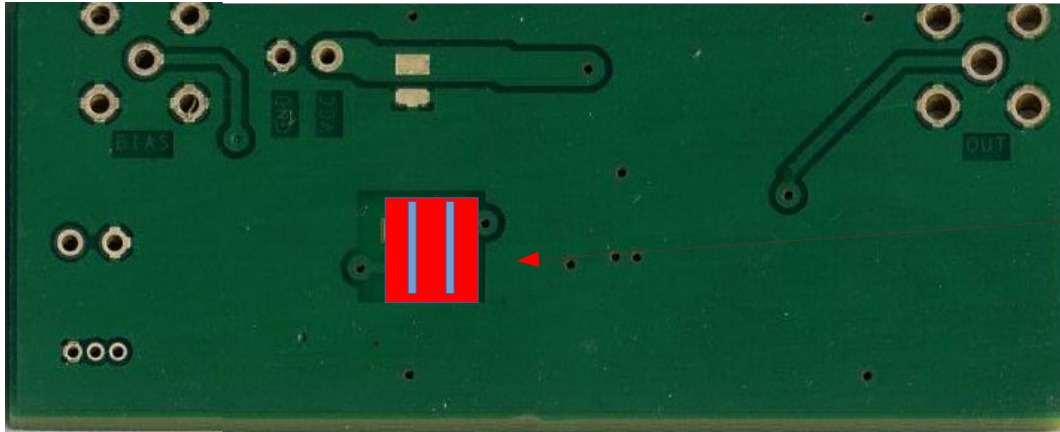


Proposal for the positron veto

Fabio Ferrarotto (RM1)

Padme Coll. Meeting @ LNF
1/3/2016

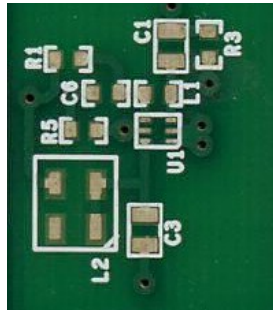
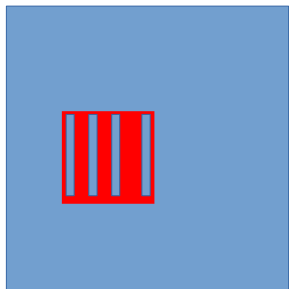
Electronics for SiPM



Actual PCB dimensions : $25 * 70 \text{ mm}^2$

Advansid SiPM $3 * 3 \text{ mm}^2$
with anode and cathode strips

Advansid has also $4*4$ and
 $6*6 \text{ mm}^2$ SiPM available



Aiming to reduce electronics size to $1 * N \text{ cm}^2$
to have PCB with n channels for n SiPM
SiPM “head on” on scintillators



