

[1] Cover Page

DC Motor Driver

Variant: CHECKED

2025-03-17
Rev 1.0

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TOP VIEW

BOTTOM VIEW

NOTES

DRAFT - Very early stage of schematic, ignore details.

PRELIMINARY - Close to final schematic.

CHECKED - There shouldn't be any mistakes. Contact the engineer if you find any.

RELEASED - A board with this schematic has been sent to production.

CHECKED 17 - 03 - 2025

DESIGN NOTE:
Example text for informational design notes.

DESIGN NOTE:
Example text for debug notes

DESIGN NOTE:
Example text for cautionary design notes

DESIGN NOTE:
Example text for critical design notes

LAYOUT NOTE:
Example text for critical layout guidelines.

Title:			
Page Contents:	Cover Page.SchDoc		
Drawn By:	Nagy Richard	Checked By:	Nagy Richard
Size:	A4	Number:	*
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License:			
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File: C:/Users/richa/Documents/Documents/EmbeddedCore/DC Motor Controller/Hardware/dc-motor-controller-hardware/DC Motor Contro			



[2] Block Diagram

A

U_Power Generation - Connector
Power Generation - Connector.SchDoc

U_Power Generation - Buck Converter
Power Generation - Buck Converter.SchDoc

U_Power Generation - LDO
Power Generation - LDO.SchDoc

U_Interface - Programmer
Interface - Programmer.SchDoc

U_User - User Led's
User - User Led's.SchDoc

B

U_Sensing - Voltage
Sensing - Voltage.SchDoc

U MCU - Power and I_O
MCU - Power and I_O.SchDoc

U_Motor - Motor Control
Motor - Motor Control.SchDoc

C

U_Interface - USB-C
Interface - USB-C.SchDoc

U_Sensing - Temperature
Sensing - Temperature.SchDoc

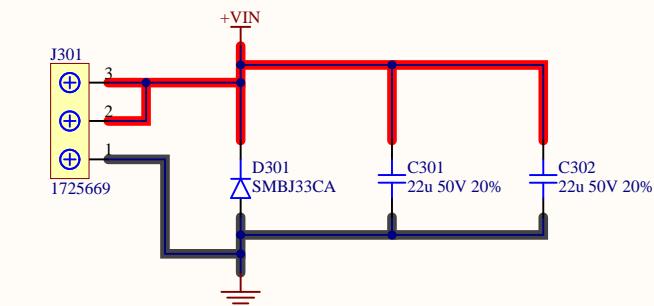
U_Interface - RS485
Interface - RS485.SchDoc

D

U_Sensing - Position
Sensing - Position.SchDoc

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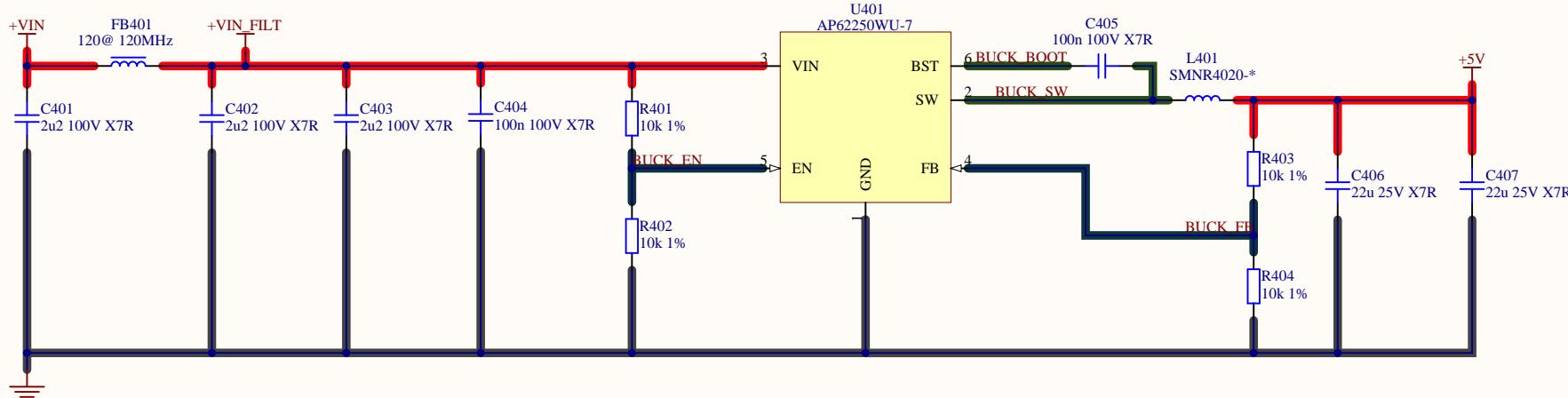
[3] Power Generation - Connector



