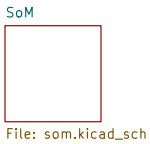
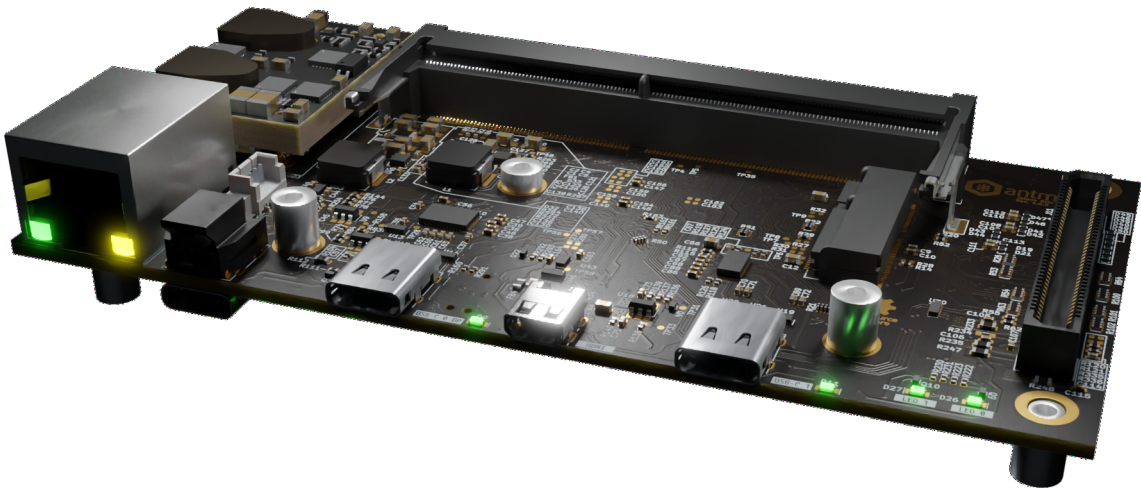
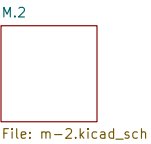


# Jetson Orin Baseboard

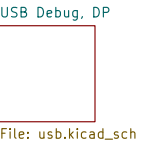
github.com/antmicro/jetson-orin-baseboard