PCB with SiPM and amplifiers
Scintillator fingers $1 * 1 \text{ cm}^2$

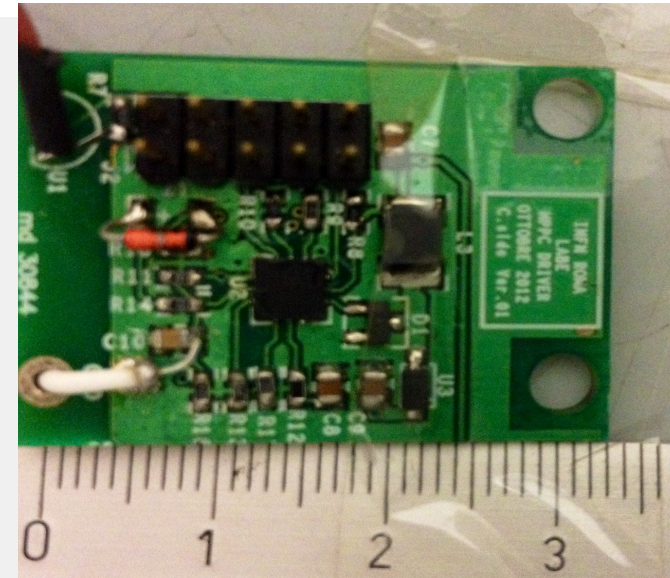
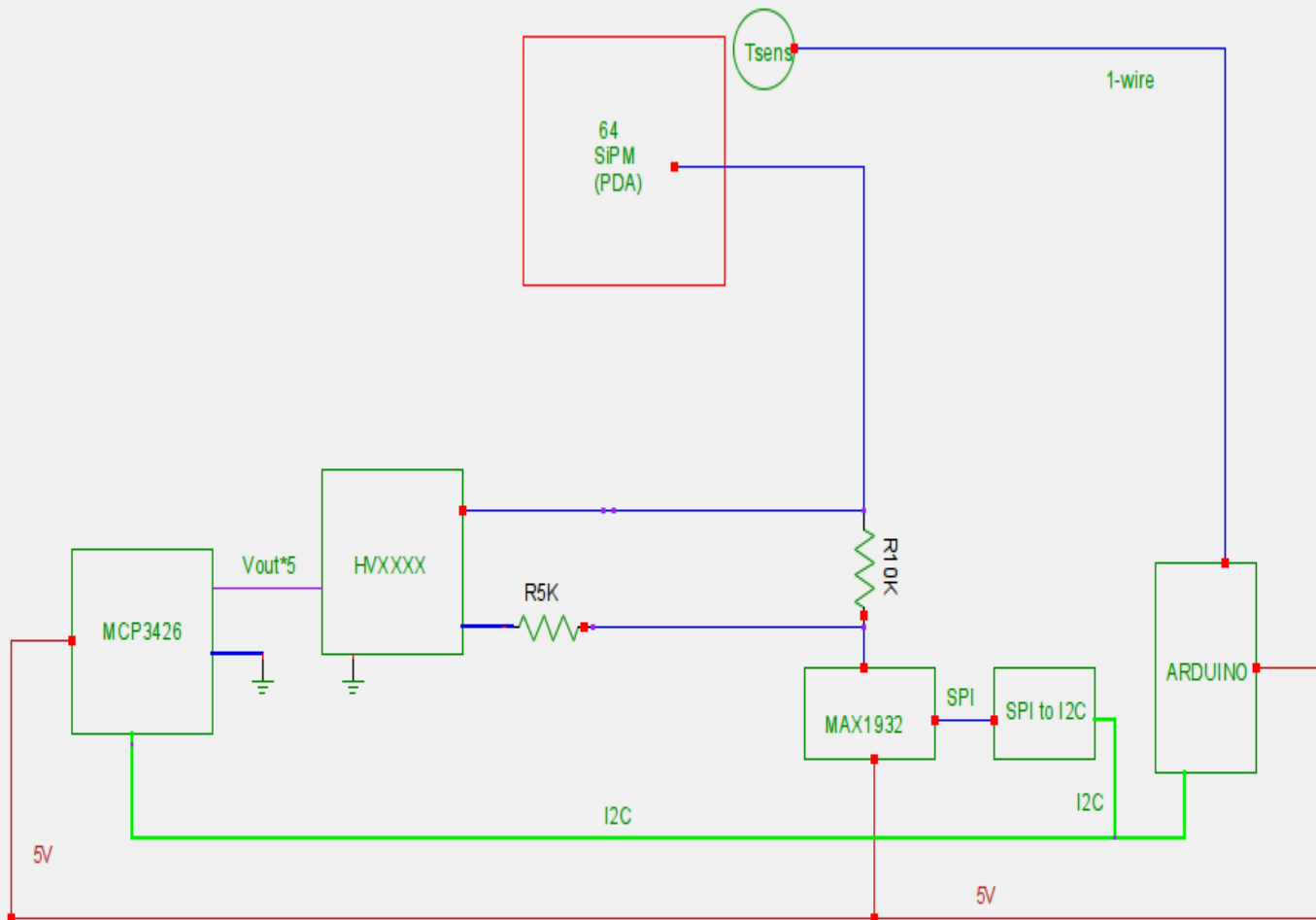
Studies for electronics suitable in magnetic field

- substitute inductance ?
- change amplifier ? (Minicircuit, AD8080, ...)

HV supply for SiPM

HV supply ($\sim 30\text{ V}$ - up to 40 V max) with known and tested MAXIM1932 chip coupled to Arduino (or UDOO) via SPI for real time temperature-gain compensation and current monitor using 16 bit ADC via i2C.

We can check temp, voltage and current in real time.



Already done PCB with MAXIM1932 chip