Power Input Connector and Bulk Capacitance

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[4] Power Generation - Buck Converter

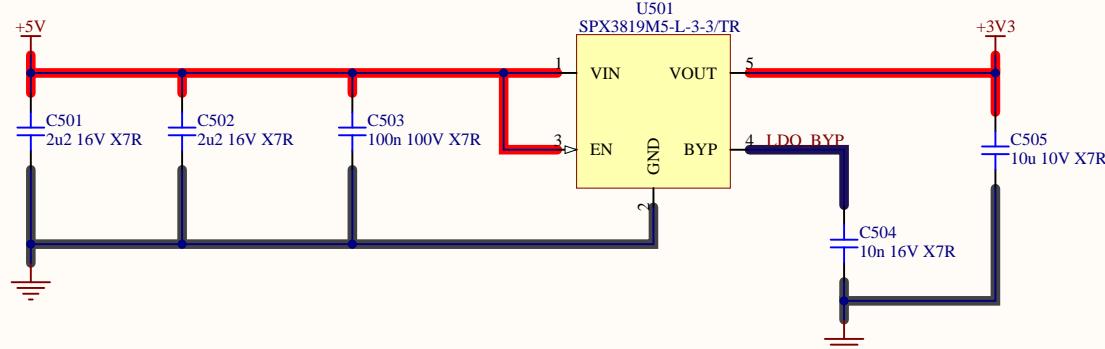


5V 1.5A 1.5MHz Buck Converter

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[4] Power Generation - LDO



Linear Voltage Regulator

Title:

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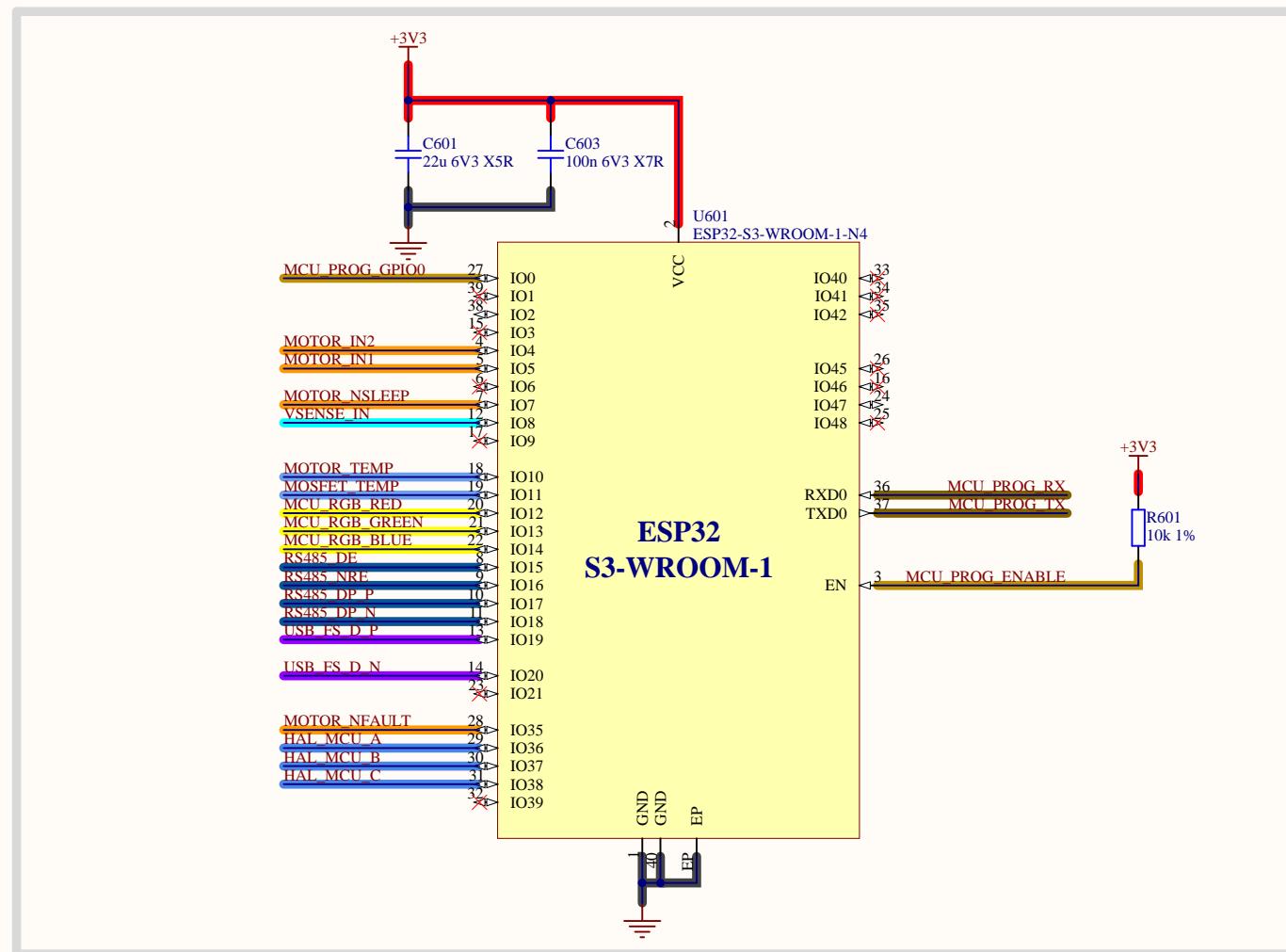
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[6] MCU - Power and I/O



