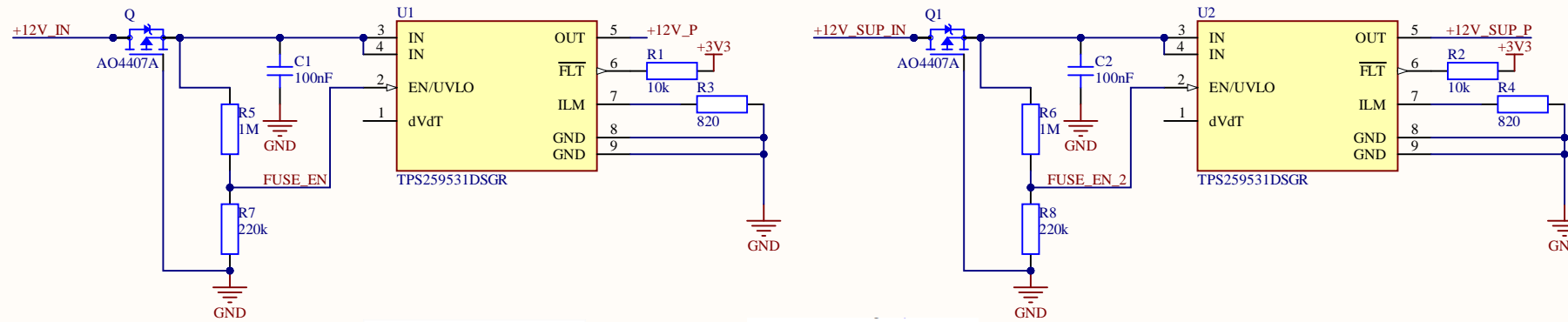


E-Fuses for 12V and 12V_SUP



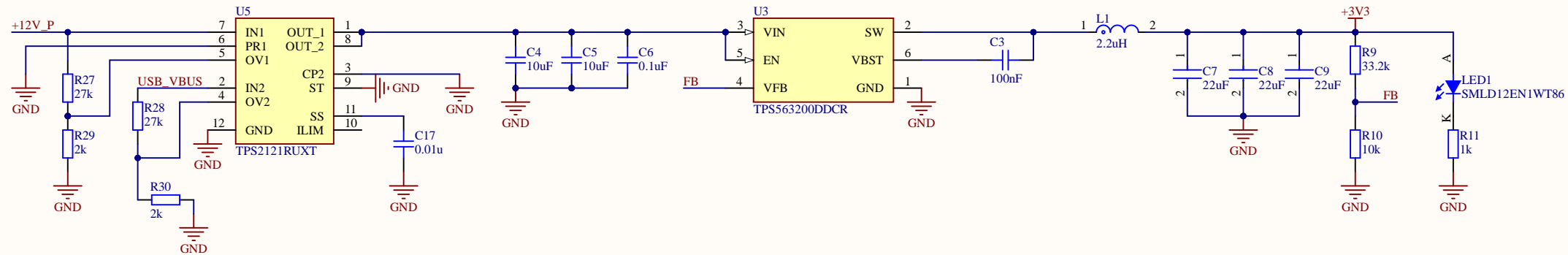
$$R_{ILM} = \frac{2000}{I_{LIMIT} - 0.04}$$

