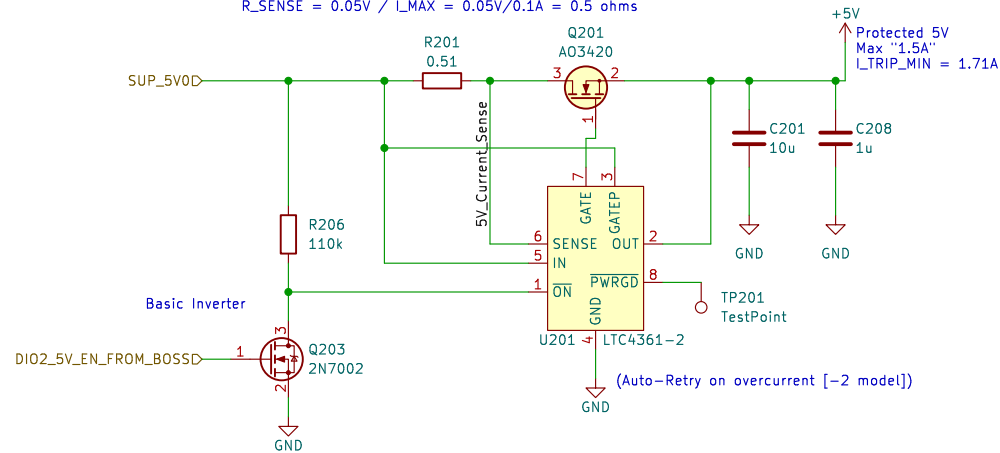


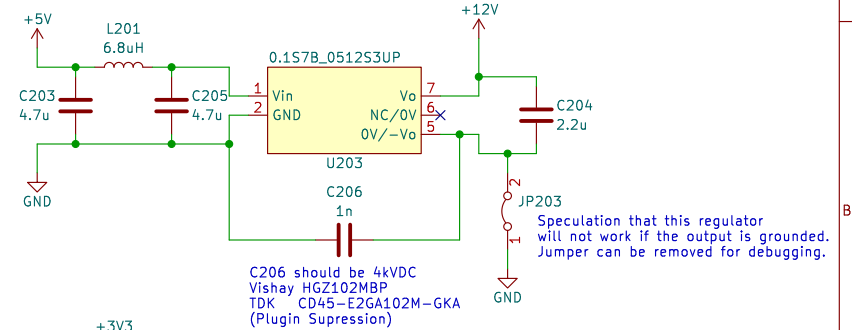
For the LTC4361 (per datasheet page 5):
 $R_{SENSE} = (0.05V) / I_{SENSE}$

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



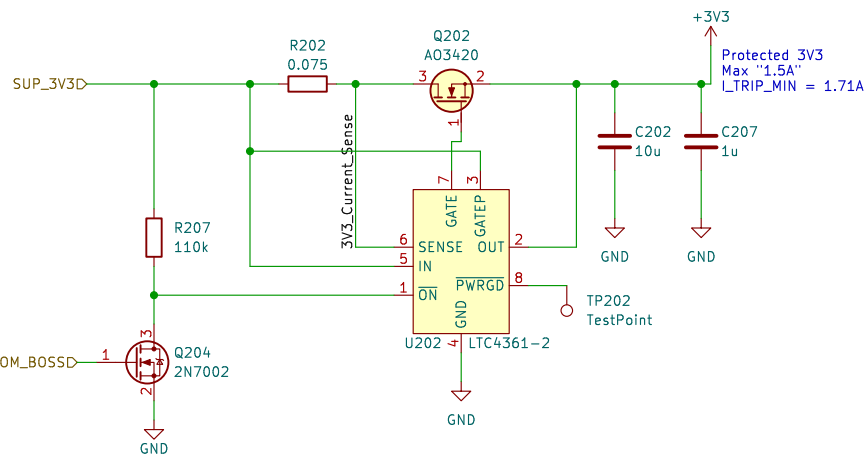
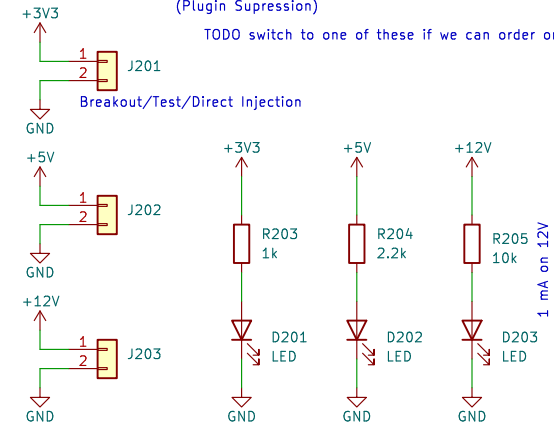
These caps should be rated for 25VDC or more

