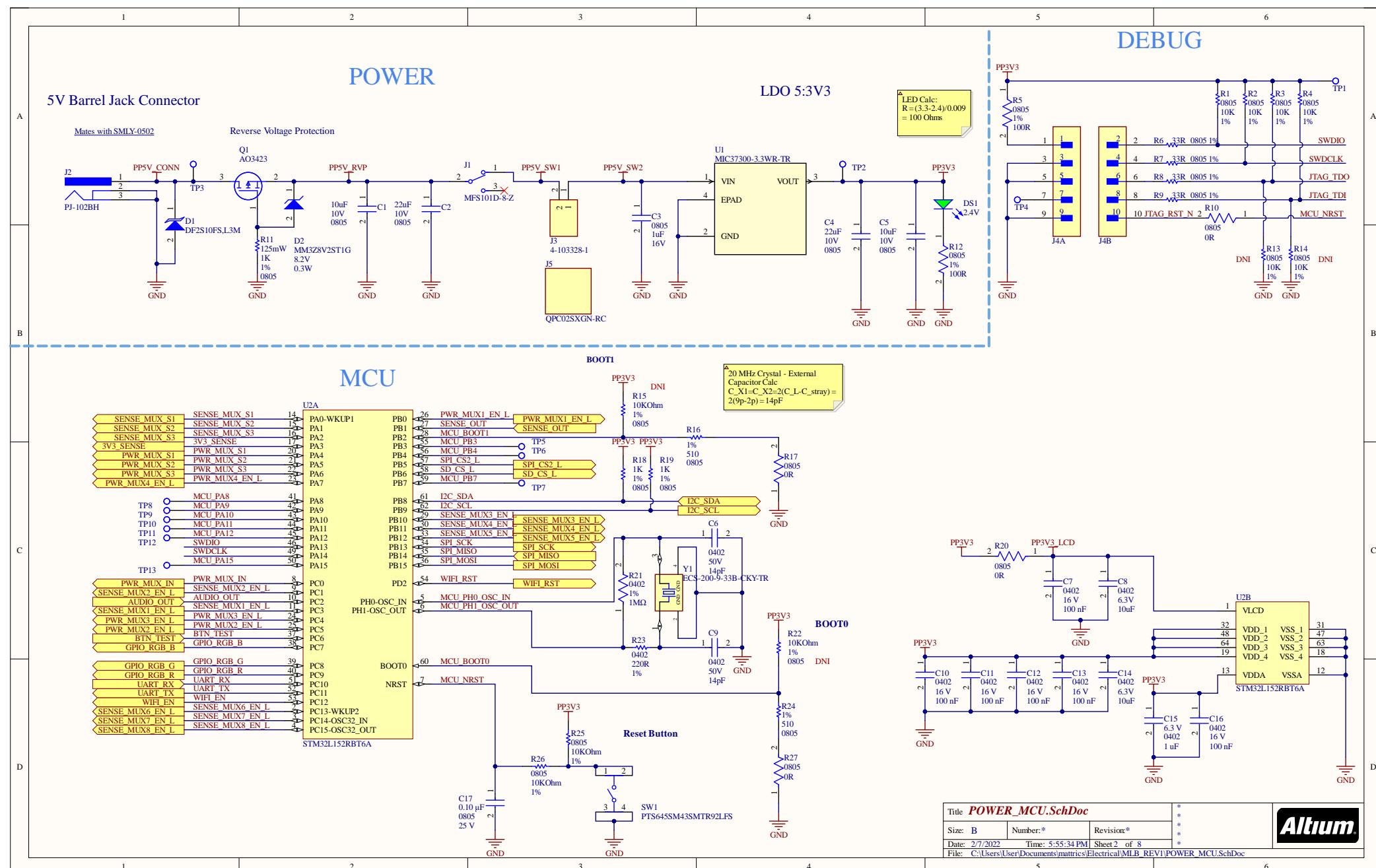
