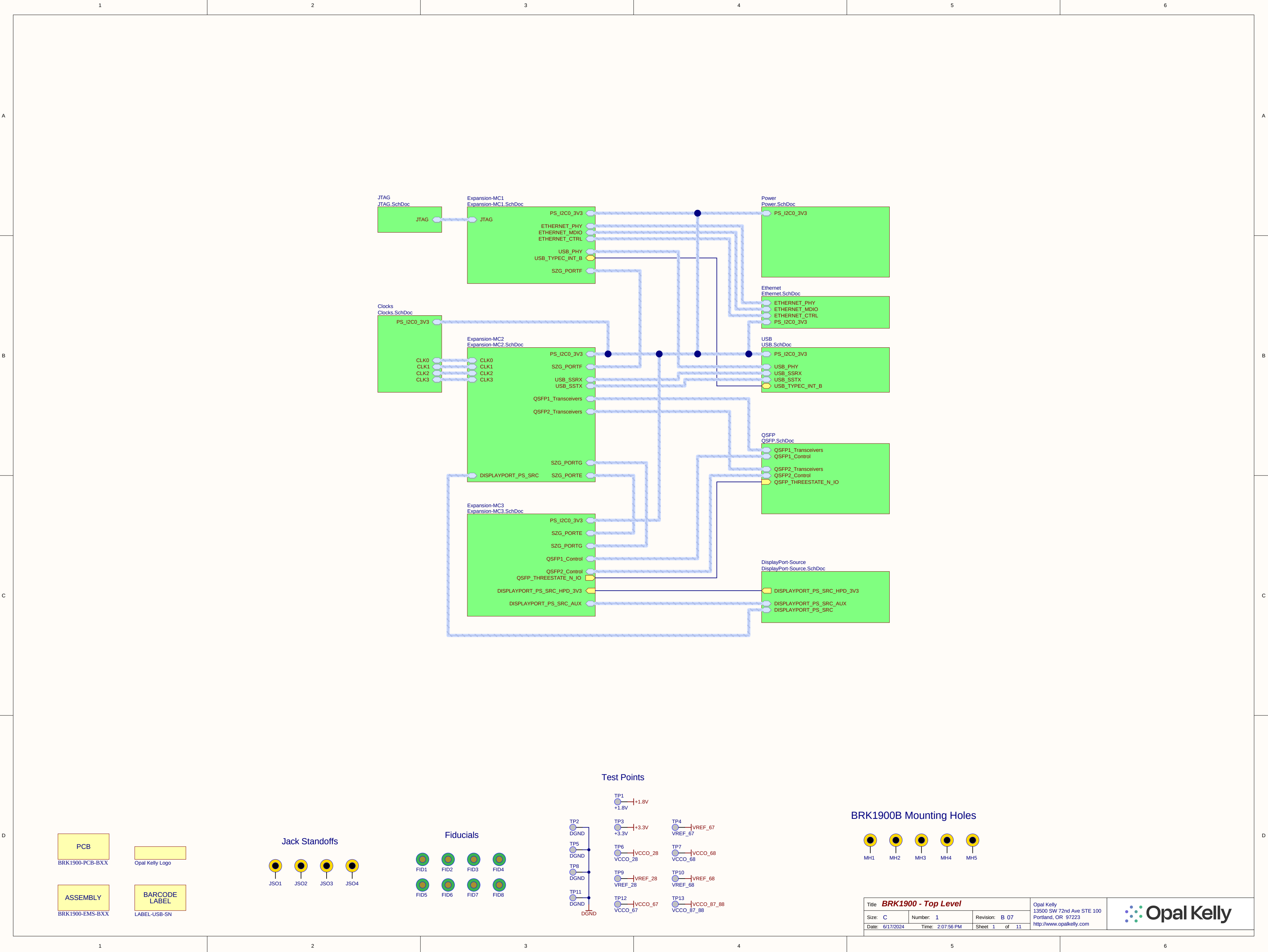




PCB

BRK1900-PCB-BXX

ASSEMBLY

BRK1900-EMS-BXX

Opal Kelly Logo

BARCODE LABEL

LABEL-USB-SN

Jack Standoffs

JSO1

JSO2

JSO3

JSO4

Fiducials

FID1

FID2

FID3

FID4

FID5

FID6

FID7

FID8

BRK1900B Mounting Holes

MH1

MH2

MH3

MH4

MH5

The diagram shows the pin connections for the SATA connector J12 (67800-5005). The connector has 7 pins. The connections are as follows:

- Pin 1: GND
- Pin 2: TXA+ (Signal)
- Pin 3: TXA- (Signal)
- Pin 4: GND
- Pin 5: RXB- (Signal)
- Pin 6: RXB+ (Signal)
- Pin 7: GND

The signals are connected to the SATA controller pins:

- SATA TXA+ C (Pin 25) to TXA+ (Pin 2)
- SATA TXA- C (Pin 26) to TXA- (Pin 3)
- SATA RXB- C (Pin 27) to RXB- (Pin 5)
- SATA RXB+ C (Pin 28) to RXB+ (Pin 6)

The signals are also connected to the SATA controller pins:

- SATA TXA+ C (Pin 25) to TXA+ (Pin 2)
- SATA TXA- C (Pin 26) to TXA- (Pin 3)
- SATA RXB- C (Pin 27) to RXB- (Pin 5)
- SATA RXB+ C (Pin 28) to RXB+ (Pin 6)

The signals are also connected to the SATA controller pins:

- SATA TXA+ C (Pin 25) to TXA+ (Pin 2)
- SATA TXA- C (Pin 26) to TXA- (Pin 3)
- SATA RXB- C (Pin 27) to RXB- (Pin 5)
- SATA RXB+ C (Pin 28) to RXB+ (Pin 6)