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) = $2W / 3V3 = 0.61A$
 $R_{SENSE} = 0.05V / I_{MAX} = 0.05V / 0.61A = 0.081 \text{ ohms}$

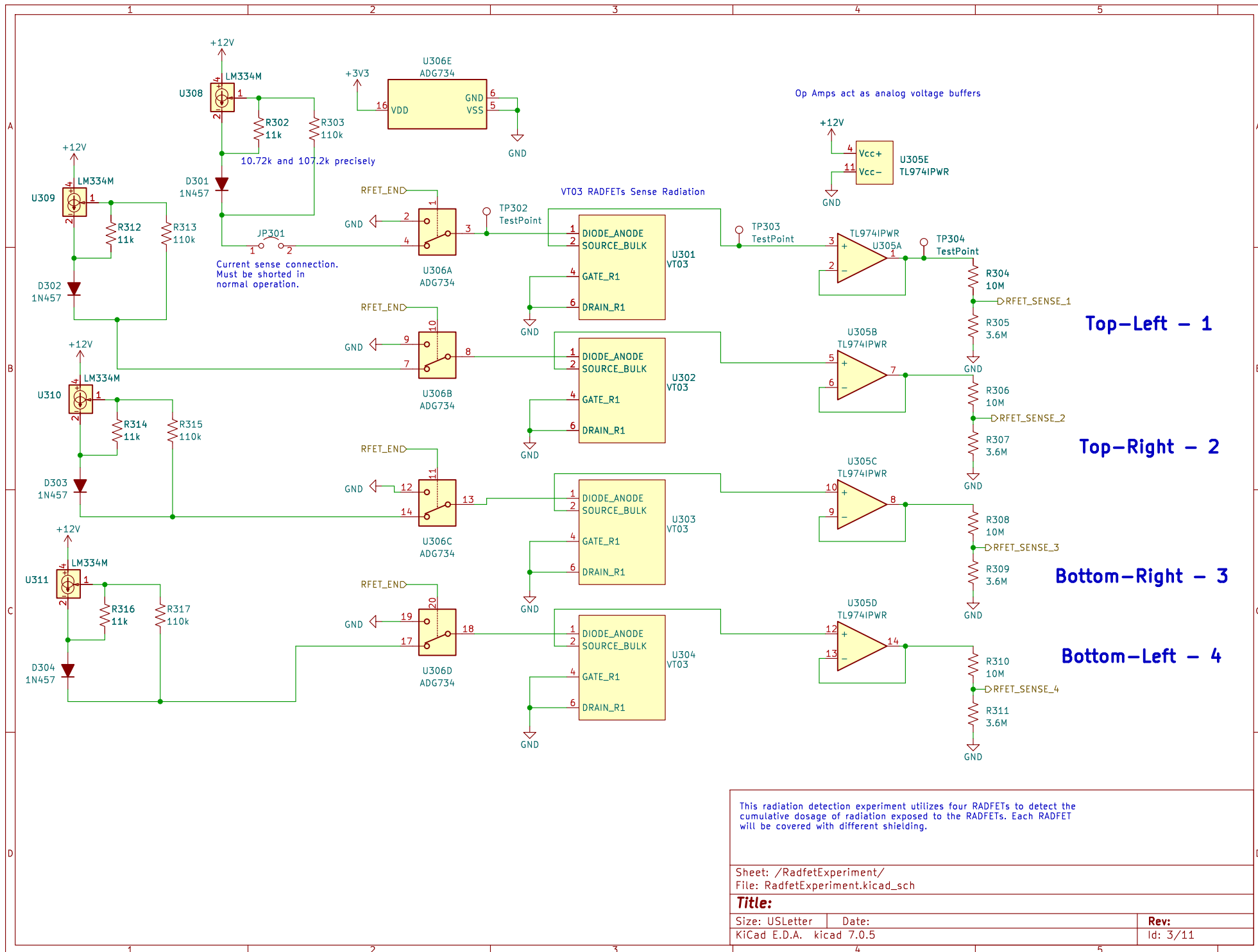
0.075 ohms => 0.66A => 2.2W

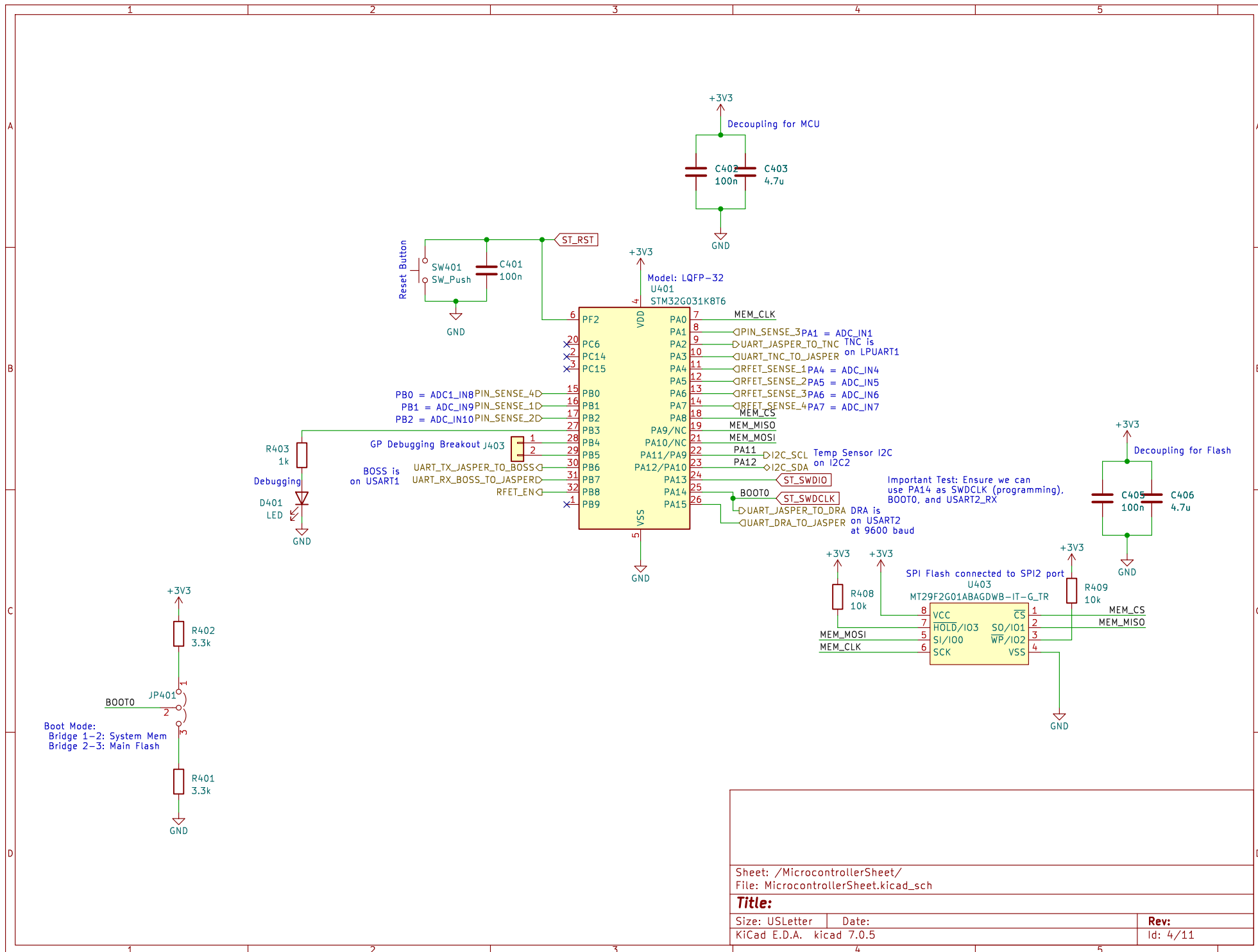
Sheet: /PowerSheet/
 File: PowerSheet.kicad_sch

