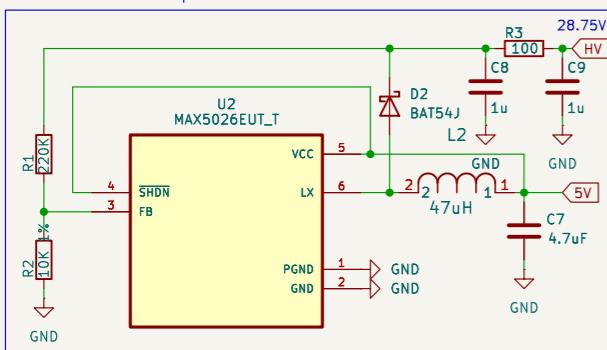


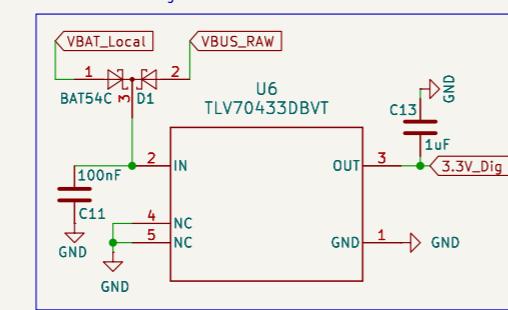
1 2 3 4 5 6 7 8

DC-DC Booster

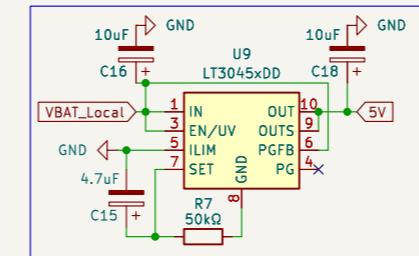
Takes the VCC line, and increases the voltage to +32.5V.
This HV line is used to provide the reverse bias to the SiPM. The SiPM sees 30V difference, as virtual ground is 2.5V



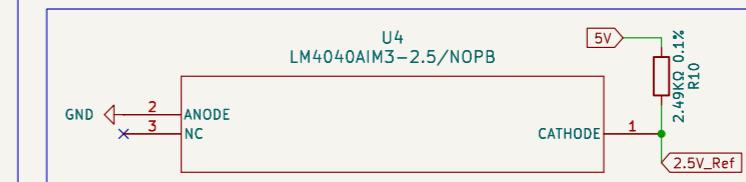
+3v3
Takes the battery line and regulates the voltage to 3.3V for the logic electronics



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

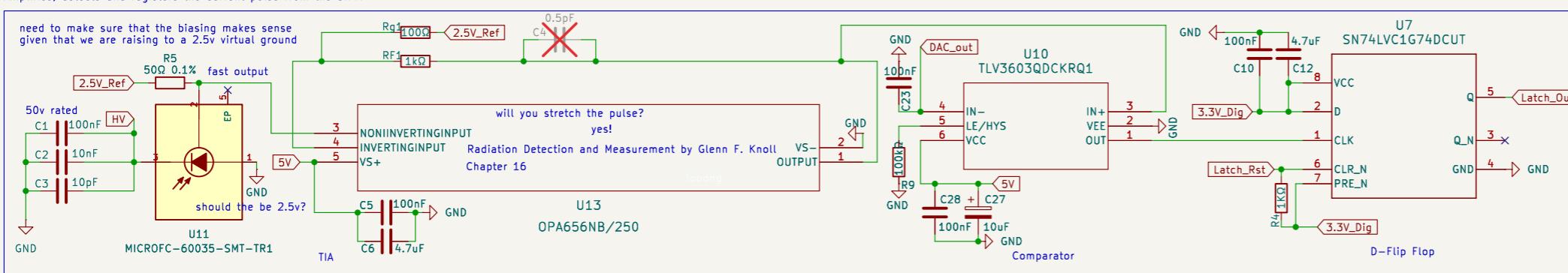


Virtual Ground Reference
Takes the 5V line and creates a 2.5V reference to detect dips when current pulses hit opp amp, using a shunt regulator