[illegible]

OSH-020-01 F-P-DPA

TXR4

PS 12C0_SCL_3V3 1 SCL
PS 12C0_SDA_3V3 3 SDA
SZG PORTE_RX0P 5 RX0p
SZG PORTE_RX0N 7 RX0n
SZG PORTE_RX1P 9 RX1p
SZG PORTE_RX1N 11 RX1n
SZG PORTE_REFCLKP 13 REFCLKp
SZG PORTE_REFCLKN 15 REFCLKn
SZG PORTE_S2 17 S2
SZG PORTE_S4 19 S4
SZG PORTE_S6 21 S6
SZG PORTE_S8 23 S8
SZG PORTE_RX3P 25 RX3p
SZG PORTE_RX3N 27 RX3n
SZG PORTE_RX2P 29 RX2p
SZG PORTE_RX2N 31 RX2n
SZG PORTE_P2C_CLKP 33 P2C_CLKp
SZG PORTE_P2C_CLKN 35 P2C_CLKn
VCCO_67 37 RSVDO
39 VIO

+5V
R_GA 4 +5V_SZG
TX0p 6 SZG PORTE_TX0P
TX0n 8 SZG PORTE_TX0N
TX1p 10 SZG PORTE_TX1P
TX1n 12 SZG PORTE_TX1N
S0 14 SZG PORTE_S0
S1 16 SZG PORTE_S1
S3 18 SZG PORTE_S3
S5 20 SZG PORTE_S5
S7 22 SZG PORTE_S7
S9 24 SZG PORTE_S9
TX3p 26 SZG PORTE_TX3P
TX3n 28 SZG PORTE_TX3N
TX2p 30 SZG PORTE_TX2P
TX2n 32 SZG PORTE_TX2N
C2P_CLKp 34 SZG PORTE_C2P_CLKP
C2P_CLKn 36 SZG PORTE_C2P_CLKN
RSVDO 38 +3.3V_AUX
40

GND
DGND

R14
24.9
DGND

Pin connection diagram for the TXR4 module. The diagram shows a blue outline of the module with pins numbered 1 to 40. Pins 1-33 are on the left, and pins 34-40 are on the right. Various signals are connected to specific pins, including PS I2C0 SCL 3V3, SZG PORTF RX0P, SZG PORTF RX0N, SZG PORTF RX1P, SZG PORTF RX1N, SZG PORTF REFCLKP, SZG PORTF REFCLKN, SZG PORTF S2, SZG PORTF S4, SZG PORTF S6, SZG PORTF S8, SZG PORTF RX3P, SZG PORTF RX3N, SZG PORTF RX2P, SZG PORTF RX2N, SZG PORTF P2C_CLKP, SZG PORTF P2C_CLKN, VCCO_28, RSVDO, VIO, +5V, R_GA, TX0P, TX0n, TX1P, TX1n, S0, S1, S3, S5, S7, S9, TX3P, TX3n, TX2P, TX2n, C2P_CLKP, C2P_CLKN, +3.3V, AUX, DGND, and R15 18.7k.

PS I2C0 SCL 3V3 1
PS I2C0 SDA 3V3 3
SZG PORTG RX0P 5
SZG PORTG RX0N 7
SZG PORTG RX1P 9
SZG PORTG RX1N 11
SZG PORTG REFCLKP 13
SZG PORTG REFCLKN 15
SZG PORTG S2 17
SZG PORTG S4 19
SZG PORTG S6 21
SZG PORTG S8 23
SZG PORTG RX3P 25
SZG PORTG RX3N 27
SZG PORTG RX2P 29
SZG PORTG RX2N 31
SZG PORTG P2C_CLKP 33
SZG PORTG P2C_CLKN 35
VCCO_68 37
RSVd 39
VIO
GND

TXR4

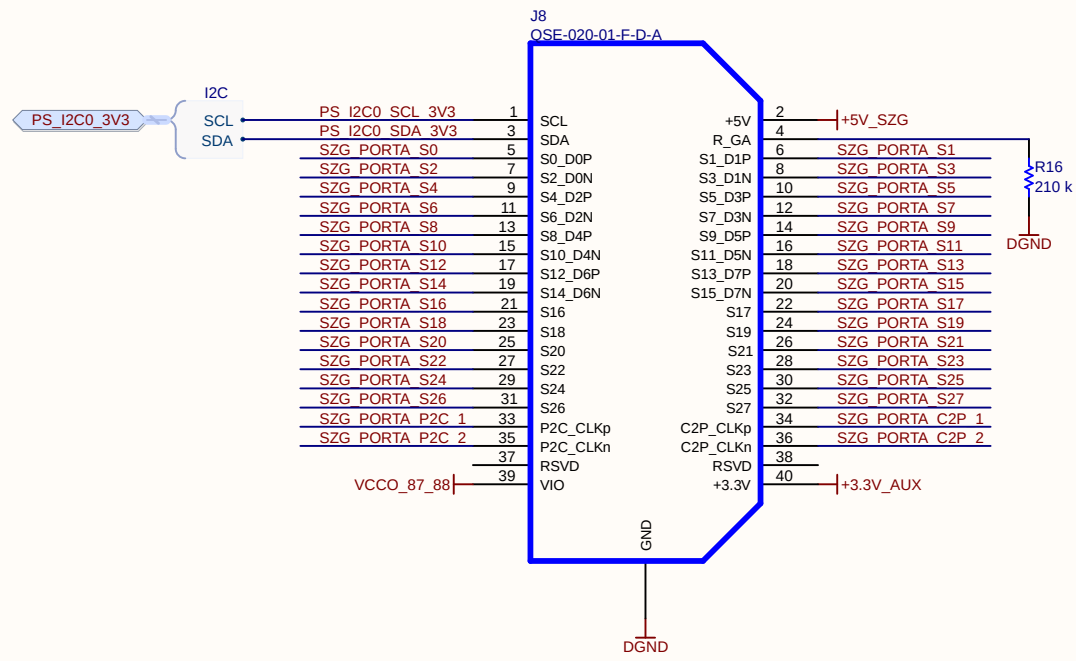
+5V 2
R_GA 4
TX0P 6
TX0N 8
TX1P 10
TX1N 12
S0 14
S1 16
S3 18
S5 20
S7 22
S9 24
TX3P 26
TX3N 28
TX2P 30
TX2N 32
C2P_CLKP 34
C2P_CLKN 36
RSVd +3.3V 38
+3.3V_AUX 40

