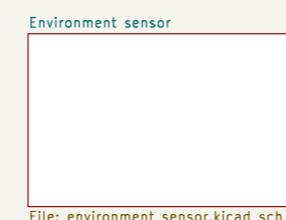
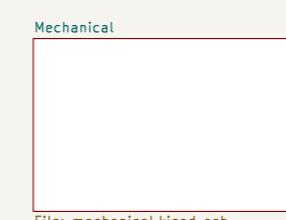
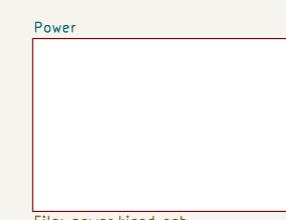
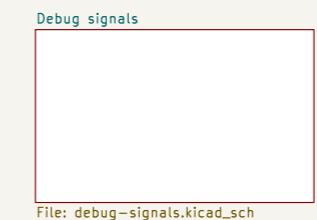
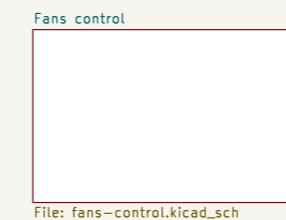
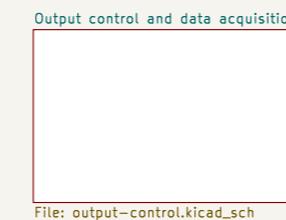
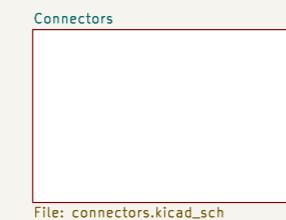
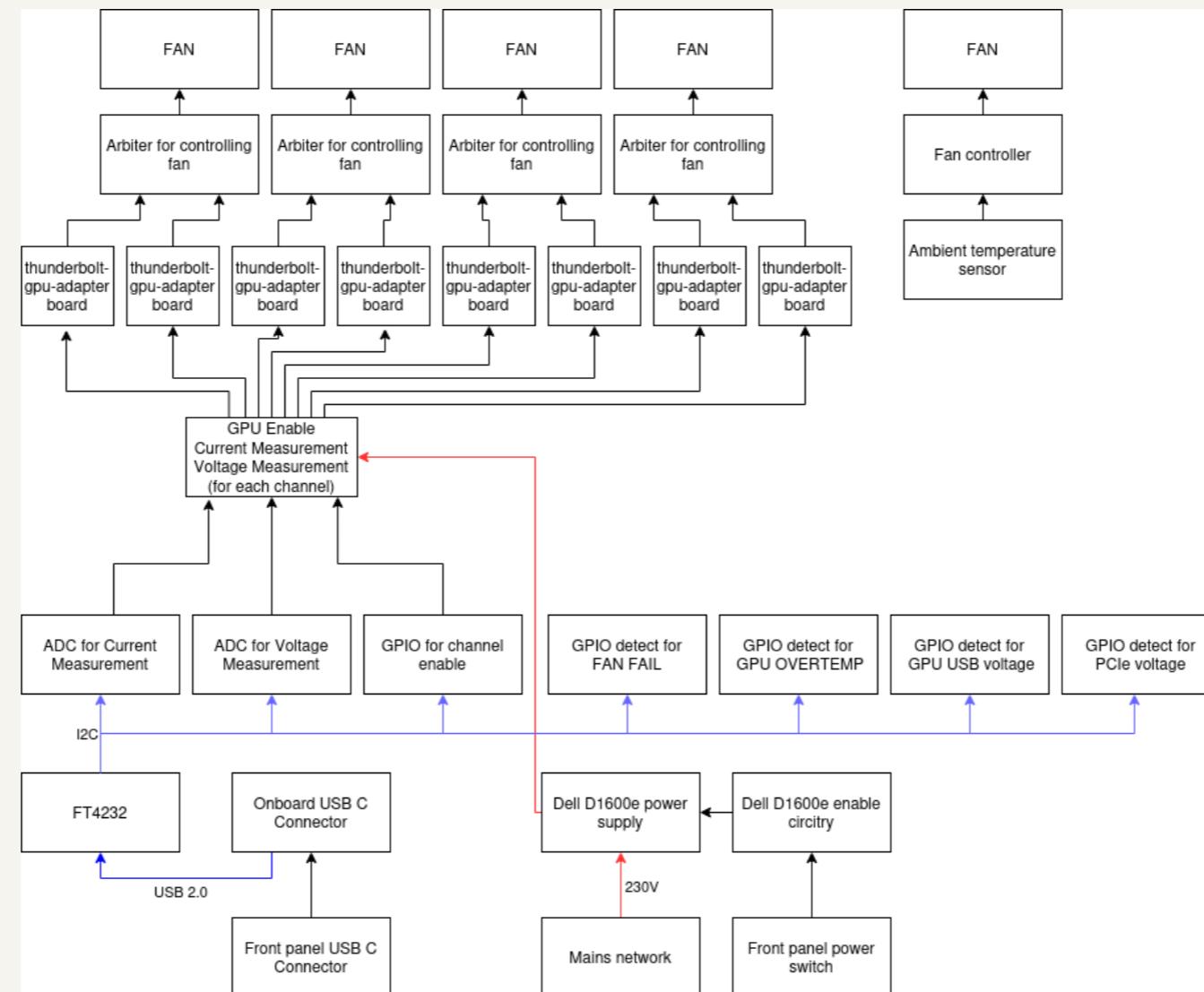


GPU Cluster Backplane



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Sheet: /
File: gpu-cluster-backplane.kicad_sch
Title: GPU Cluster Backplane
Size: A3 Date: 2024-07-10
KiCad E.D.A. kicad-cli 7.0.10-7.0.10-ubuntu23.04.1 Rev: 1.1.0
Id: 1/16

