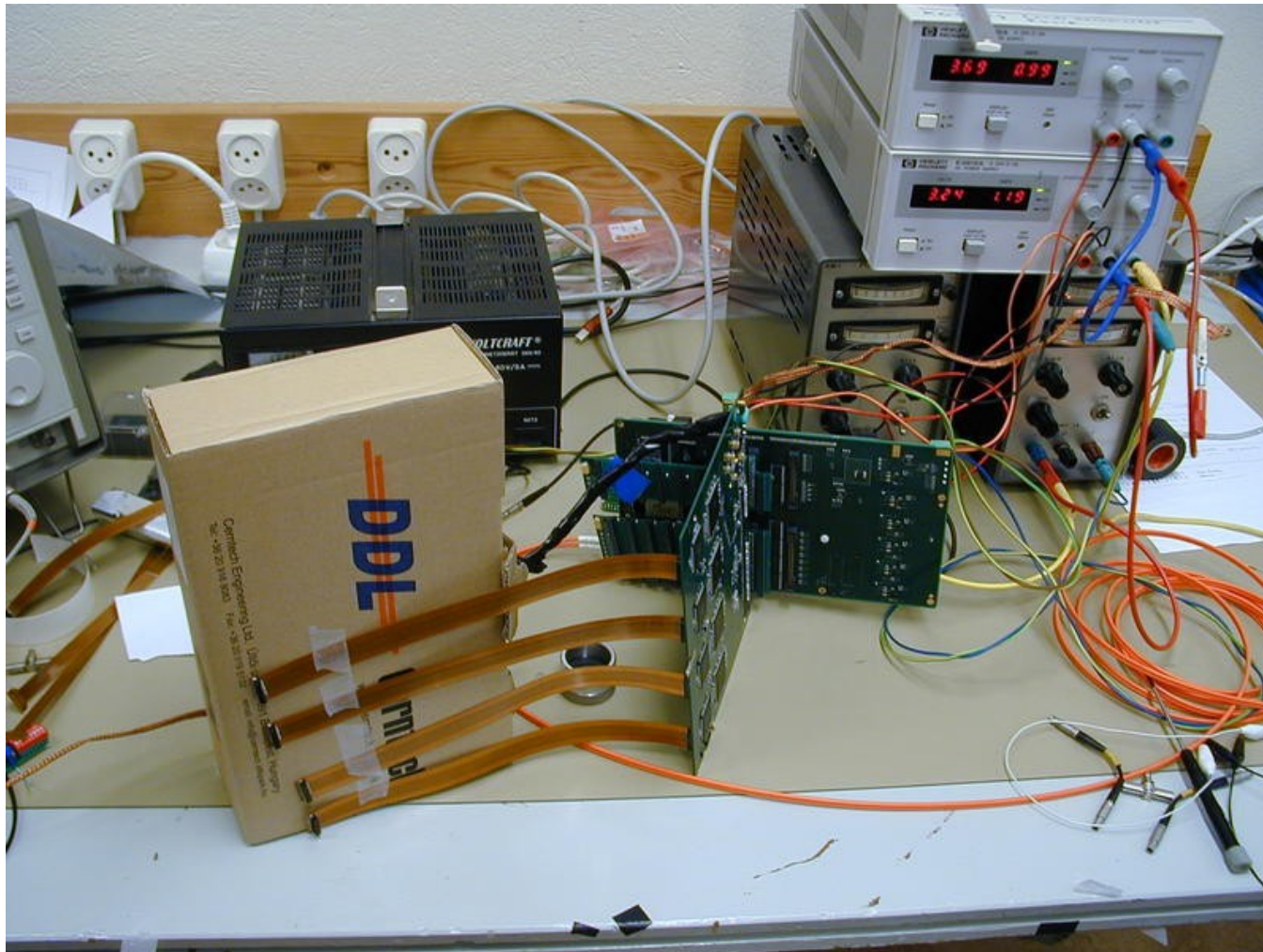


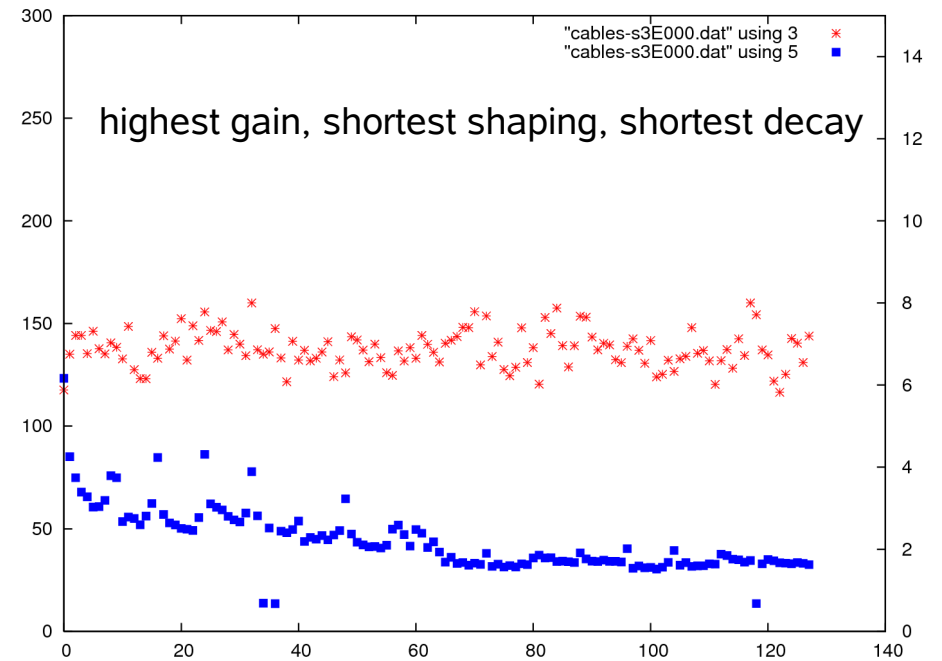
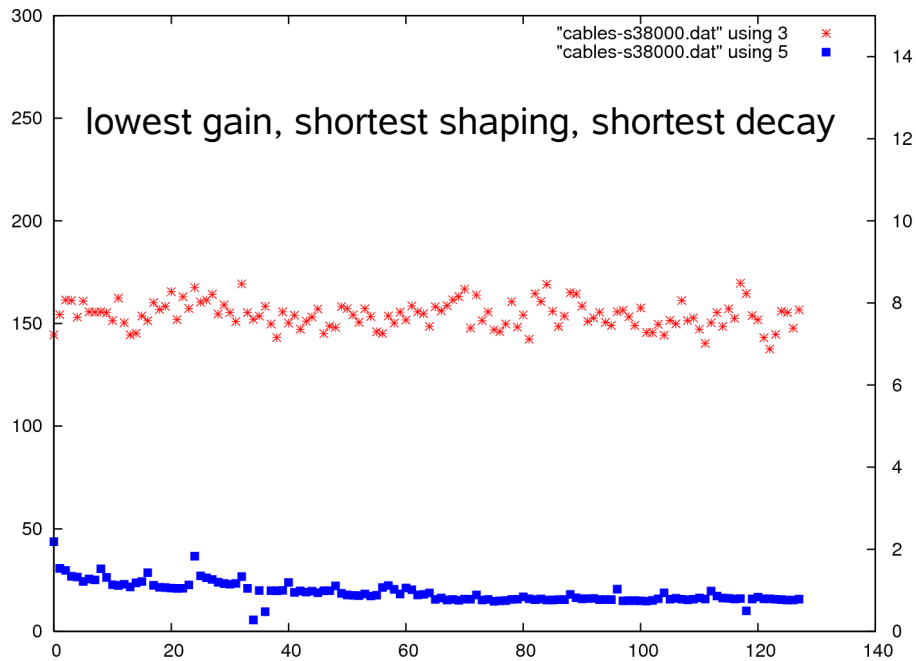
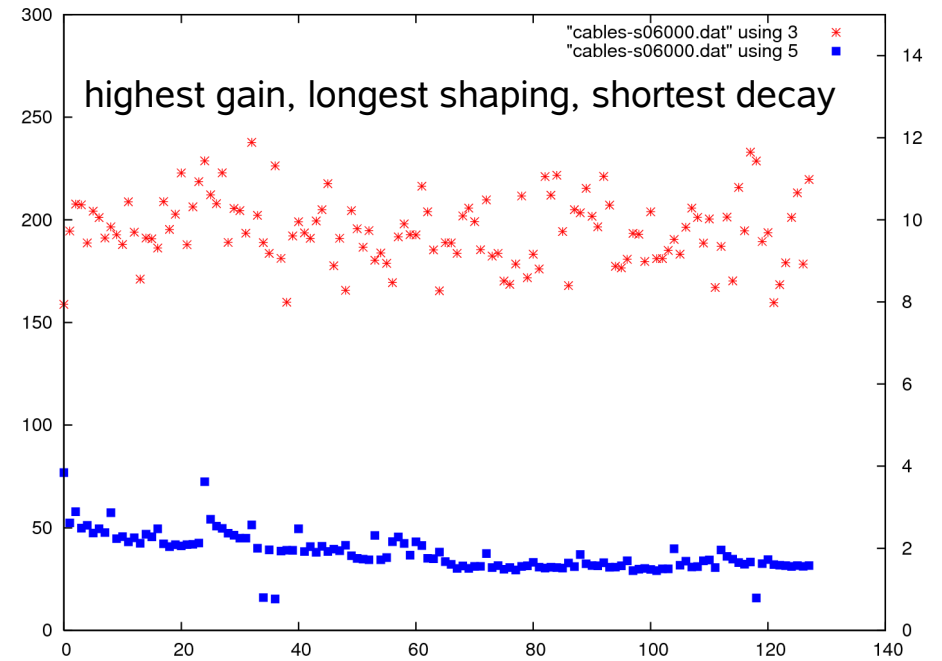
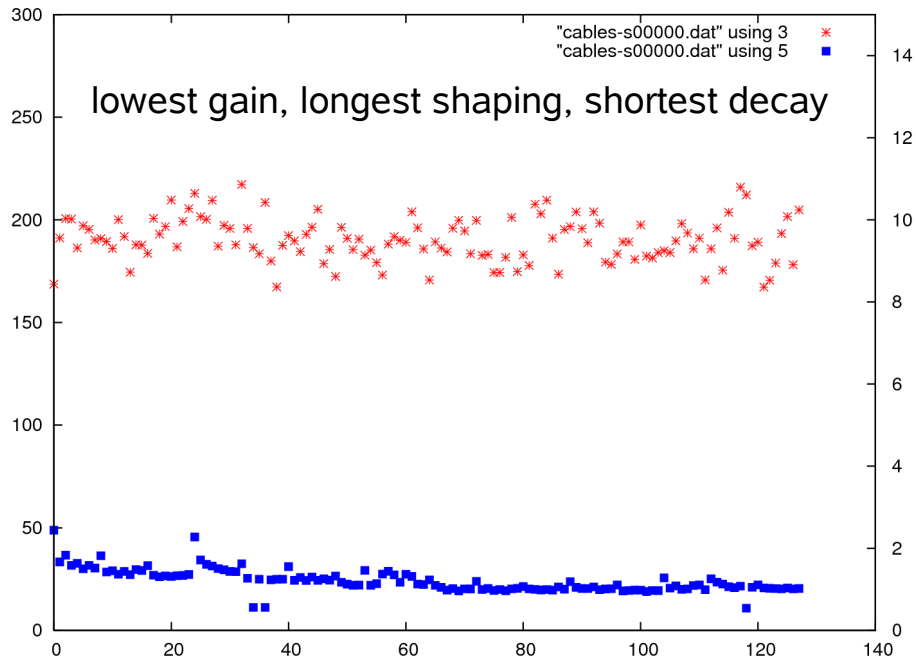
Cables mounted by Note. Position away from card.