DNGND

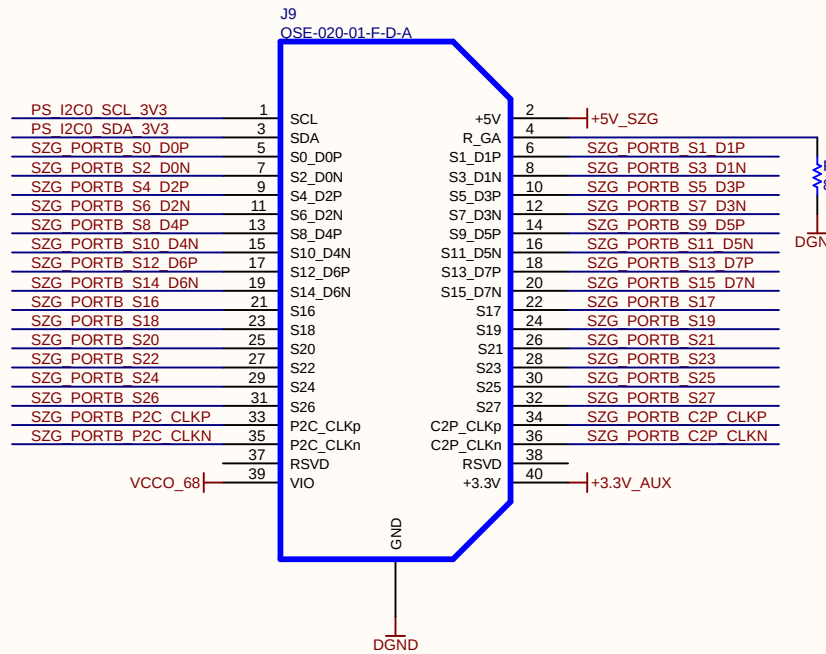
R8 14.3 k

SYZYGY PORT A (VCCO_87_88)

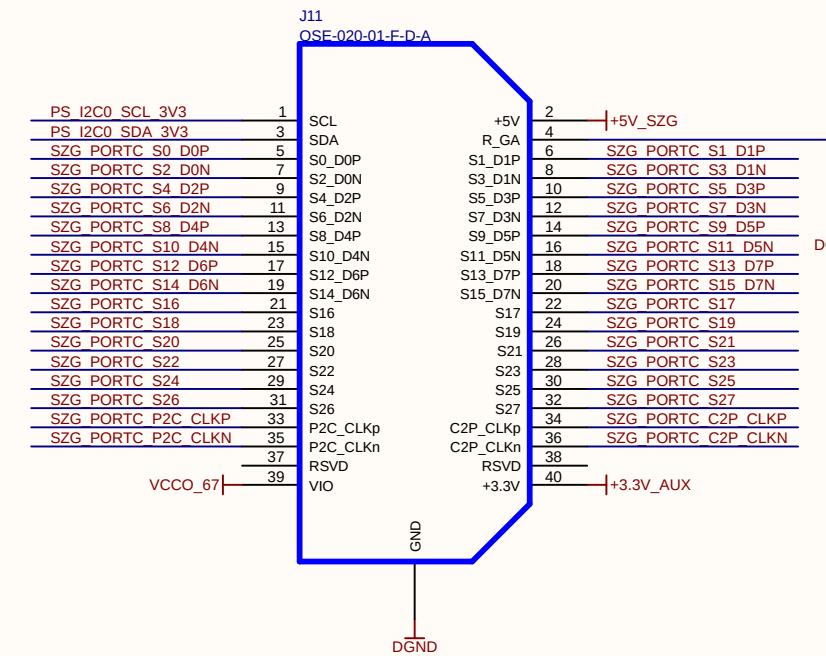
Port A uses Bank 88 which is an HD bank that has a wider VIO range, but does not support LVDS.