A

A

B

B

C

C

D

D

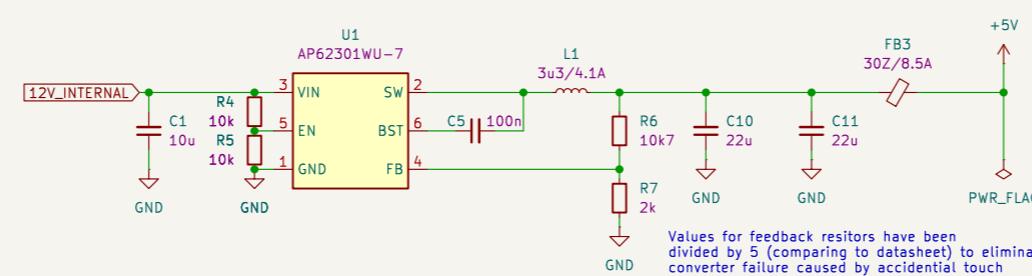
E

E

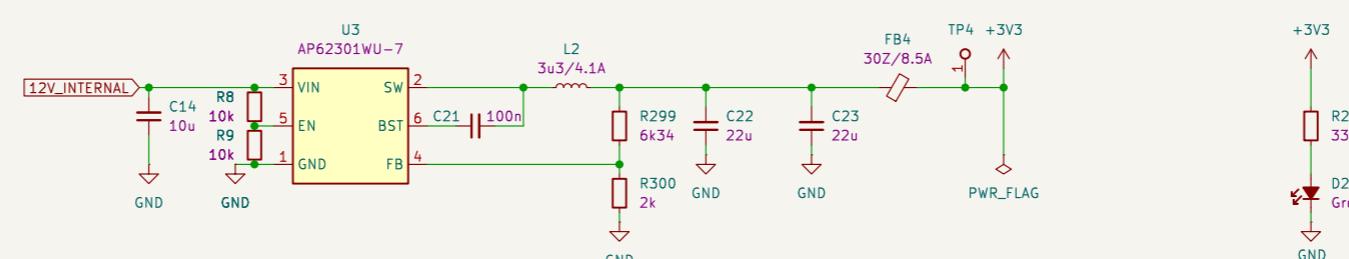
F

F

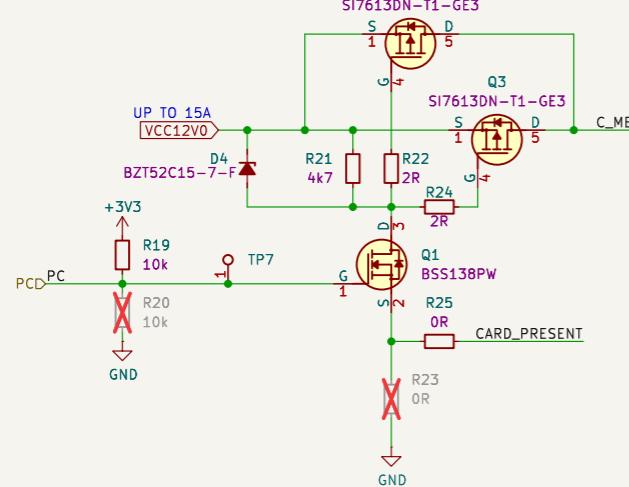
5V0 DC/DC Converter



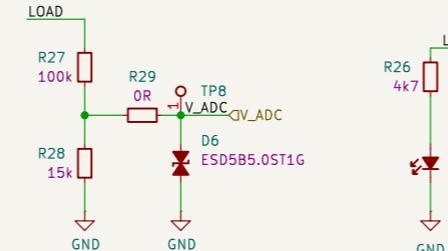
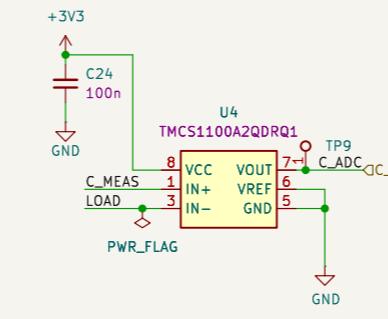
3V3 DC/DC Converter



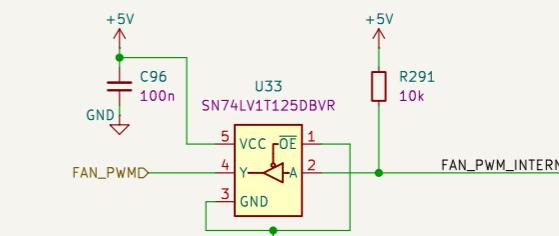
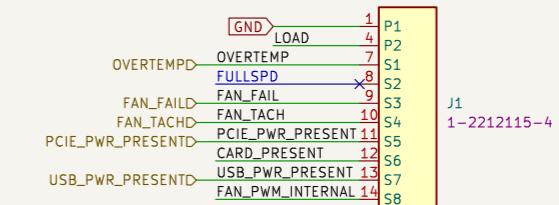
Channel high side switch

