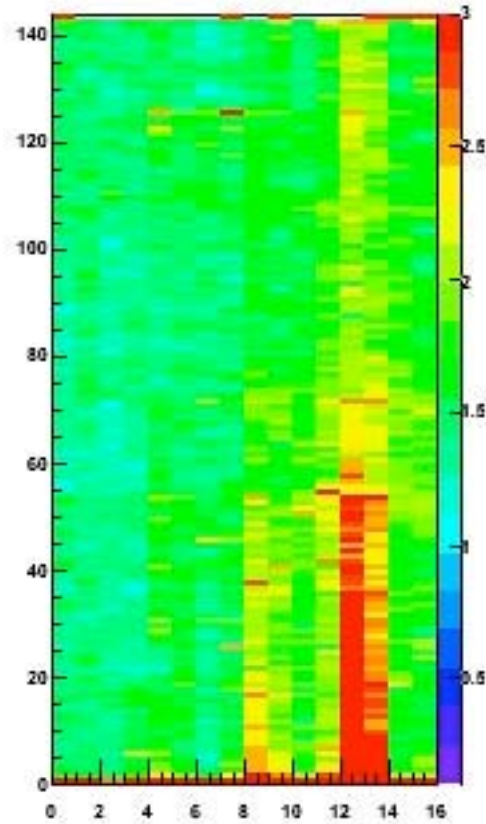


What we've measured at Pit

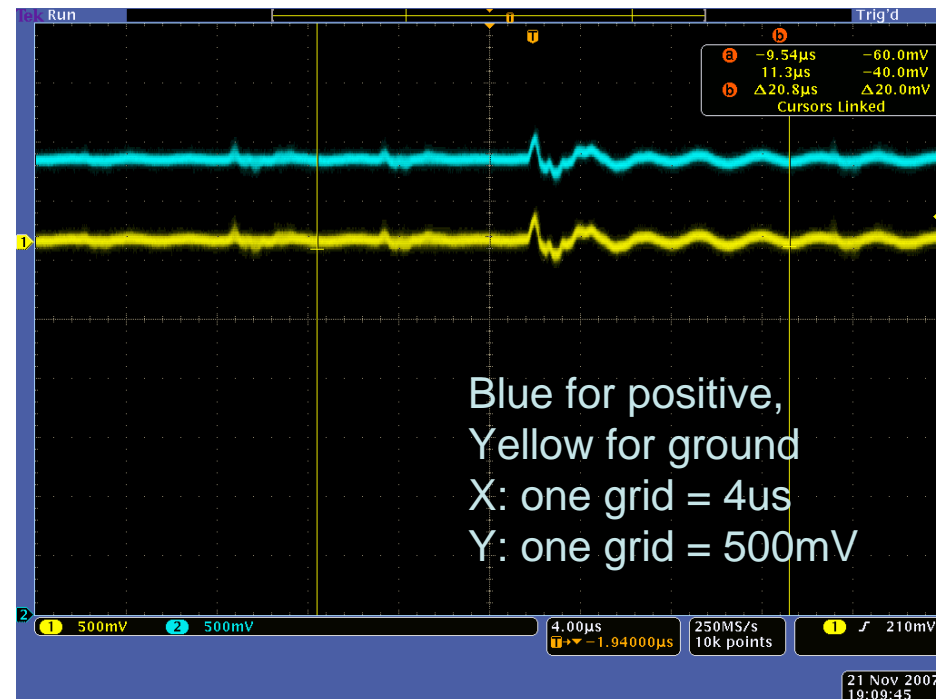
Layer4 of Stack4



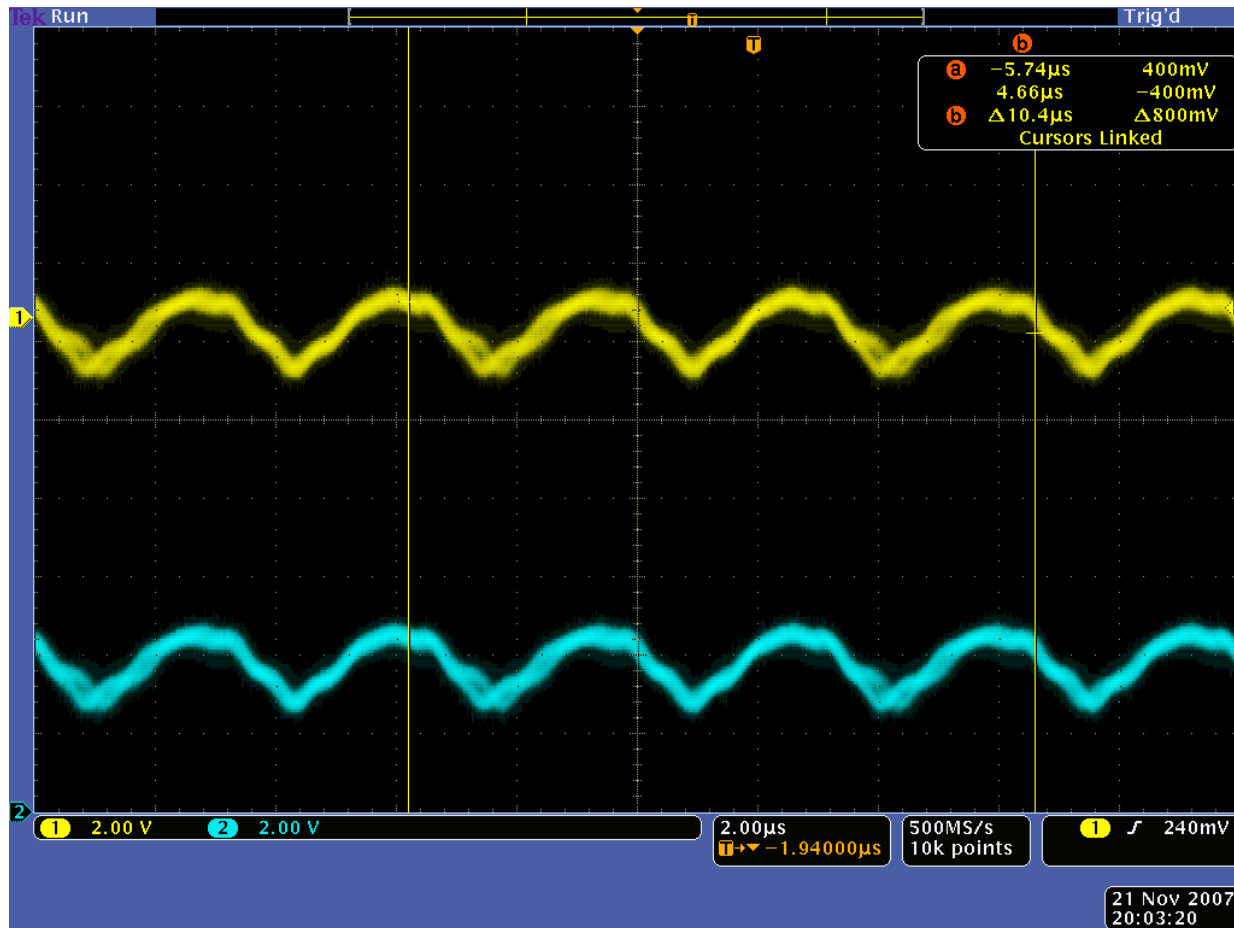
A-side

C-side

- Don't know whether it is due to the PL512 or something else
- We checked voltage signal at the backside of power supply with oscilloscope at A3.3 for Layer 4,5 without robpower on:(see below)



