

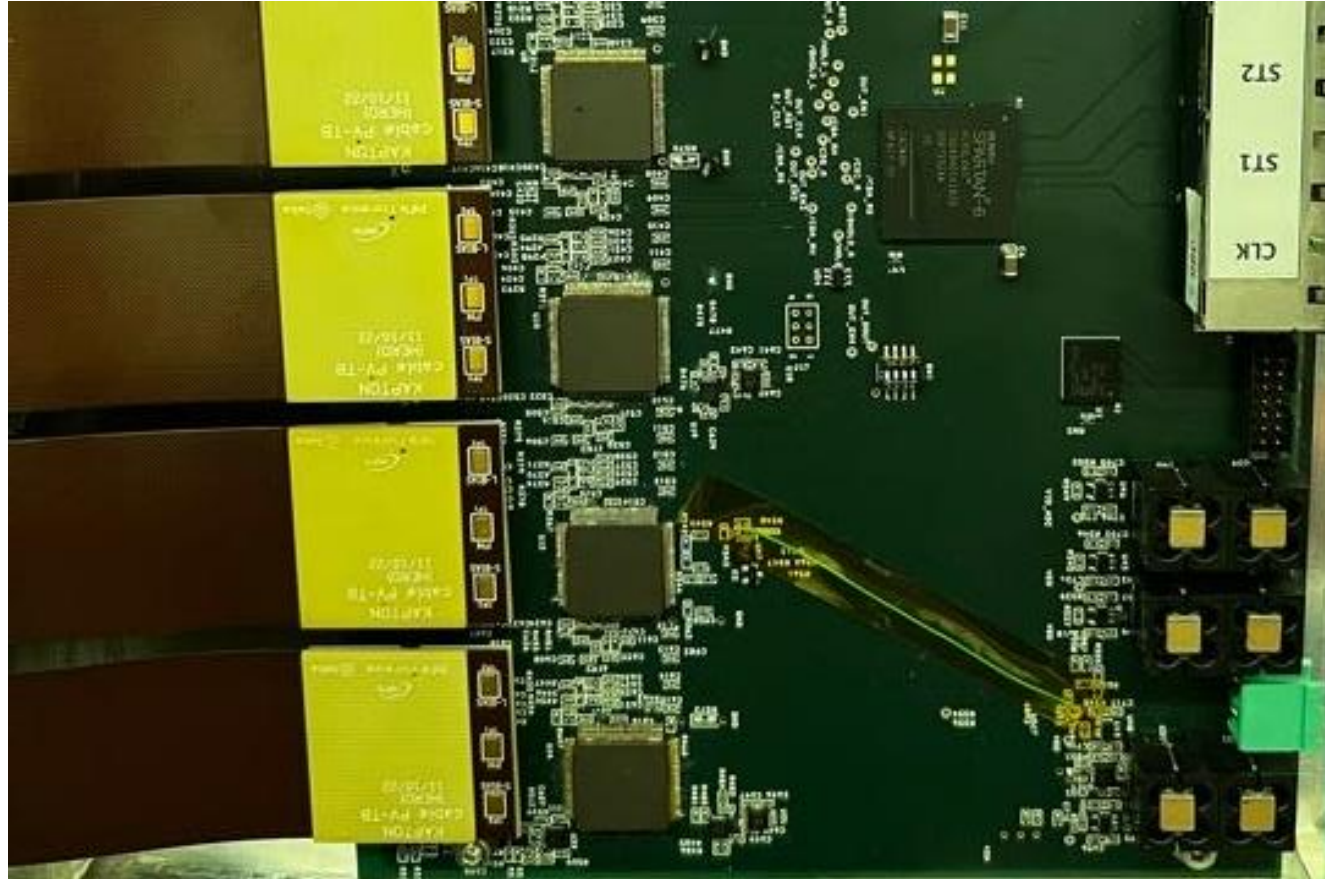
T-ROC2 Layout modifications

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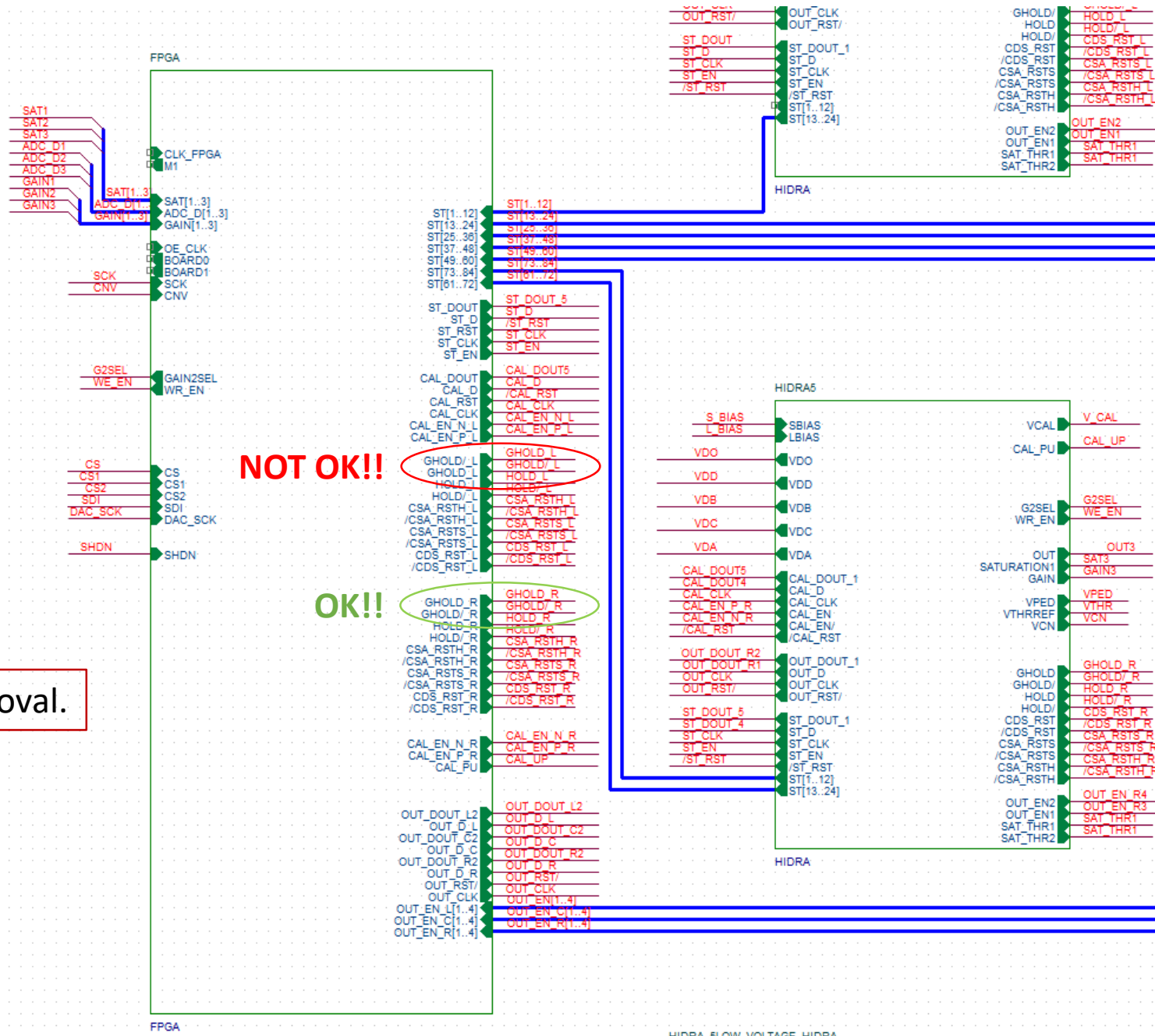
OUTLINES:

- Previous bugs:
 - ✓ Power
 - ✓ Digital
- DACs.
- Mechanical:
 - ✓ Shield
 - ✓ Screws interferences
 - ✓ Assembly
- BIAS reference.
- ADC supply.

