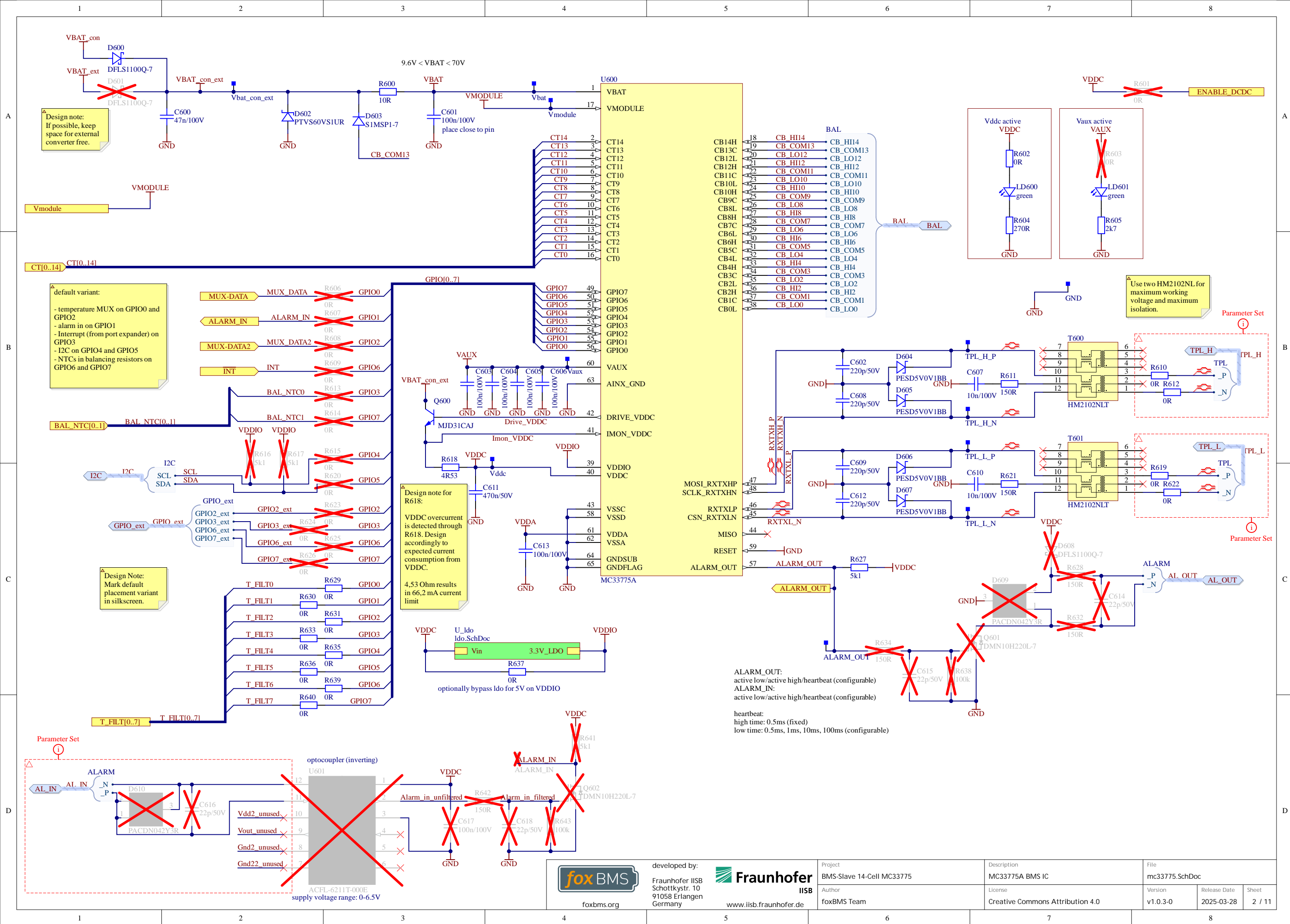
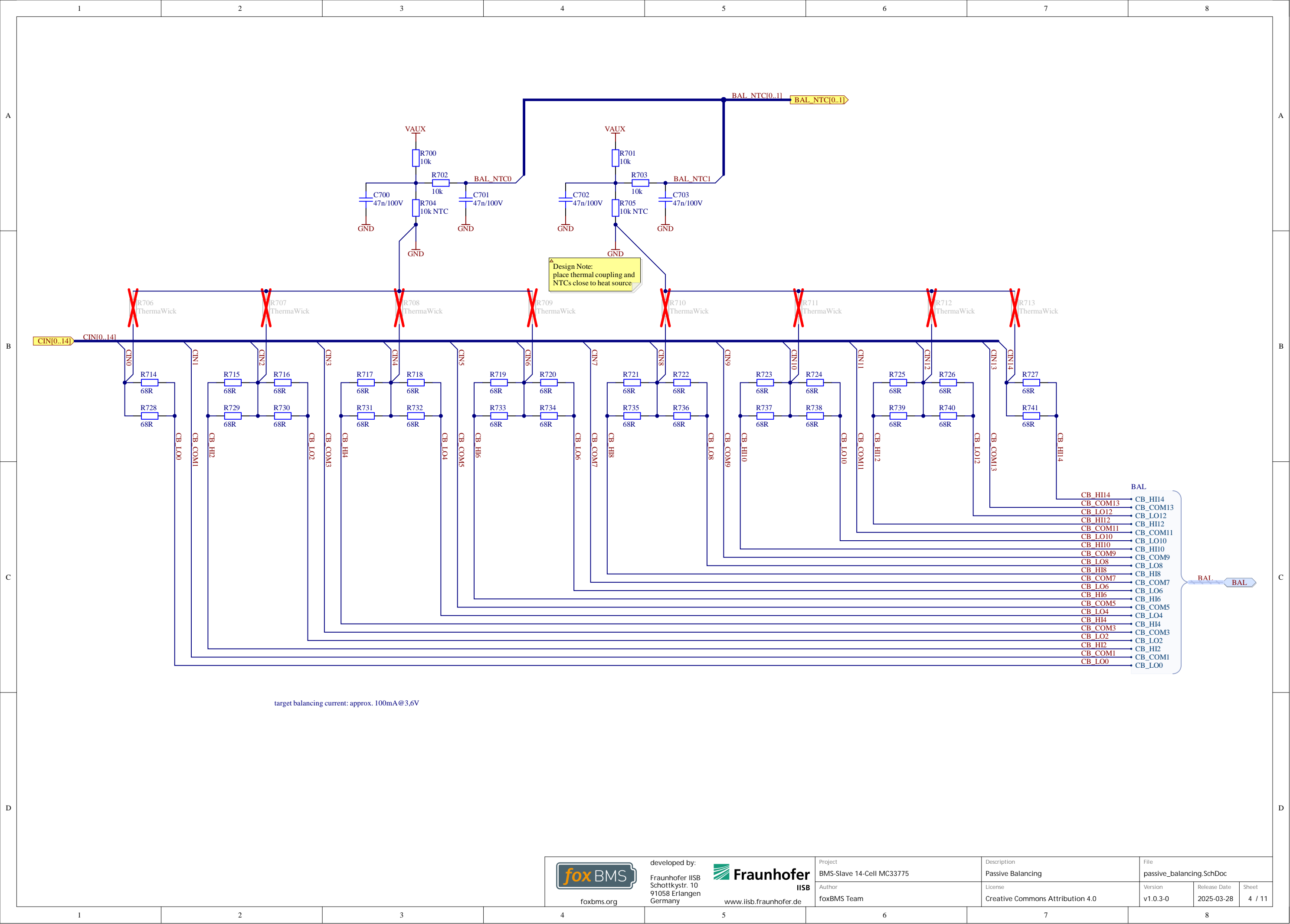


