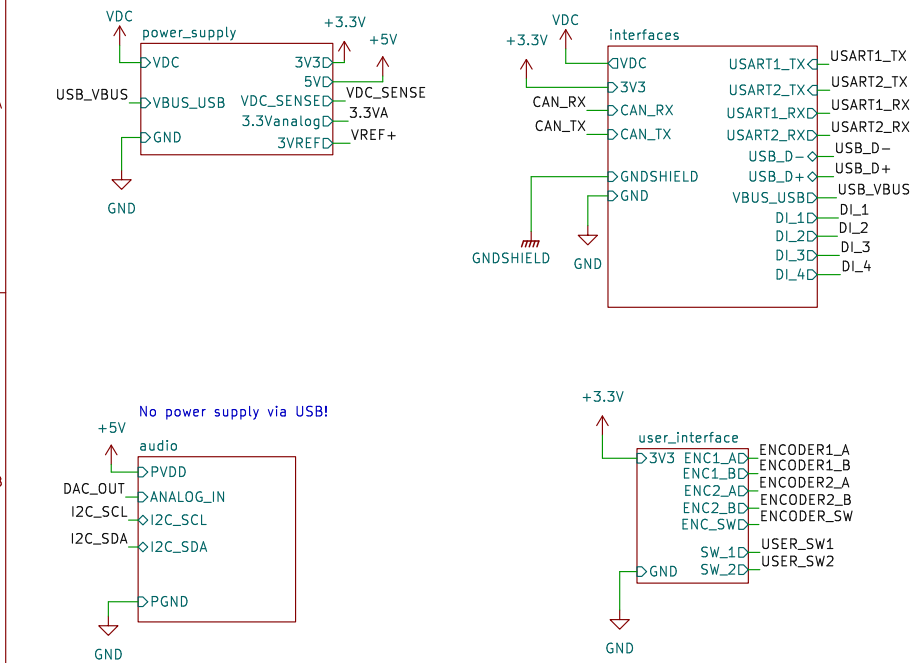
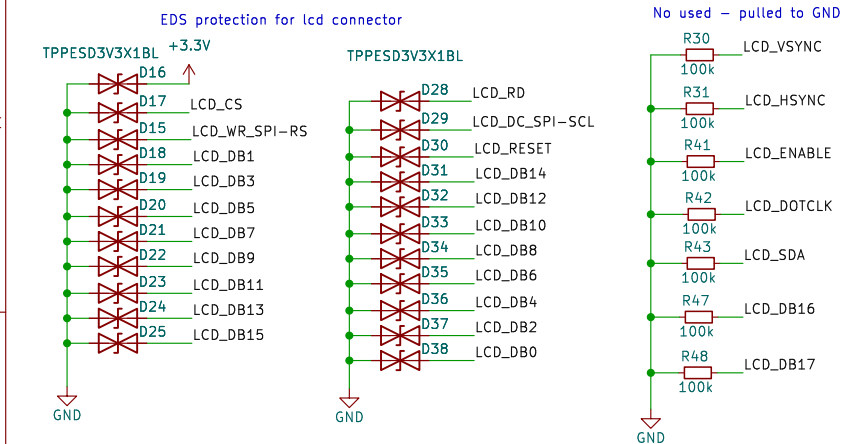
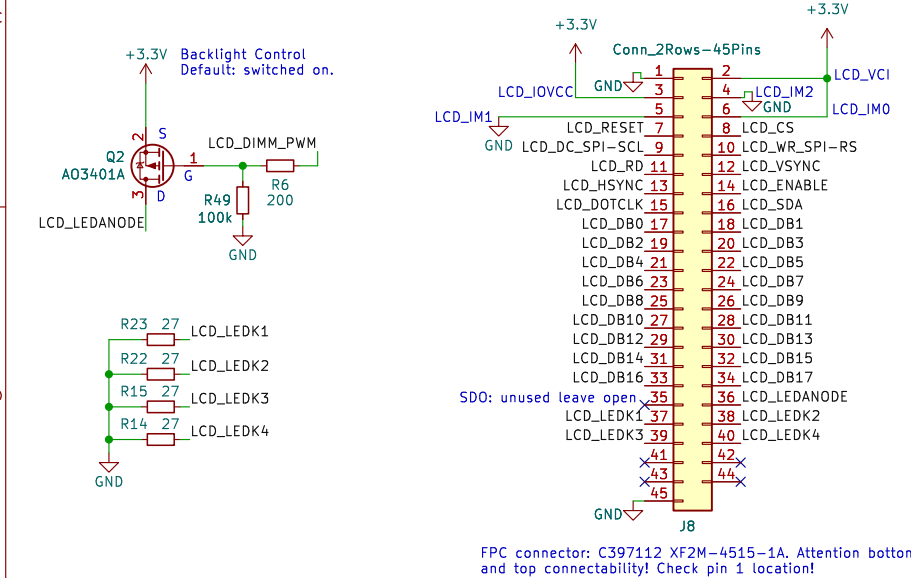