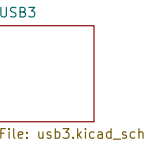
File: som.kicad\_sch



File: m-2.kicad\_sch



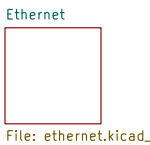
File: usb.kicad\_sch



File: usb3.kicad\_sch



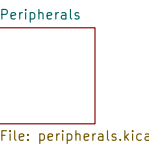
File: hdmi.kicad\_sch



File: ethernet.kicad\_sch



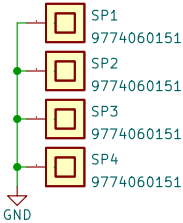
File: csi.kicad\_sch



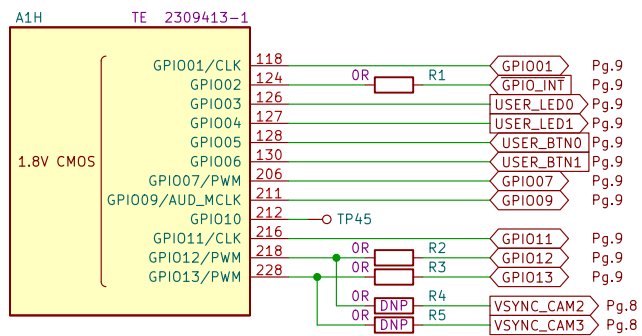
File: peripherals.kicad\_sch



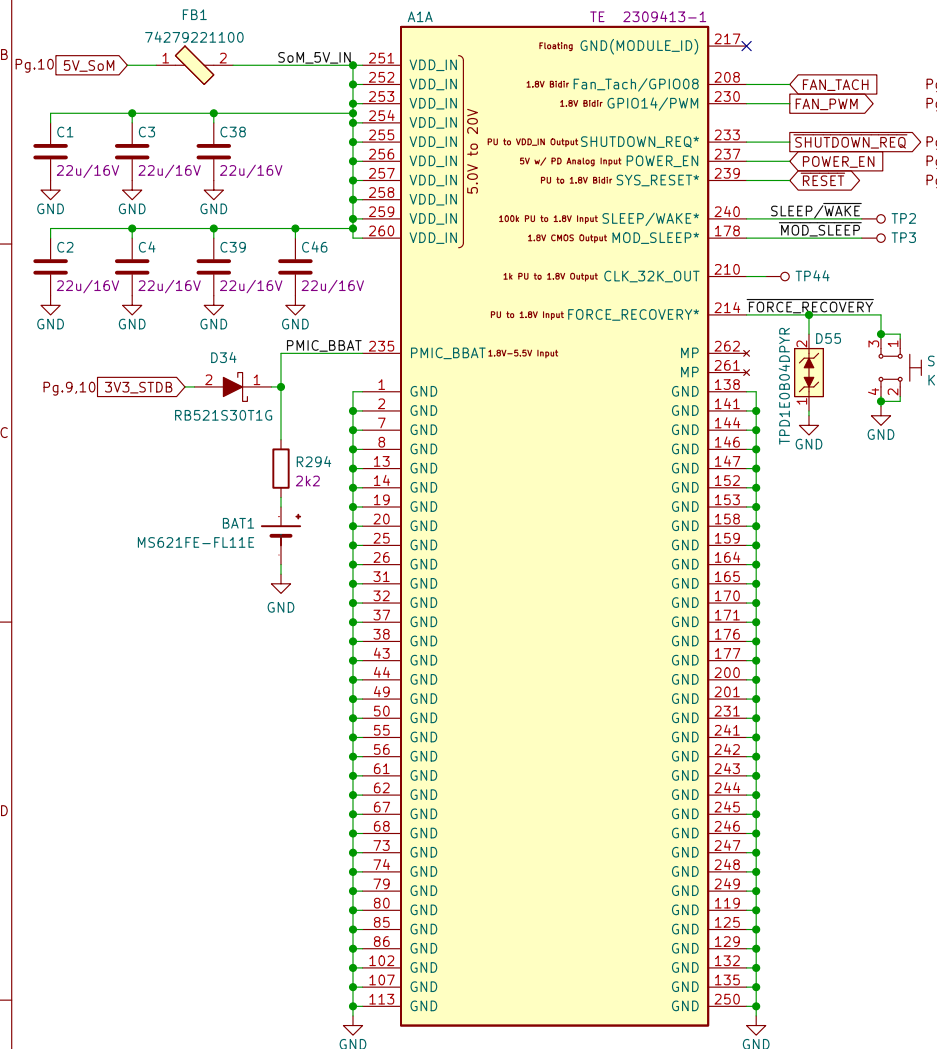
File: supply.kicad\_sch



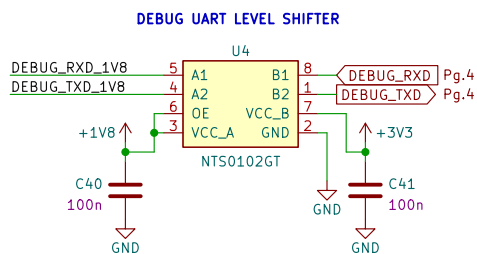
## GPIO



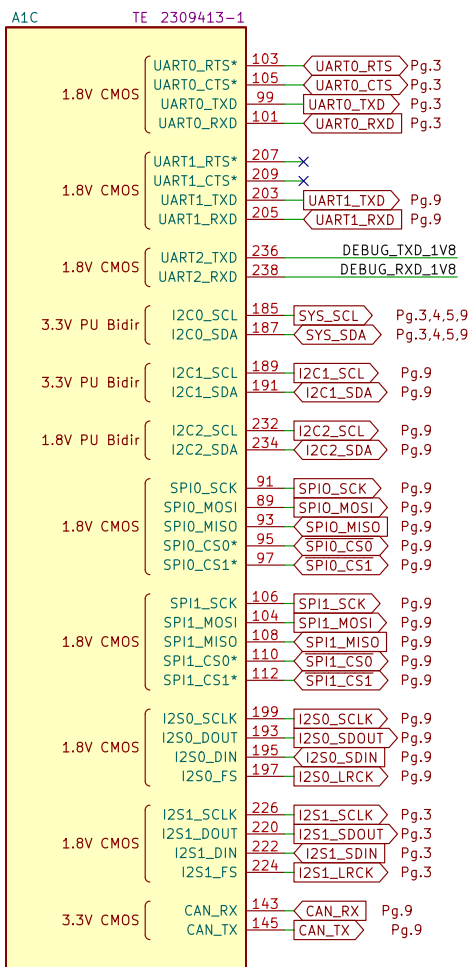
## Power &amp; CTRL



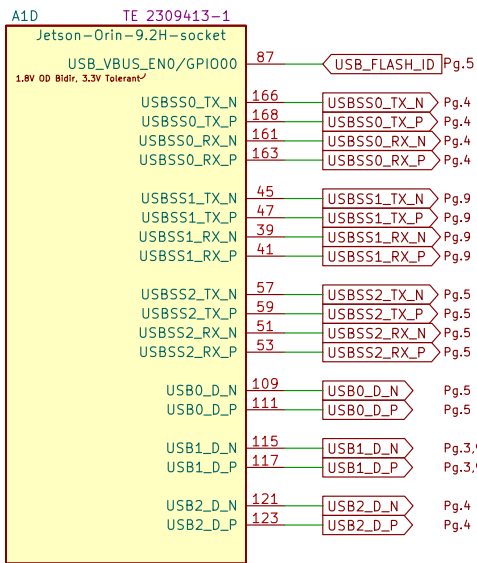
## Miscellaneous



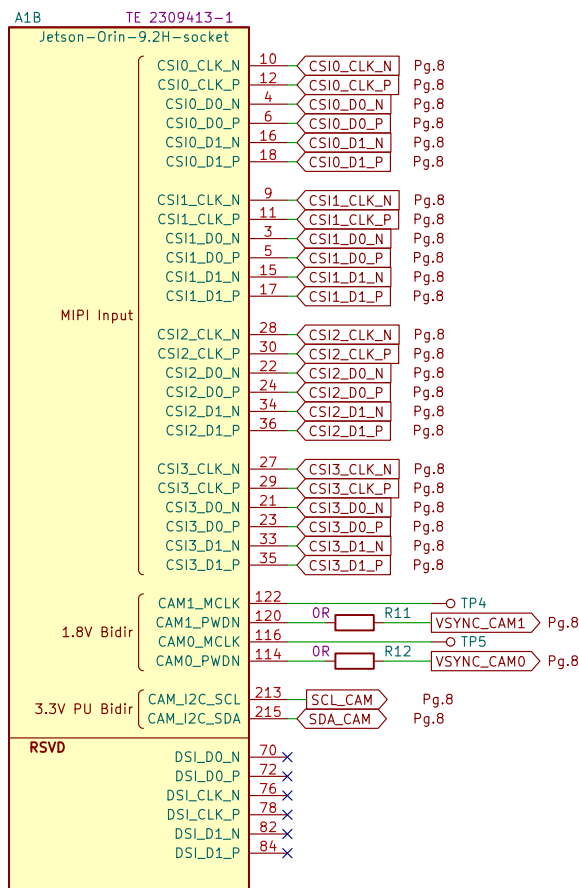
## UART/I2C/SPI/I2S/CAN



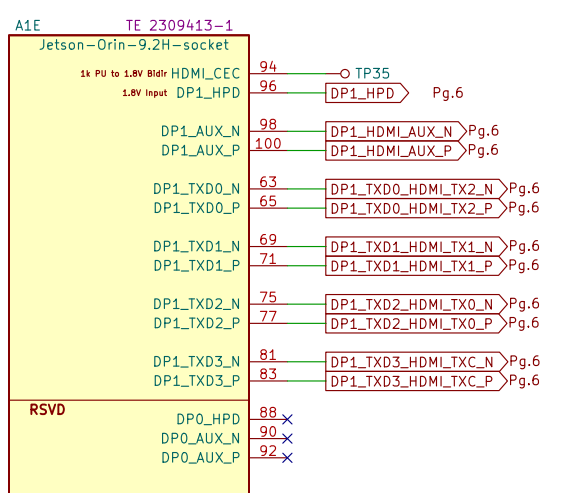
## USB



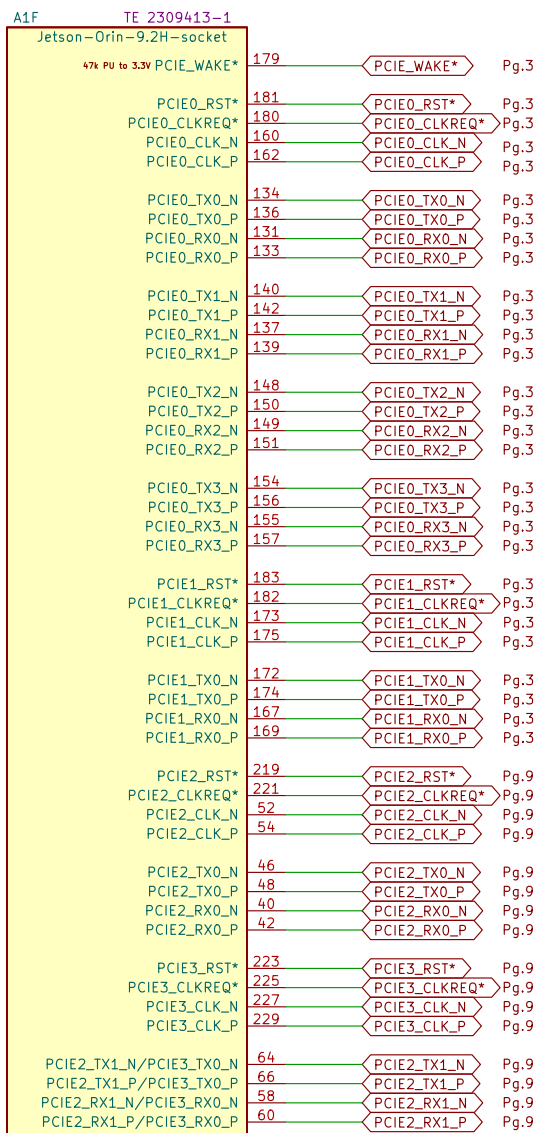
## CSI



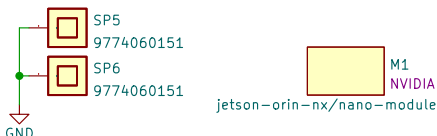
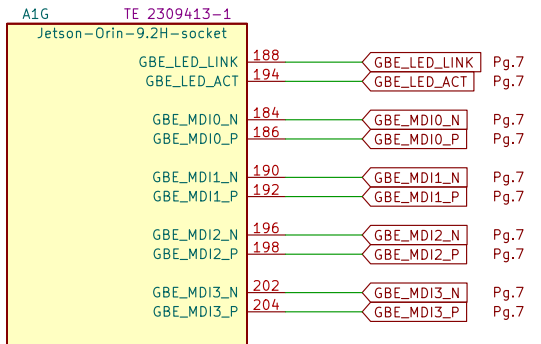
## Video Output



## PCIe



## GbE



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Sheet: /SoM/

File: som.kicad\_sch

Title: Jetson Orin Baseboard

Size: A3

Date: 2023-03-03

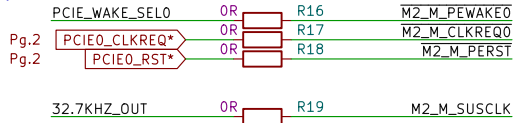
Rev: 1.1.0

KiCad E.D.A. eeschema 6.0.5+dfsg-1-bpo11+1

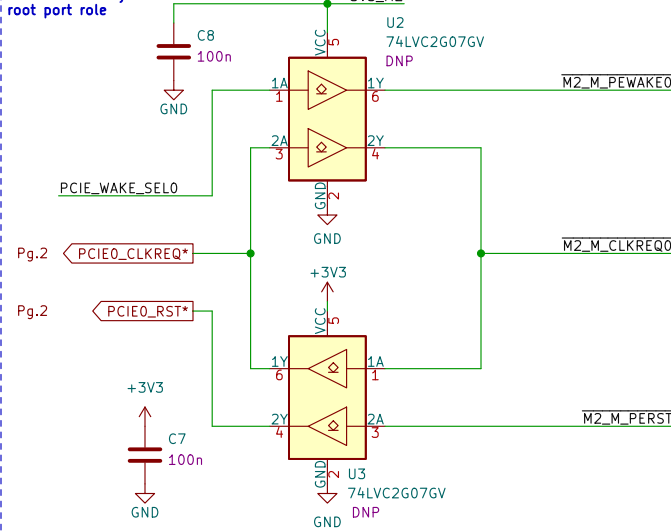
Id: 2/10

## PCIe0 Root Port / Endpoint mode selector

NOTE:  
DNP for M.2 key M  
endpoint role

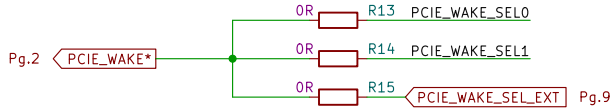


NOTE:  
DNP for M.2 key M  
root port role

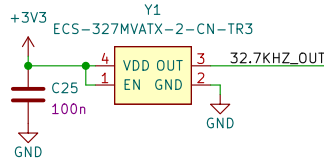


NOTE about PCIe 0 role switching:  
For details, refer to the PCIe section of  
"Jetson Orin NX Series Product Design Guide"  
<https://developer.nvidia.com/jetson-orin-nx-series-design-guide>

