

1 2 3 4 5 6 7 8

Thunderbolt – PCIe Adapter

A

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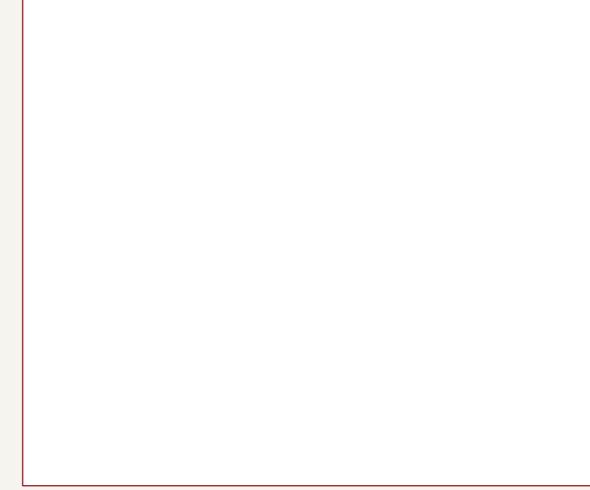
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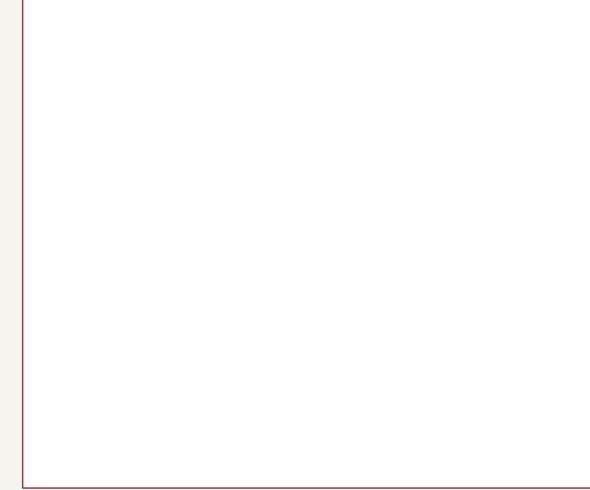
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Connectors



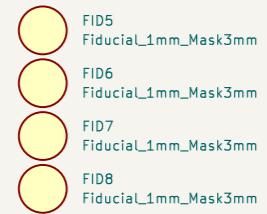
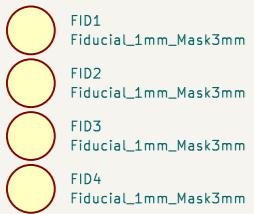
Thunderbolt Controller – Power



