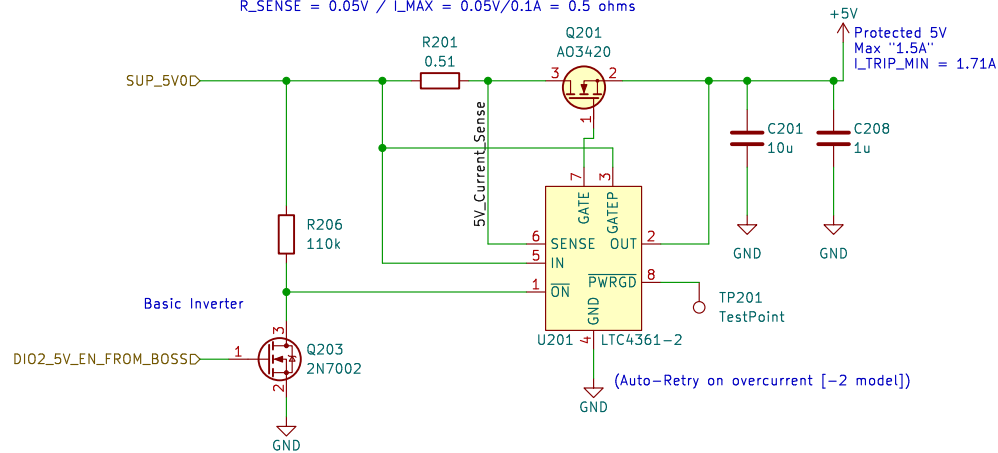


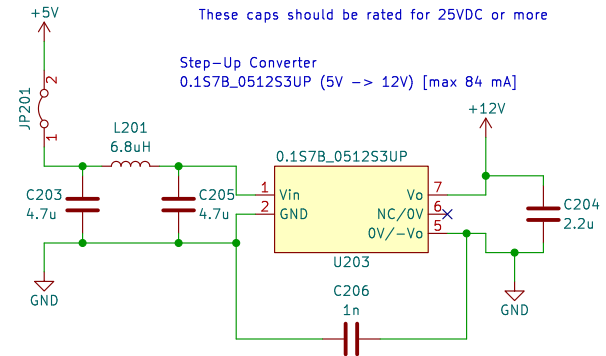
For the LTC4361 (per datasheet page 5):  
 $R_{SENSE} = (0.05V) / I_{SENSE}$

5V Current Limit:  
 Max Power = 0.5W (good for experiment safety)  
 Max Current (at 5V) =  $0.5W / 5V = 0.1A$   
 $R_{SENSE} = 0.05V / I_{MAX} = 0.05V / 0.1A = 0.5 \text{ ohms}$



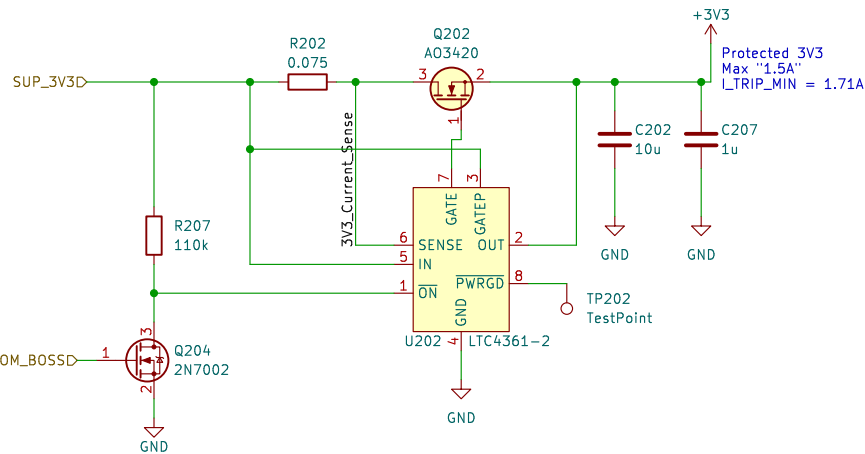
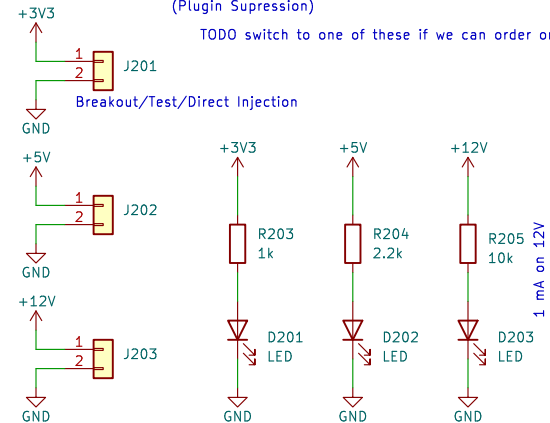
These caps should be rated for 25VDC or more

