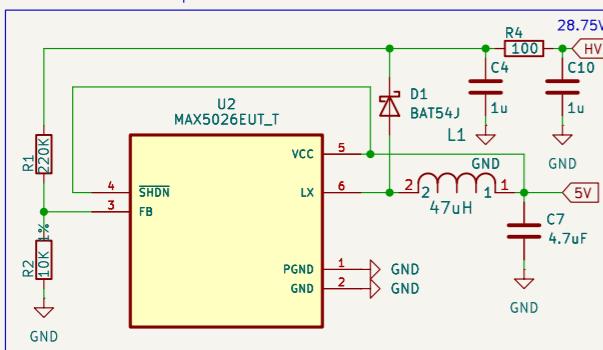


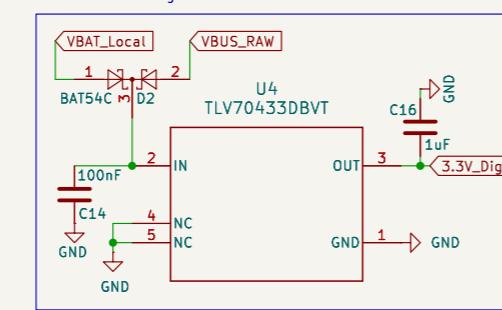
1 2 3 4 5 6 7 8

### DC-DC Booster

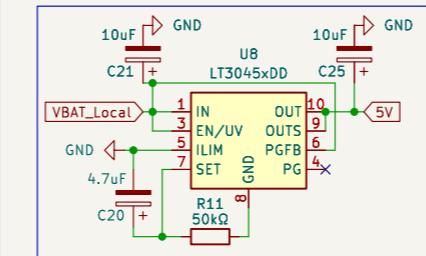
Takes the VCC line, and increases the voltage to +32.5V.  
This HV line is used to provide the reverse bias to the SiPM. The SiPM sees 30V difference, as virtual ground is 2.5V



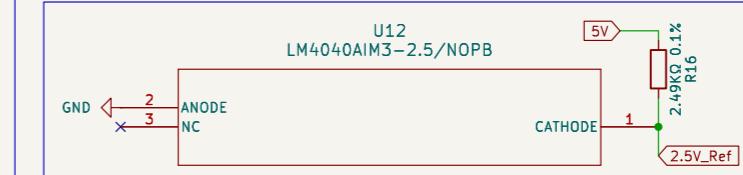
**+3v3**  
Takes the battery line and regulates the voltage to 3.3V for the logic electronics



**+5V**  
This creates the 5V supply that we use for the reference for the TIA

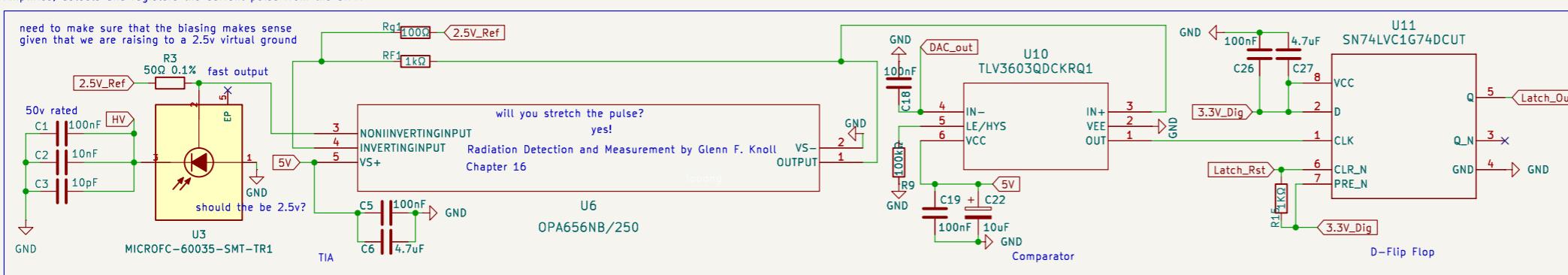


**Virtual Ground Reference**  
Takes the 5V line and creates a 2.5V reference to detect dips when current pulses hit opp amp, using a shunt regulator