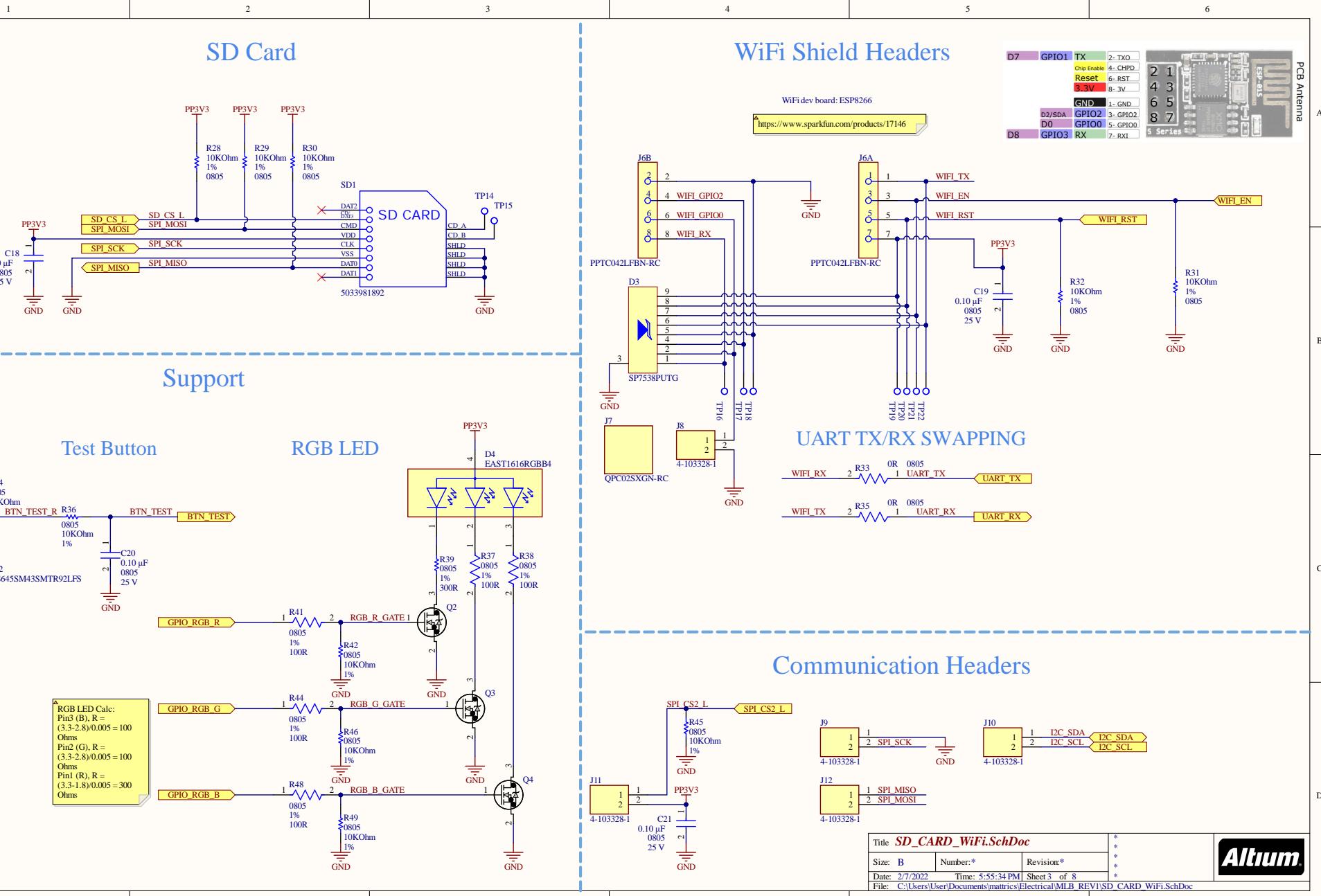


