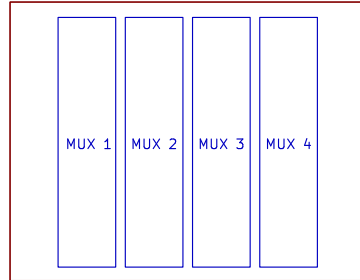


4x 16-to-1 MUX

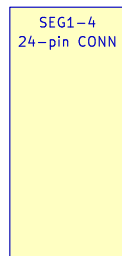


File: ETS_MUX.kicad_sch

- H1 MountingHole
- H2 MountingHole
- H3 MountingHole
- H4 MountingHole

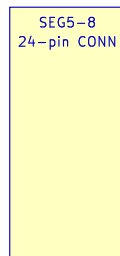
Temp_Sense_InputPullup

24-pin connector
Segment 1-4

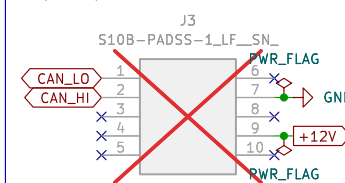


File: Temp_Sense_InputPullup.kicad_sch

24-pin connector
Segment 5-8

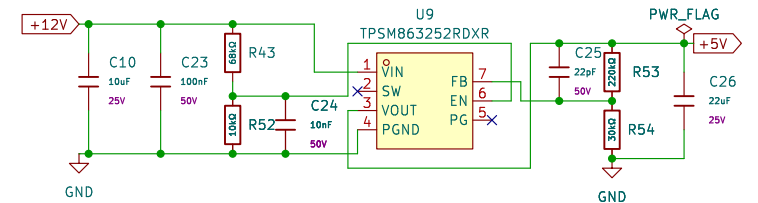


10-pin connector
CAN, +12V, GND



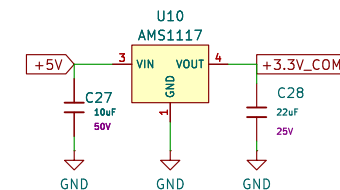
12-5V Buck Converter (5V 3A)

Floating is enabled



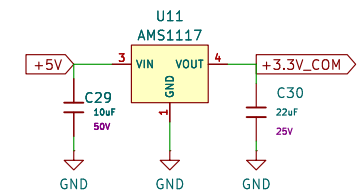
<https://webench.ti.com/appinfo/webench/scripts/SDP.cgi?ID=42ADA5B9F8D04CC0>

3.3V LDO



+3.3V for STM32F103C8

3.3V LDO

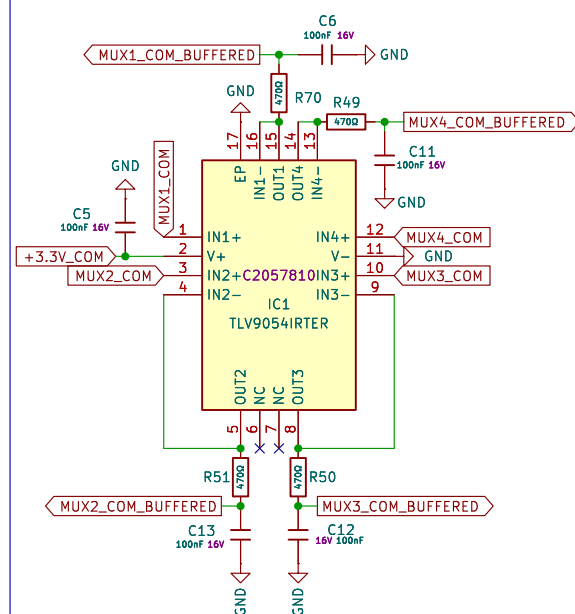


+3.3V for 40x Enepaq Temp Sensor (ETS)

Current draw for +3.3V_COM (Worst Case): ~350mA
STM32F103C8: 150mA (datasheet)
CAN Transceiver: 180mA
Quad Op-Amp: ~15mA (estimated sum)
MUX: 0.002mA x4 = 0.008mA (negligible)

Current draw for +3.3V_ET (Worst Case): 600mA
Pull-up resistors: 15mA * 40 connectors = 600mA

