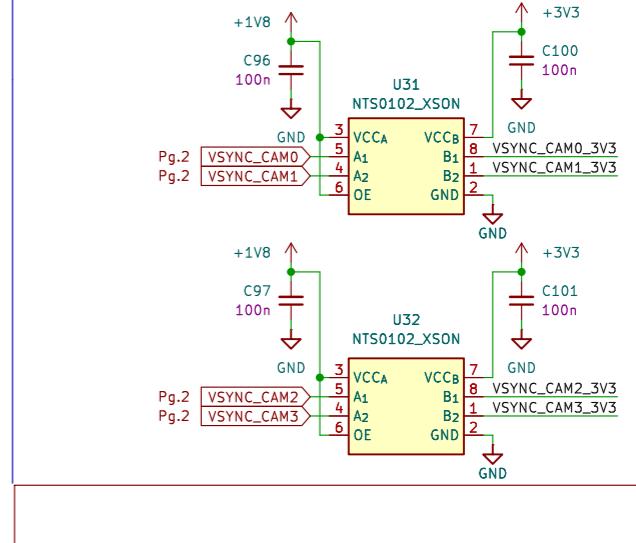
CSI connector J8



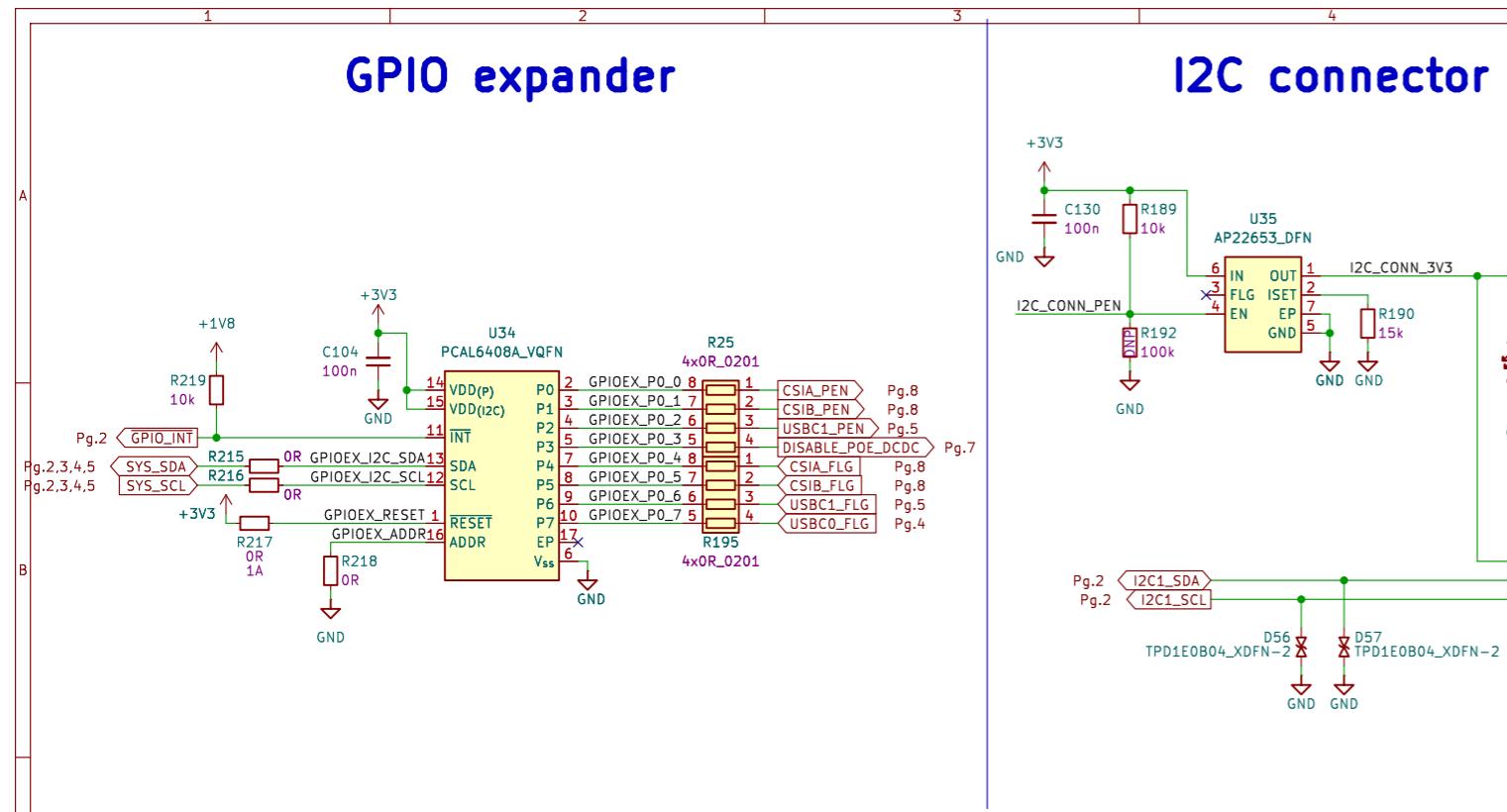
Power switches