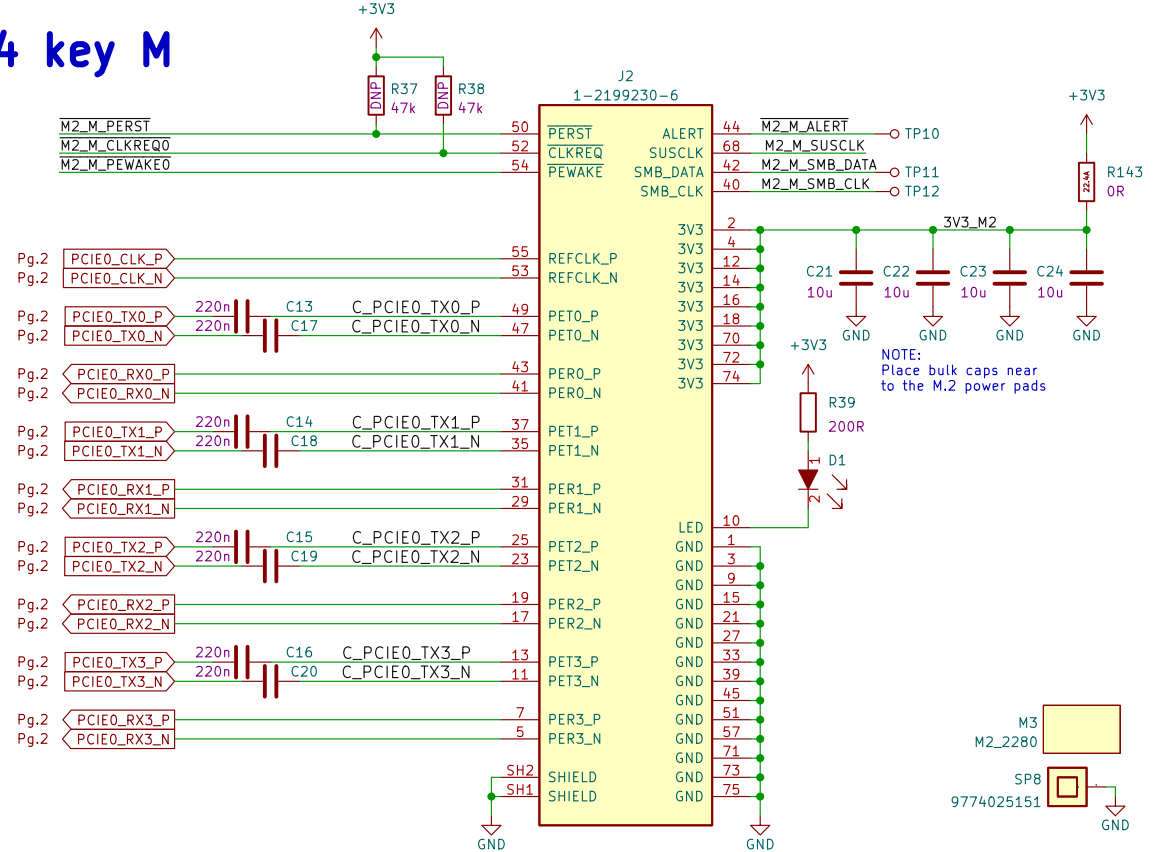
## M.2 PCIE\_WAKE selector



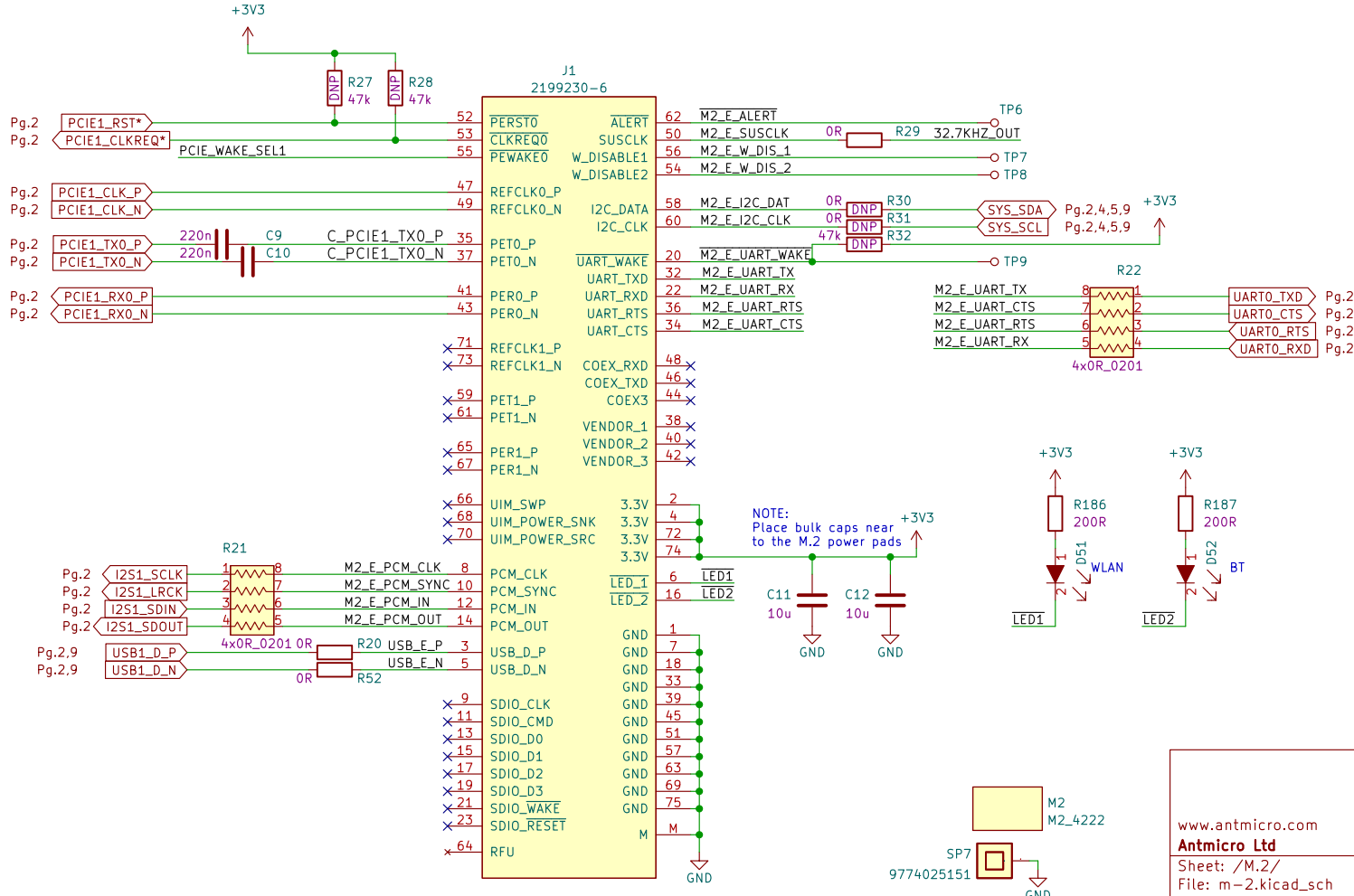
## SUSCLK SOURCE



## PCIe0 1x4 key M



PCIe1 1x1 key E



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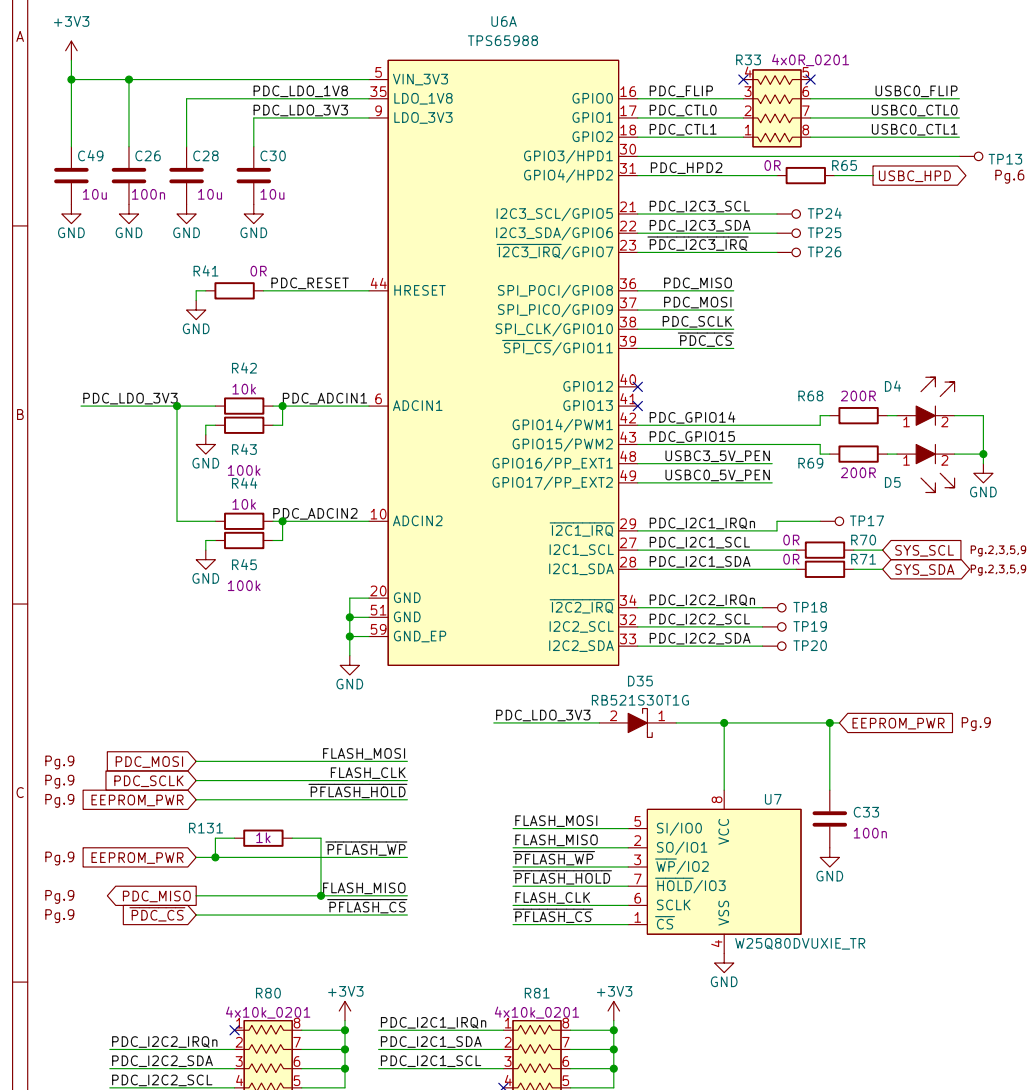
Sheet: /M.2/  
File: m-2.kicad\_sch