$R(\text{ILM}) = 820 \text{ ohms}$ for appoimently 2.5 Amps

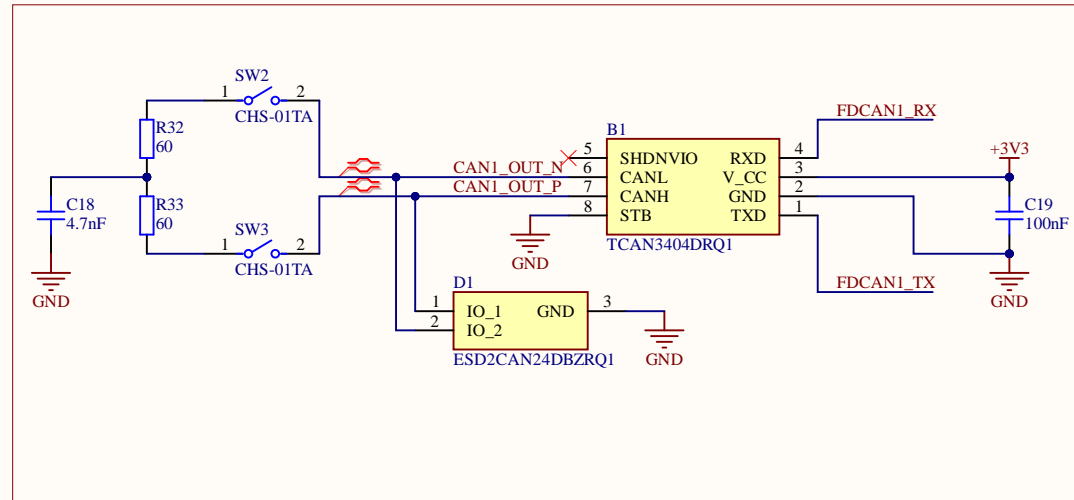
$$V_{UV} = \frac{R1+R2}{R2} \times V_{UVLO(R)}$$

Resistors Chosen $V(UV) = 6.65V$

Buck Converter (12V to 3V3) with Power Mux

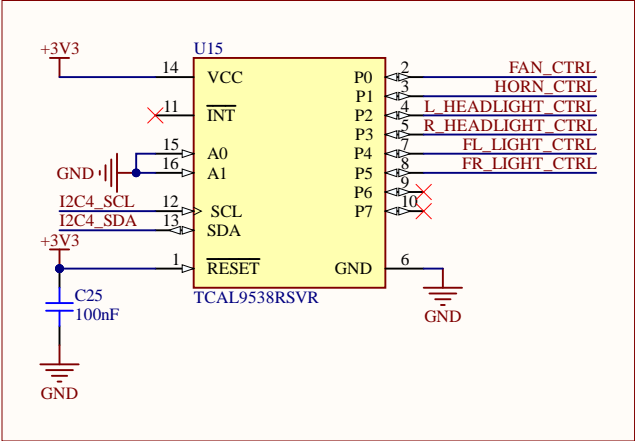


CAN FD Transceiver

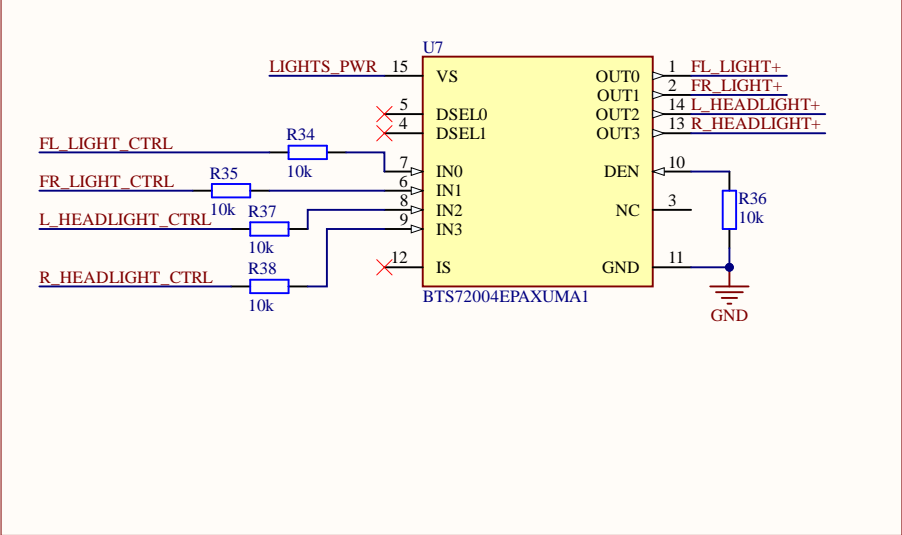


Title		
Size	Number	Revision
Letter		
Date:	11/10/2025	Sheet of
File:	CANFD.SchDoc	Drawn By:

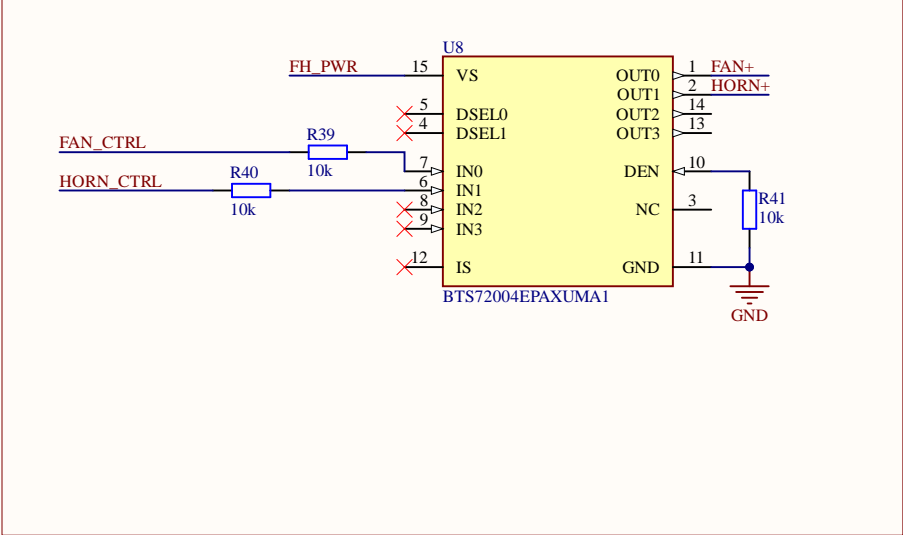
I2C GPIO Expander - Output Signals



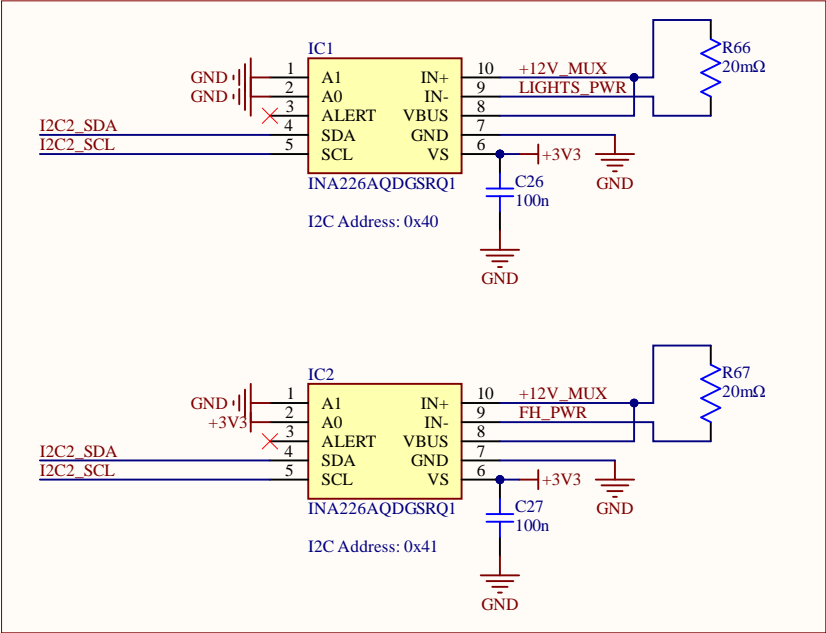
Smart High Side Switch - Lights



Smart High Side Switch - Fan and Horn