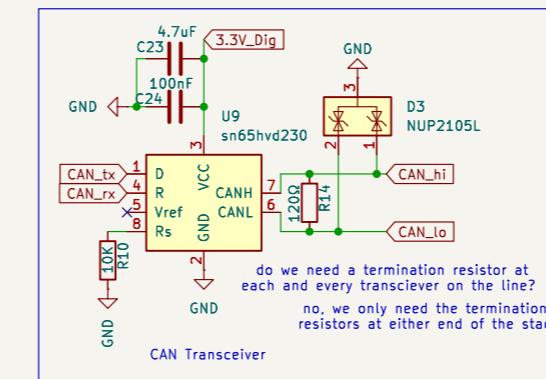
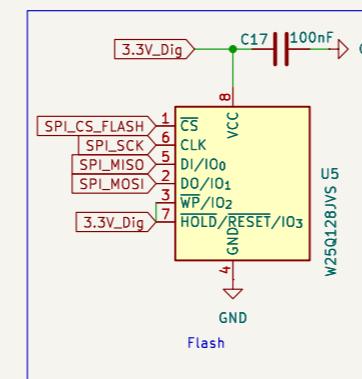
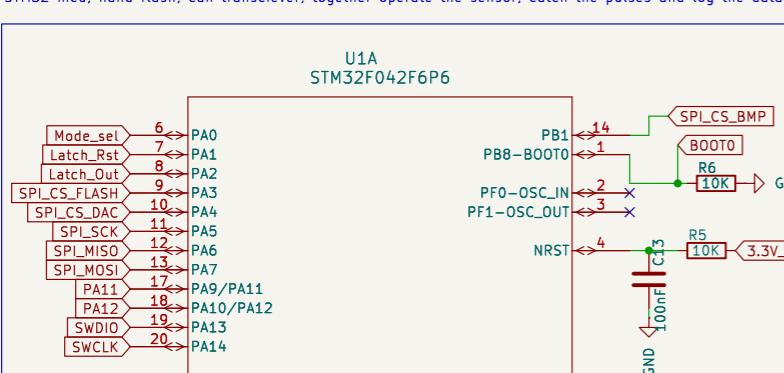
### Readout

Amplifies, detects and registers the current pulse from the SiPM



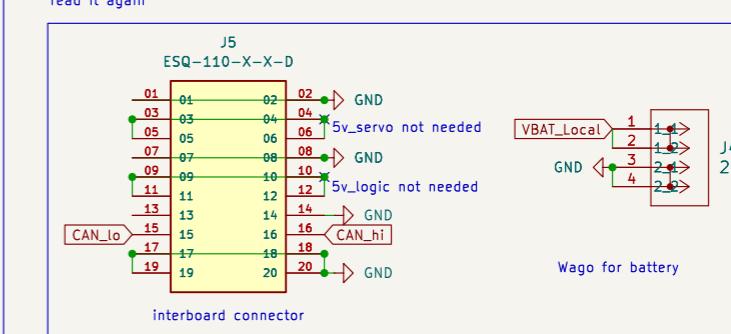
### Logging

STM32 mcu, nand flash, can transceiver, together operate the sensor, catch the pulses and log the data

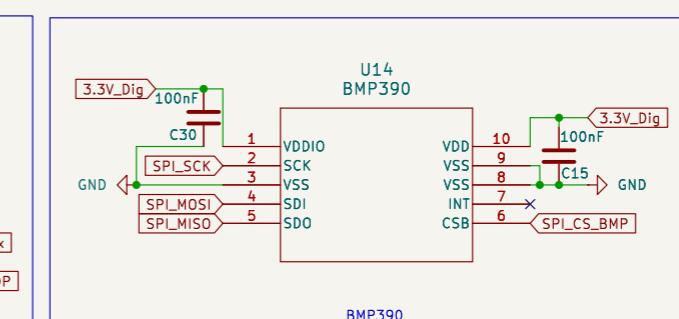
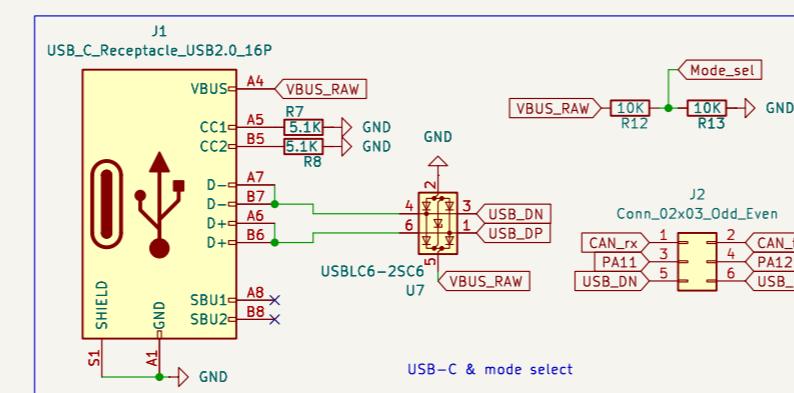
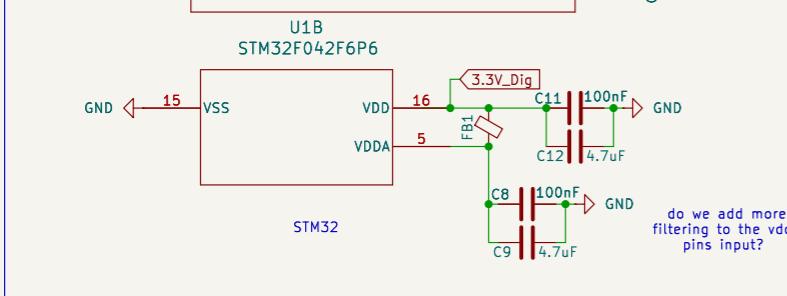


### Connectors

read it again



J4  
2060-1452/998-404  
Wago for battery



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### Title:

Size: A3 Date:  
KiCad E.D.A. 9.0.6

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