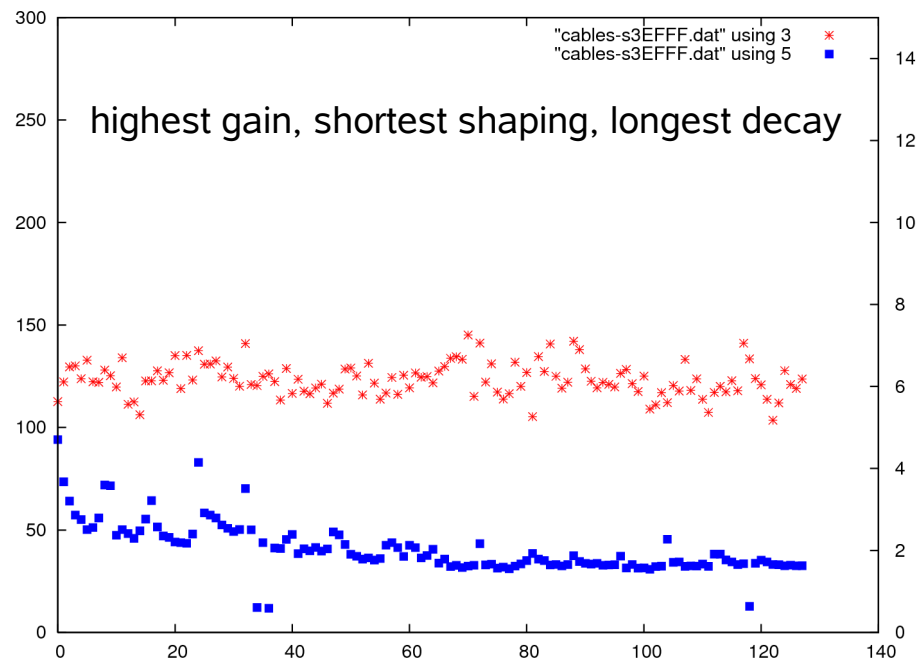
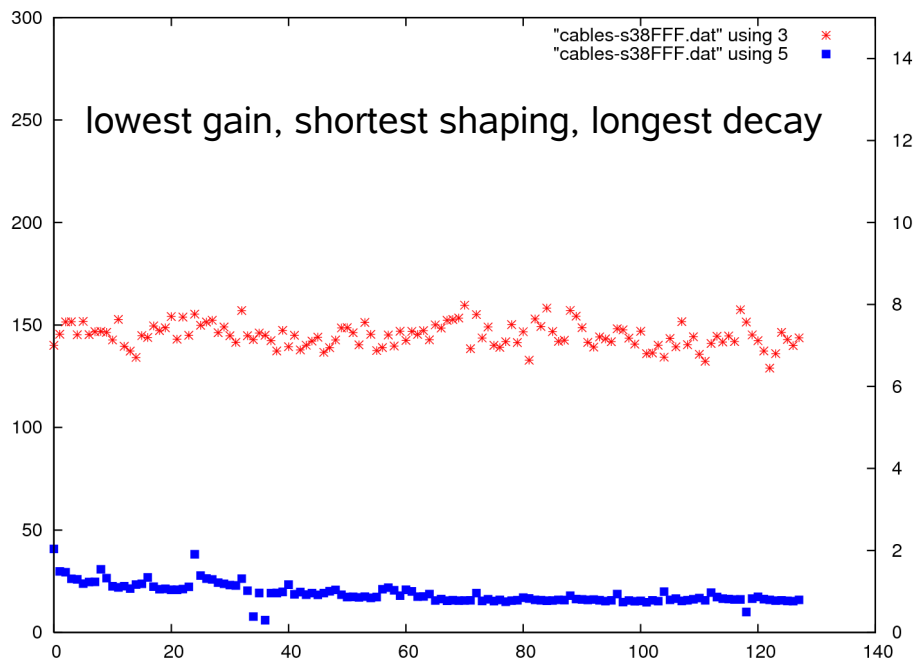
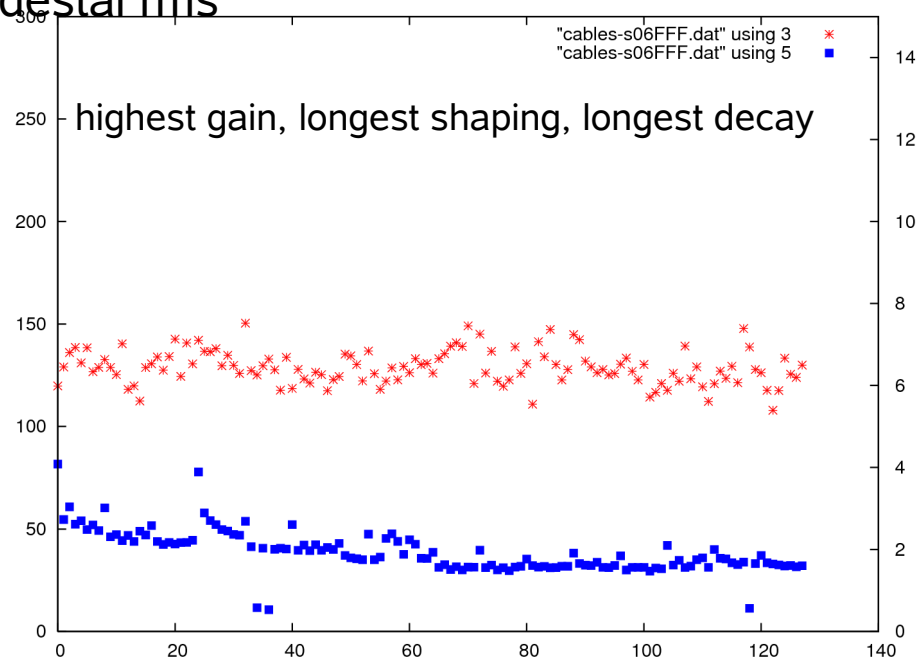
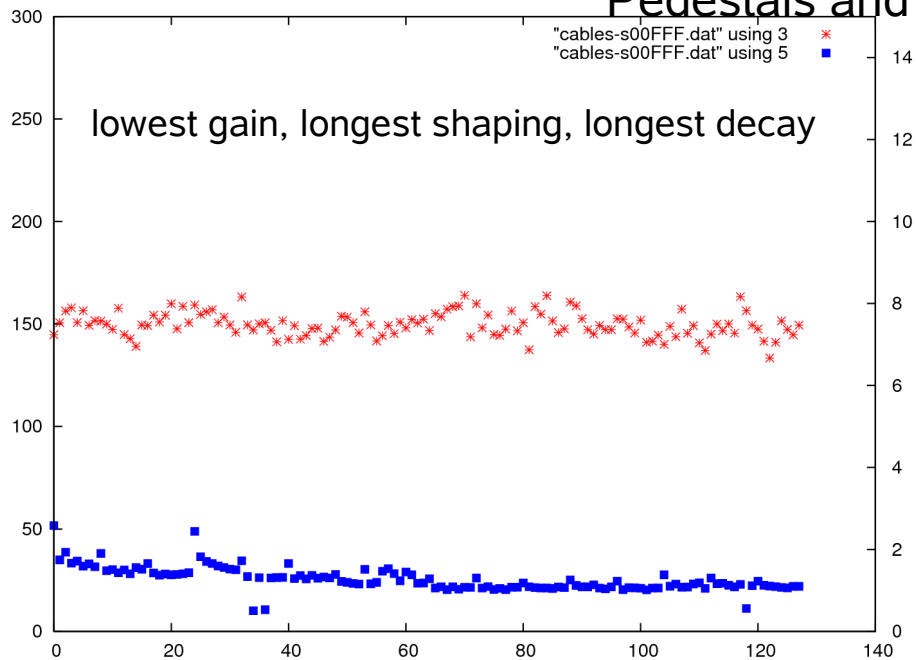
Pedestals:
left scale
red crosses