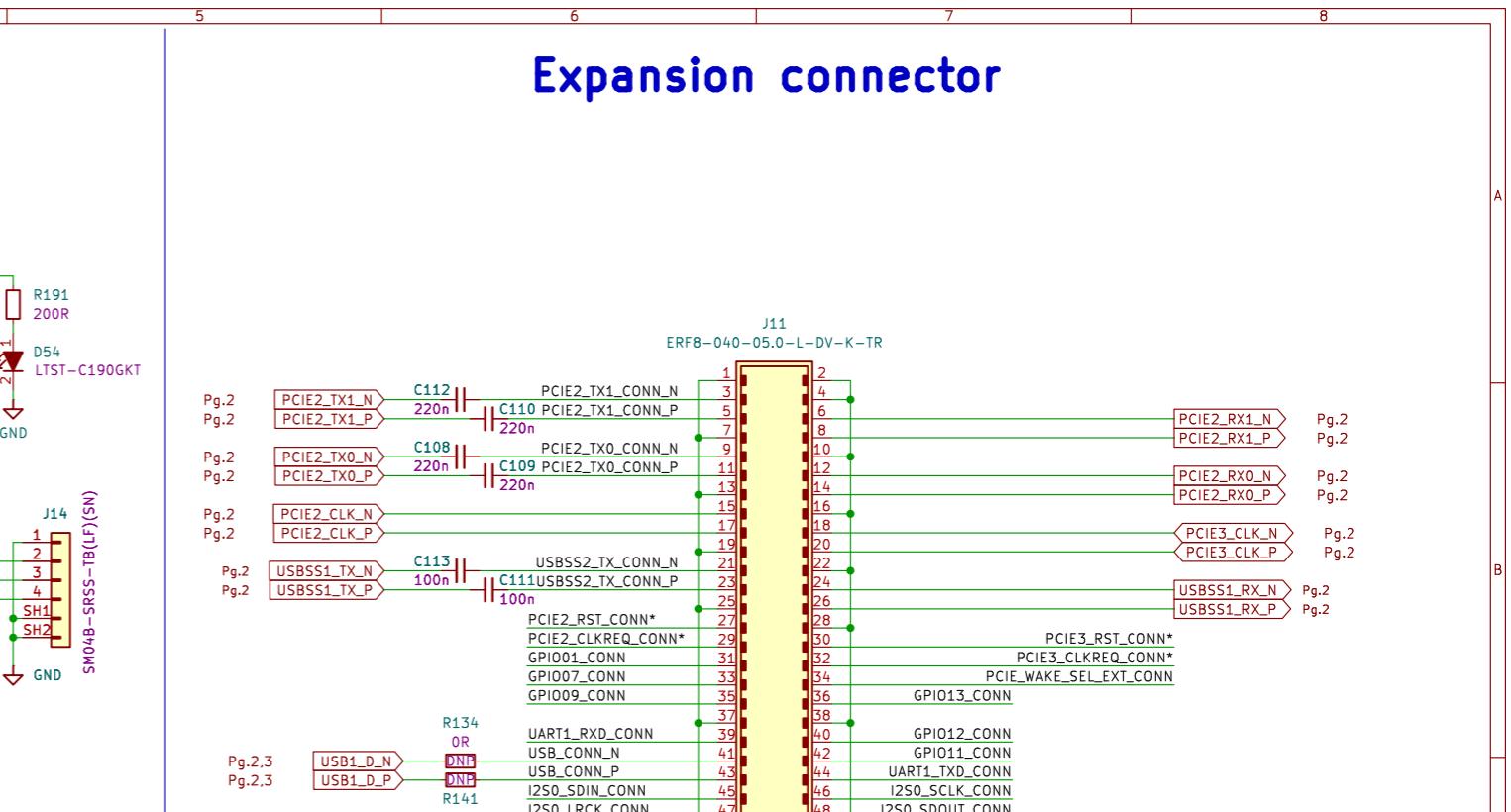
Level shifters



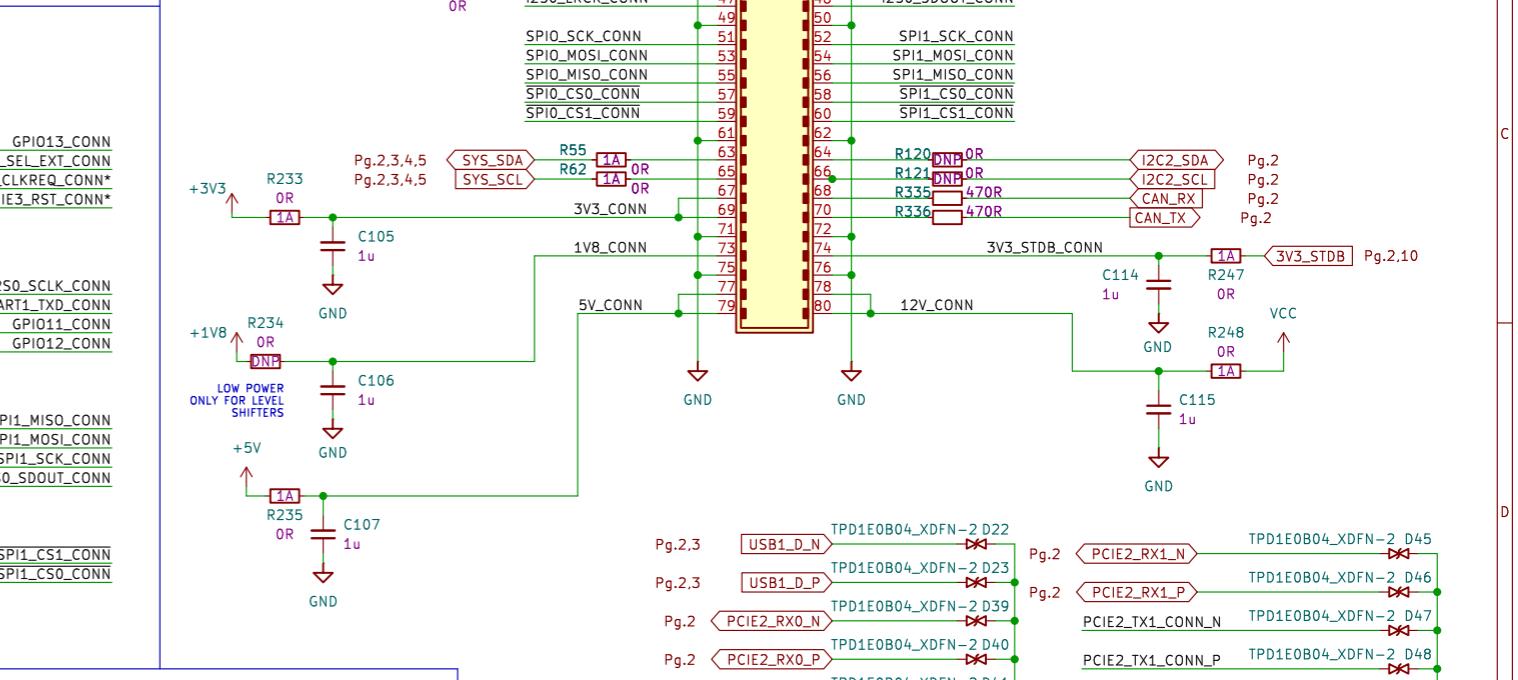