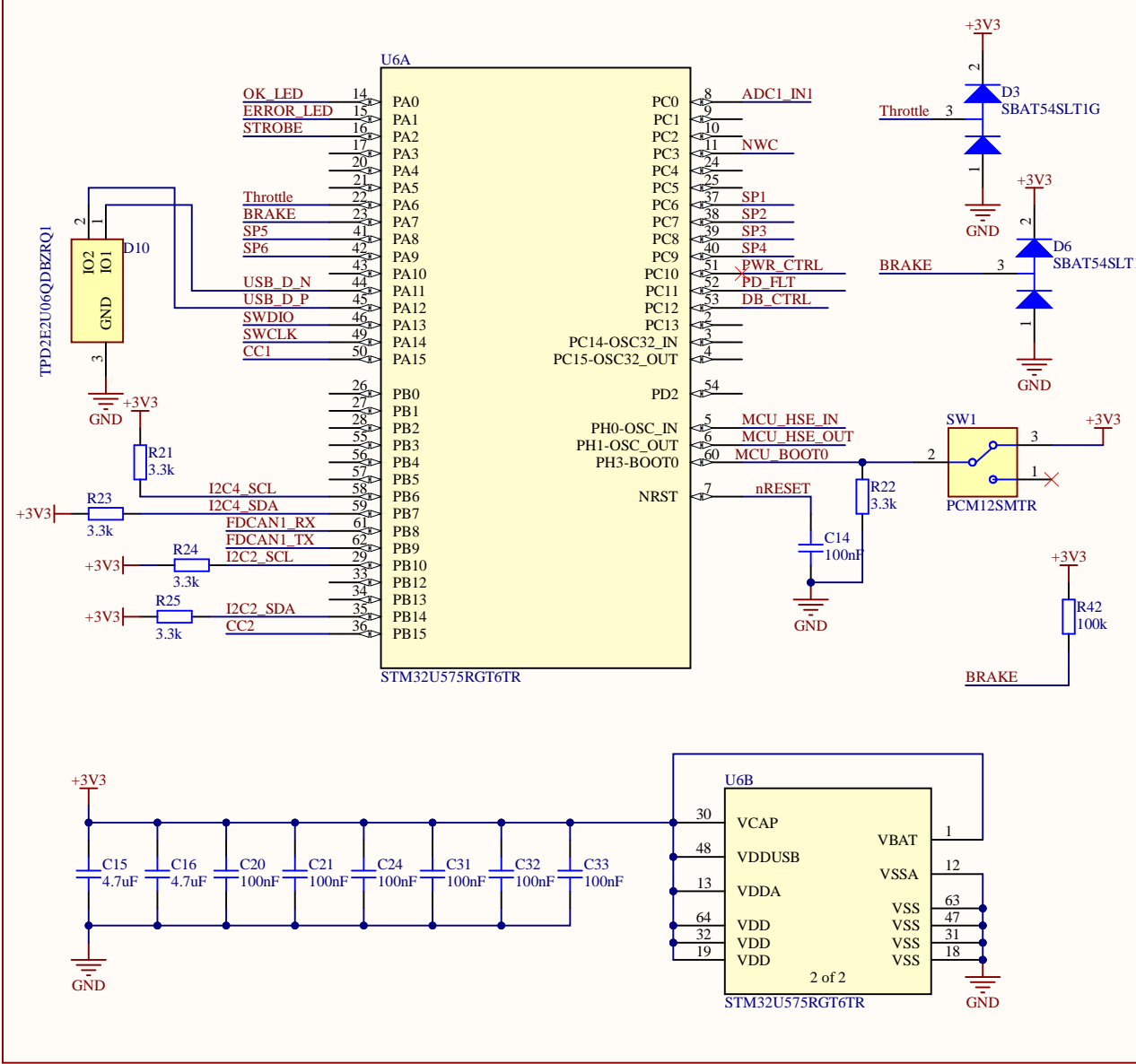
Current Sensors



Title		
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Date:	11/10/2025	Sheet of
File:	Outputs.SchDoc	Drawn By:

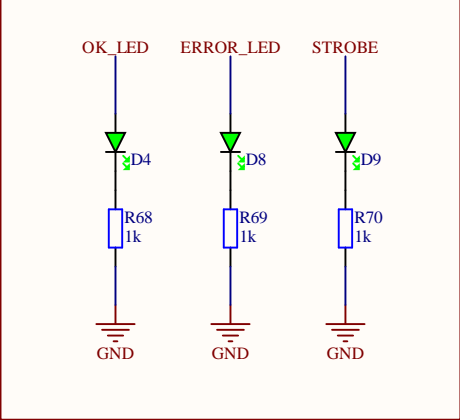
STM32U575

Assembly: 2



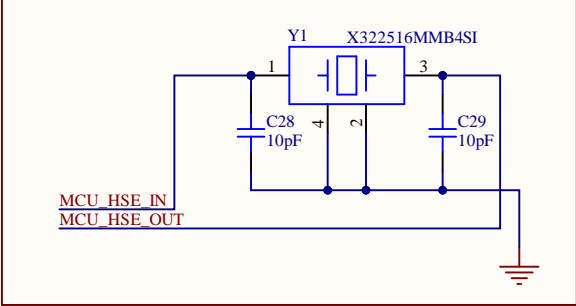
Status LEDs

Assembly: 2

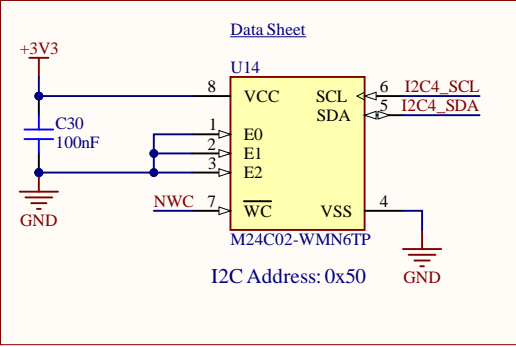


Green LED: 2mA
Red LED: 2mA

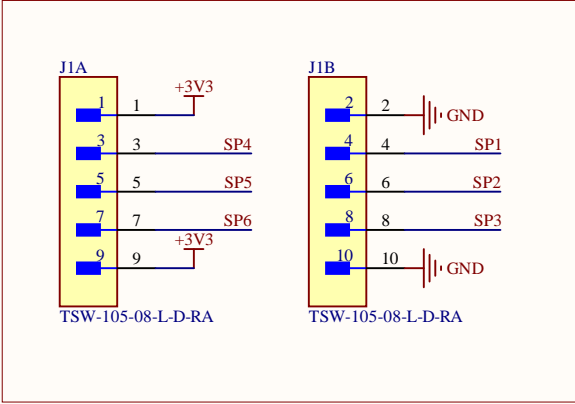