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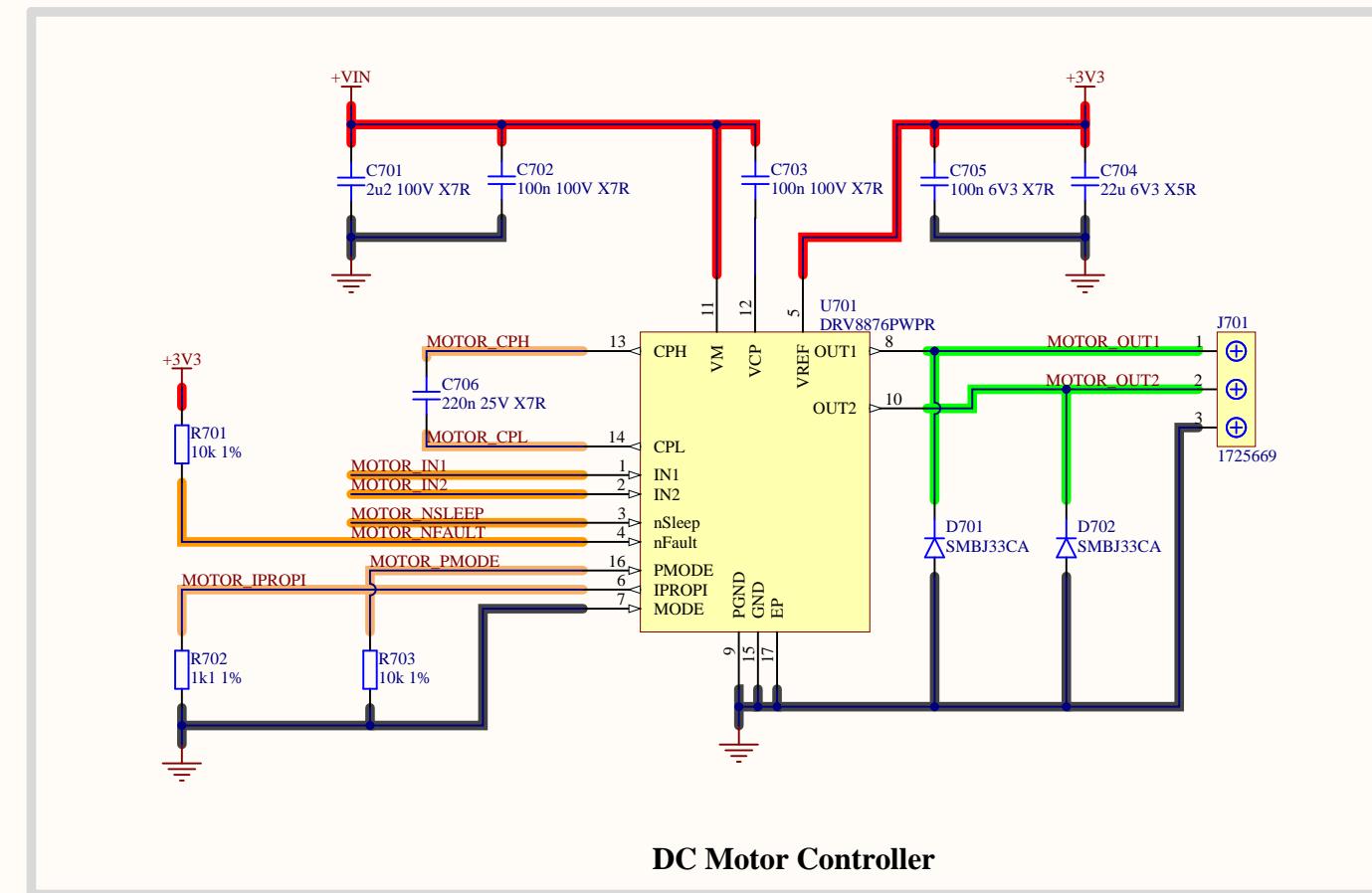
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[7] Motor - Motor Control