**Title: Jetson Orin Baseboard**

Size: A3	Date: 2023-03-03
KiCad E.D.A. eeschema 6.0.5+dfsg-1~bpo11+1	

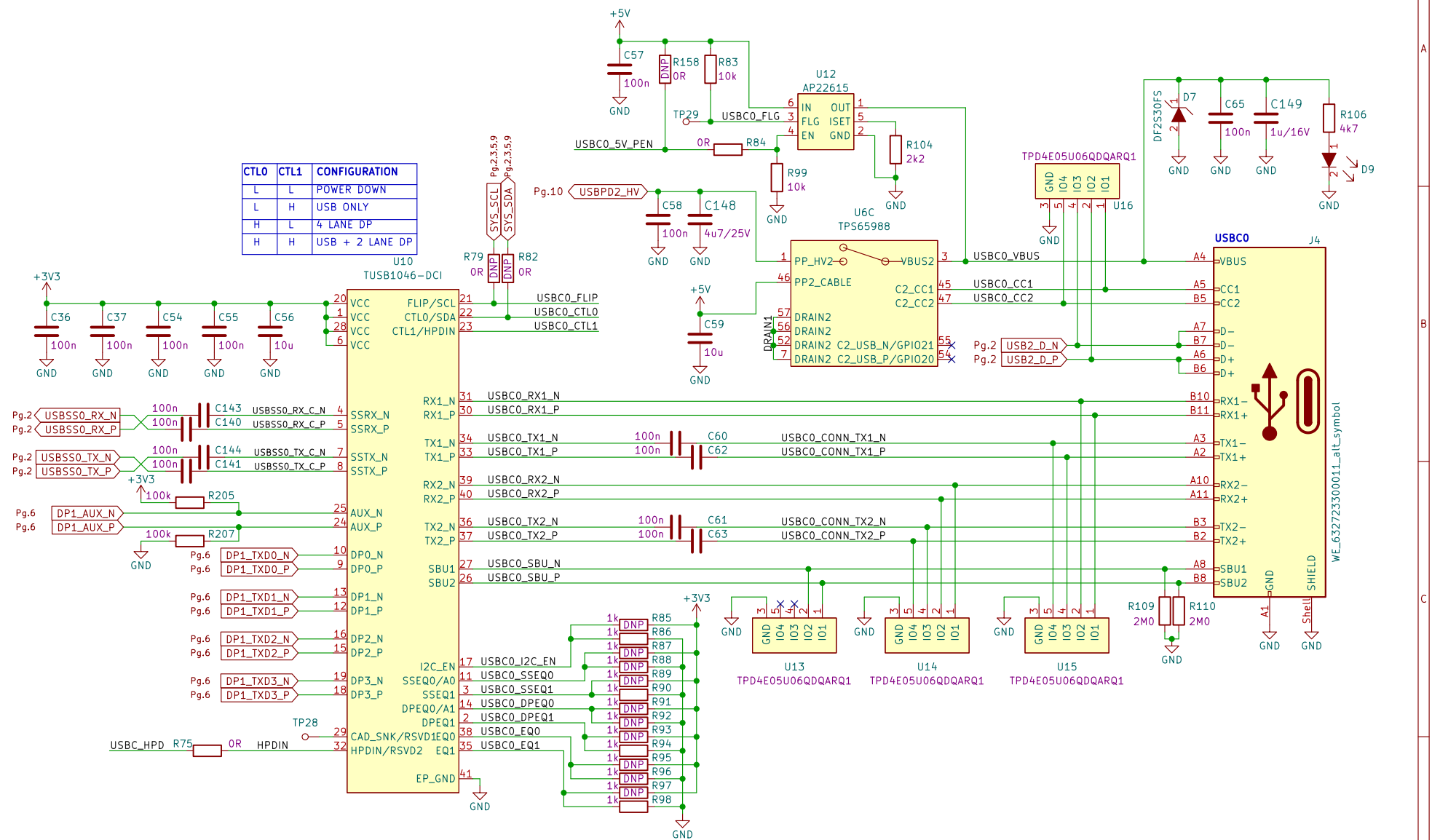
Rev: 1.1.0  
Id: 3/10

## USB PD Controller

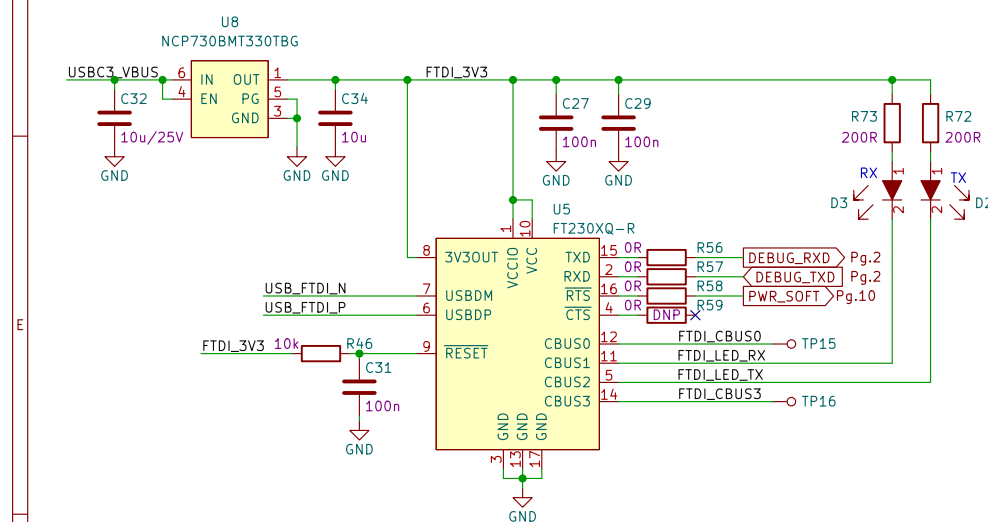


## USB-C 0 Display Port alt mode

## USB-PD Source/Sink

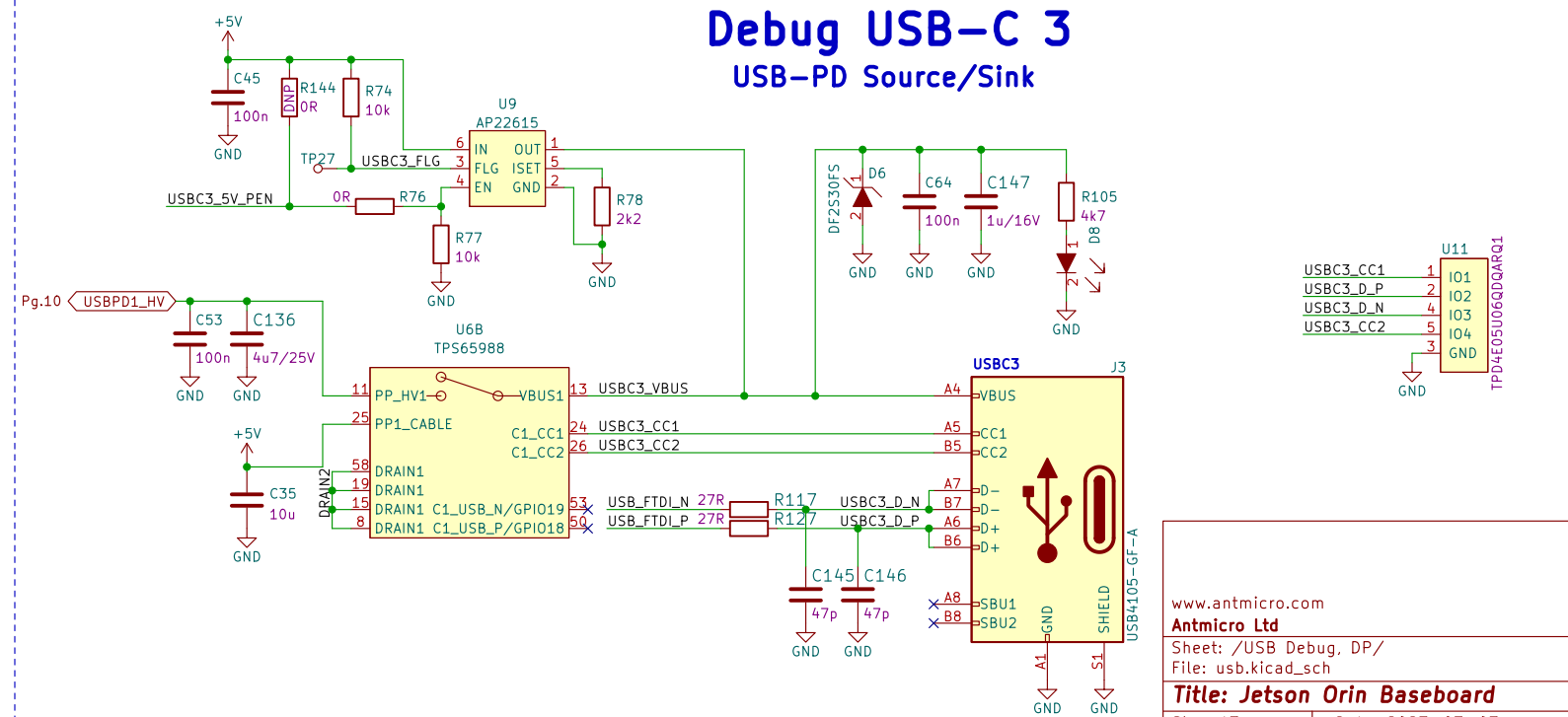


## USB-UART Bridge



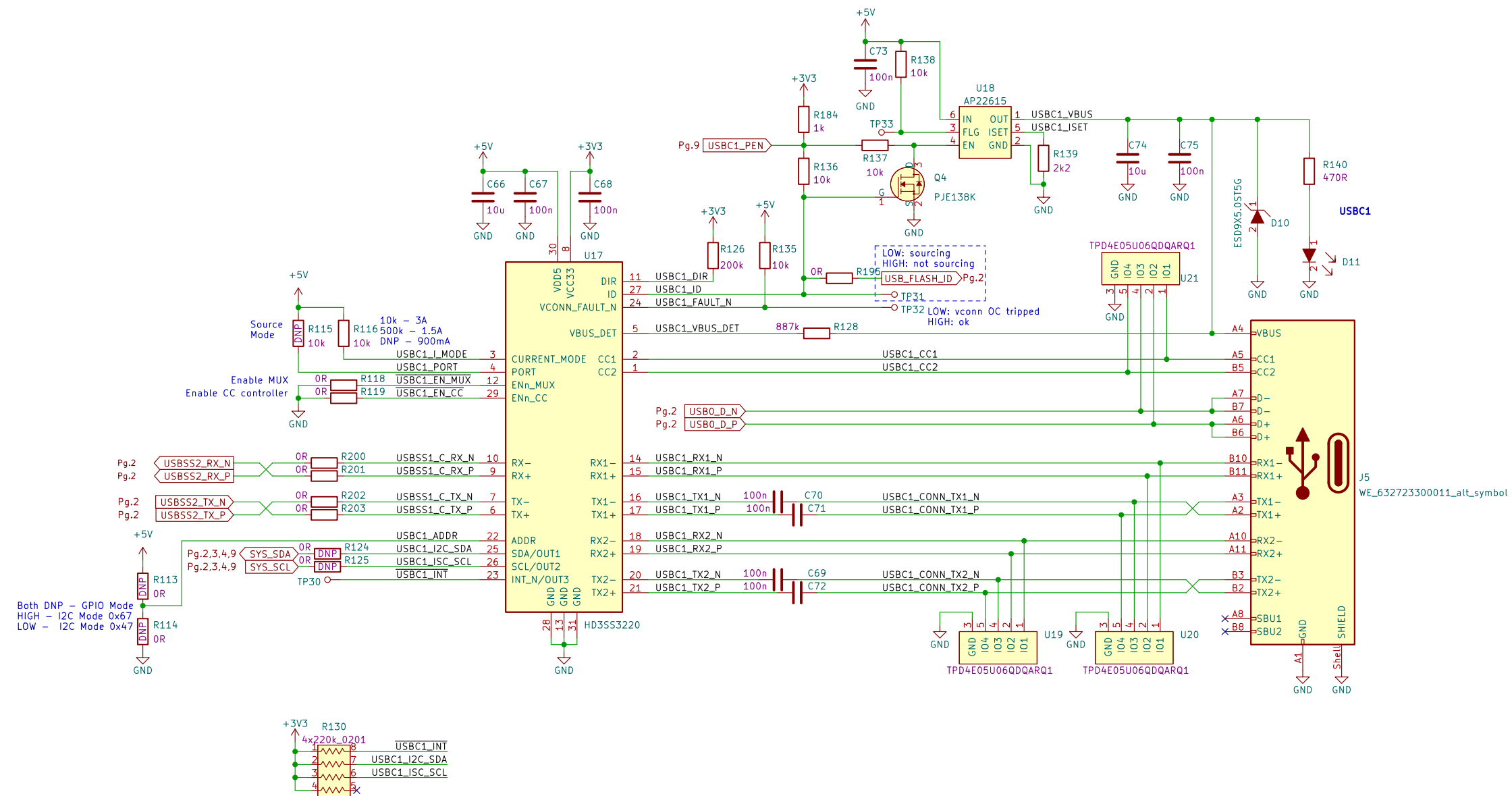
## Debug USB-C 3

## USB-PD Source/Sink

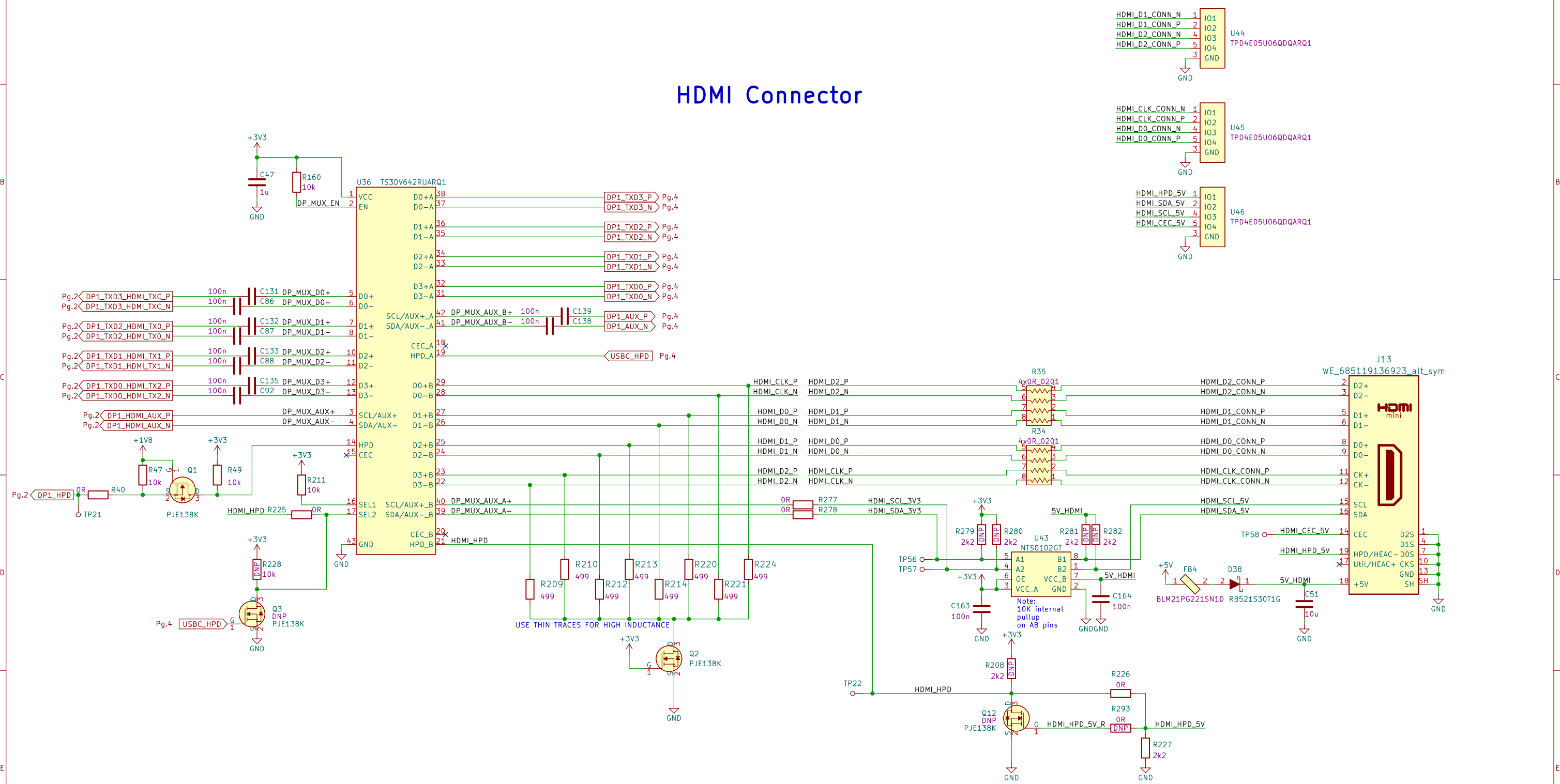




