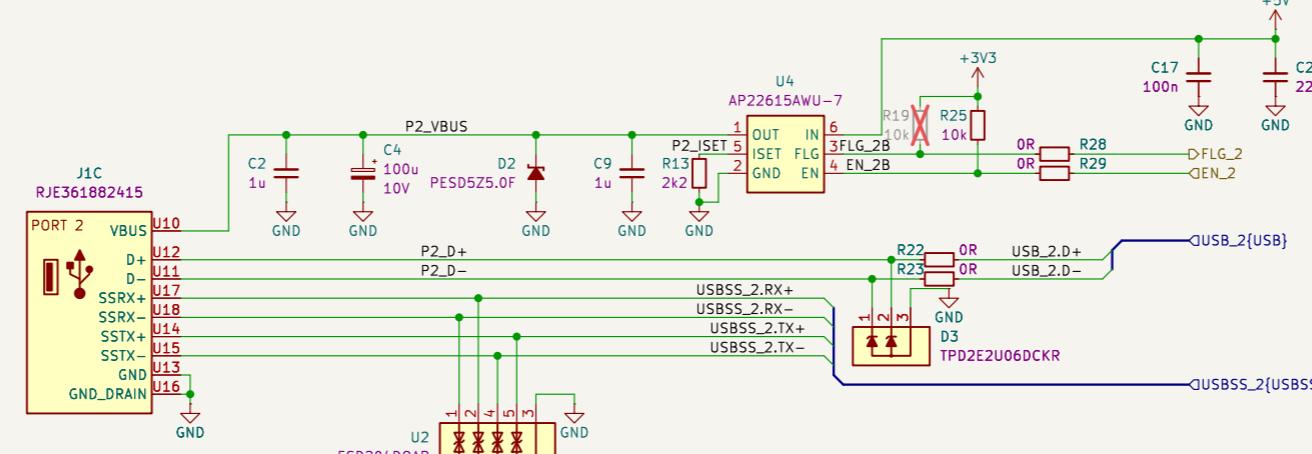
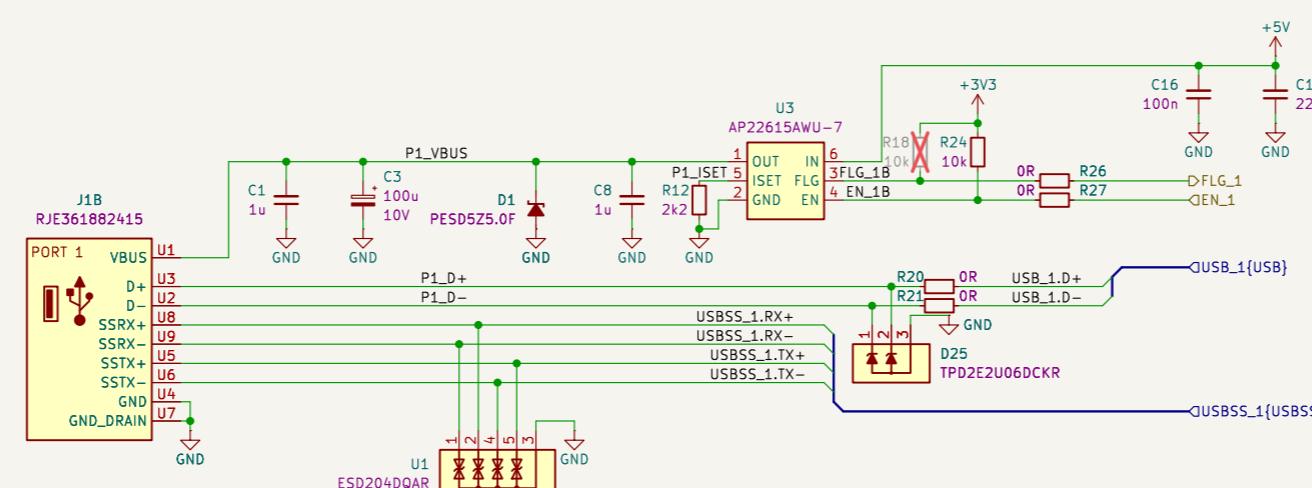


USB 3.



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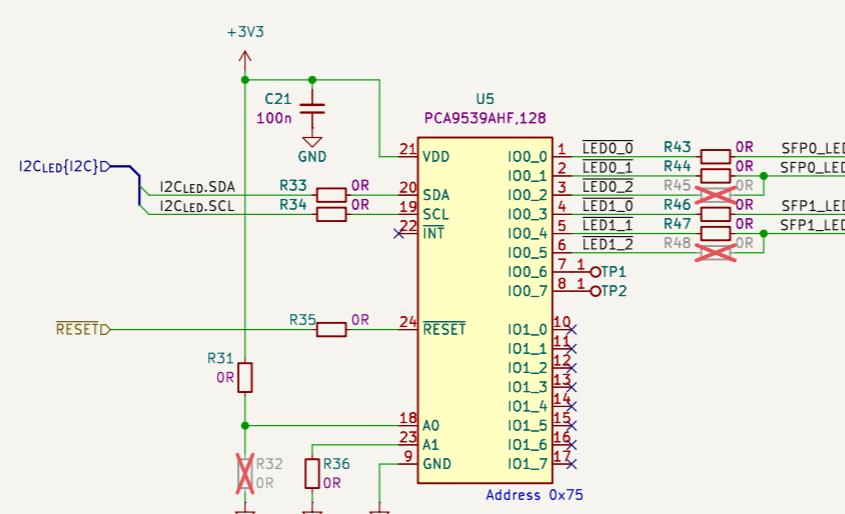
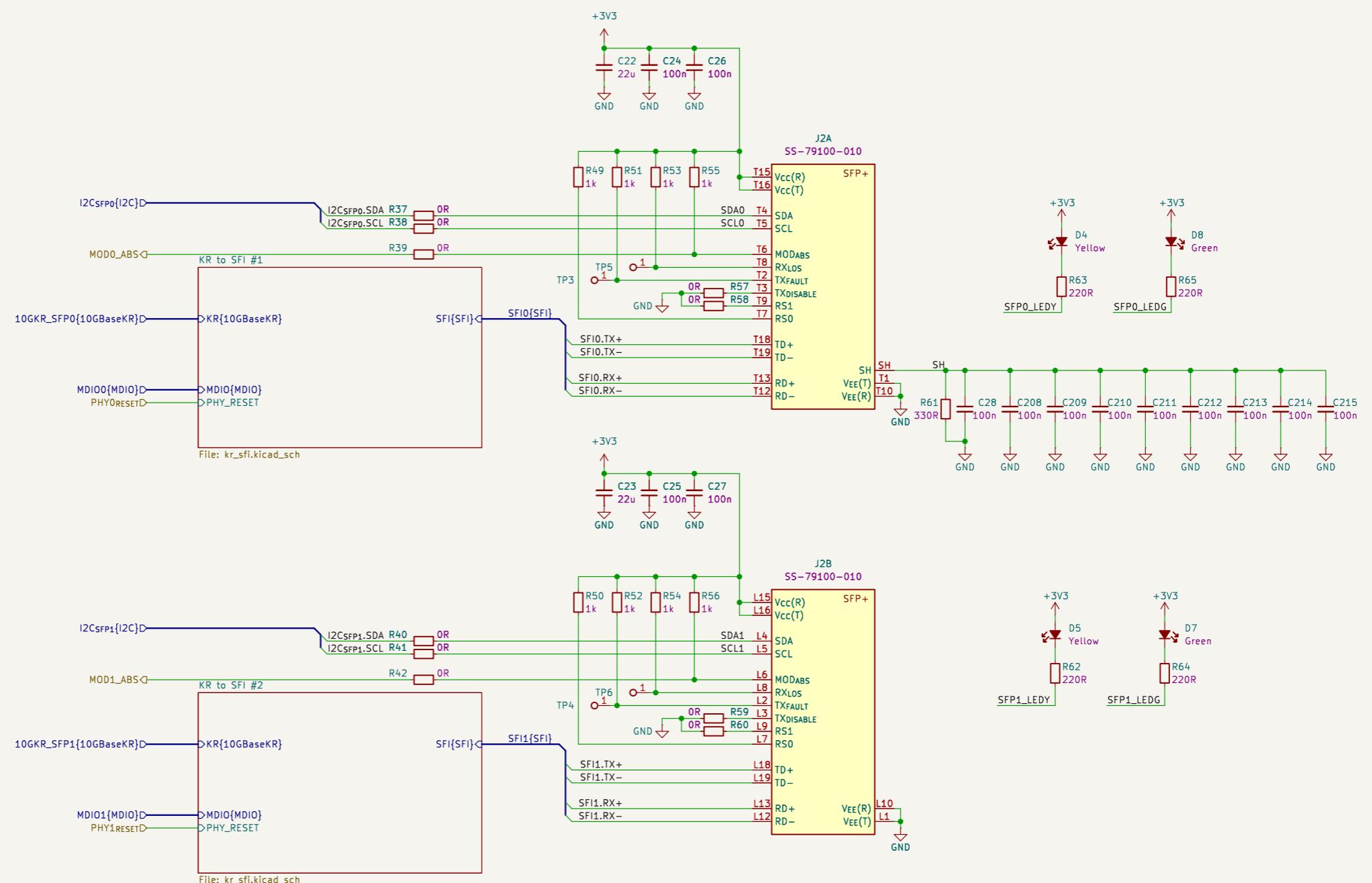
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File: usb3+rj45.kicad\_sch