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[8] Sensing - Voltage

A

A

B

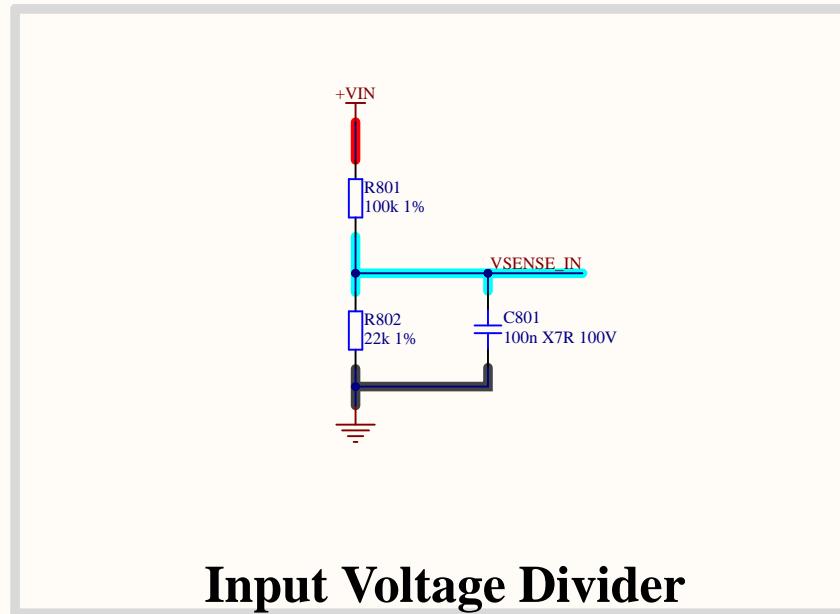
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D



Input Voltage Divider

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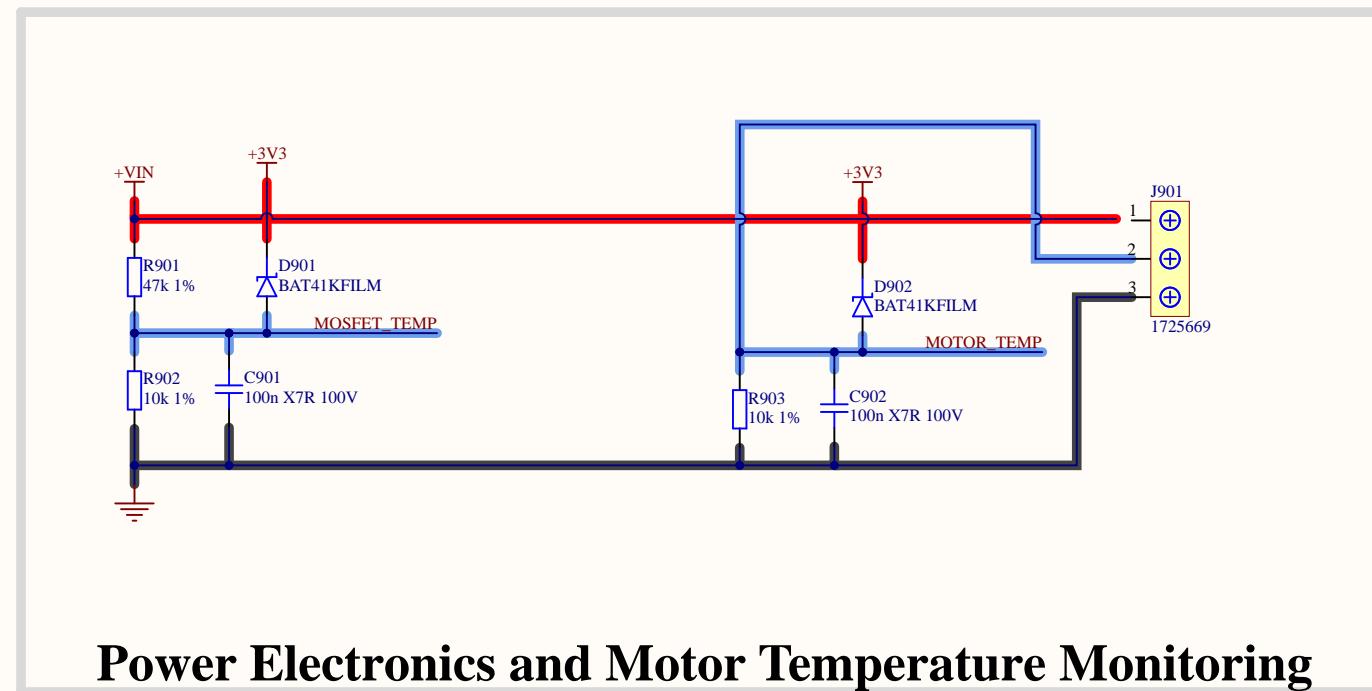
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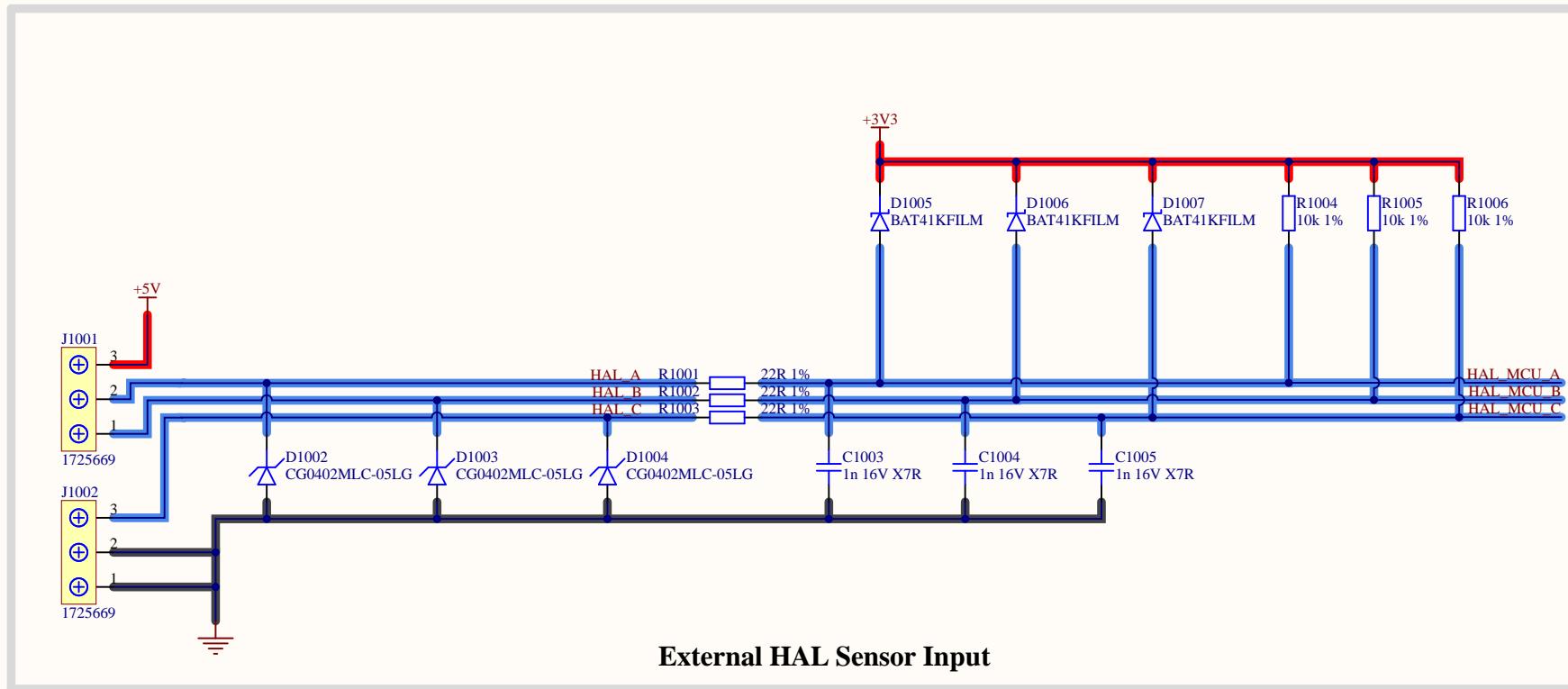
[9] Sensing - Temperature



