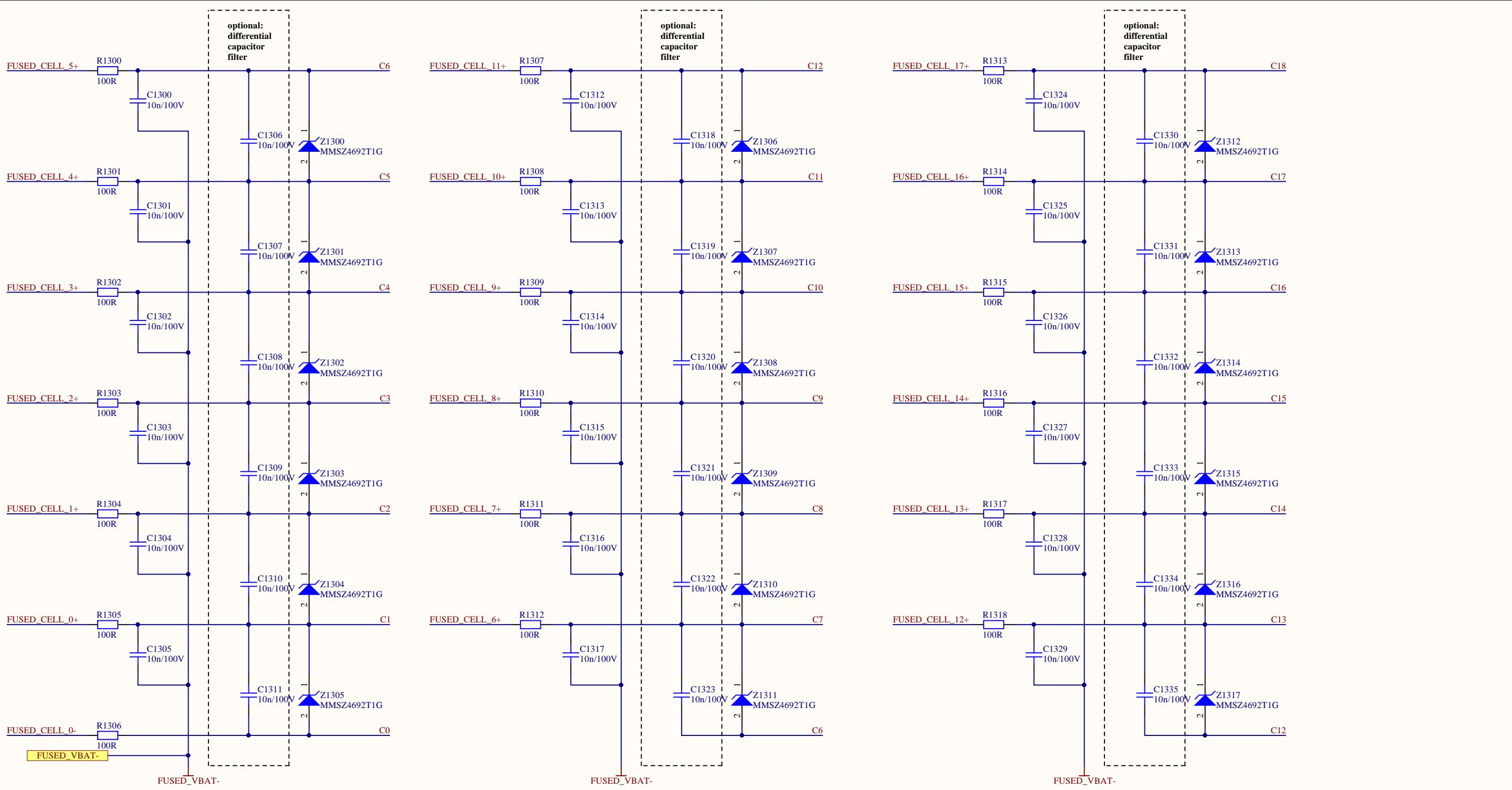


For Cell Balancing/ Measuring Inputs: Max. 0.250A Balancing Current  
 Reaction Time:  
 200% Load (0.500A) = ca. 20ms  
 300% Load (0.750A) = <10ms

For Power Supply Inputs: Max. 0.500A Current  
 Reaction Time:  
 200% Load (1.000A) = ca. 200ms  
 300% Load (1.500A) = ca. 70ms



3.1B 6 8 LTC6994 In-134 U-235 6M

-3dB corner frequency

**fast mode: 27kHz**

normal mode: 6.8k

#### **Grounded capacitor low-pass filter:**

**Grounded capacitor low-p**

$$C = 100\text{nF} \rightarrow f_g = 1\text{MHz}$$

$$C = 22\text{nF} \rightarrow f_g = 72\text{kHz}$$

#### Differential capacitor low-pass filter (lower cost):

Differential capacitors low

$$C = 22\text{nF} \rightarrow f_g = 50\text{kHz}$$

$$C = 22\text{nF} \rightarrow f_g = 50\text{kHz}$$

$$C = 10\text{nF} \rightarrow f_g = 112\text{kHz}$$

Digitized by srujanika@gmail.com

1

1

The diagram illustrates the connection of 18 individual cells to a single bus. On the left, 18 cells are labeled: CELL\_17+, CELL\_16+, CELL\_15+, CELL\_14+, CELL\_14-, CELL\_13+, CELL\_12+, CELL\_11+, CELL\_10+, CELL\_9+, CELL\_8+, CELL\_7+, CELL\_6+, CELL\_5+, CELL\_4+, CELL\_3+, CELL\_2+, CELL\_1+, and CELL\_0+. Each cell is connected by a horizontal line to a vertical stack of 18 blue rectangles representing buses. The top bus is labeled FUSED\_CELL\_17+ and the bottom bus is labeled FUSED\_CELL\_0+.