## Title: COM Express 7 Baseboard

Size: A3 Date: 2025-02-04  
KiCad E.D.A. 8.0.7

7

Rev: 1.1.2:4ca5e  
Id: 2/19

**2x SFP+**

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Sheet: /2xSFP+ /

File: 2xSFP+.kicad\_sch

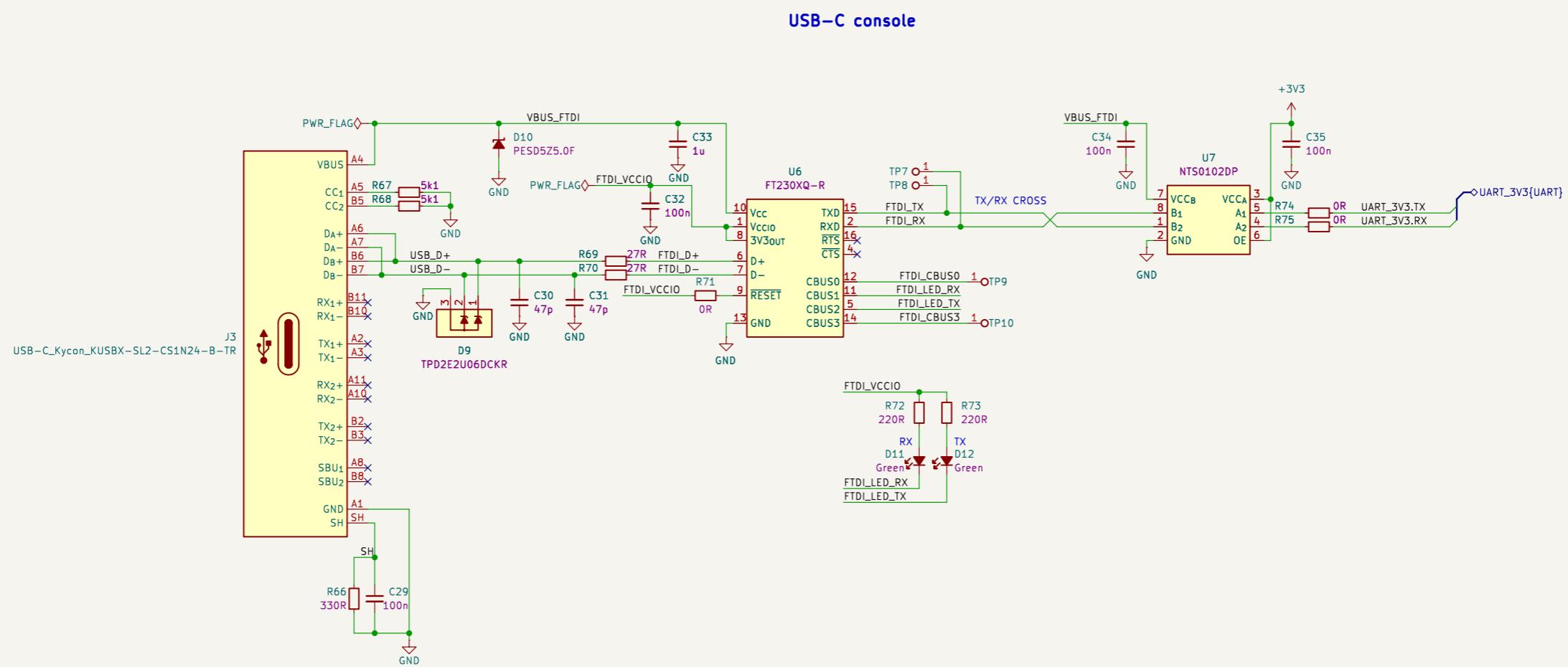
**Title: COM Express 7 Baseboard**

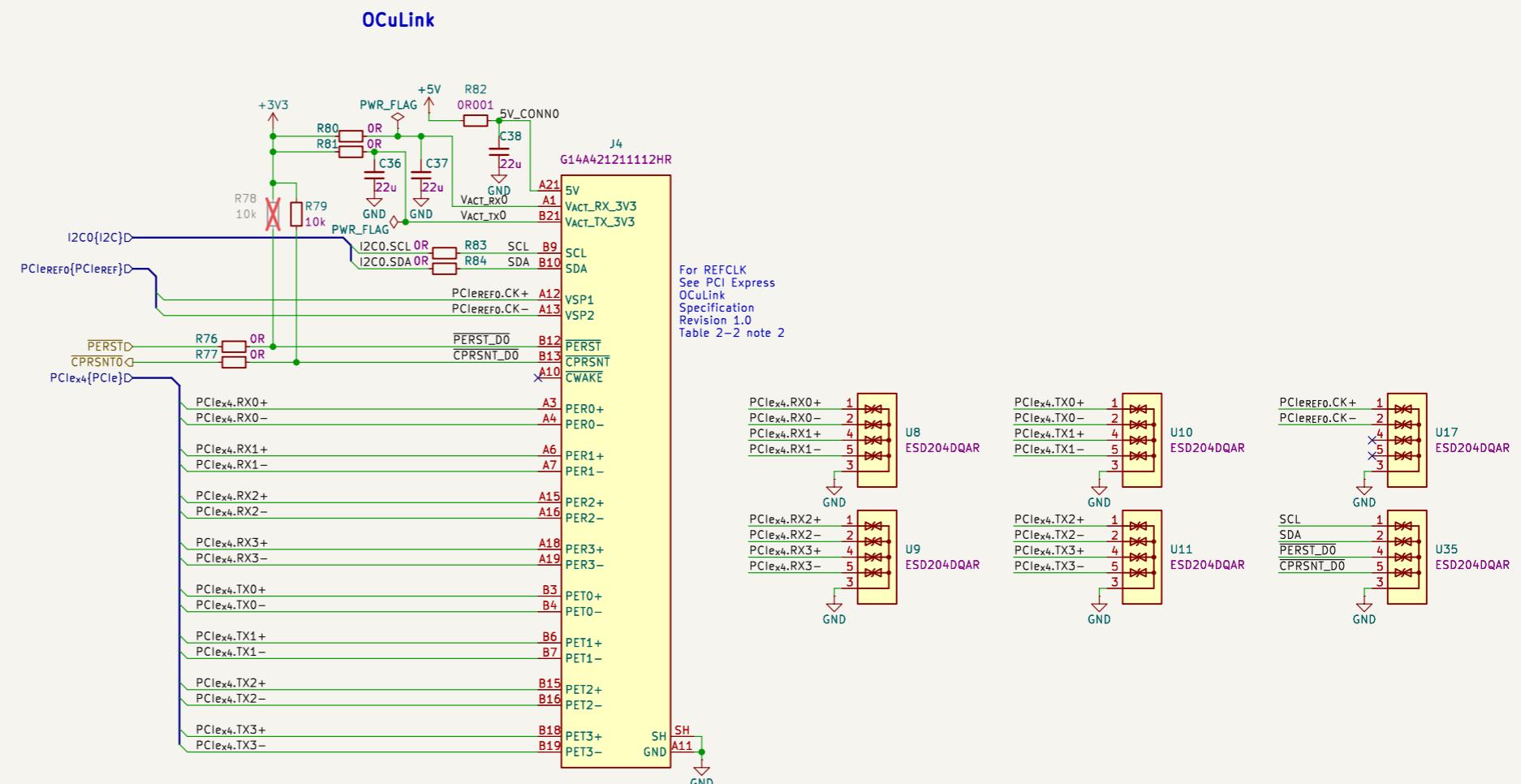
Size: A3 Date: 2025-02-04

KiCad E.D.A. 8.0.7

Rev: 1.1.2:4ca5d

Id: 3/19