RMS:
right scale
blue squares

Pedestals and pedestal rms

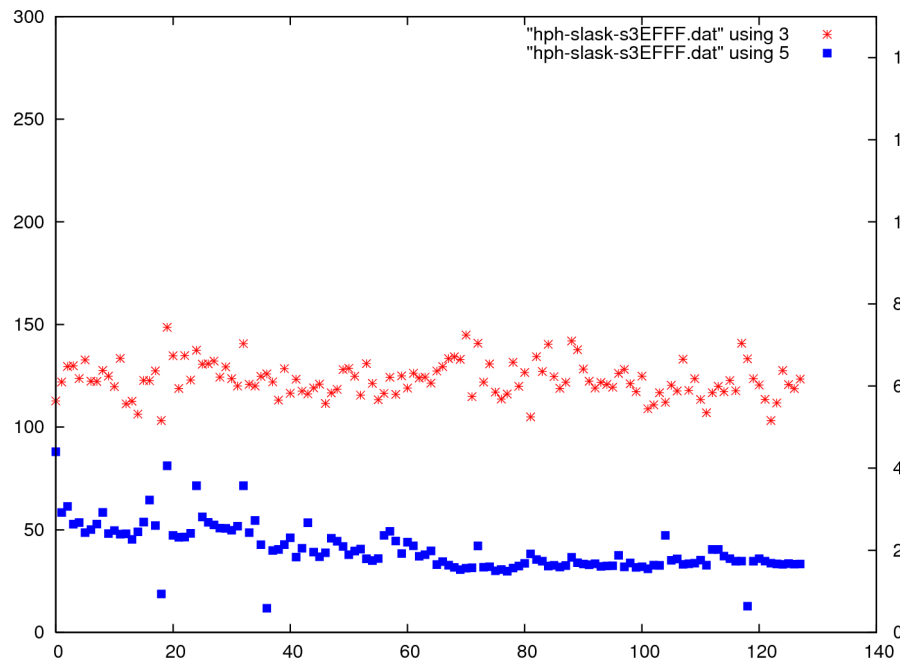


Pedestals and pedestal rms

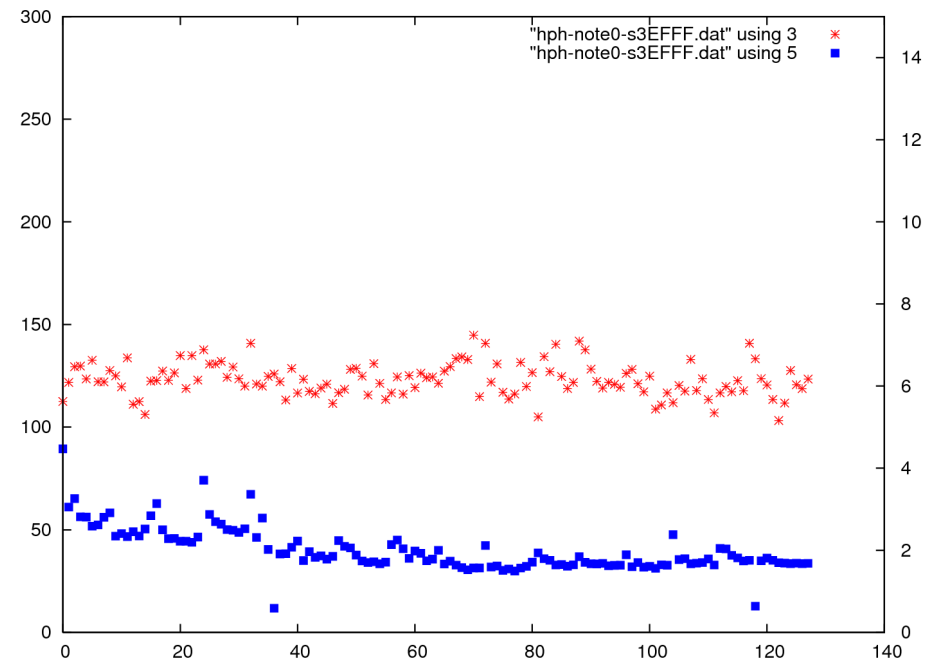


Different cables on chip 0,1
highest gain, shortest shaping, longest decay

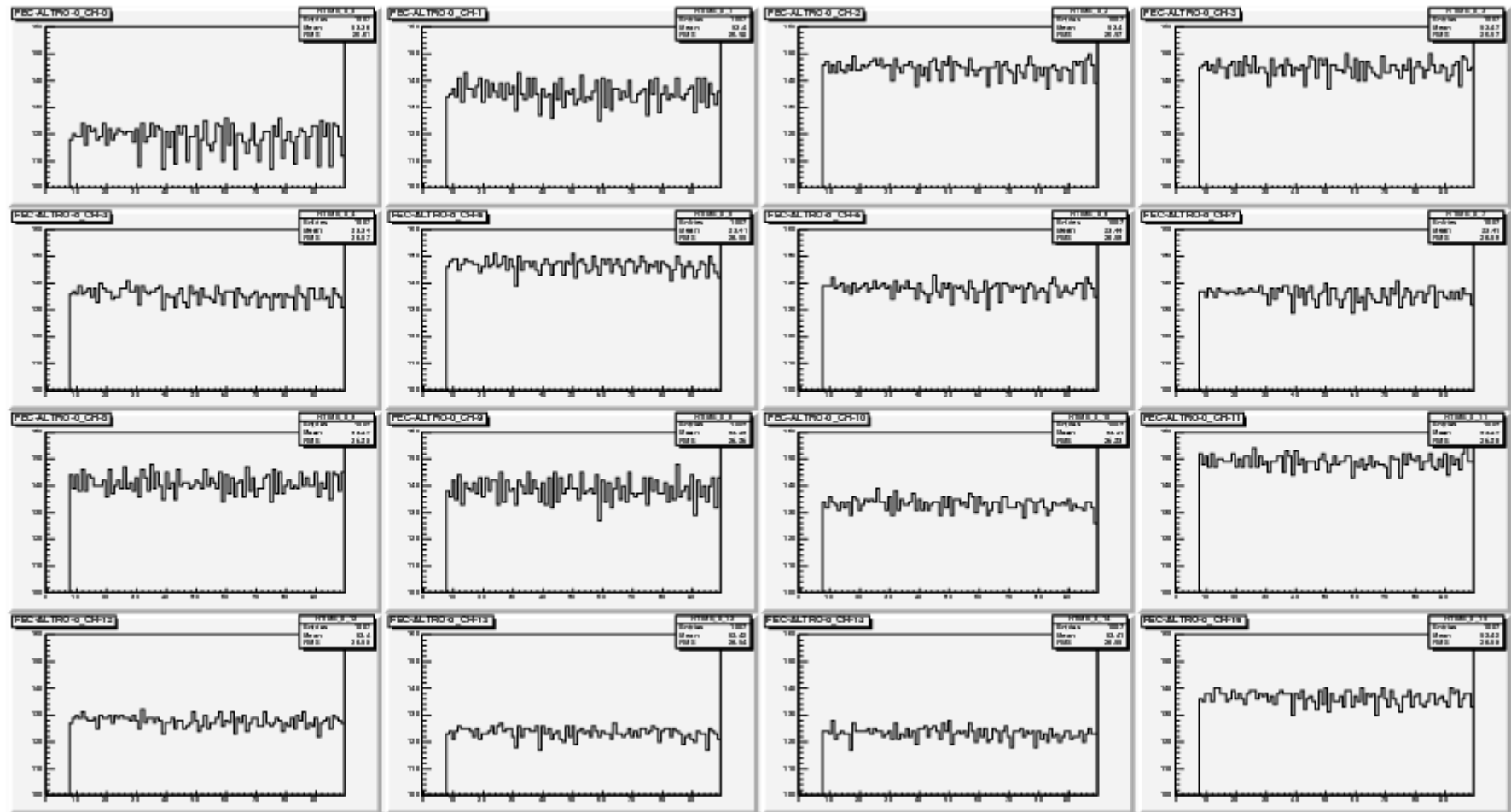
Home mounted connectors



Note mounted cable

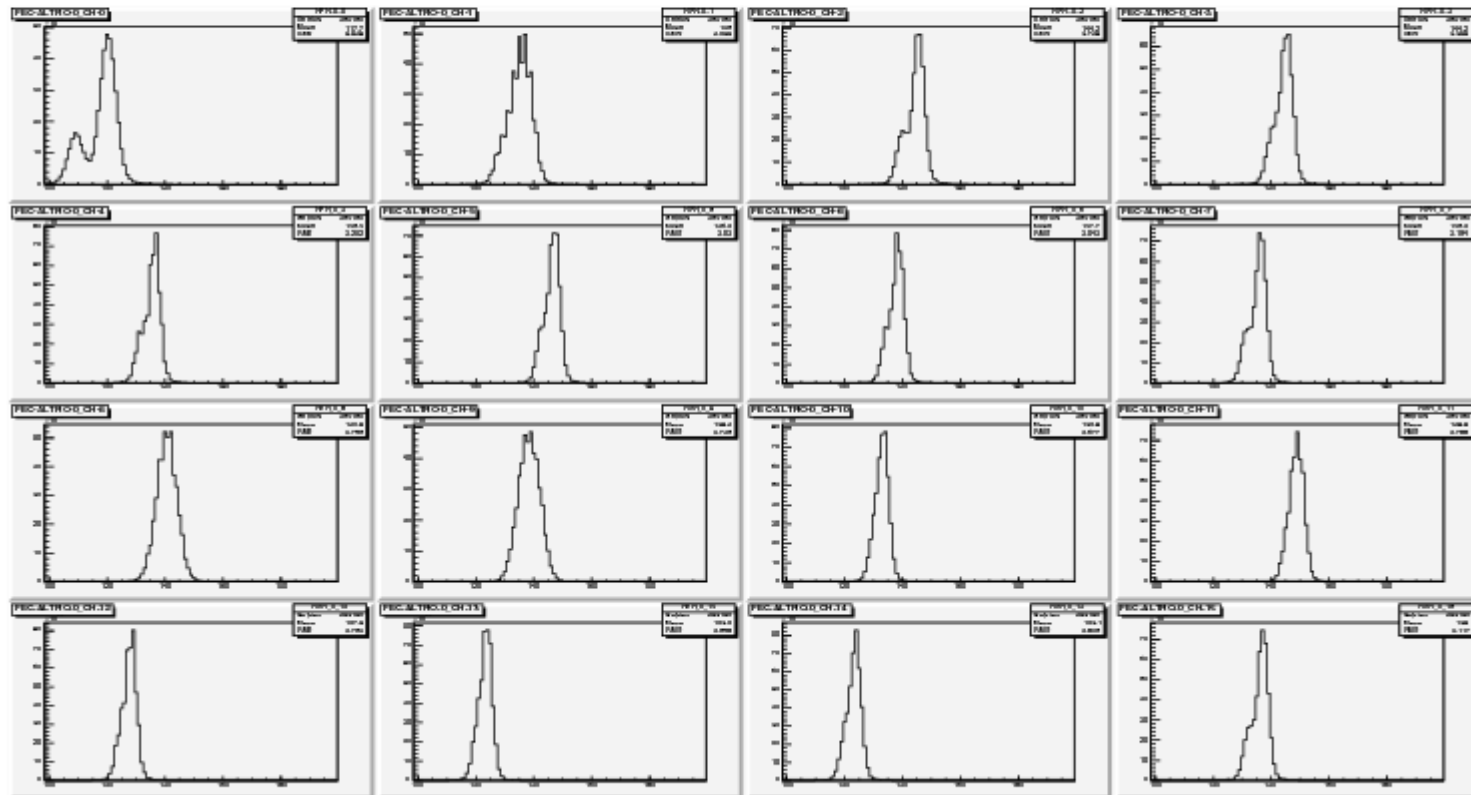


Time spectra for one event, chip 0 (bottom) worst chip with respect to 2.5MHz
highest gain, shortest shaping, shortest decay