Power



TB Controller



Logo N1
antmicro_logo

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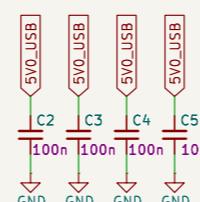
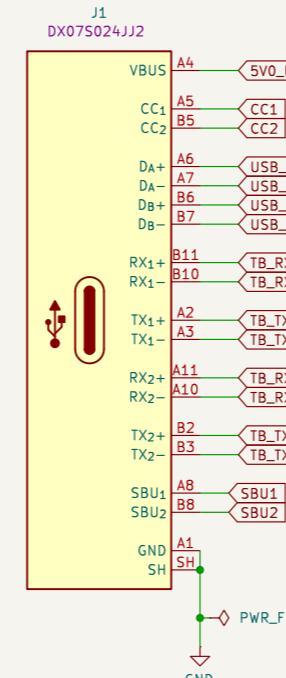
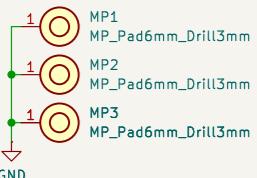
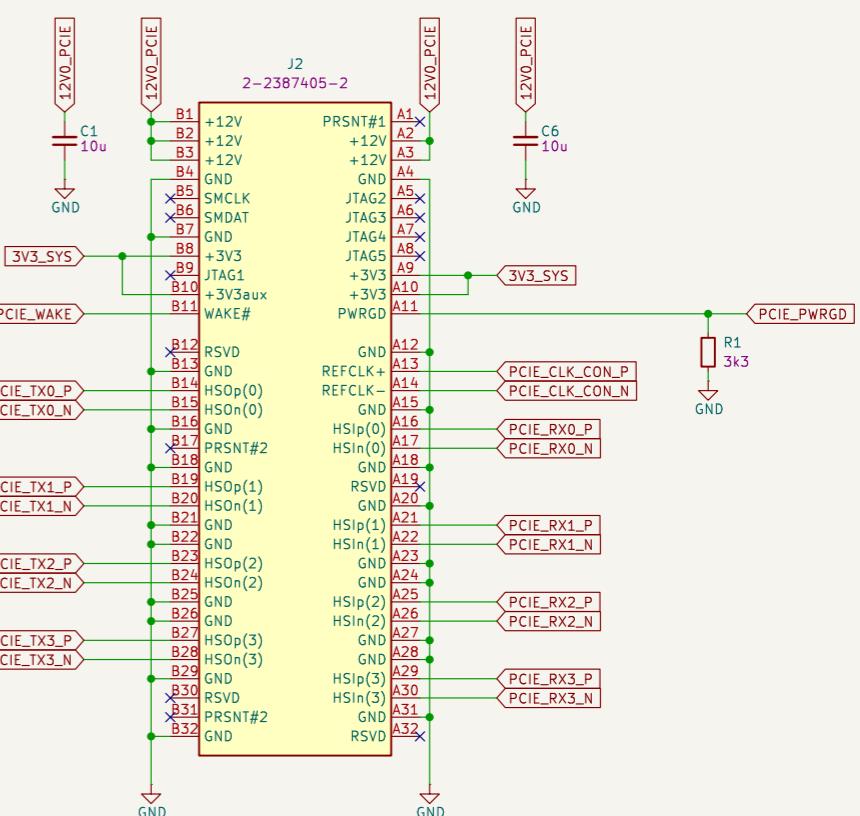
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Title: Thunderbolt PCIe Adapter