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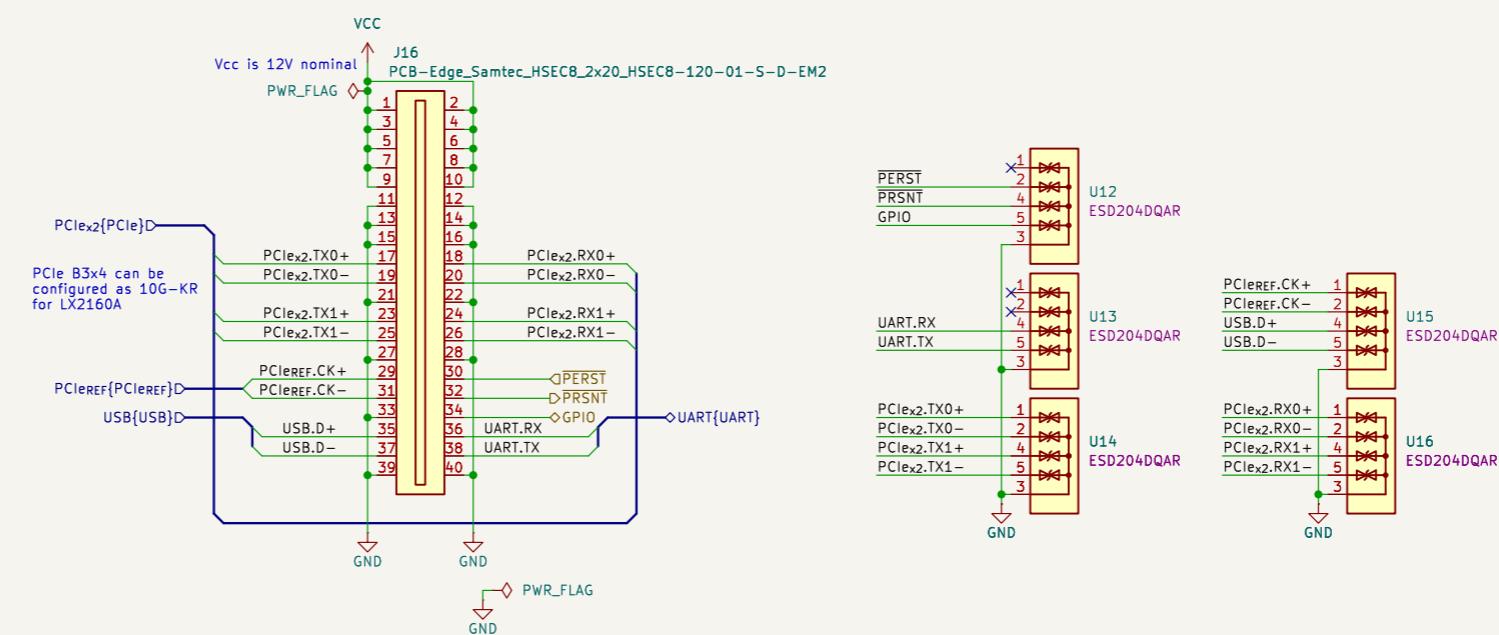
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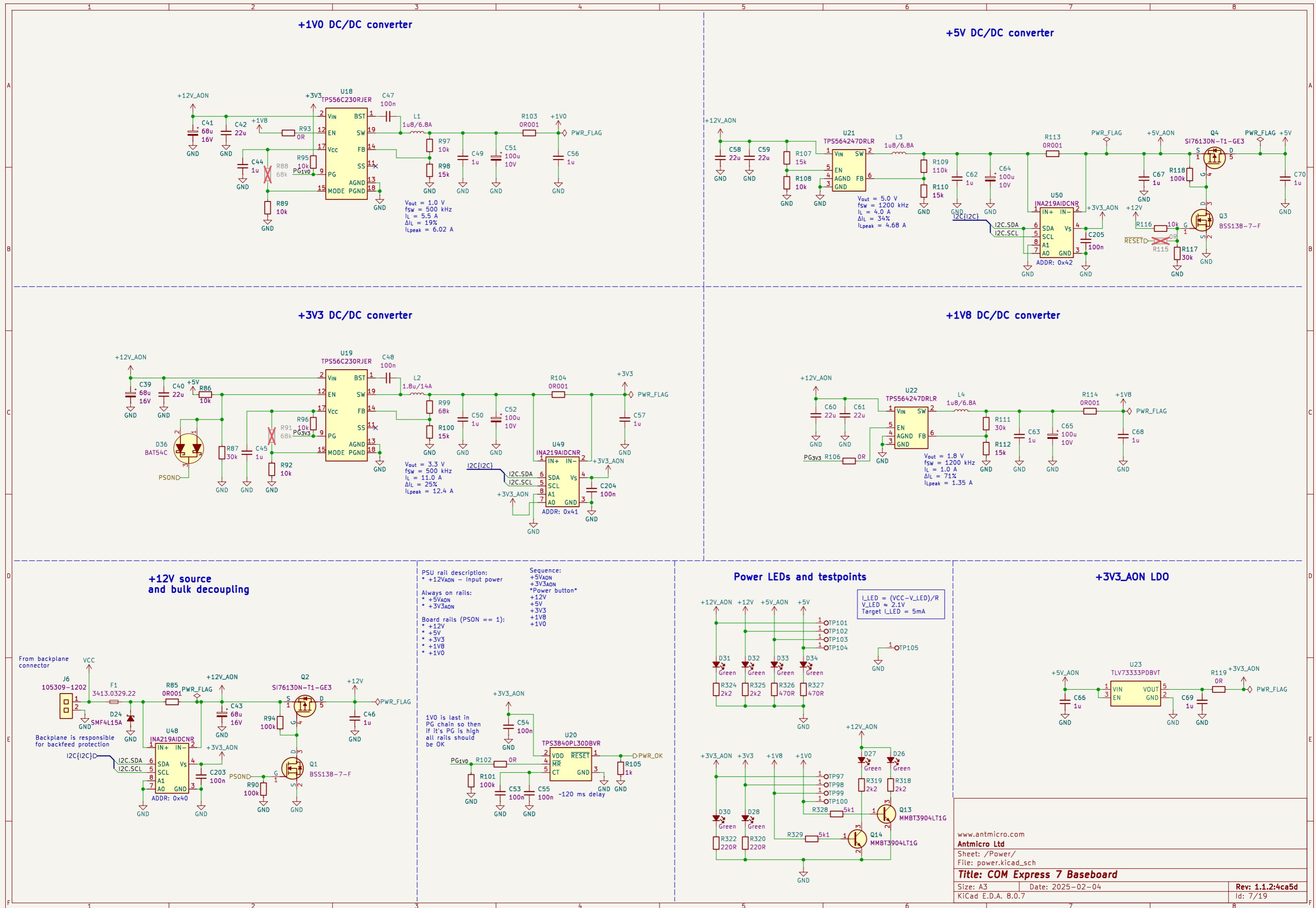
E

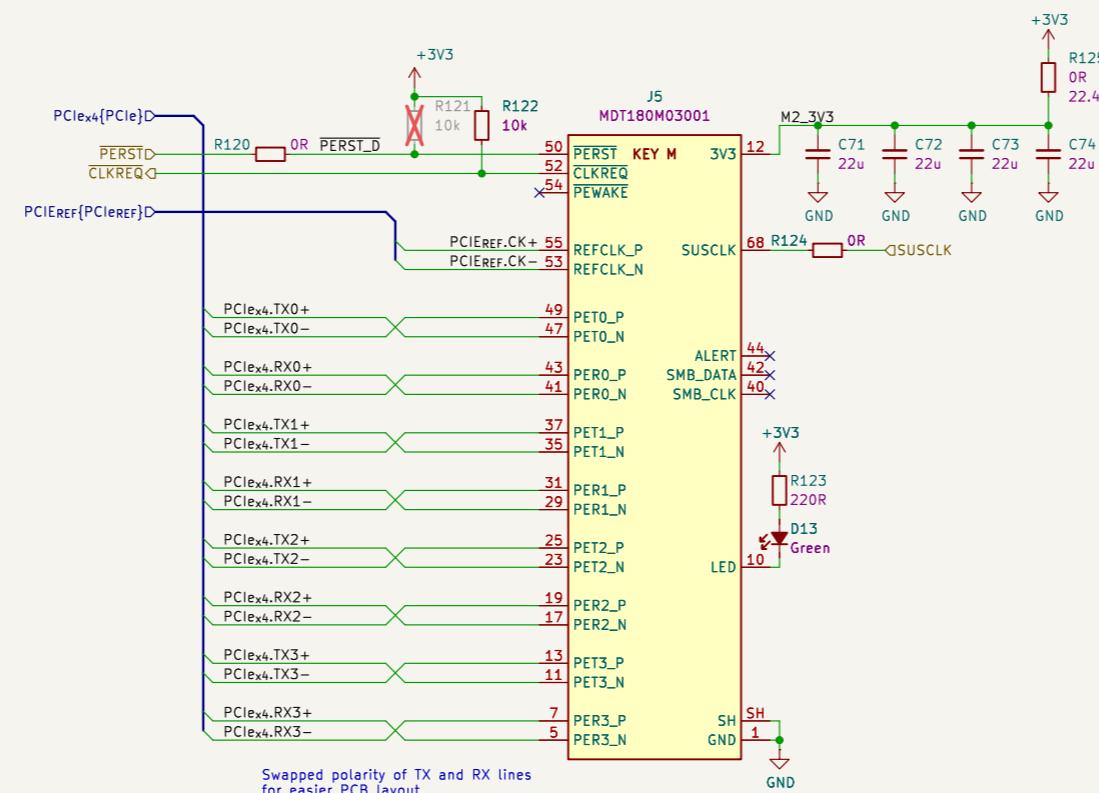
F

### Backplane connector


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**Antmicro Ltd**
 Sheet: /Backplane/  
 File: backplane.kicad\_sch
**Title: COM Express 7 Baseboard**
 Size: A3 | Date: 2025-02-04  
 KiCad E.D.A. 8.0.7

