

# USB Hub

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+12V Input

File: POS12\_Input.kicad\_sch

+5V Power Supply

File: POS5\_Power\_Supply.kicad\_sch

+3.3V Power Supply

File: POS3P3\_Power\_Supply.kicad\_sch

Power ORing

File: power\_oring.kicad\_sch

PGOOD LEDs

File: PGOOD\_LEDs.kicad\_sch

Hub LEDs

File: Hub\_LEDs.kicad\_sch

Mechanical

File: mechanical.kicad\_sch

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Hub Controller

File: Hub\_Controller.kicad\_sch

Downstream Port 0

File: Downstream\_Port\_0.kicad\_sch

Downstream Port 1

File: Downstream\_Port\_1.kicad\_sch

Downstream Port 2

File: Downstream\_Port\_2.kicad\_sch

Downstream Port 3

File: Downstream\_Port\_3.kicad\_sch

Upstream Port

File: Upstream\_Port.kicad\_sch

Port Power Control

File: port\_power\_control.kicad\_sch

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Sheet: /

File: USB\_Hub.kicad\_sch

Title: USB Hub

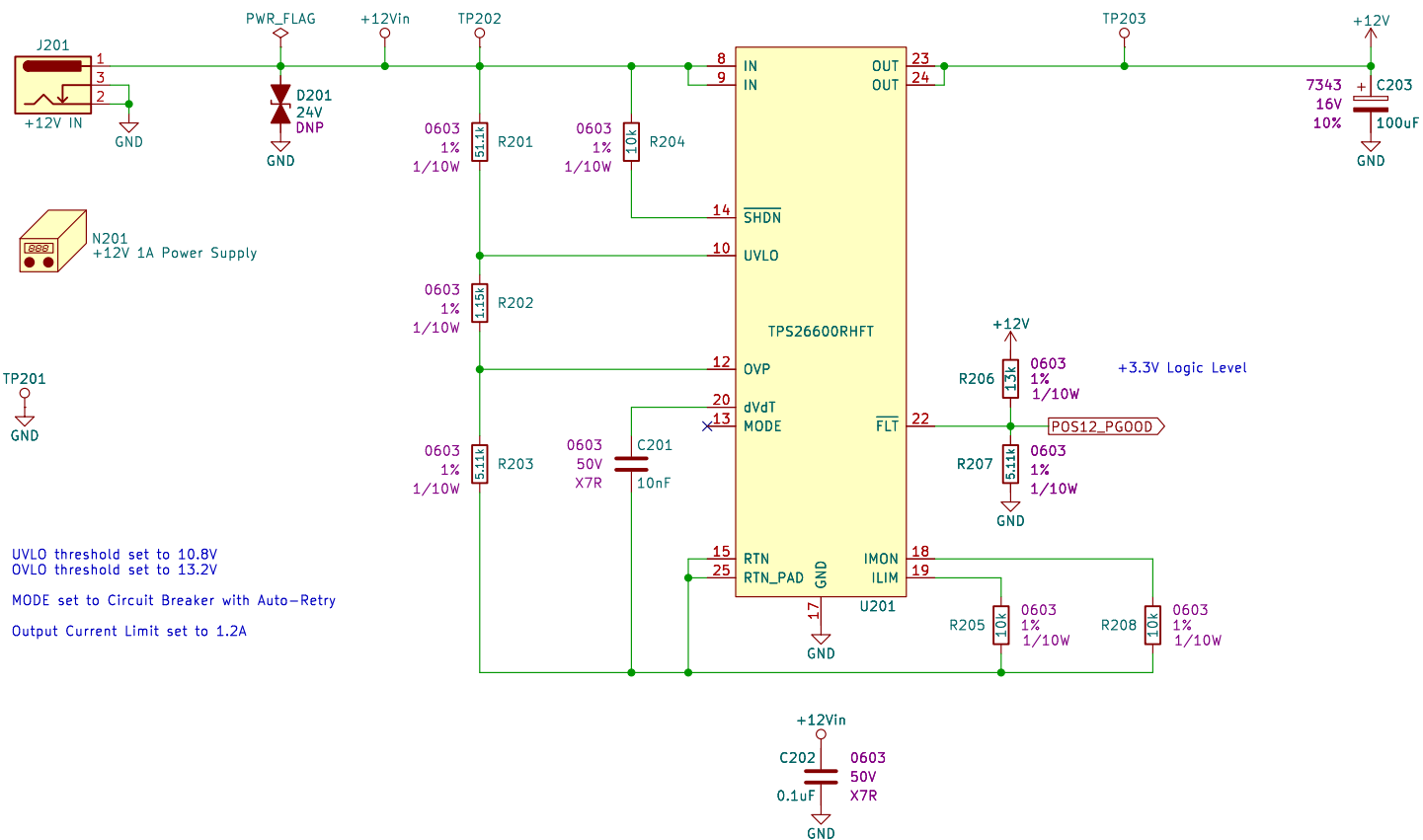
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Date: 2023-08-20

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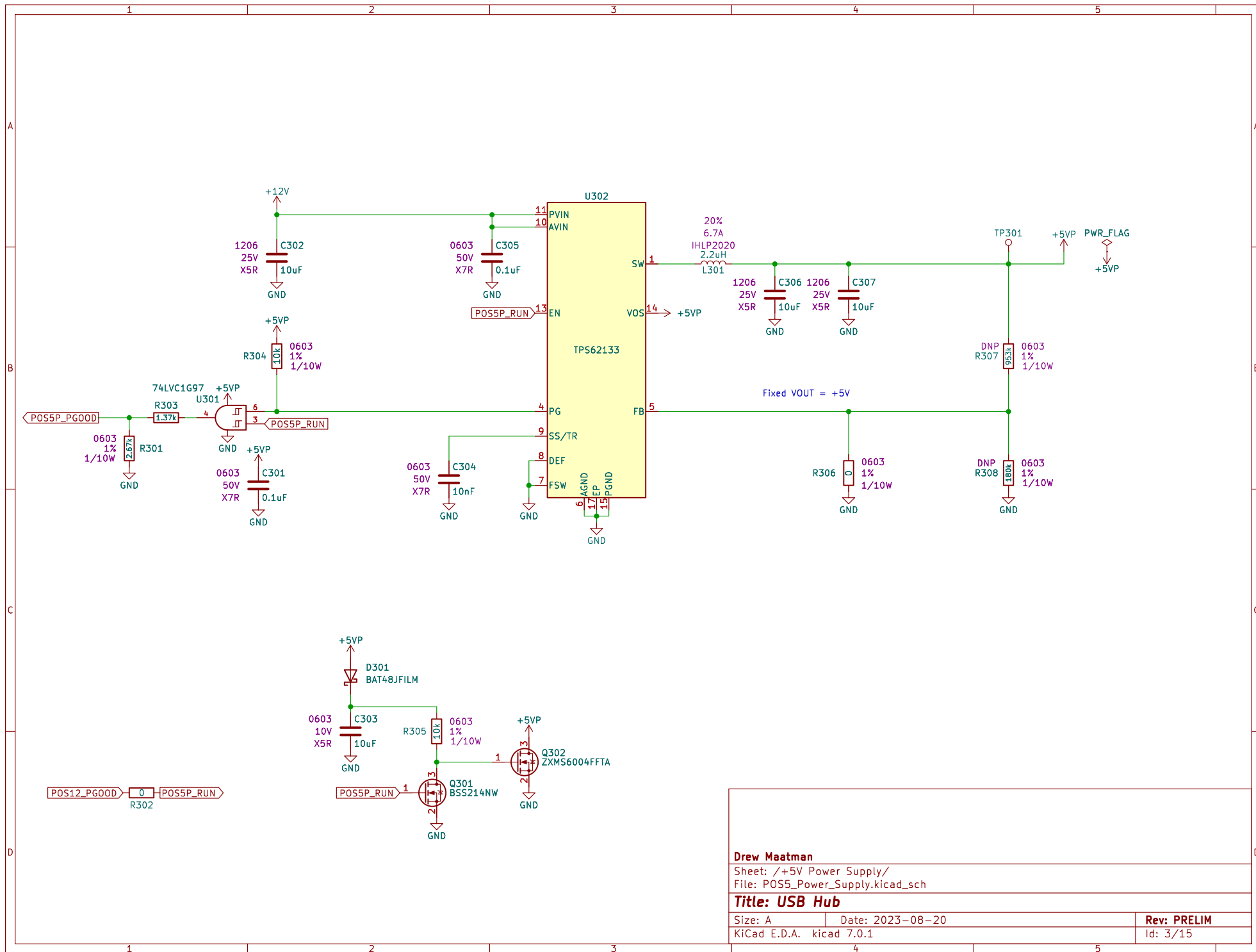
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**Title: USB Hub**

Size: A Date: 2023-08-20  
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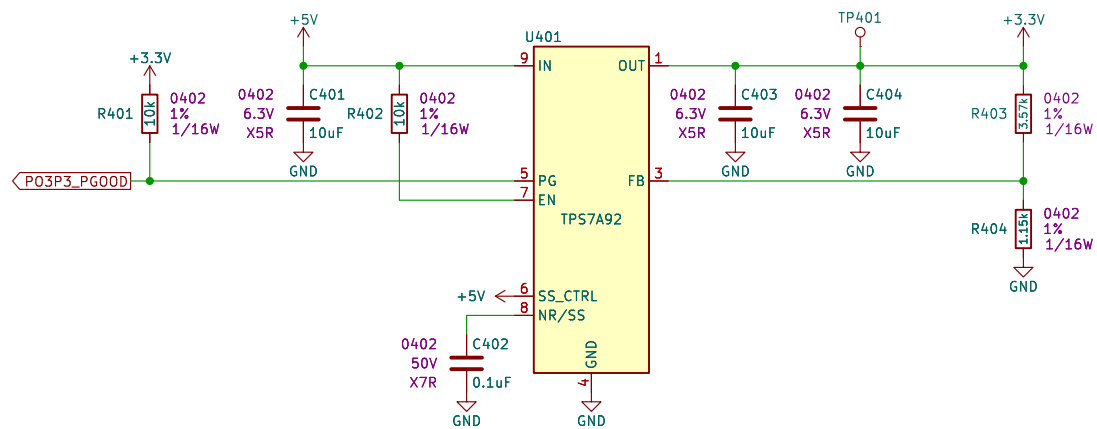
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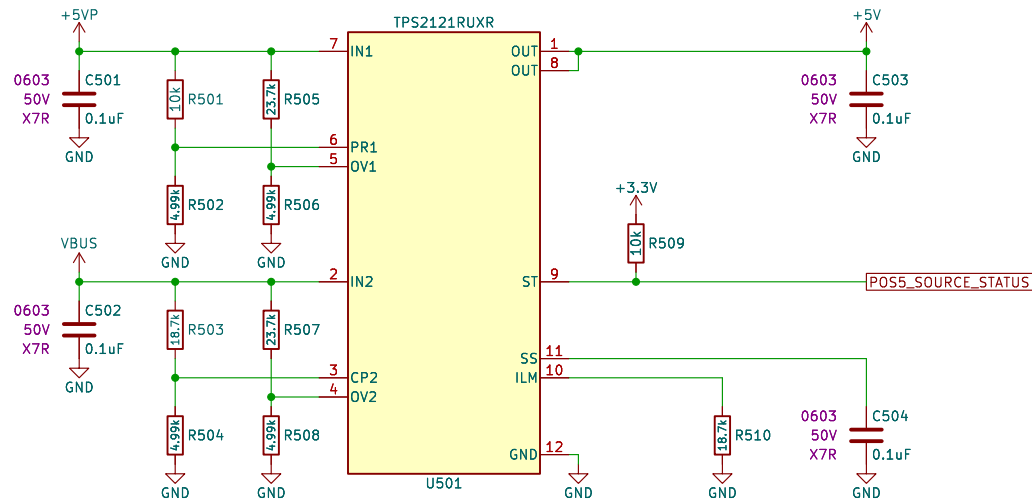
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**Title: USB Hub**

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OVP ~ 6V on IN1, IN2  
IN1 is prioritized unless IN1 is under PR1 threshold

Output current limit = 5.2A (4.6A min, 5.8A max)  
Output slew rate = 780mV/ms

ST High when wall wart powering output,  
low when upstream VBUS powering output.  
This should not change during operation

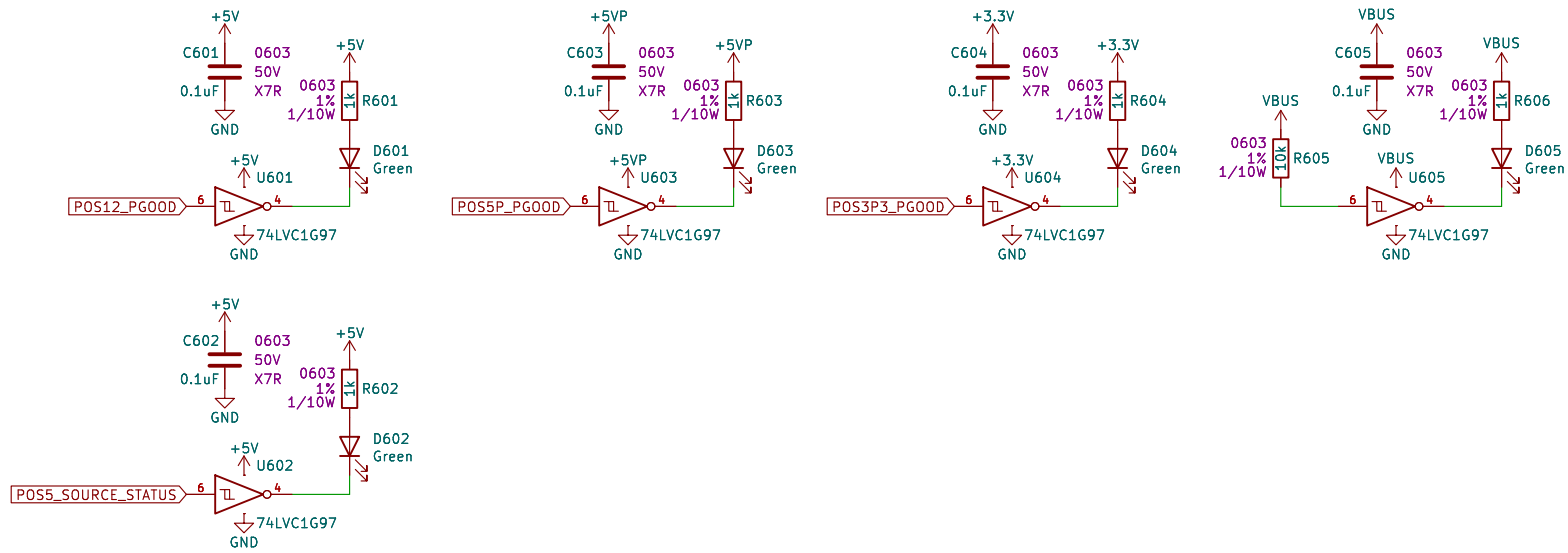
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**Title: USB Hub**

Size: A Date: 2023-08-20  
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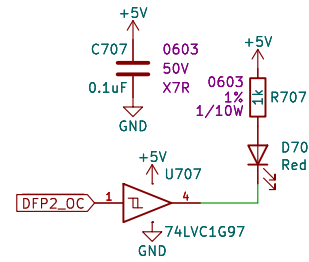
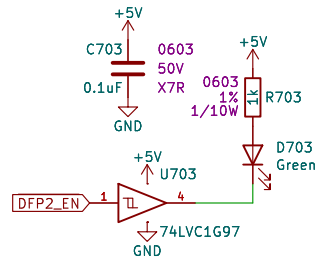
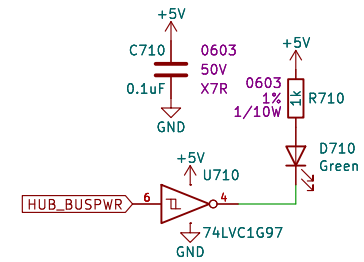
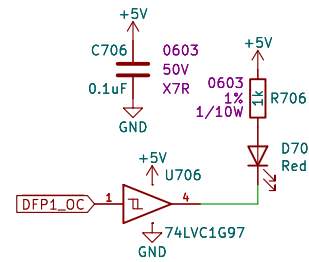
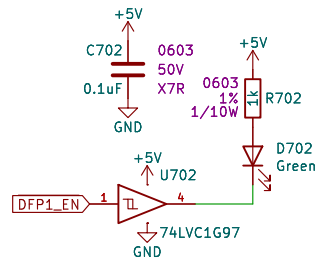
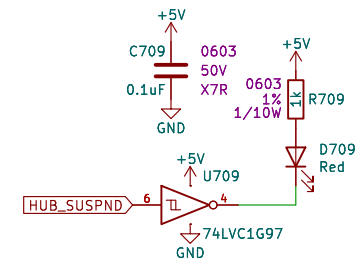
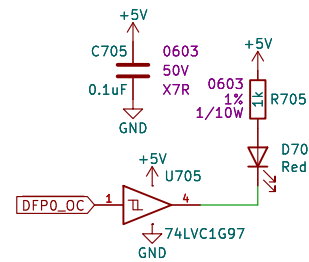
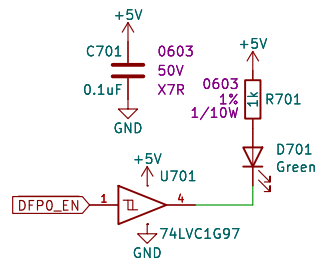
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Sheet: /PGOOD LEDs/  
File: PGOOD\_LEDs.kicad\_sch

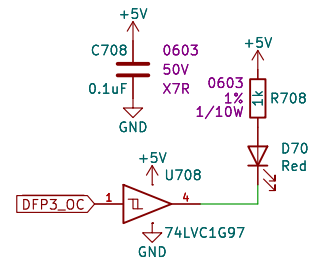
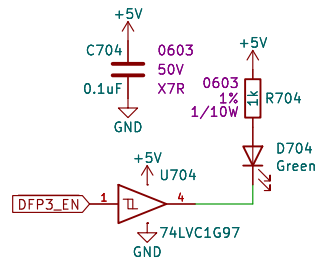
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High when wall wart powering output.  
low when upstream VBUS powering output.  
This should not change during operation



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Sheet: /Hub LEDs/  
File: Hub\_LEDs.kicad\_sch

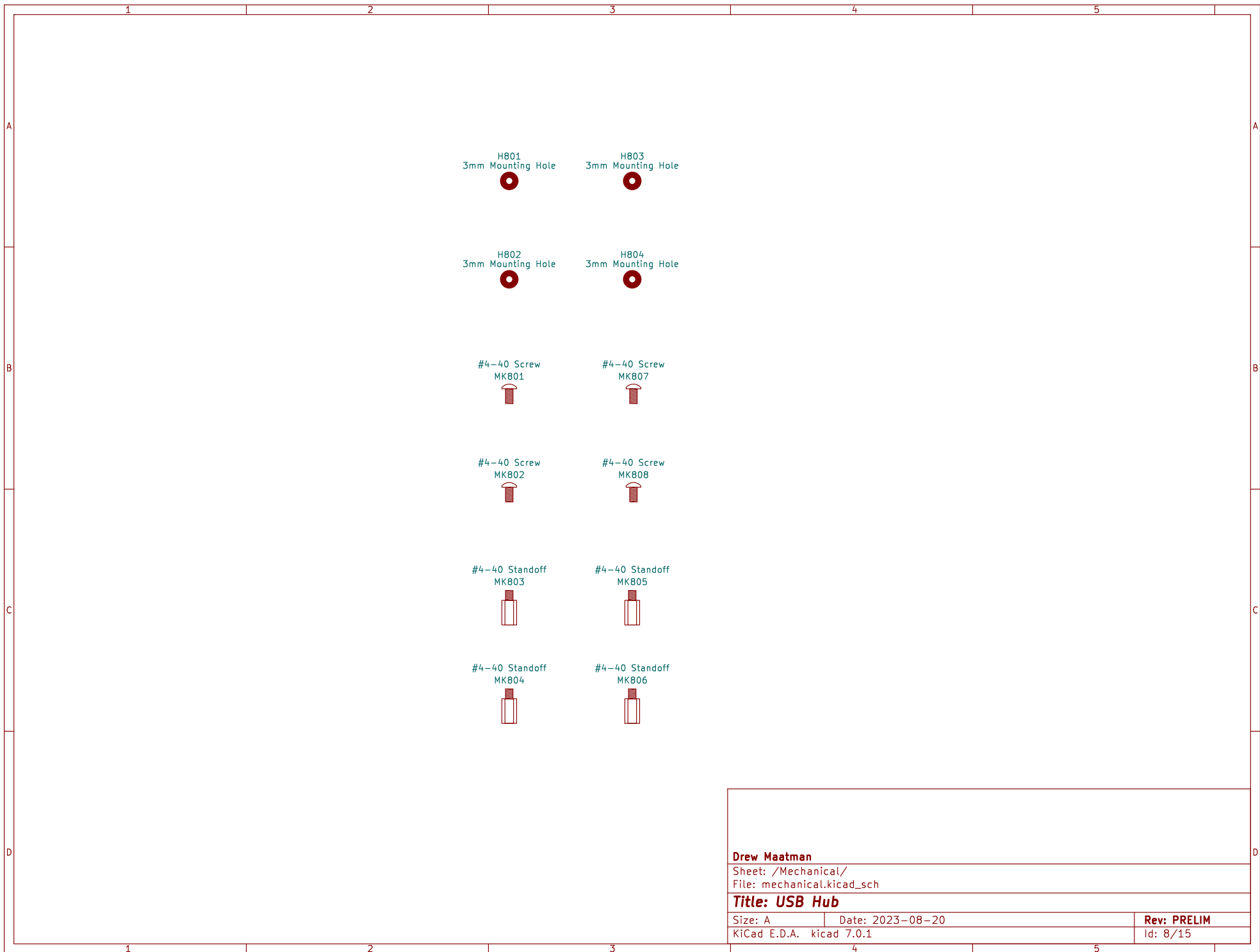
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Size: A Date: 2023-08-20

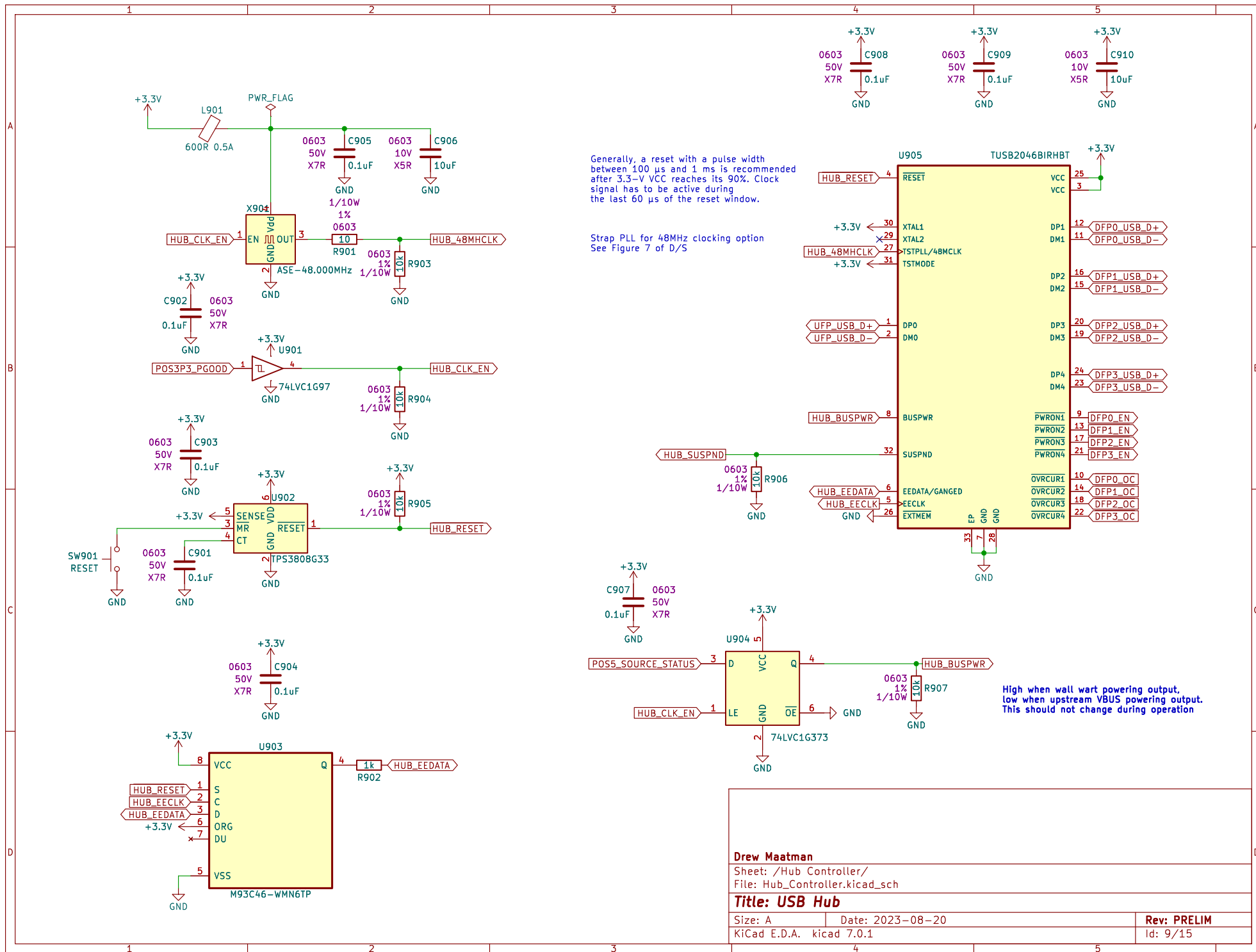
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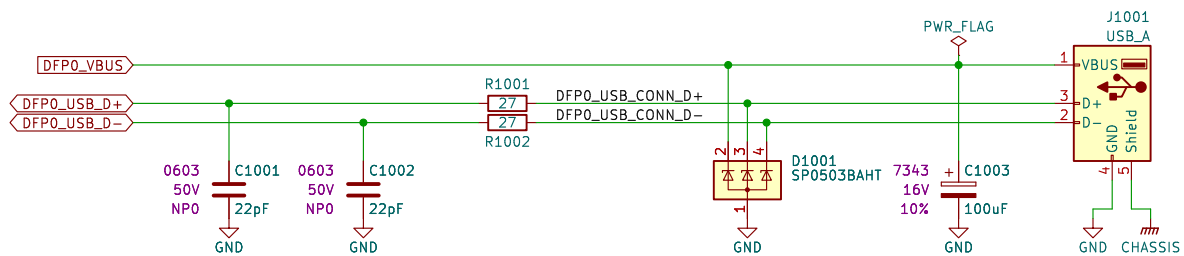
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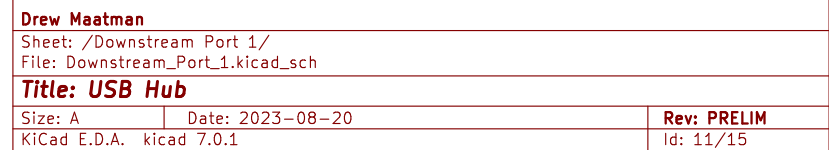
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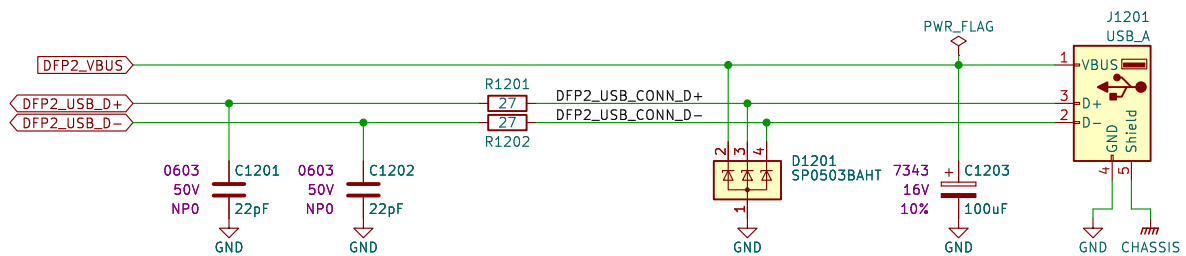
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**Title: USB Hub**

Size: A Date: 2023-08-20  
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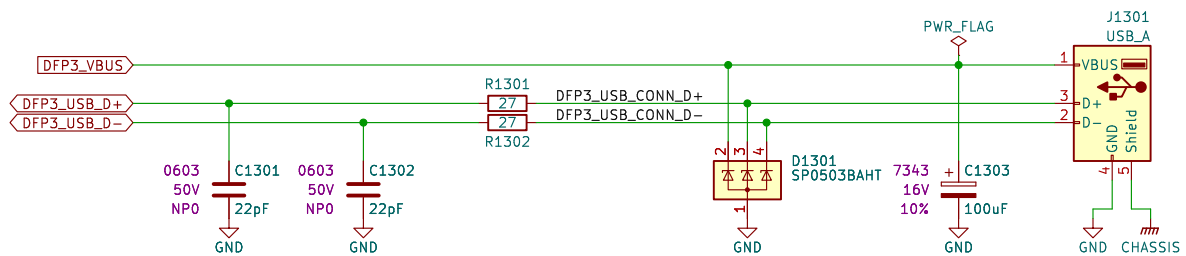
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**Title: USB Hub**

Size: A Date: 2023-08-20  
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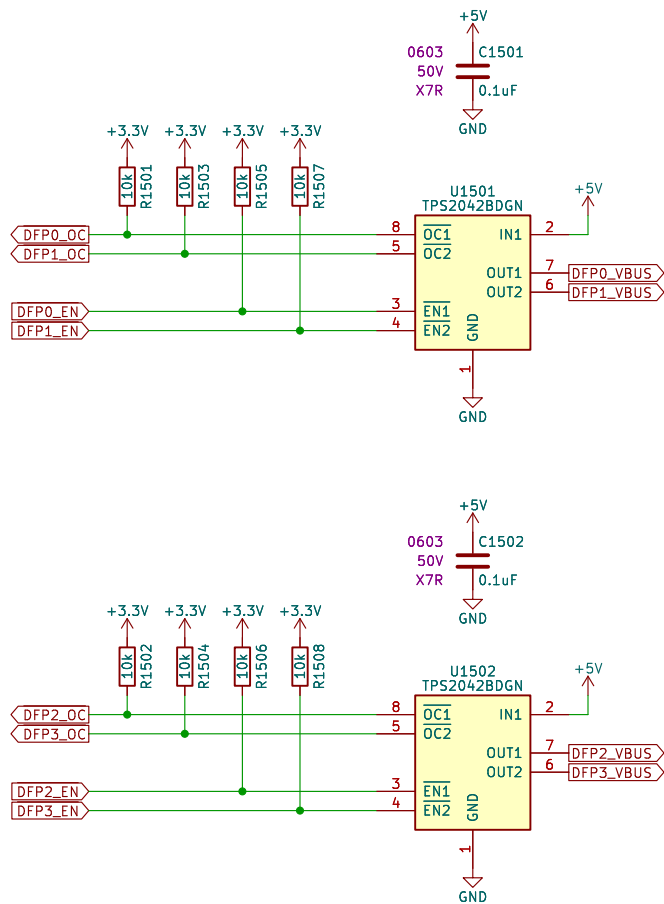
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**Title: USB Hub**

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Sheet: /Port Power Control/  
File: port\_power\_control.kicad\_sch

**Title: USB Hub**

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