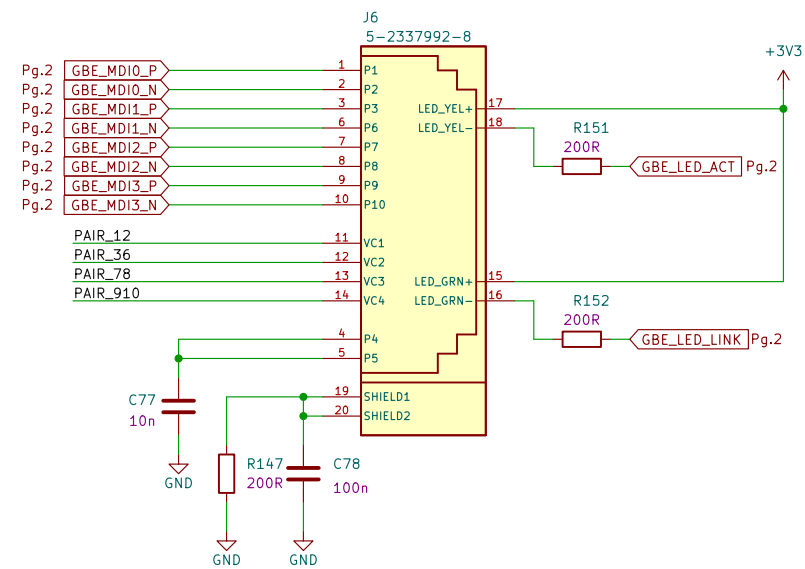
## USB-C 1



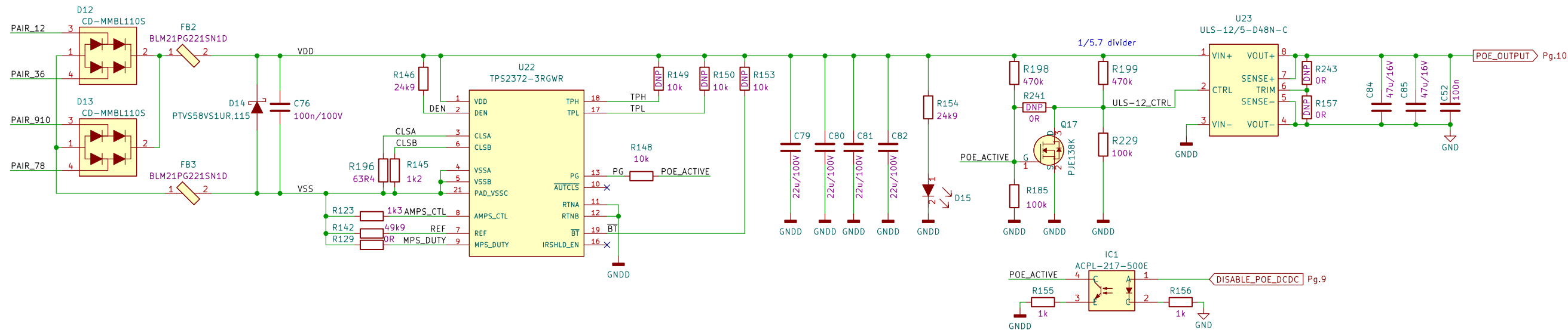
# HDMI Connector



# Ethernet Connector



# Power over Ethernet



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Sheet: /Ethernet/

File: ethernet.kicad\_sch

**Title: Jetson Orin Baseboard**

Size: A3

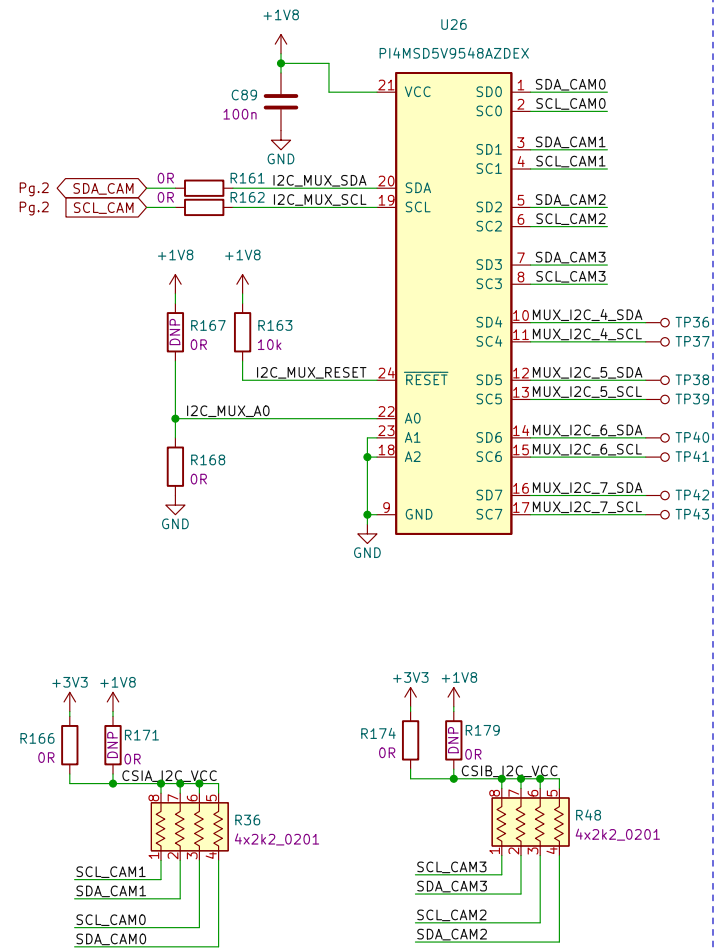
Date: 2023-03-03

Rev: 1.1.0

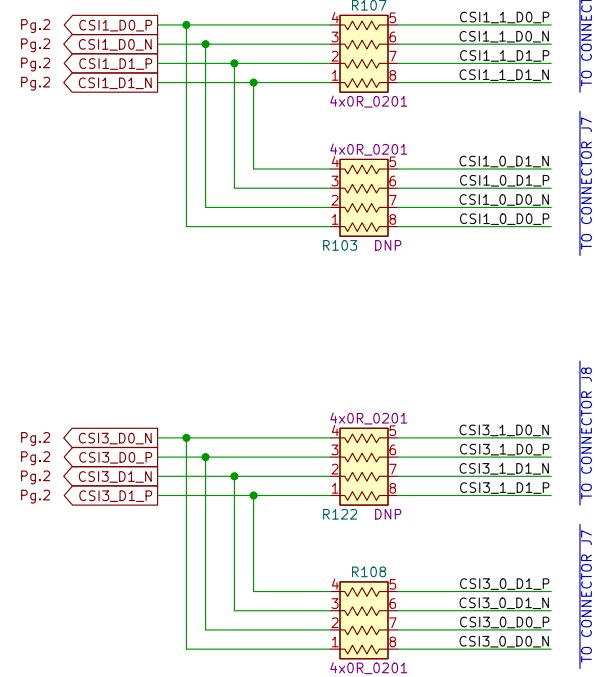
KiCad E.D.A. eeschema 6.0.5+dfsg-1-bpo11+1