 Rev: 1.1.2:4ca5d  
 Id: 6/19



**M.2 key M**A2  
Mech\_M2\_2280\_H2.5mmH2  
Spacer\_Drill3.7mm\_H2.5mm\_9774025151R

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Sheet: /M.2 key M #1/

File: m2keym\_low.kicad\_sch

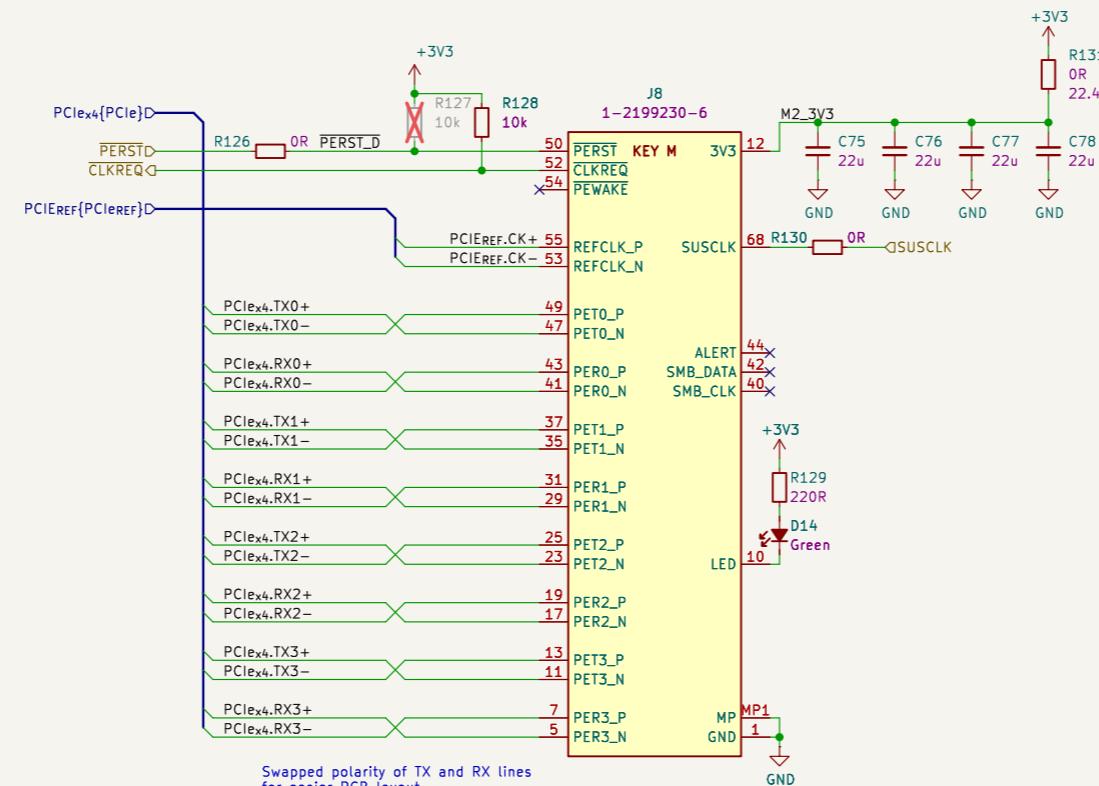
**Title: COM Express 7 Baseboard**

Size: A3 Date: 2025-02-04

KiCad E.D.A. 8.0.7

Rev: 1.1.2:4ca5d

Id: 8/19

**M.2 key M**A1  
Mech\_M2\_2280\_H2.5mmH1  
Spacer\_Drill3.7mm\_H2.5mm\_9774025151R

GND

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Sheet: /M.2 key M #2/