[www.foxbms.org](http://www.foxbms.org)

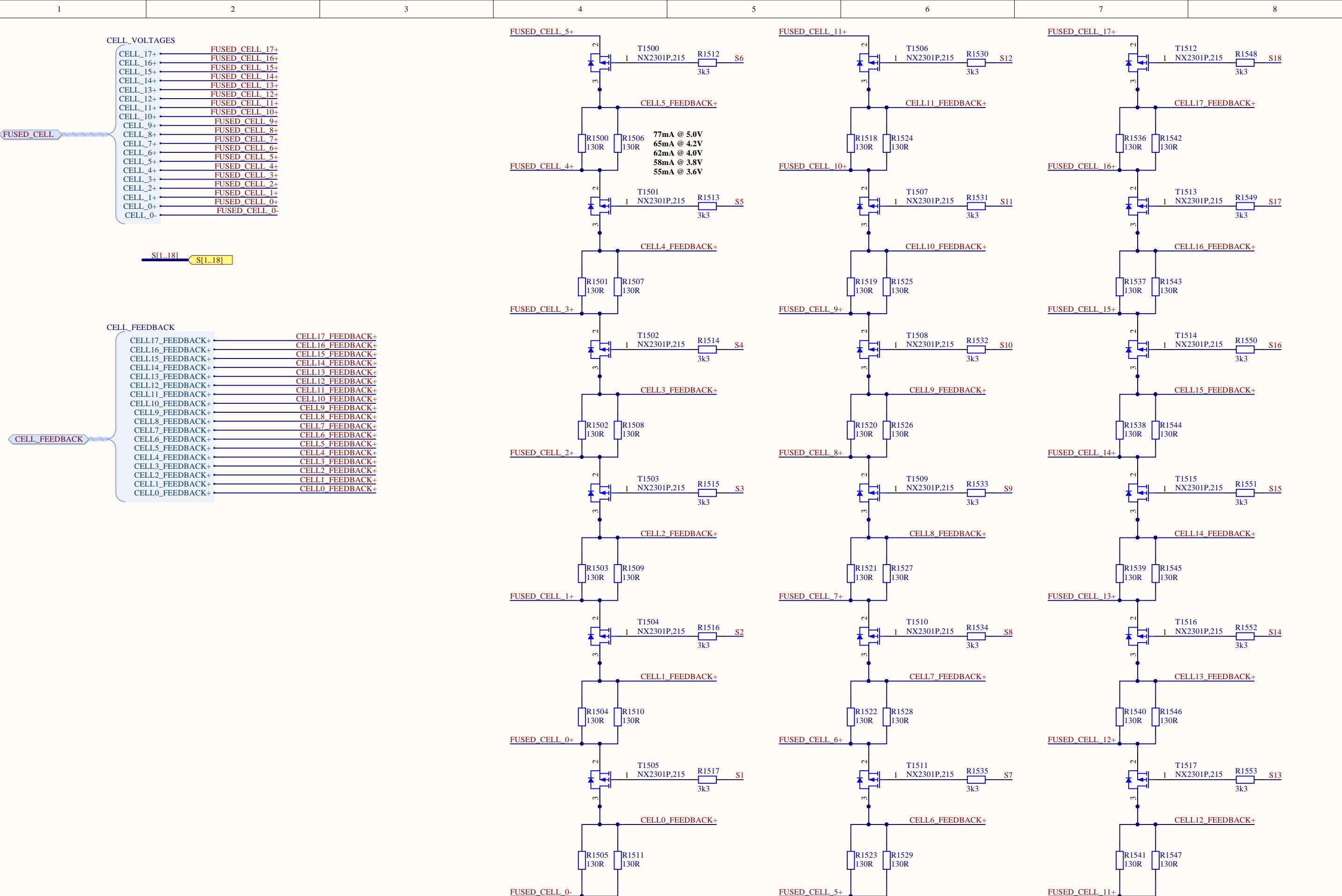
developed by:  
Fraunhofer IISB  
Schottkystr. 10  
91058 Erlangen  
Germany