Clock



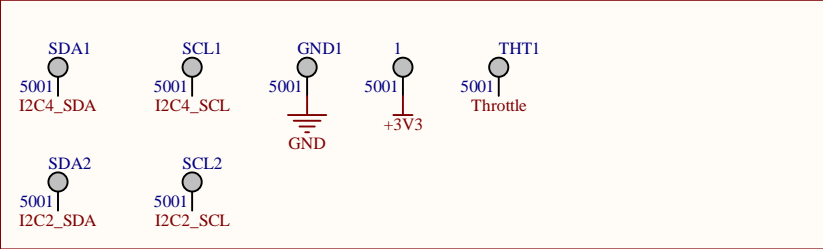
I2C EEPROM



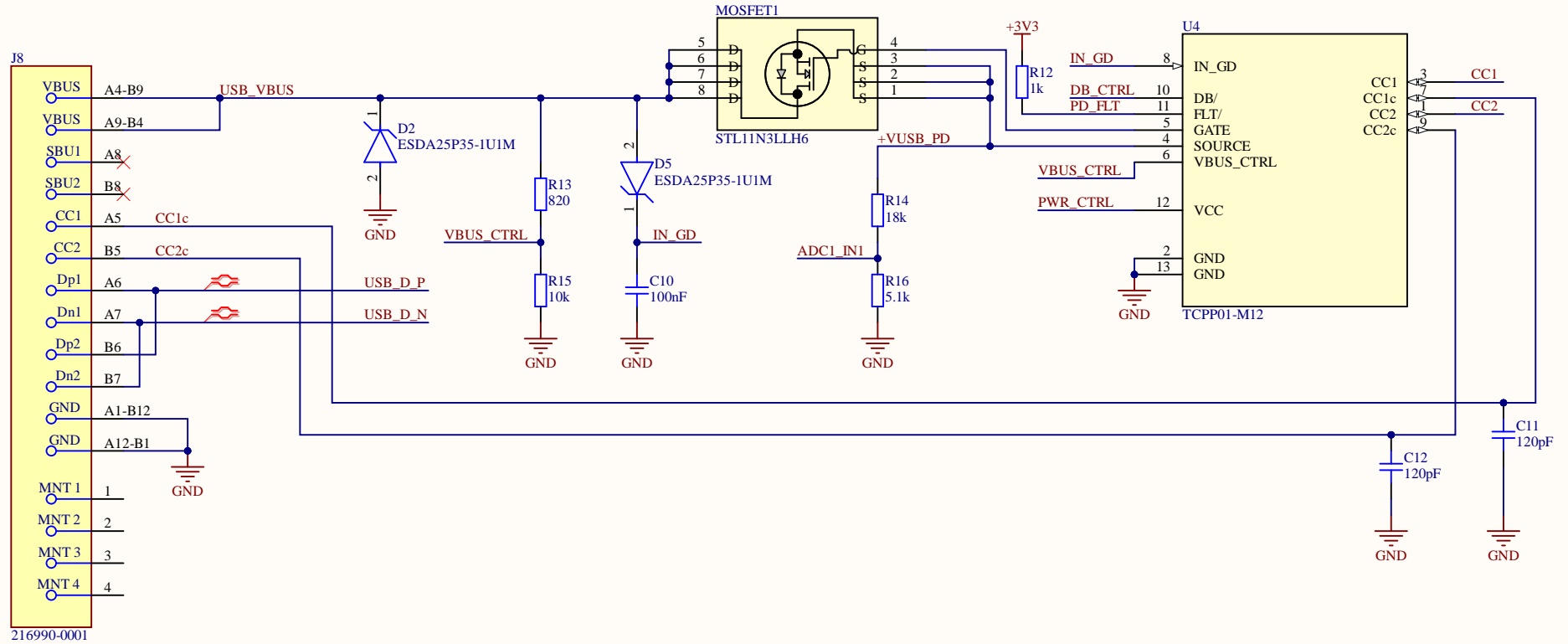
Headers - Extra MCU Pins, PWR, GND



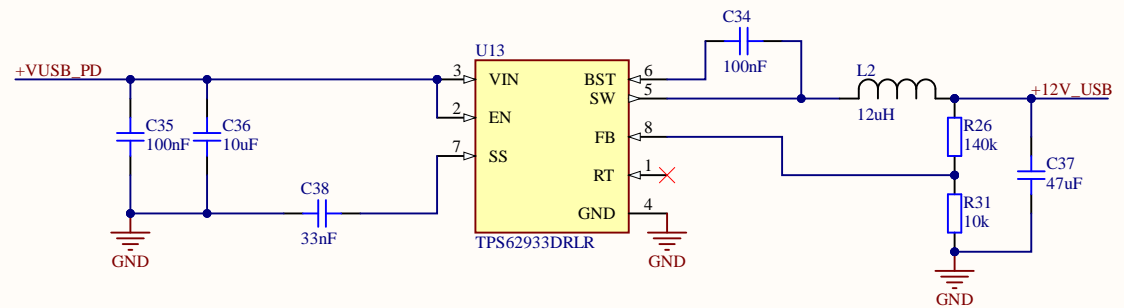
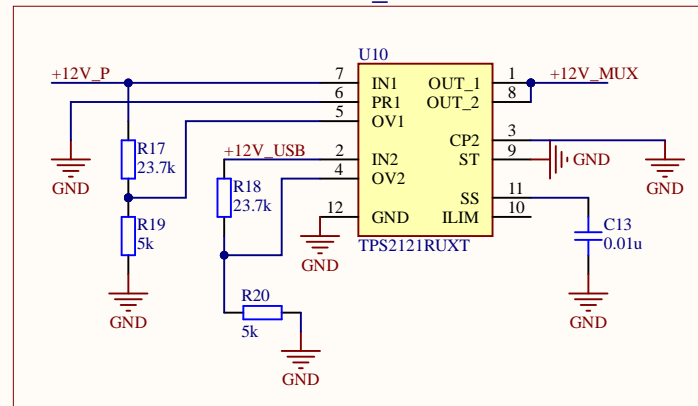
Testpoints