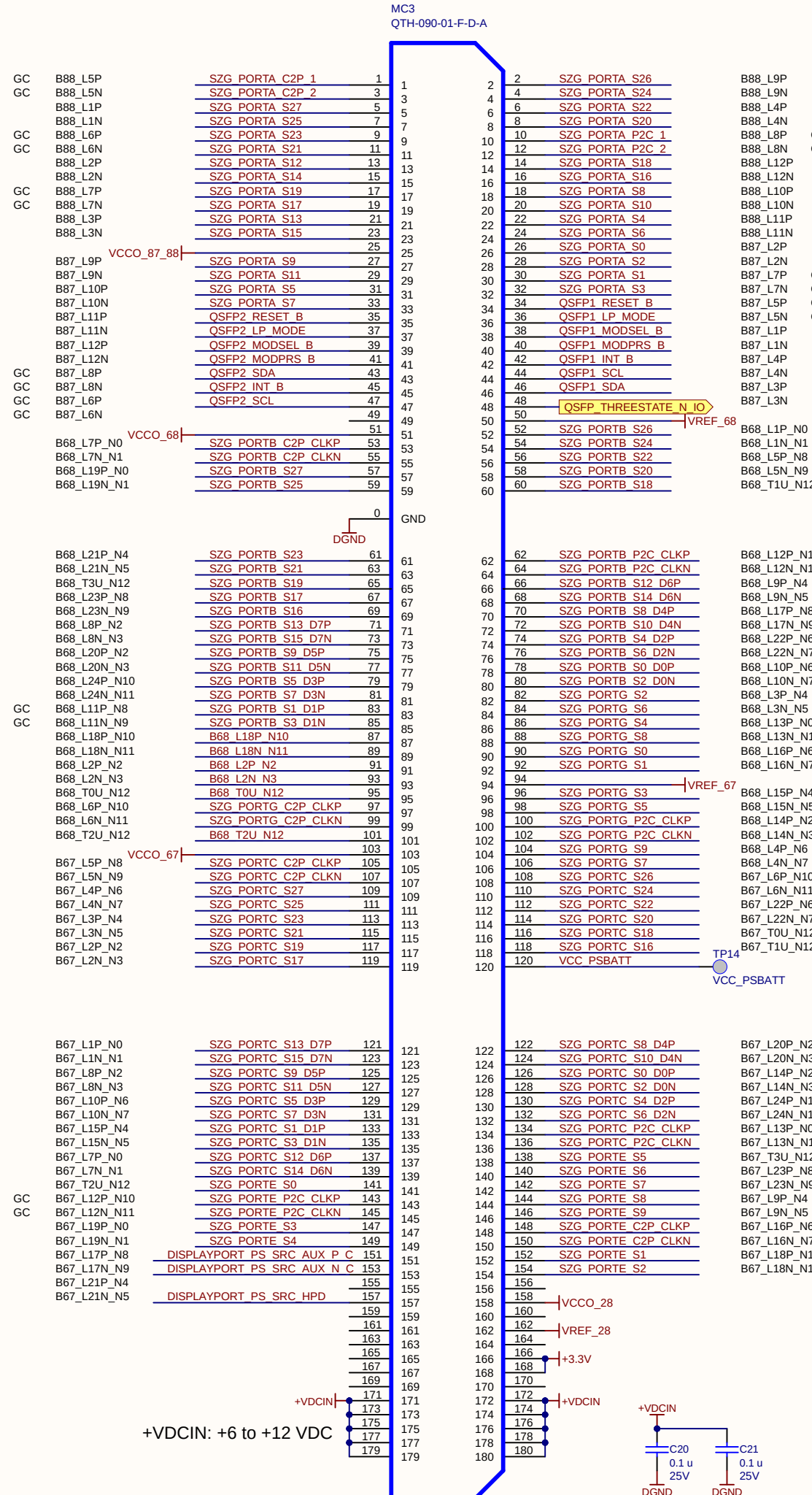
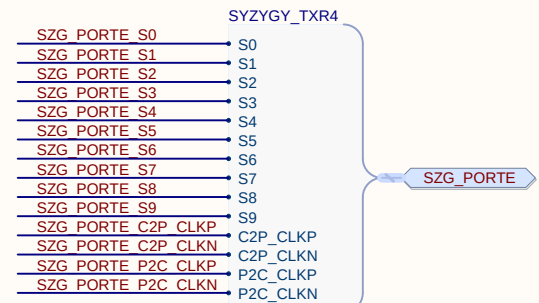
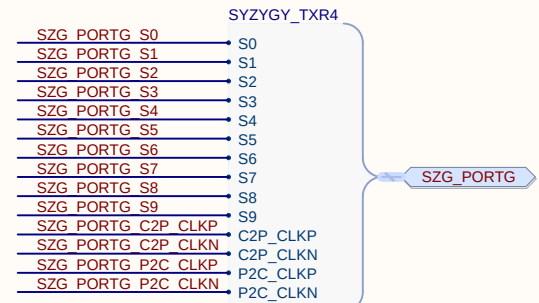
SYZYGY PORT B (VCCO_68)



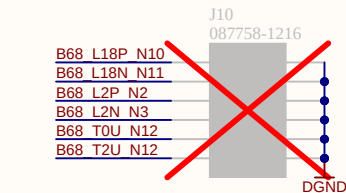
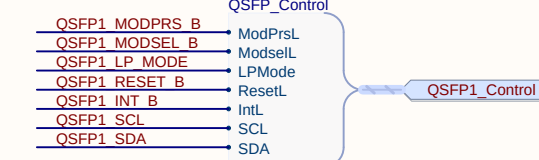
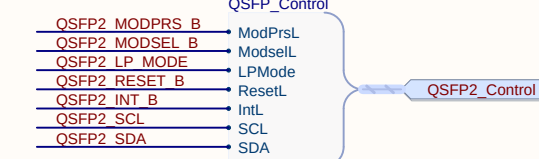
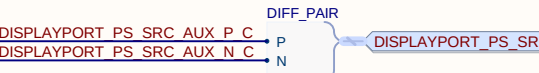
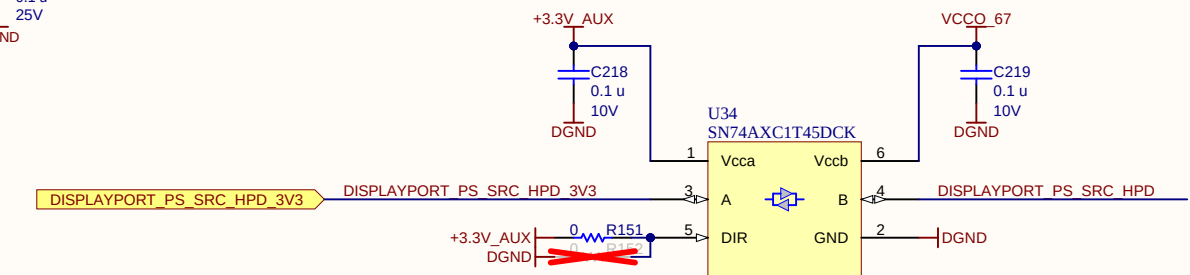
SYZYGY PORT C (VCCO_67)