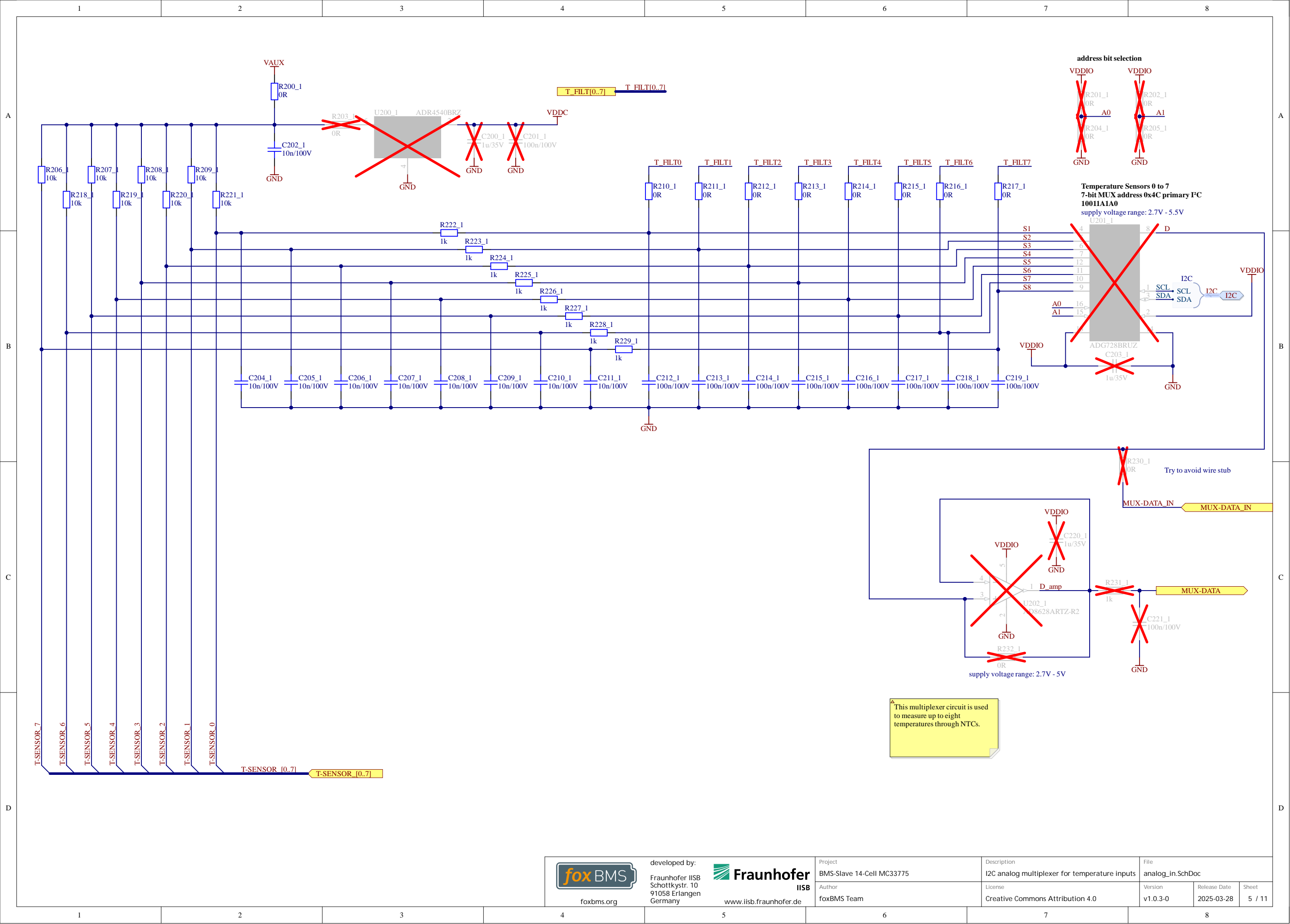
Rationale for creepage and clearance distances