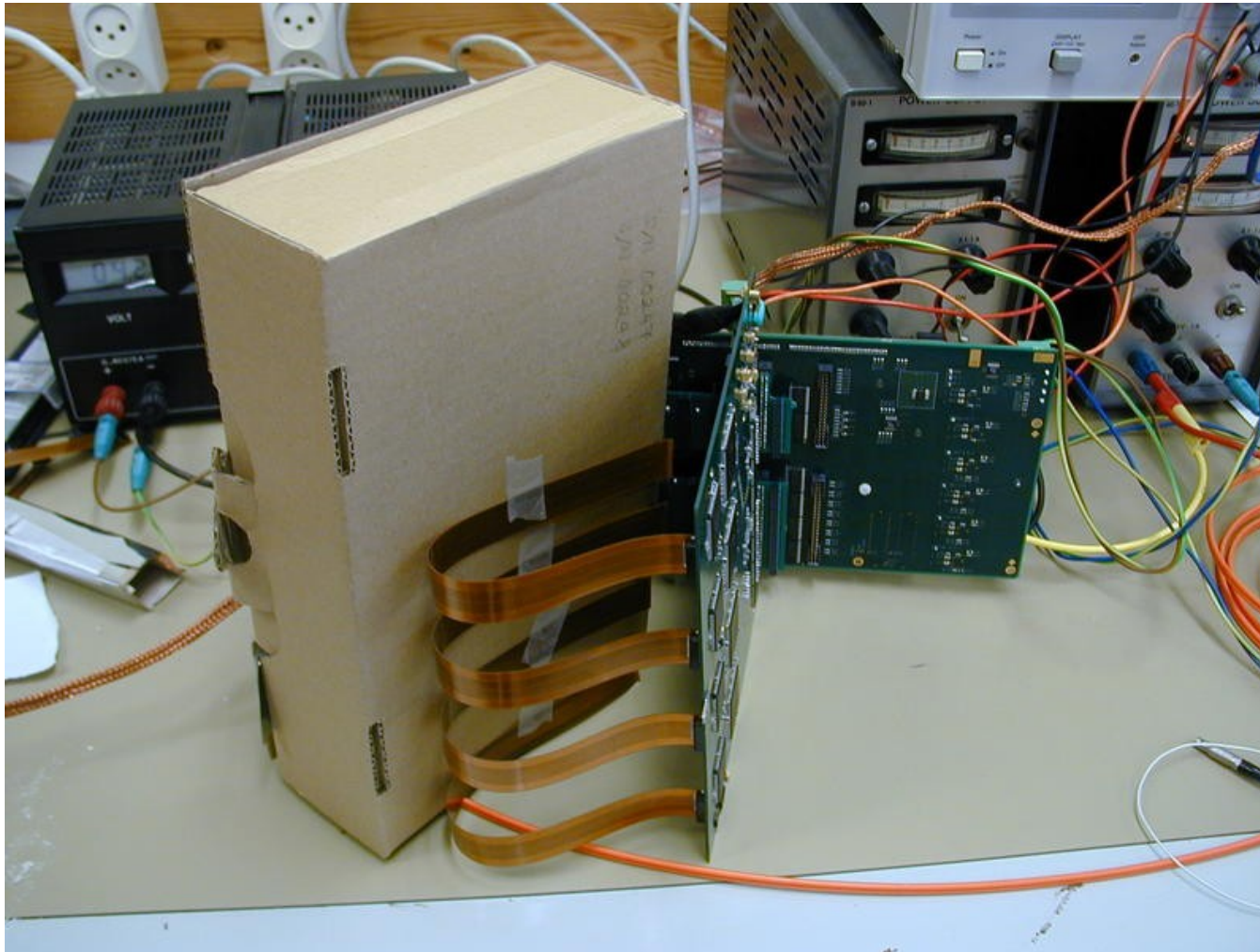


2.5MHz visible on chip 0,1,2,3 BUT NOT ON chip 4,5,6,7

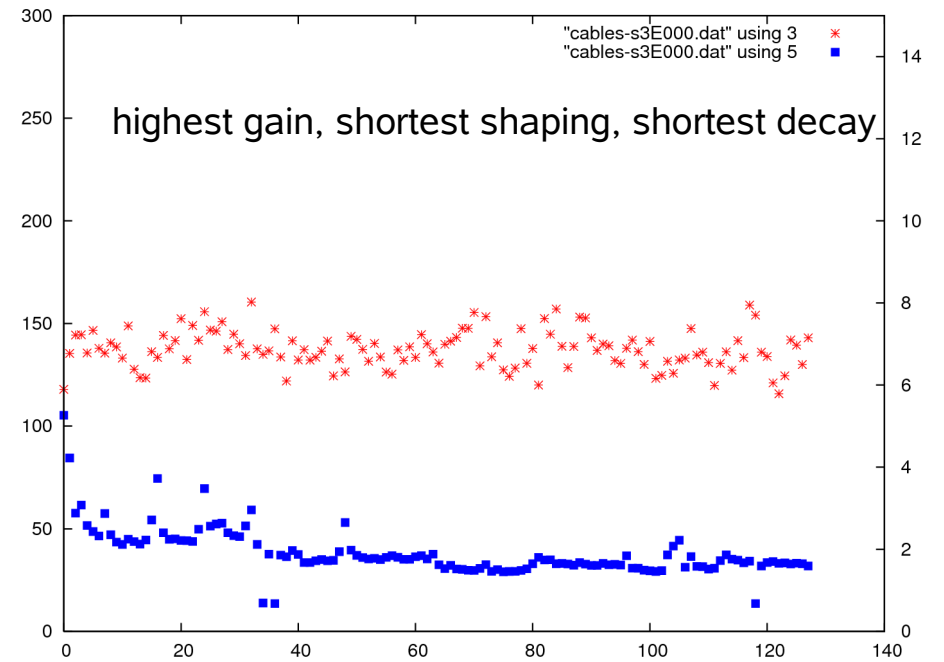
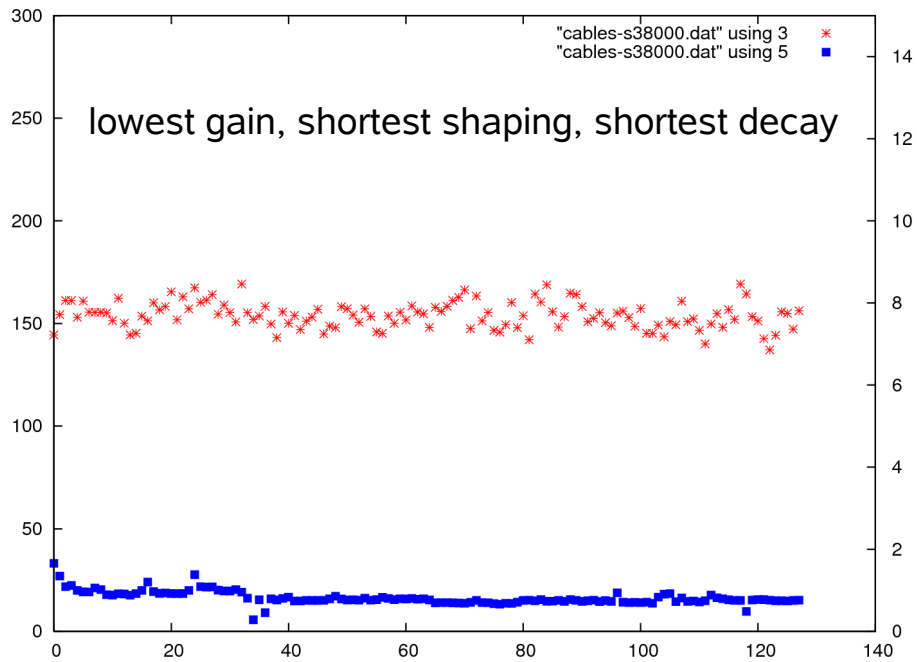
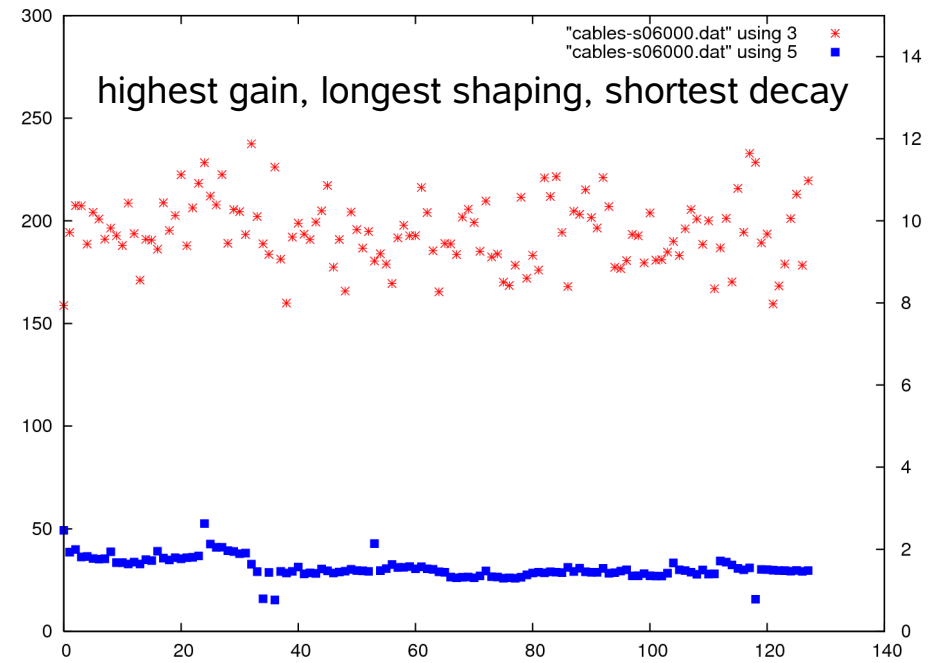
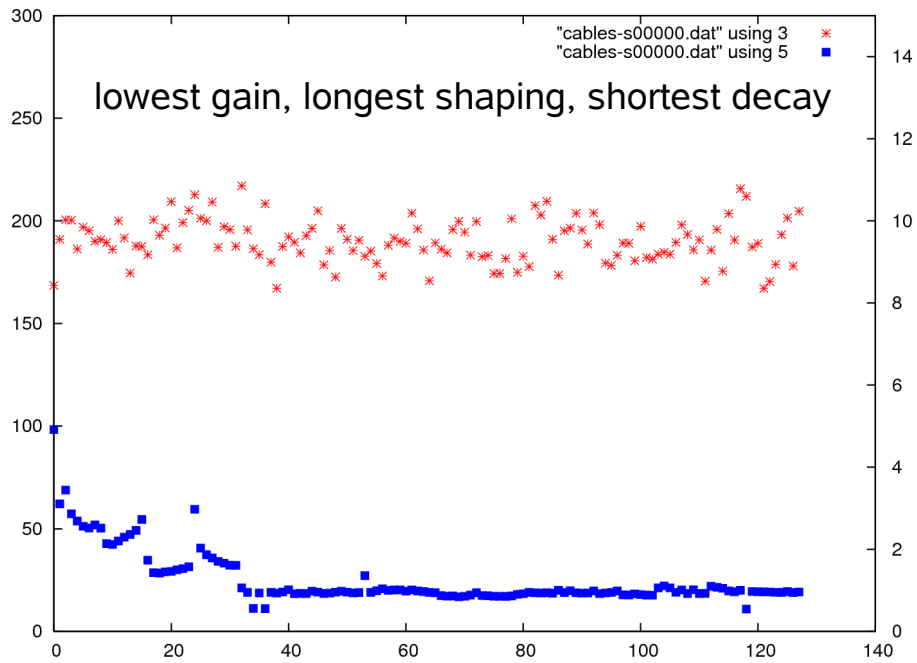
Pedestal pulse heights chip 0; highest gain, shortest shaping, shortest decay



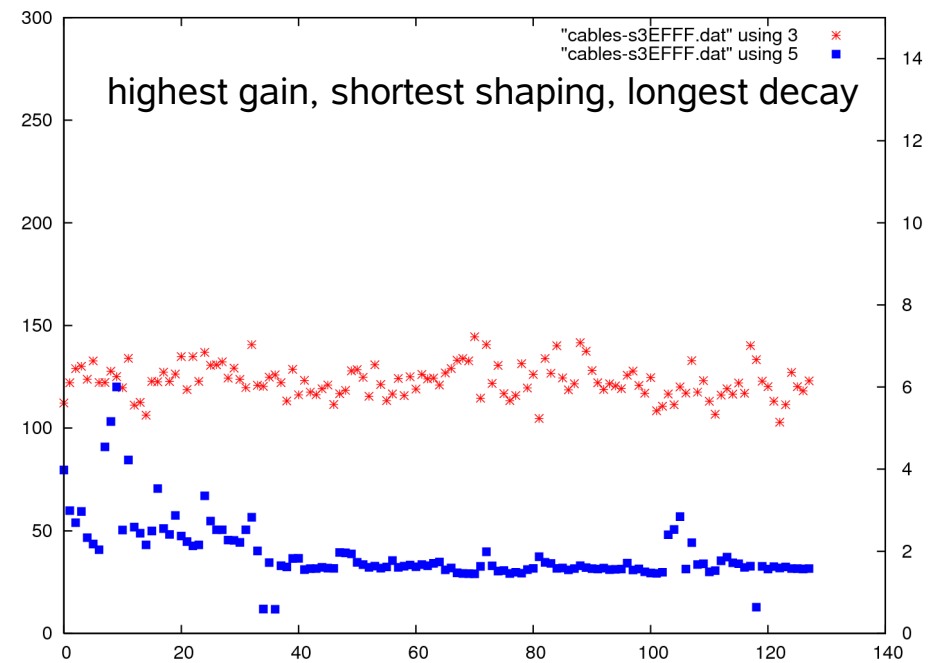
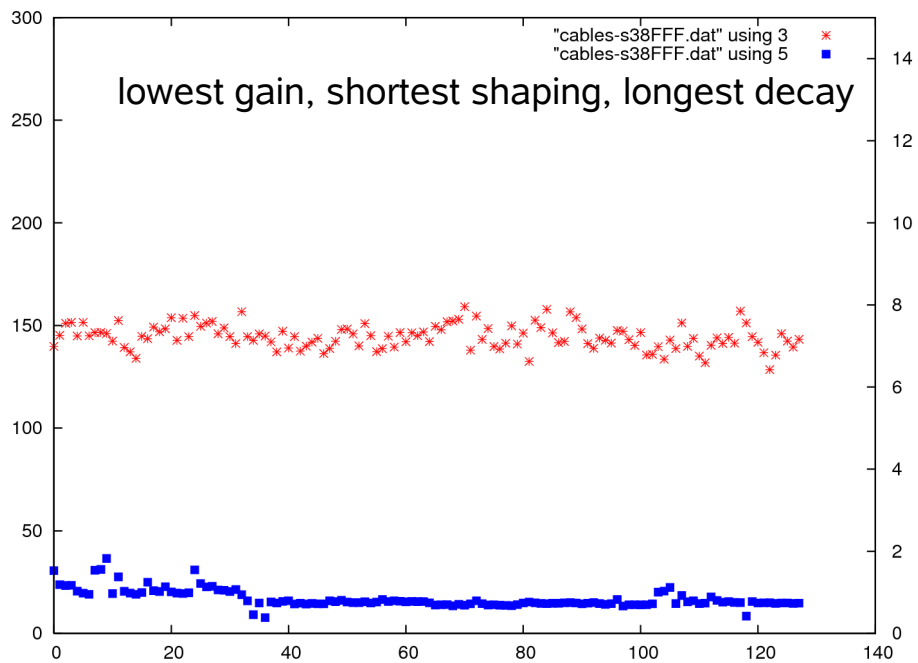
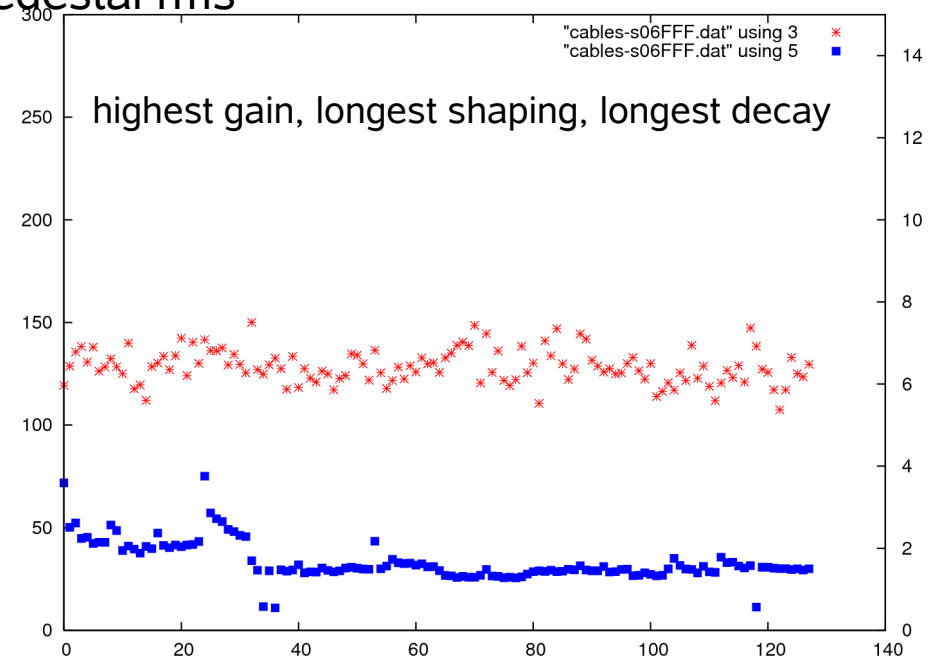
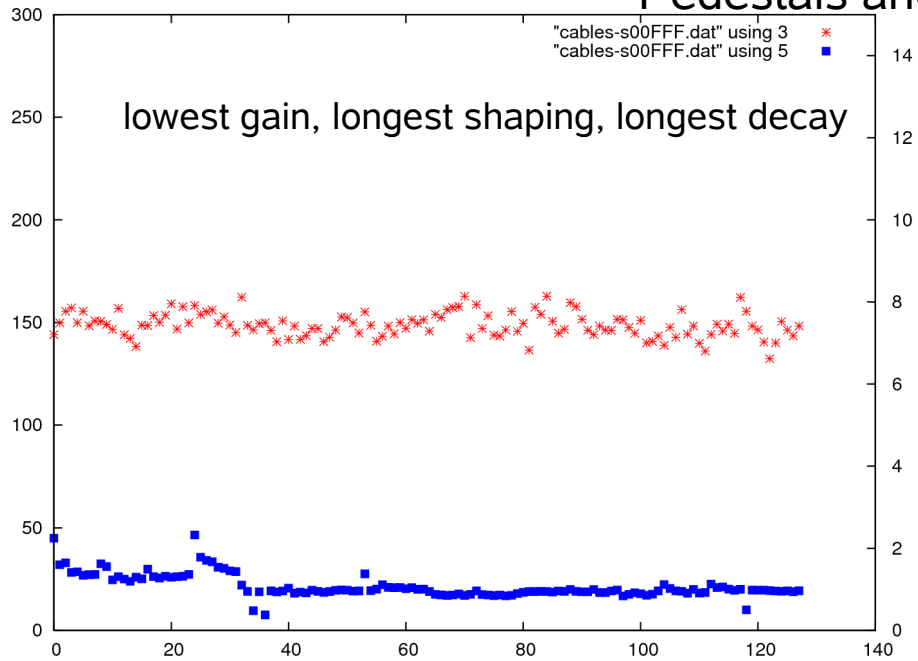
Cables bent inwards towards card, check if noise get worse.