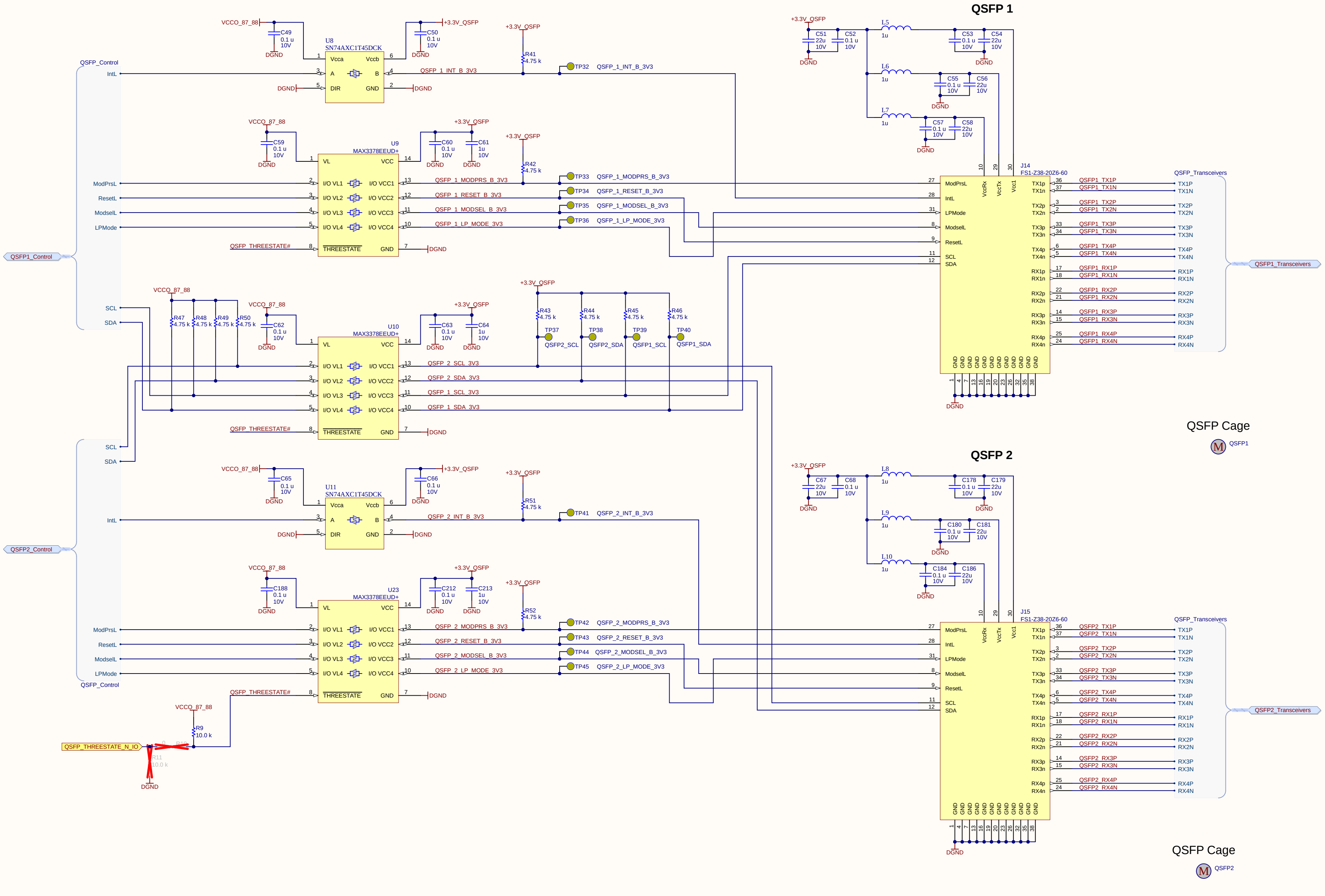
Mezzanine Connector MC3



2mm Header

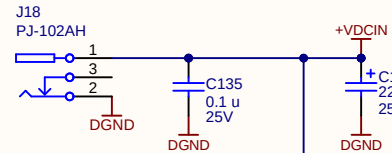


Level Translators



Barrel Jack

5A max
2.5 / 5.1 mm

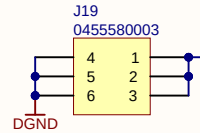