### Hierarchical sub schematic sheets

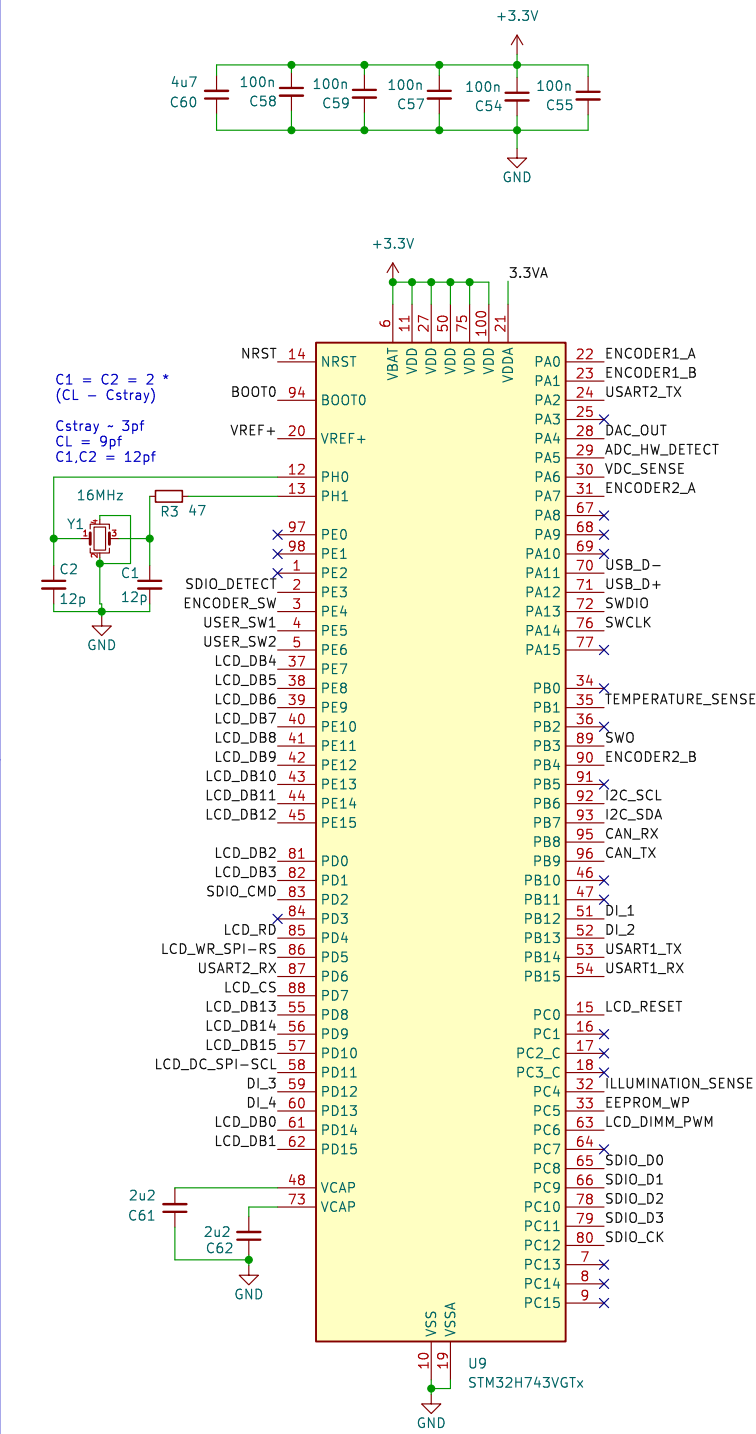


2" Transflective 45Pin FFC LCD Display Connector, Interface configuration, ESD Protection and Backlight control.

Configured to 16Bit parallel interface  
mode ST7789 Display Controller  
IM0 = 3.3V, IM1 = GND, IM2 = GND