File: m2keym.kicad\_sch

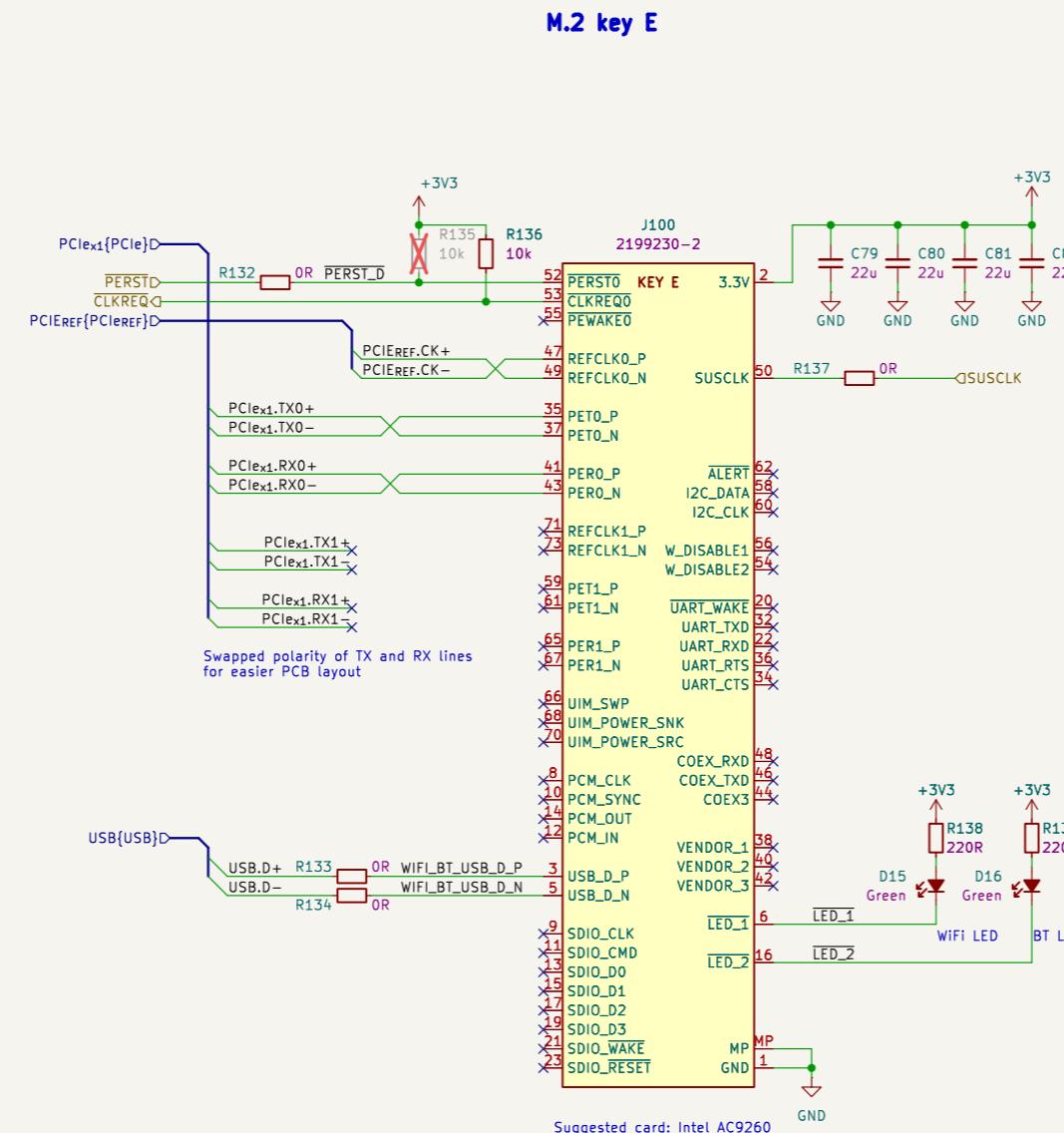
**Title: COM Express 7 Baseboard**

Size: A3 Date: 2025-02-04

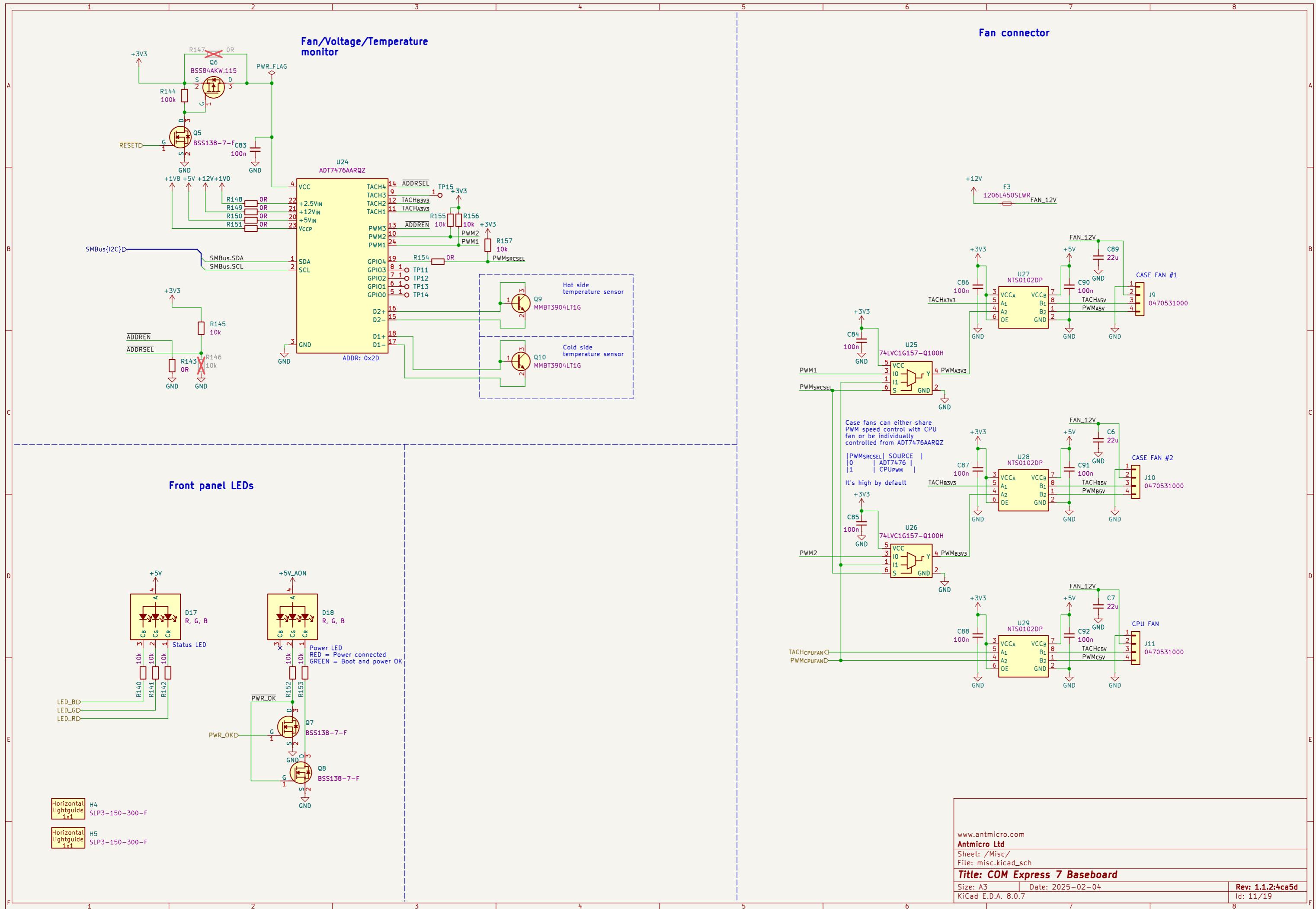
KiCad E.D.A. 8.0.7

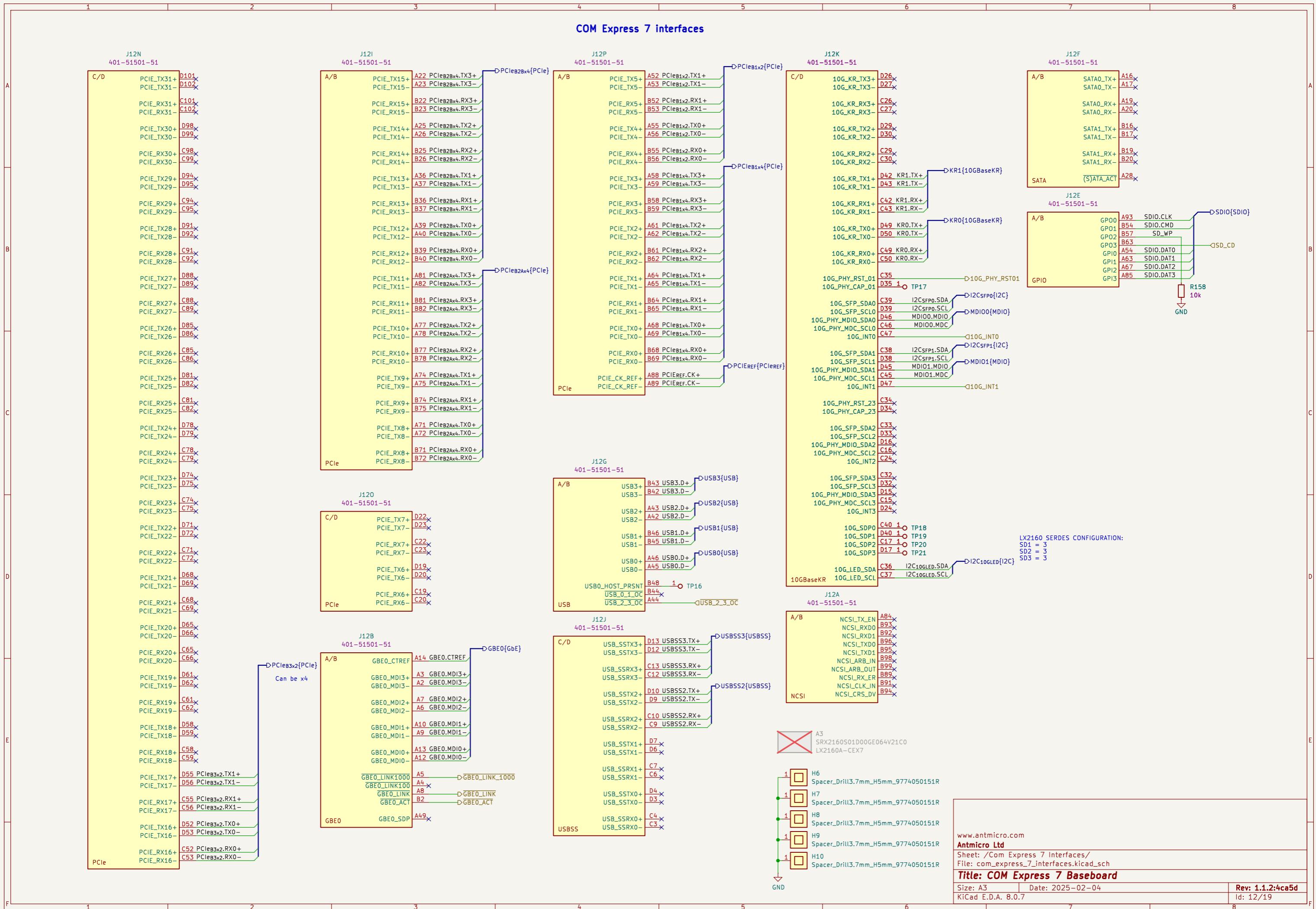
Rev: 1.1.2:4ca5d

Id: 9/19

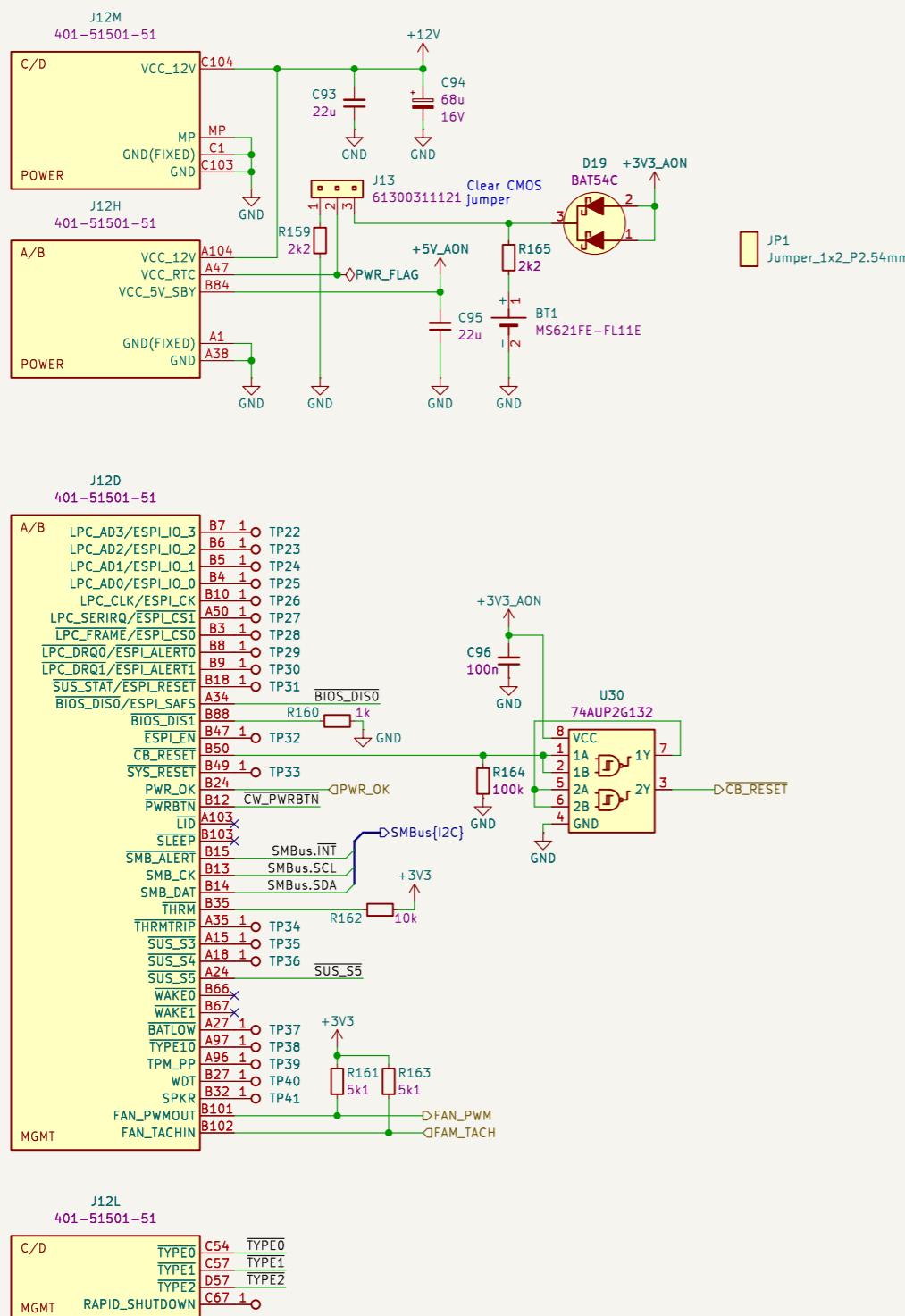

[www.antmicro.com](http://www.antmicro.com)
**Antmicro Ltd**
 Sheet: /M.2 key E/  
 File: m2keye.kicad\_sch
**Title: COM Express 7 Baseboard**
 Size: A3 | Date: 2025-02-04  
 KiCad E.D.A. 8.0.7