Input Power

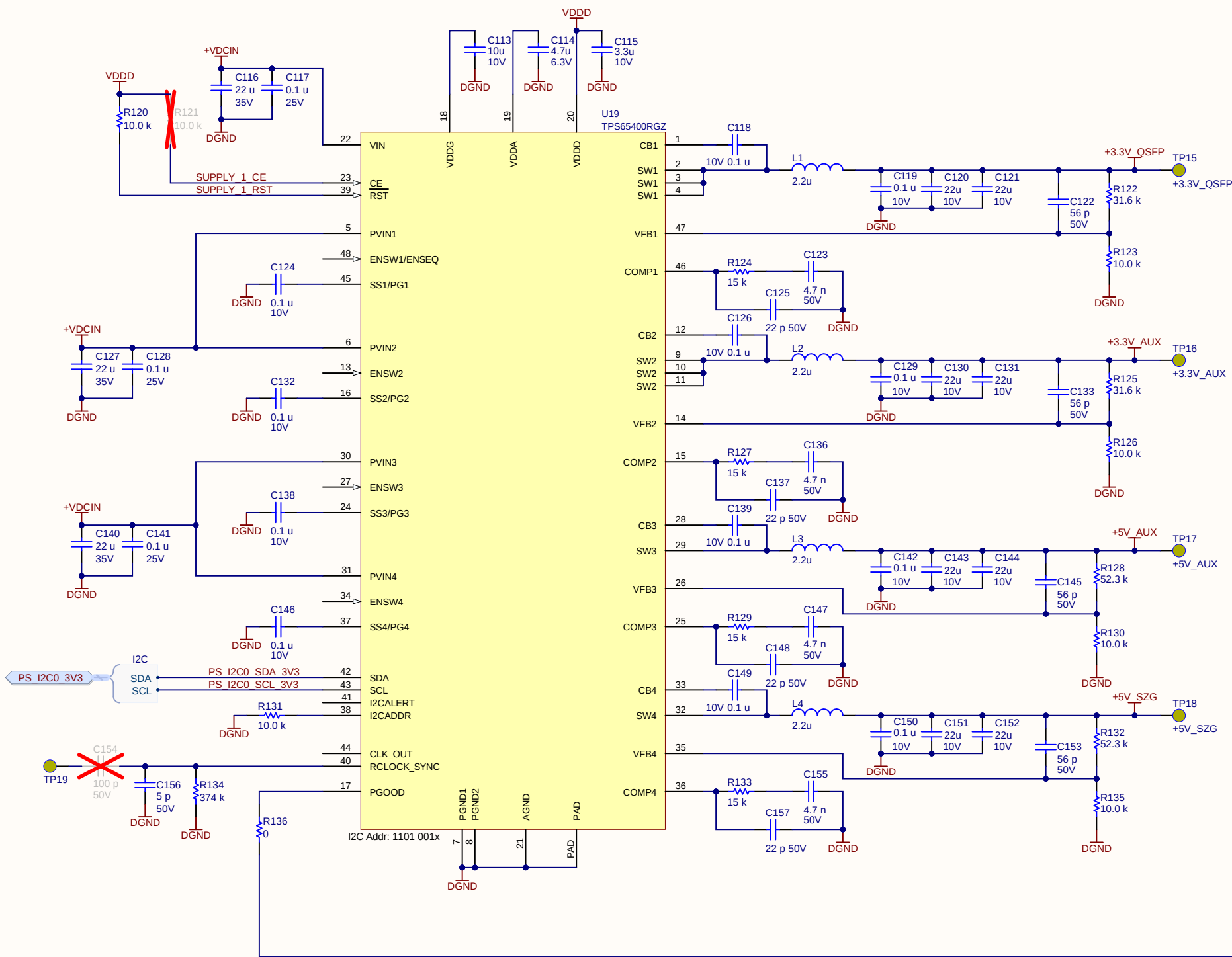
+6 to +15 VDC

6-pin Mini-Fit

8A max

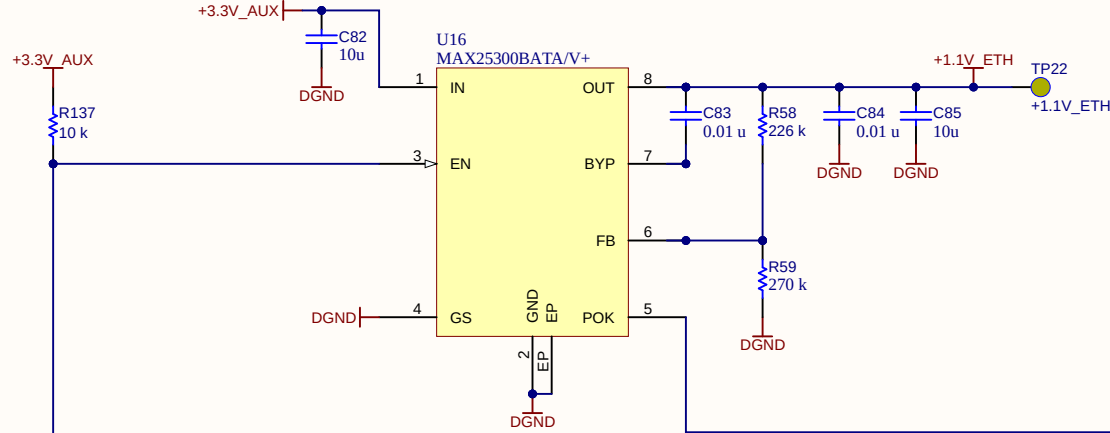


4-Channel Step-Down Supply



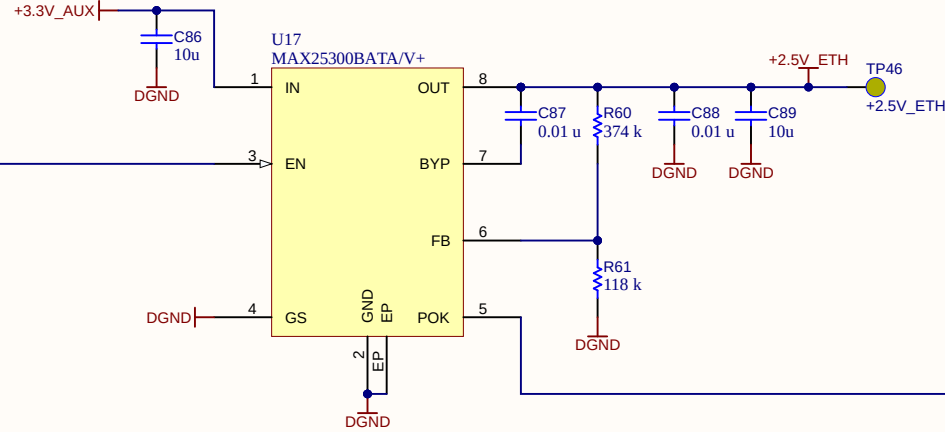
+1.1V LDO (500 mA)