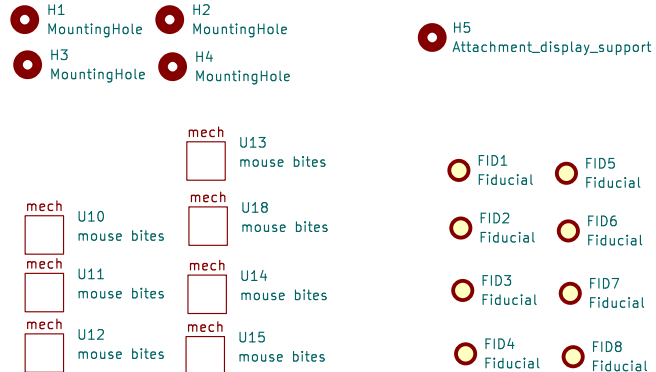


## MCU

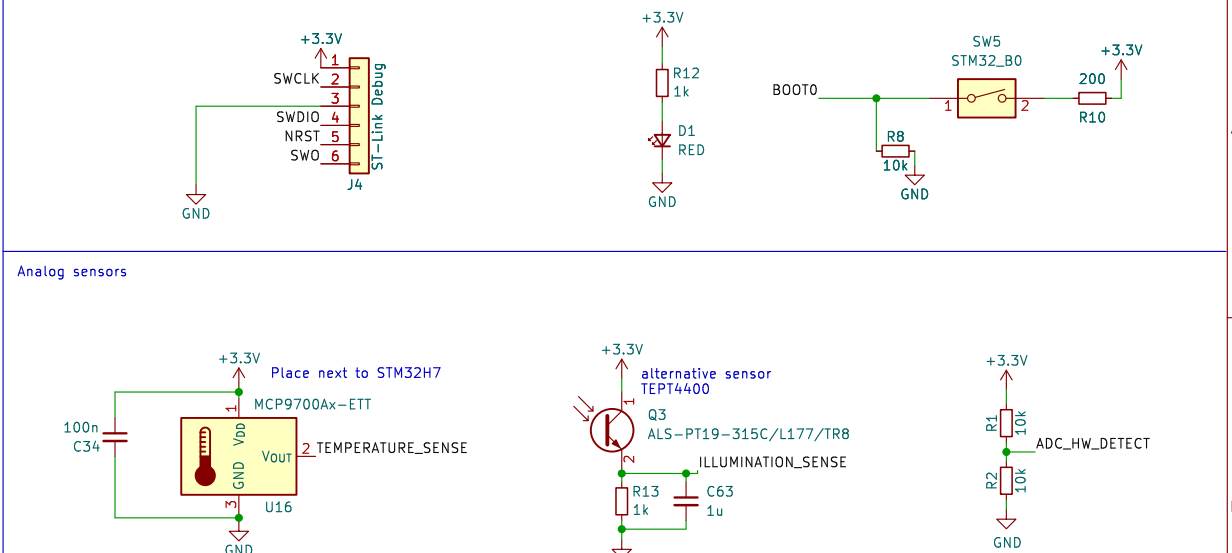


## Mechanical mounting and