Id: 7/10

## I2C Mux



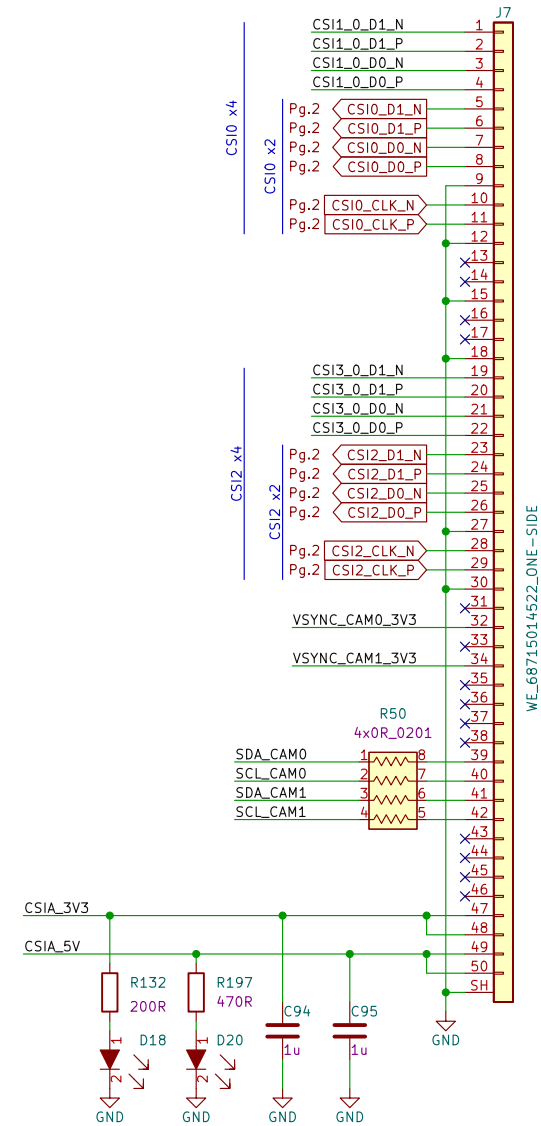
## CSI Mux



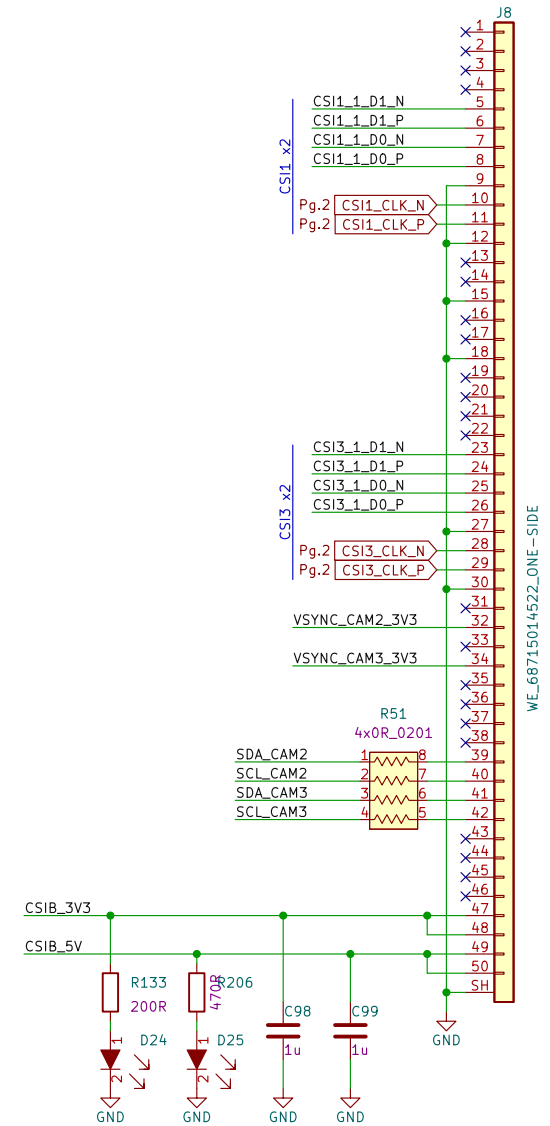
**AVAILABLE CSI CONFIGURATIONS:**

CONNECTOR J7	CONNECTOR J8
CSI0x4 CSI2x4	NONE
CSI0x4 CSI2x2	CSI3x2
CSI0x2 CSI2x4	CSI1x2
CSI0x2 CSI2x2	CSI3x2 CSI1x2

## CSI connector J7

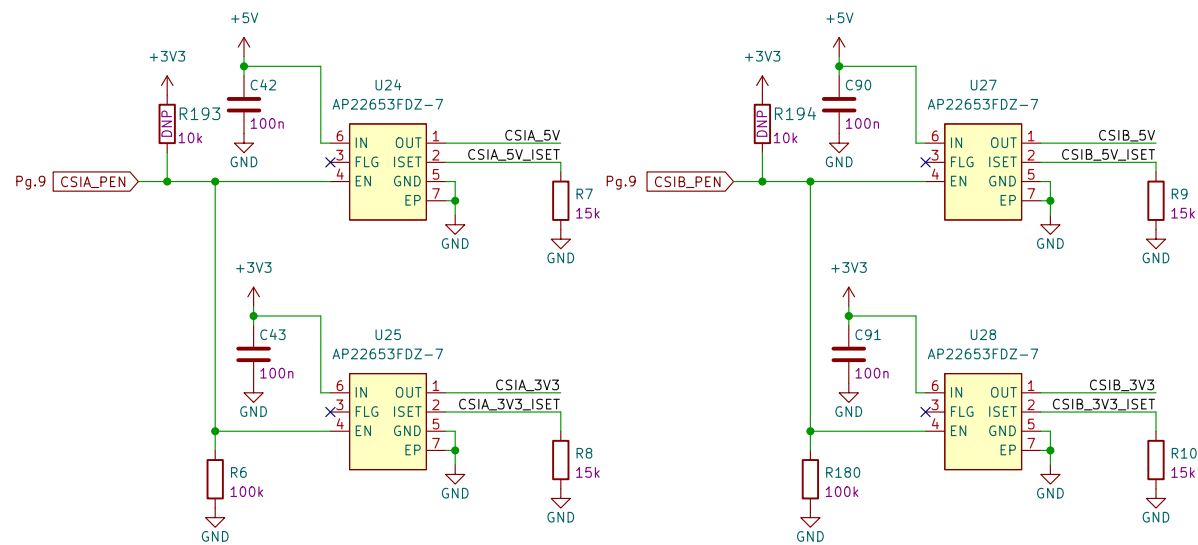


## CSI connector J8

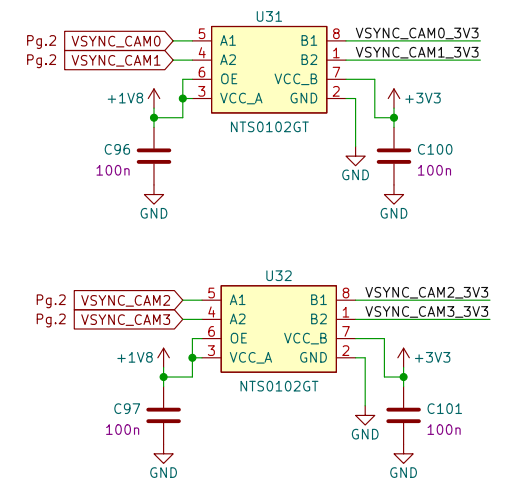


## Power switches

ALL SWITCHES  
1.7A CURRENT LIMIT

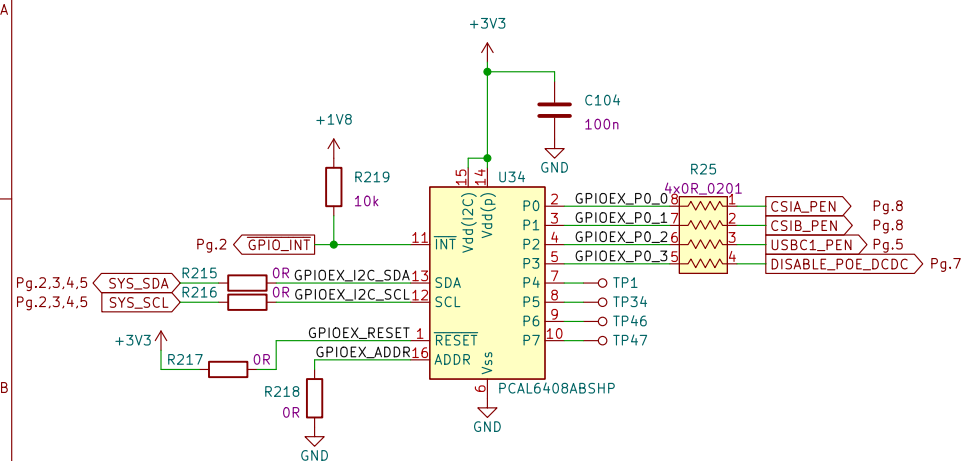


## Level shifters

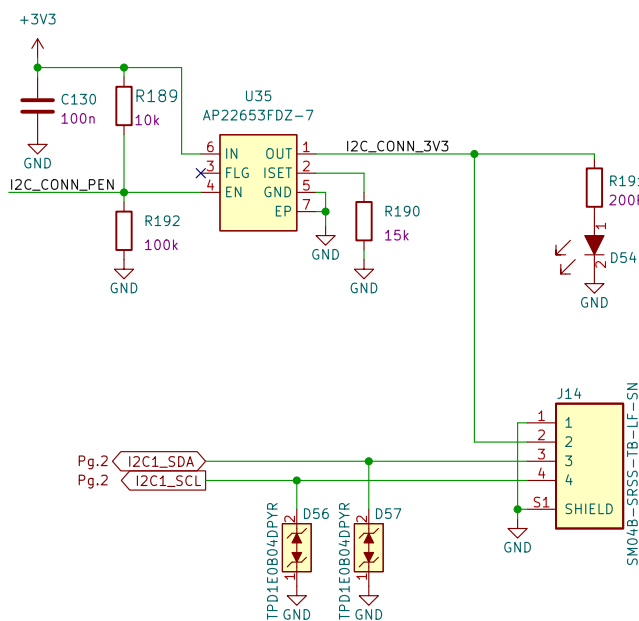