 Rev: 1.1.2:4ca5d  
 Id: 10/19

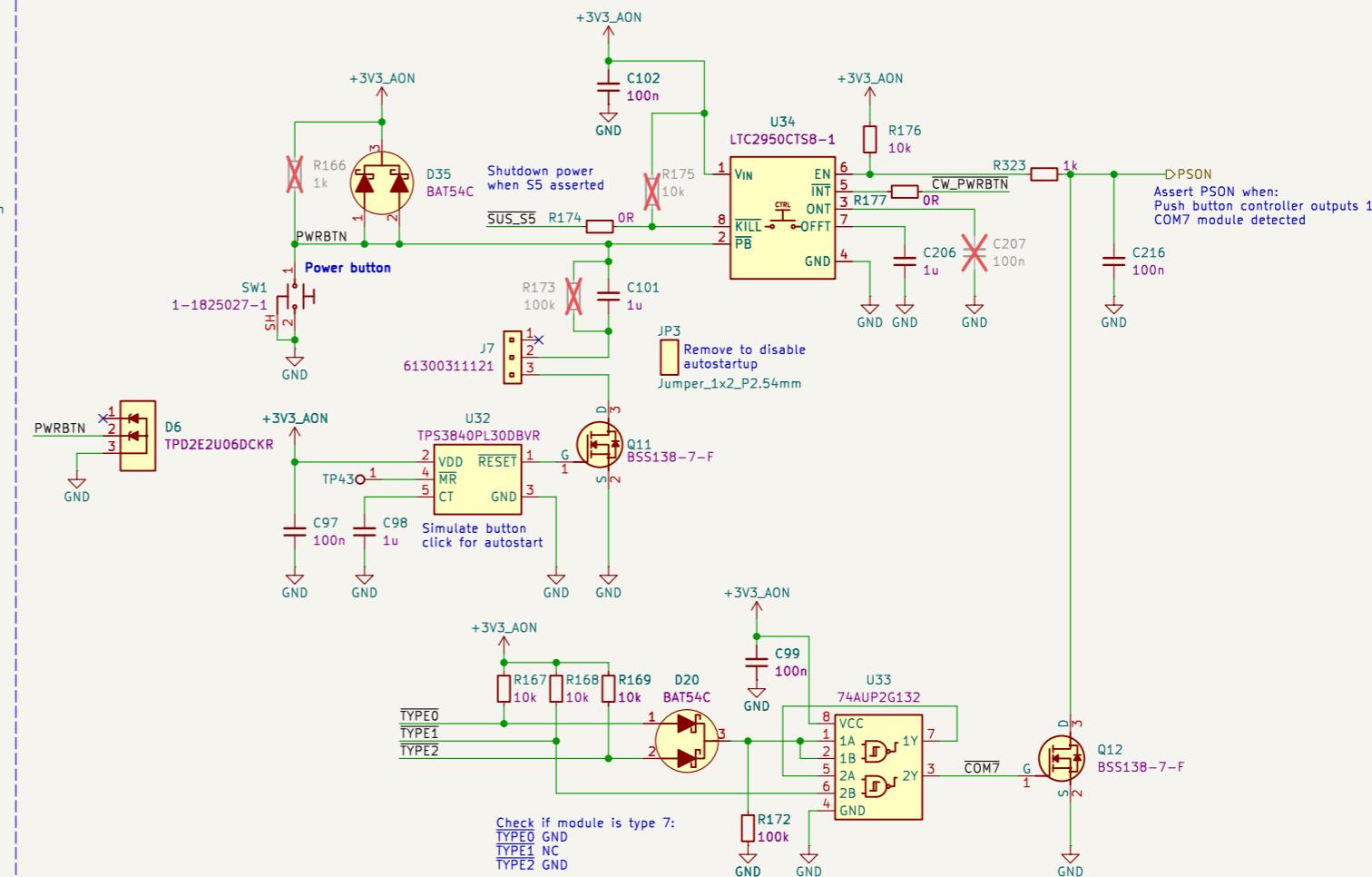




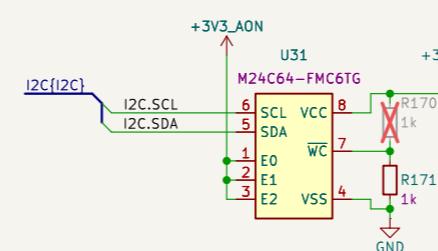
## COM Express 7 power and management



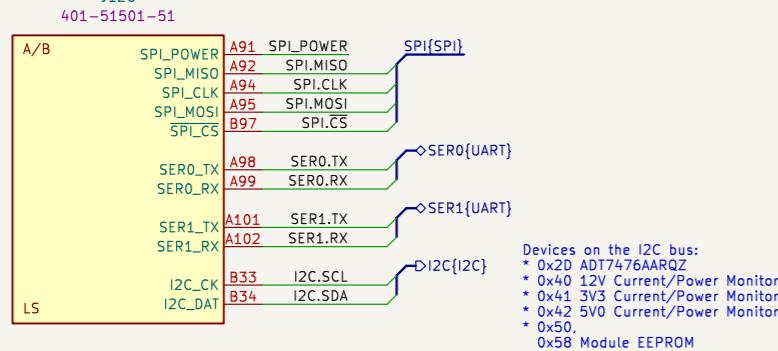
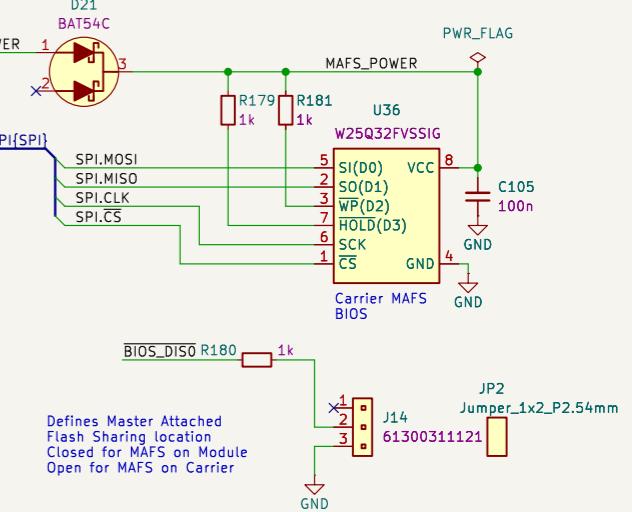
## Power and reset



## Carrier Board EEPROM



## Carrier MAFS BIOS



Devices on the I2C bus:  
 \* 0x2D ADT7476AARQZ  
 \* 0x40 12V Current/Power Monitor  
 \* 0x41 3V3 Current/Power Monitor  
 \* 0x42 5V0 Current/Power Monitor  
 \* 0x50,  
 \* 0x58 Module EEPROM  
 \* 0x57,  
 \* 0x5F Board EEPROM

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Sheet: /Com Express 7 MGMT/  
File: com\_express\_7\_mgmt.kicad\_sch