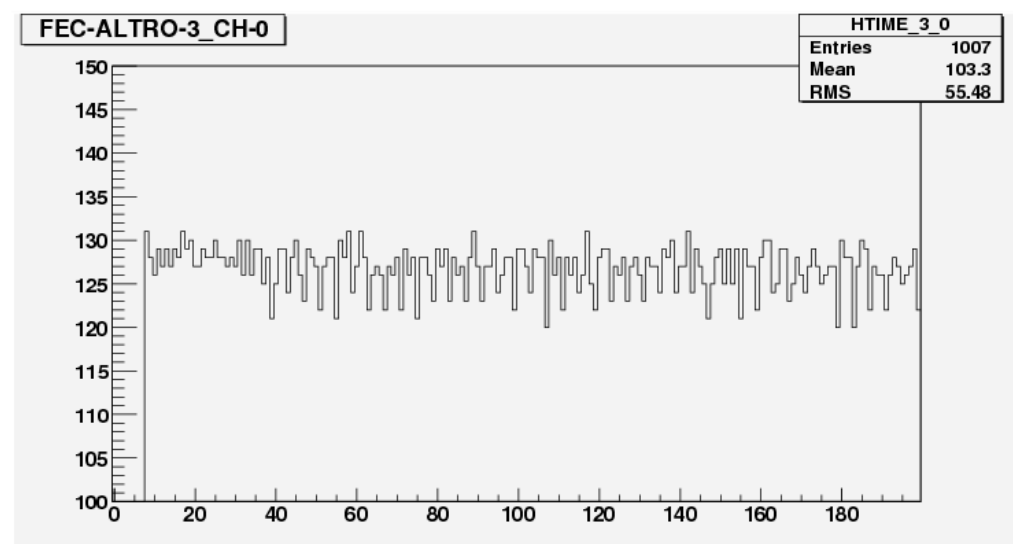
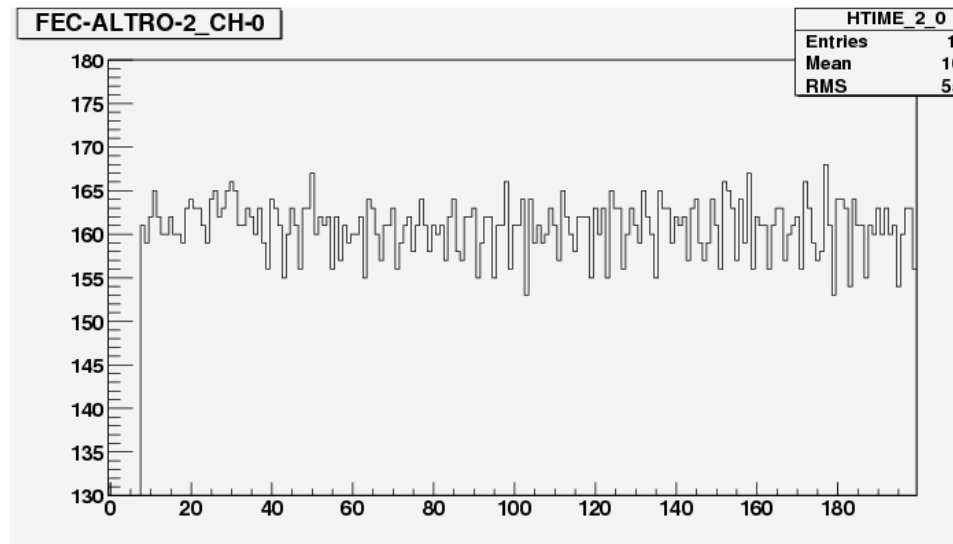
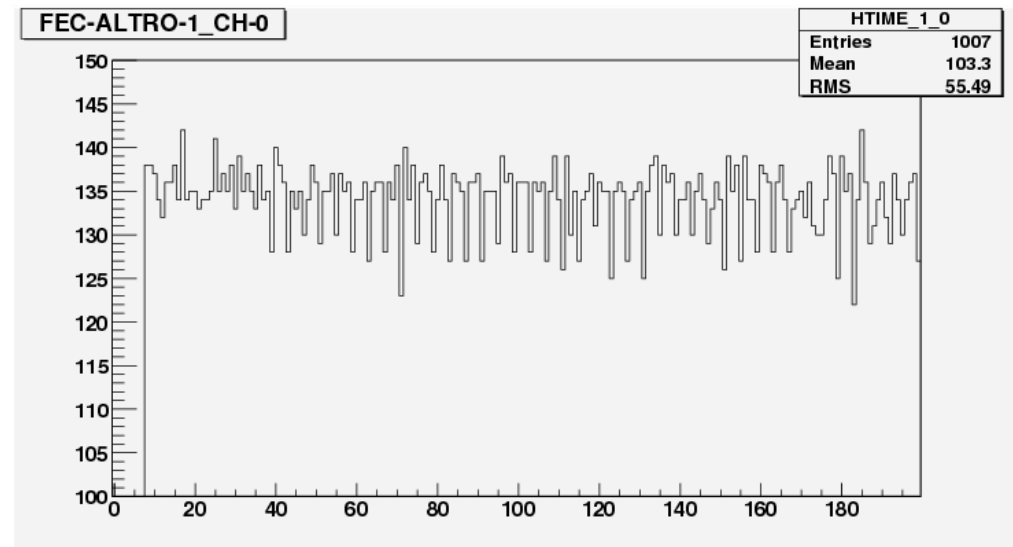
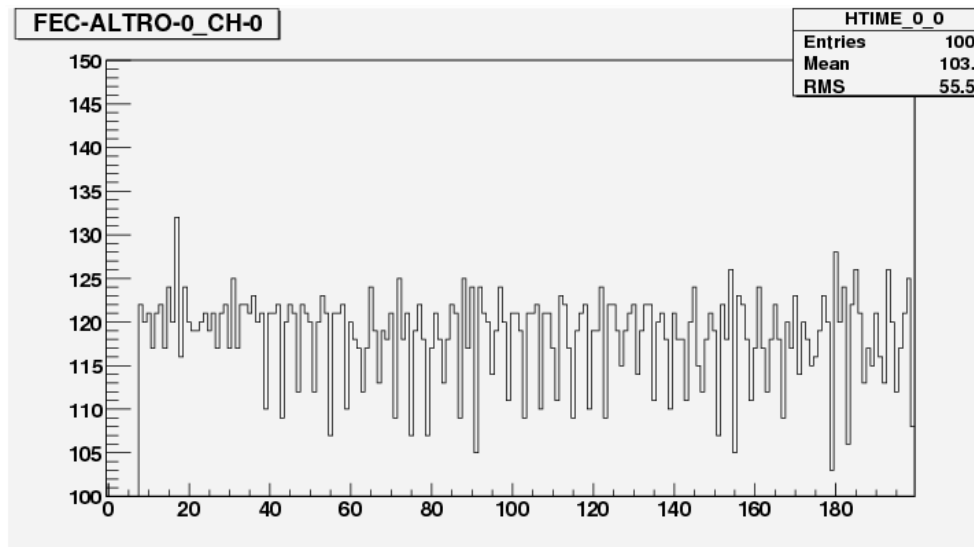
Pedestals and pedestal rms



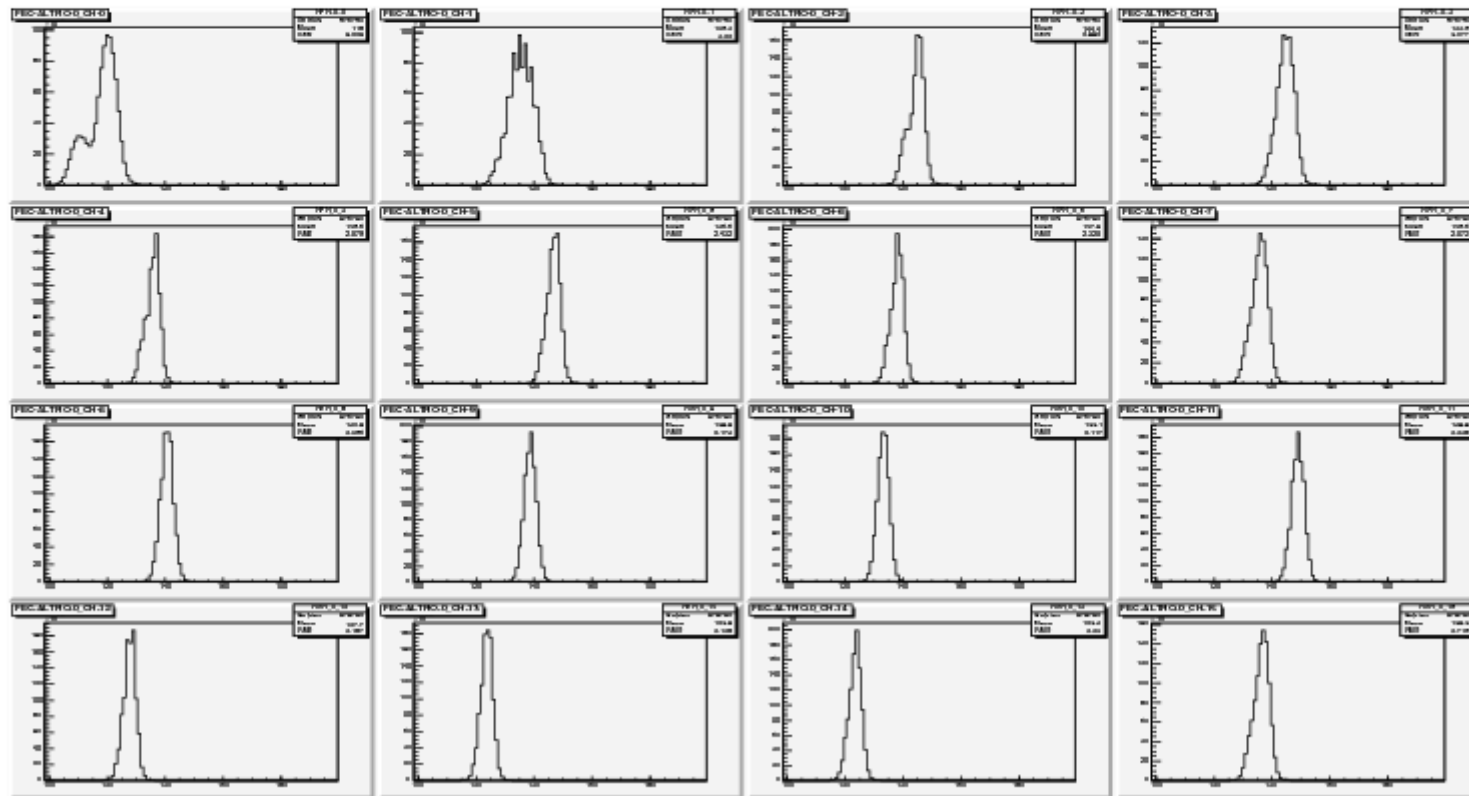
Pedestals and pedestal rms



Time spectra channel 0 for chip 0,1,2,3 – 2.5 Mhz “noise” seem with highest gain, shortest shaping, shortest decay decreases with chip and not seen in chip 4,5,6,7