Title		
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File:	Core.SchDoc	Drawn By:

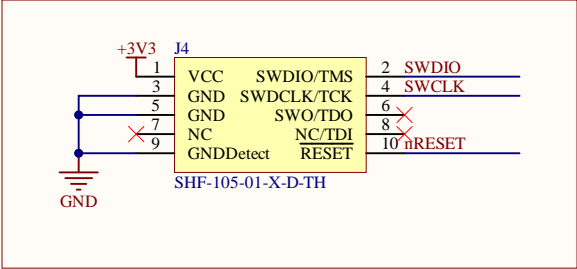


Power Mux to Generate 12V_MUX

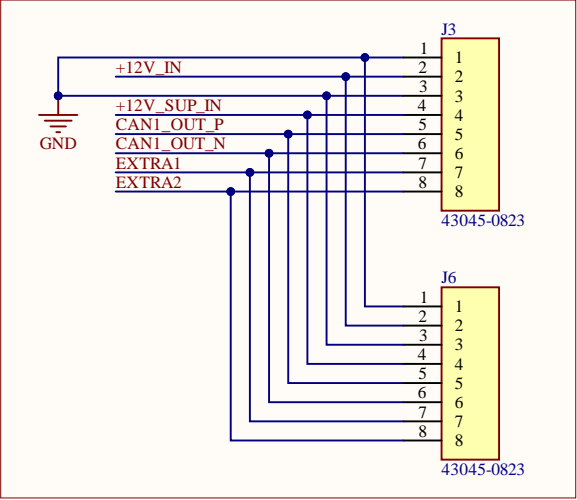


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Size	Number	Revision
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Date:	11/10/2025	Sheet of
File:	USBC.SchDoc	Drawn By:

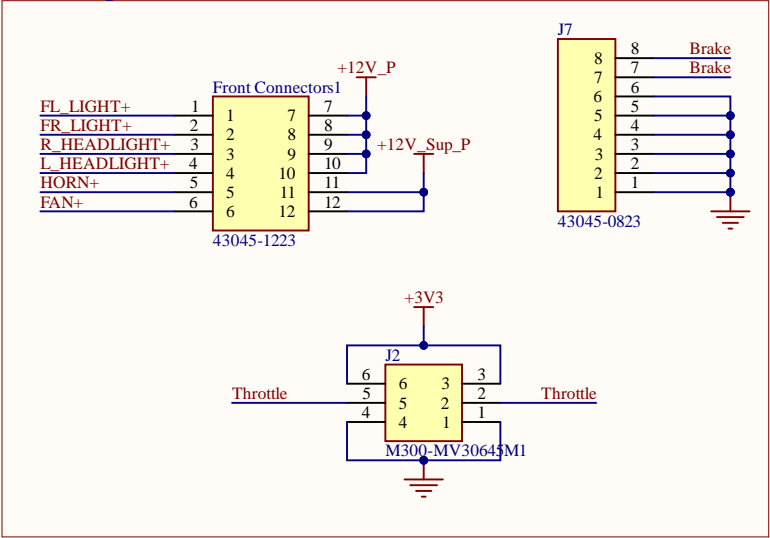
SWD



Main Bus (8-Pin)



Other Inputs



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File:	Connectors.SchDoc	Drawn By: