K26 SOM

Power Supply

POE_VC[1..4]
VCCOEN_PS_M2C
VCCOEN_PL_M2C
USBC_P
USBC_N
PS_ETH_EN
PD_EN
USBC_CC[1..2]
USBC_VBUS

File: supply.kicad_sch

Debug and JTAG

PD_EN
USBC_VBUS
USBC_CC[1..2]
USBC_N
USBC_P
MIO36
MIO37
JTAG_TDO_M2C
JTAG_TMS_C2M
JTAG_TCK_C2M
JTAG_TDI_C2M
PS_SRST_C2M
EEPROM_WC
PS_POR

File: debug.kicad_sch

Camera interface

HPA00_CC_P
HPA00_CC_N
HPA01_P
HPA01_N
HPA02_P
HPA02_N
HPA03_P
HPA03_N
HPA04_P
HPA04_N
HPA05_CC_P
HPA05_CC_N
HPA06_P
HPA06_N
HPA07_P
HPA07_N
HPA08_P
HPA08_N
HPA09_P
HPA09_N
HDA01
HDA00_CC
CAM0_VSYNC
CAM1_VSYNC
CAM0_RST

File: camera.kicad_sch

Reset logic

CAM_RST
PS_POR
MIO38
MIO41
MIO43
MIO44
HDA02
SD_CARD_RESET
USB_HUB_RESET
USB_PHY_RESET
ETH_RESET
M2_PERST
PS_CLOCK_EN

File: reset.kicad_sch

Xilinx K26 SOM

VCCO_EN_PS_M2C
VCCO_EN_PL_M2C
MIO36
MIO37
JTAG_TDO_M2C
JTAG_TMS_C2M
JTAG_TCK_C2M
JTAG_TDI_C2M
PS_SRST_C2M
PS_POR
MIO38
MIO41
MIO43
MIO44
HDA02
HPA00_CC_P
HPA00_CC_N
HPA01_P
HPA01_N
HPA02_P
HPA02_N
HPA03_P
HPA03_N
HPA04_P
HPA04_N
HPA05_CC_P
HPA05_CC_N
HPA06_P
HPA06_N
HPA07_P
HPA07_N
HPA08_P
HPA08_N
HPA09_P
HPA09_N
HDA01
HDA00_C
HDA04
HDA09
MIO[64..77]
MIO[52..63]
MIO[45..51]
MIO039
MIO[27..30]
GTR_DP0_M2C_P
GTR_DP0_M2C_N
GTR_DP1_M2C_P
GTR_DP1_M2C_N
GTR_DP2_M2C_P
GTR_DP2_M2C_N
GTR_DP2_C2M_P
GTR_DP2_C2M_N
GTR_DP3_C2M_P
GTR_DP3_C2M_N
GTR_DP3_M2C_P
GTR_DP3_M2C_N
GTR_REFCLK3_C2M_P
GTR_REFCLK3_C2M_N
GTR_REFCLK2_C2M_P
GTR_REFCLK2_C2M_N
GTR_REFCLK1_C2M_P
GTR_REFCLK1_C2M_N
GTR_REFCLK0_C2M_P
GTR_REFCLK0_C2M_N
MIO24_I2C_SCK
MIO25_I2C_SDA
HDA[11..18]
HDA16_CC

File: k26_som.kicad_sch

Ethernet

POE_VC[1..4]
ETH_RESET
MIO[64..77]

File: eth.kicad_sch

USB

GTR_DP2_M2C_P
GTR_DP2_M2C_N
GTR_DP2_C2M_P
GTR_DP2_C2M_N
MIO[52..63]
USB_PHY_RESET
USB_HUB_RESET
USB5_N
USB5_P

File: usb.kicad_sch

SD 3.0 card

MIO[45..51]
MIO039
SD_CARD_RESET

File: sd-3-card.kicad_sch

Display Port

MIO[27..30]
GTR_DP0_M2C_P
GTR_DP0_M2C_N
GTR_DP1_M2C_P
GTR_DP1_M2C_N

File: dp.kicad_sch

PCIE M2 key E

GTR_DP3_C2M_P
GTR_DP3_C2M_N
GTR_DP3_M2C_P
GTR_DP3_M2C_N
GTR_REFCLK3_C2M_P
GTR_REFCLK3_C2M_N
M2_USB_P
M2_USB_N
M2_PERST
M2_CLKREQ

File: pcie-m2-key-e.kicad_sch

Clock distribution

GTR_REFCLK3_N
GTR_REFCLK3_P
GTR_REFCLK3_C2M_P
GTR_REFCLK3_C2M_N
GTR_REFCLK2_C2M_P
GTR_REFCLK2_C2M_N
GTR_REFCLK1_C2M_P
GTR_REFCLK1_C2M_N
GTR_REFCLK0_C2M_P
GTR_REFCLK0_C2M_N
M2_CLKREQ
PS_CLK_EN

File: clock.kicad_sch

I2C

MIO24_I2C_SCK
MIO25_I2C_SDA
EEPROM_WC

File: i2c.kicad_sch

PMOD

HDA[11..18]
HDA16_CC

File: pmod.kicad_sch

Shield to GND connection

SH_DOWN — R1 330R — C1 100n — GND
SH_UP — R2 330R — C2 100n — GND

Logos

Logo N1 antmicro_logo
Logo N2 oshw_logo

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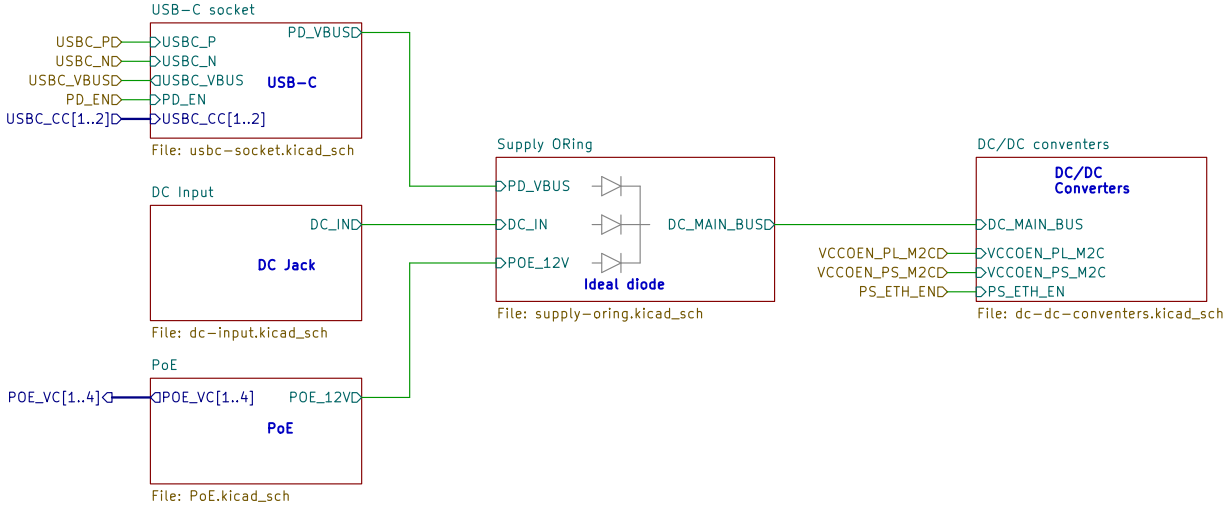
Sheet: /
File: kria-k26-devboard.kicad_sch

Title: Kria K26 Devboard

Size: A3	Date: 2023-07-27	**Rev: 1.2.1**
KiCad E.D.A. kicad 6.0.11+dfsg-1		Id: 1/19



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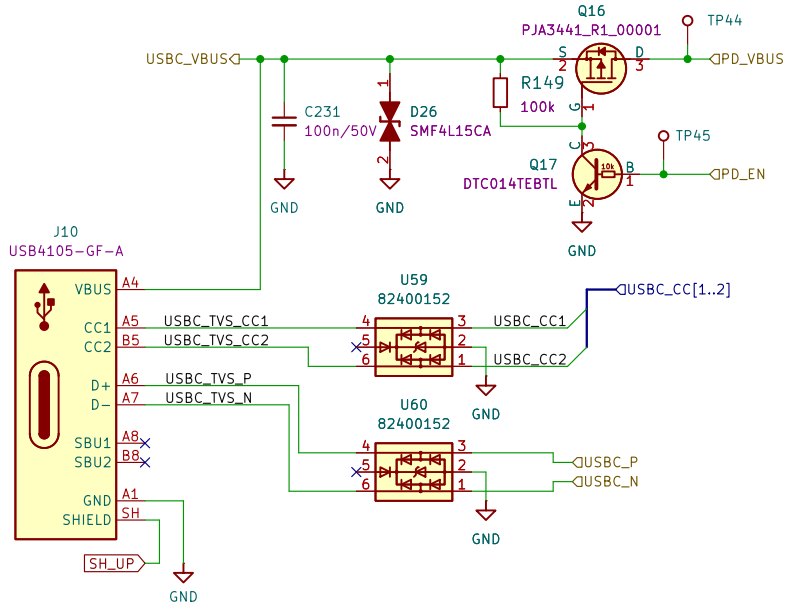
Sheet: /Power Supply/
File: supply.kicad_sch

Title: Kria K26 Devboard

Size: A4	Date: 2023-07-27	**Rev: 1.2.1**
KiCad E.D.A. kicad 6.0.11+dfsg-1		Id: 2/19



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Sheet: /Power Supply/USB-C socket/
File: usbc-socket.kicad_sch

Title: Kria K26 Devboard

Size: A4	Date: 2023-07-27	**Rev: 1.2.1**
KiCad E.D.A. kicad 6.0.11+dfsg-1		Id: 3/19

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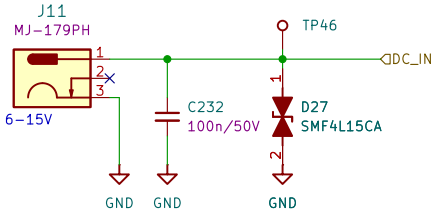

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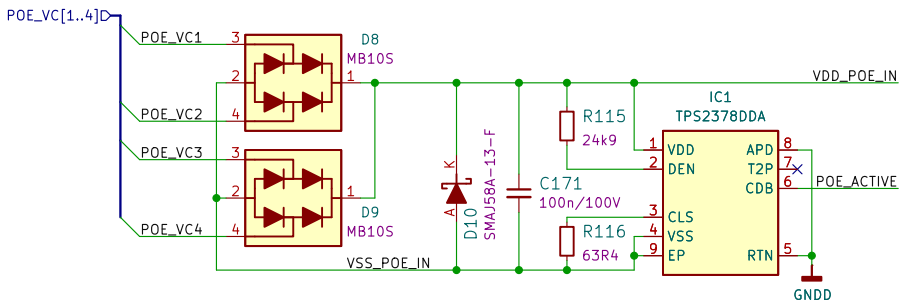
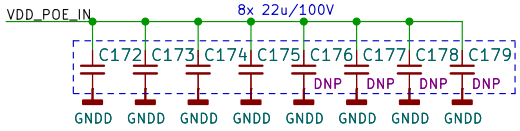
Sheet: /Power Supply/DC Input/
File: dc-input.kicad_sch

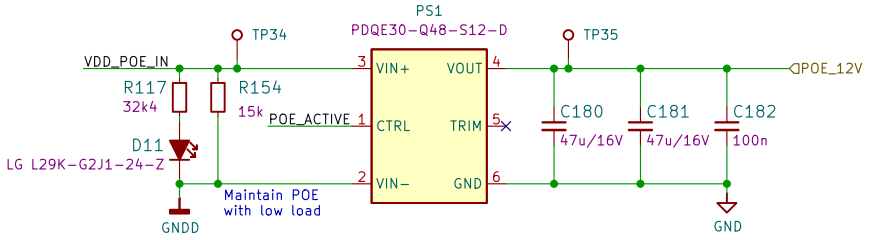
Title: Kria K26 Devboard

Size: A4	Date: 2023-07-27	**Rev: 1.2.1**
KiCad E.D.A. kicad 6.0.11+dfsg-1		Id: 4/19

PoE PD







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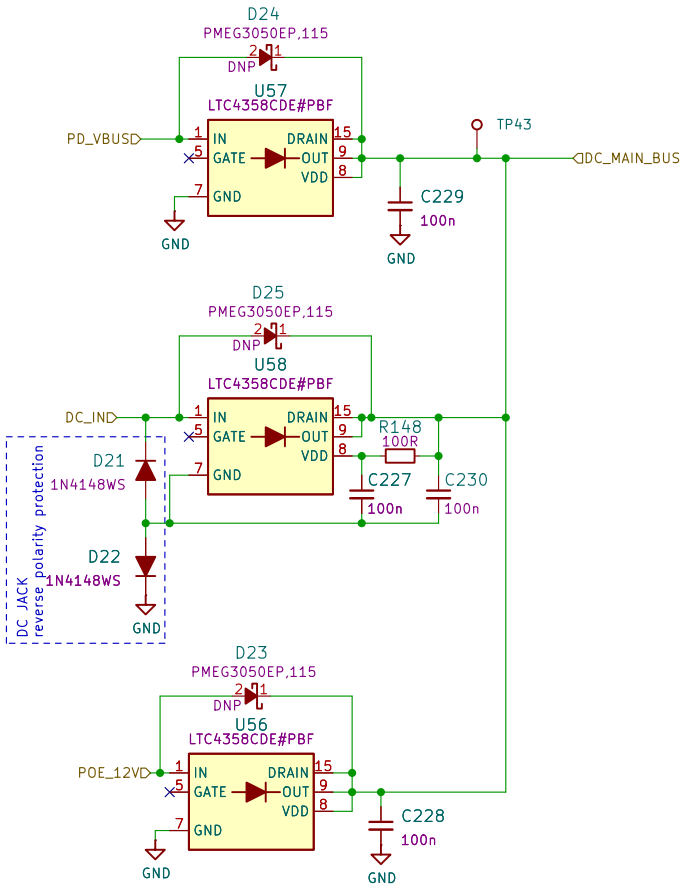
Sheet: /Power Supply/PoE/ File: PoE.kicad_sch	
Title: Kria K26 Devboard	
Size: A4	Date: 2023-07-27
KiCad E.D.A. kicad 6.0.11+dfsg-1	**Rev: 1.2.1** Id: 5/19



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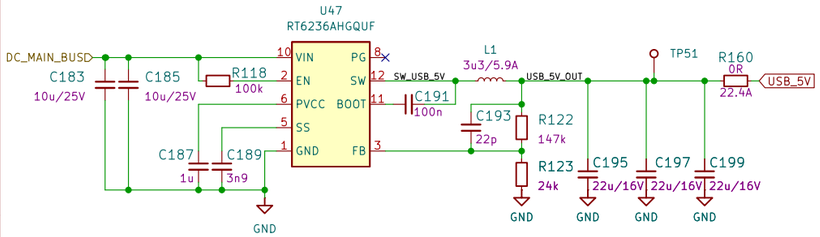
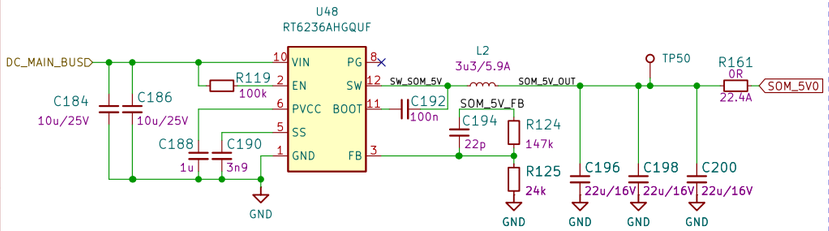
Sheet: /Power Supply/Supply ORing/
File: supply-oring.kicad_sch

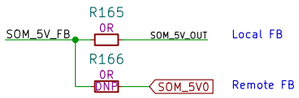
Title: Kria K26 Devboard

Size: A4	Date: 2023-07-27	**Rev: 1.2.1**
KiCad E.D.A. kicad 6.0.11+dfsg-1		Id: 6/19

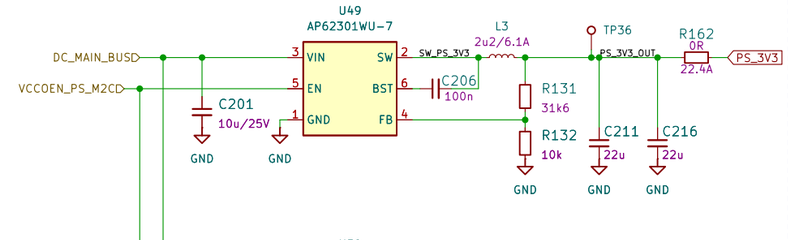
SOM 5V

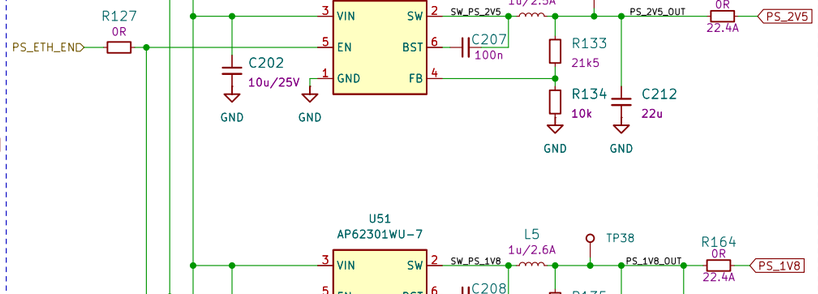


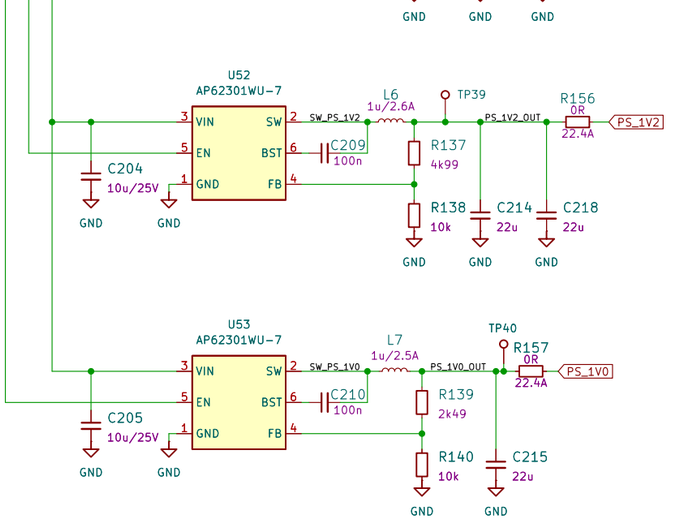




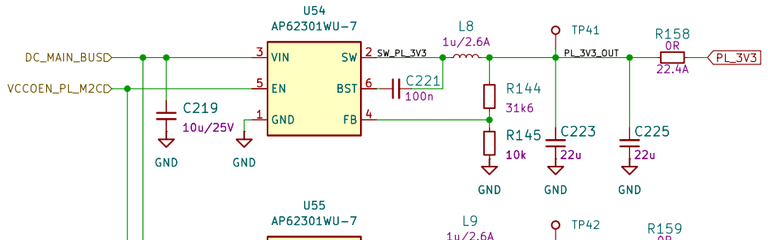
PS domain



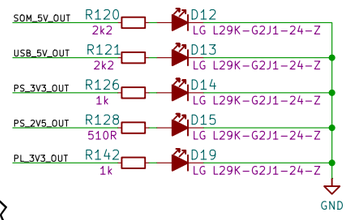


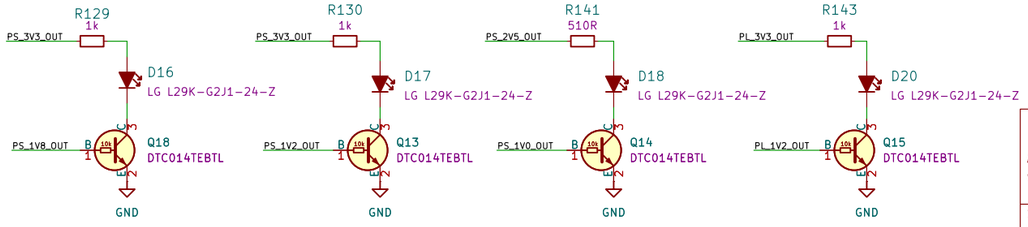


PL domain



Power indication





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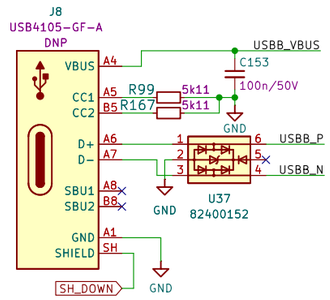
Sheet: /Power Supply/DC/DC conventers/
File: dc-dc-conventers.kicad_sch

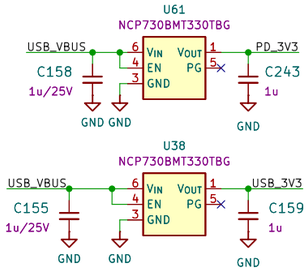
Title: Kria K26 Devboard

Size: A3	Date: 2023-07-27	**Rev: 1.2.1**
KiCad E.D.A. kicad 6.0.11+dfsg-1		Id: 7/19

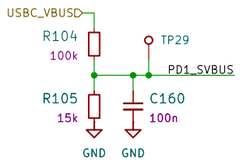
Optional debug USB



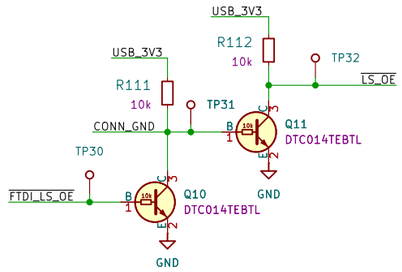
Supply



USB-C VBUS voltage divider

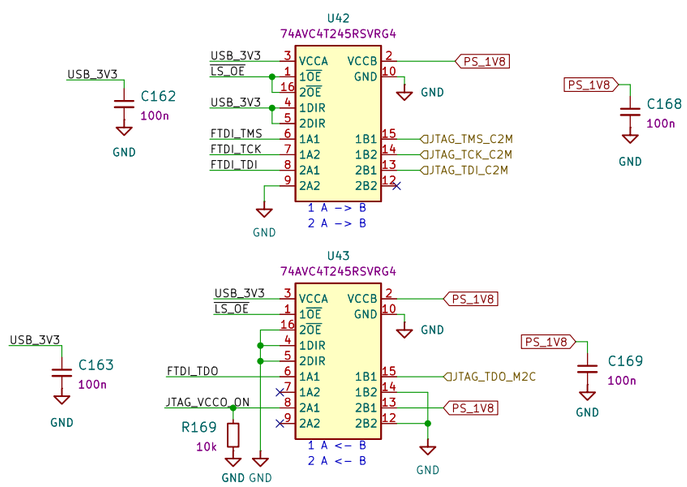


Logic level conversion enable

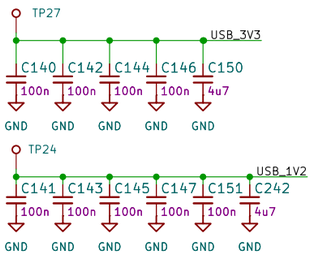


Enables logic level conventer,
disables JTAG from FTDI when JTAG connector is used