Ethernet PHY

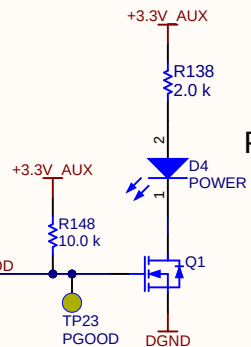


+2.5V LDO (500 mA)

Ethernet PHY



Power LED



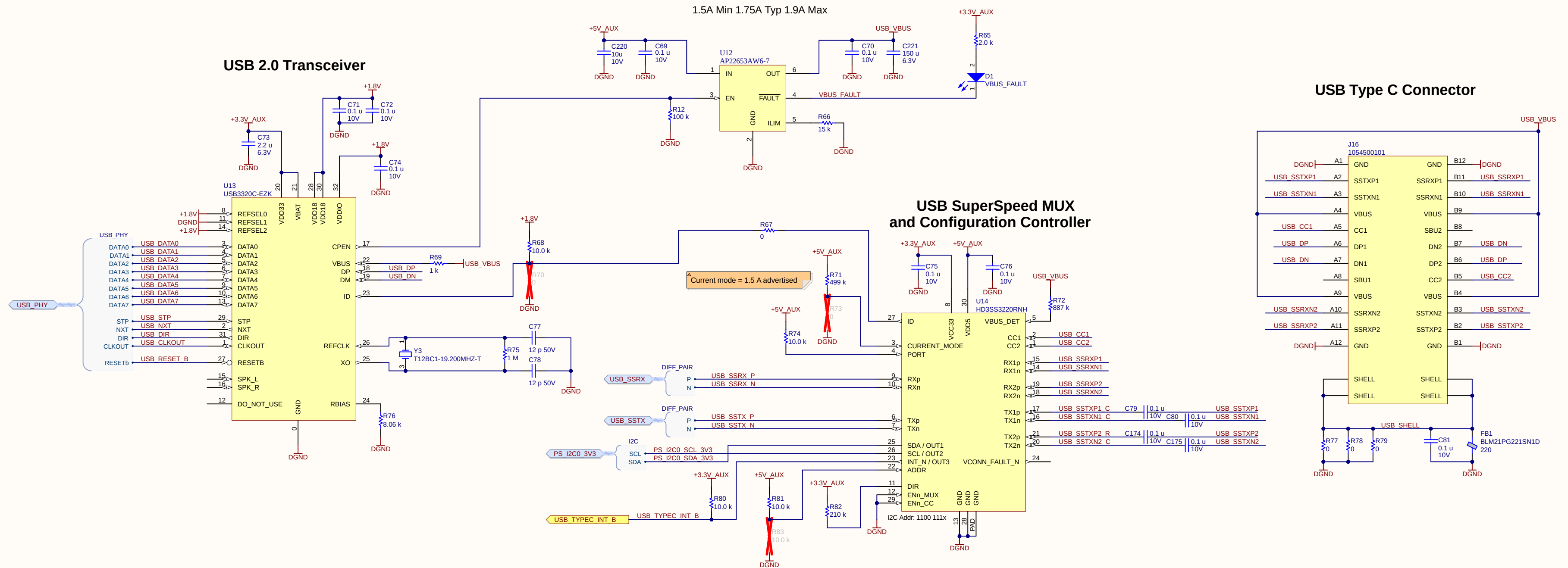
USB 2.0 Transceiver

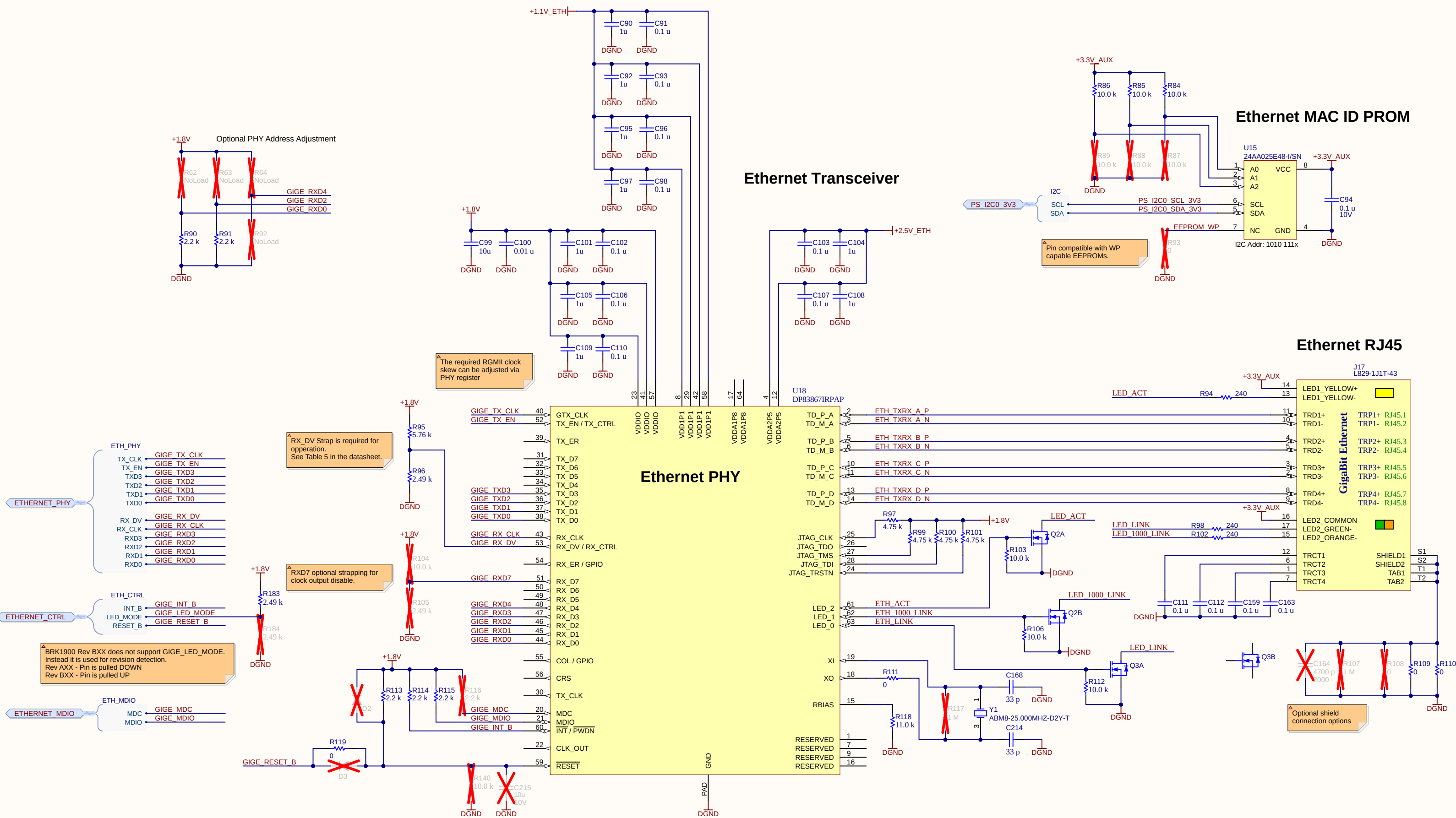