fabrication parts

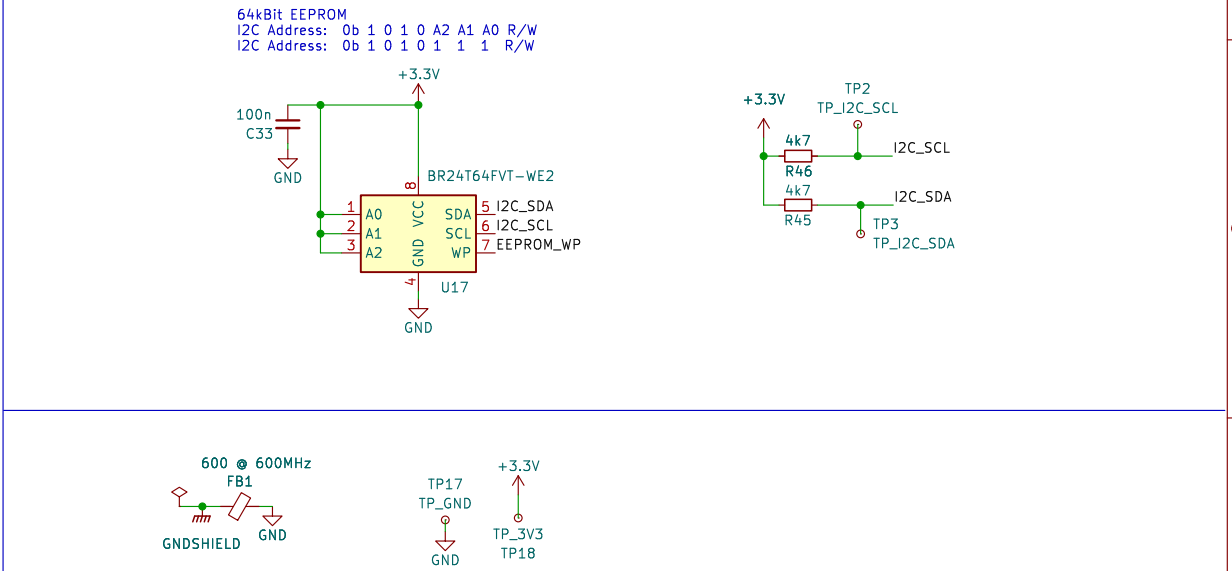
4 mounting holes with 47.4mm distance  
vertically and horizontally



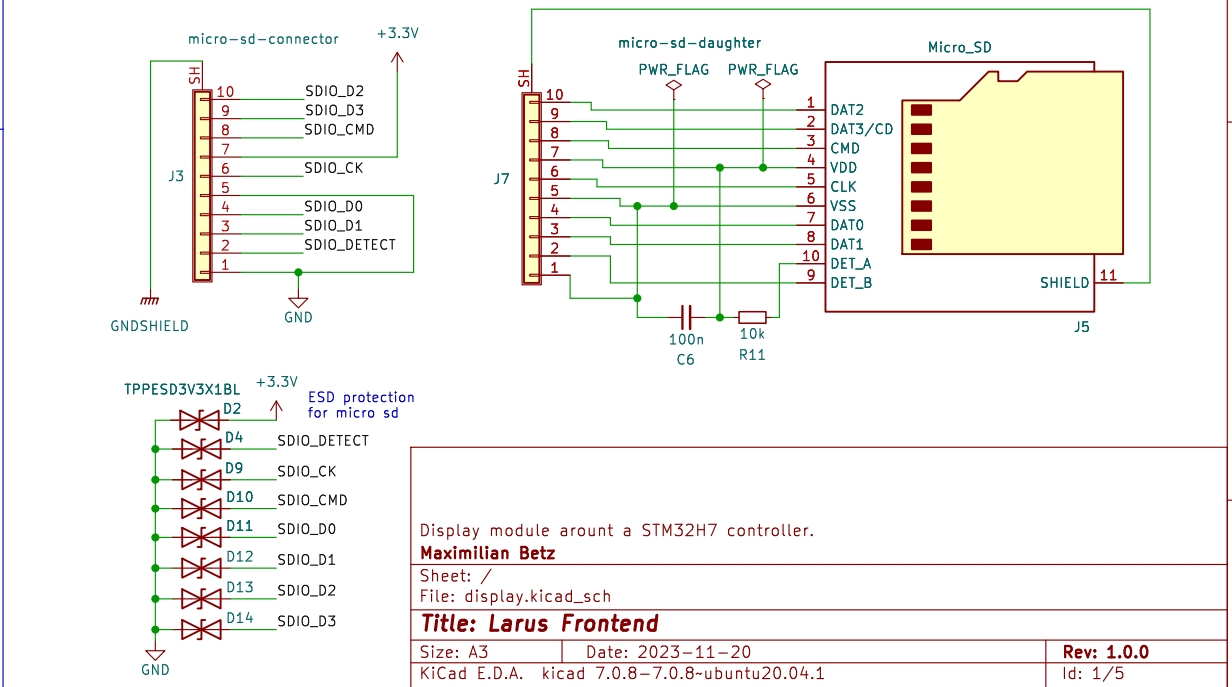
## Debug & Flash

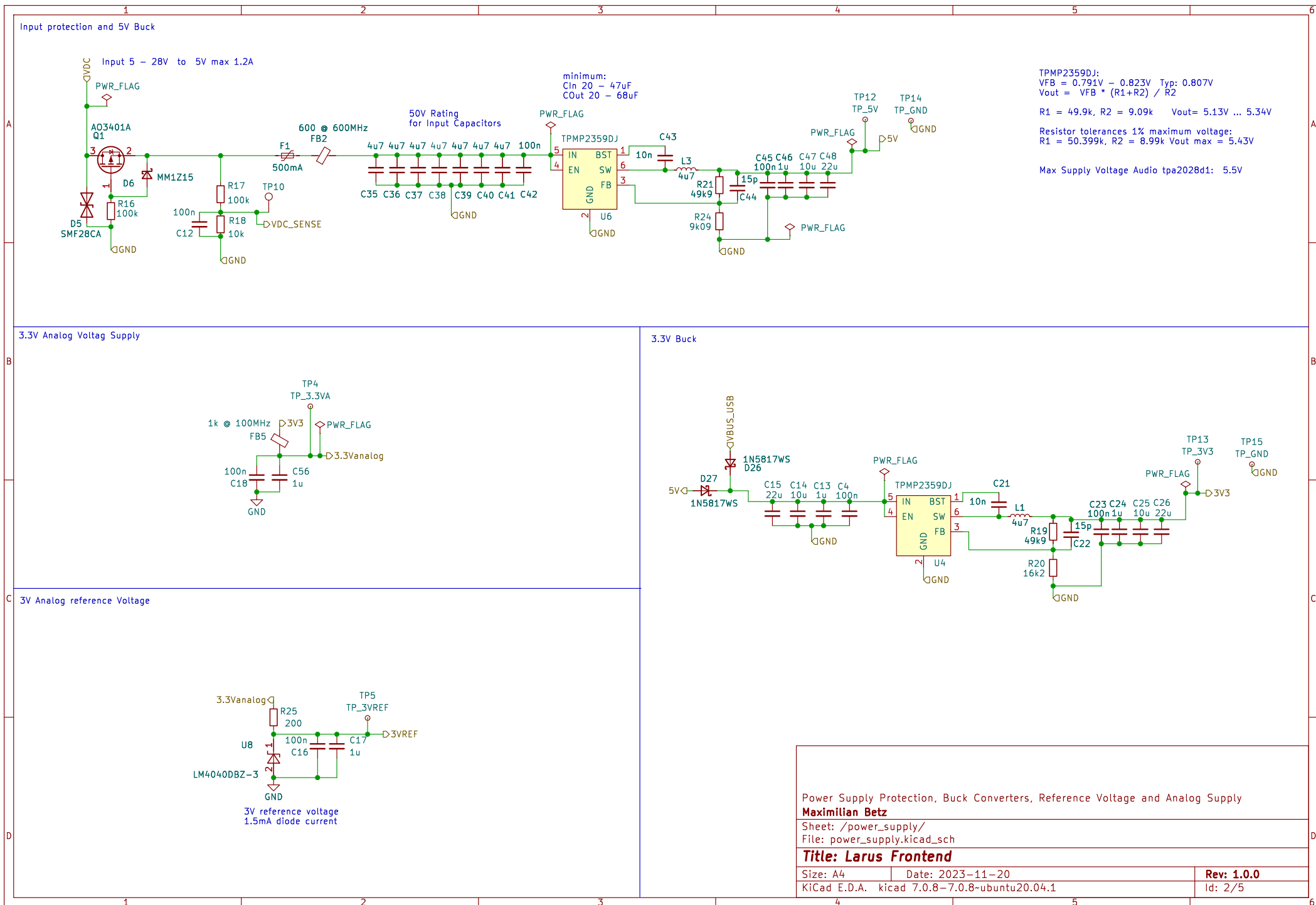


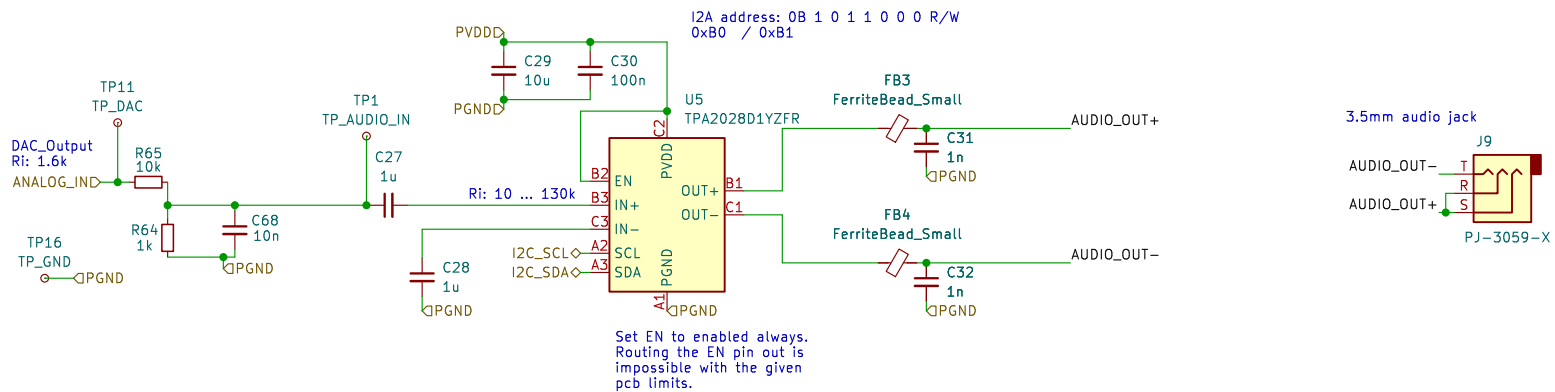
## 12C



Micro-SD on a separate "break-off" and "solder-in" pcb board including ESD protection







Audio Amplifier with Volume Control via I2C

Maximilian Betz

Sheet: /audio/

File: audio.kicad\_sch

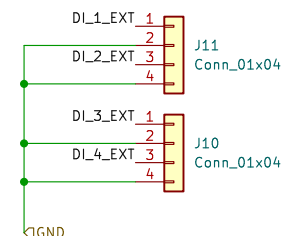
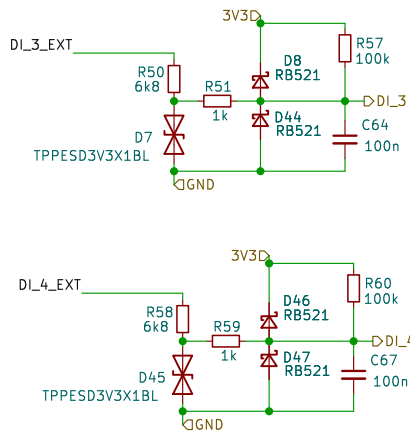
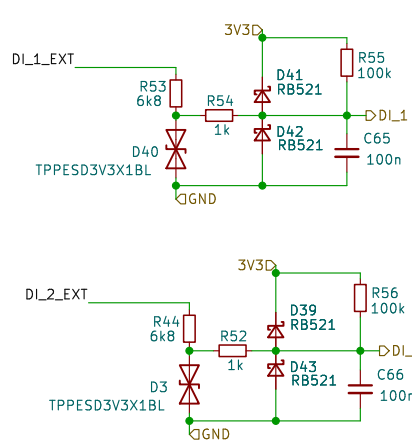
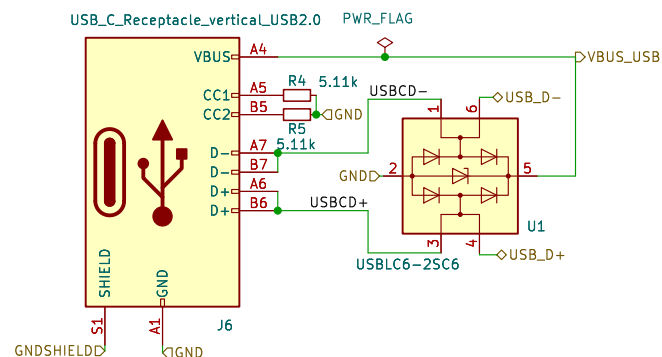
**Title: Larus Frontend**

Size: A4 Date: 2023-11-20

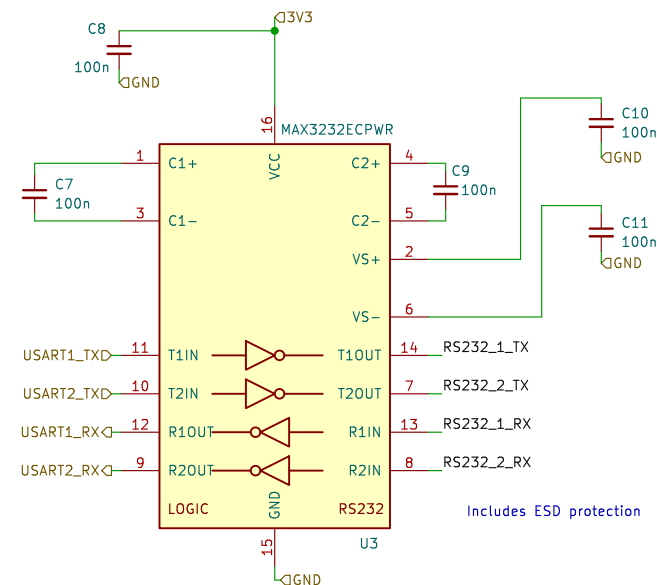
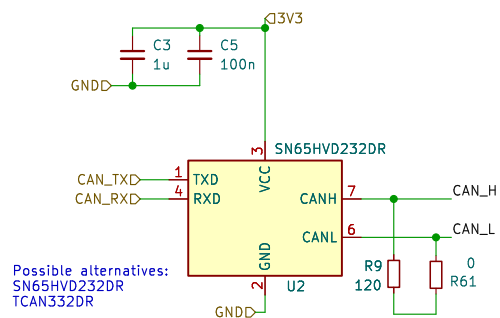
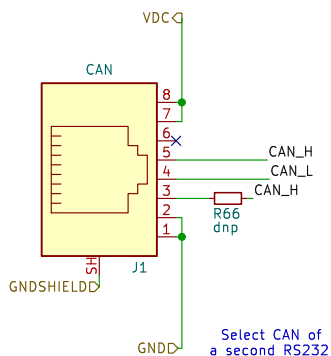
KiCad E.D.A. kicad 7.0.8-7.0.8-ubuntu20.04.1