GPIO expander



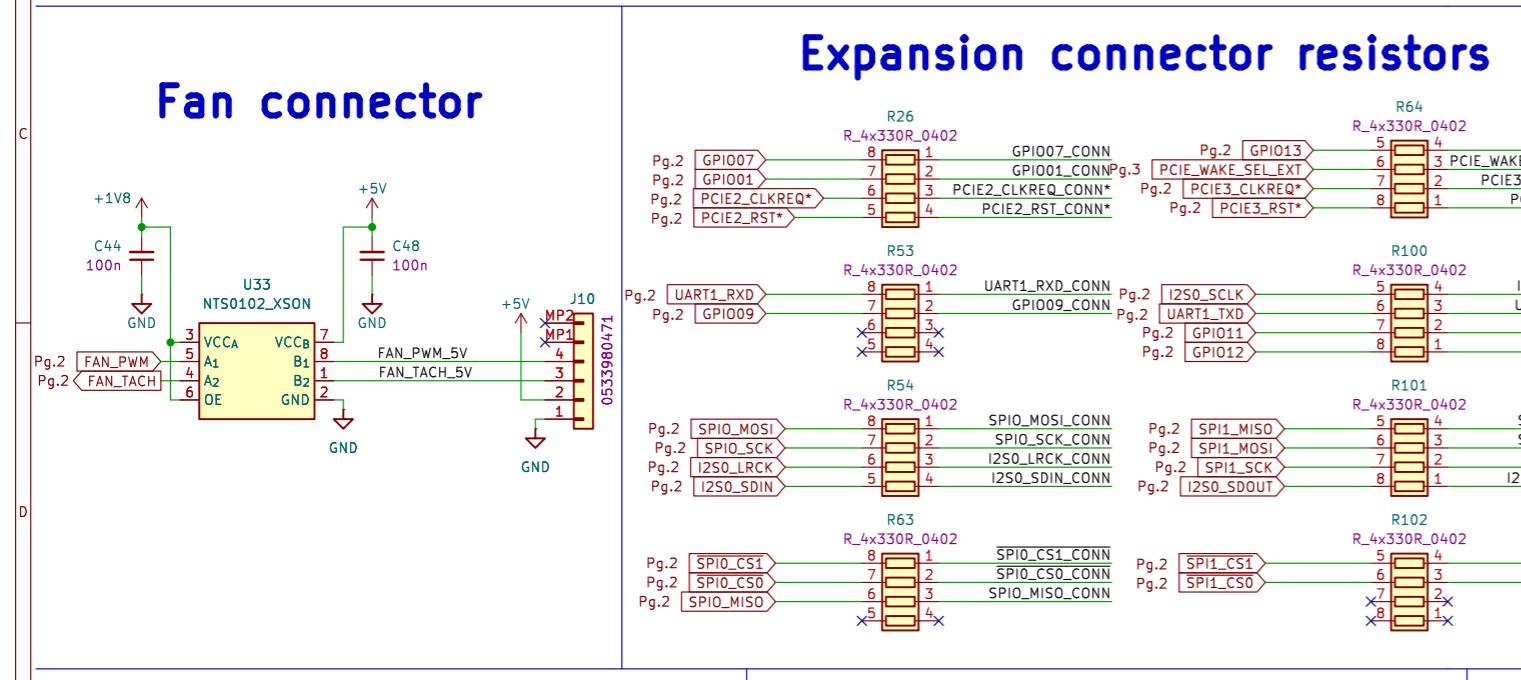
I2C connector



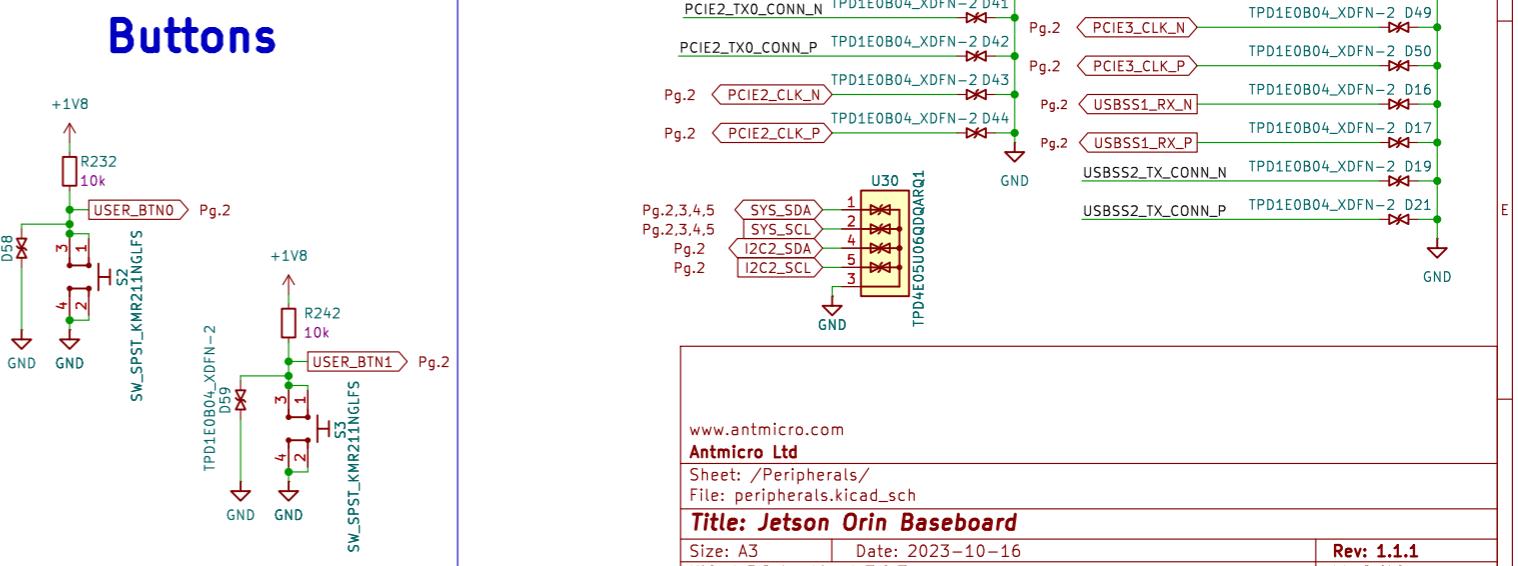