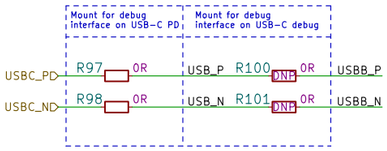
Logic level conversion



Decoupling and Filtering

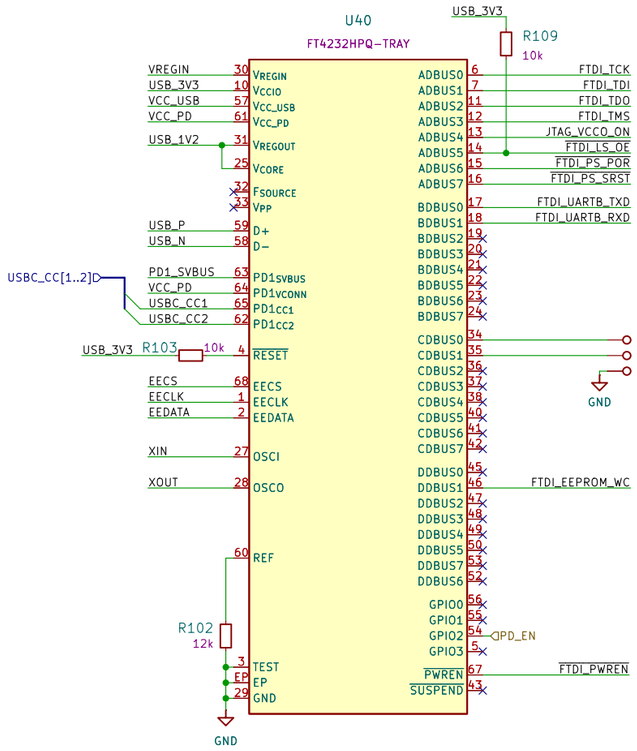


Connector configuration

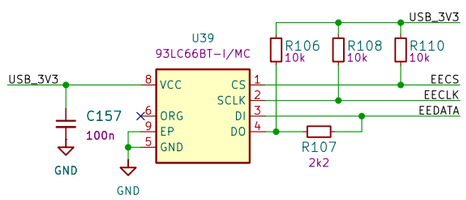


Crystal

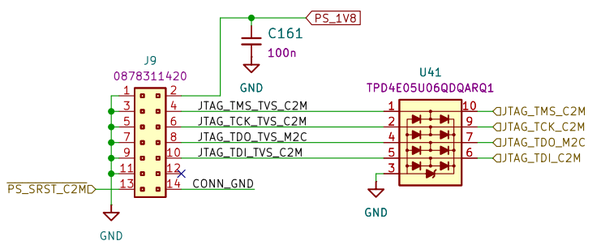
FTDI

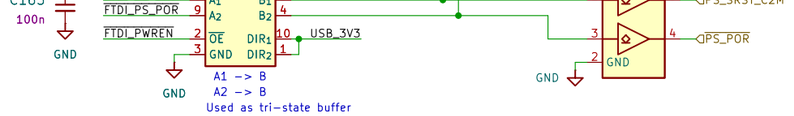


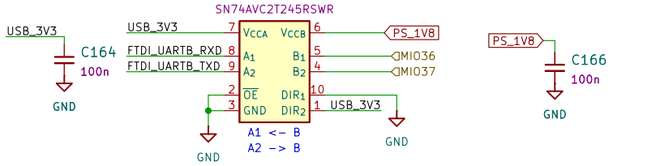
EEPROM

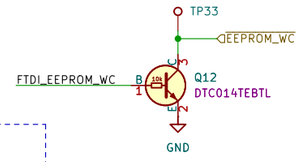


JTAG connector









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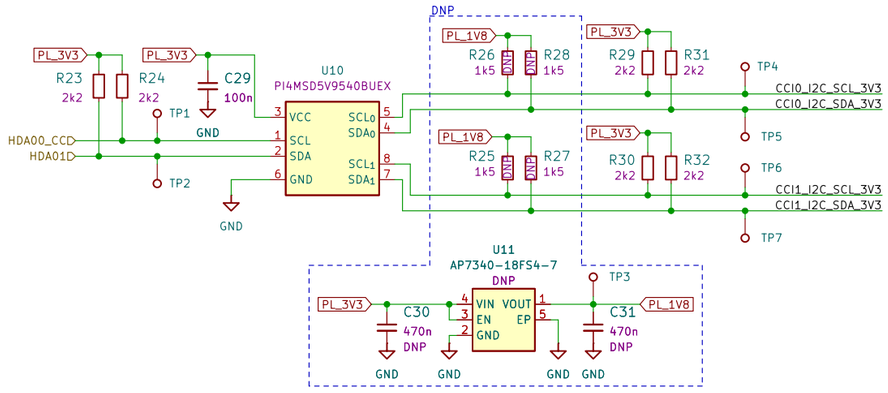
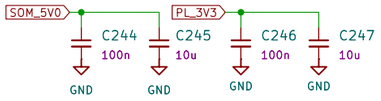
Sheet: /Debug and JTAG/
File: debug.kicad_sch

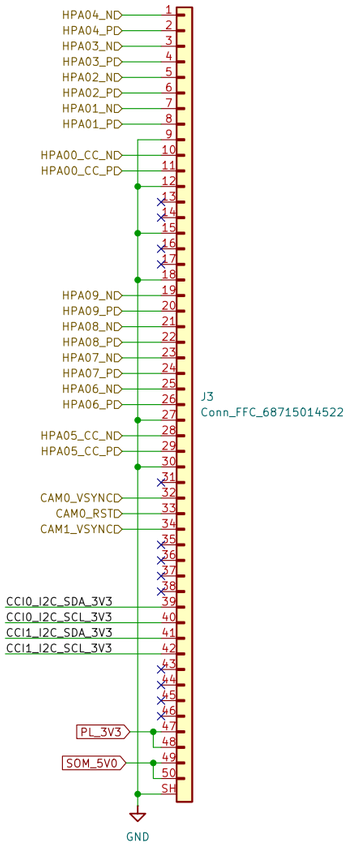
Title: Kria K26 Devboard

Size: A3	Date: 2023-07-27	**Rev: 1.2.1**
KiCad E.D.A. kicad 6.0.11+dfsg-1		Id: 8/19

Camera interface







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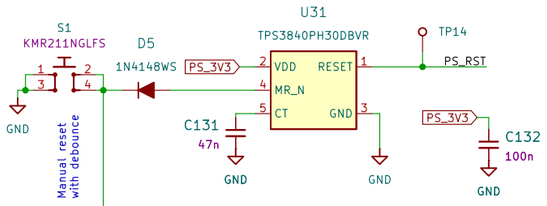
Sheet: /Camera interface/
File: camera.kicad_sch

Title: Kria K26 Devboard

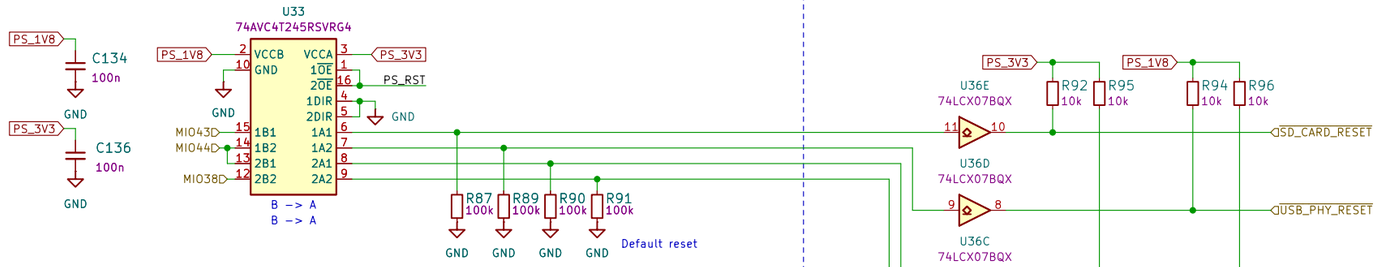
Size: A3	Date: 2023-07-27	**Rev: 1.2.1**
KiCad E.D.A. kicad 6.0.11+dfsg-1		Id: 9/19

