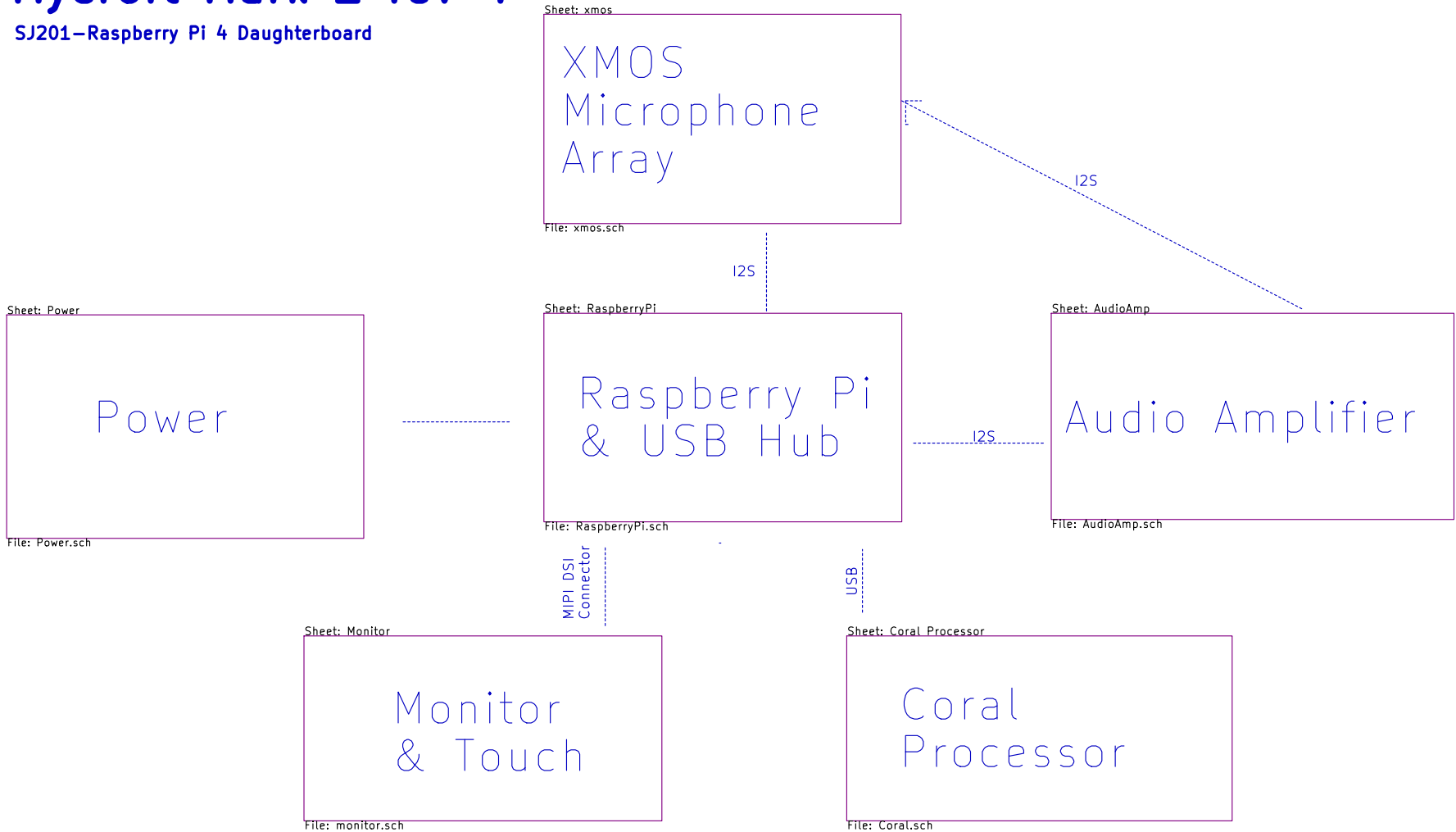


# Mycroft Mark 2 rev 4

SJ201—Raspberry Pi 4 Daughterboard



SJ201 r4.01

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File: SJ-201-R4.sch

**Title: SJ-201+**

Size: A Date: 2020-11-18

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**Rev: rev4 - 0.01**

Id: 1/7

# Typical Application Circuit

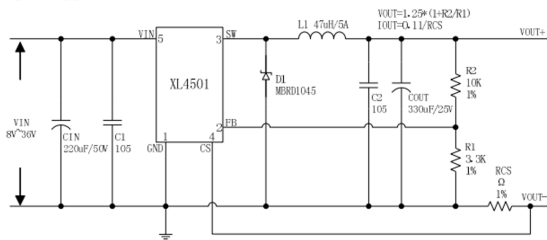