Title:

Size: USLetter Date:
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Rev:
 Id: 2/11





Sheet: /MicrocontrollerSheet/
File: MicrocontrollerSheet.kicad_sch

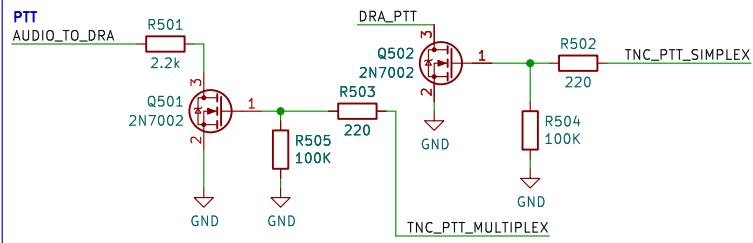
Title:

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

Rev:
Id: 4/11

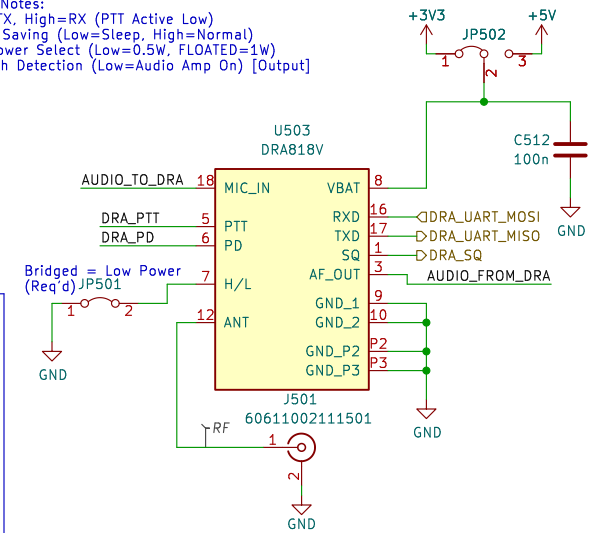
PTT_SIMPLEX and PTT_MULTIPLEX are Active High from MCU

PTT = Push-to-Talk

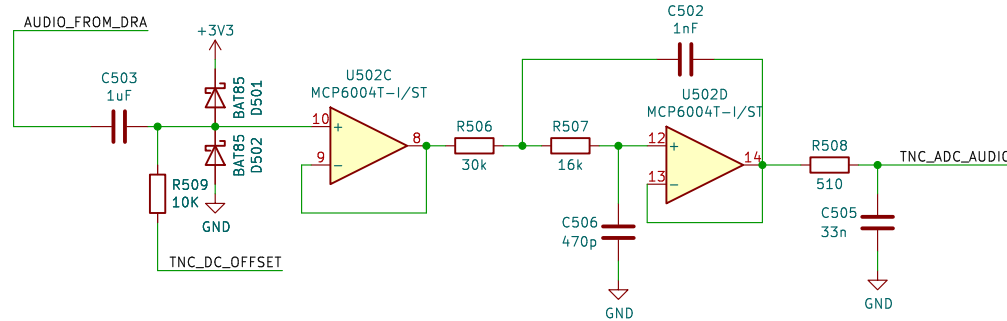


DRA818V Pin Notes:
PTT: Low=TX, High=RX (PTT Active Low)
PD: Power Saving (Low=Sleep, High=Normal)
H/L: RF Power Select (Low=0.5W, FLOATED=1W)
SQ: Squelch Detection (Low=Audio Amp On) [Output]

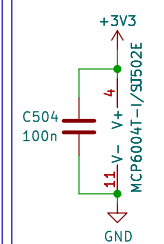
Initial: Jump 1-2 (3V3)