Size: A3 Date: 2024-07-09
KiCad E.D.A. kicad-cli 7.0.11

Rev: 1.0.3:1c2c8
Id: 1/5

1 2 3 4 5 6 7 8

+12V Molex Connector**USB-C Connector****PCI Express Connector**

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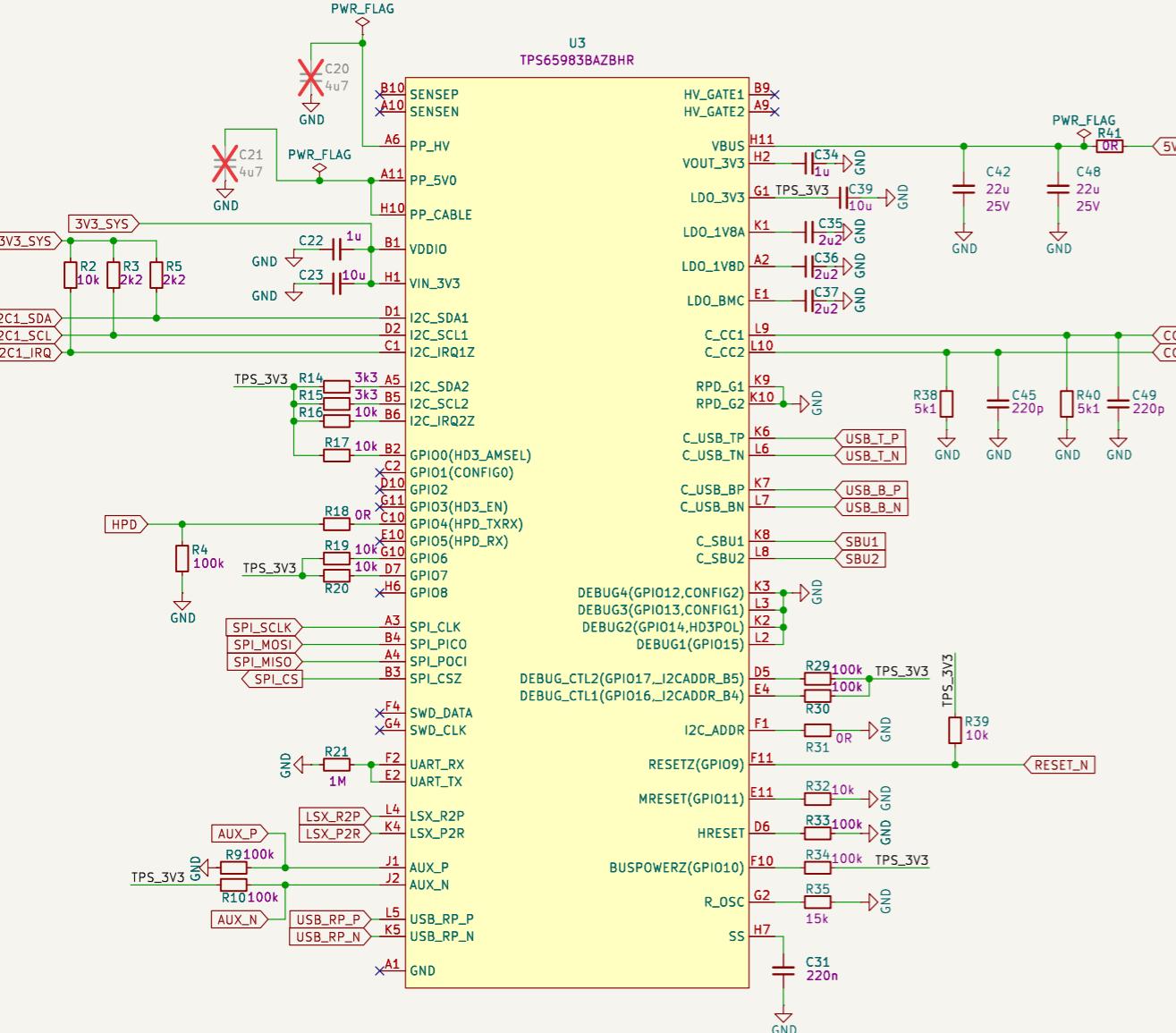
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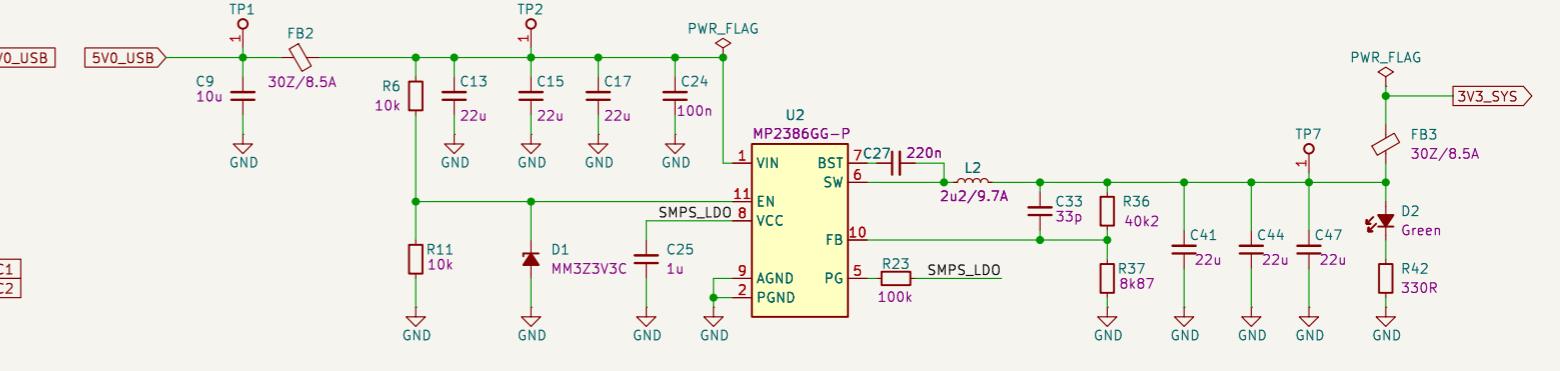
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KiCad E.D.A. kicad-cl 7.0.11