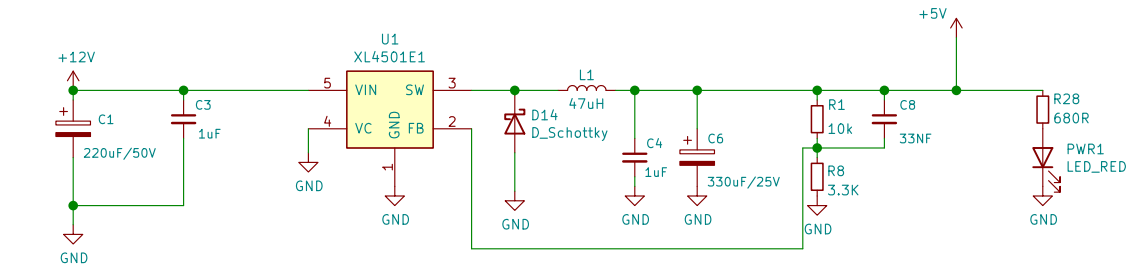


Figure4. XL4501 Typical Application Circuit

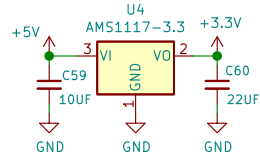
## Reference Diagram

VIN=8V ~ 36V, VOUT=5V/5A



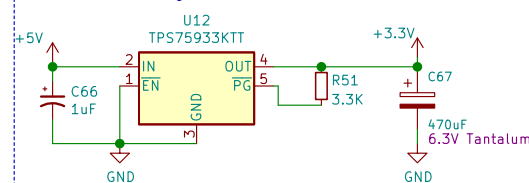
FB Resistor  
 $V_{OUT} = 1.25 \times (1 + R_2/R_1)$

### 3.3v LDO Regulator

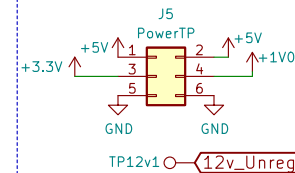


LDO to power on PCB stuff,  
instead of using Raspberry 3.3v  
Enables USB operation