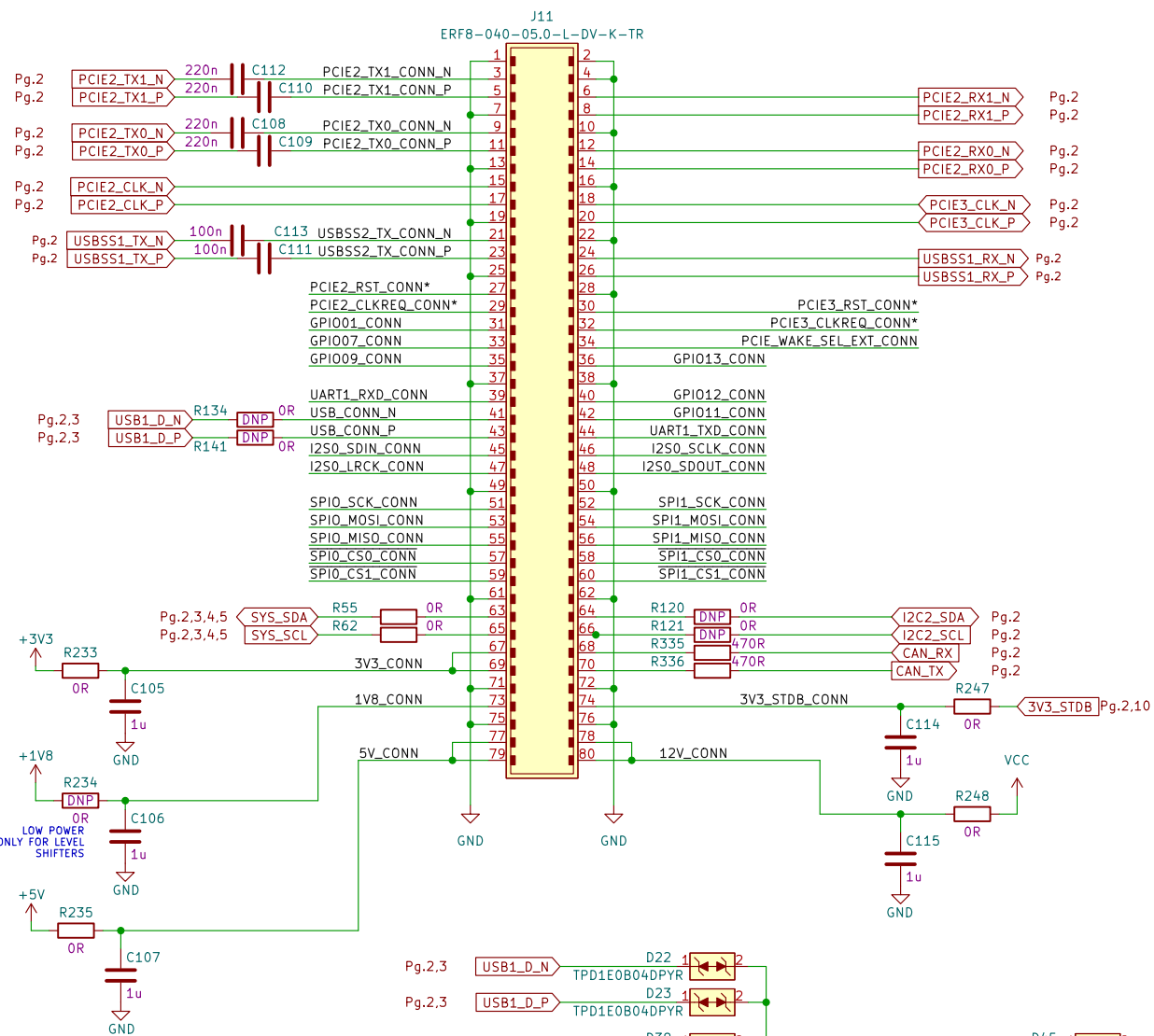
## GPIO expander



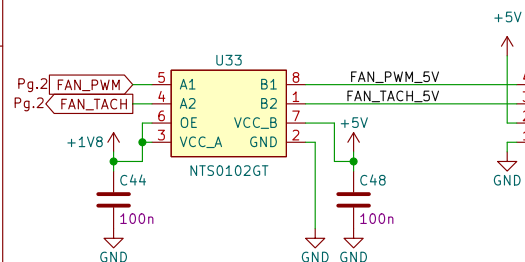
## I2C connector



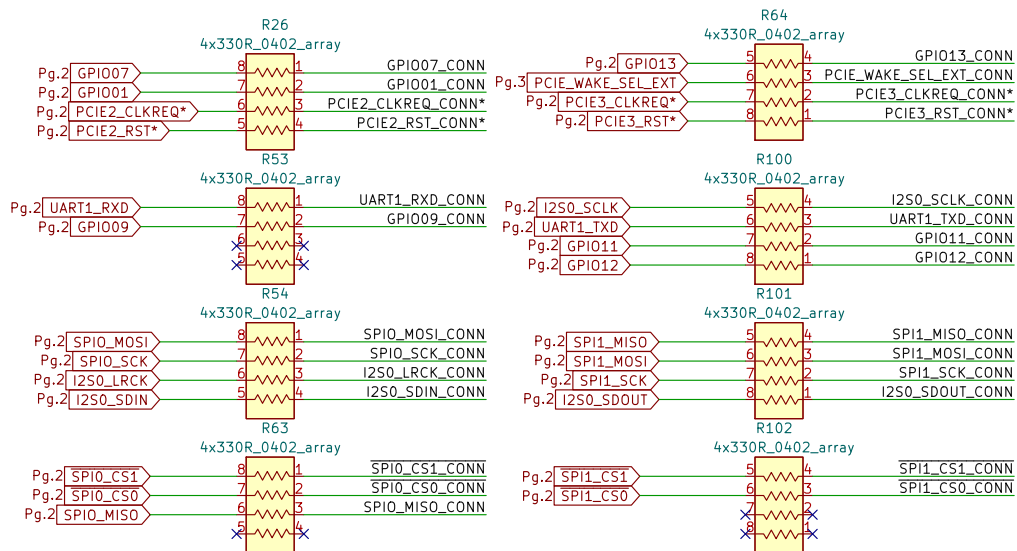
## Expansion connector



## Fan connector

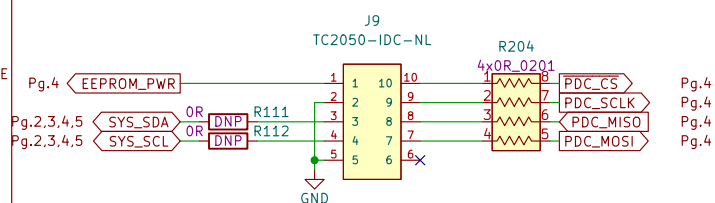


## Expansion connector resistors

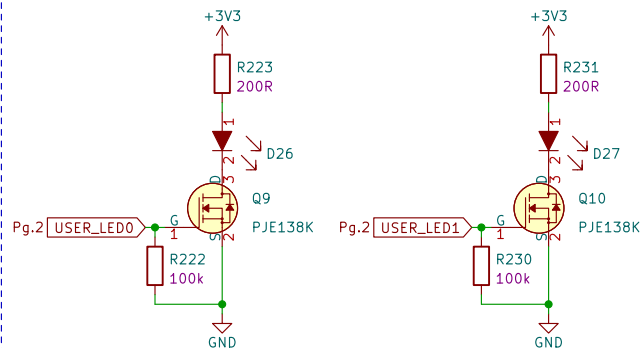


## Debug connector

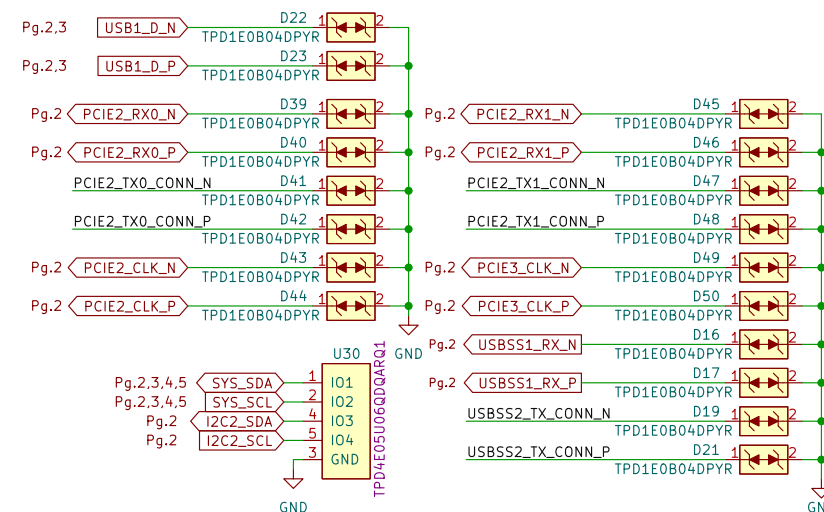
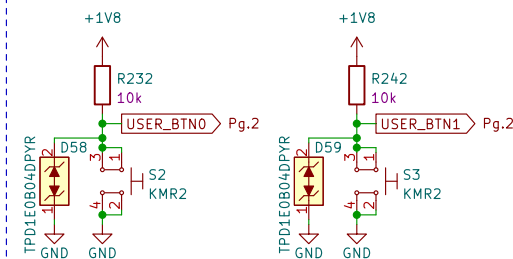
pinout compatible with  
[www.github.com/antmicro/ftdi-toolkit](https://www.github.com/antmicro/ftdi-toolkit)