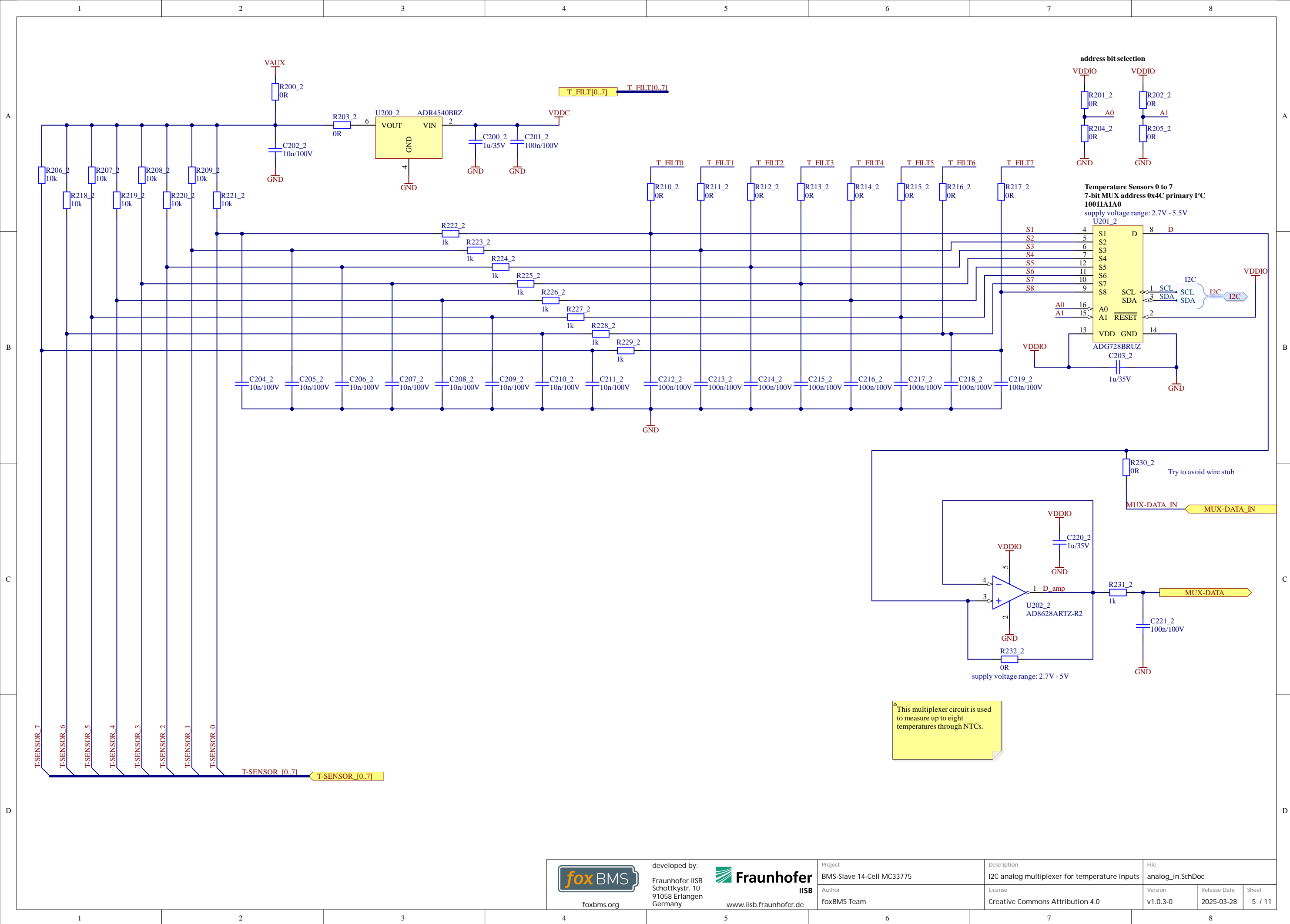
- * according to DIN EN 60664-1 (VDE 0110-1):2008-01
- * working voltage up to 1600Vdc
- * functional isolation for 1600Vdc
- * assume "Verschmutzungsgrad 2" and "Isolierstoffklasse 3b"
- * creepage distance: 16.0mm (table F.4)
- * design note: set creepage distance rule between net classes in PCB design
- * assumptions for clearance: 3600V (based on requirements for transient overvoltage), homogenous field: 1.1mm (table F.7)
- * design note: set clearances to net classes in PCB design

* take care with the mounting points: The spacing around them (6.05mm) is designed for a working voltage of 605Vdc at "Verschmutzungsgrad 2" and "Isolierstoffklasse 3b" or a working voltage of 1600Vdc at a "Verschmutzungsgrad 1" and "Isolierstoffklasse 3b". Consider potential connections to chassis when mounting the board and critically assess the situation.





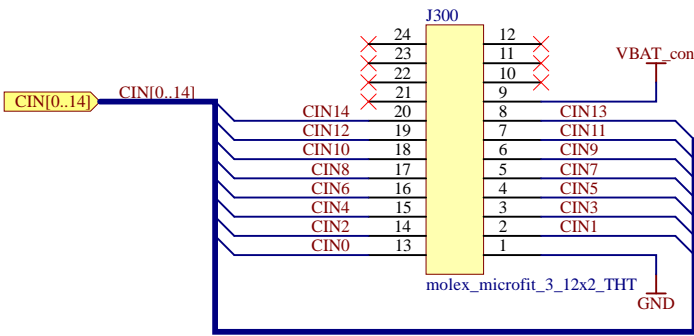




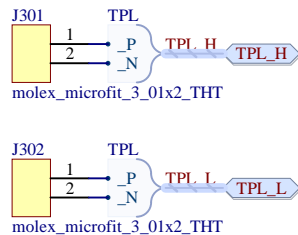
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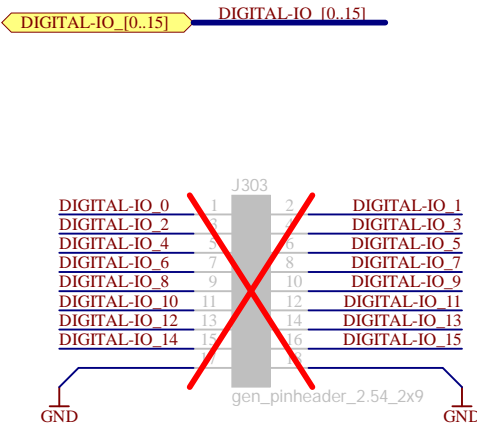
Battery cell connector