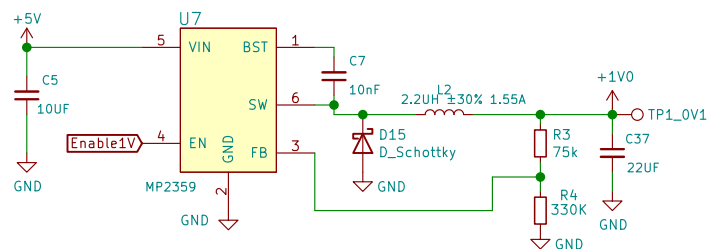
### 3.3v LDO High Power for Coral TPU



### Power Test Points



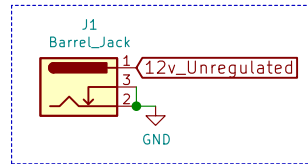
### 1.0v Buck for XM05



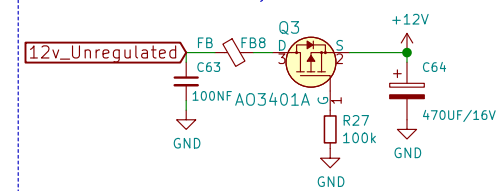
$$V_{FB} = 0.6V$$

$$V_O = 0.6 \times (1 + 30/47) = 0.98V$$

## Power



### Reverse Polarity Protection



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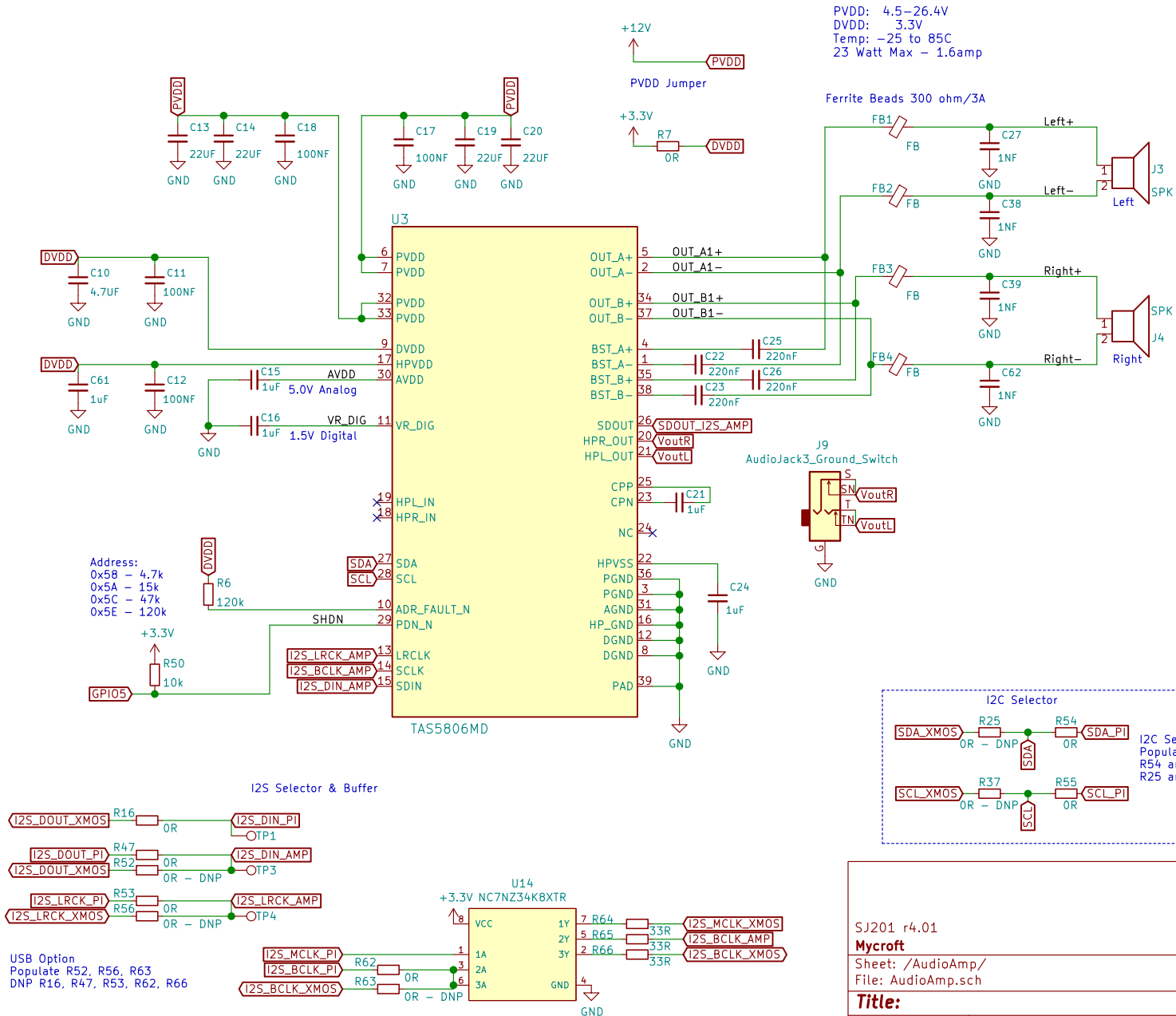
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Title: Power

Size: A Date: 2020-11-18  
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Rev: rev4 - 0.01  
Id: 2/7

