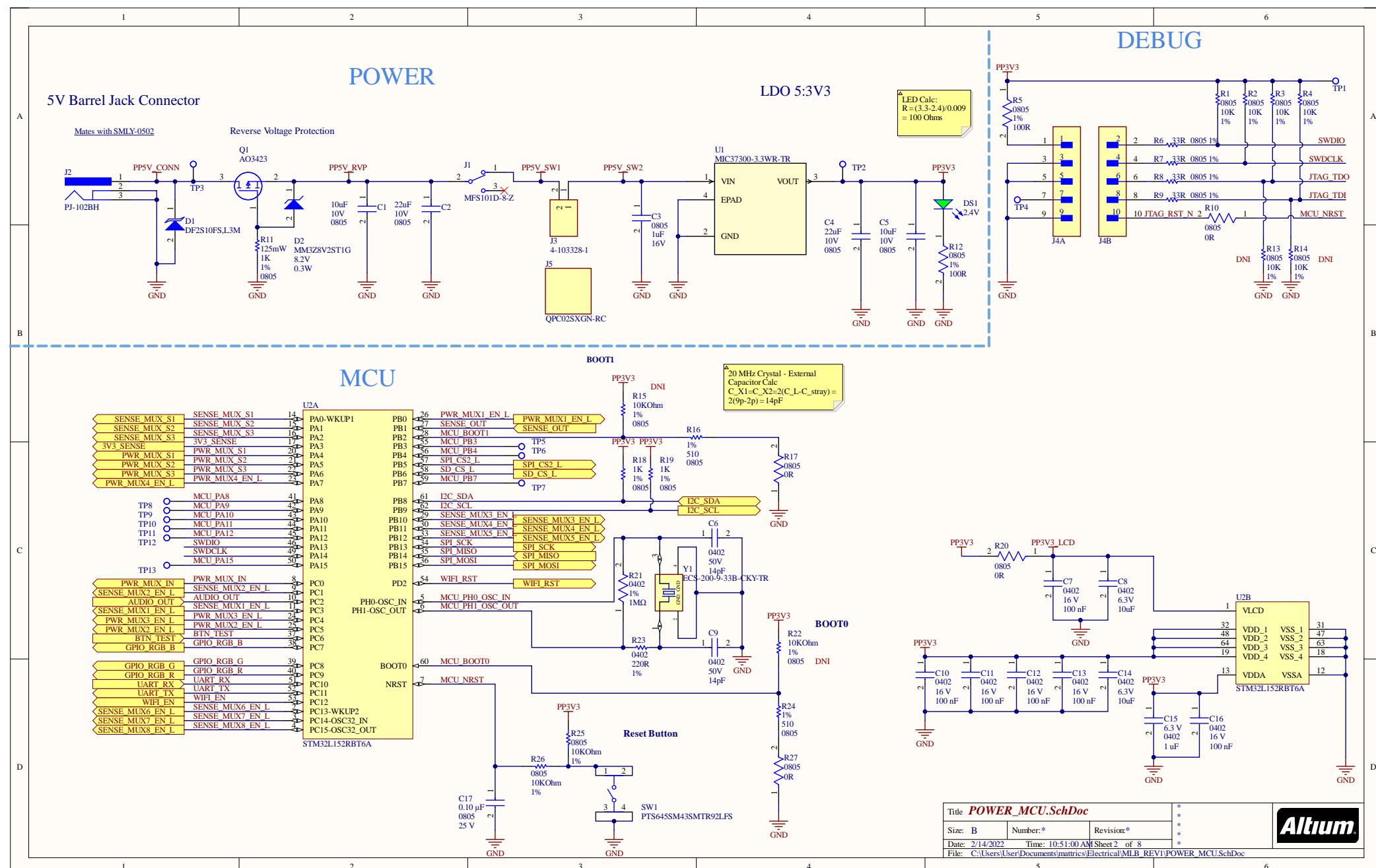