**Rev: 1.0.0**

Id: 3/5

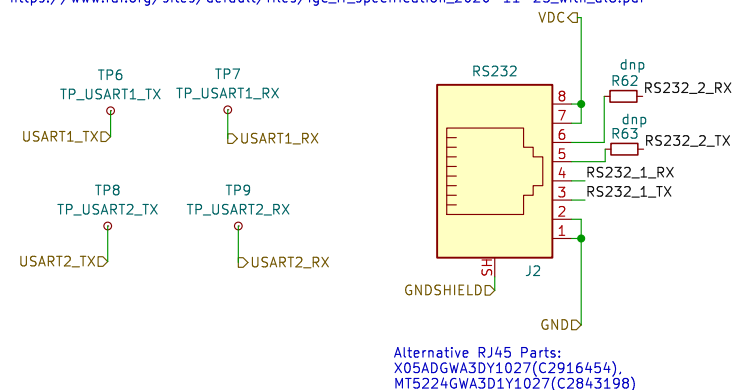


clamping diodes required as not all STM32H7 GPIOs have them build in.



IGC compatible with swapped RX/TX pins for a direct patchable connection.

[https://www.fai.org/sites/default/files/igc\\_fr\\_specification\\_2020-11-25\\_with\\_al6.pdf](https://www.fai.org/sites/default/files/igc_fr_specification_2020-11-25_with_al6.pdf)



Alternative RJ45 Parts:  
X05ADGWA3DY1027(C2916454),  
MT5224GWA3D1Y1027(C2843198)

Input and output transceiver, converters and protection

Maximilian Betz

Sheet: /interfaces/

File: interfaces.kicad\_sch

**Title: Larus Frontend**

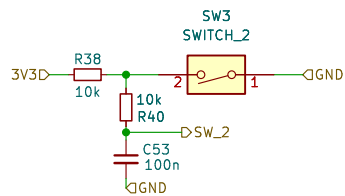
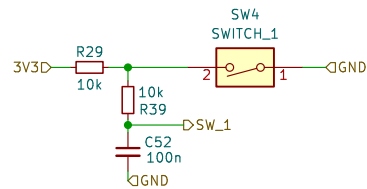
Size: A4	Date: 2023-11-20
----------	------------------

KiCad E.D.A.	kiCad 7.0.8-7.0.8~ubuntu20.04.1
--------------	---------------------------------

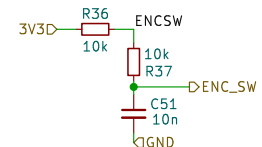
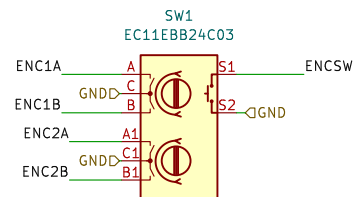
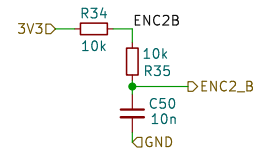
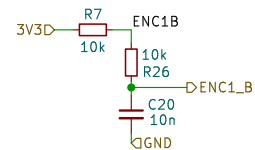
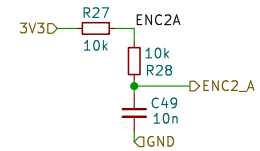
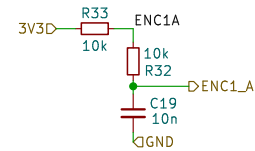
Rev: 1.0.0

Id: 4/5

# HMI User Switches



# HMI Dual Encoder with Push Switch



Encoder and Button User Interfaces

**Maximilian Betz**

Sheet: /user\_interface/

File: user\_interface.kicad\_sch

**Title: Larus Frontend**

Size: A4

Date: 2023-11-20

**Rev: 1.0.0**

KiCad E.D.A. kicad 7.0.8-7.0.8-ubuntu20.04.1

Id: 5/5