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[10] Sensing - Position



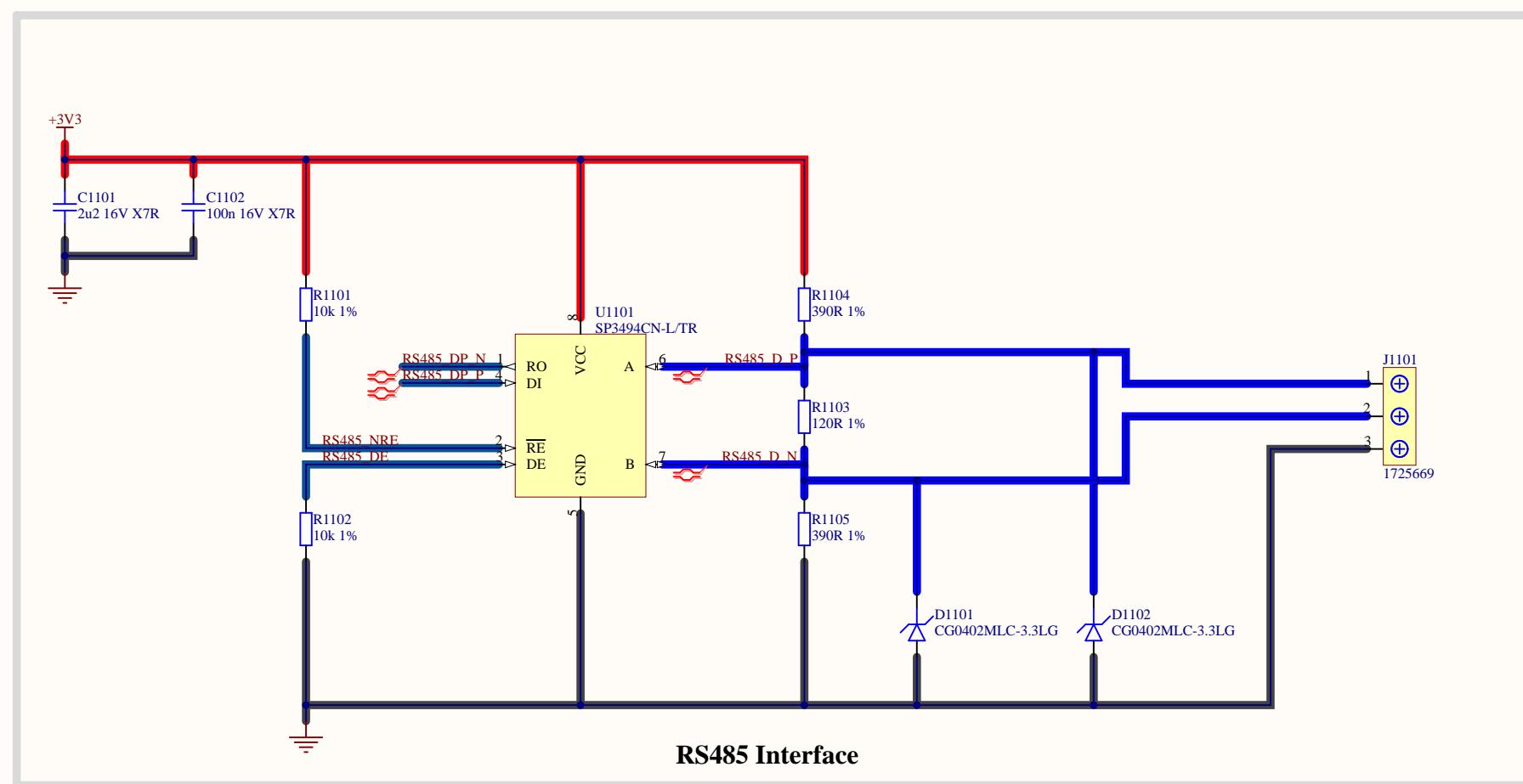