Step-Up Converter  
 0.1S7B\_0512S3UP (5V -> 12V) [max 84 mA]



C206 should be 4kVDC  
 Vishay HGZ102MBP  
 TDK CD45-E2GA102M-GKA  
 (Plugin Suppression)

TODO switch to one of these if we can order one



3V3 Current Limit:  
 Max Power = 2W (a little over the 1.75W max)  
 Max Current (at 3V3) =  $2W / 3V3 = 0.61A$   
 $R_{SENSE} = 0.05V / I_{MAX} = 0.05V / 0.61A = 0.081 \text{ ohms}$

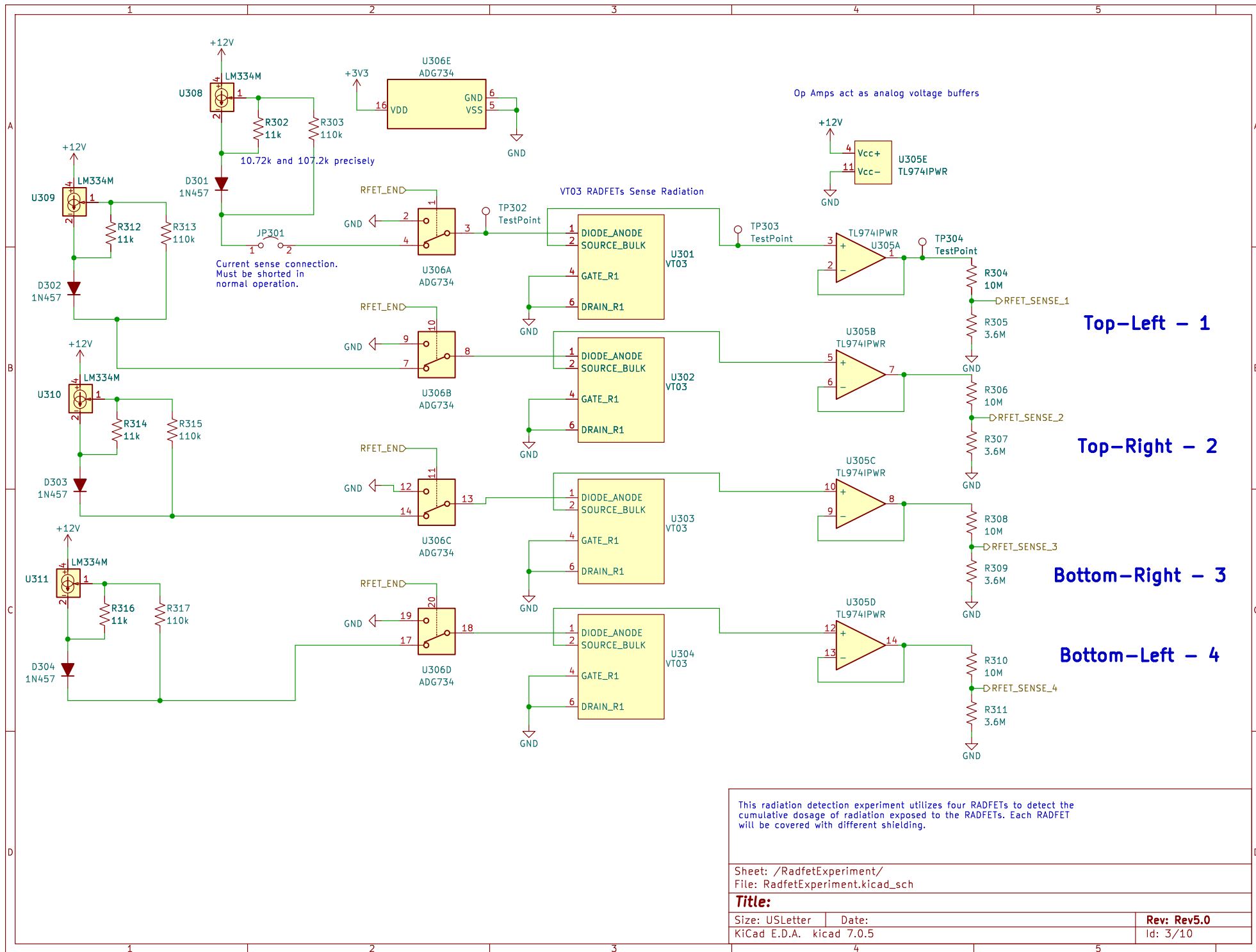
0.075 ohms => 0.66A => 2.2W

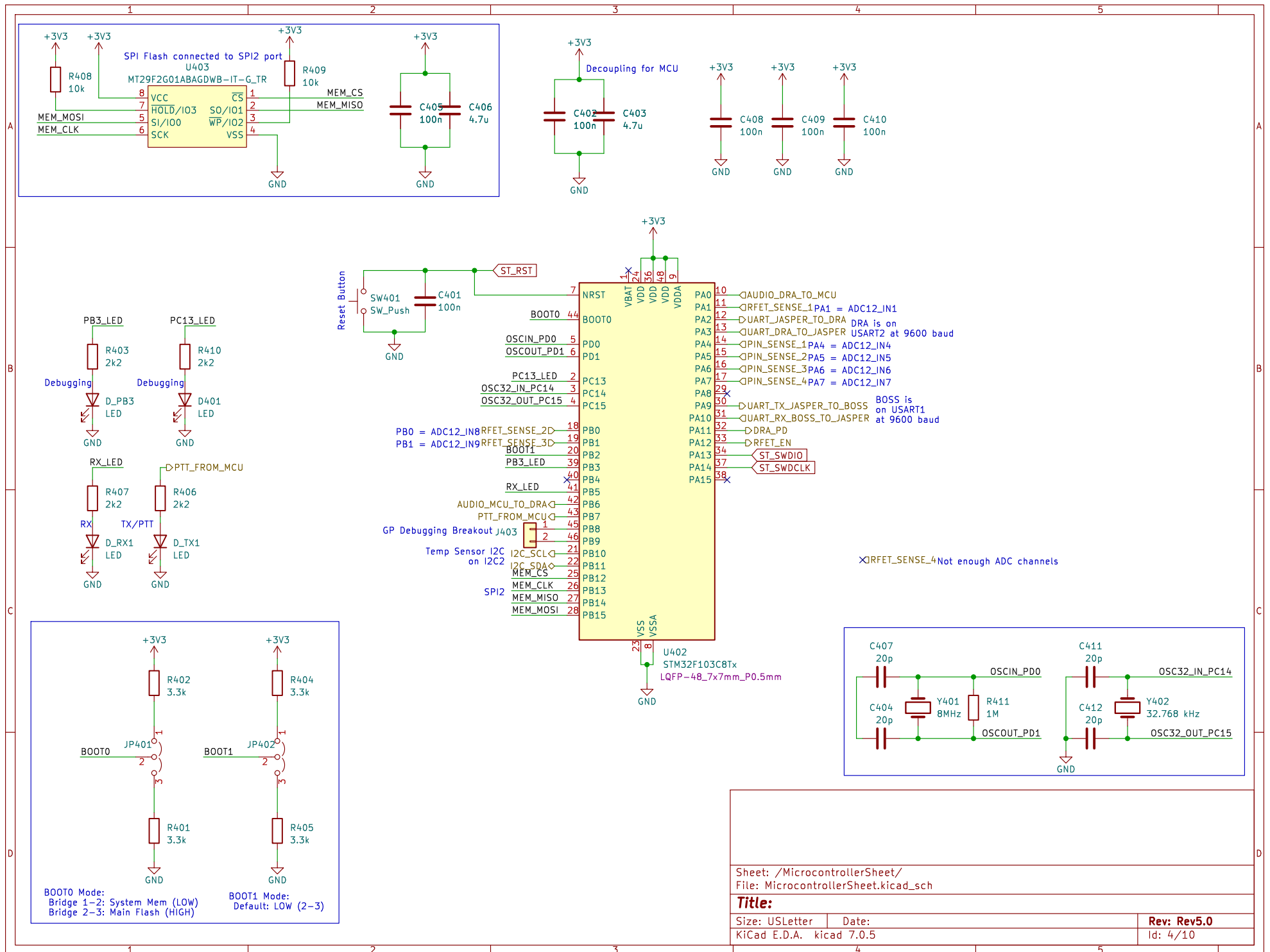
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 File: PowerSheet.kicad\_sch