Rev: 1.0.3:1c2c8
Id: 2/5

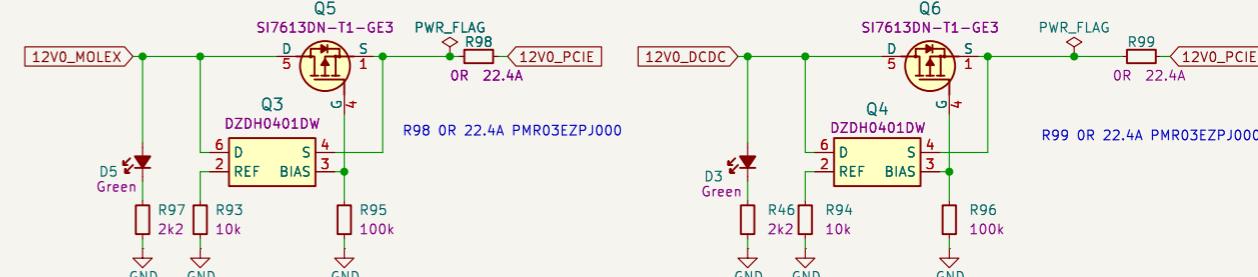
USB Power Delivery Controller



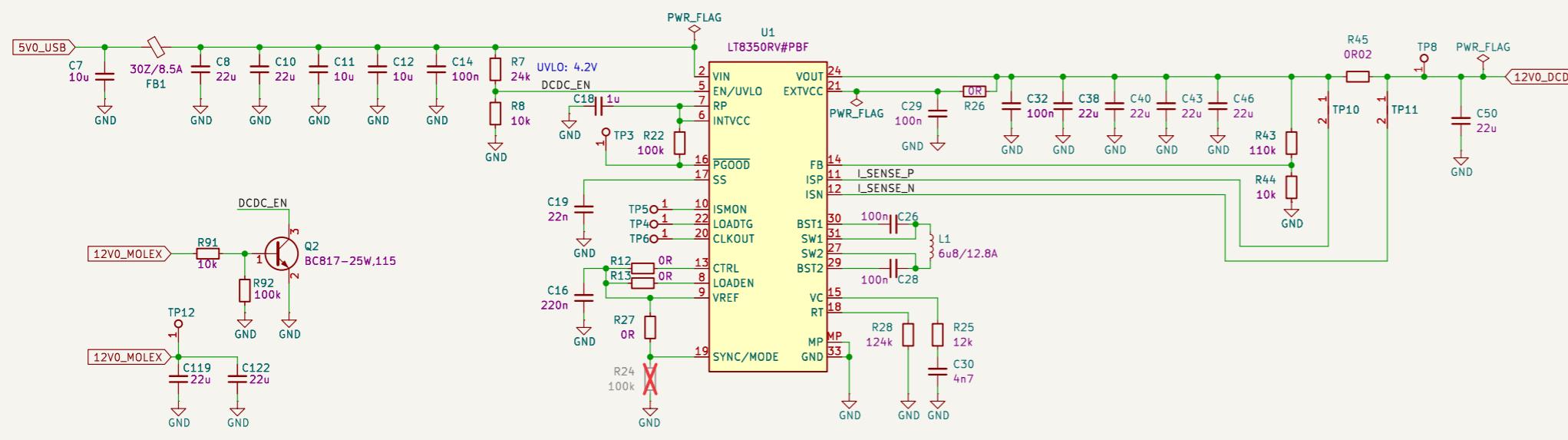
3V3 Buck Converter



Ideal diodes



12V Buck-Boost Converter



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Sheet: /Power/
File: power.kicad_sch