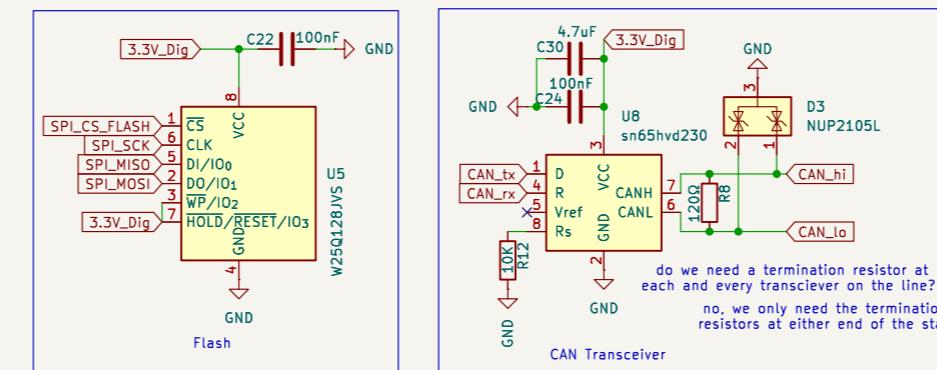
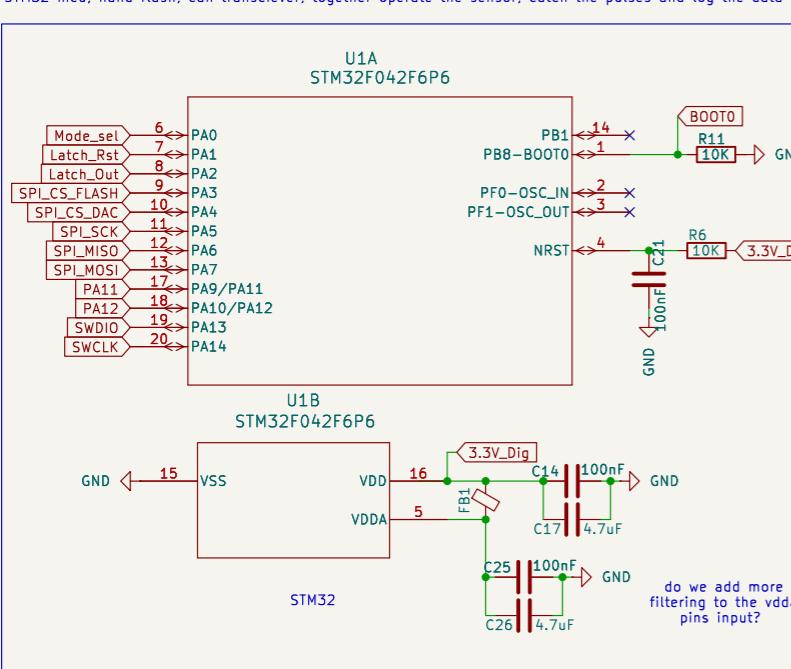
Readout

Amplifies, detects and registers the current pulse from the SiPM



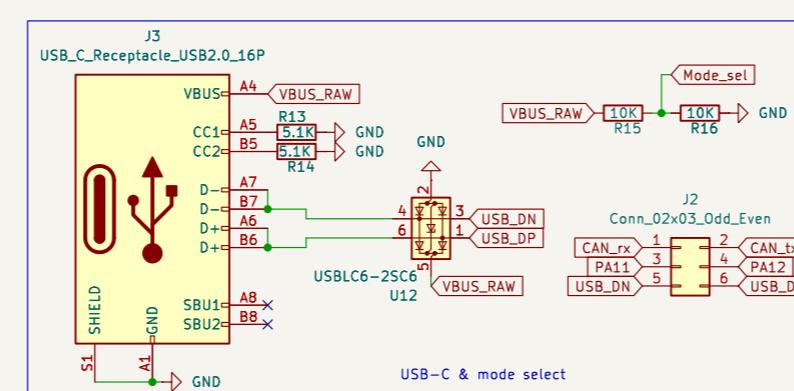
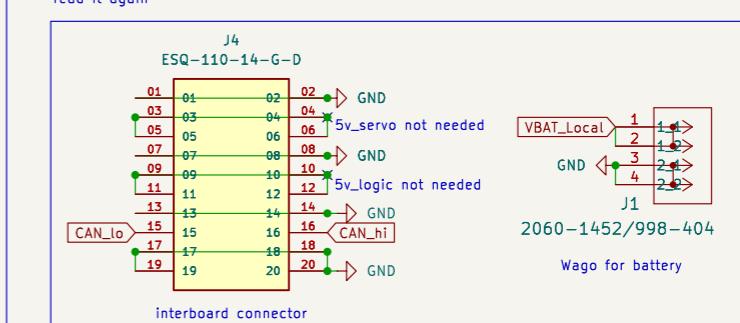
Logging

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



Connectors

read it again



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