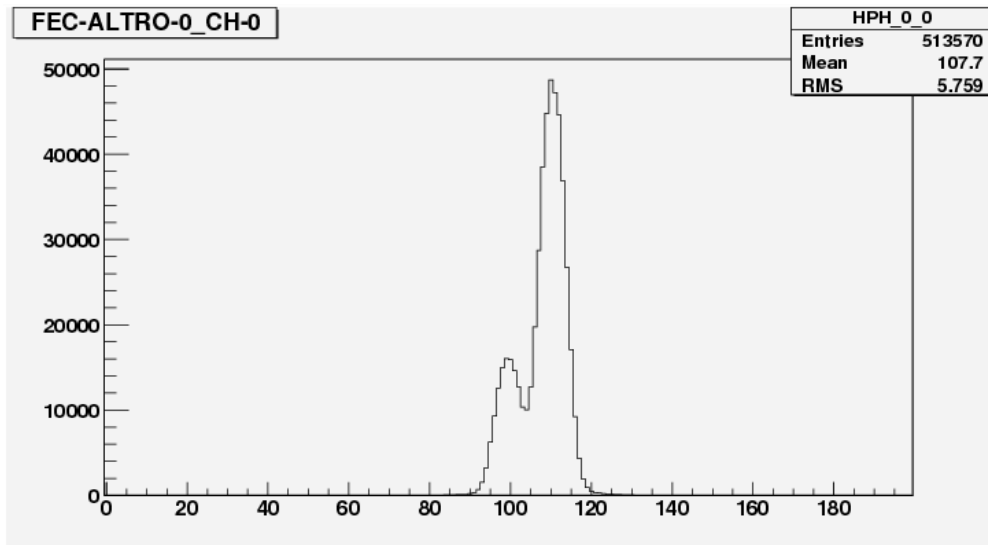


Pedestal pulse heights chip 0; highest gain, shortest shaping, shortest decay

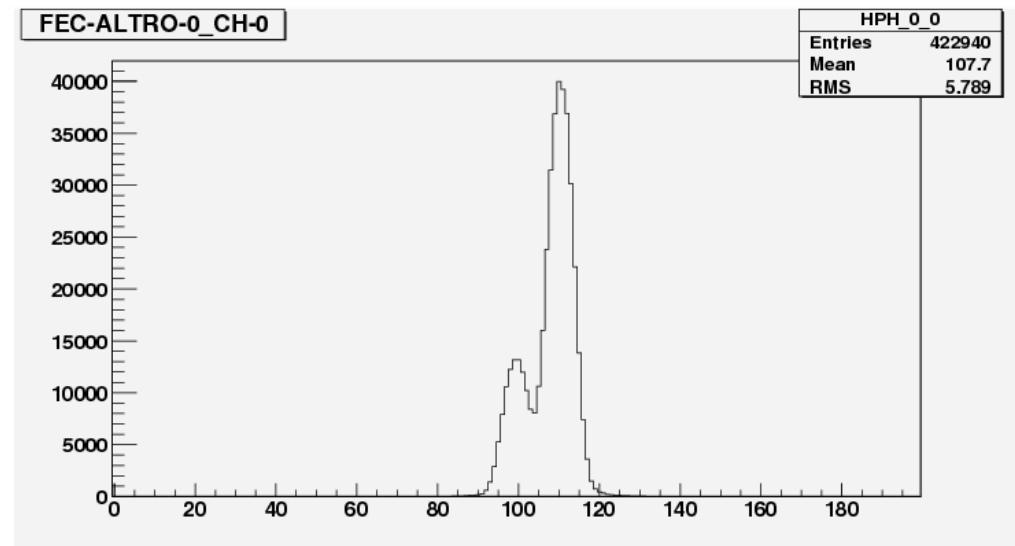


Pedestal pulse heights chip 0 channel 0

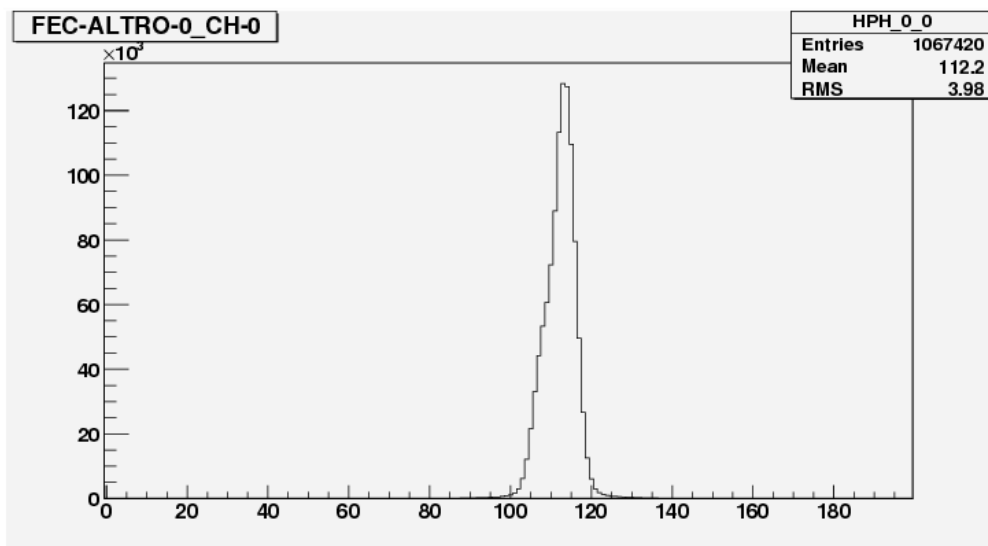
highest gain, shortest shaping, decay = 400



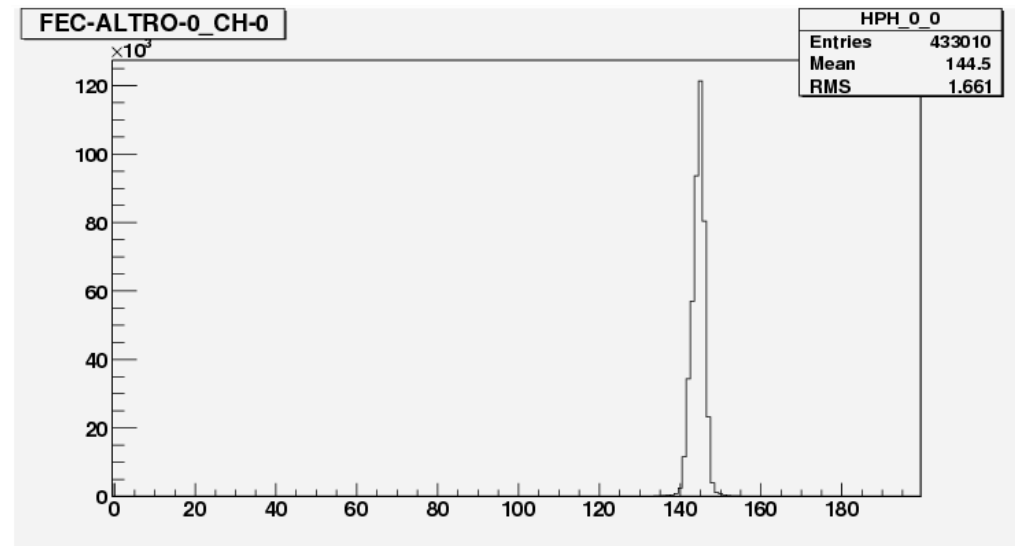
highest gain, shortest shaping, decay = C00



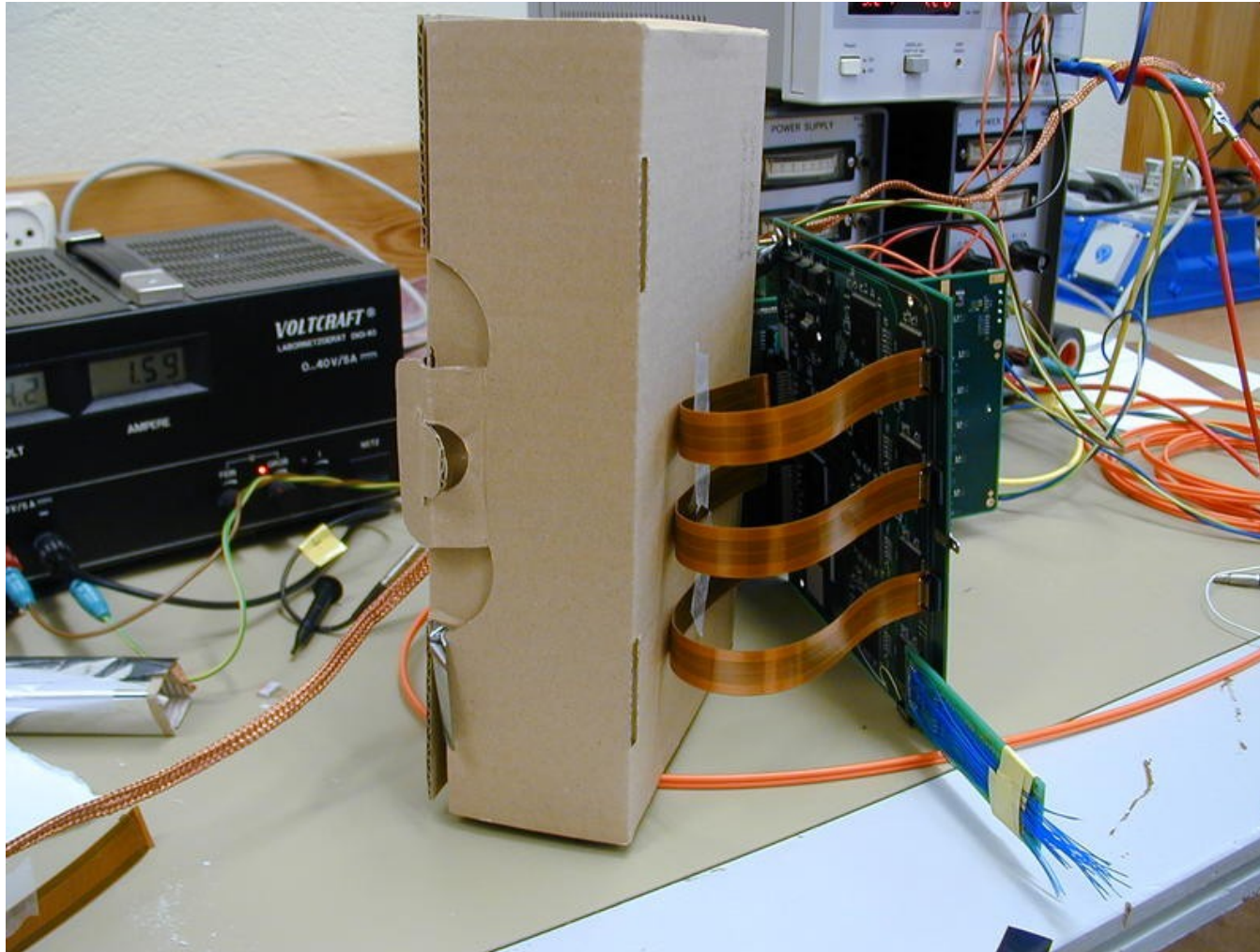
highest gain, shortest shaping, decay = FFF