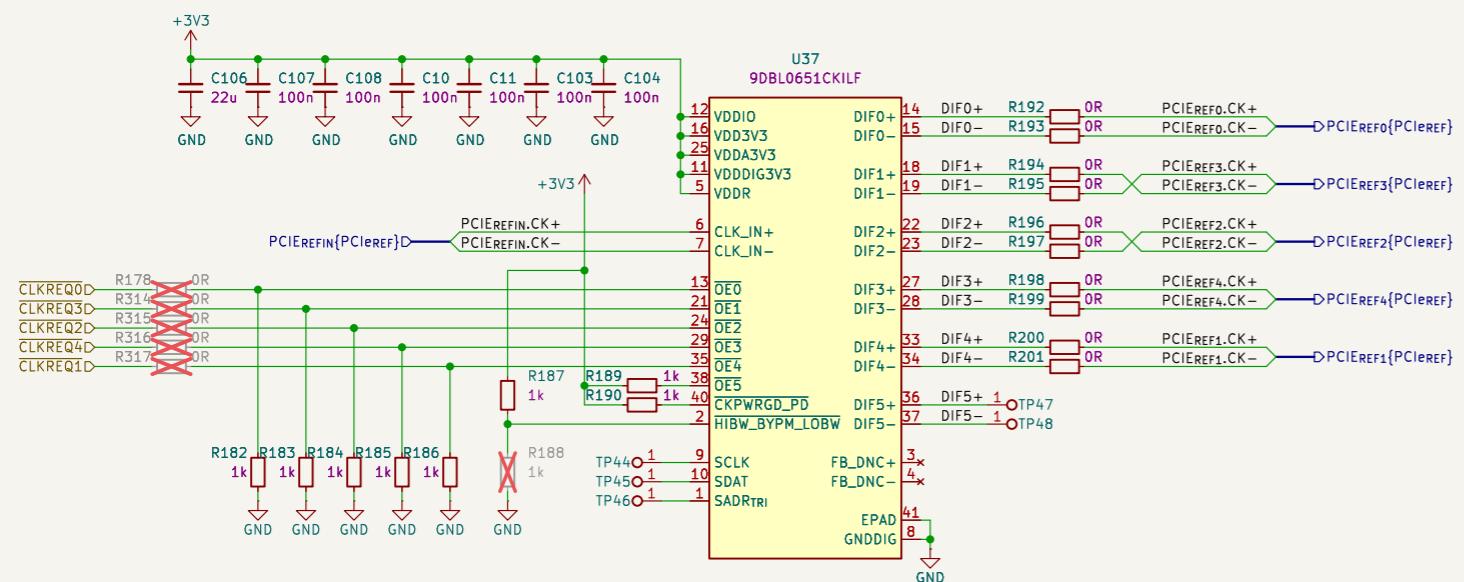
Title: COM Express 7 Baseboard

Size: A3 Date: 2025-02-04  
KiCad E.D.A. 8.0.7

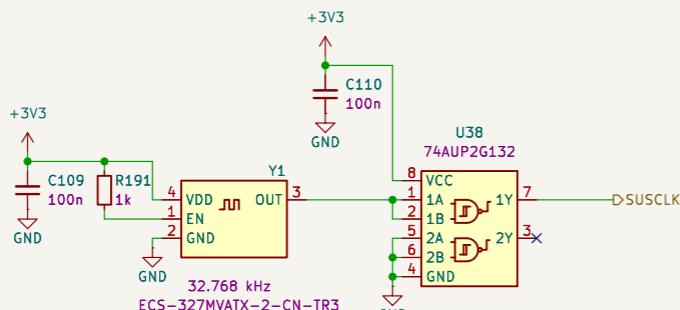
Rev: 1.1.2:4ca5d  
Id: 13/19

1 2 3 4 5 6 7 8

### PCIe clock fanout buffer



### SUSCLK generator



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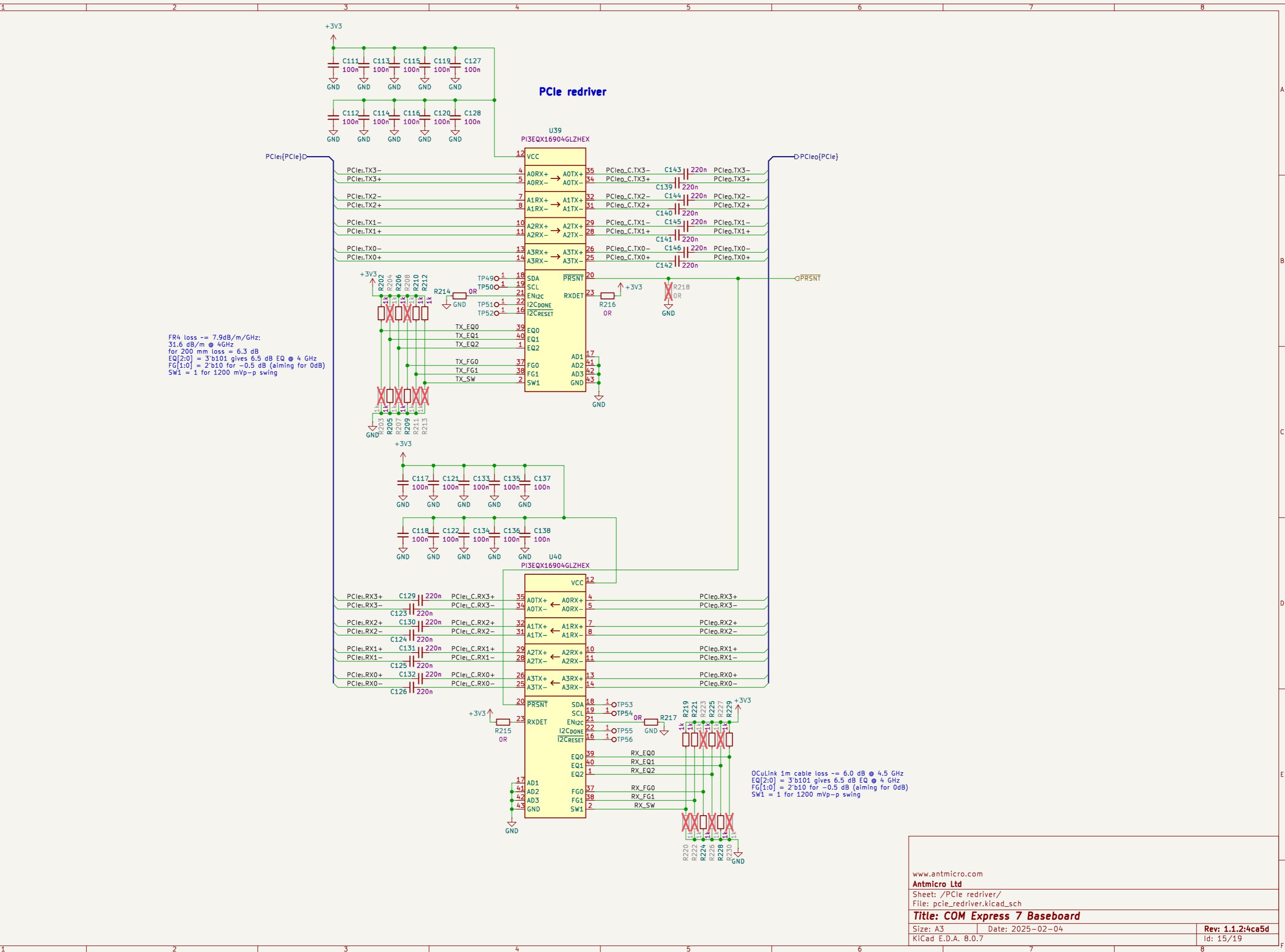
Antmicro Ltd

Sheet: /PCIe misc/  
File: pcie\_misc.kicad\_sch

Title: COM Express 7 Baseboard

Size: A3 | Date: 2025-02-04  
KiCad E.D.A. 8.0.7

Rev: 1.1.2:4ca5d  
Id: 14/19



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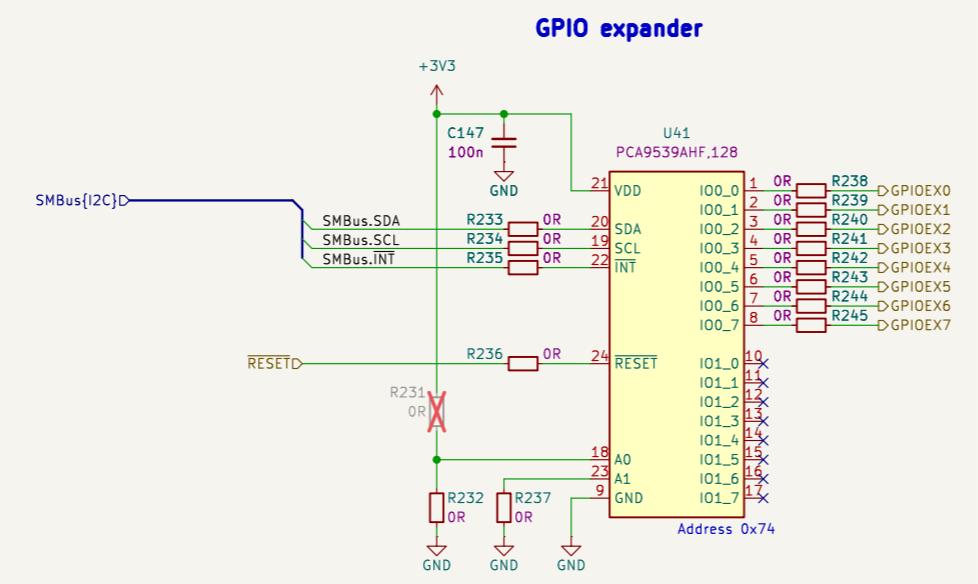
B

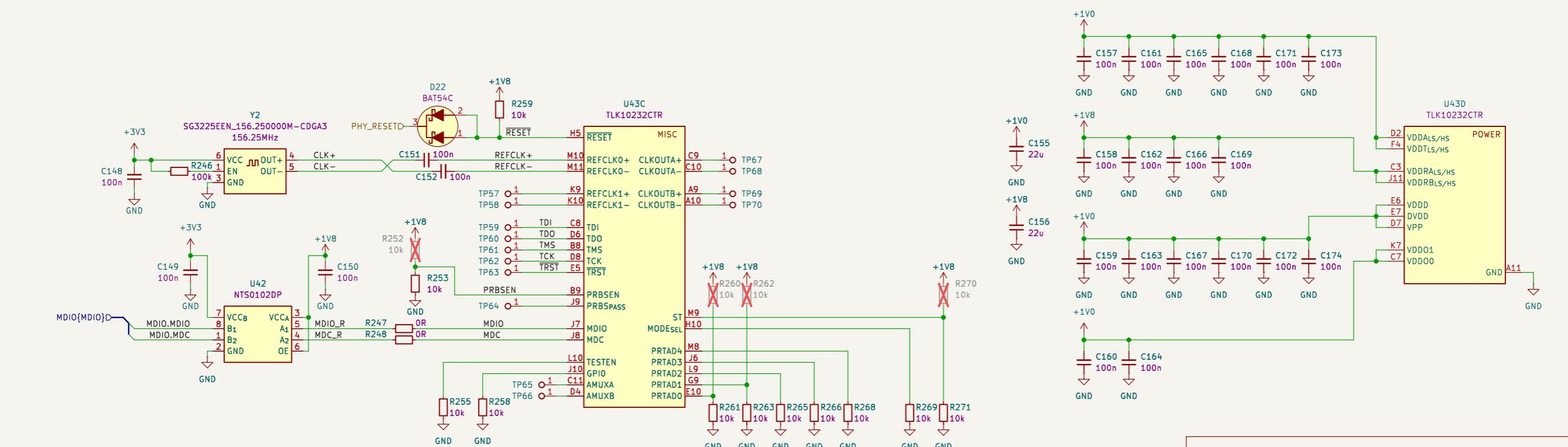
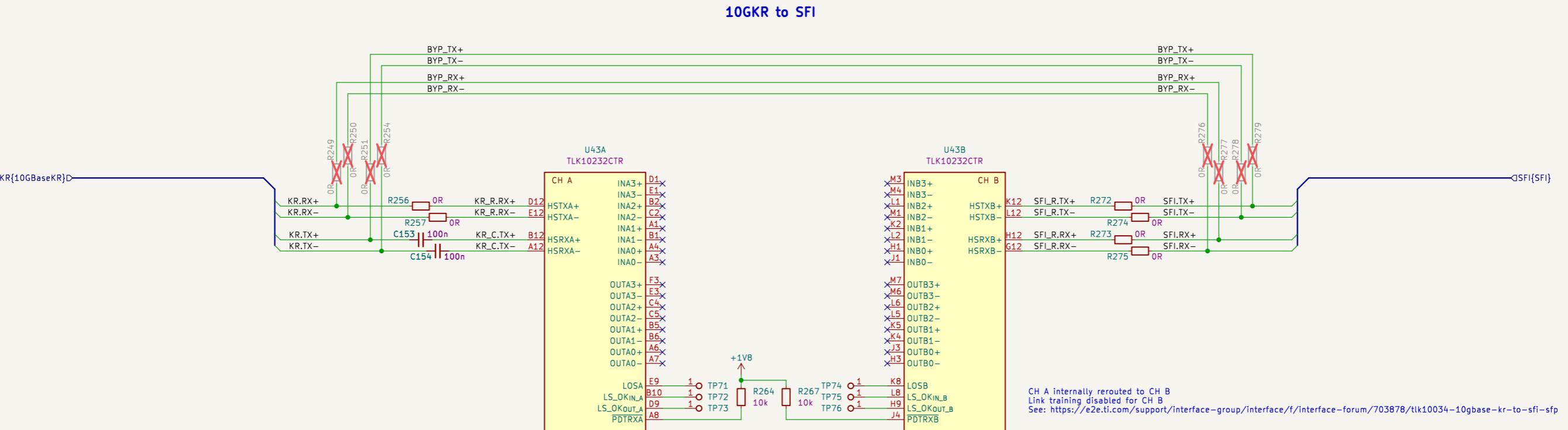
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[www.antmicro.com](http://www.antmicro.com)**Antmicro Ltd**Sheet: /GPIO expander/  
File: gpio\_exp.kicad\_sch**Title: COM Express 7 Baseboard**Size: A3 | Date: 2025-02-04  
KiCad E.D.A. 8.0.7Rev: 1.1.2:4ca5d  
Id: 16/19