Quad-OpAmp Unity-Gain Buffer LPF before passing to MCU



STM32F103C8T7

STM32 MCU
Contains CAN transceiver

STM32F103C8T7

File: STM32F103C8T7.kicad_sch

Sheet: /
File: Enepaq_TempSensor_Board.kicad_sch

Title:

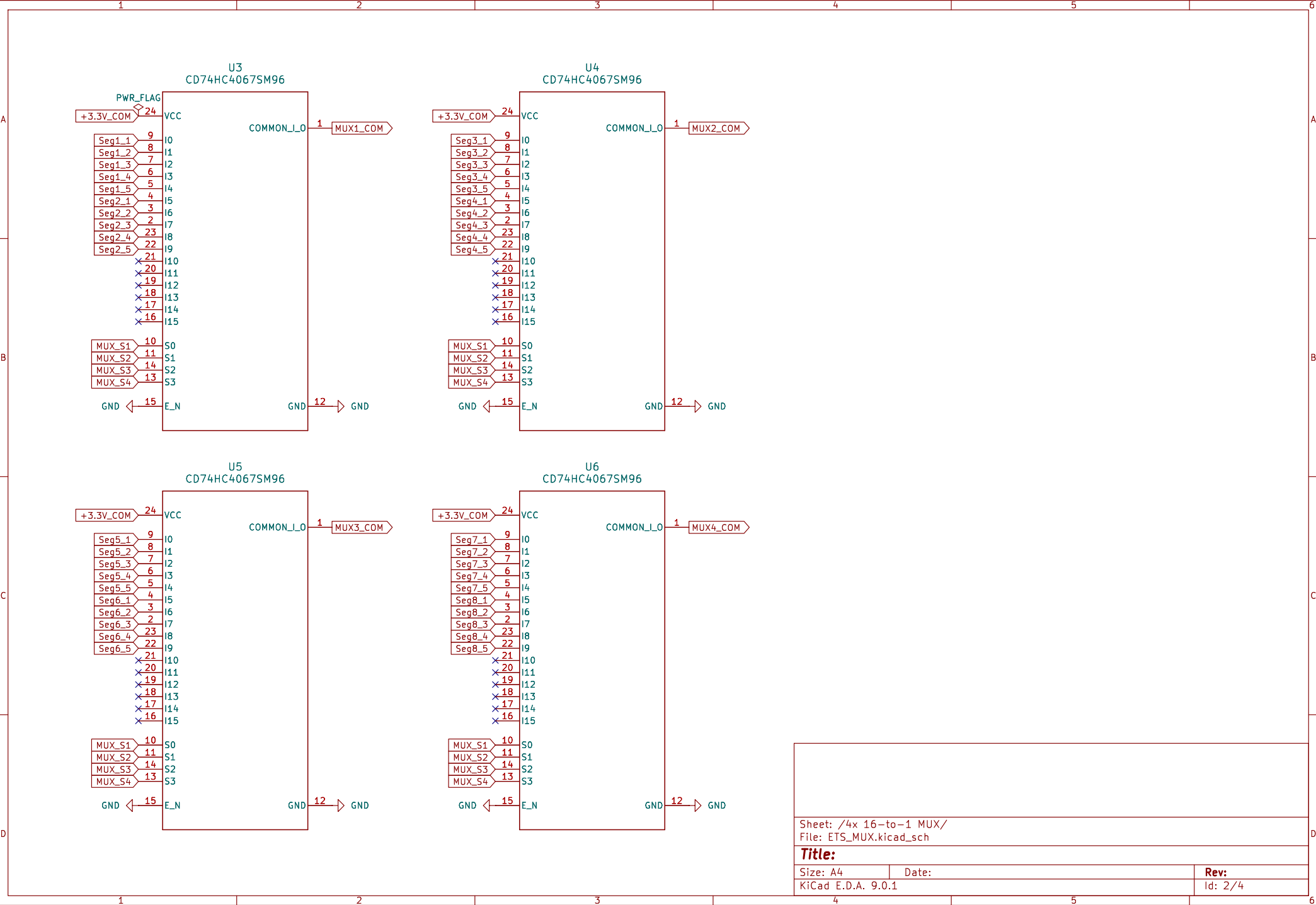
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Date:

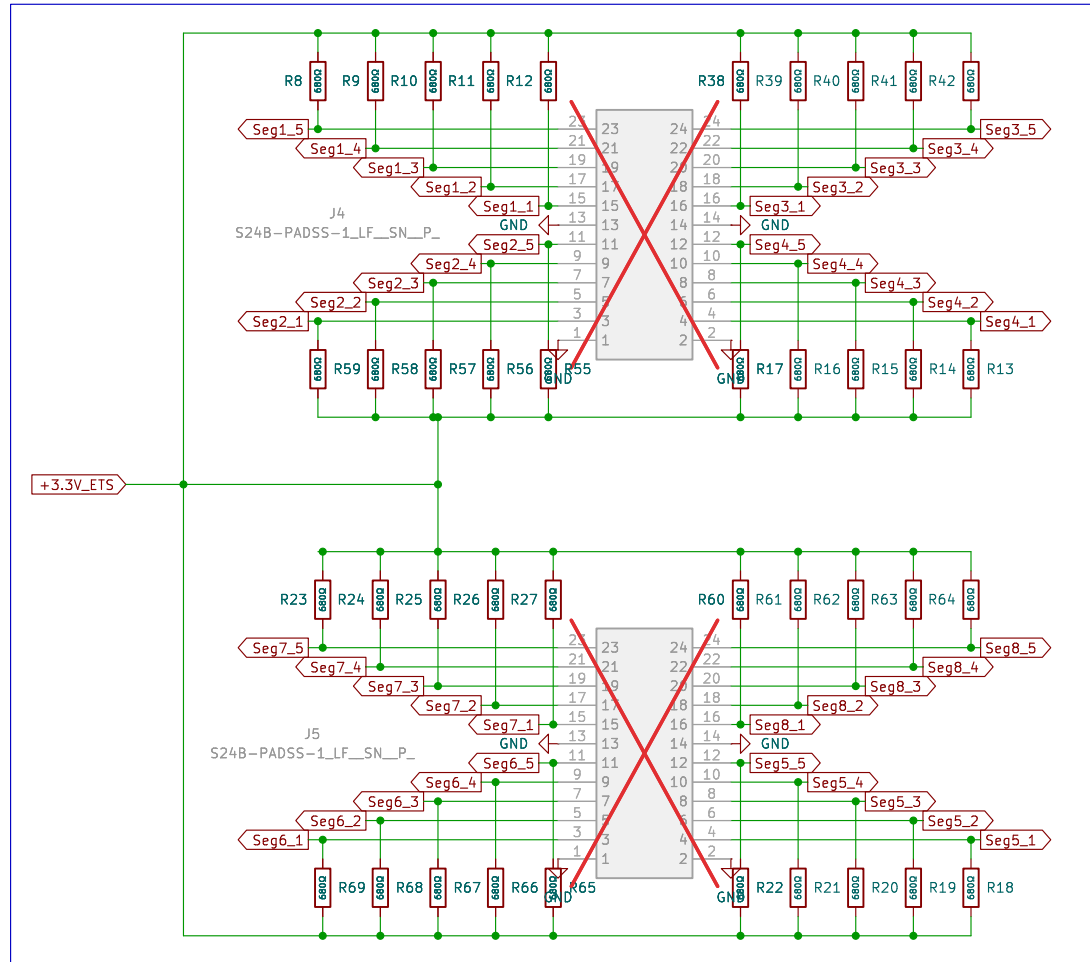
KiCad E.D.A. 9.0.1

Rev:

Id: 1/4



S24B-PADSS-1, 24-pin connectors
 Configured to SCFE2025 Thermistor Expansion Module harness
 +3.3V_ETS is a separate source LDO from +3.3V_COM
 Pullup resistors to +3.3V as shown in Enepaq VTC6/18650 Datasheet
https://enepaq.com/wp-content/uploads/2025/02/Datasheet_with_VTC6_rev_D2024-10-28.pdf



Sheet: /Temp_Sense_InputPullup/
 File: Temp_Sense_InputPullup.kicad_sch

Title:

Size: A4

Date:

KiCad E.D.A. 9.0.1

Rev:

Id: 3/4