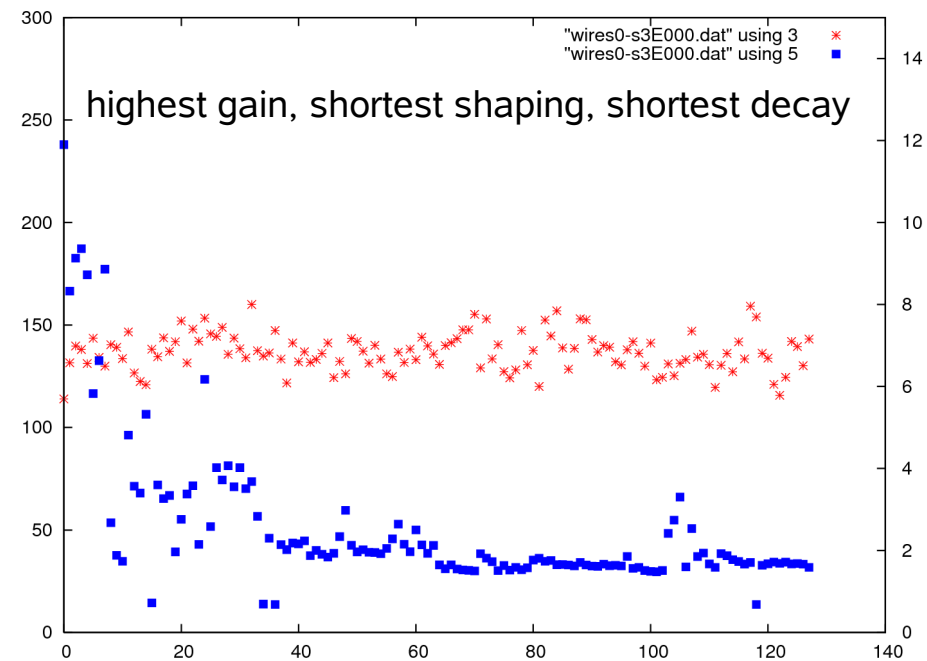
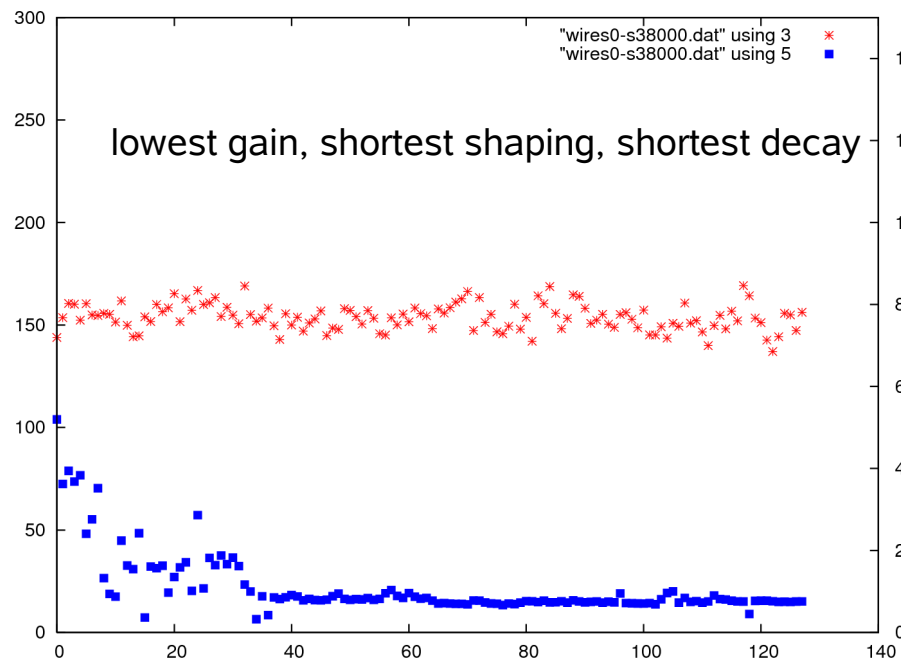
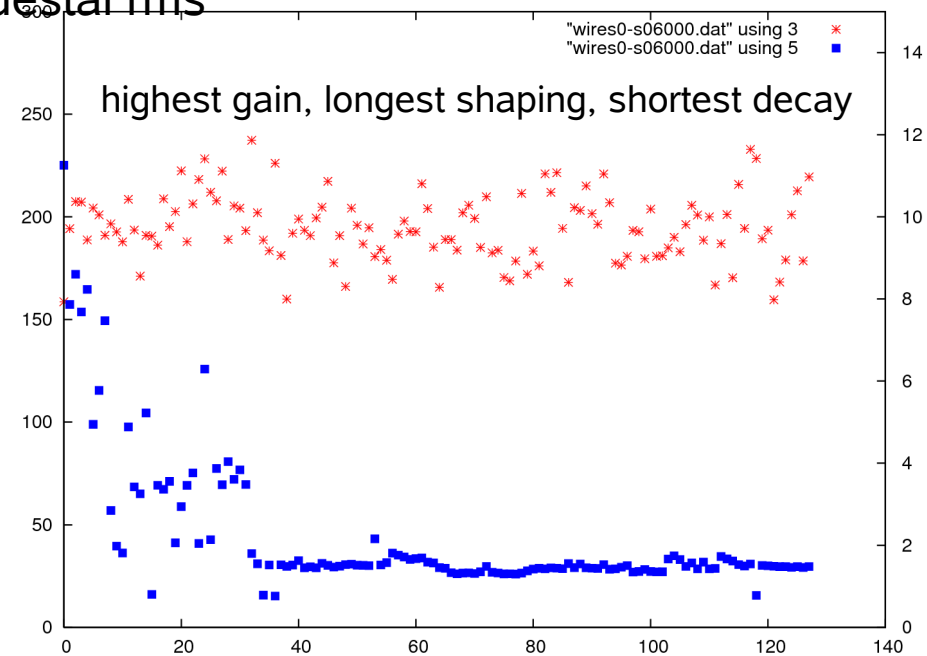
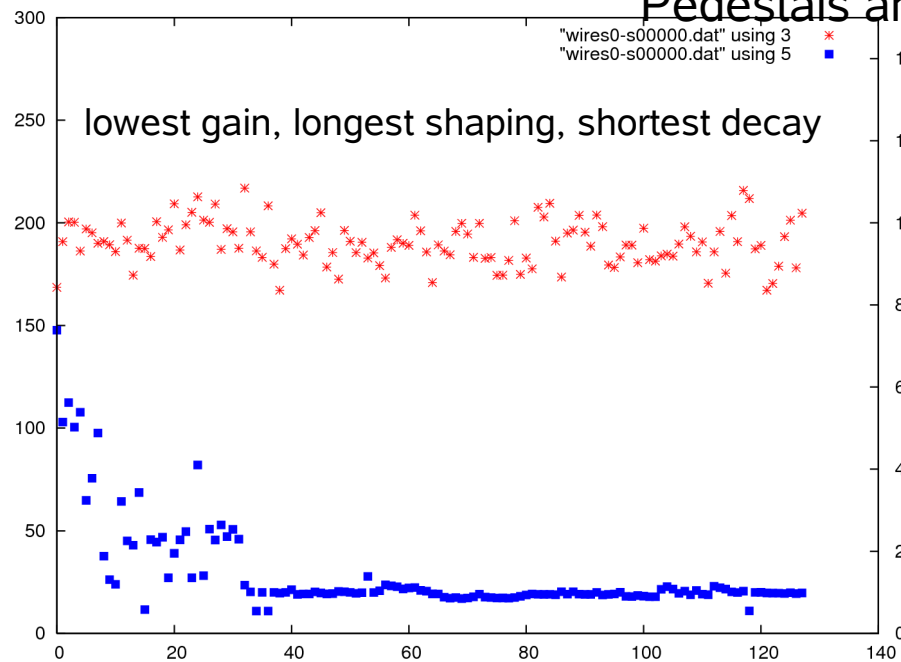
lowest gain, shortest shaping, decay = 000