PS domain

PS voltage supervisor (3V0 threshold) with manual reset

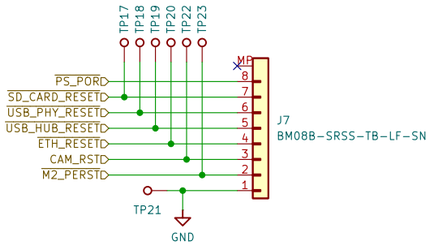


Logic level conversion enabled by voltage supervisor

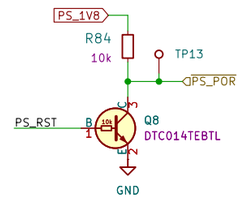


OD reset buffer

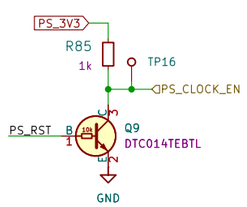
Reset debug connector



SOM reset

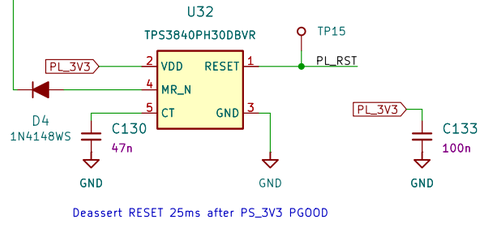


Clock enable

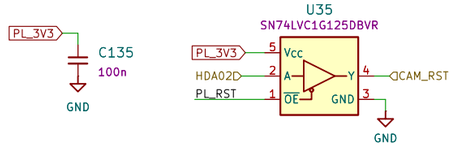


PL domain

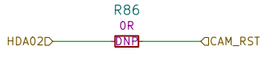
PL voltage supervisor (3V0 threshold) with manual reset



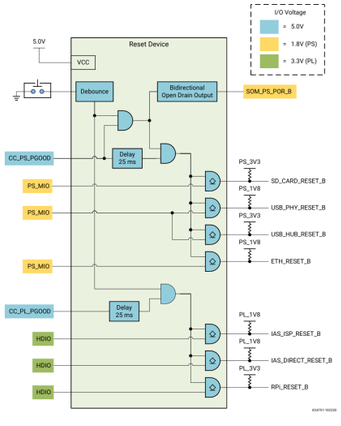
Resert OE controlled by voltage supervisor



Optional PL bypass (when using DNP other PL reset circuitry)



Xilinx reference



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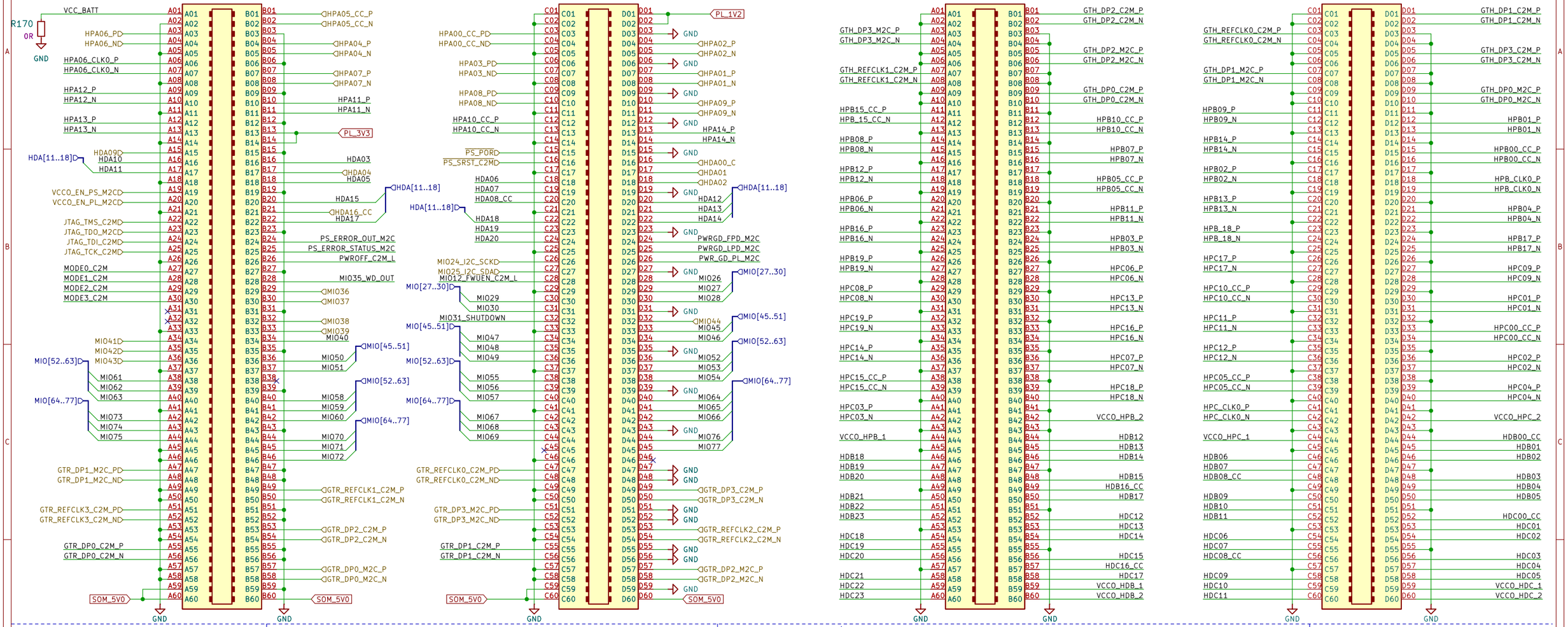
Sheet: /Reset logic/
File: reset.kicad_sch

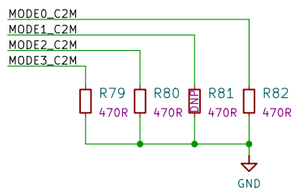
Title: Kria K26 Devboard

Size: A3	Date: 2023-07-27	**Rev: 1.2.1**
KiCad E.D.A. kicad 6.0.11+dfsg-1		Id: 10/19

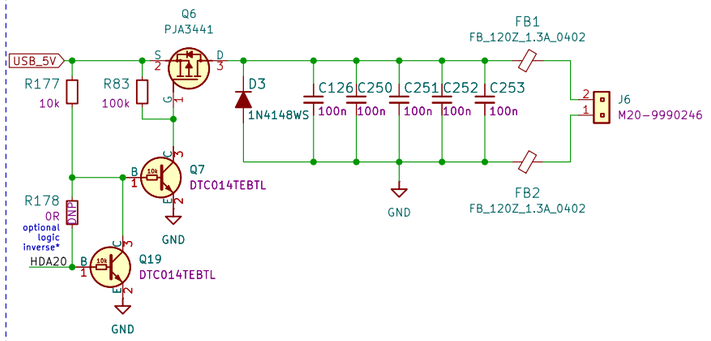
SOM K26 B2B connectors



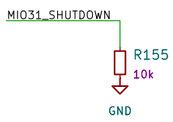
BOOT MODE: QUAD-SPI



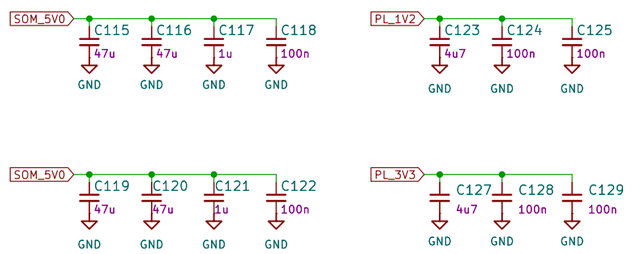
5V Fan header



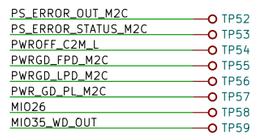
SHUTDOWN pull-down



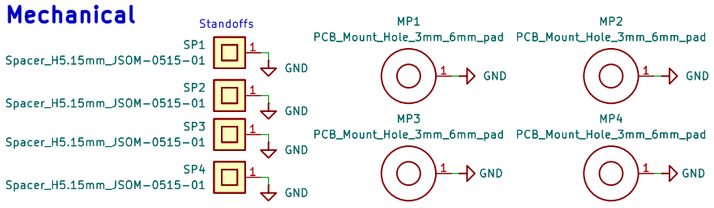
SOM decoupling



Test points

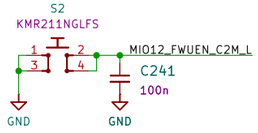


Mechanical



SOM 3D Model
M1
XILINX-KRIA-K26

FWUEN Button



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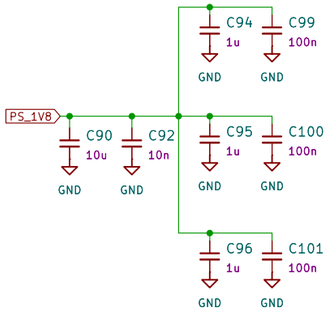
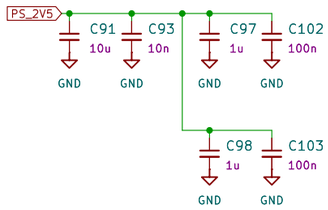
Sheet: /Xilinx K26 SOM/
File: k26_som.kicad_sch