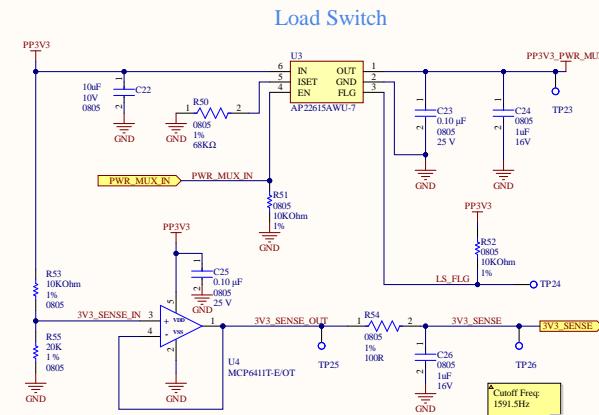
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| Title <b>BLOCK_DIAGRAM.SchDoc</b>  |                  |              |
| Size: B  | Number:*         | Revision:*   |
| Date: 2/7/2022   | Time: 5:55:34 PM | Sheet 1 of 8 |
| File: C:\Users\User\Documents\matrics\Electrical\MLB_REV1\BLOCK_DIAGRAM.SchDoc |                  |              |
| <b>Altium.</b>   | *                | *            |



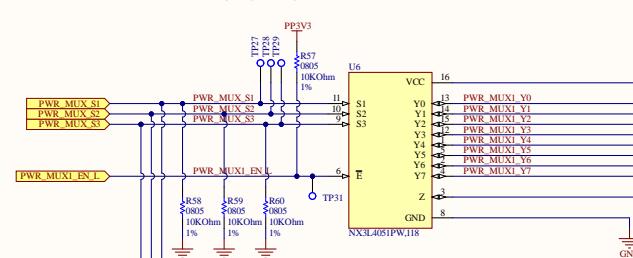


The power demuxes share select lines and input signals. The operational mux is selected using the individual enable signals.

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.