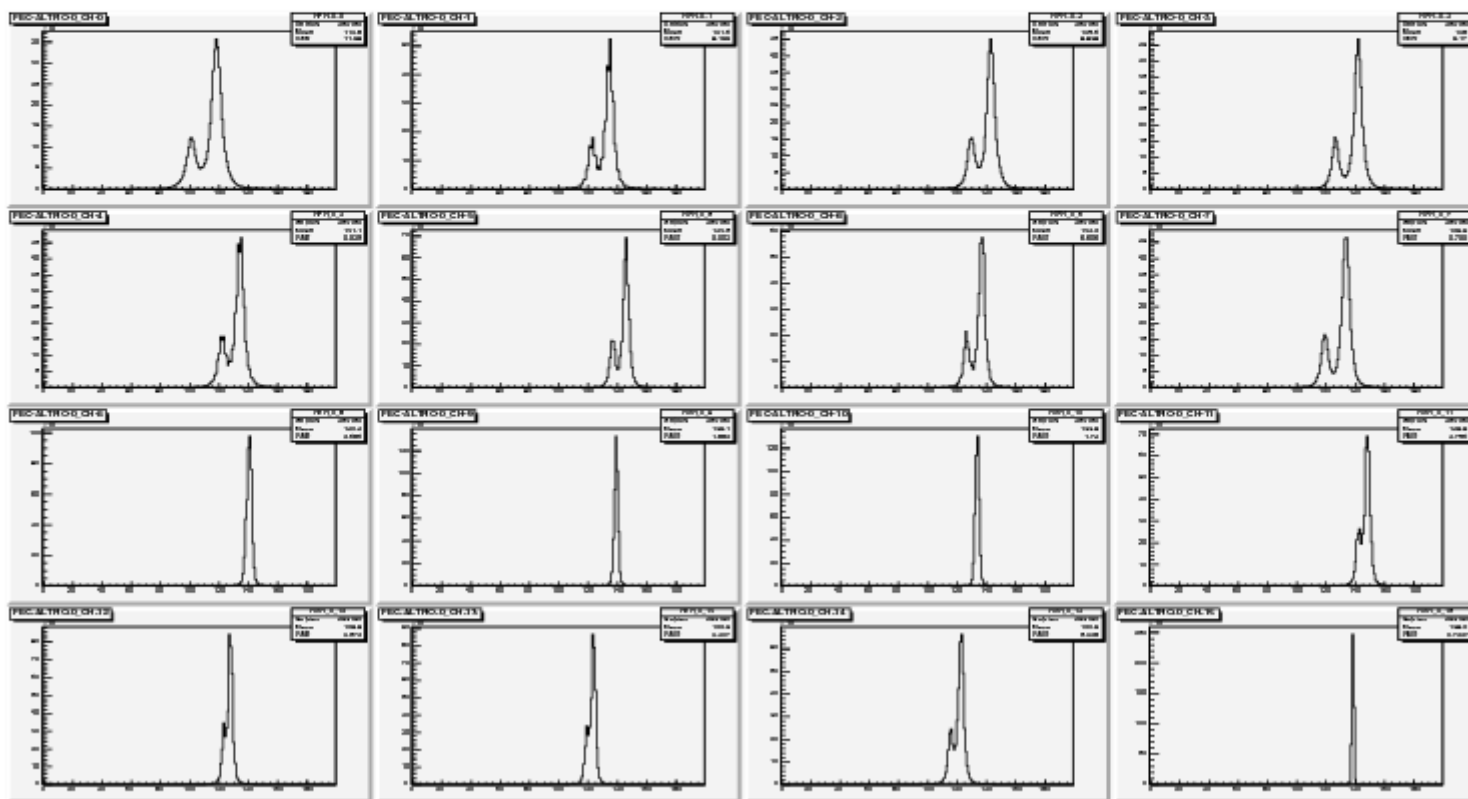
Using a wired cable on chip 0,1

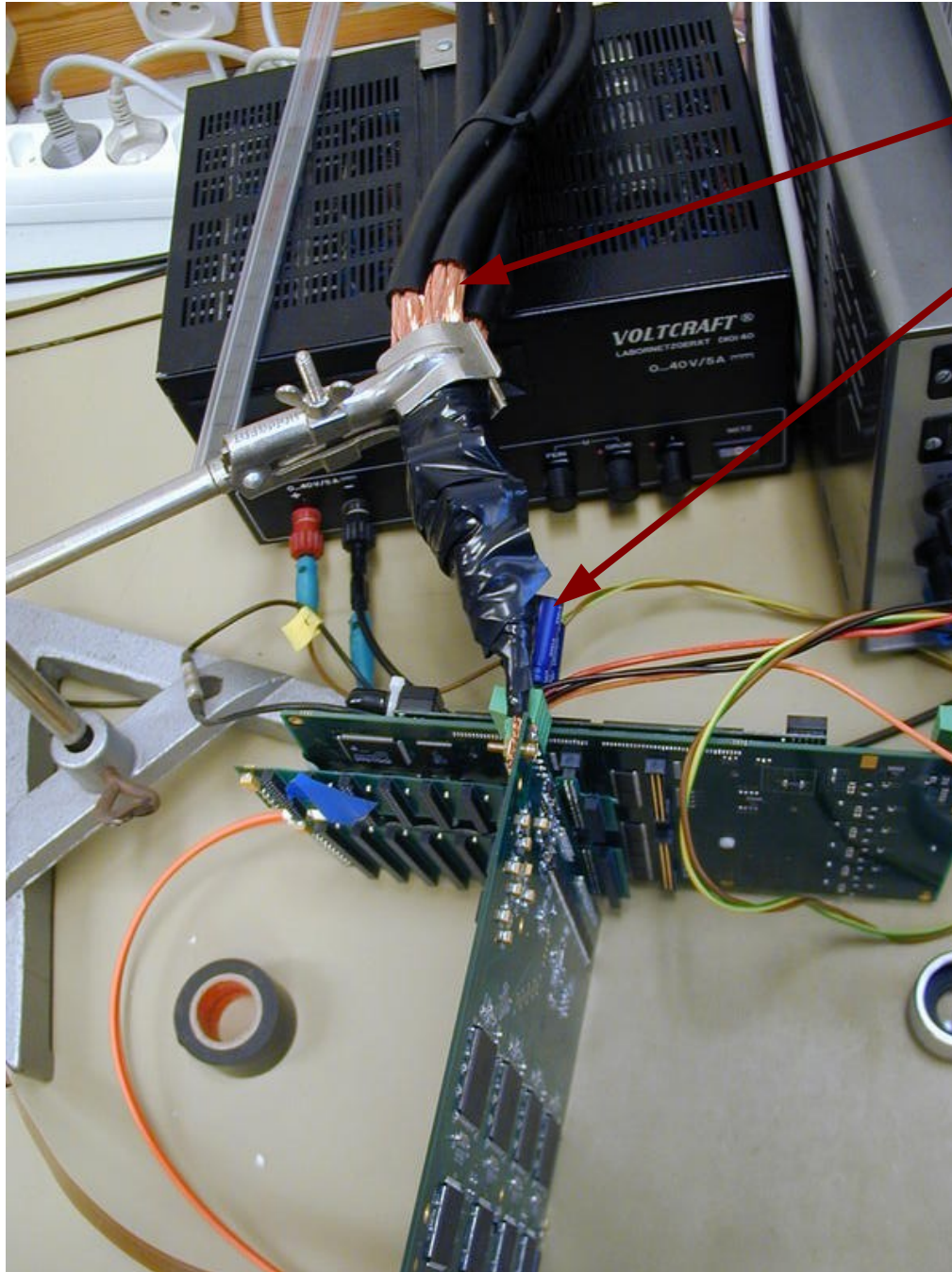


Pedestals and pedestal rms

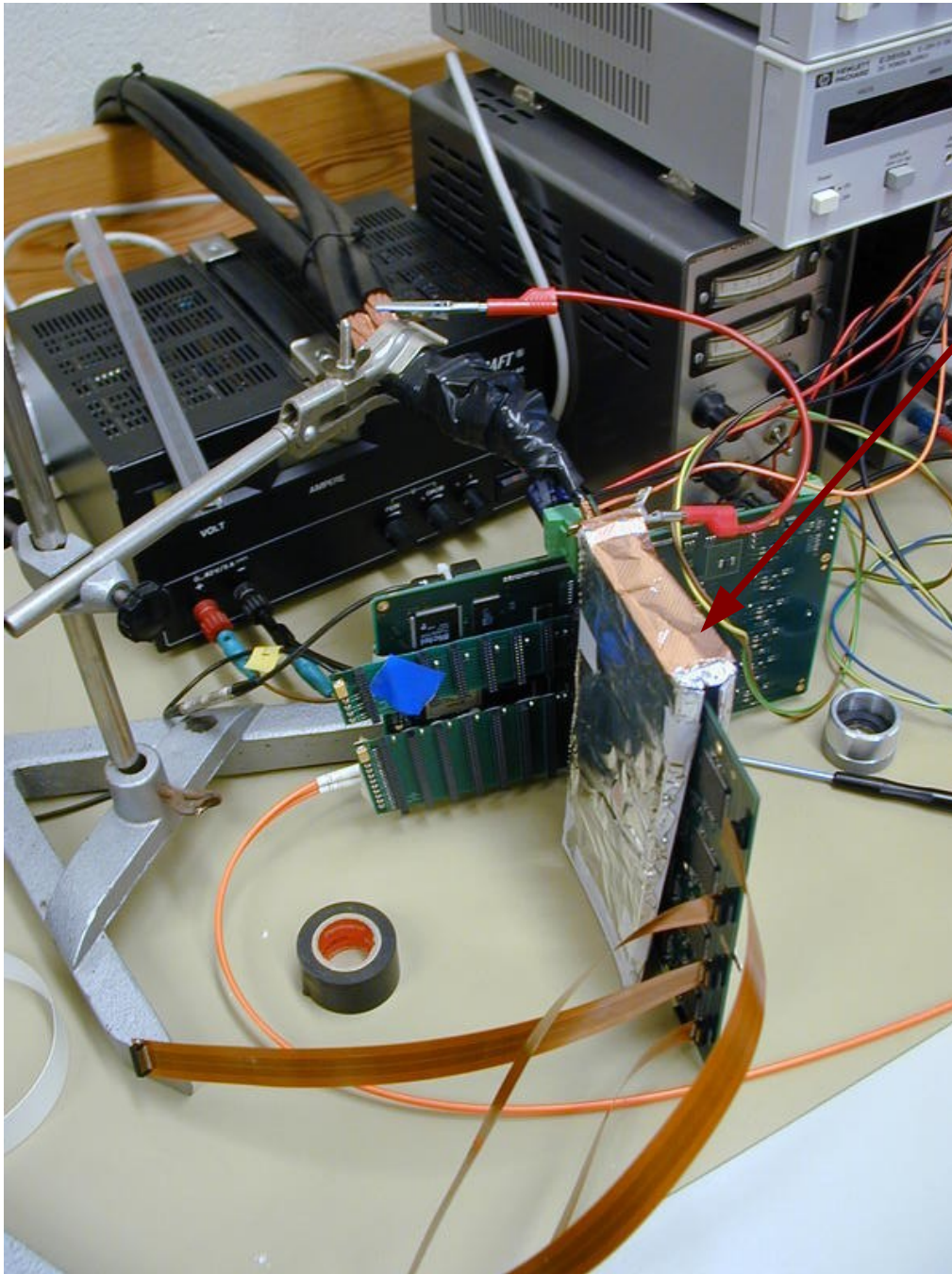


Pedestal pulse heights chip 0
highest gain, shortest shaping, shortest decay



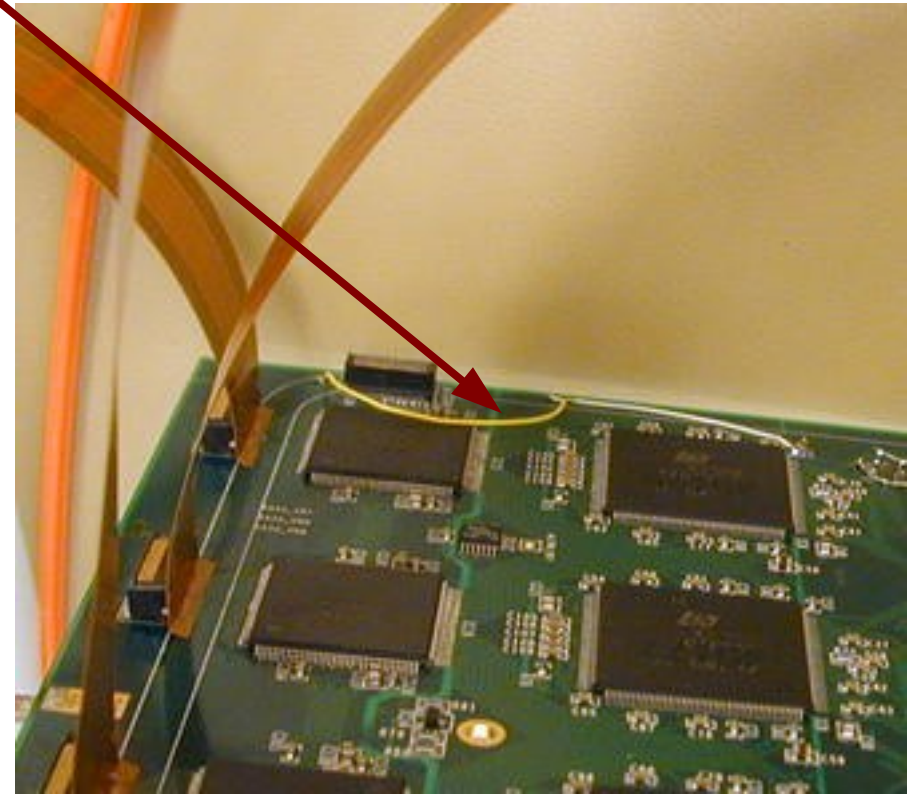
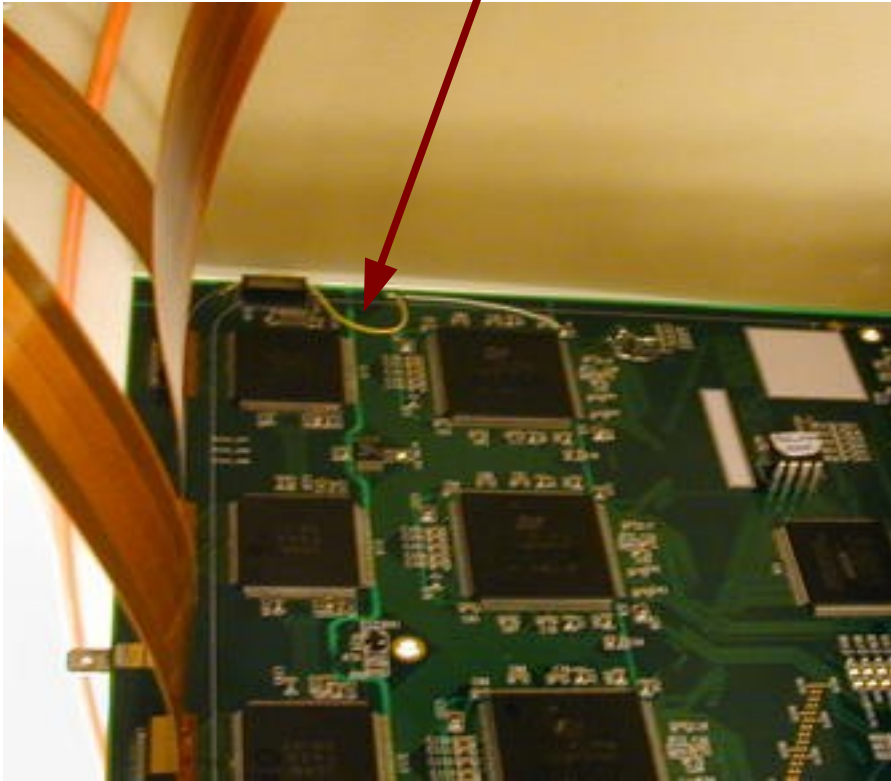


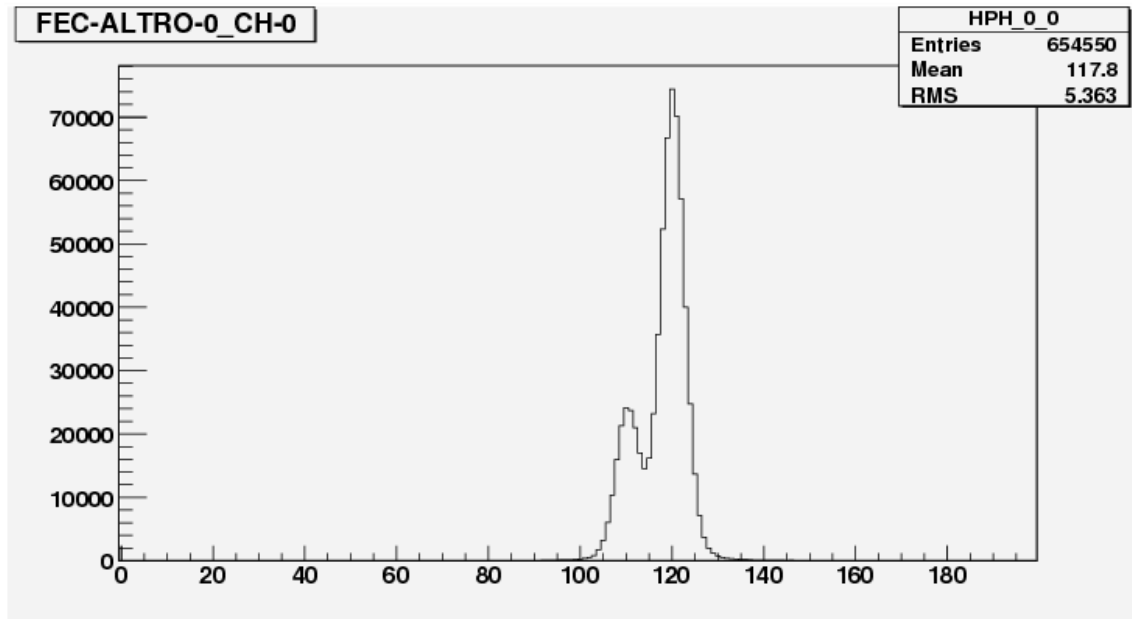
Grounded with four thick cables to radiator
and 1mF capacitors at supply voltage
Result: No difference



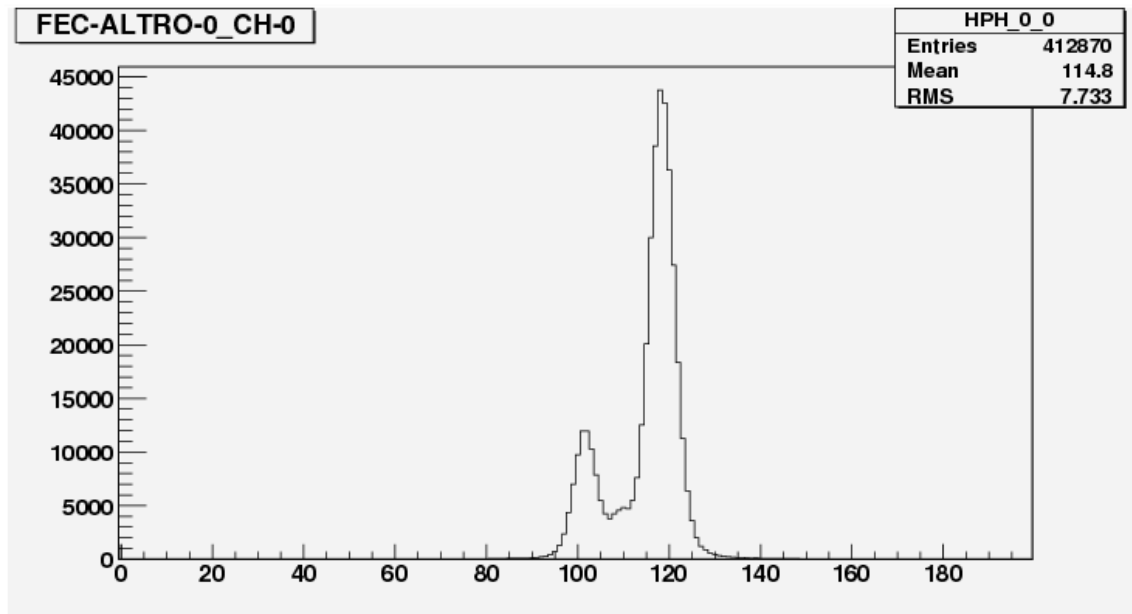
Try to shield the digital part with Al-foil
Result: no difference

Swap the ground “fixwire” to lie on top of the PCA instead of below the settings connector -> some difference noticed (see next slide)





Wire below connector



Wire above the PCA
the two peaks are
more separated

The output from the DAC for min and the max settings of the DAC was measured :
DAC value of 000 = 0.0 V
DAC value of FFF = 2.3 V ; which is more than the 1.5V it should be,
i.e. we have had a too high setting for the tests done with the longest decay.
One should with this card not use more than 2671,
i.e. DAC value of A6F as the “longest” decay settings.