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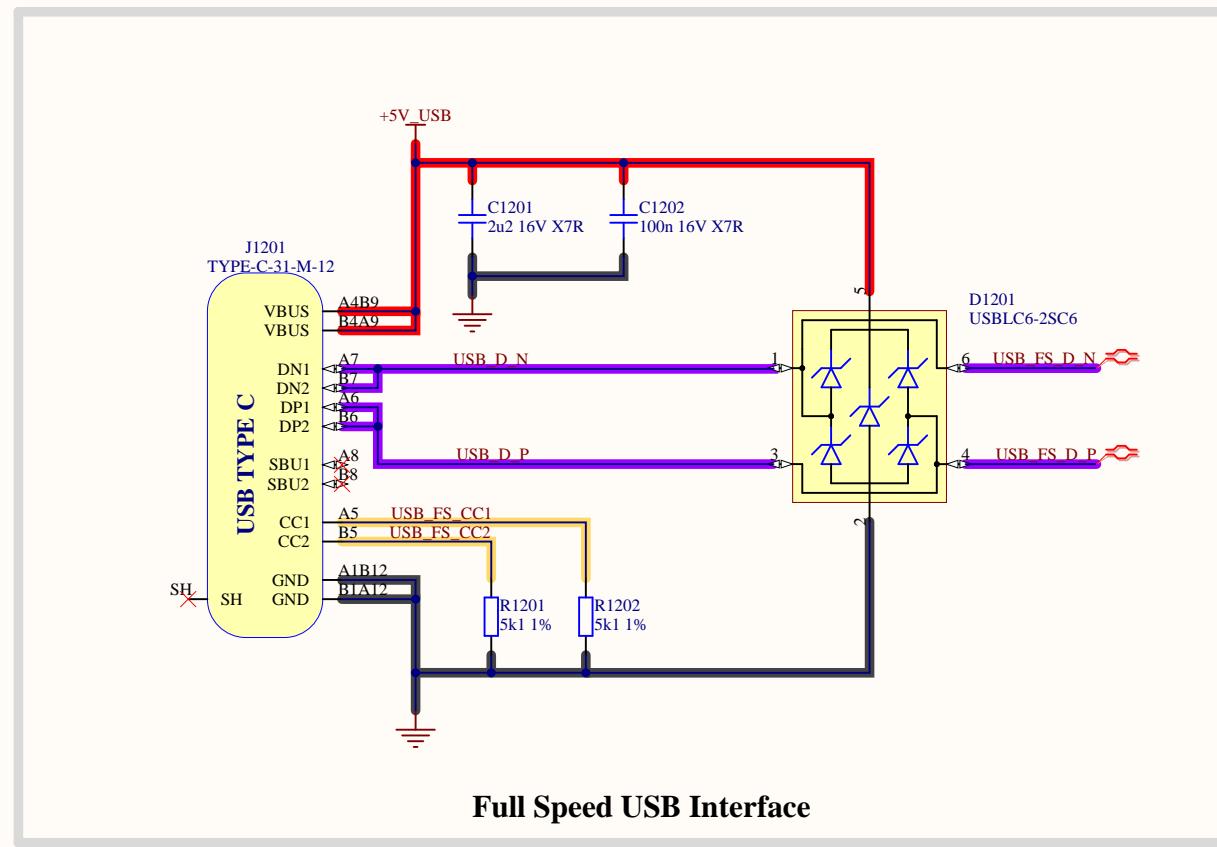
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[11] Interface - RS485