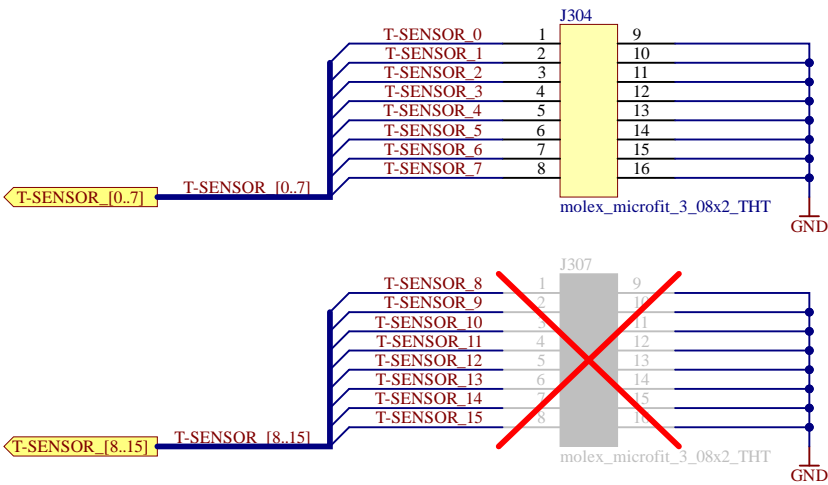
TPL communication connectors



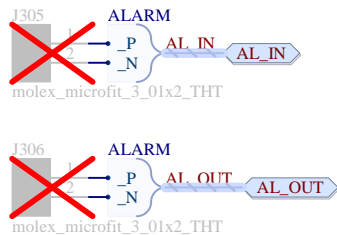
GPIO extension



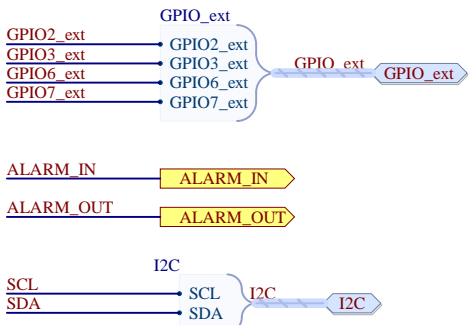
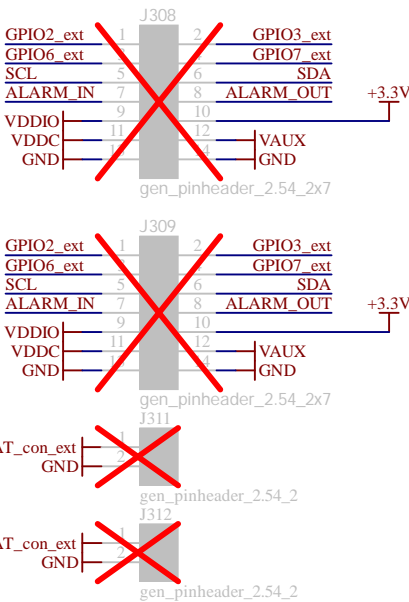
Temperature sensor connector