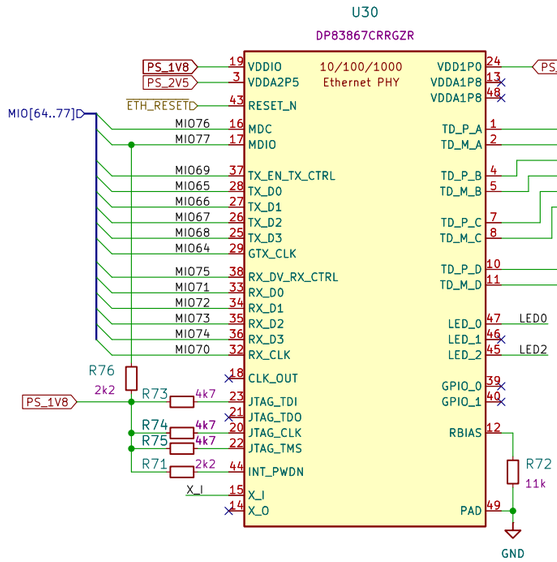
Title: Kria K26 Devboard

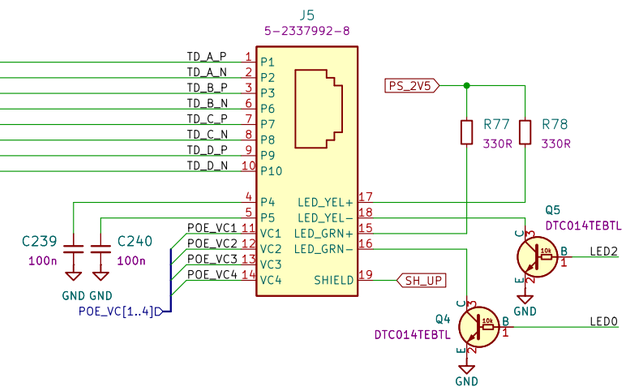
Size: A3	Date: 2023-07-27	**Rev: 1.2.1**
KiCad E.D.A. kicad 6.0.11+dfsg-1		Id: 11/19

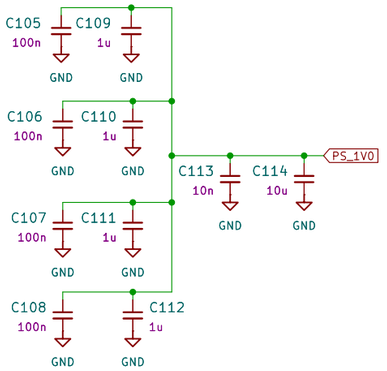
ETH0 – PD PoE



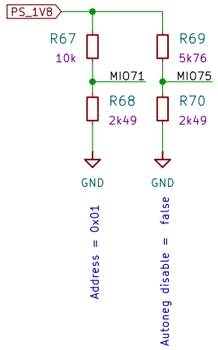


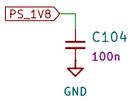


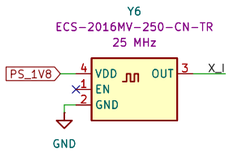




Strap Configuration







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NOTE:

CLK is matched to data lanes, the device tree should use "rgmii-id"

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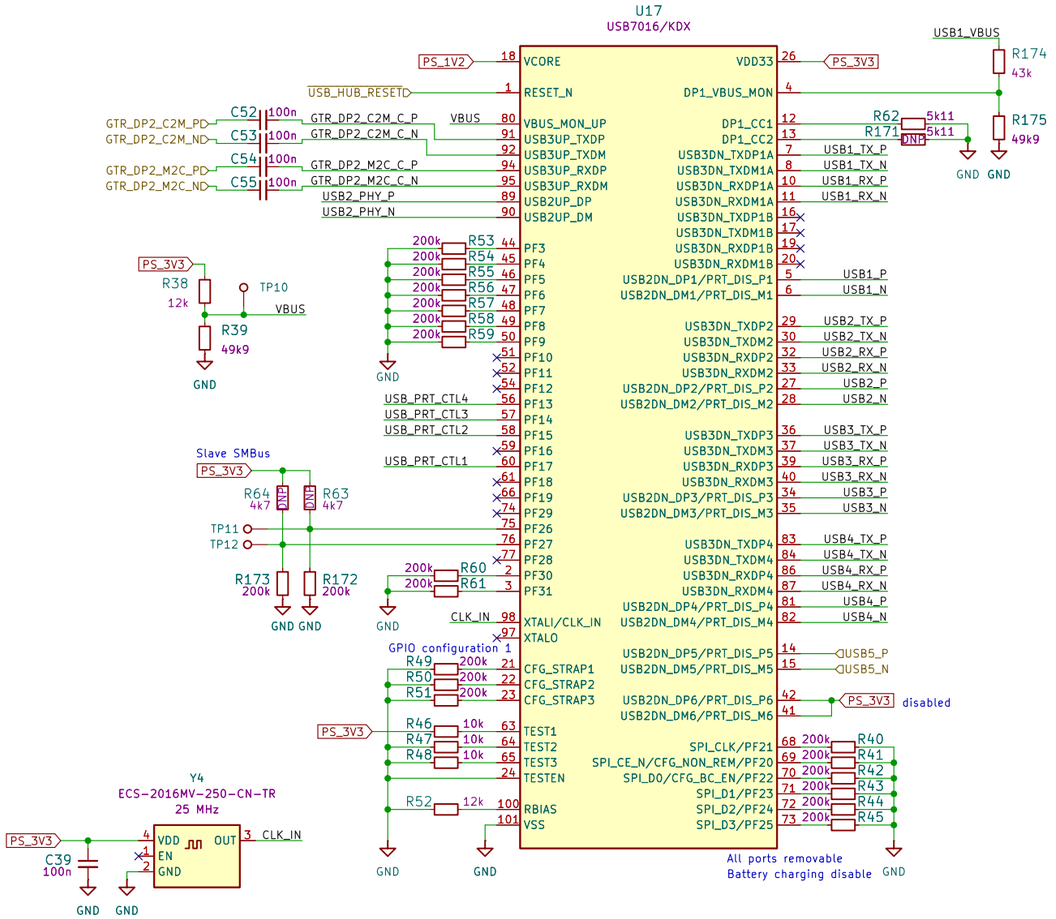
Sheet: /Ethernet/
File: eth.kicad_sch

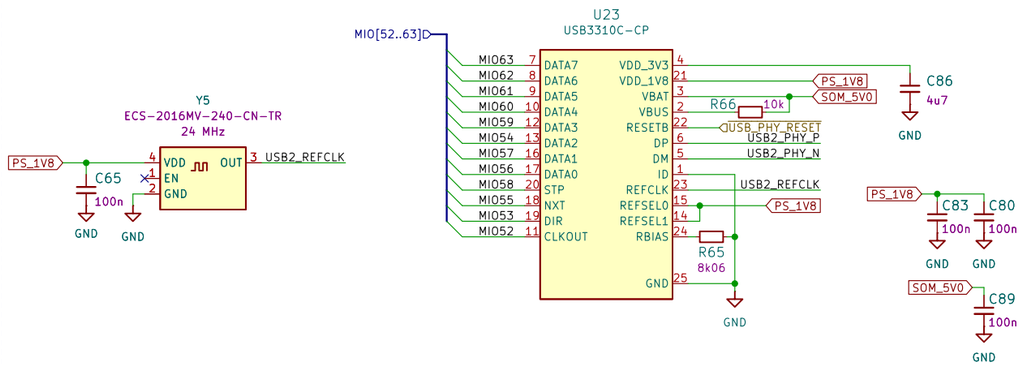
Title: Kria K26 Devboard

Size: A3	Date: 2023-07-27	**Rev: 1.2.1**
KiCad E.D.A. kicad 6.0.11+dfsg-1		Id: 12/19