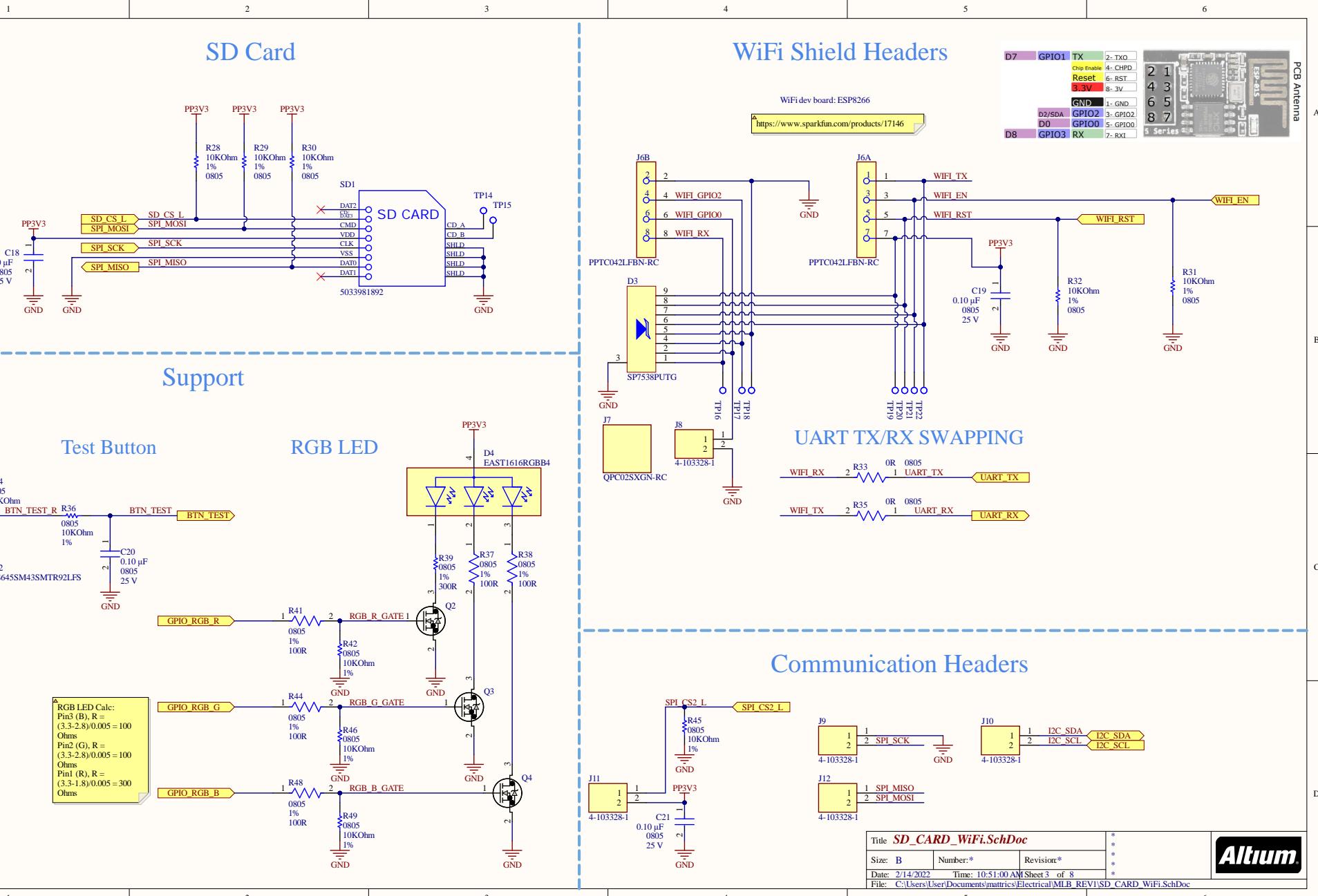