Title: Thunderbolt PCIe Adapter

Size: A3 Date: 2024-07-09
KiCad E.D.A. kicad-cl 7.0.11

Rev: 1.0.3:1c2c8
Id: 3/5

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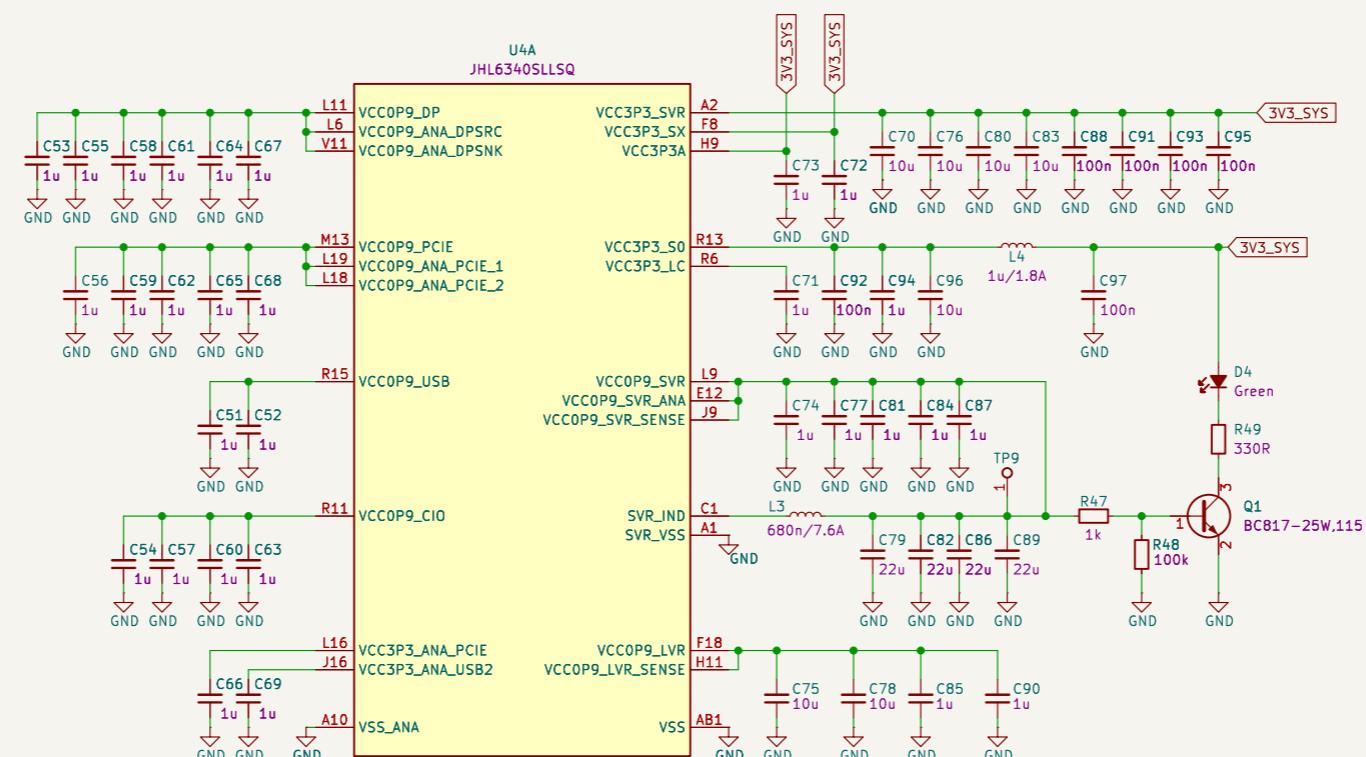
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Thunderbolt Controller – Power