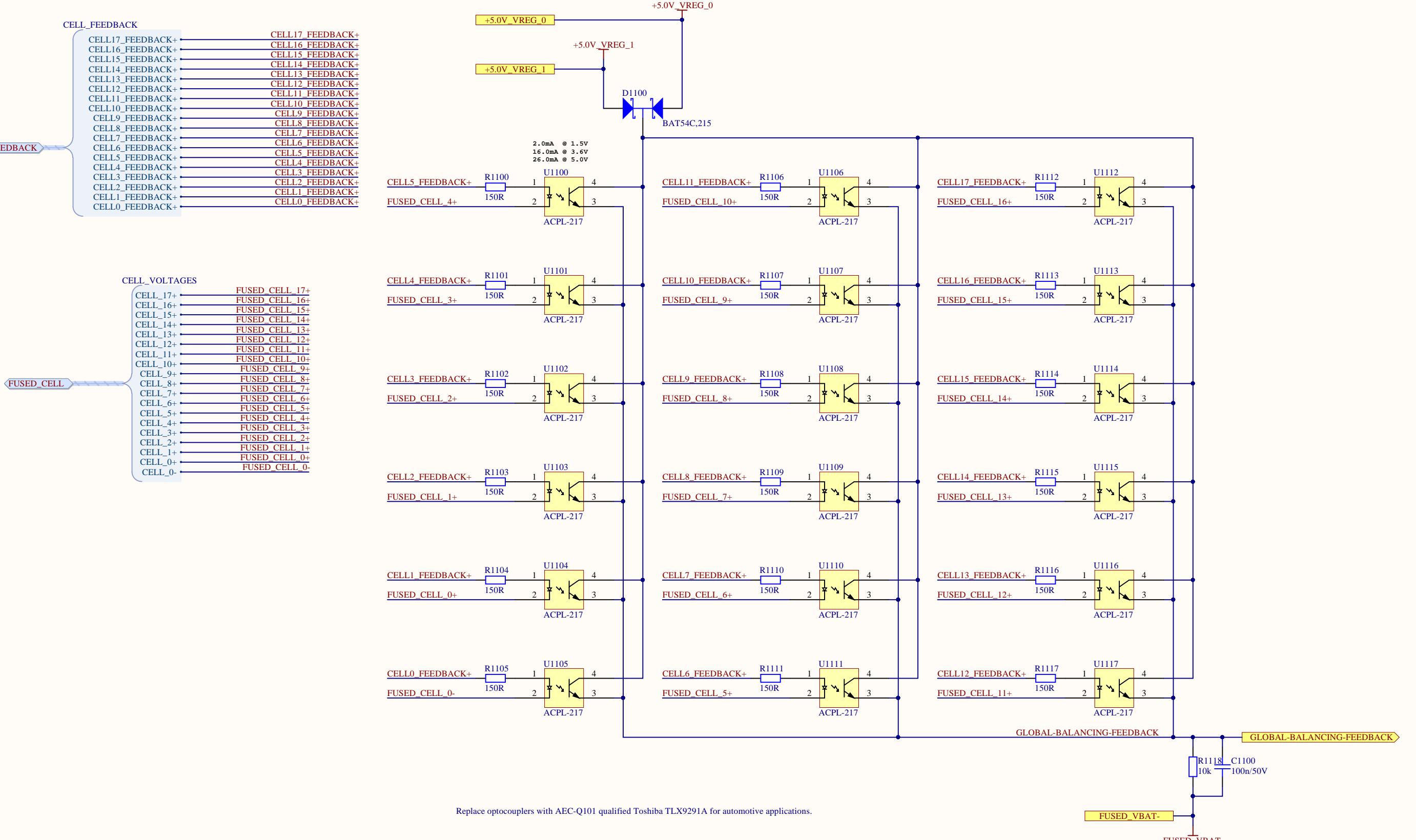
 **Fraunhofer**  
IISB  
[www.iisb.fraunhofer.de](http://www.iisb.fraunhofer.de)

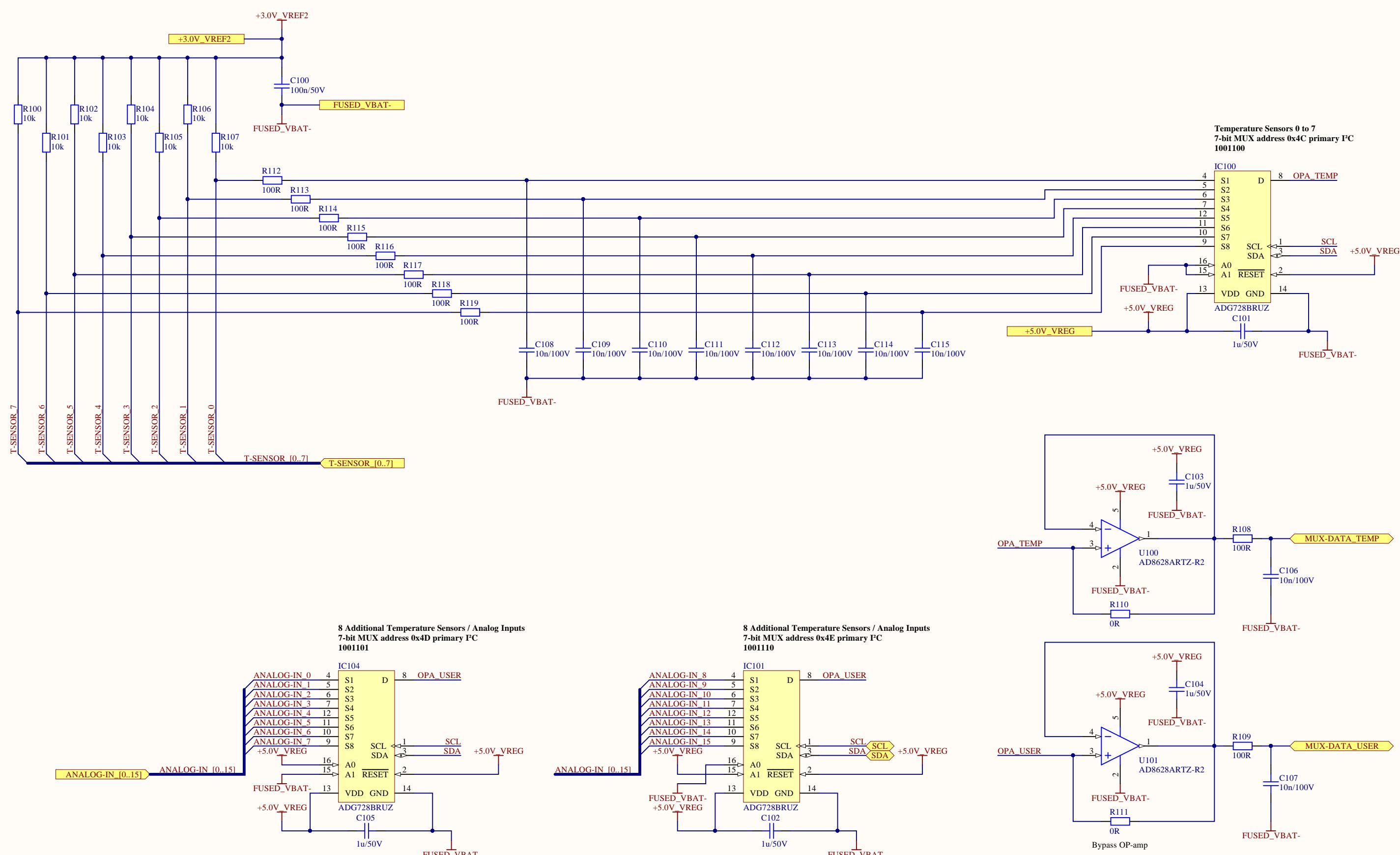
Project	BMS-Slave 18-C
Author	foxBMS Team