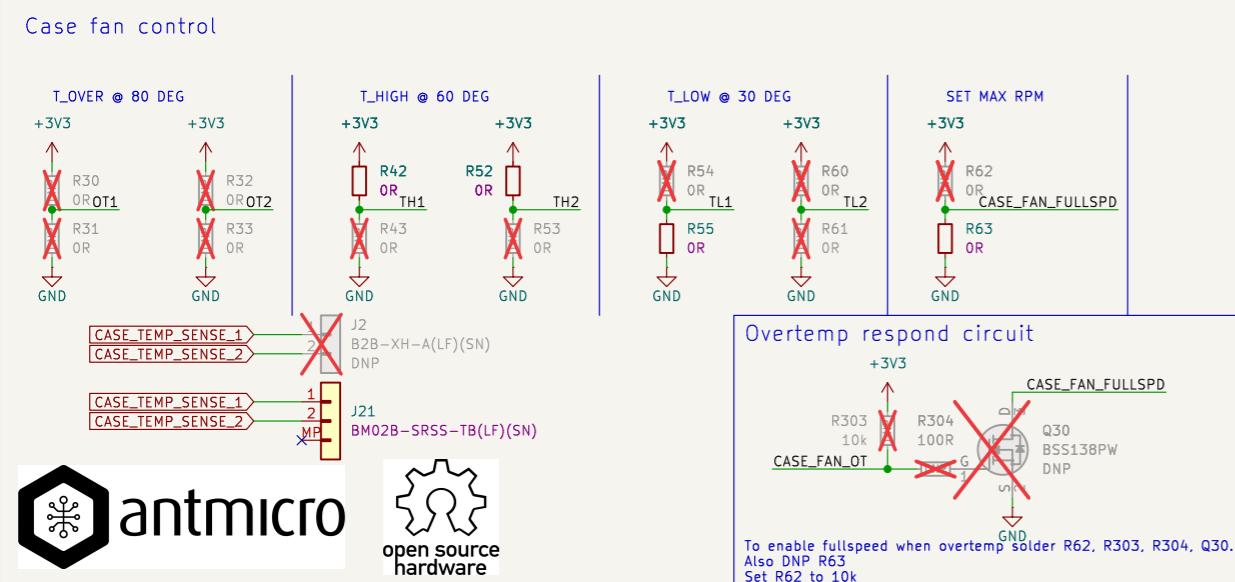
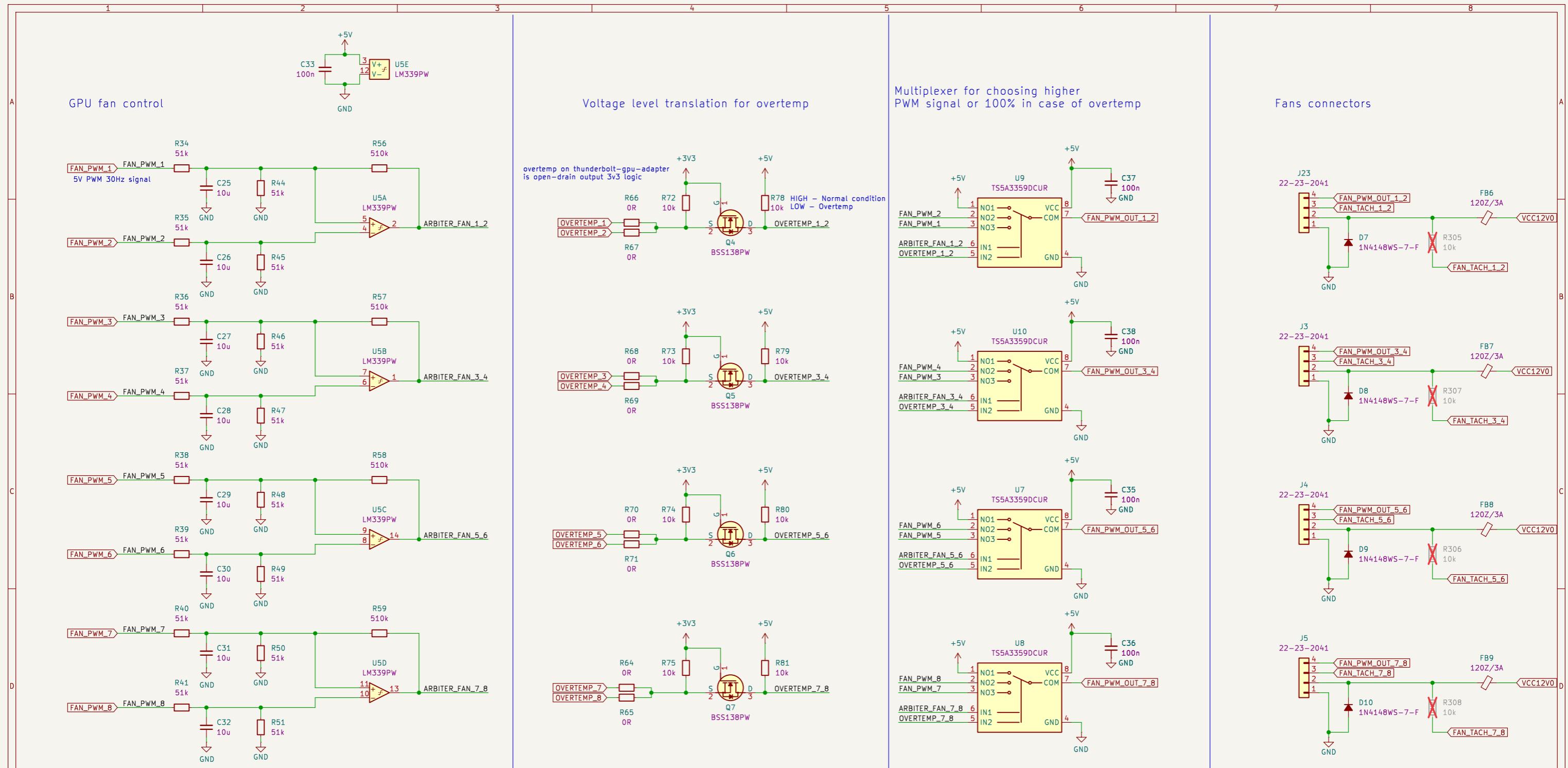


Current and voltage measurement



GPU Adapter connector





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Sheet: /Fans control/

File: fans-control.kicad_sch

Title: GPU Cluster Backplane

Size: A3 Date: 2024-07-10

KiCad E.D.A. kicad-cl 7.0.10-7.0.10-ubuntu23.04.1

Rev: 1.1.0

Id: 4/16

A

B

C

D

E

F

A

B

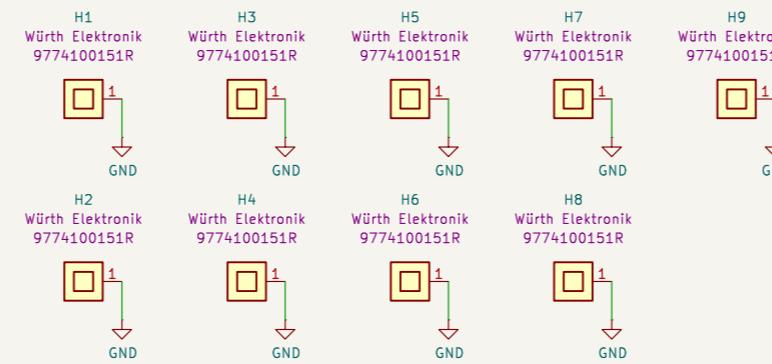
C

D

E

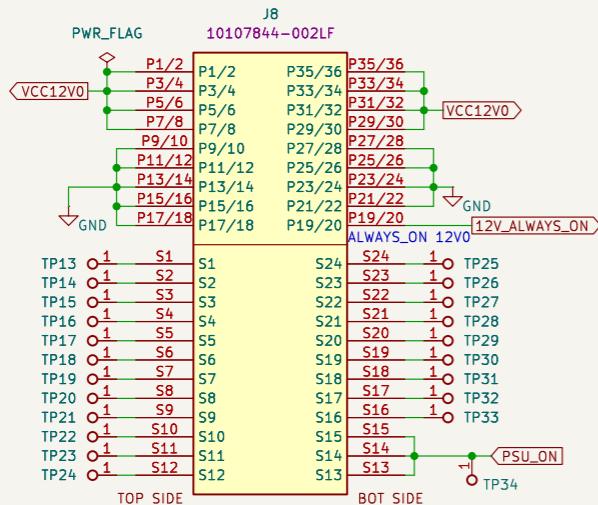
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Holes for studs

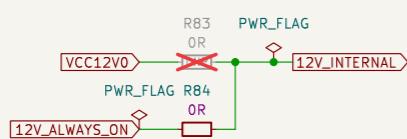
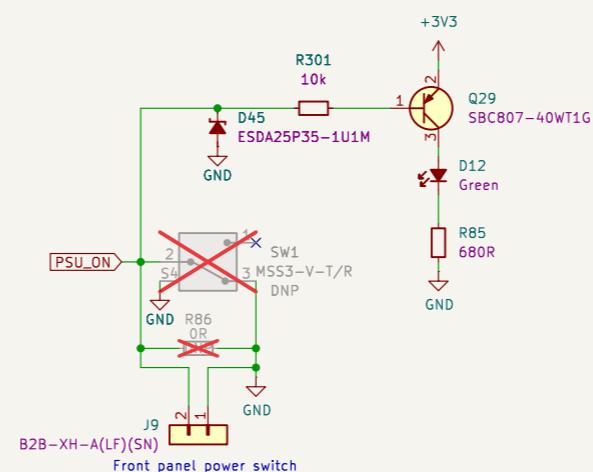


A

Dell D1600e PSU connector

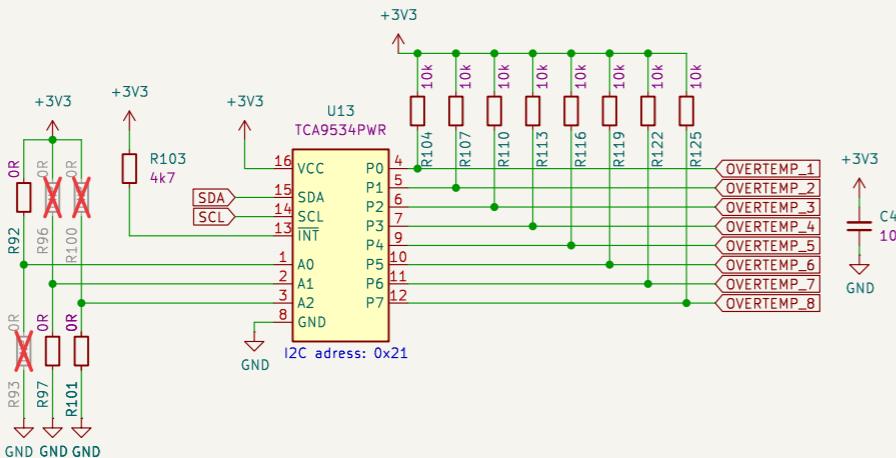


Power switch connector

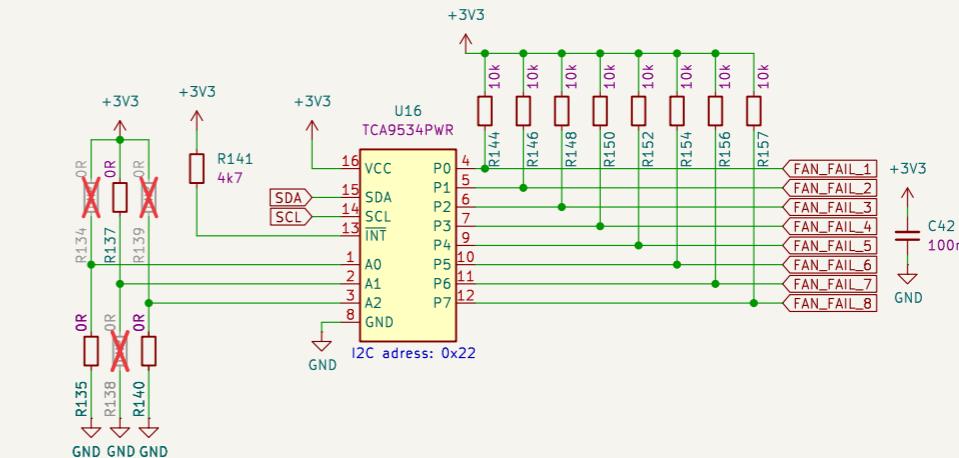


1 2 3 4 5 6 7 8

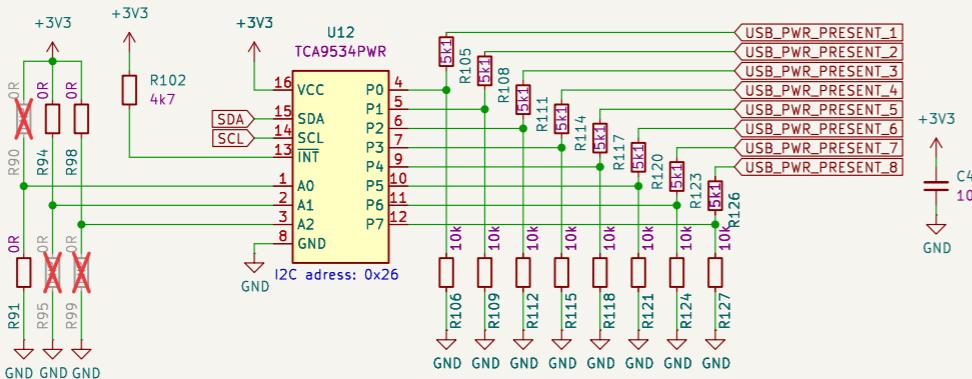
GPIO EXPANDER for OVERTEMP



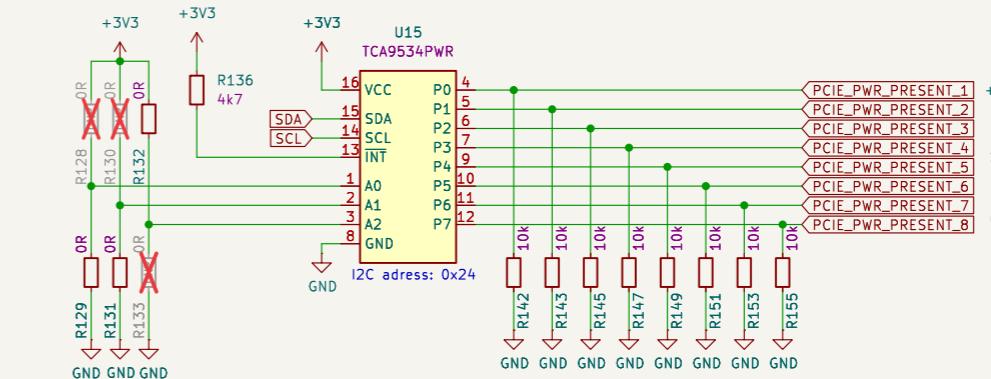
GPIO EXPANDER for FAN_FAIL



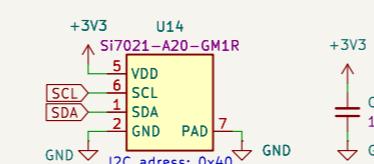
GPIO EXPANDER for USB_PWR_PRESENT



GPIO EXPANDER for PCIE_PWR_PRESENT



Temperature and humidity sensor



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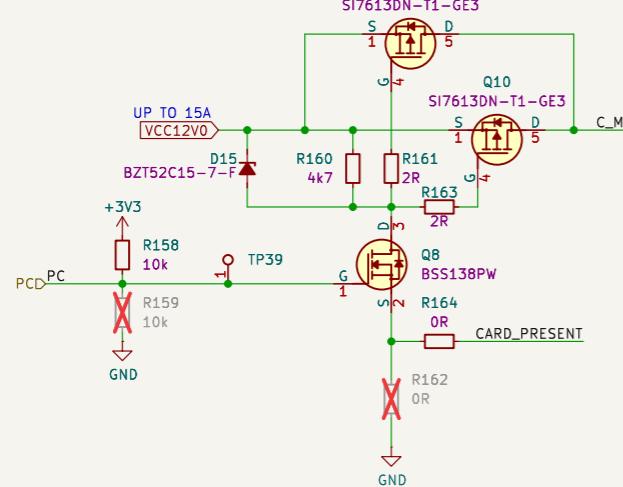
Sheet: /Debug signals/
File: debug-signals.kicad_sch

Title: GPU Cluster Backplane

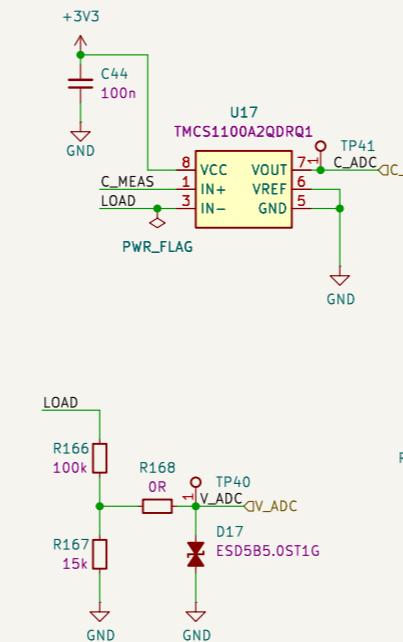
Size: A3 Date: 2024-07-10
KiCad E.D.A. kicad-cl 7.0.10-7.0.10-ubuntu23.04.1

Rev: 1.1.0
Id: 8/16

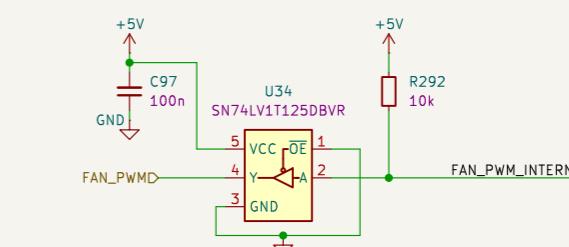
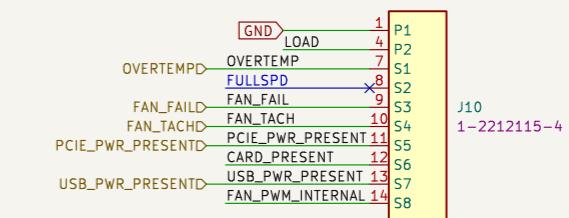
Channel high side switch



Current and voltage measurement



GPU Adapter connector



A

A

B

B

C

C

D

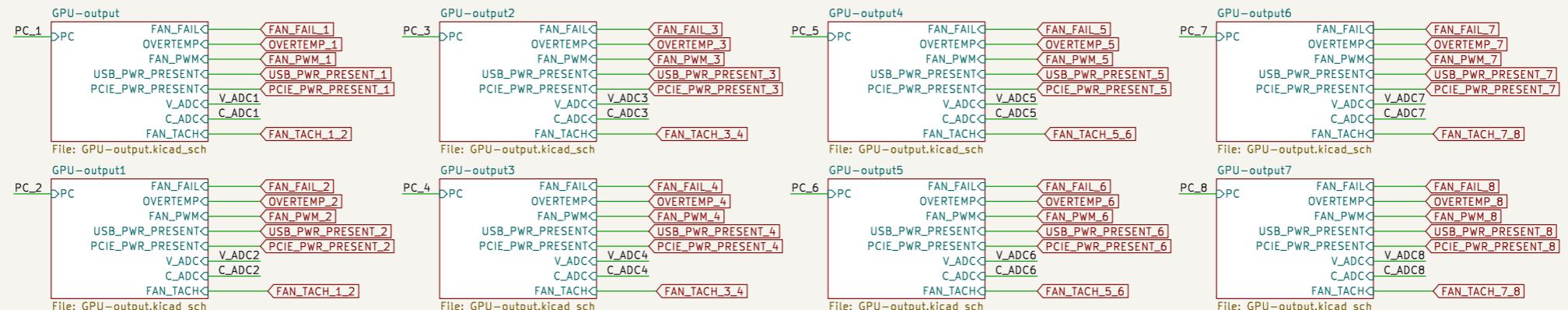
D

E

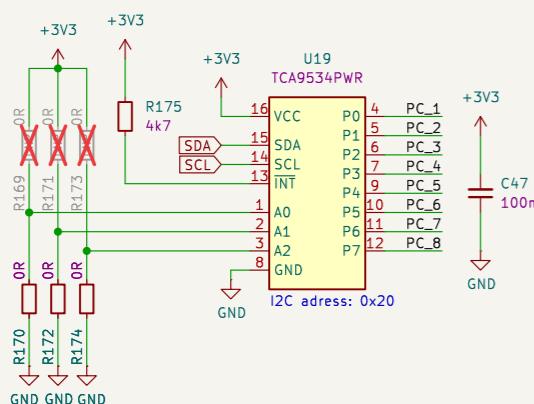
E

A

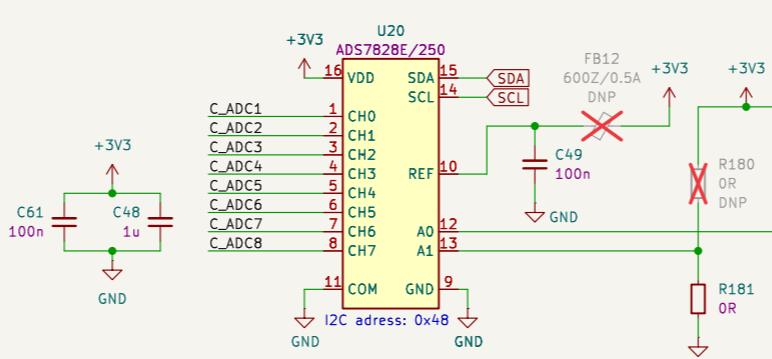
Individual channels for connecting thunderbolt-gpu-adapters



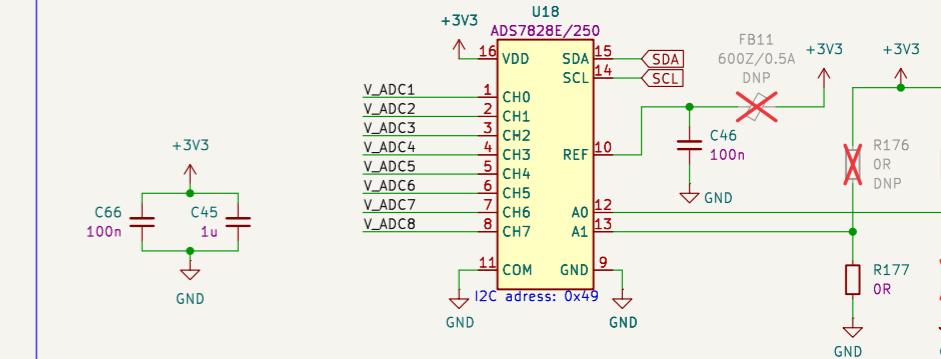
GPIO EXPANDER for power cycling



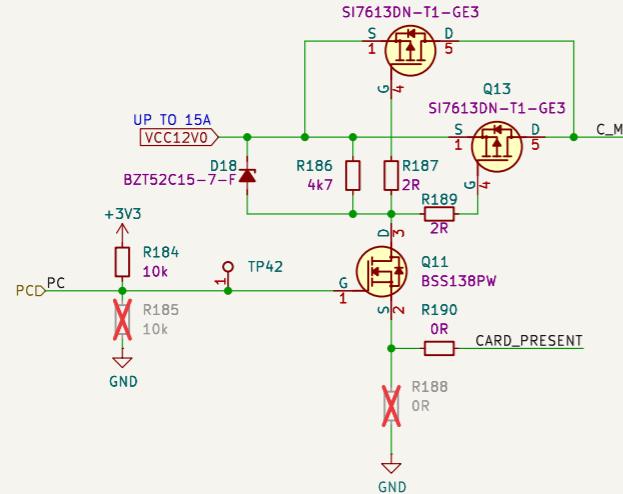
ADC for current measurement



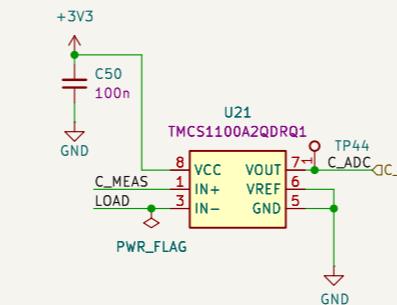
ADC for voltage measurement



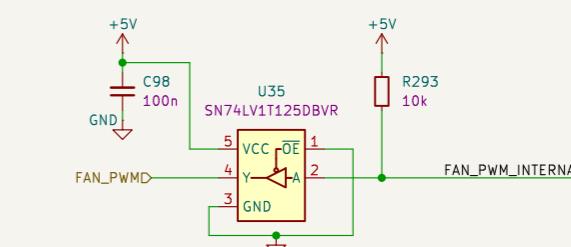
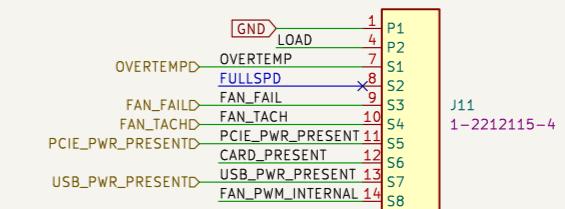
Channel high side switch



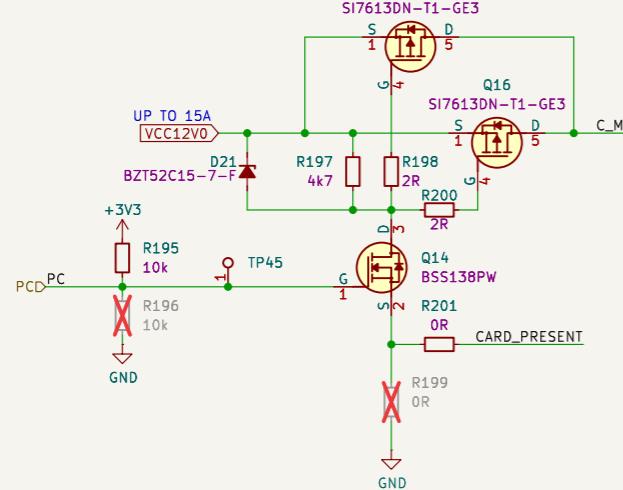
Current and voltage measurement



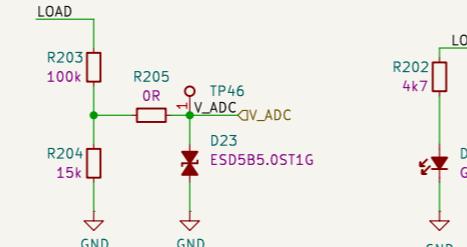
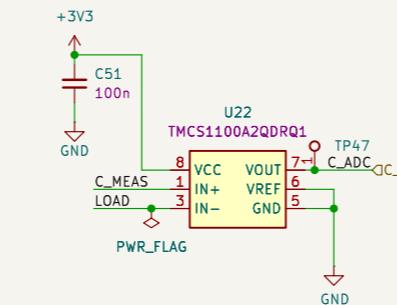
GPU Adapter connector



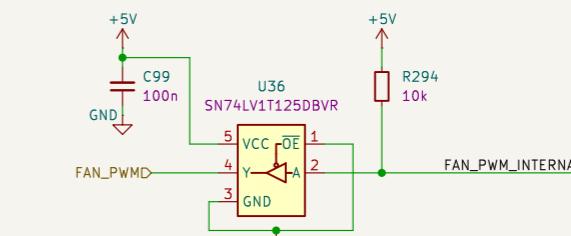
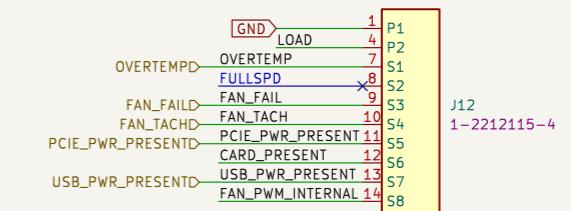
Channel high side switch



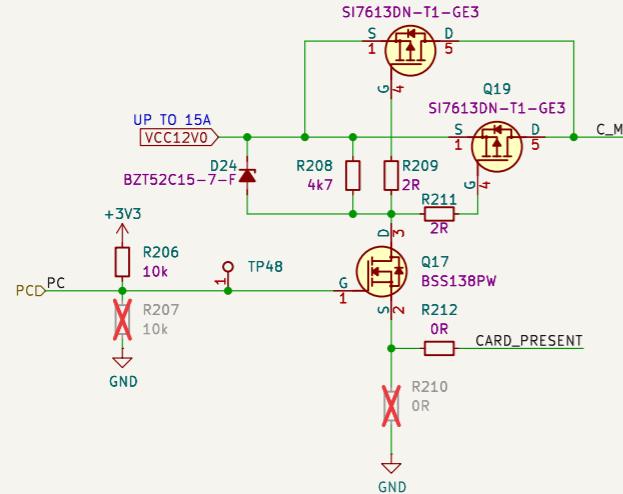
Current and voltage measurement



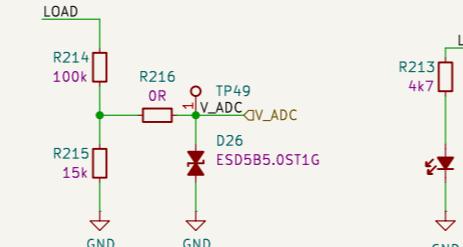
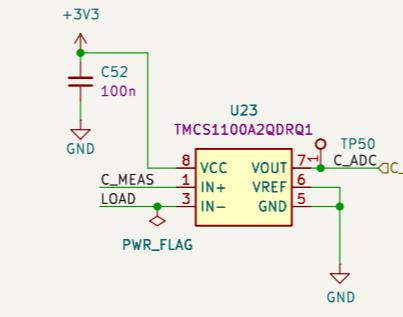
GPU Adapter connector



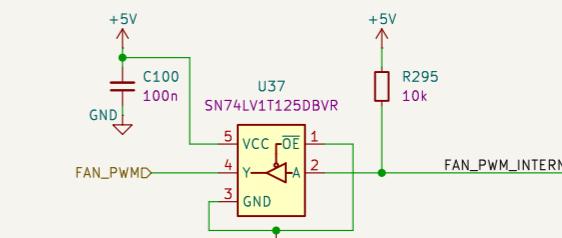
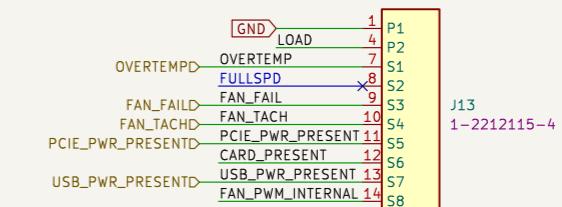
Channel high side switch



Current and voltage measurement

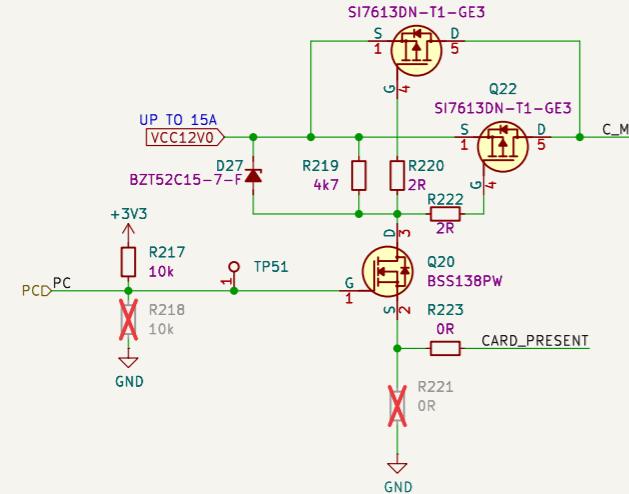


GPU Adapter connector

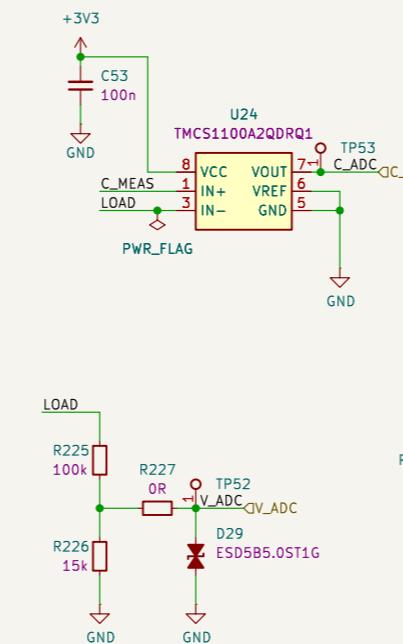


1 2 3 4 5 6 7 8

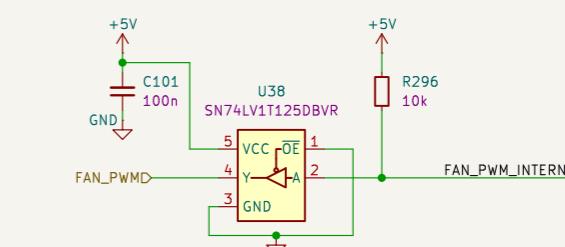
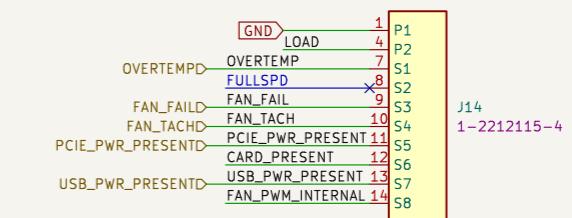
Channel high side switch



Current and voltage measurement



GPU Adapter connector



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Sheet: /Output control and data acquisition/GPU-output5/
File: GPU-output.kicad_sch

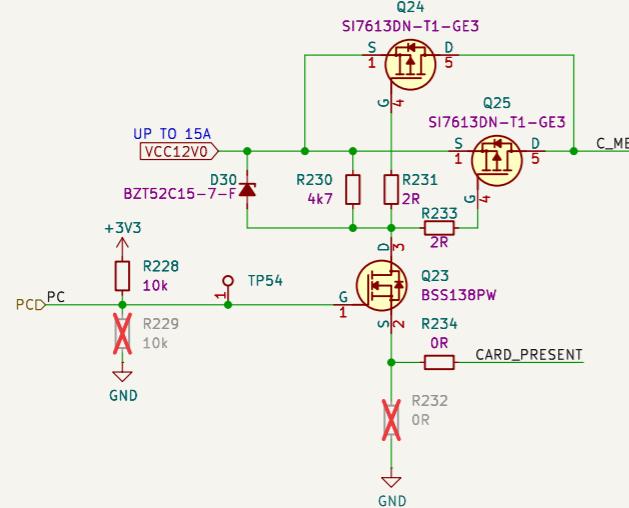
Title: GPU Cluster Backplane

Size: A3 Date: 2024-07-10
KiCad E.D.A. kicad-cli 7.0.10-7.0.10-ubuntu23.04.1

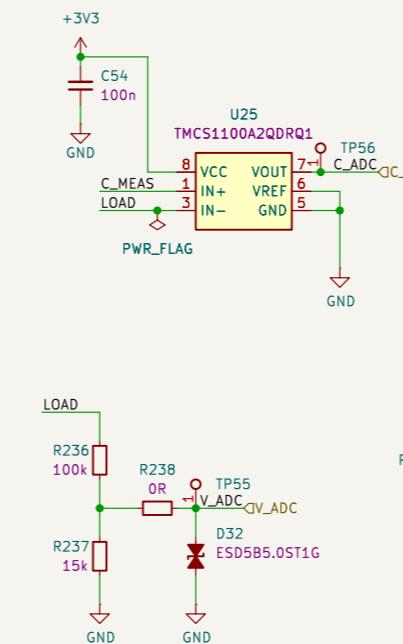
Rev: 1.1.0
Id: 15/16

1 2 3 4 5 6 7 8

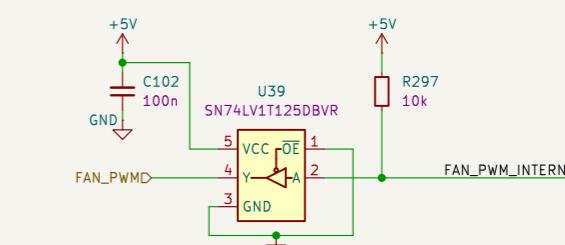
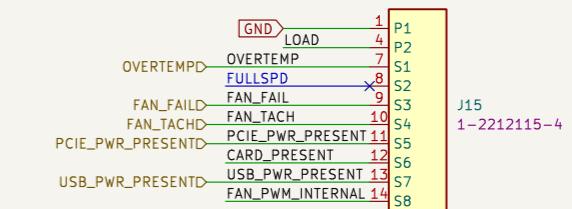
Channel high side switch



Current and voltage measurement



GPU Adapter connector



A

A

B

B

C

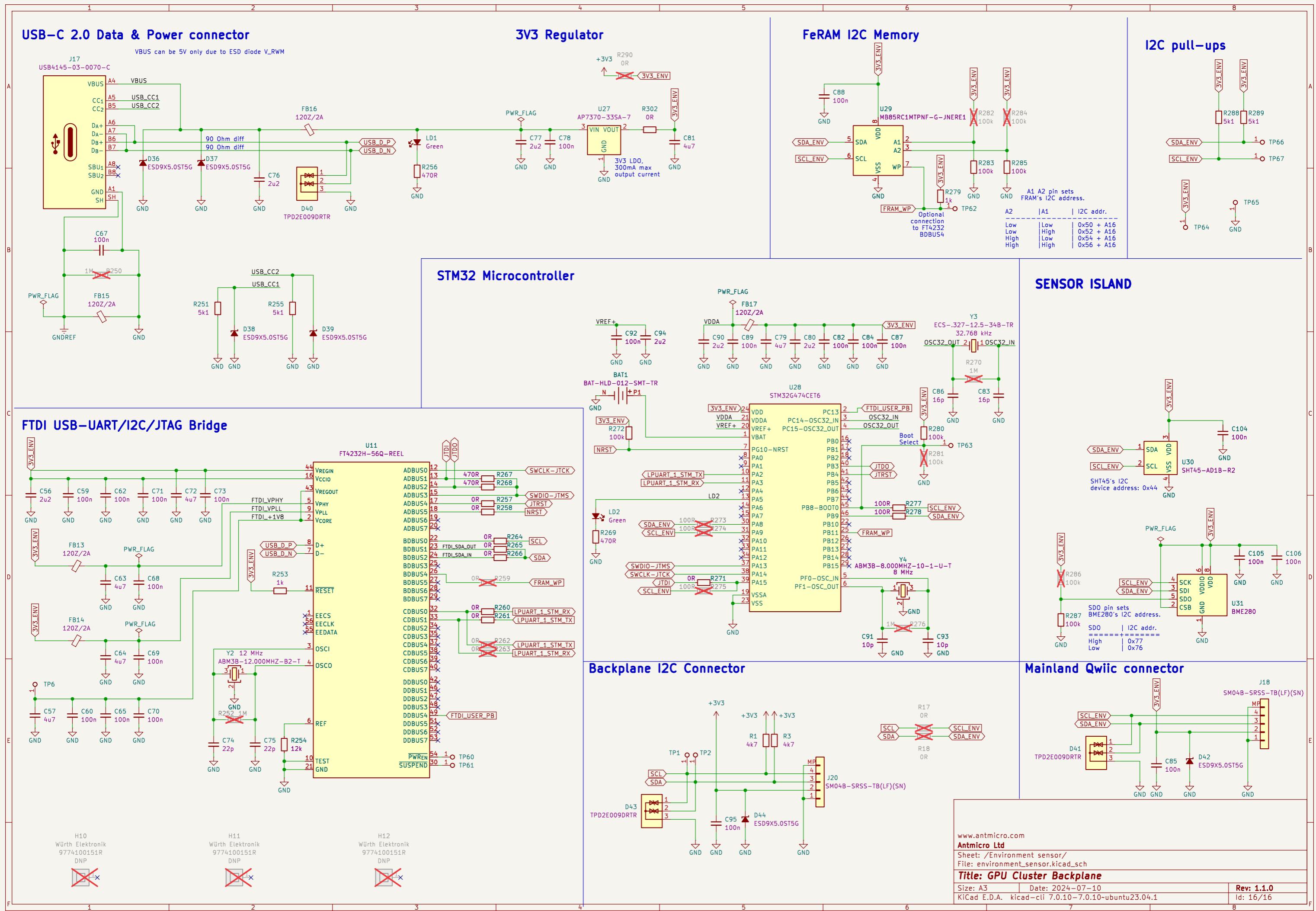
C

D

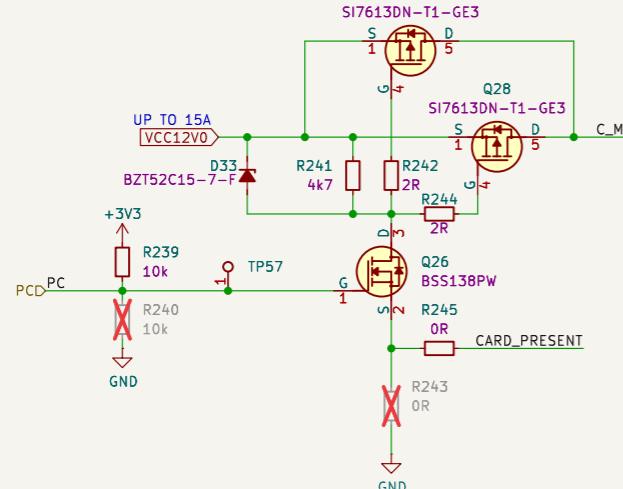
D

E

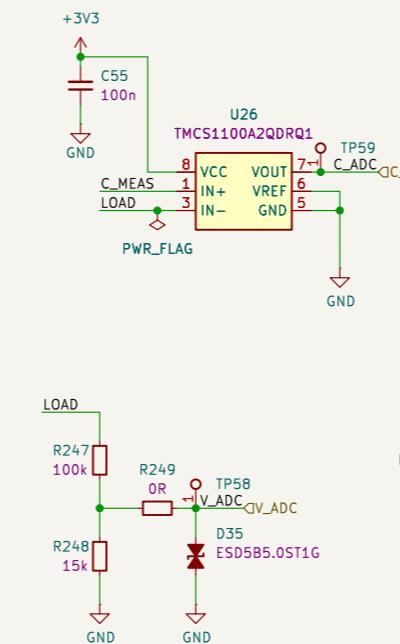
E



Channel high side switch



Current and voltage measurement



GPU Adapter connector

