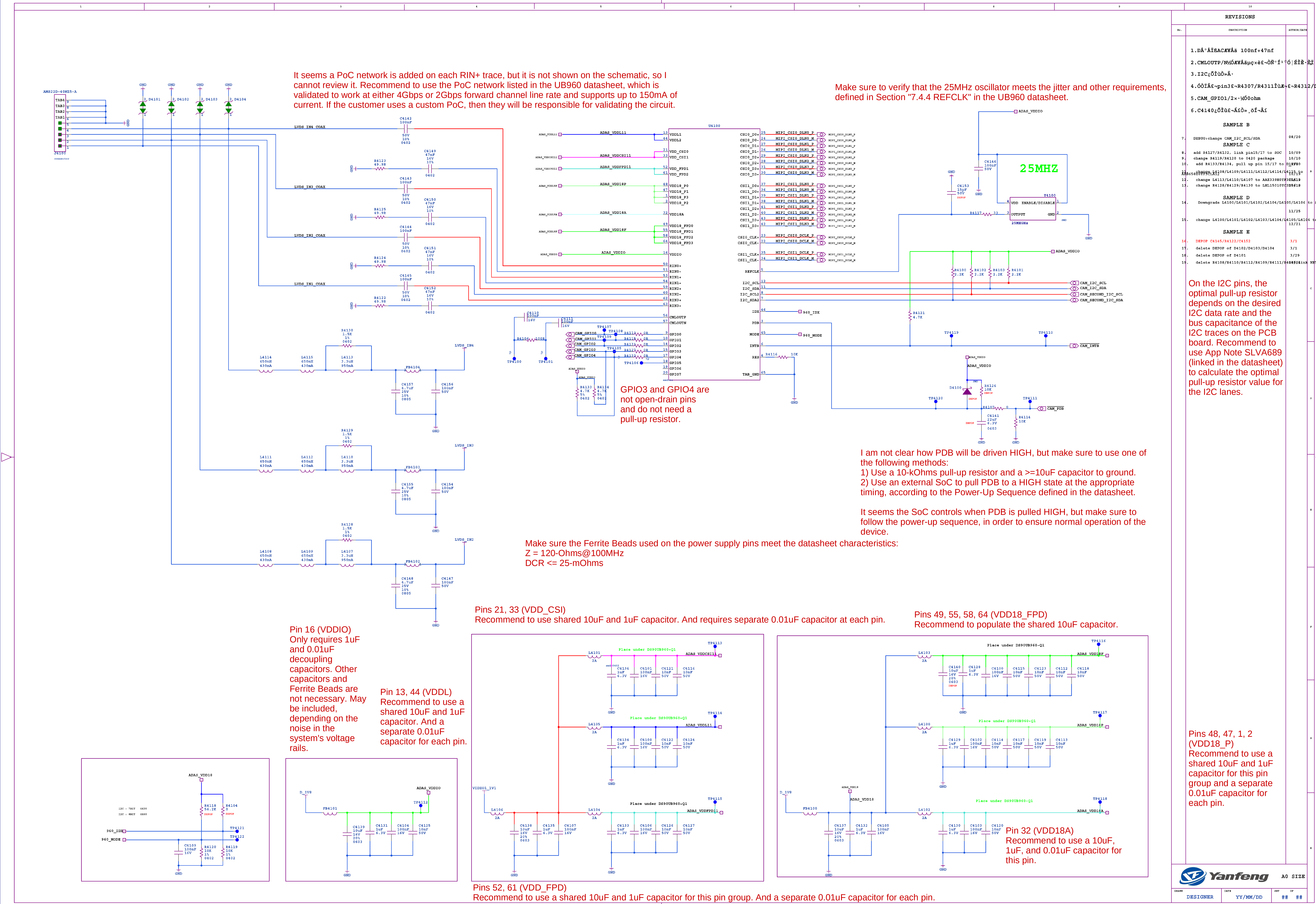

It seems a PoC network is added on each RIN+ trace, but it is not shown on the schematic, so I cannot review it. Recommend to use the PoC network listed in the UB960 datasheet, which is validated to work at either 4Gbps or 2Gbps forward channel line rate and supports up to 150mA of current. If the customer uses a custom PoC, then they will be responsible for validating the circuit.

Make sure to verify that the 25MHz oscillator meets the jitter and other requirements, defined in Section "7.4.4 REFCLK" in the UB960 datasheet.

On the I2C pins, the optimal pull-up resistor depends on the desired I2C data rate and the bus capacitance of the I2C traces on the PCB board. Recommend to use App Note SLVA689 (linked in the datasheet) to calculate the optimal pull-up resistor value for the I2C lanes.

GPIO3 and GPIO4 are not open-drain pins and do not need a pull-up resistor.

I am not clear how PDB will be driven HIGH, but make sure to use one of the following methods:
1) Use a 10-kOhms pull-up resistor and a >=10uF capacitor to ground.
2) Use an external SoC to pull PDB to a HIGH state at the appropriate timing, according to the Power-Up Sequence defined in the datasheet.

It seems the SoC controls when PDB is pulled HIGH, but make sure to follow the power-up sequence, in order to ensure normal operation of the device.

Make sure the Ferrite Beads used on the power supply pins meet the datasheet characteristics:
Z = 120-Ohms@100MHz
DCR <= 25-mOhms

Pins 21, 33 (VDD_CSI)
Recommend to use shared 10uF and 1uF capacitor. And requires separate 0.01uF capacitor at each pin.

Pins 49, 55, 58, 64 (VDD18_FPD)
Recommend to populate the shared 10uF capacitor.

Pin 16 (VDDIO)
Only requires 1uF and 0.01uF decoupling capacitors. Other capacitors and Ferrite Beads are not necessary. May be included, depending on the noise in the system's voltage rails.

Pin 13, 44 (VDDL)
Recommend to use a shared 10uF and 1uF capacitor. And a separate 0.01uF capacitor for each pin.

Pins 48, 47, 1, 2 (VDD18_P)
Recommend to use a shared 10uF and 1uF capacitor for this pin group and a separate 0.01uF capacitor for each pin.

Pin 32 (VDD18A)
Recommend to use a 10uF, 1uF, and 0.01uF capacitor for this pin.

Pins 52, 61 (VDD_FPD)
Recommend to use a shared 10uF and 1uF capacitor for this pin group. And a separate 0.01uF capacitor for each pin.