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Size: USLetter Date:  
 KiCad E.D.A. kicad 7.0.5

**Rev: Rev5.0**  
 Id: 2/10



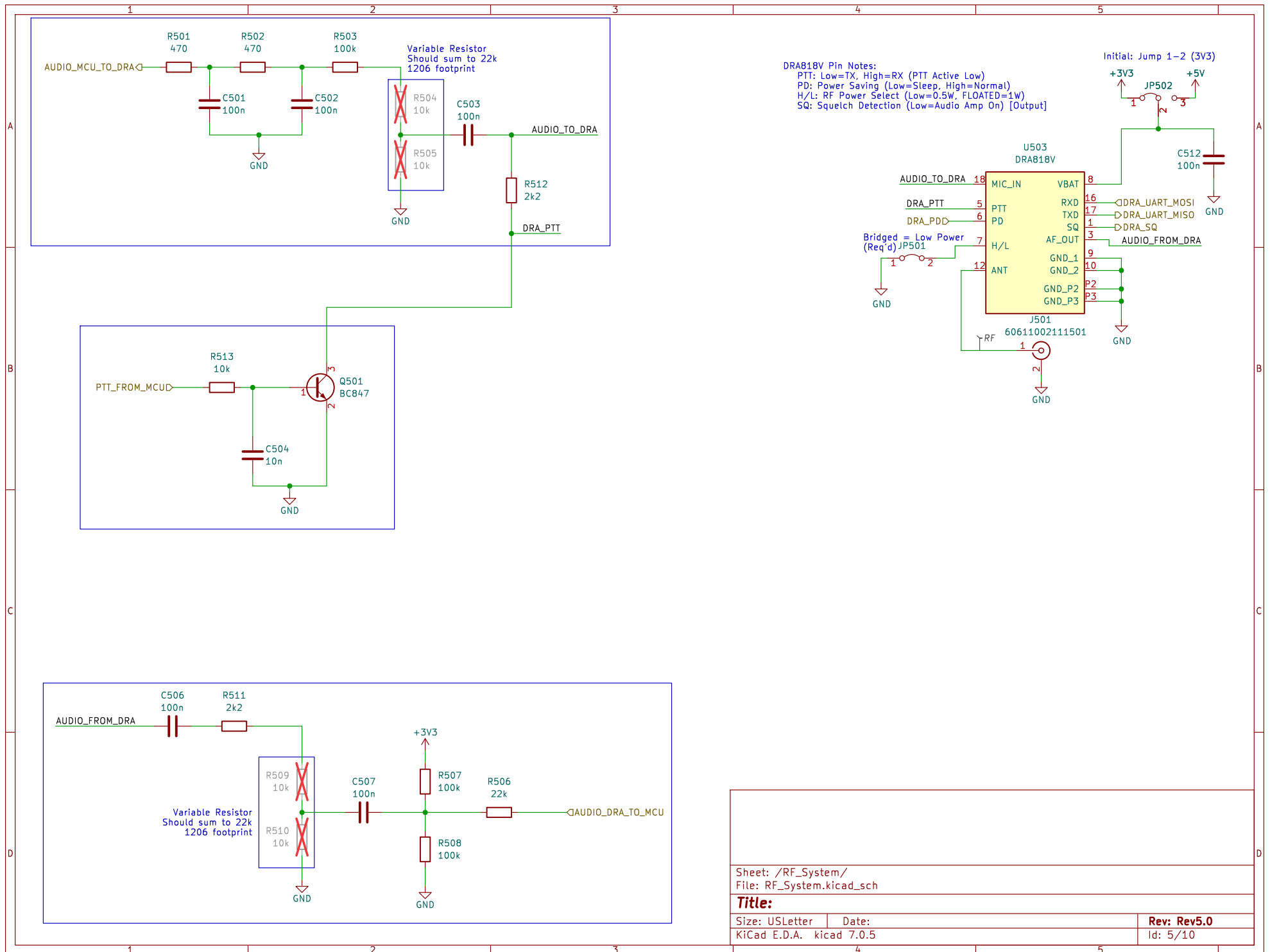


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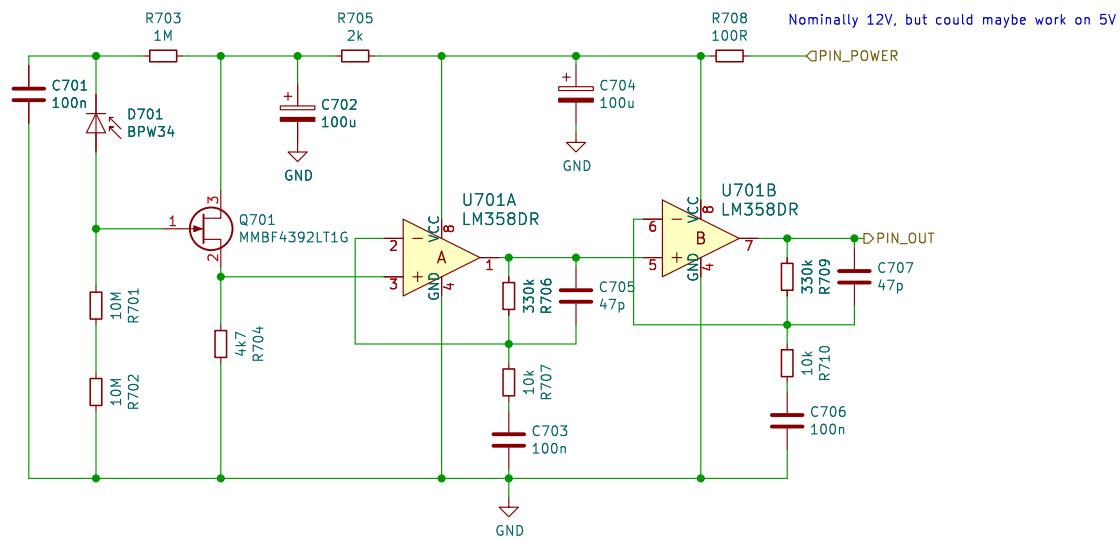
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Rev: Rev5.0  
Id: 4/10







Sheet: /PINDiodeExperiment2/  
File: PINDiodeExperiment.kicad\_sch

**Title:**

Size: USLetter

Date:

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