	Description
ell	<b>Primary Voltage Measurement</b>
	License
	Creative Commons Attribution

	File input_filter.SchDoc		
.0	Version 1.1.5	Release Date 2018-12-14	Sheet 4 / 15







A

A

B

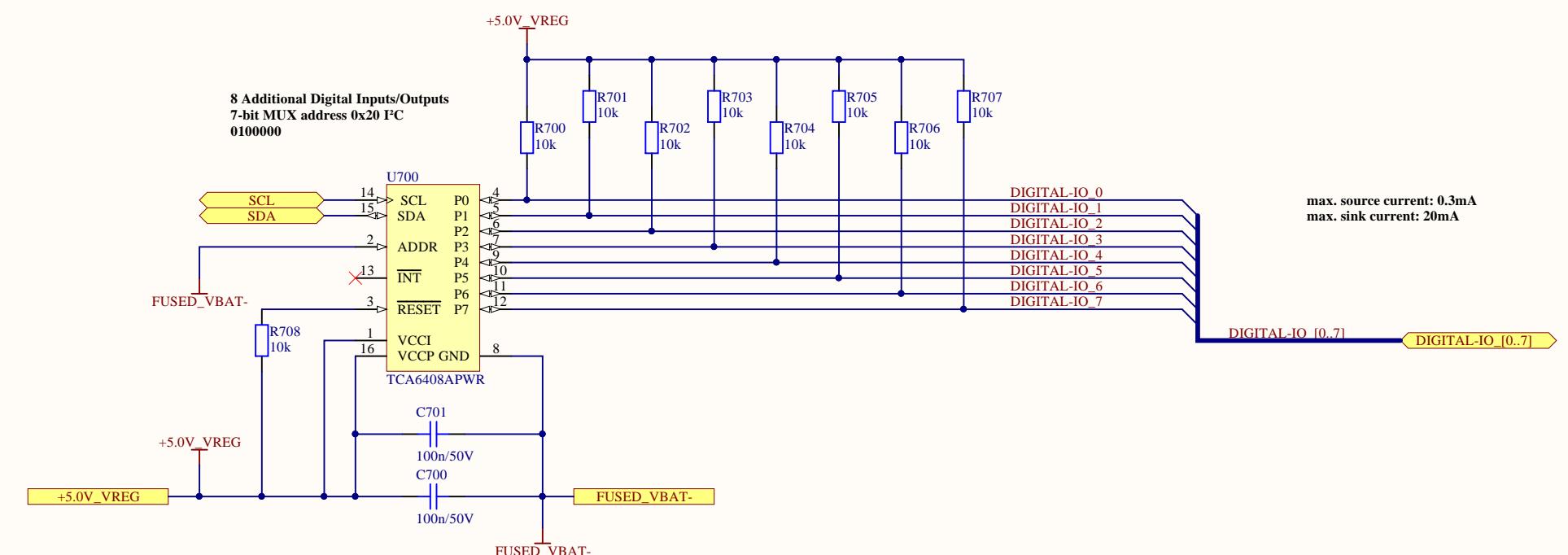
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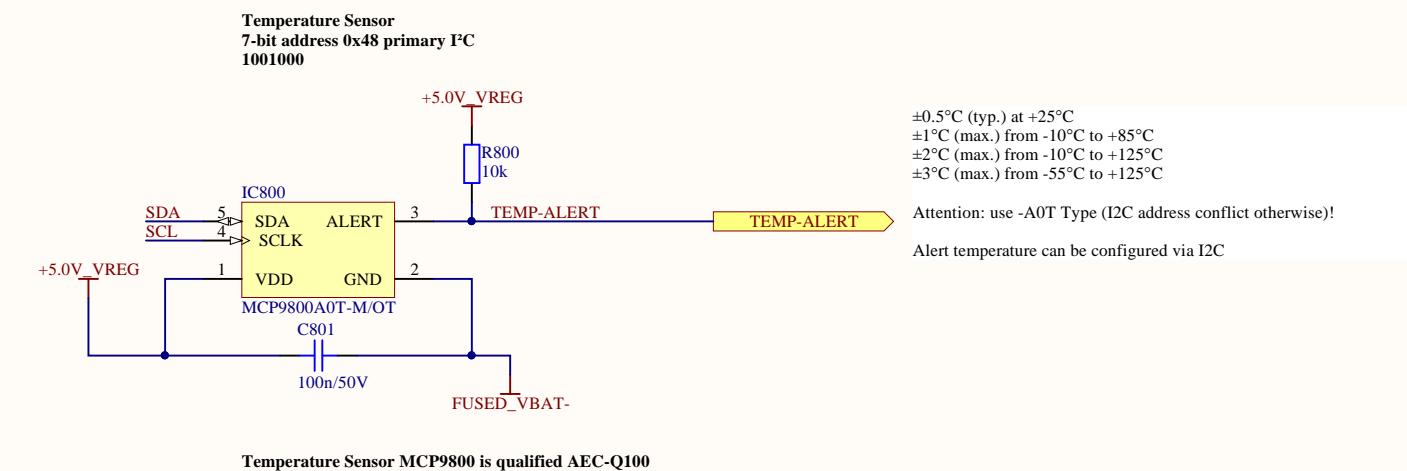
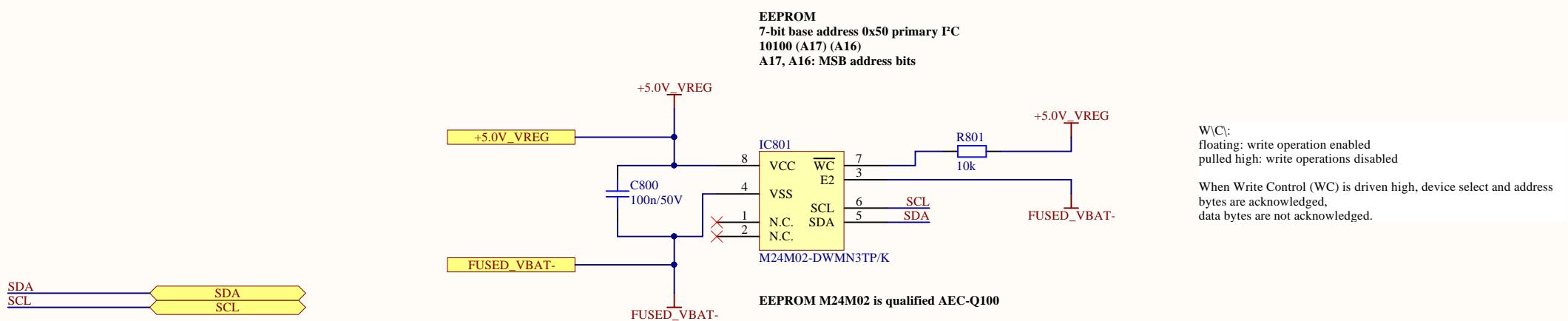
C