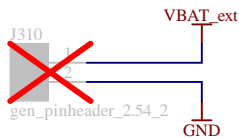
Alarm communication connectors



Extension connectors



External supply connector



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2

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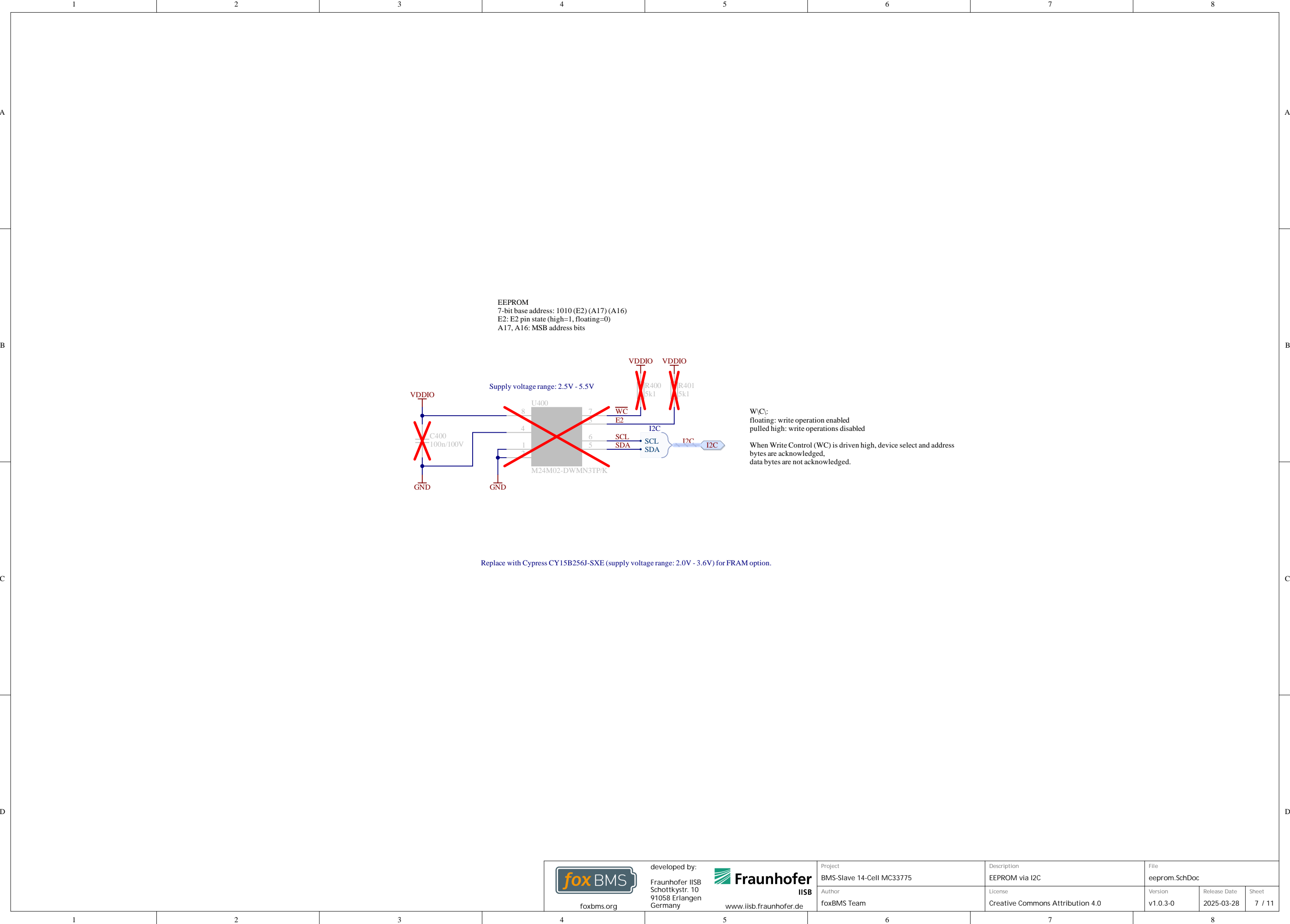
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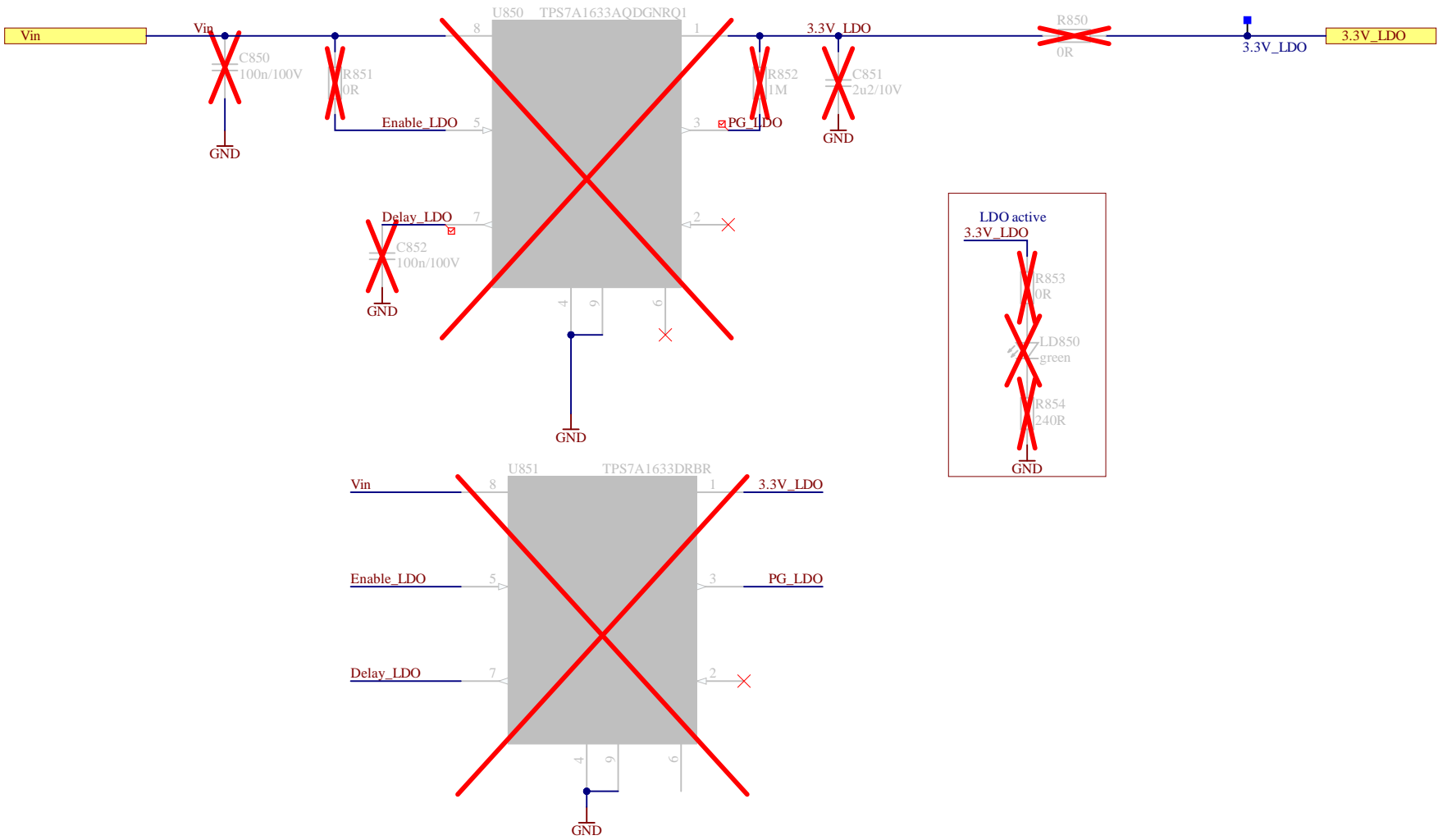
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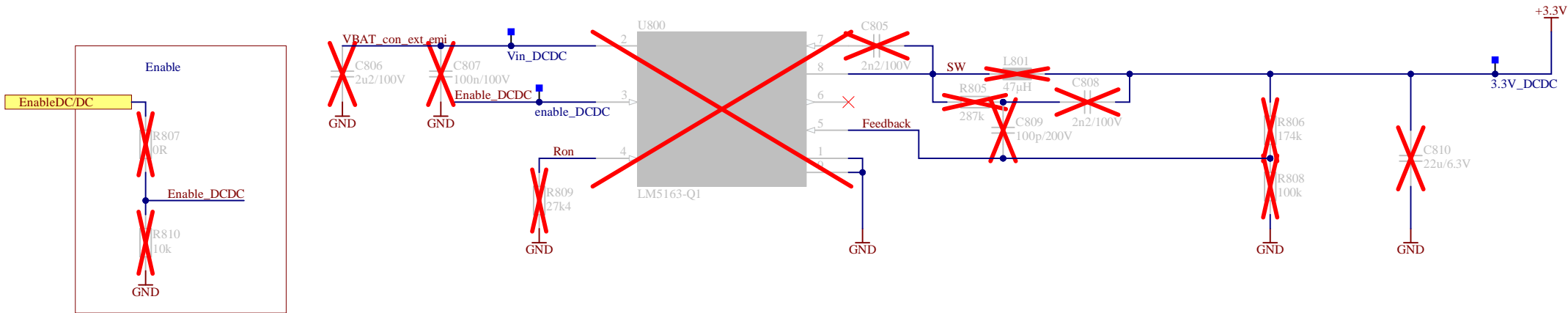