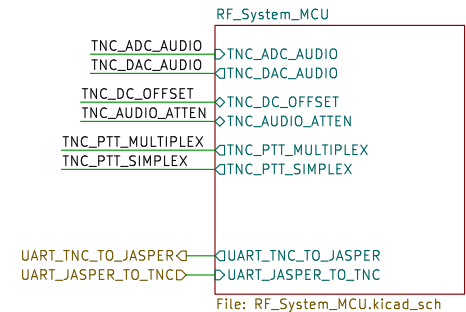
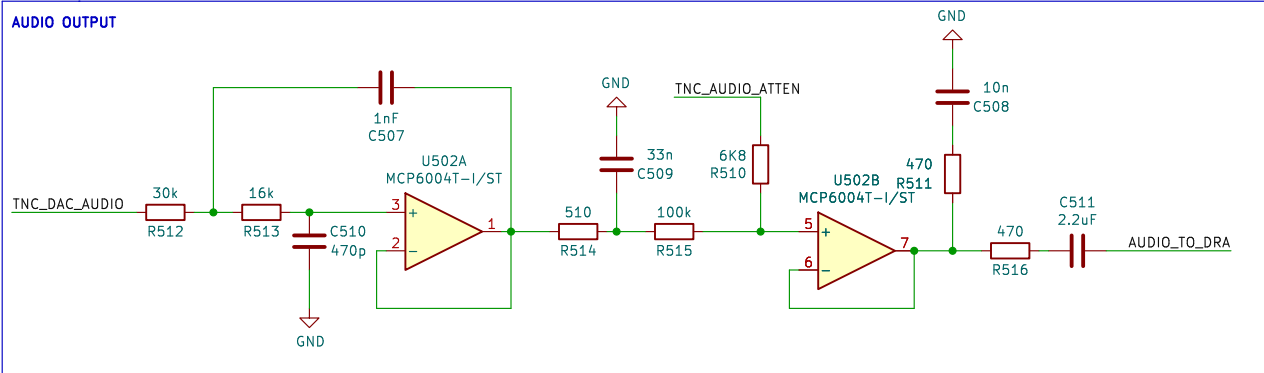
AUDIO INPUT



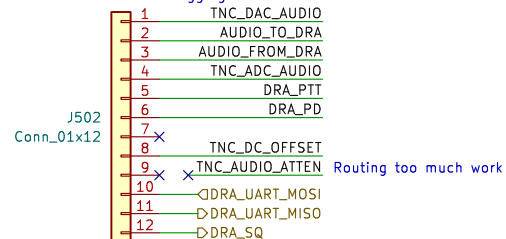
OP AMP POWER



AUDIO OUTPUT



Debugging Breakout

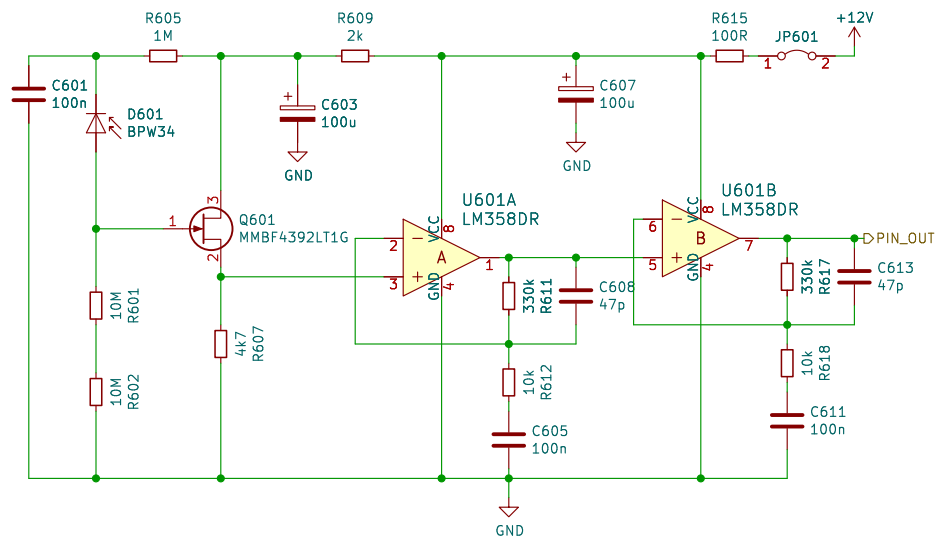


Sheet: /RF_System/
File: RF_System.kicad_sch

Title:

Size: USLetter Date:
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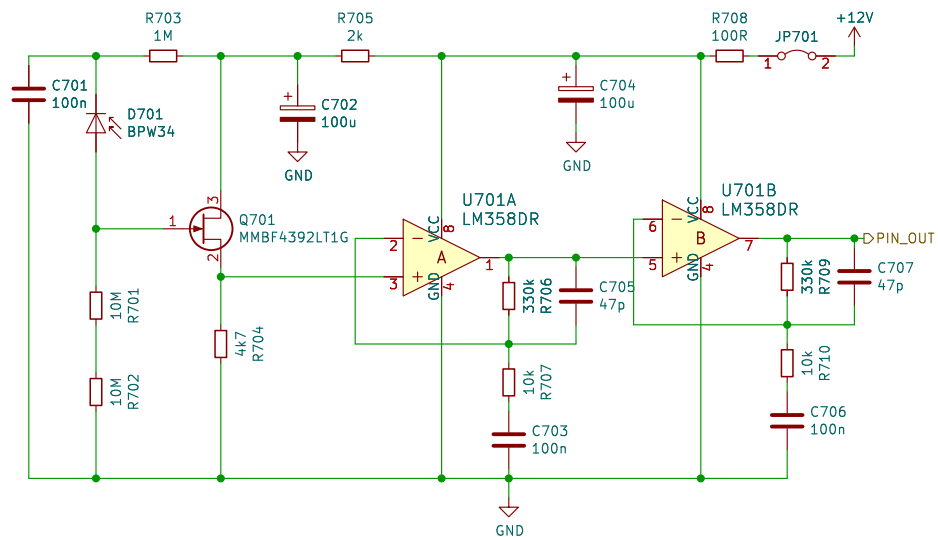
Rev:
Id: 5/11



Sheet: /PINDiodeExperiment1/
File: PINDiodeExperiment.kicad_sch

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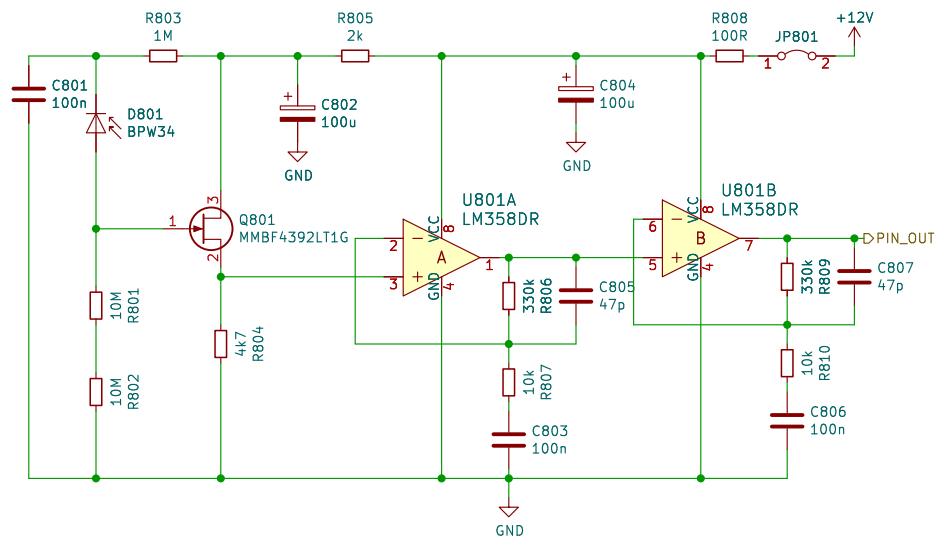