Previous errors: √ Power

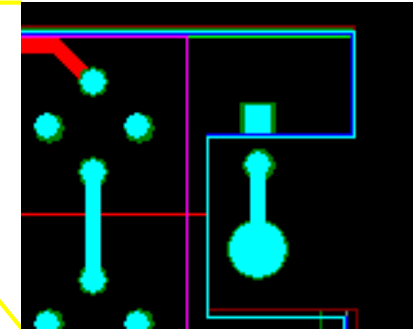
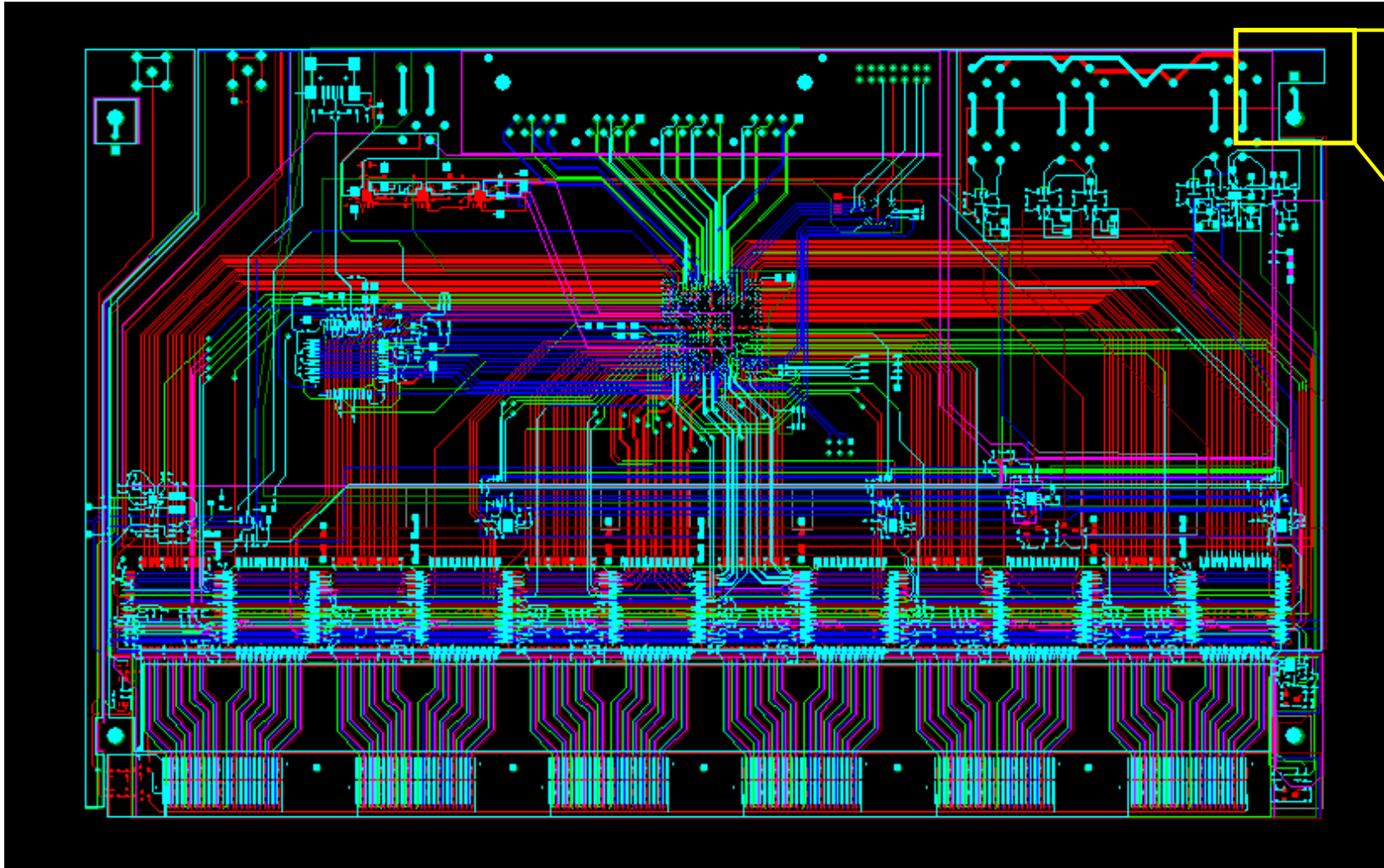