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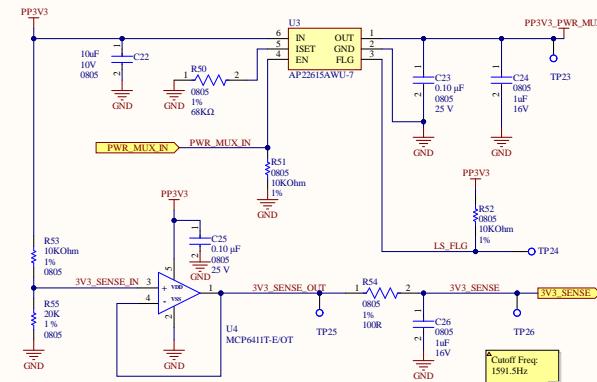




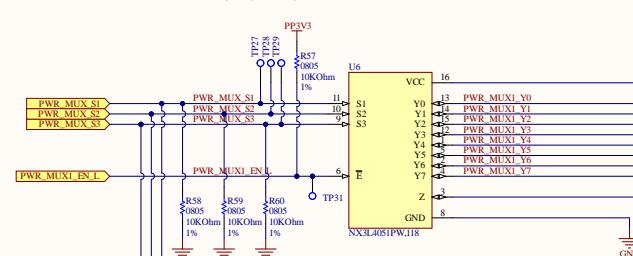
The power demuxes share select lines and input signals. The operational mux is selected using the individual enable signals.

To power a column, the power mux enables the load switch to the input of the muxes. A voltage sensor senses the 3V3 rail so FW can use it for calculations.