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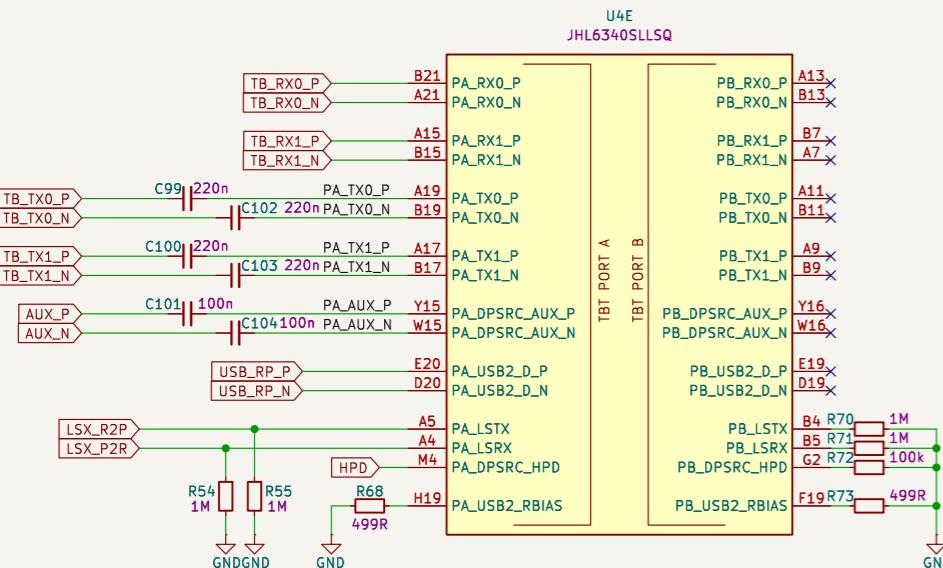
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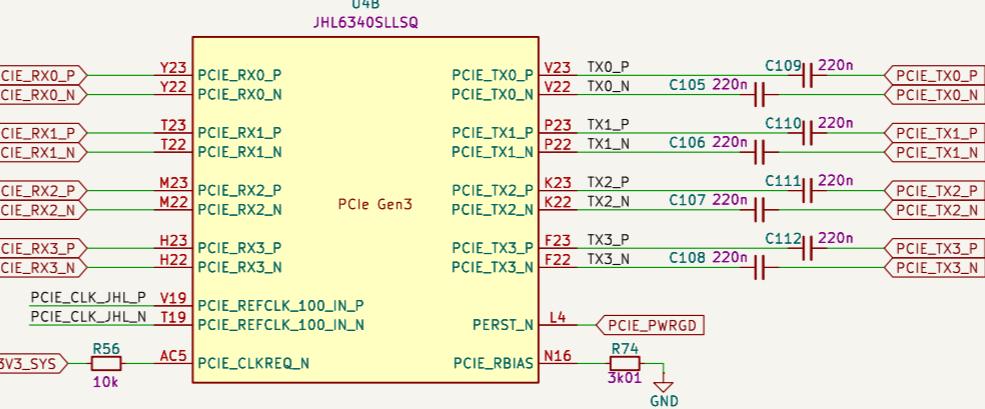
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Rev: 1.0.3:1c2c8
Id: 4/5