Previous errors: √ Digital



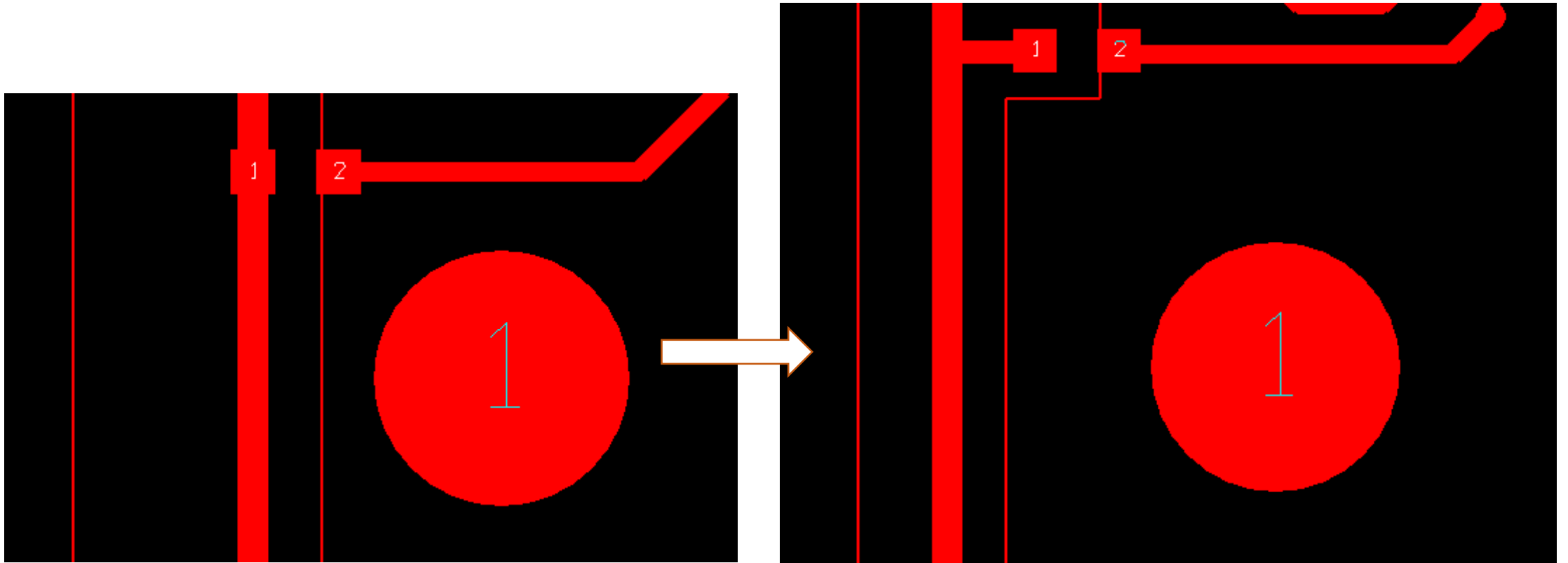
Signal swap removal.