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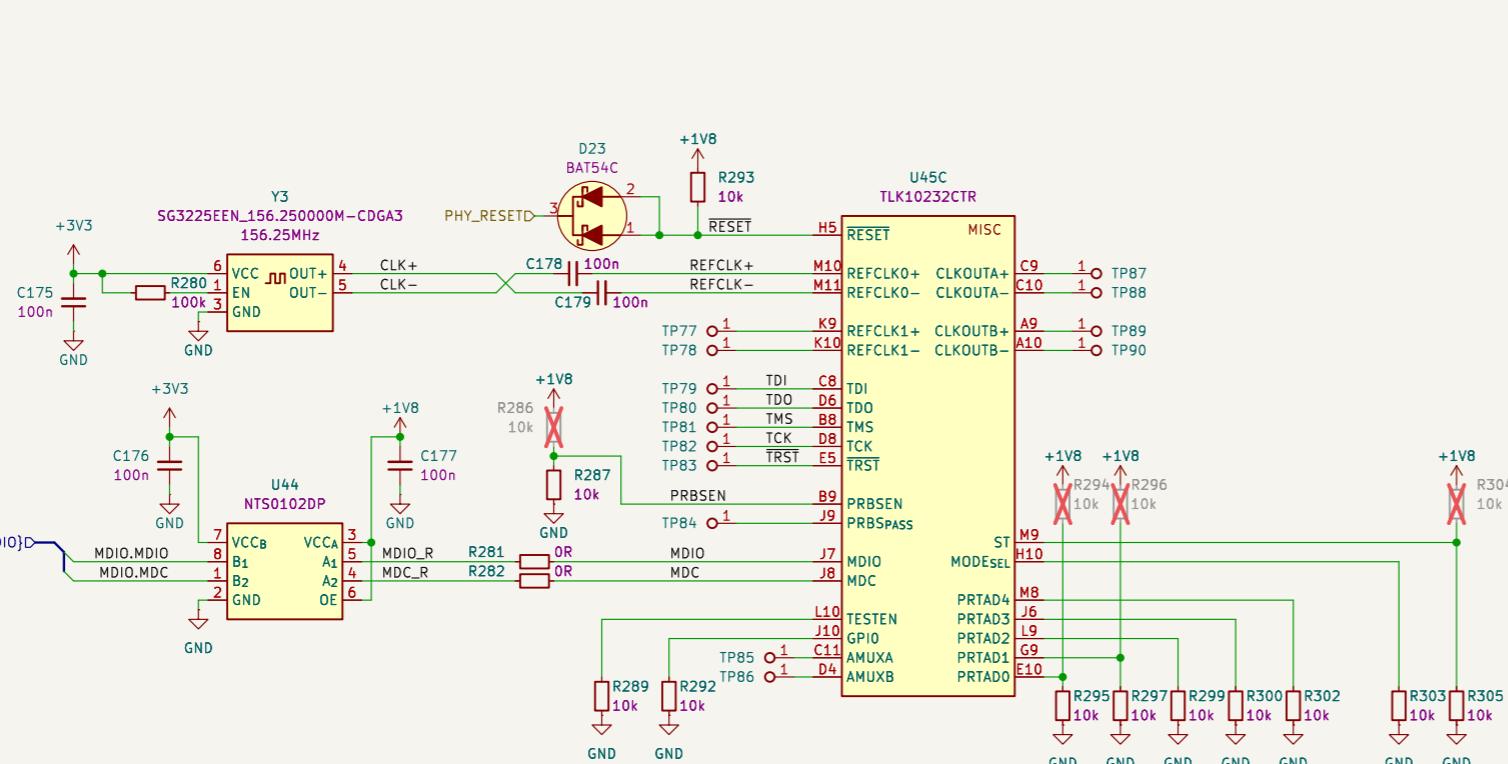
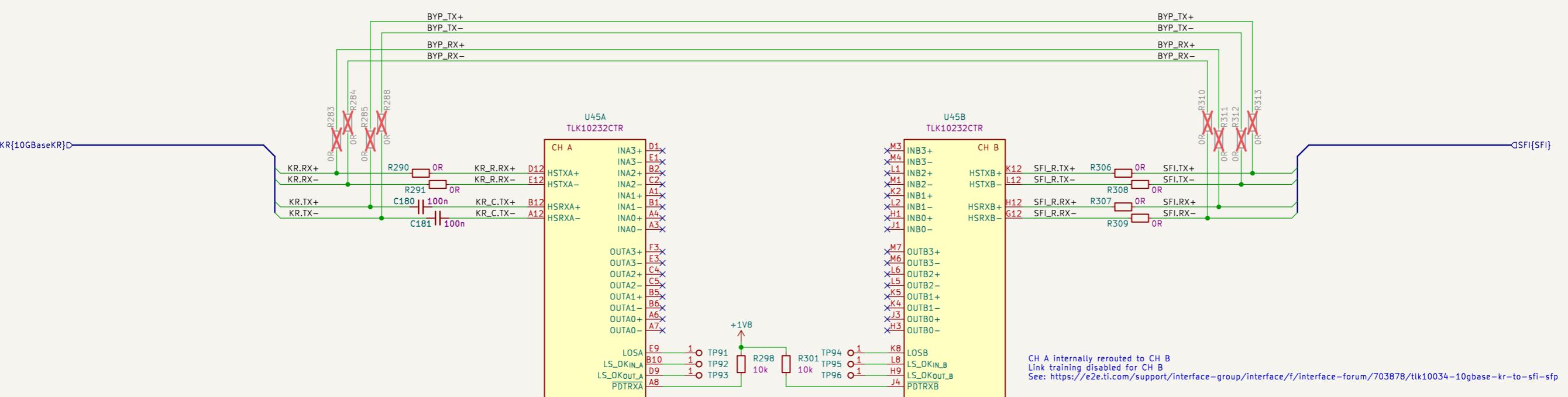
Sheet: /2xSFP+/KR to SFI #1/

File: kr\_sfi.kicad\_sch

**Title: COM Express 7 Baseboard**

Size: A3	Date: 2025-02-04
KiCad E.D.A. 8.0.7	Rev: 1.1.2:4ca5d

Id: 17/19
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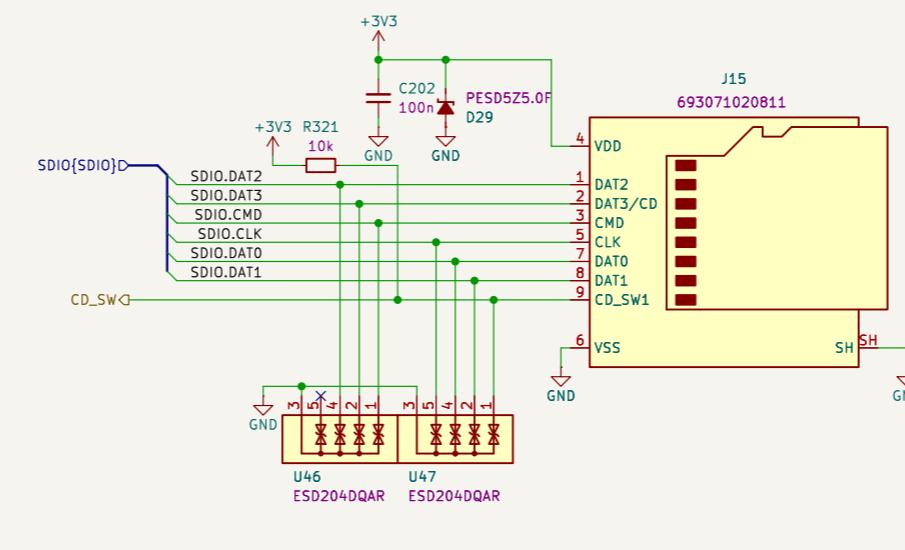
E

E

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### SD card connector



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**Antmicro Ltd**

Sheet: /SD card/

File: sd\_card.kicad\_sch

**Title: COM Express 7 Baseboard**

Size: A3 Date: 2025-02-04

KiCad E.D.A. 8.0.7

Rev: 1.1.2:4ca5d

Id: 19/19

1 2 3 4 5 6 7 8