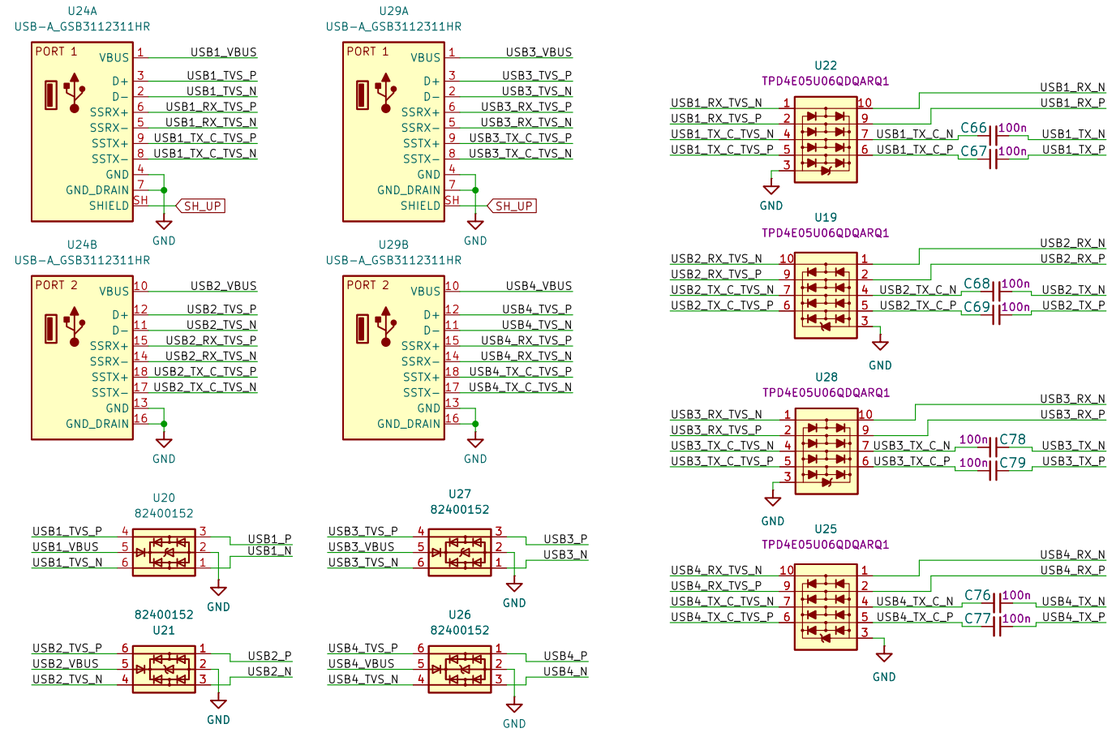
6 port USB hub



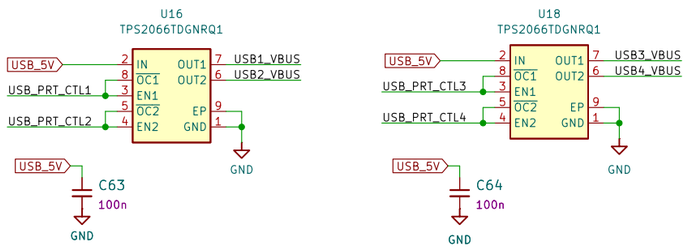
USB 2.0 PHY



USB connectors



USB power switches



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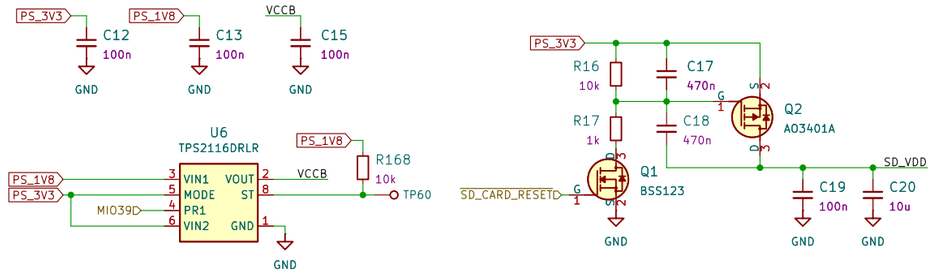
Sheet: /USB/
File: usb.kicad_sch

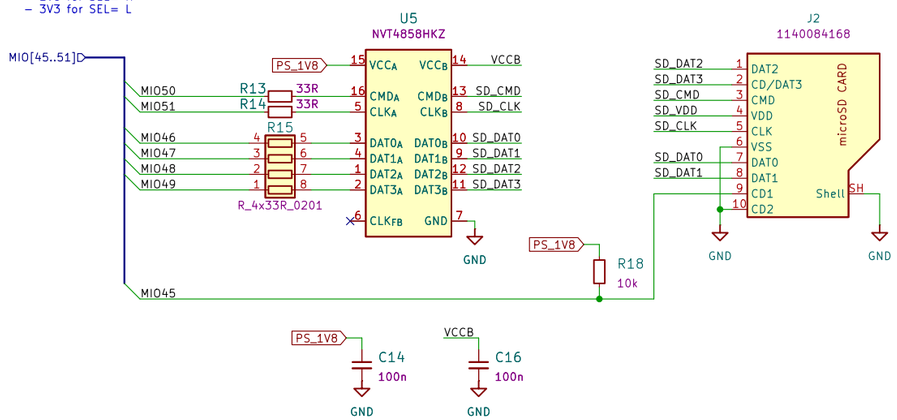
Title: Kria K26 Devboard

Size: A3	Date: 2023-07-27	**Rev: 1.2.1**
KiCad E.D.A. kicad 6.0.11+dfsg-1		Id: 13/19

SD 3.0



Power multiplexer (low voltage signaling for SD 3.0 enabled by MIO39)
VCCB:
– 1V8 for SEL= H
– 3V3 for SEL= L



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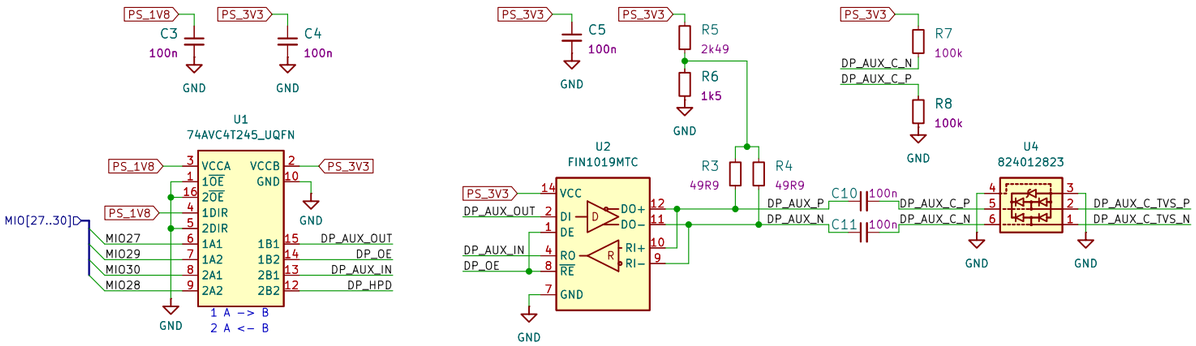
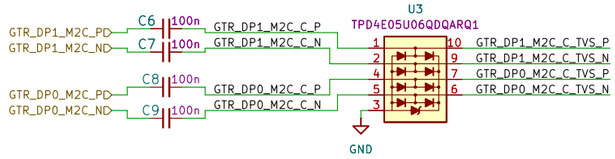
Sheet: /SD 3.0 card/
File: sd-3-card.kicad_sch