## LED indicators



## Buttons



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Sheet: /Peripherals/  
File: peripherals.kicad\_sch

**Title: Jetson Orin Baseboard**

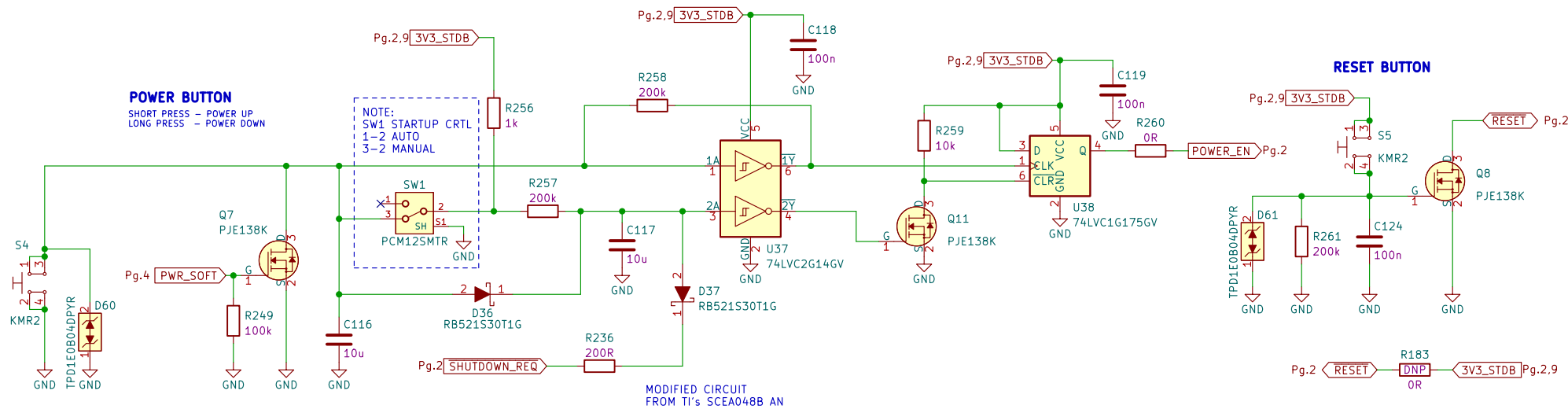
Size: A3	Date: 2023-03-03
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Size: AS	Date: 2025-05-05
KiCad E.D.A. eeschema 6.0.5+dfsg-1~bpo11+1	

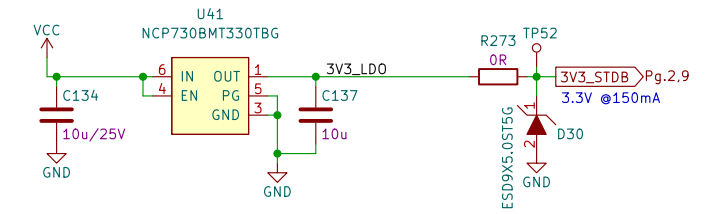
Rev: 1.1.0

Id: 9/10

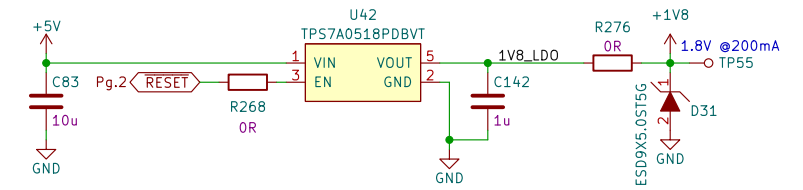
## POWER-UP AND RESET CIRCUITRY



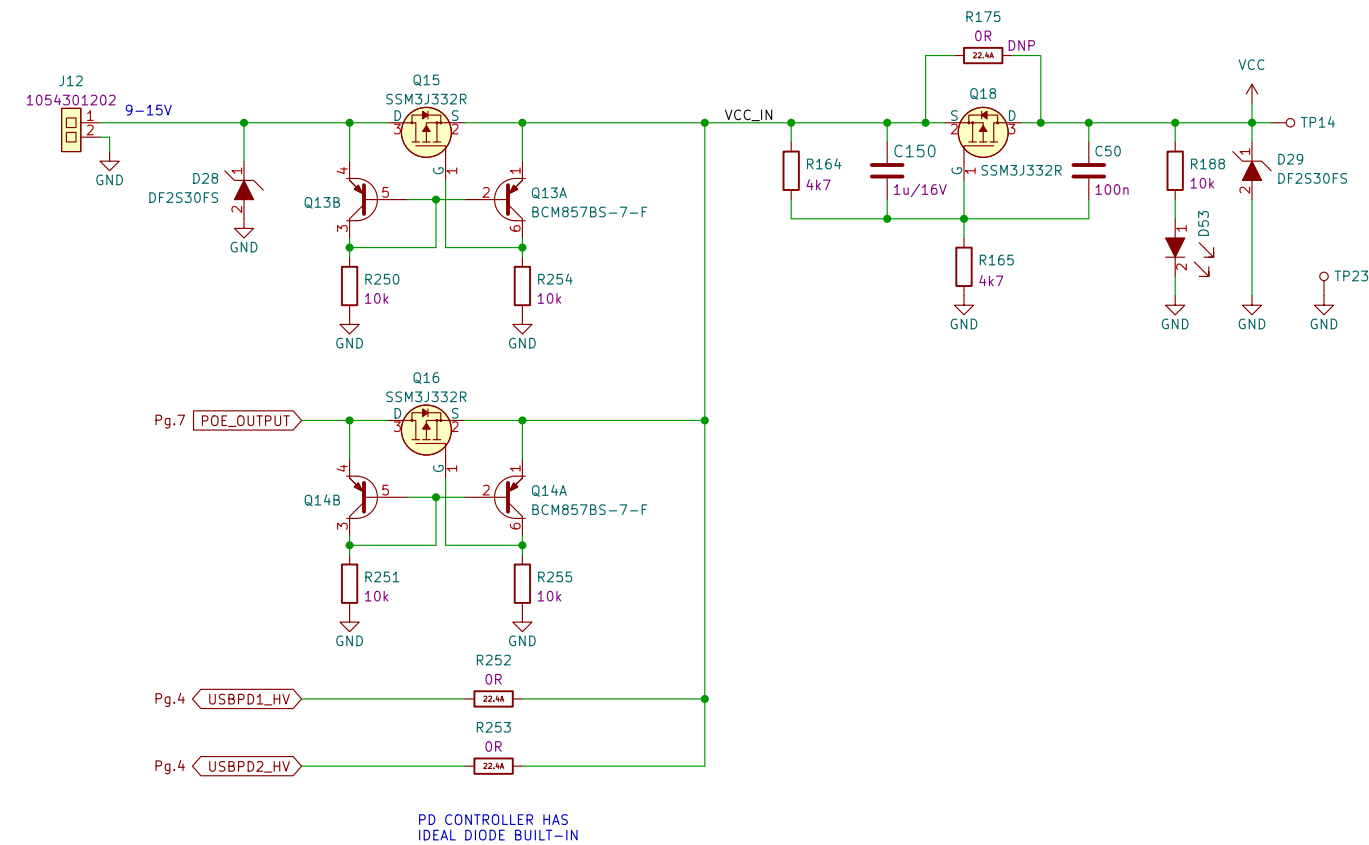
### 3V3 STANDBY LDO



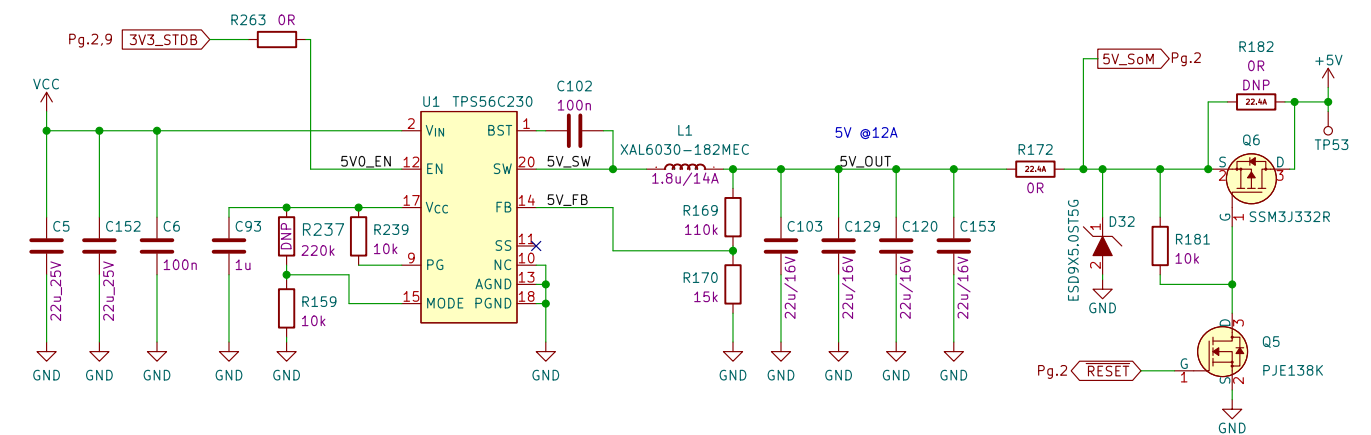
1V8 LDO



## INPUT SELECTOR AND SOFT START



5V DCDC



### 3V3 DCDC