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[12] Interface - USB-C



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[13] Interface - Programmer

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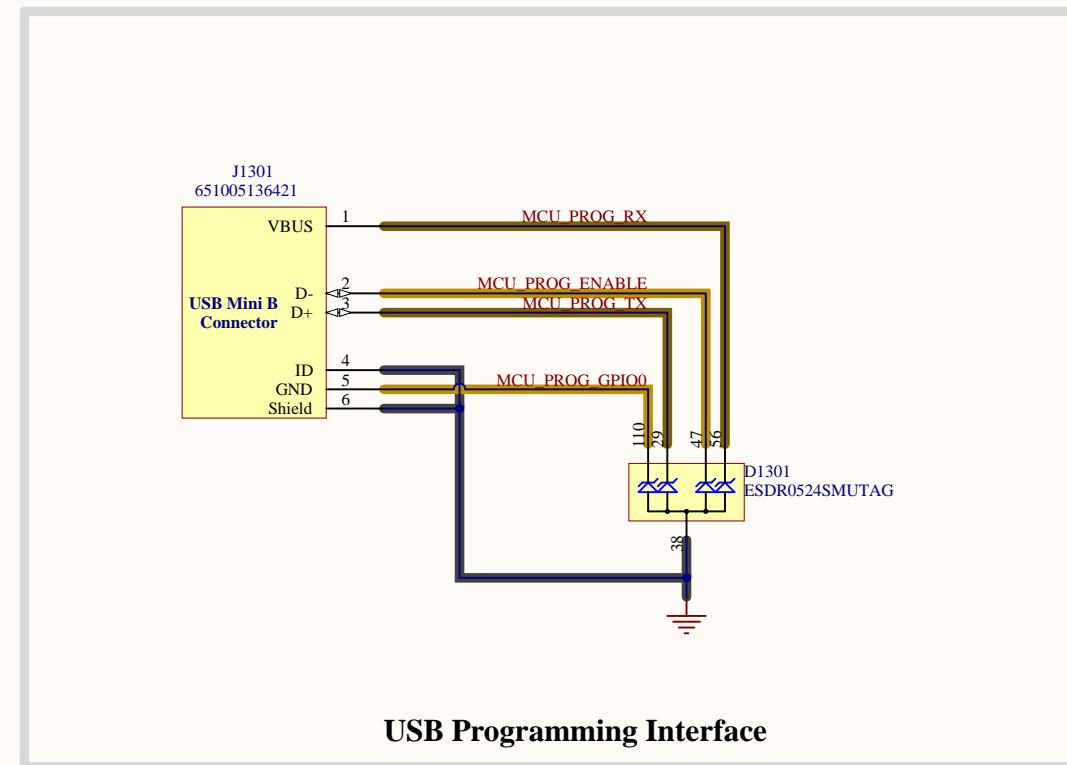
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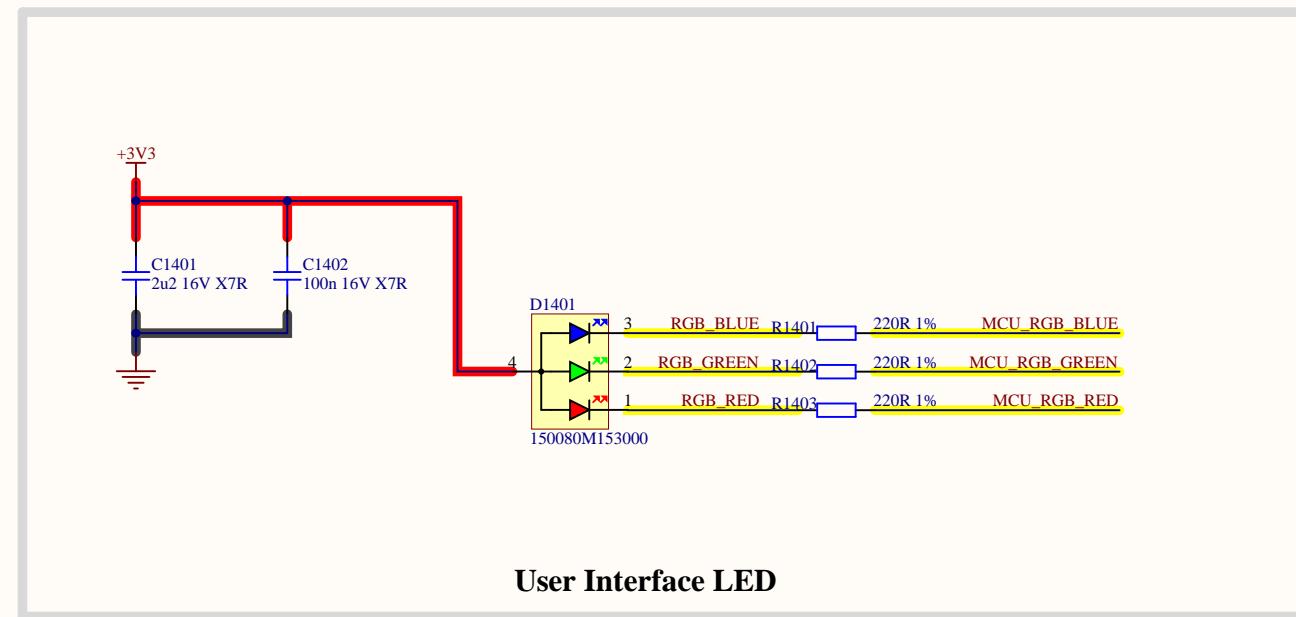
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EMBEDCORE

[13] User - User Led's



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[15] Misc - Holes, Fiducials

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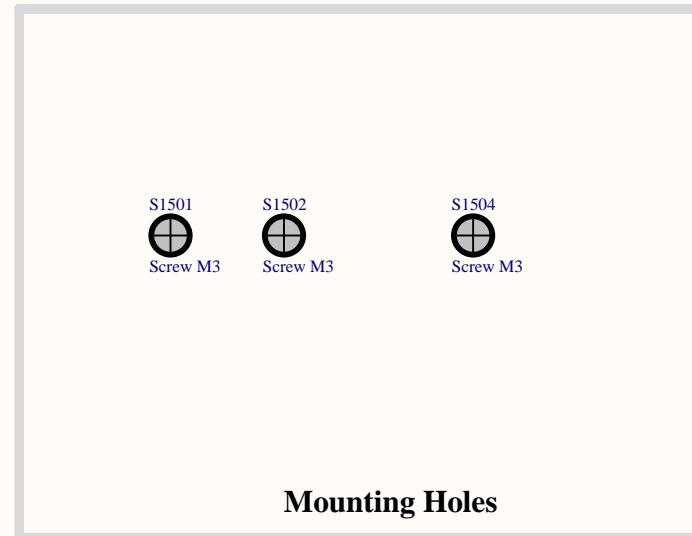
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