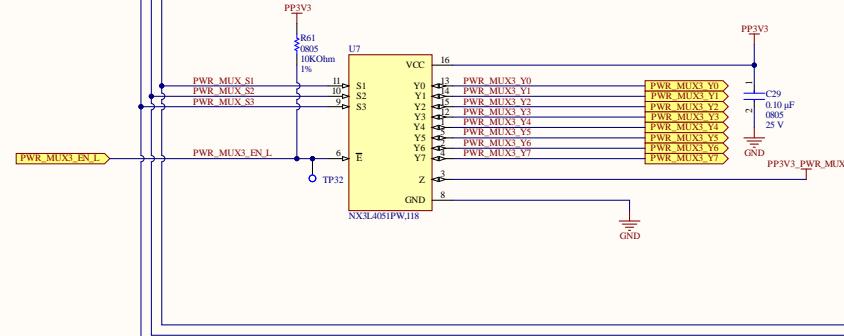
## Power Mux 1



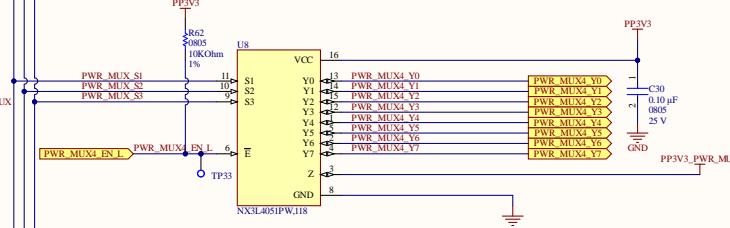
### 3V3 Voltage Sensing Circuit



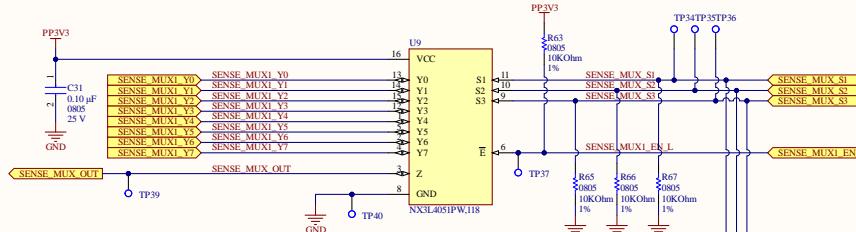
## Power Mux 3



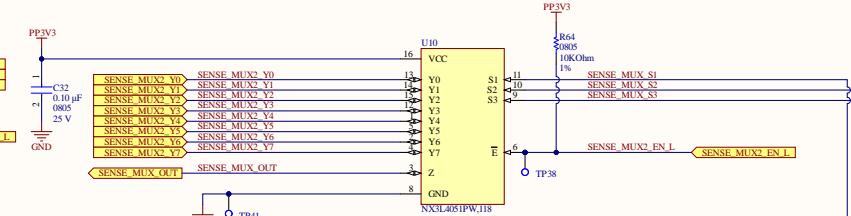
Power Mux 4



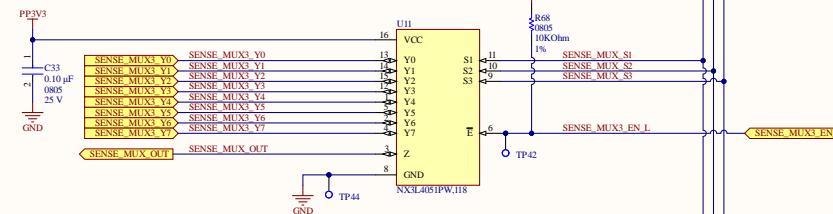
Sense Mux #1



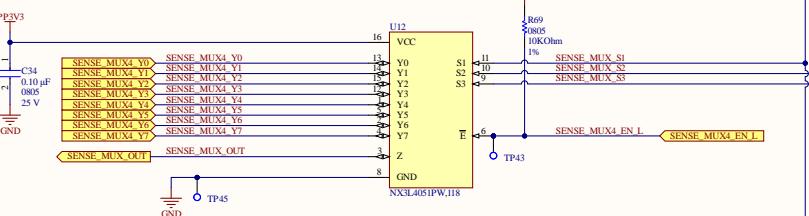
Sense Mux #2