C

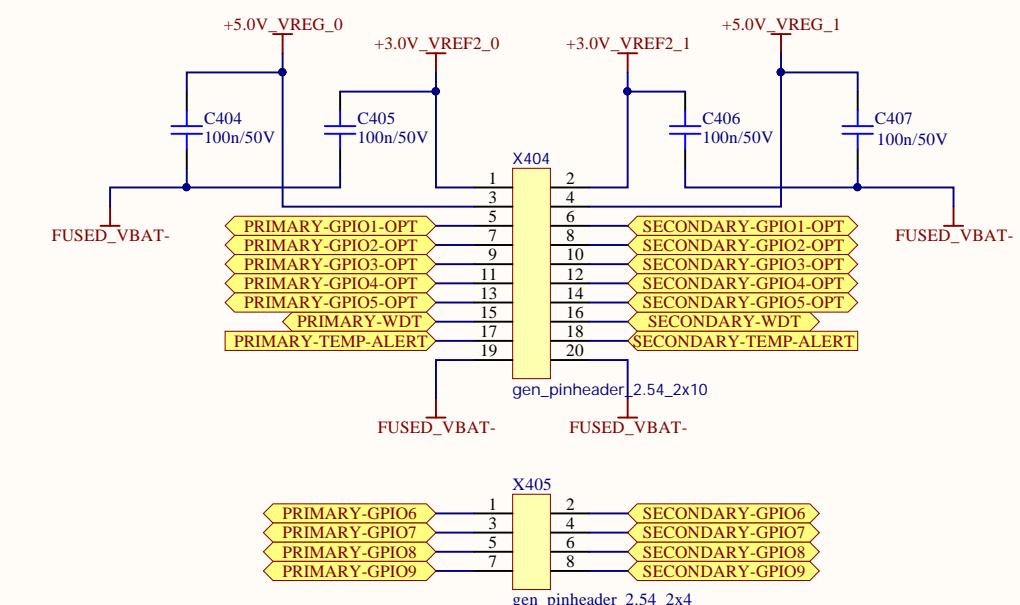
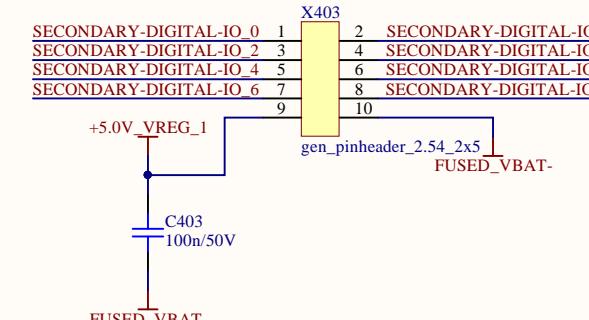
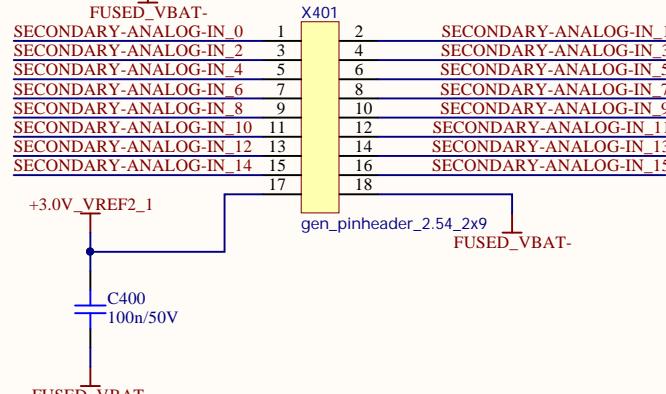
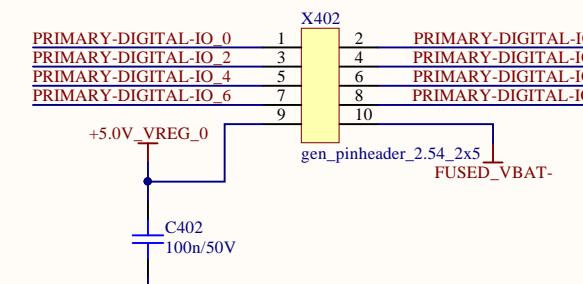
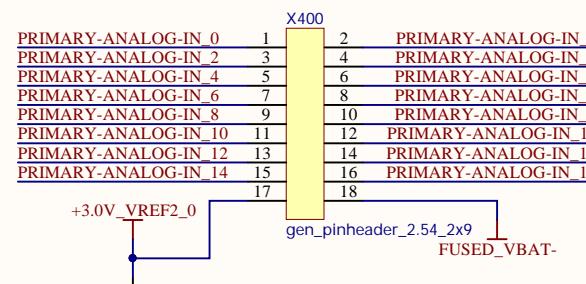
D

D

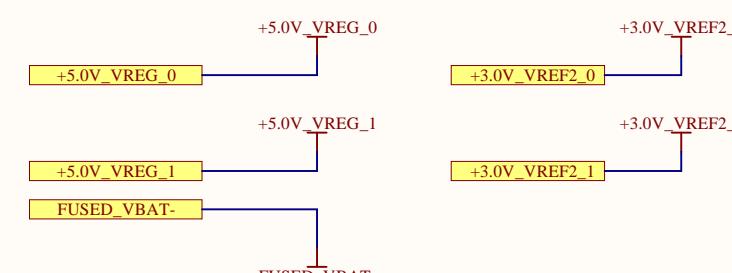


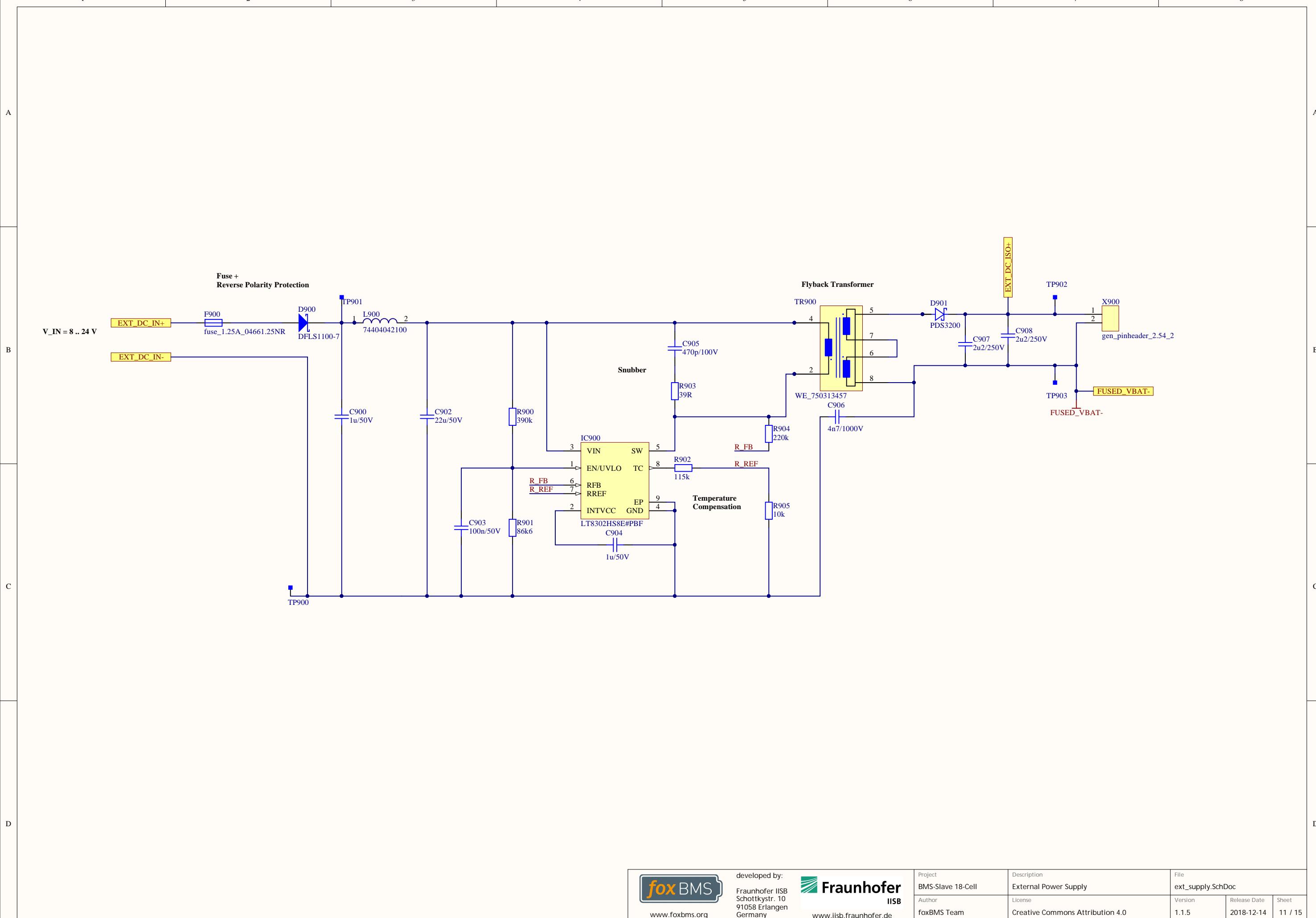


### Pin-Header for additional analog and digital inputs/outputs



SECONDARY-DIGITAL-IO [0..7] <--> PRIMARY-DIGITAL-IO [0..7]  
 PRIMARY-DIGITAL-IO [0..7] <--> PRIMARY-DIGITAL-IO [0..7]  
 SECONDARY-ANALOG-IN [0..15] <--> SECONDARY-ANALOG-IN [0..15]  
 PRIMARY-ANALOG-IN [0..15] <--> PRIMARY-ANALOG-IN [0..15]





A

A

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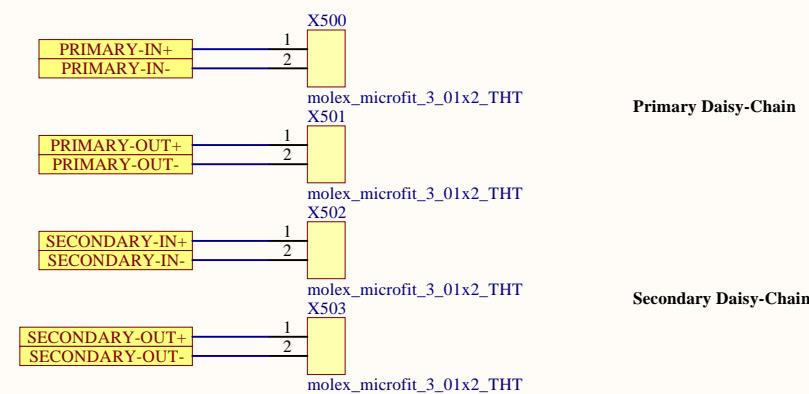
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**Daisy Chain Connectors**  
4x 2p connector equal for 12/15/18/20 cell version



A

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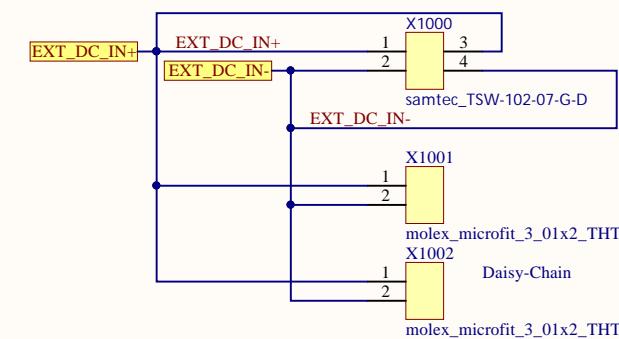
C