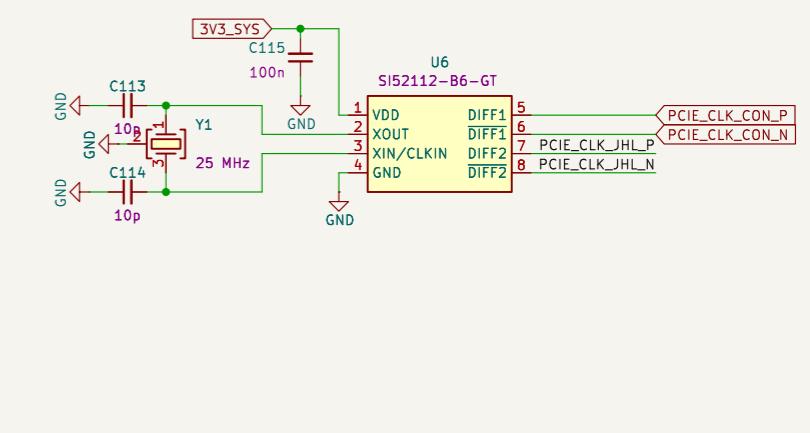
Thunderbolt Controller



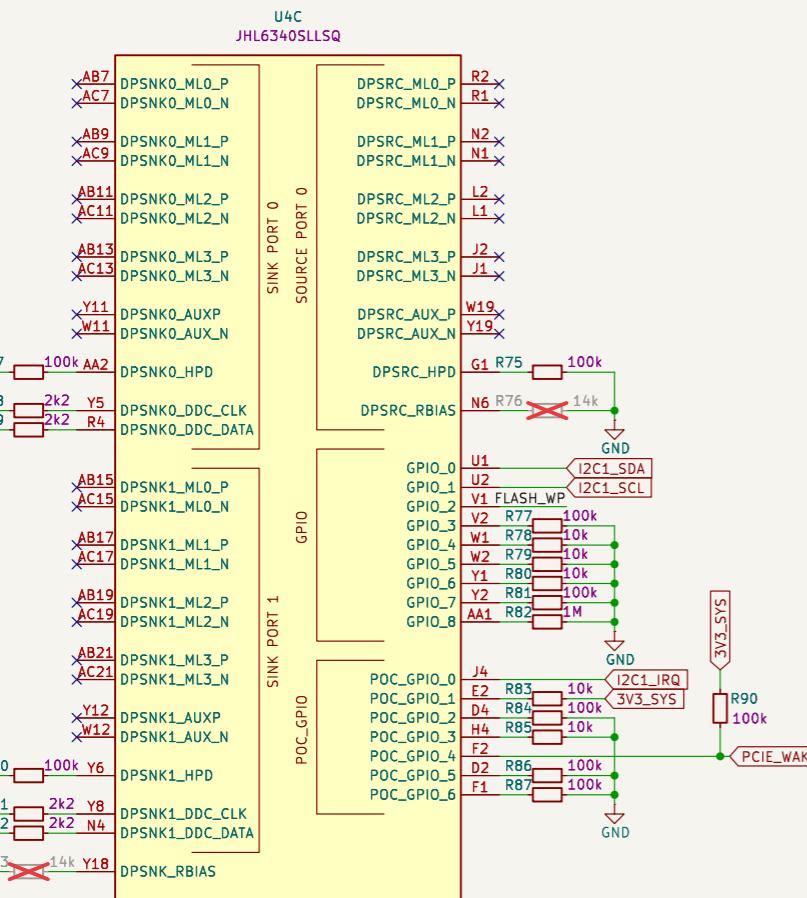
PCIe x4 Gen3



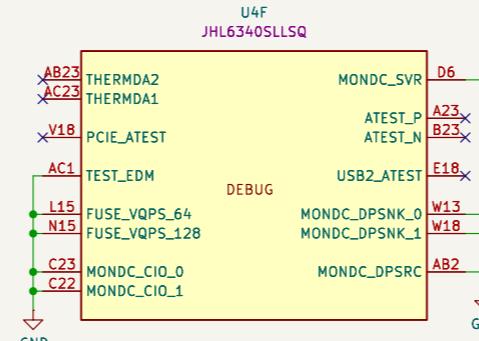
PCIe Clock Generator



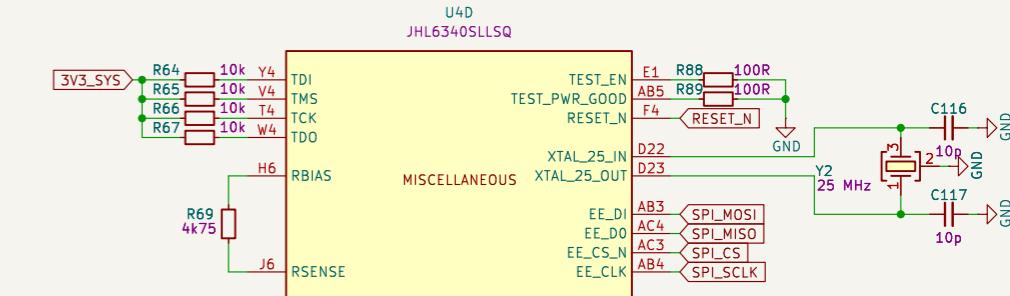
DisplayPorts



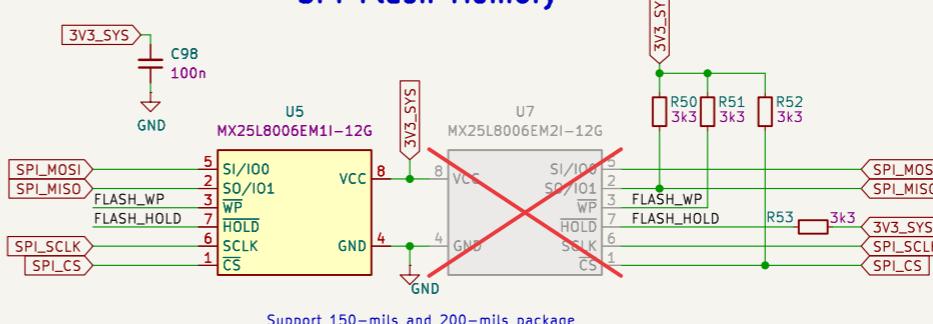
Thunderbolt Controller Debug



Thunderbolt Controller Misc



SPI Flash Memory



Support 150-mils and 200-mils package

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Sheet: /TB_Controller/
File: tb.kicad_sch

Title: Thunderbolt PCIe Adapter

Size: A3 | Date: 2024-07-09
KiCad E.D.A. kicad-cl 7.0.11

Rev: 1.0.3:1c2c8
Id: 5/5