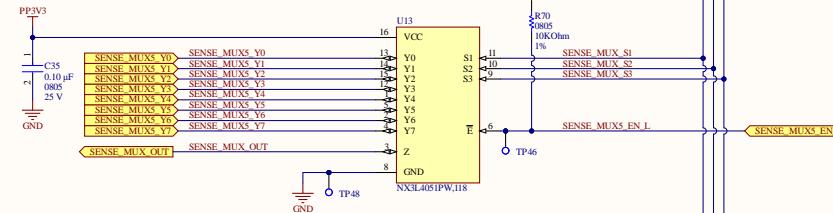
Sense Mux #3



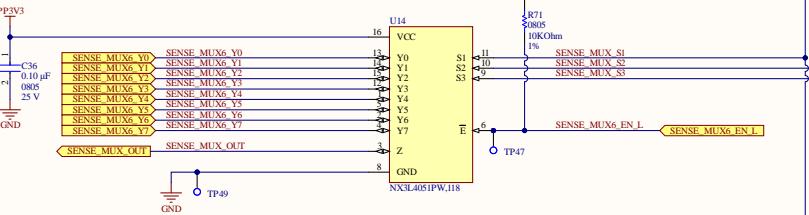
Sense Mux #4



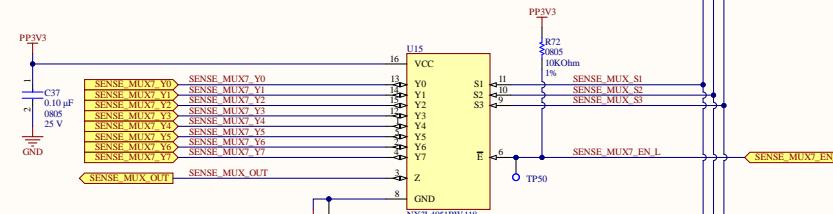
Sense Mux #5



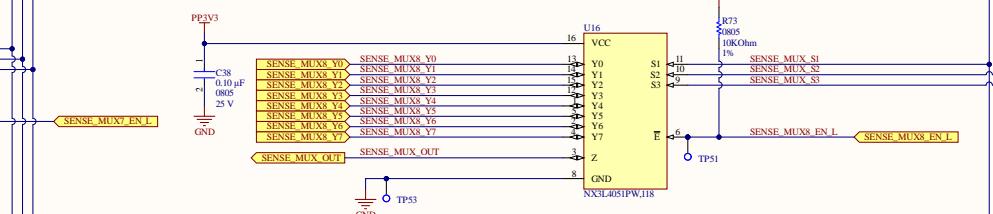
Sense Mux #6

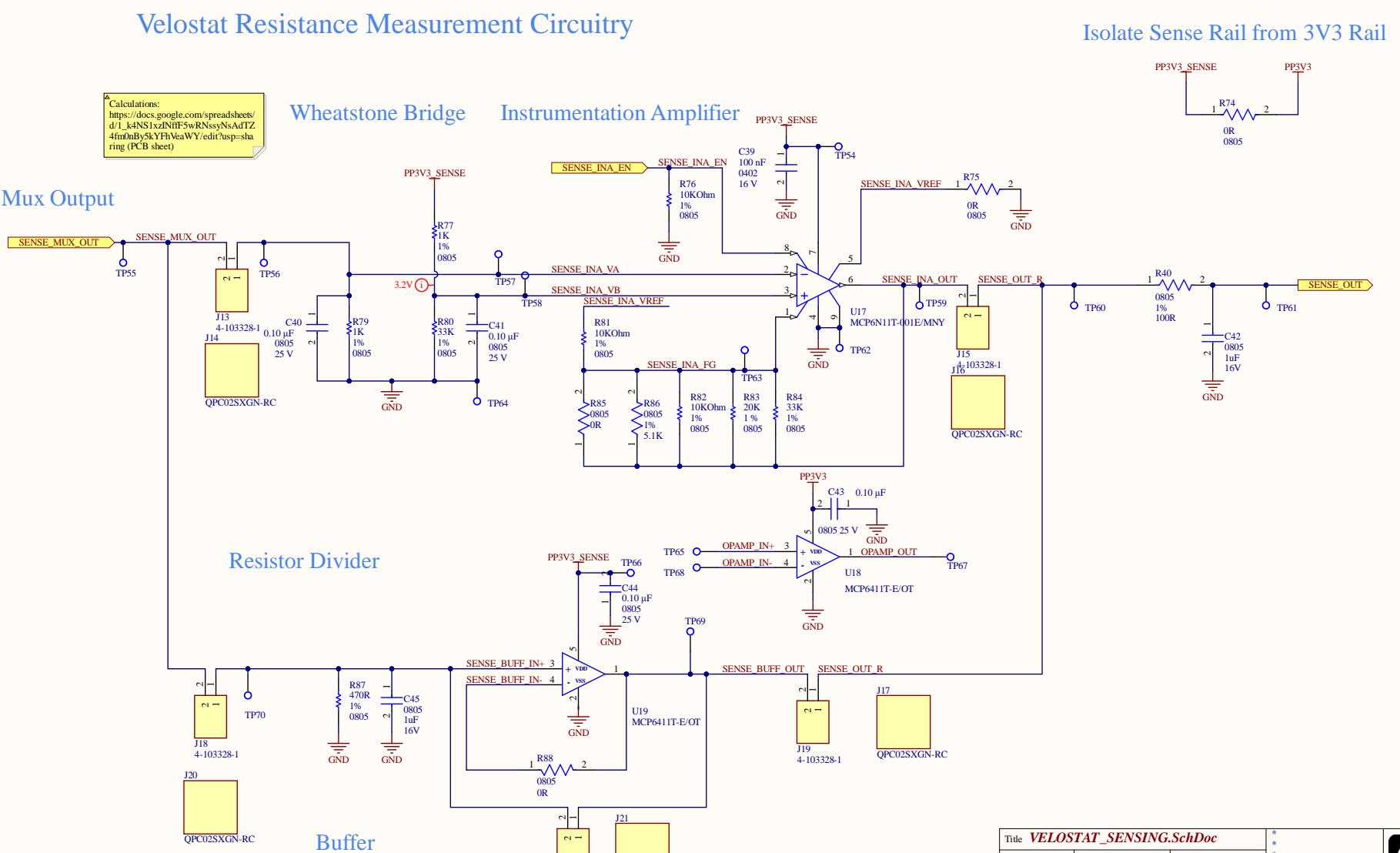


Sense Mux #7



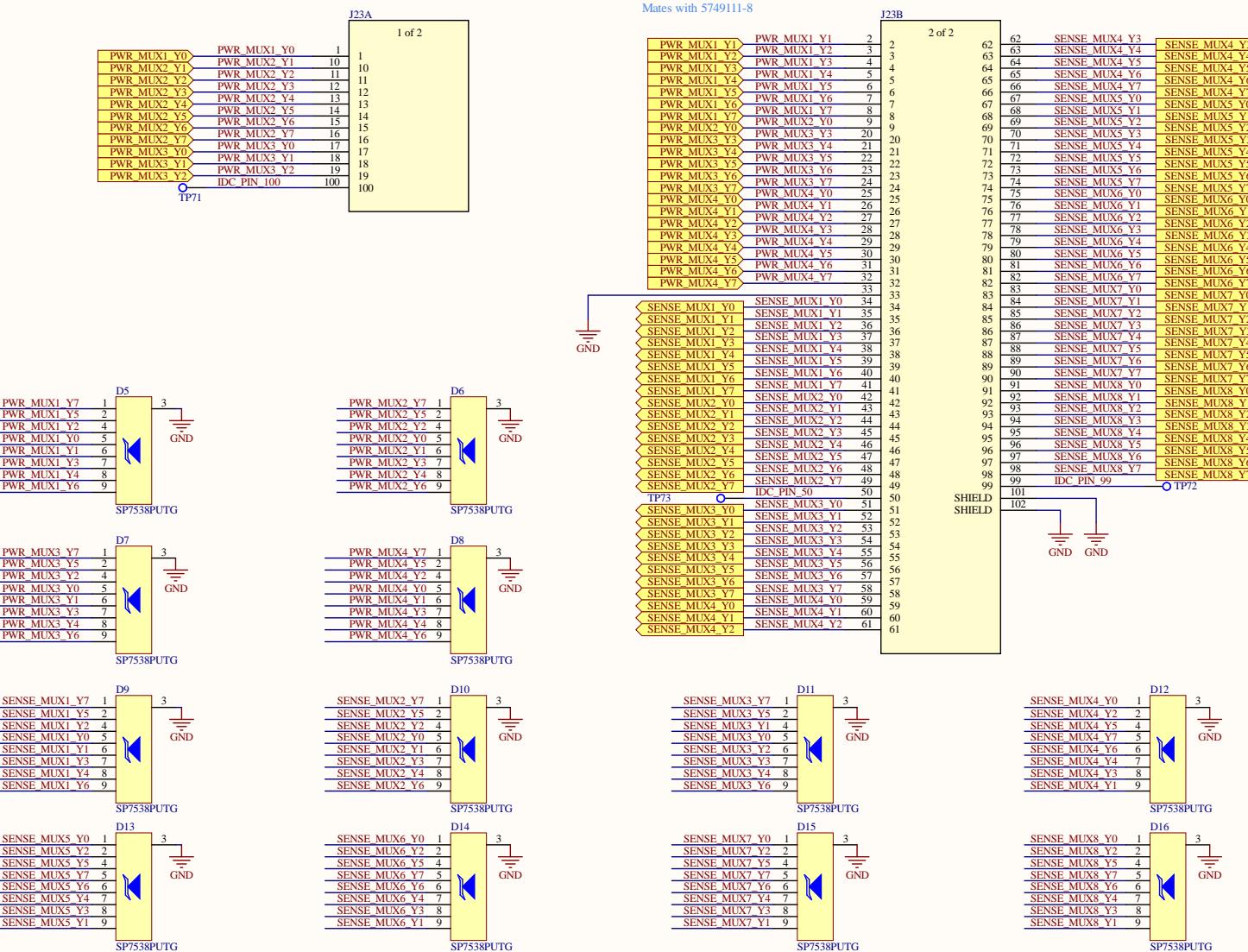
Sense Mux #8





|           |   |                  |   |
|-----------|---|------------------|---|
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| Number:   | *   | *                |   |
| Revision: | *   | *                |   |
| Date:     | 2/7/2022  | Time: 5:55:35 PM | Sheet 6 of 8  |
| File:     | C:\Users\user\Documents\matrice\Electrical\MLB_REV1\VELOSTAT_SENSING.SchDoc |                  |   |

