

# Mycroft Mark 2

SJ201-Raspberry Pi 4 Daughterboard

Sheet: xmos

XMOS  
Microphone  
Array

File: xmos.sch

USB

I2S

Sheet: Power

Power

File: Power.sch

Sheet: RaspberryPi

Raspberry Pi  
& USB Hub

File: RaspberryPi.sch

MPI DSI  
Connector

Sheet: AudioAmp

I2S to Line Out  
&  
Audio Amplifier

File: AudioAmp.sch

Sheet: Monitor

Monitor  
& Touch

File: monitor.sch

H1  
MountingHole  
H2  
MountingHole  
H3  
MountingHole  
H4  
MountingHole



## Mycroft

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File: Mycroft - Mark 2.sch

### Title:

Size: A Date: 2020-09-26  
KiCad E.D.A. kicad (5.1.6)-1

Rev: 0.67b  
Id: 1/6

# Typical Application Circuit

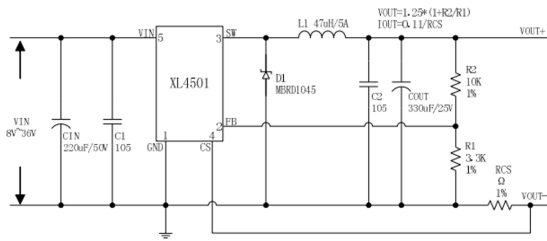
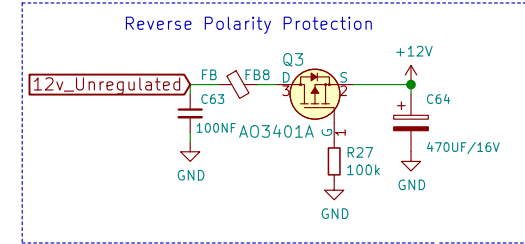
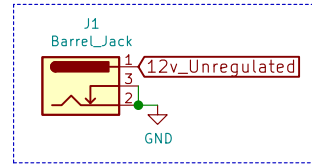
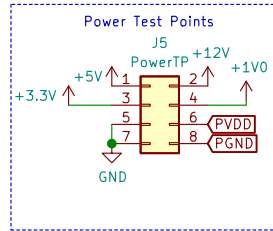


Figure4. XL4501 Typical Application Circuit

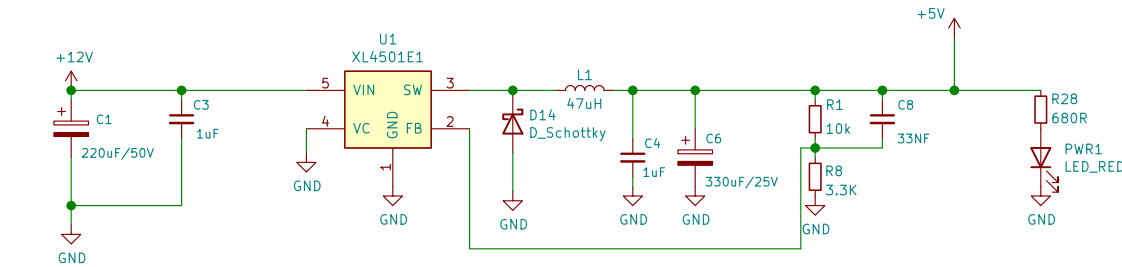
## Power



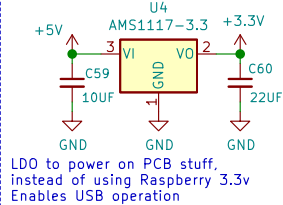
## Reference Diagram

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

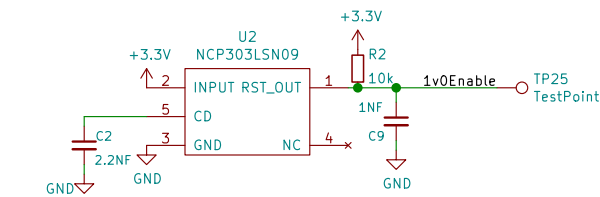
FB Resistor  
 $VOUT=1.25*(1+R2/R1)$



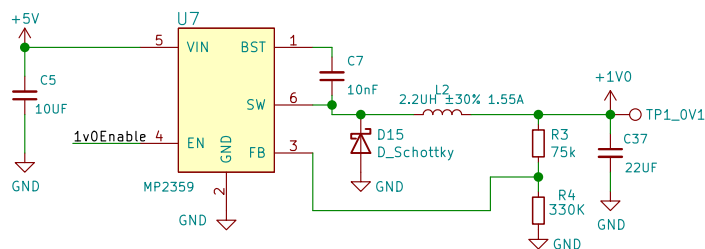
### 3.3v LDO Regulator



### Power on Delay 1v0 Buck



### 1.0v Buck for XM05



$$VFB = 0.6V$$

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

Power Converter  
**Mycroft**

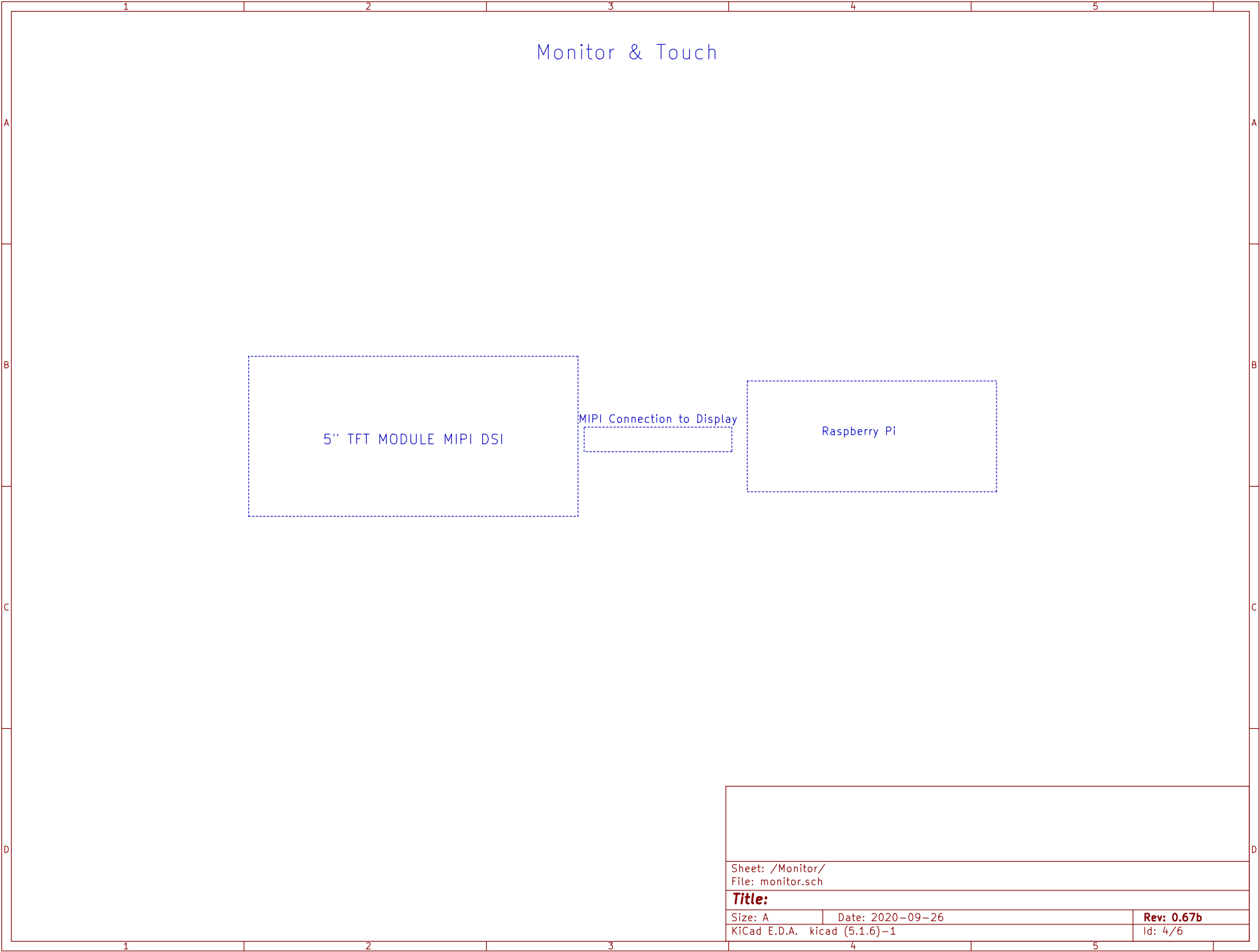
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File: Power.sch

**Title: Power**

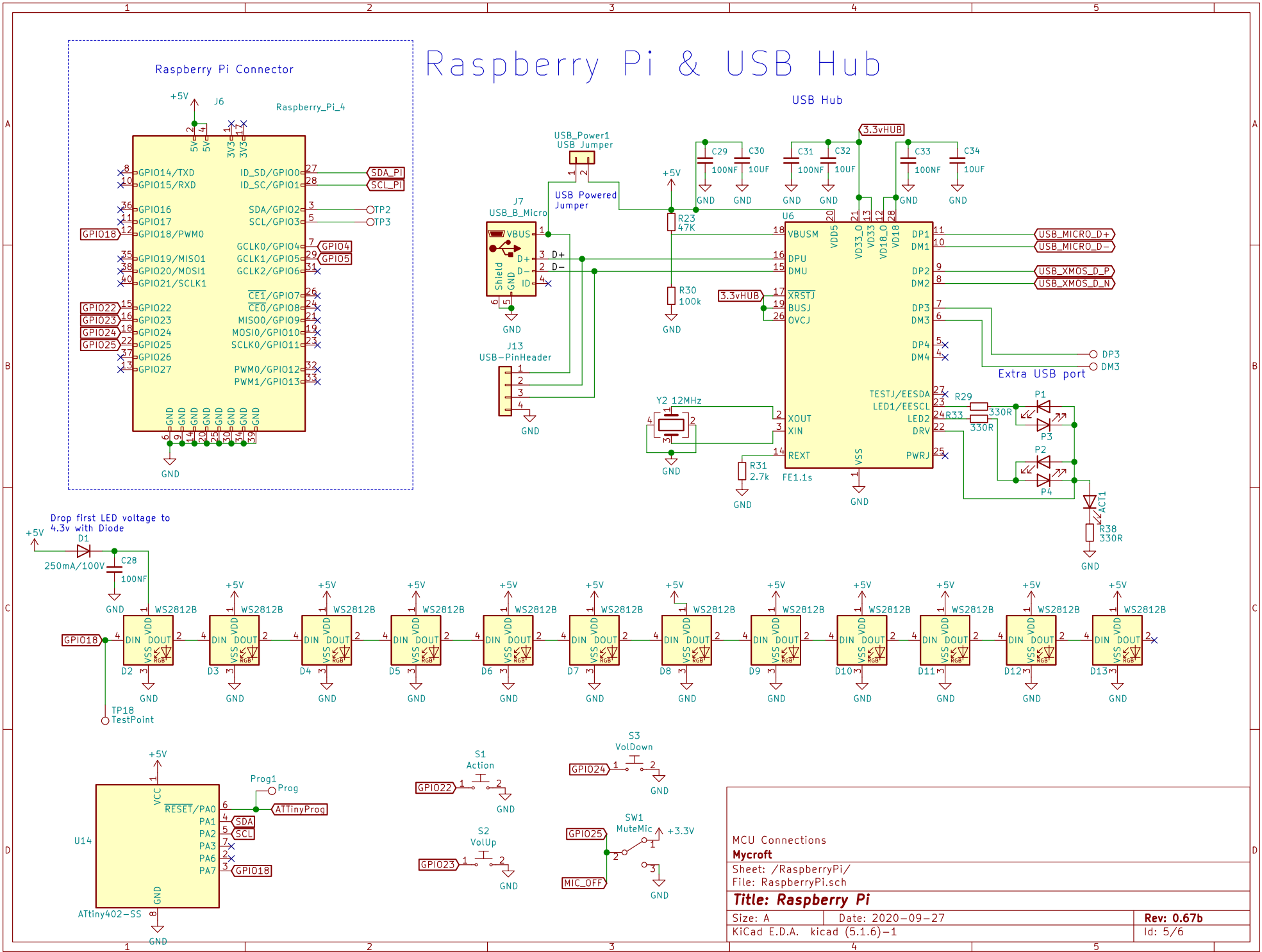
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Sheet: /Monitor/ File: monitor.sch		
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Size: A	Date: 2020-09-26	Rev: 0.67b
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# XMOS Audio Processor

I2S Data from  
USB Soundcard