Mechanical: √ Shield



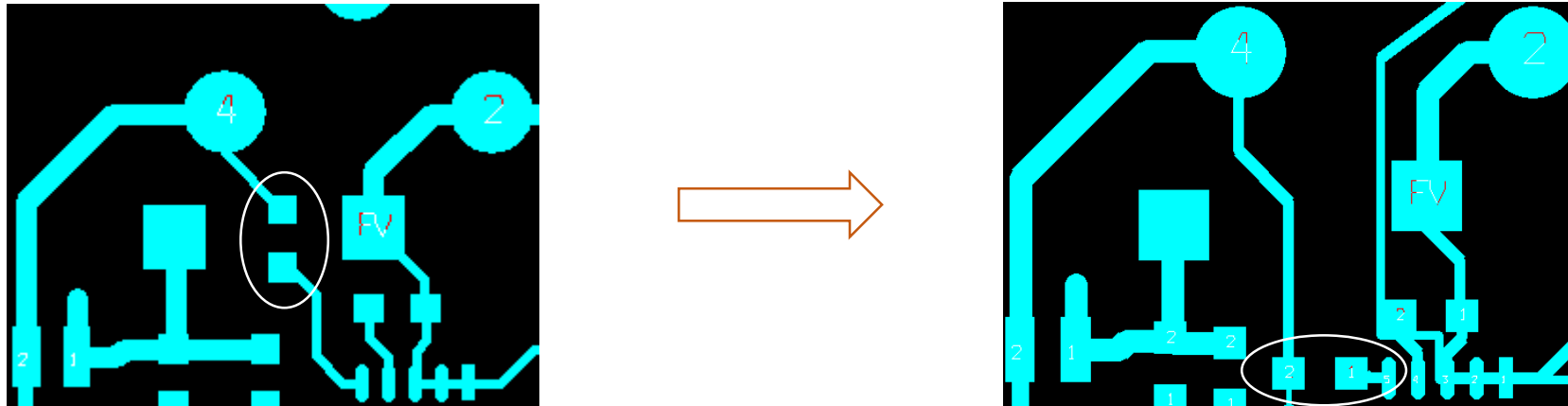
Screw holes lay-out changed to avoid external connections and washer isolation.

Mechanical: √ Screws interferences



Some components moved to avoid assembly interferences.

Mechanical: √ Assembly



Some components moved to avoid assembly interferences.

BIAS reference.

2023 T+ROC2:

✓ PD BIAS reference \equiv 3,3 Volts

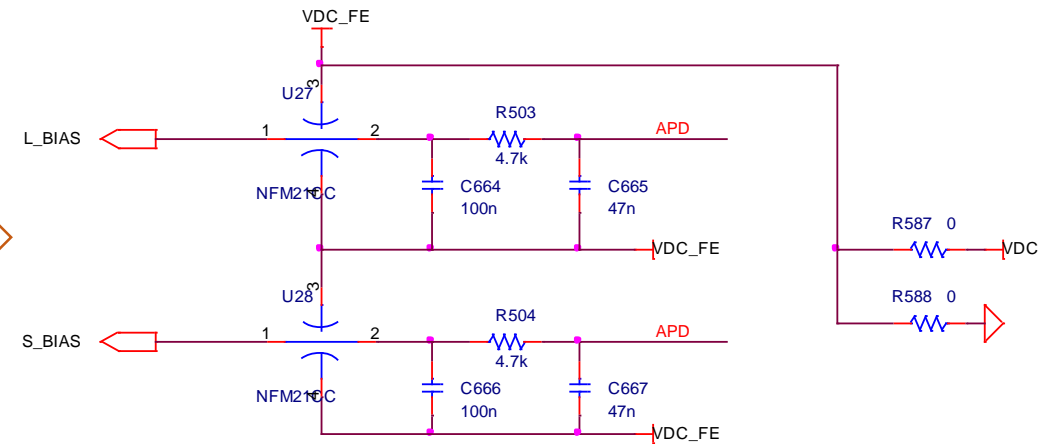
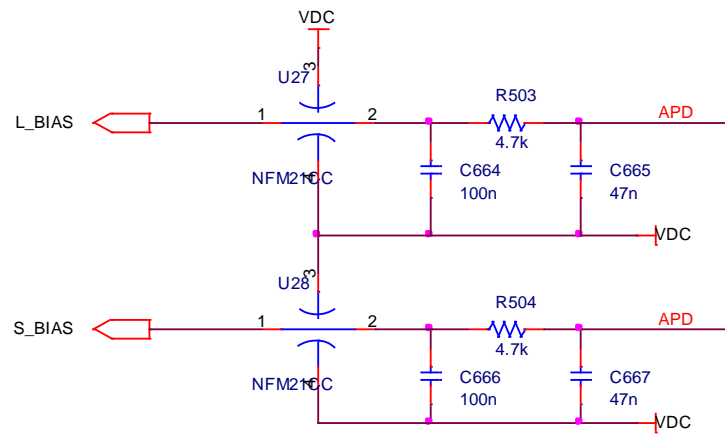