Expansion connector



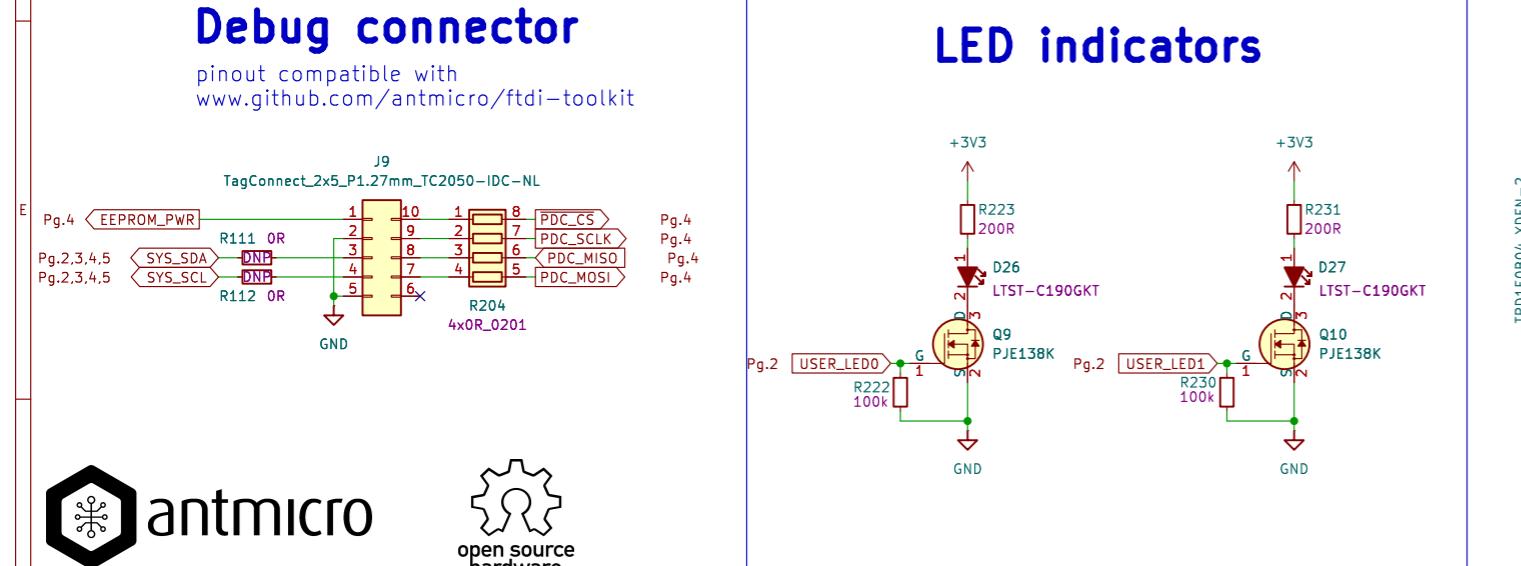
Fan connector



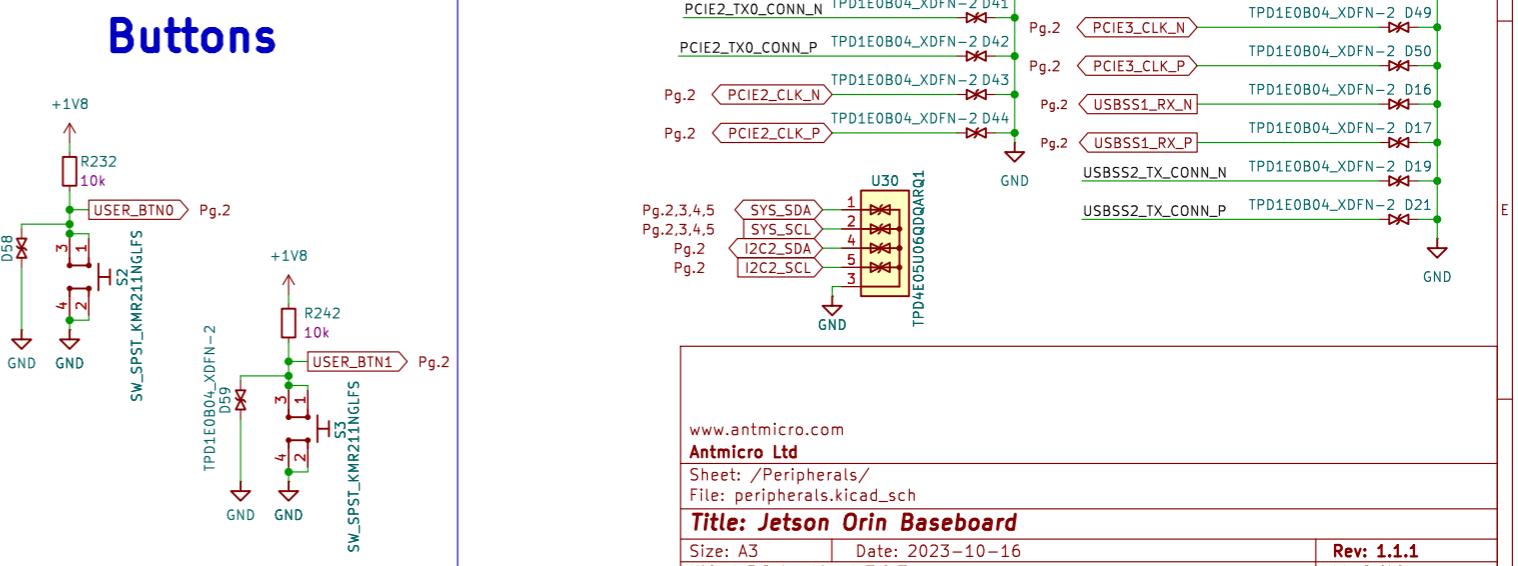