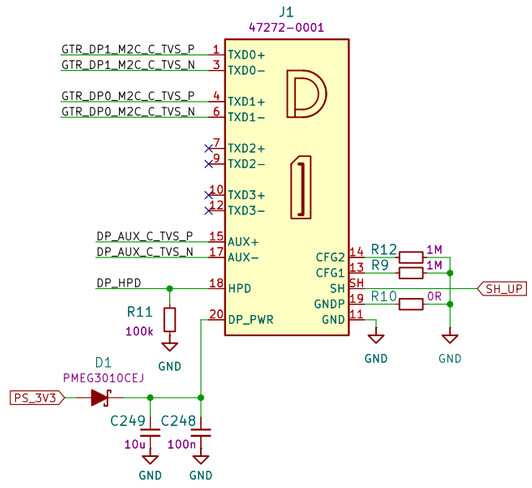
Title: Kria K26 Devboard

Size: A3	Date: 2023-07-27	**Rev: 1.2.1**
KiCad E.D.A. kicad 6.0.11+dfsg-1		Id: 14/19

DisplayPort







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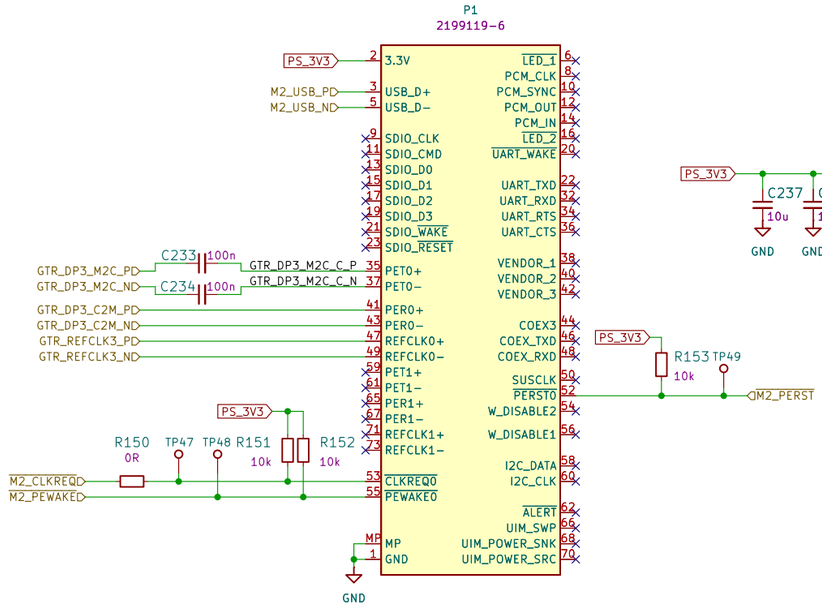
Sheet: /Display Port/
File: dp.kicad_sch

Title: Kria K26 Devboard

Size: A3	Date: 2023-07-27	**Rev: 1.2.1**
KiCad E.D.A. kicad 6.0.11+dfsg-1		Id: 15/19

M.2 key E PCIe



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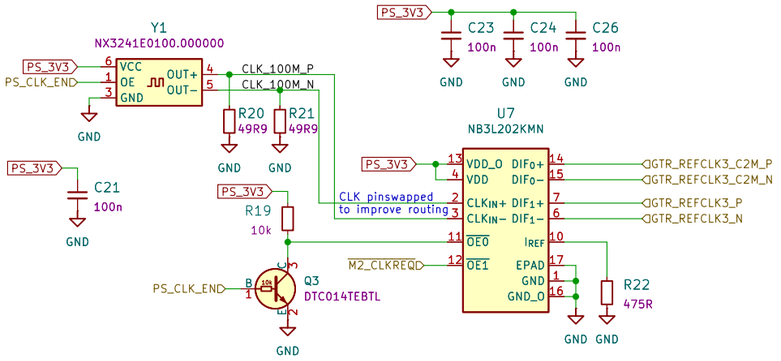
Sheet: /PCIE M2 key E /
File: pcie-m2-key-e.kicad_sch

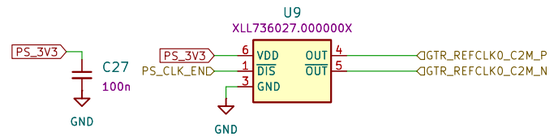
Title: Kria K26 Devboard

Size: A3	Date: 2023-07-27	**Rev: 1.2.1**
KiCad E.D.A. kicad 6.0.11+dfsg-1		Id: 16/19

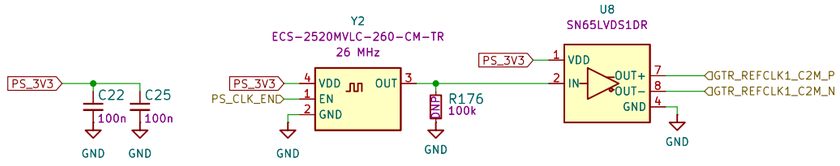
PCIe GTH REFCLK: 2x100MHz HCSL



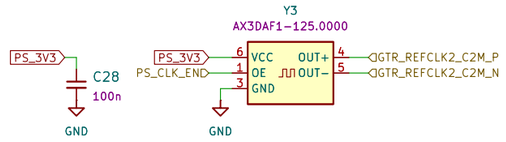
DisplayPort GTH REFCLK: 27MHz LVDS



USB GTH REFCLK: 26MHz LVDS



ETH GTH REFCLK: 125MHz LVDS



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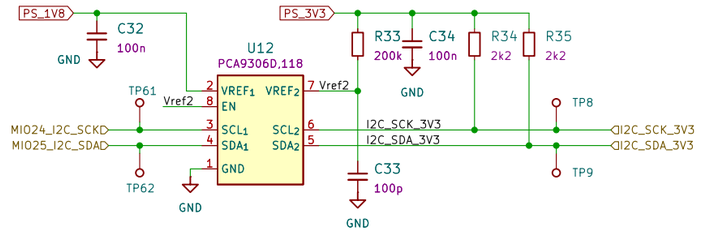
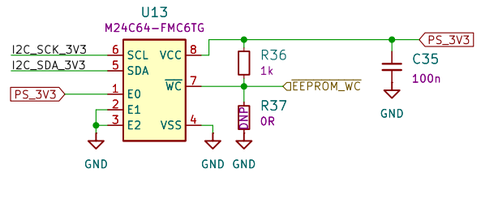
Sheet: /Clock distribution/
File: clock.kicad_sch

Title: Kria K26 Devboard

Size: A3	Date: 2023-07-27	**Rev: 1.2.1**
KiCad E.D.A. kicad 6.0.11+dfsg-1		Id: 17/19

I2C





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Sheet: /I2C /
File: i2c.kicad_sch

Title: Kria K26 Devboard

Size: A3	Date: 2023-07-27	**Rev: 1.2.1**
KiCad E.D.A. kicad 6.0.11+dfsg-1		Id: 18/19

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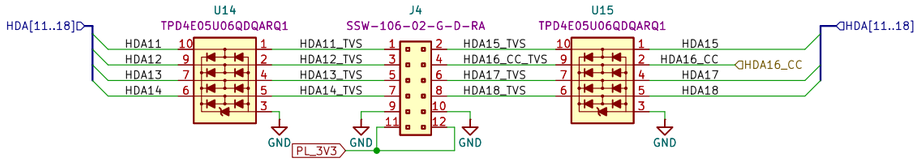
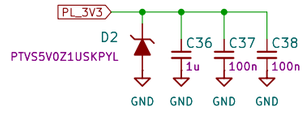
PMOD





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Sheet: /PMOD/ File: pmod.kicad_sch		
Title: Kria K26 Devboard		
Size: A3	Date: 2023-07-27	**Rev: 1.2.1**
KiCad E.D.A. kicad 6.0.11+dfsg-1		Id: 19/19