# Mat Cabling Connector



Title: **MAT\_CABLING\_CONNECTOR.SchDoc**

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

Date: **2/7/2022** Time: **5:55:35 PM** Sheet: **7 of 8**

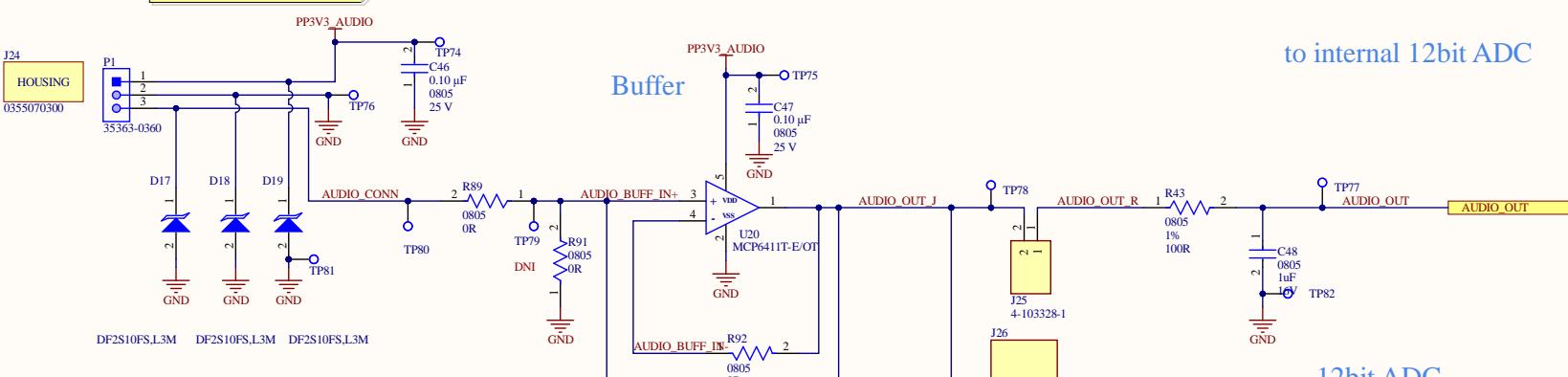
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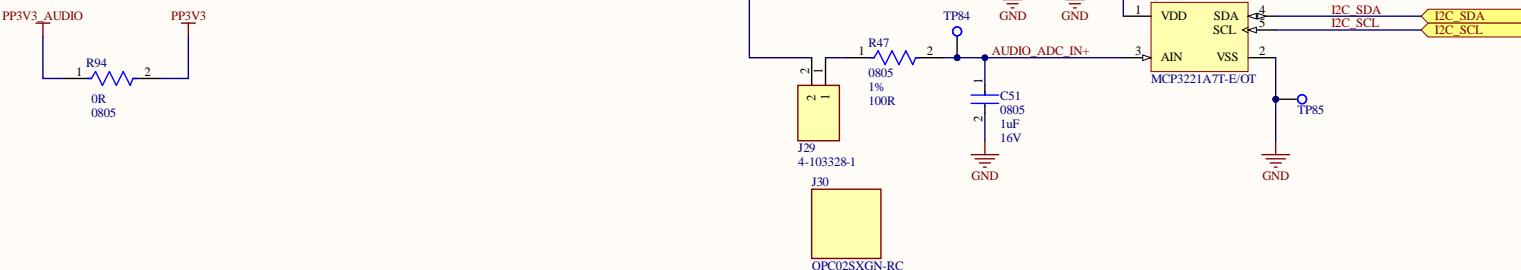
## Audio Sensing

### Electret Microphone

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



### Isolate Audio Rail from 3V3 Rail



|  |                   |
|--|-------------------|
| Title: <b>MICROPHONE.SchDoc</b>                            | *                 |
| Size: B  | Number: *         |
| Date: 2/7/2022   | Revision: *       |
| Time: 5:55:35 PM   | Sheet 8 of 8      |
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