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D

D

### External Power Supply

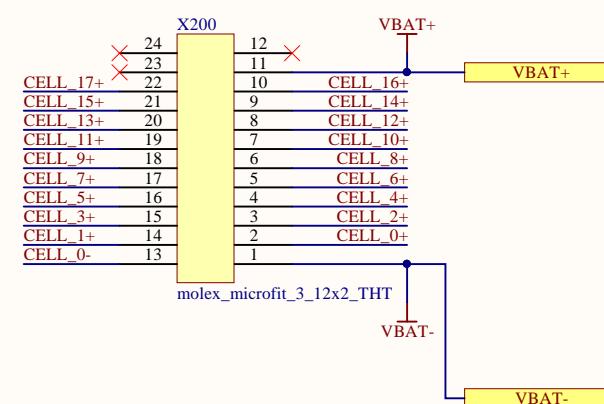


A

A

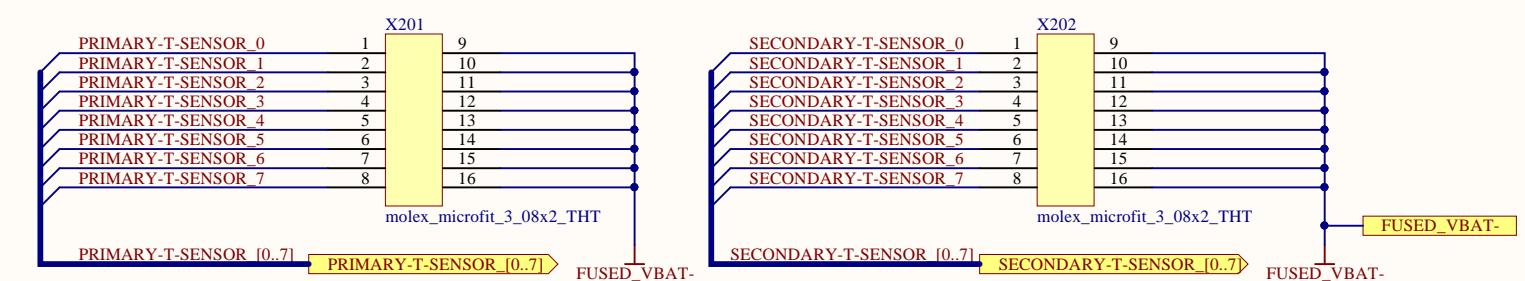
### Batterie Cell Voltage Sense Connector

24p connector equal for 12/15/18/20 cell version



### Temperature Sensor Connector

2x 16p connector equal for 12/15/18/20 cell version

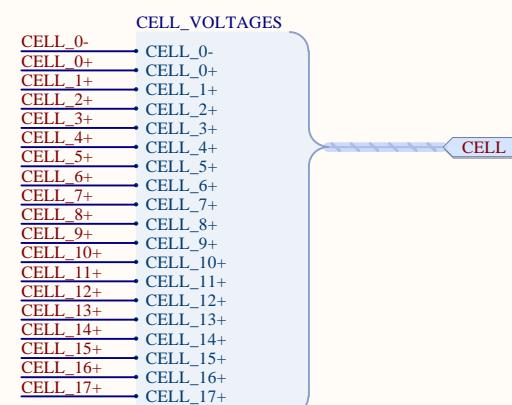


B

B

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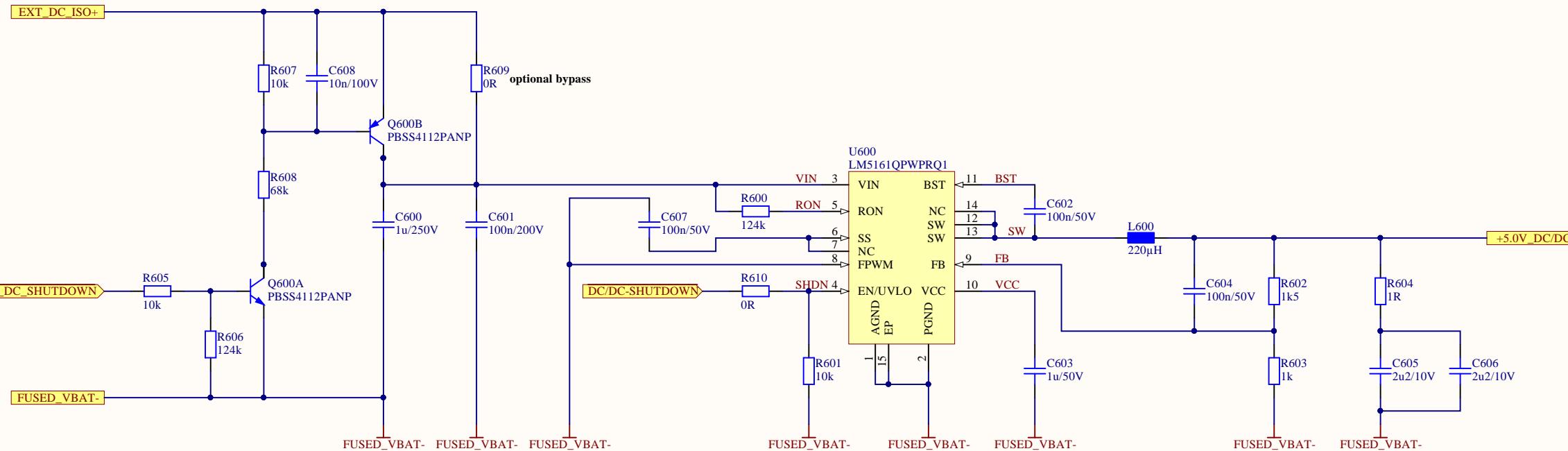


D

D

A

A



B

B

C

C

D

D