Expansion connector resistors



Debug connector



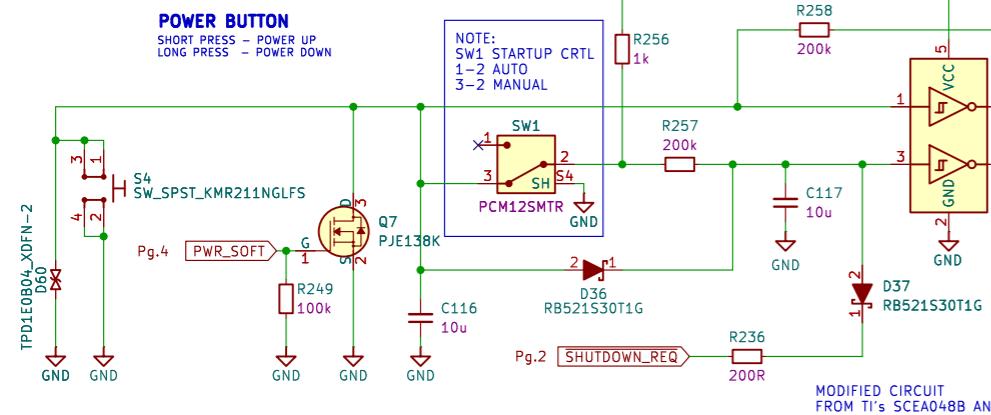
LED indicators



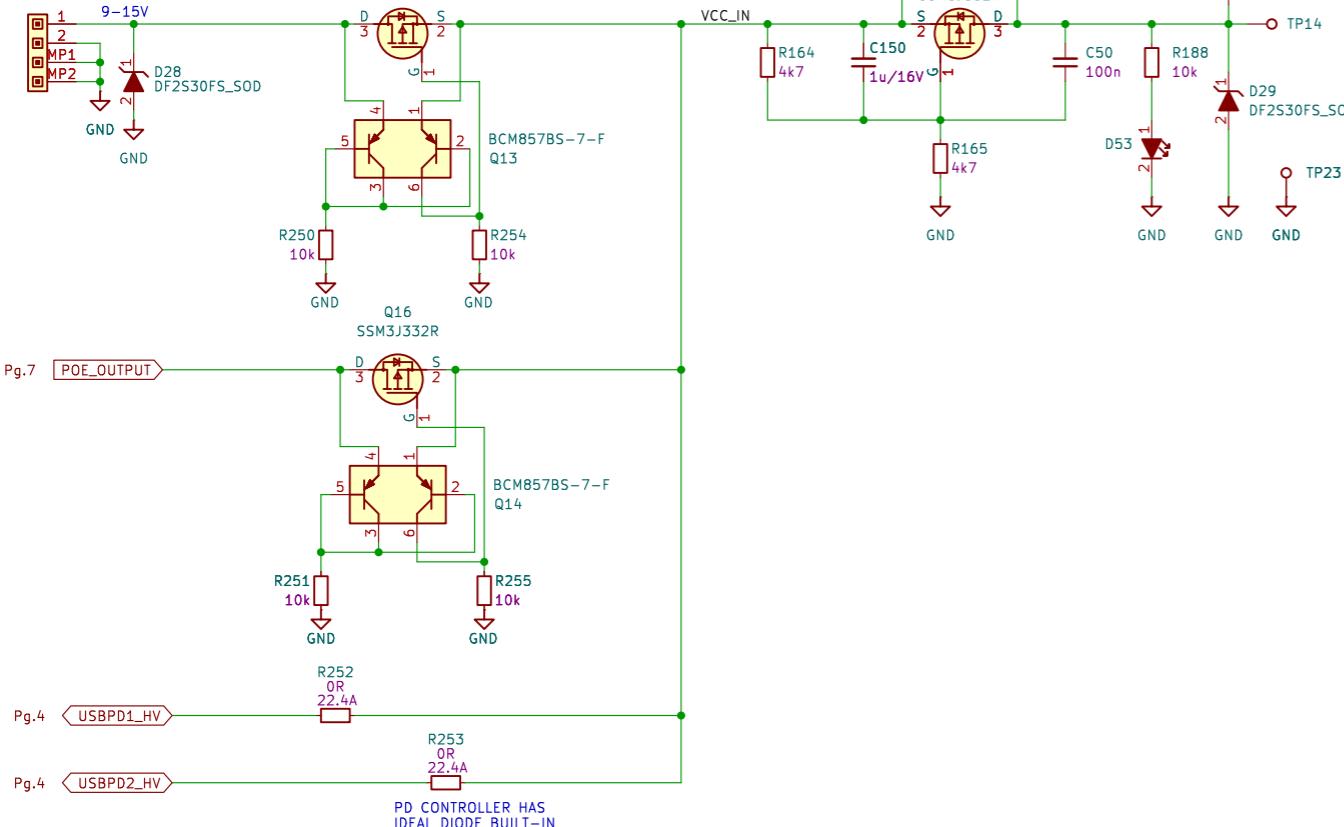
Buttons

www.antmicro.com
Antmicro Ltd
Sheet: /Peripherals/
File: peripherals.kicad_sch
Title: Jetson Orin Baseboard
Size: A3 Date: 2023-10-16
KiCad E.D.A. kicad 7.0.7 Rev: 1.1.1
Id: 9/10

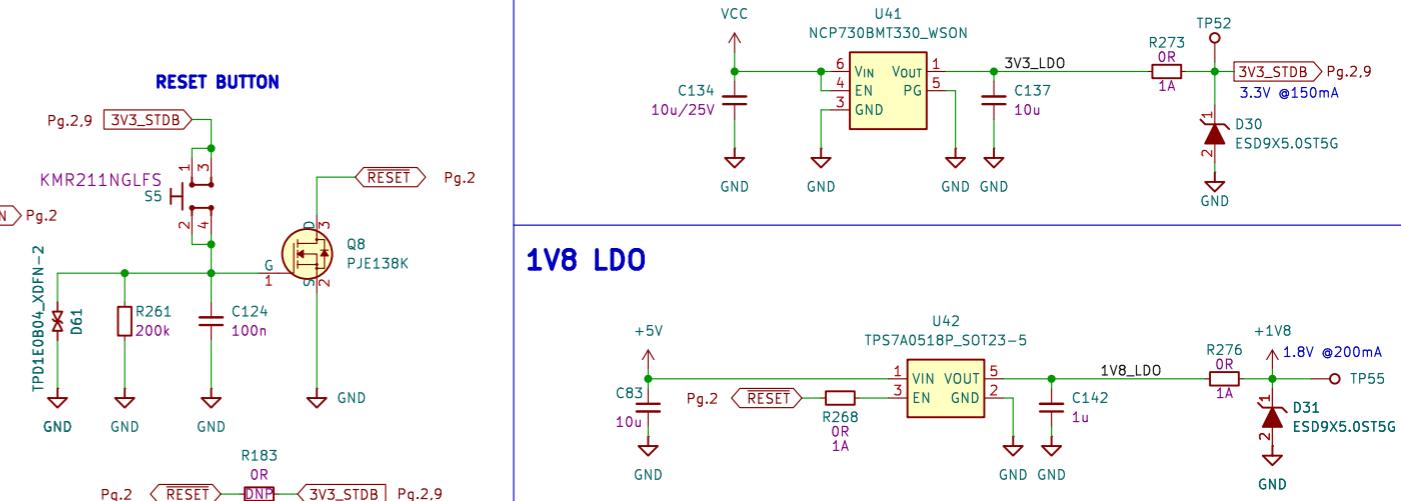
POWER-UP AND RESET CIRCUITY



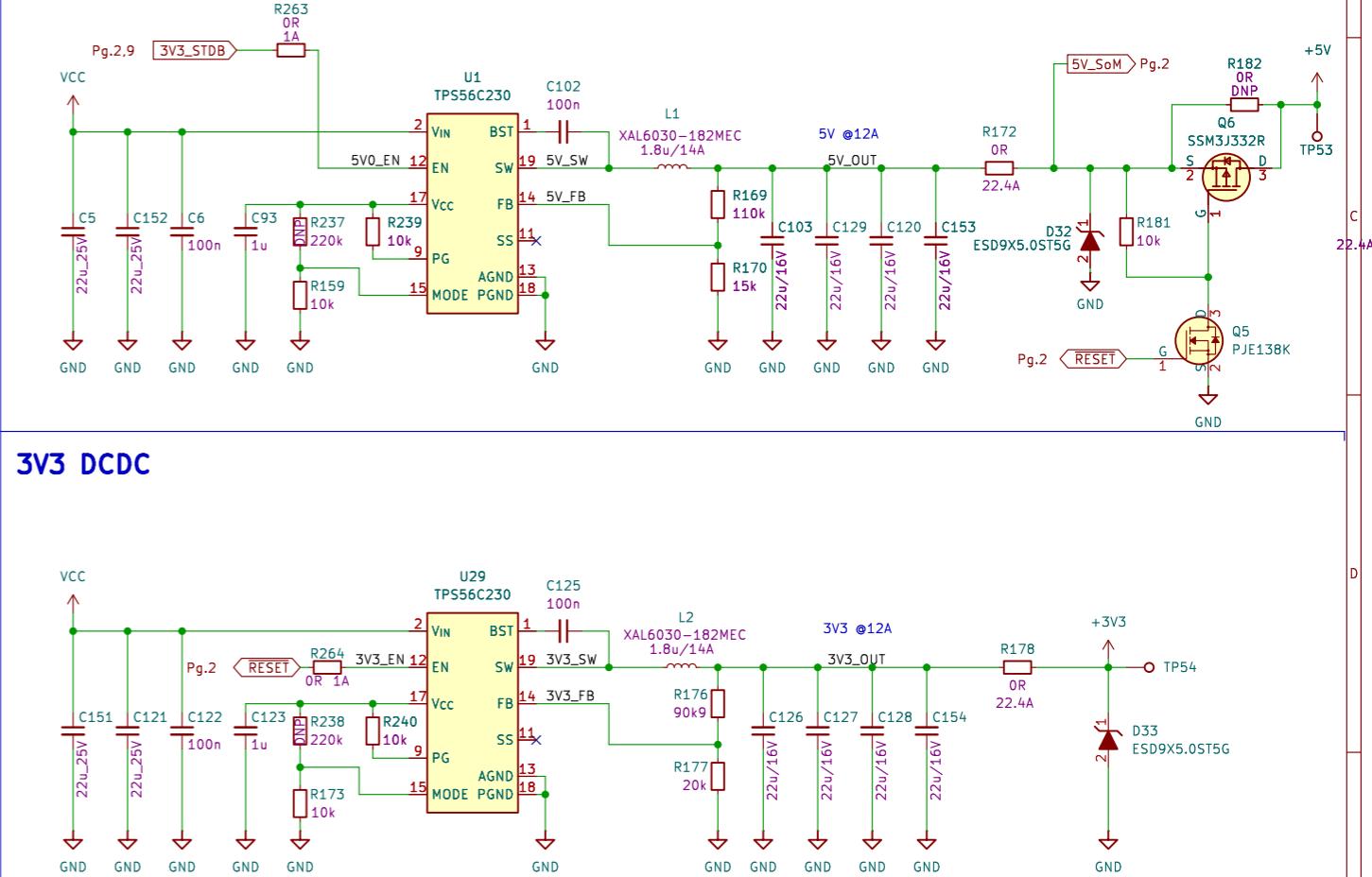
INPUT SELECTOR AND SOFT START



3V3 STANDBY LDO



5V DCDC



www.antmicro.com

Antmicro Ltd

Sheet: /Supply/

File: supply.kicad_sch

Title: Jetson Orin Baseboard

Size: A3 Date: 2023-10-16

KiCad E.D.A. kicad 7.0.7

Rev: 1.1.1

Id: 10/10