# Audio Amplifier



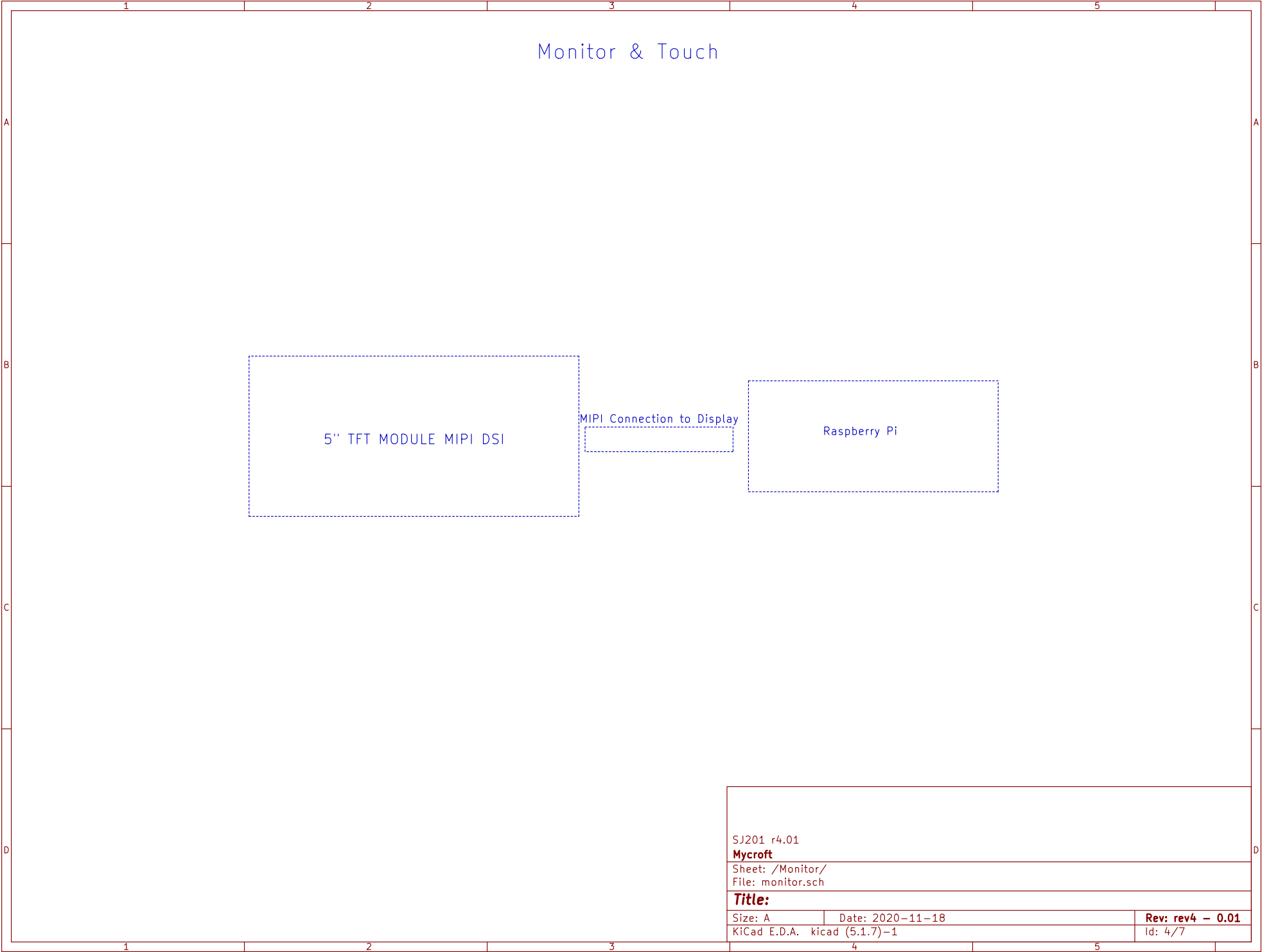
## Mycroft

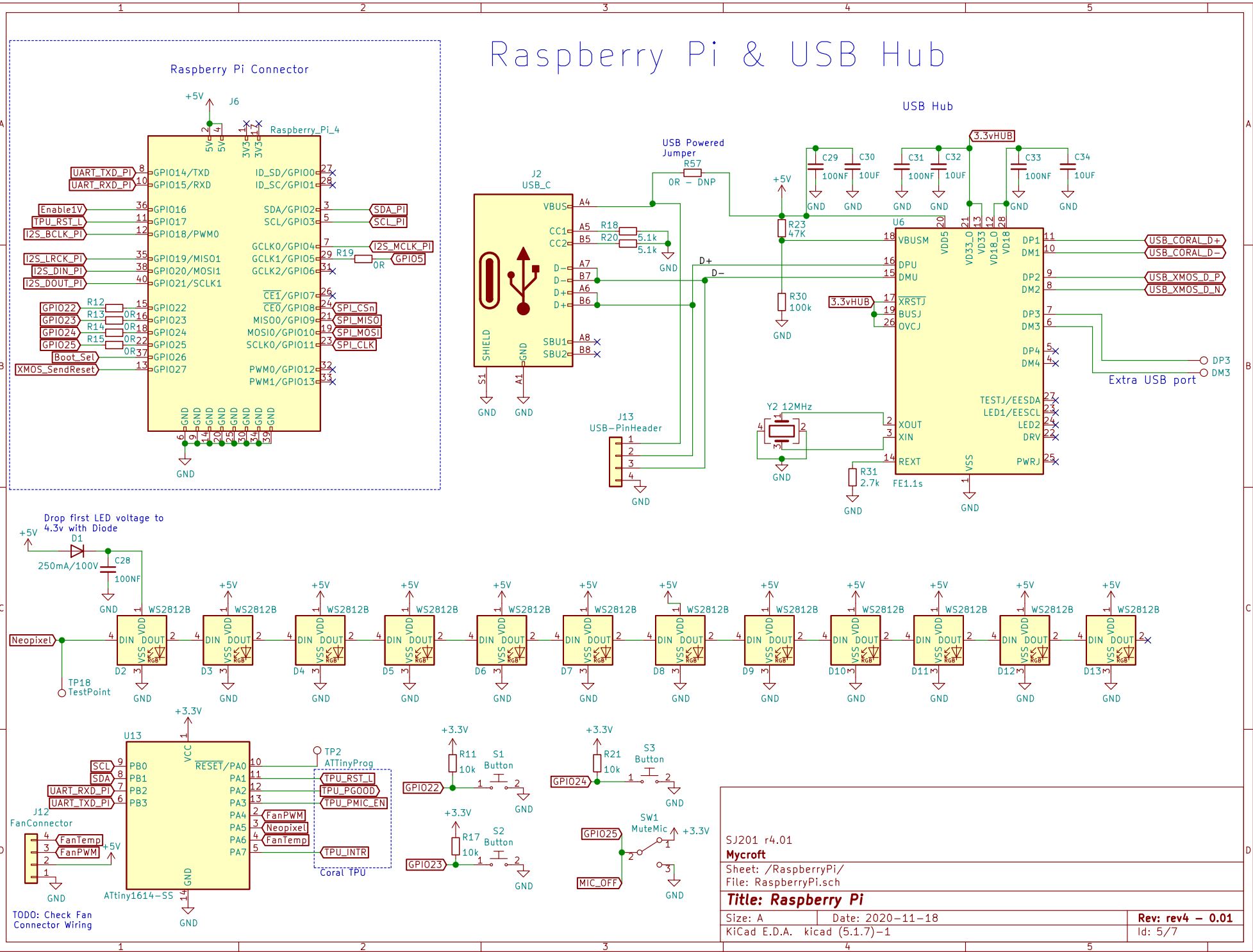
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**Title:**

$$\frac{1}{4}$$

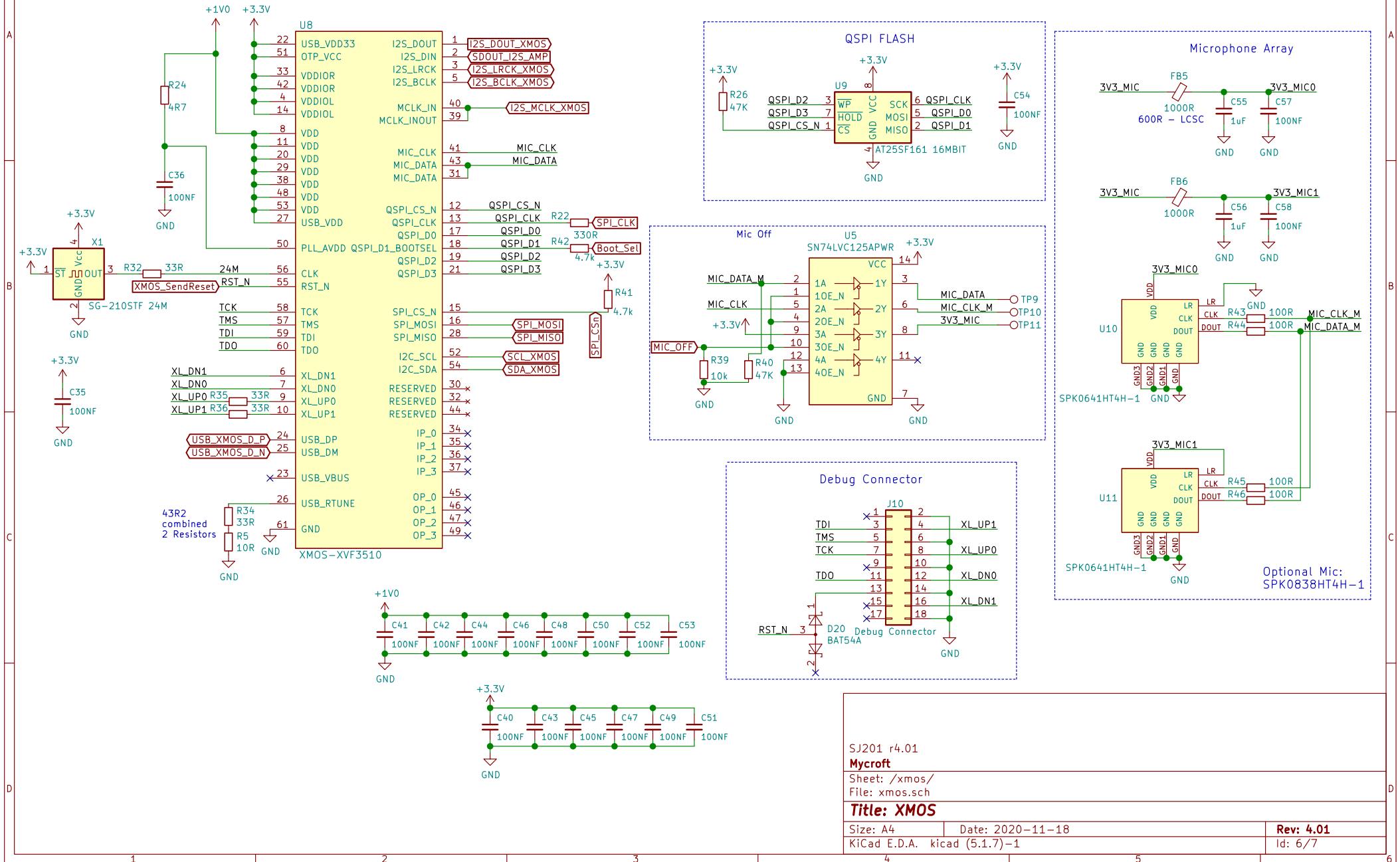
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Rev: rev4 – 0.01  
Id: 5/7

# XMOS Audio Processor



SJ201 r4.01

**Mycroft**

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File: xmos.sch

**Title: XMOS**

Size: A4

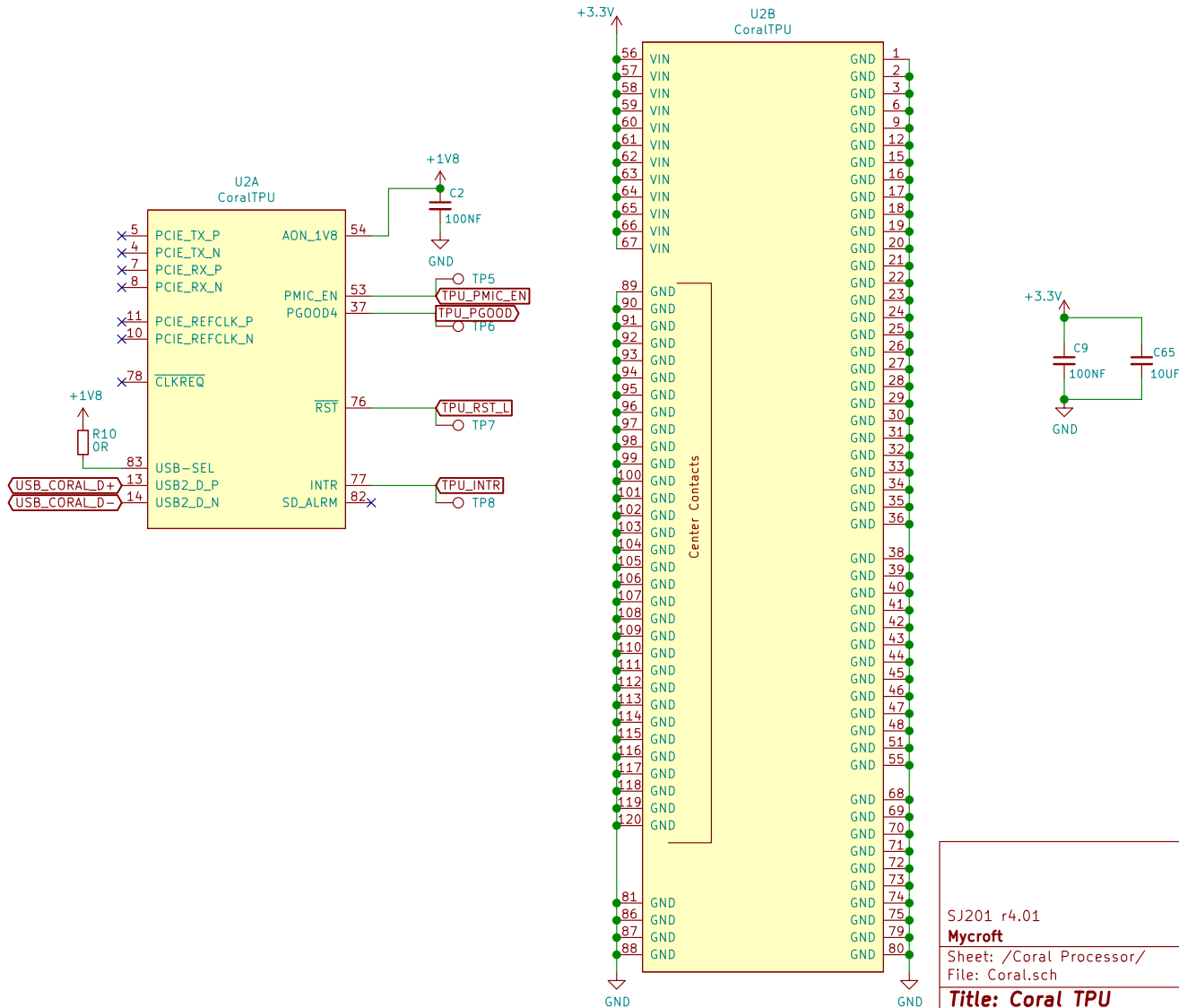
Date: 2020-11-18

**Rev: 4.01**

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Id: 6/7

# Coral Processor



SJ201 r4.01

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Sheet: /Coral Processor/  
File: Coral.sch

**Title: Coral TPU**

Size: A Date: 2020-11-18  
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**Rev: rev4 - 0.01**  
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