USB VBUS Distribution Switch

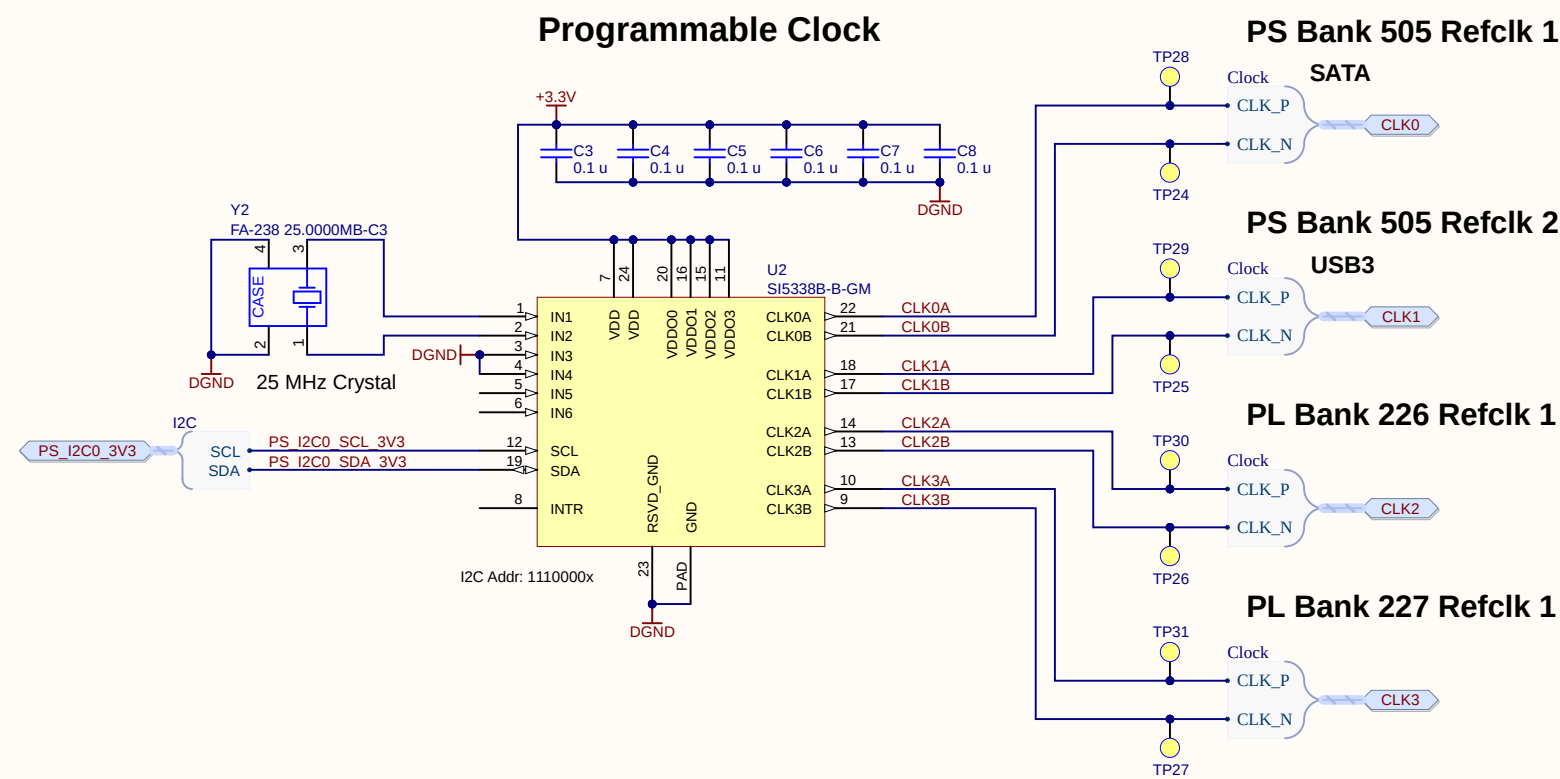
1.5A Min 1.75A Typ 1.9A Max

USB Type C Connector

USB SuperSpeed MUX and Configuration Controller







DisplayPort Connector (PS Source)