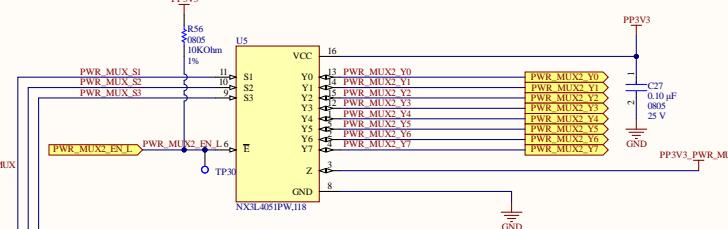
Load Switch



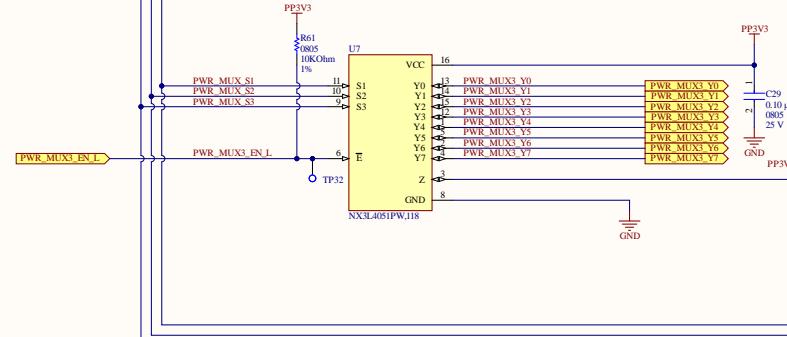
Power Mux 1



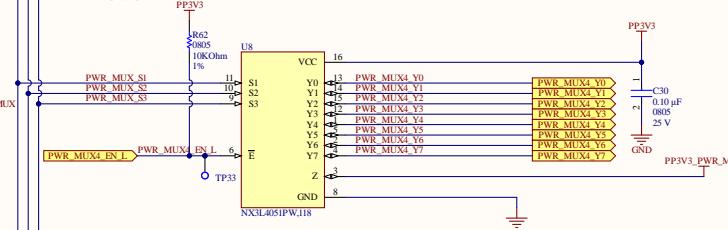
Power Mux 2



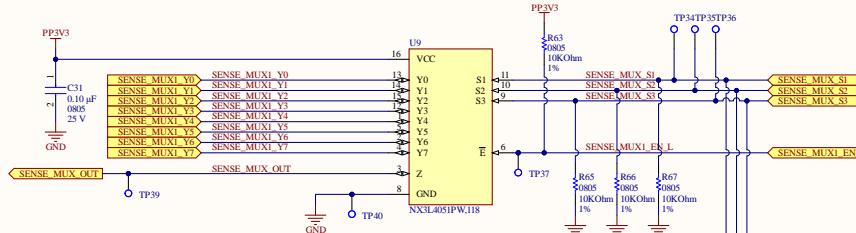
Power Mux 3



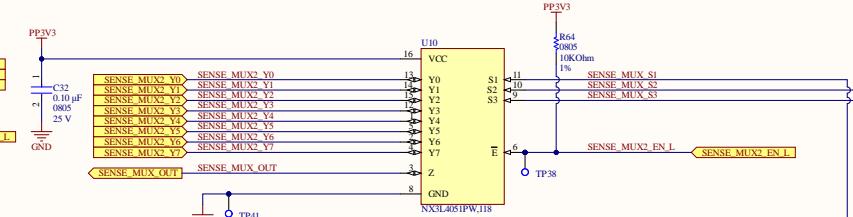
Power Mux 4



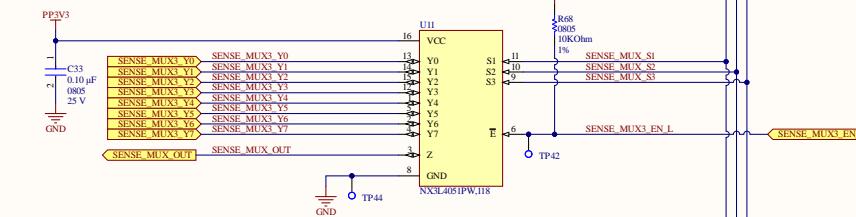
Sense Mux #1



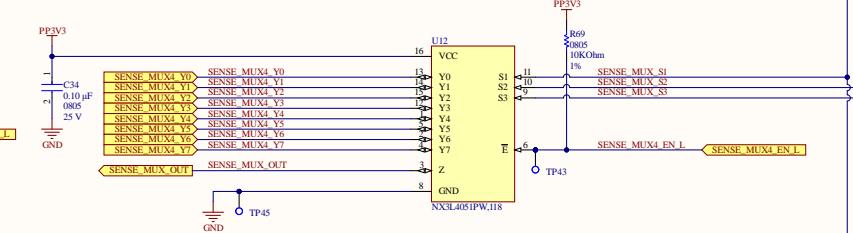
Sense Mux #2



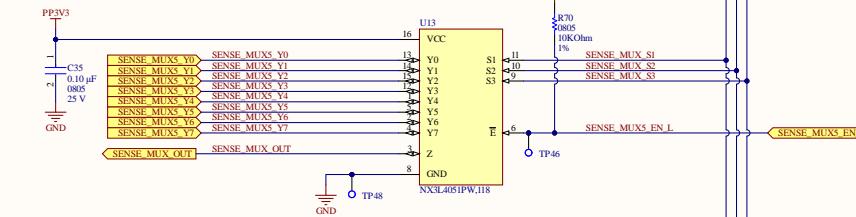
Sense Mux #3



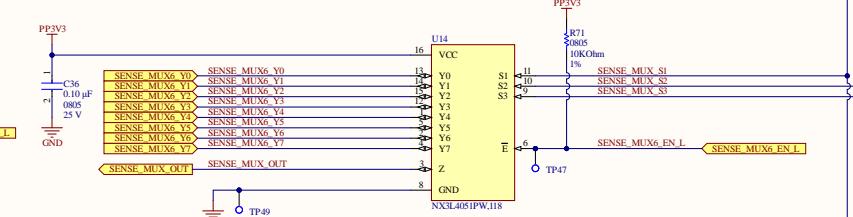
Sense Mux #4



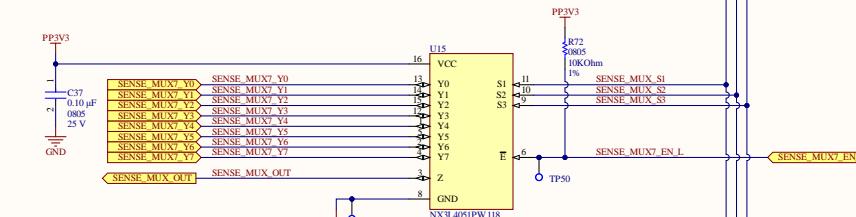
Sense Mux #5



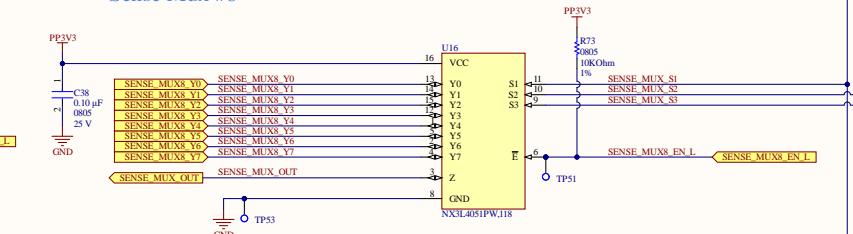
Sense Mux #6



Sense Mux #7



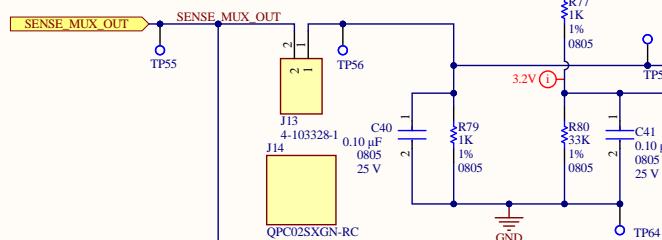
Sense Mux #8



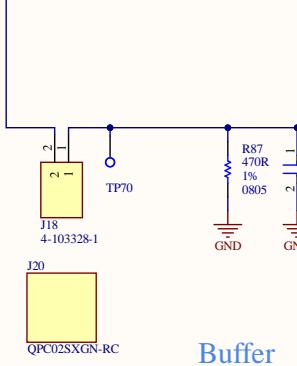
Velostat Resistance Measurement Circuitry

Calculations:
<https://docs.google.com/spreadsheets/d/1k4NS1xzINff5wRNssyNsAdTZ4fm0nBy5kYFbVeWY/edit?usp=sharing> (PCB sheet)

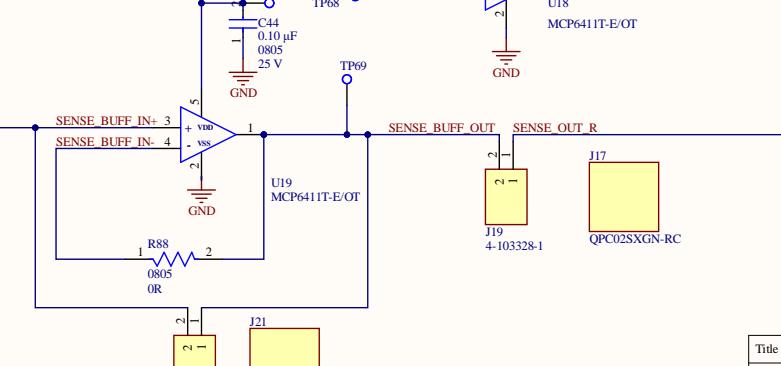
Mux Output



Resistor Divider

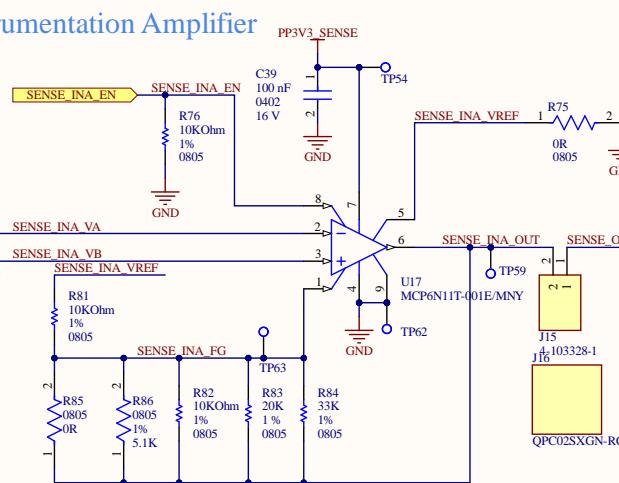


Buffer

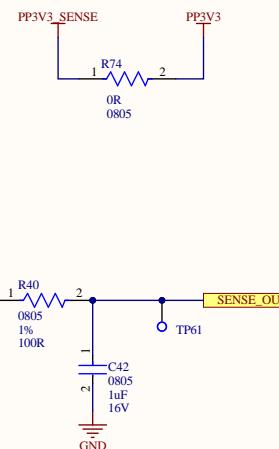


Wheatstone Bridge

Instrumentation Amplifier



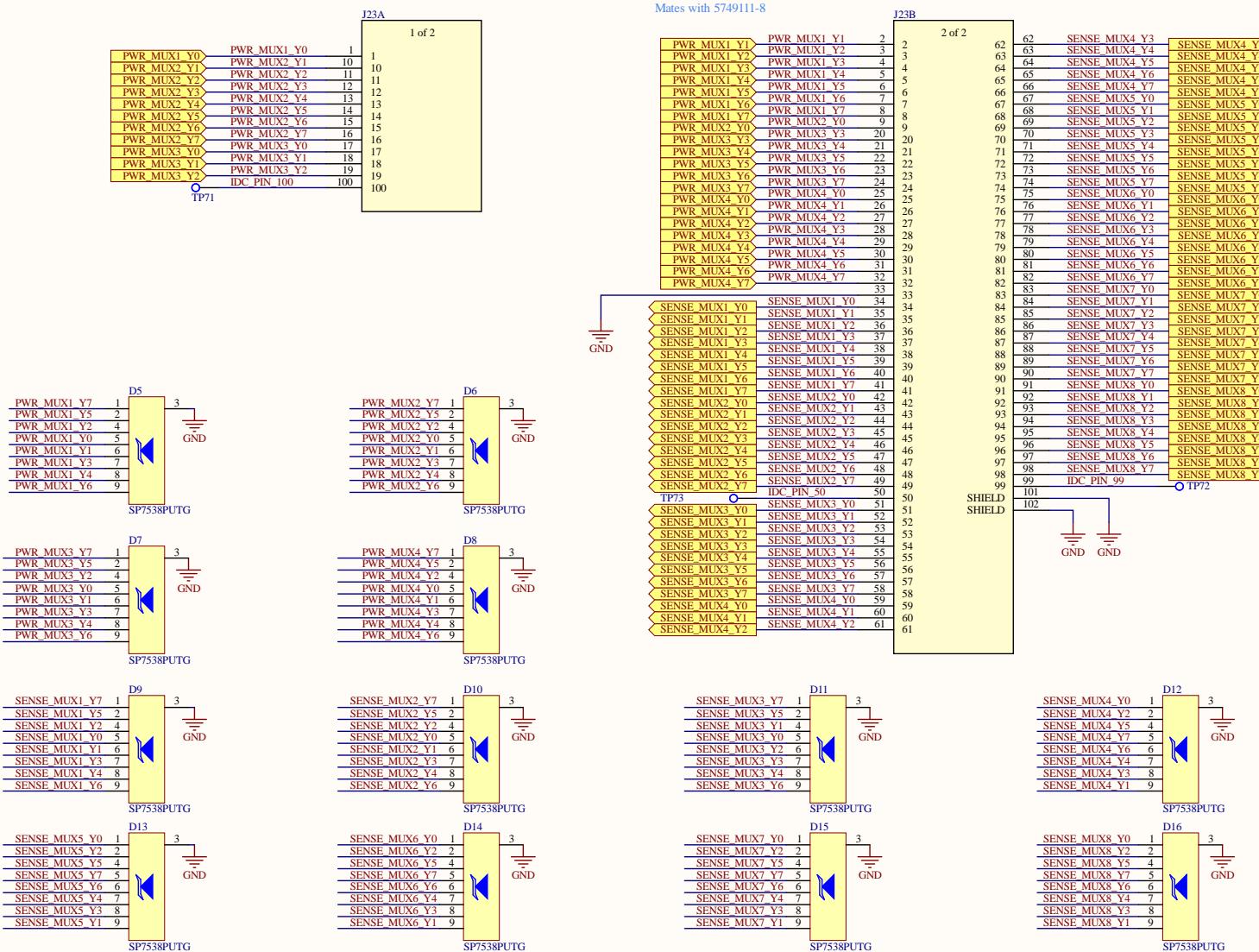
Isolate Sense Rail from 3V3 Rail



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Altium.

Mat Cabling Connector



Title: **MAT_CABLING_CONNECTOR.SchDoc**

Size: **B** Number: * Revision: *

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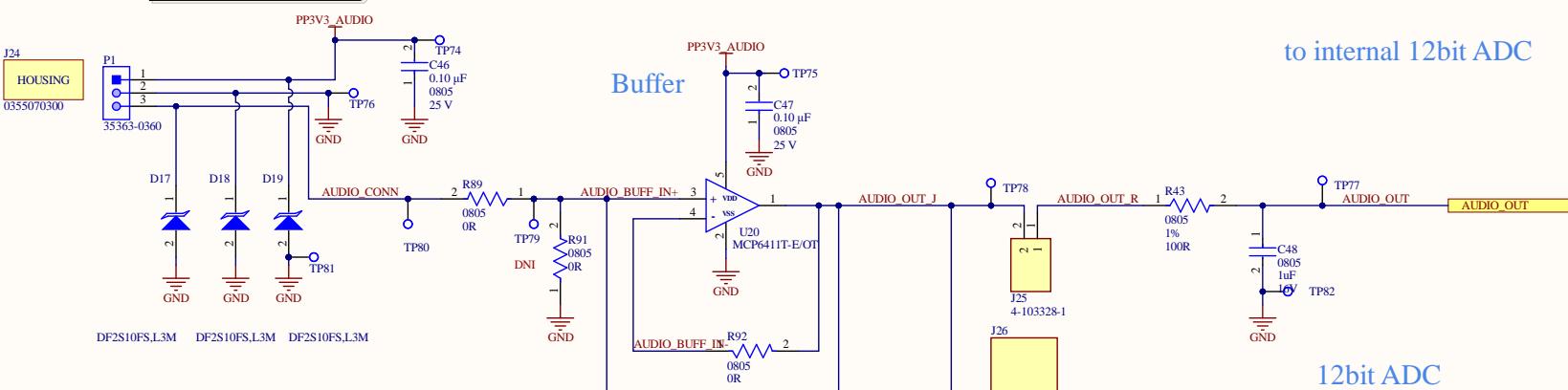
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Altium.

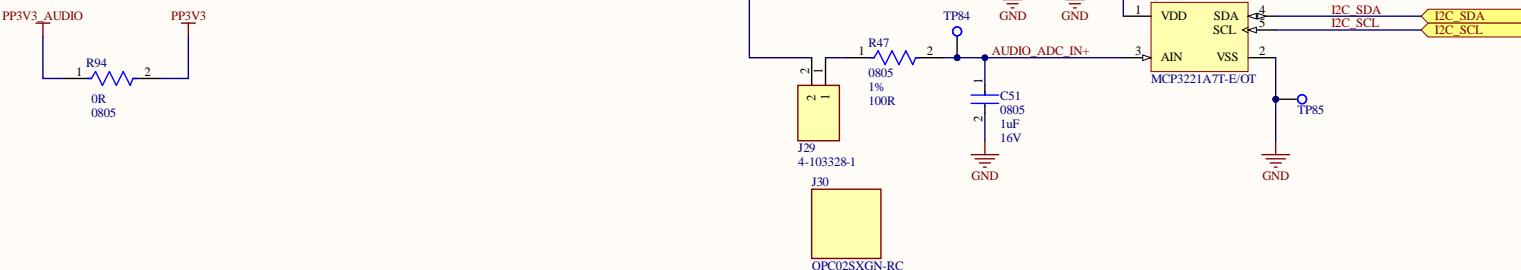
Audio Sensing

Electret Microphone

Electret Microphone Adafruit:
<https://www.adafruit.com/product/1063>



Isolate Audio Rail from 3V3 Rail



Title: MICROPHONE.SchDoc	*
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