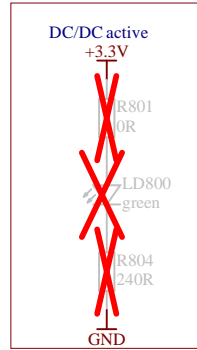
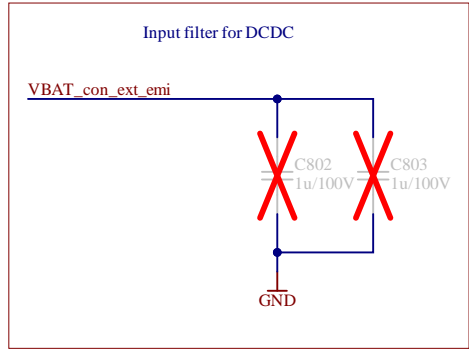
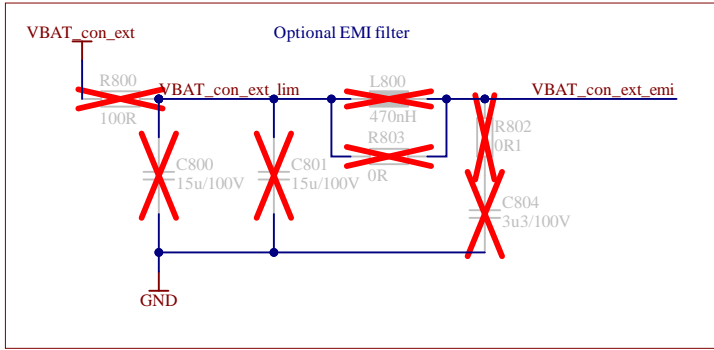
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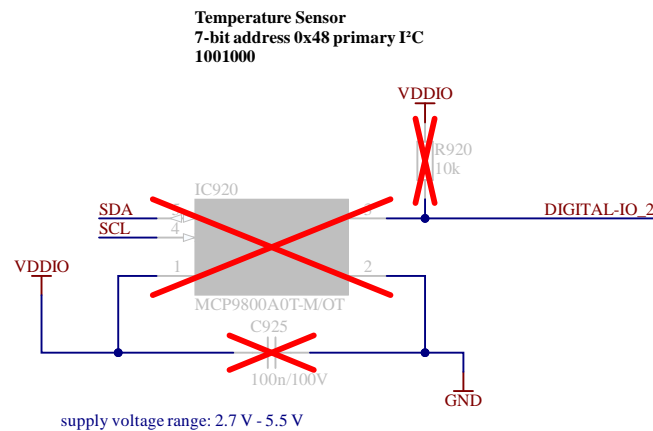
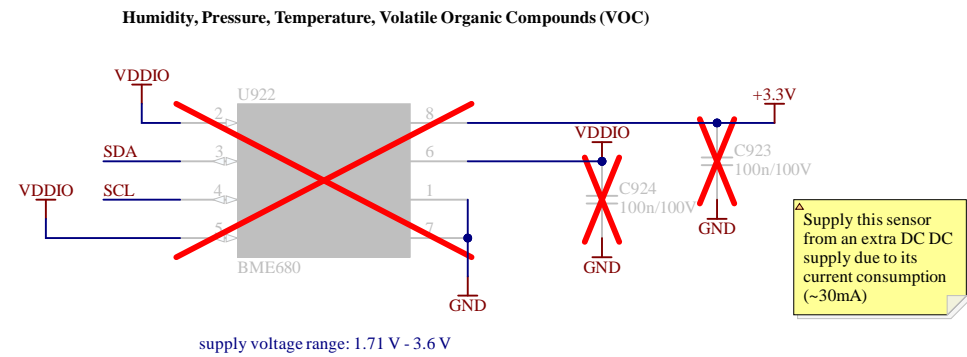
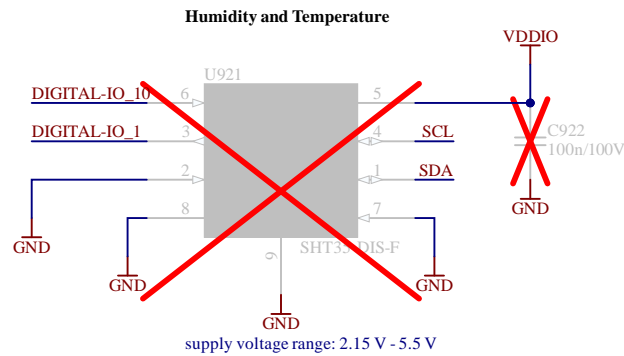
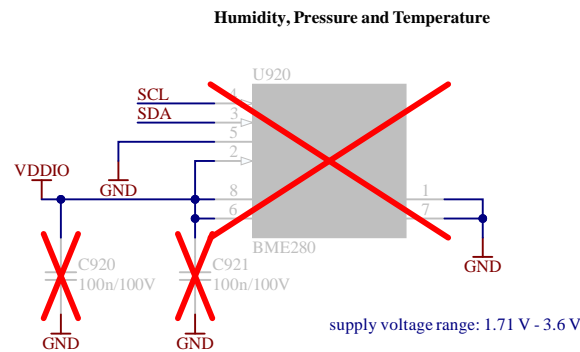
8







The DC/DC converter is used for applications where larger currents than the LDO can supply are needed.



±0.5°C (typ.) at +25°C
±1°C (max.) from -10°C to +85°C
±2°C (max.) from -10°C to +125°C
±3°C (max.) from -55°C to +125°C

Attention: use -A0T Type (I2C address conflict otherwise)!

Alert temperature can be configured via I2C

PC addresses	
Analog MUX bank0:	1001100
Analog MUX bank1:	1001101
port expander:	0100000
M24M02-A125:	101xxxx
CY15B256J-SXE:	1010xxx
SHT35:	1000100
MCP9800A0T:	1001000
BME280:	1110110
BME680:	1110111