Sheet: /PINDiodeExperiment2/
File: PINDiodeExperiment.kicad_sch

Title:

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

Rev:
Id: 7/11

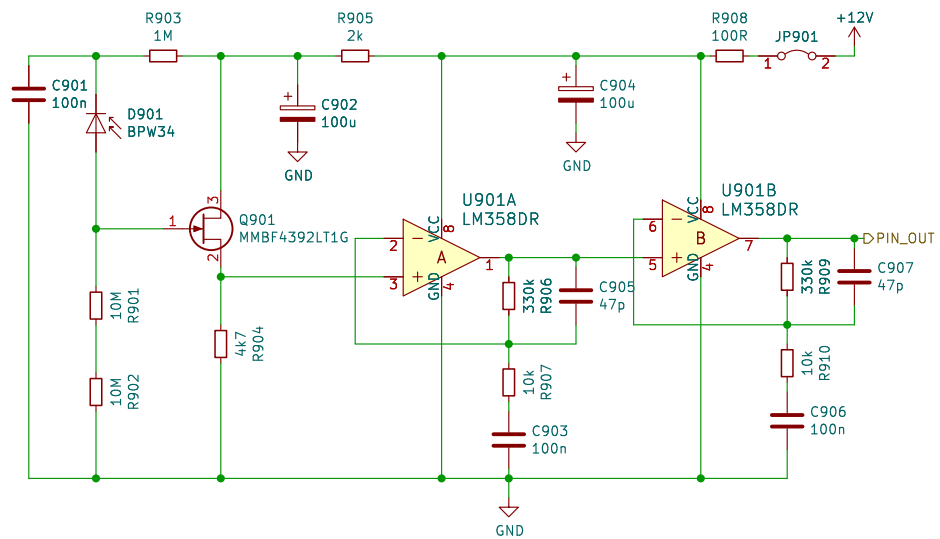


Sheet: /PINDiodeExperiment3/
File: PINDiodeExperiment.kicad_sch

Title:

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

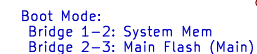
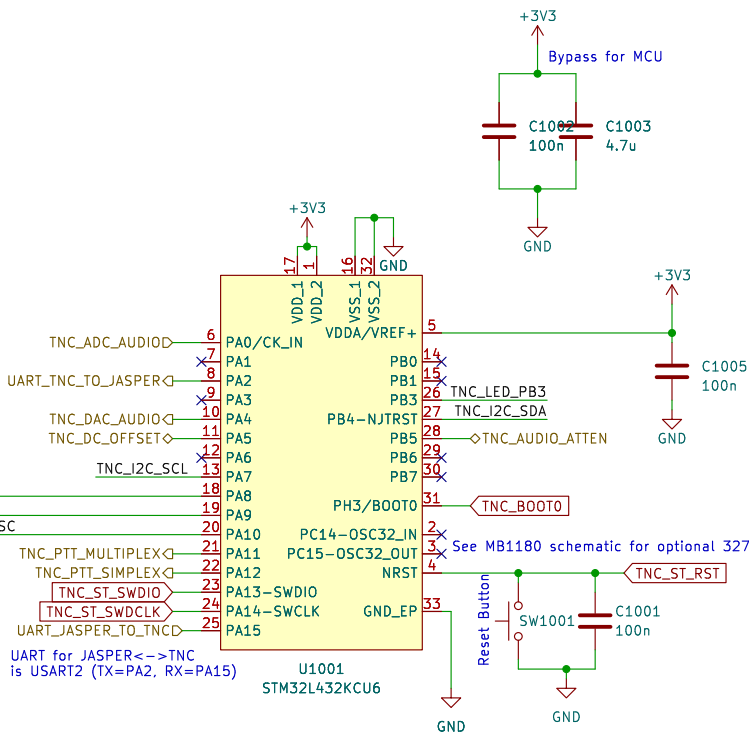
Rev:
Id: 8/11



Sheet: /PINDiodeExperiment4/
File: PINDiodeExperiment.kicad_sch

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Size: USLetter	Date:	Rev:
KiCad E.D.A. kicad 7.0.5		Id: 9/11



Id: 10/11