2024 T+ROC2:

✓ PD BIAS reference

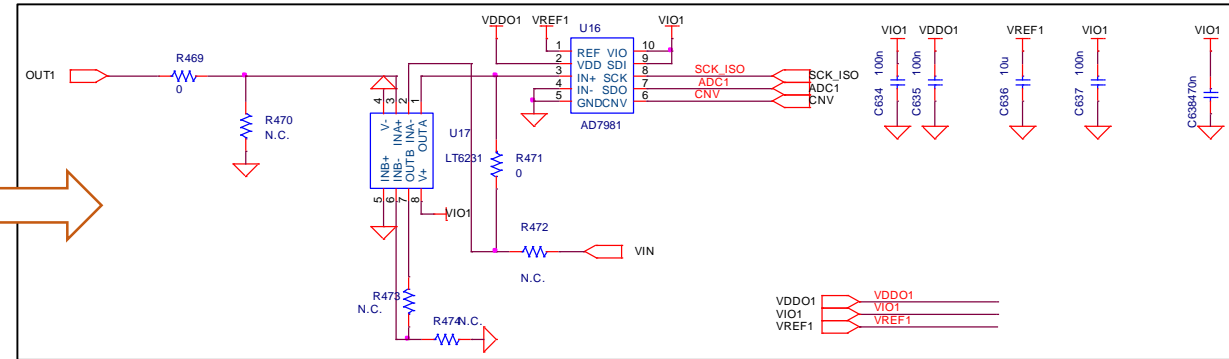
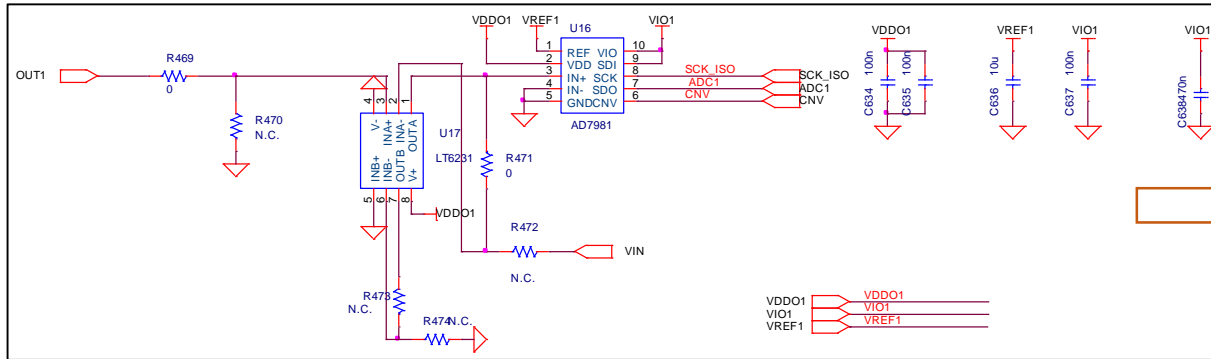
3,3 Volts

GND



Increased flexibility on bias circuitry.

ADC Supply



2023 T+ROC2:

- ✓ VIO1 ≡ 2,5 Volts
- ✓ VREF1 ≡ 2,5 Volts
- ✓ VDDO1 ≡ 2,5 Volts

2024 T+ROC2:

- ✓ VIO1 ≡ 3,3 Volts
- ✓ VREF1 ≡ 3,0 Volts
- ✓ VDDO1 ≡ 2,5 Volts

ADC REF and INPUT BUFFER supply increased to improve linearity and avoid saturation.