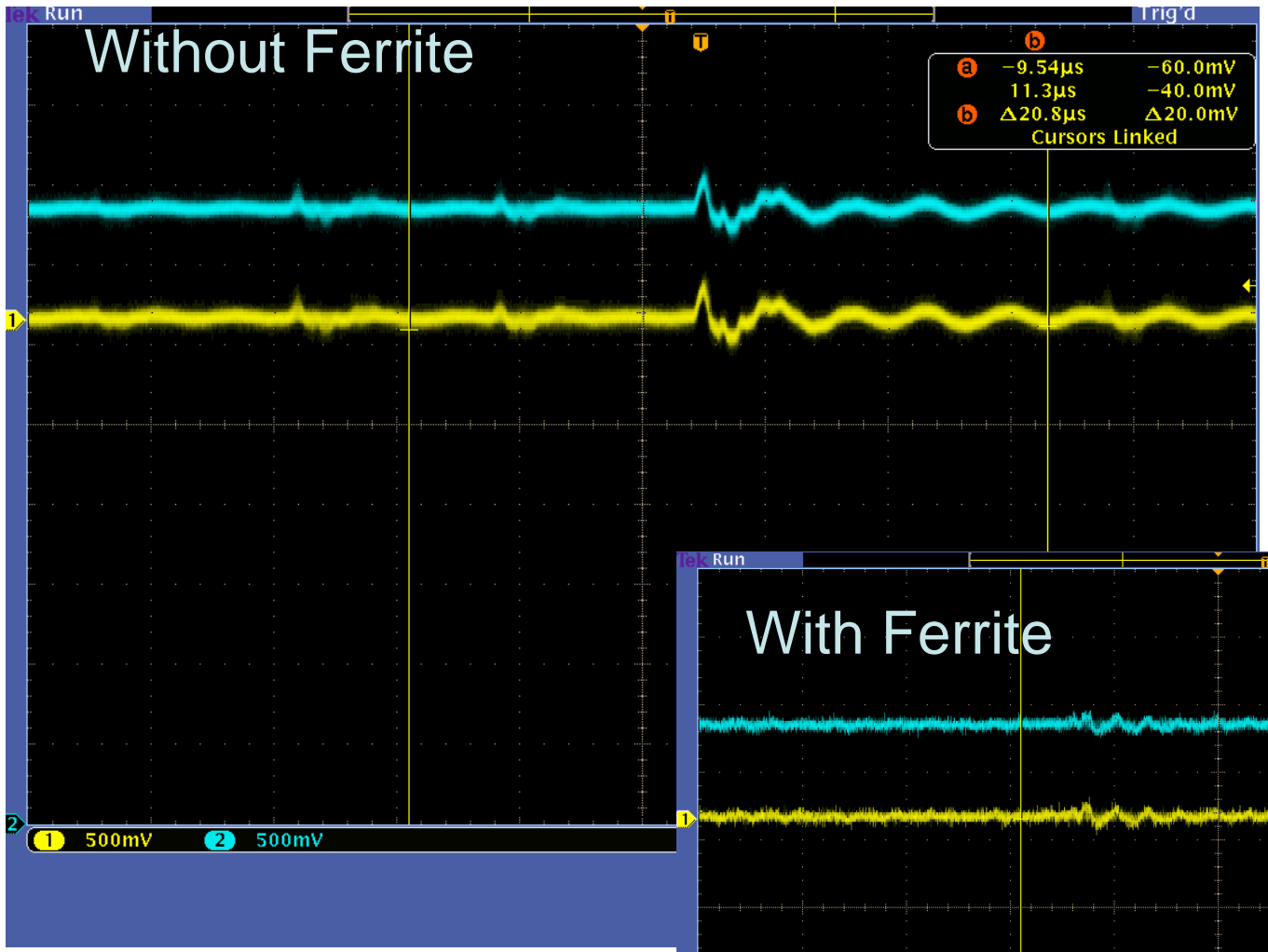
- We checked voltage signal at the backside of power supply with oscilloscope at A3.3 for Layer 4,5 with robpower on:(see below)
- PS + and grounding is fluctuating $\pm 1V$ from rack ground with same phase (can it be a problem to PASA?)



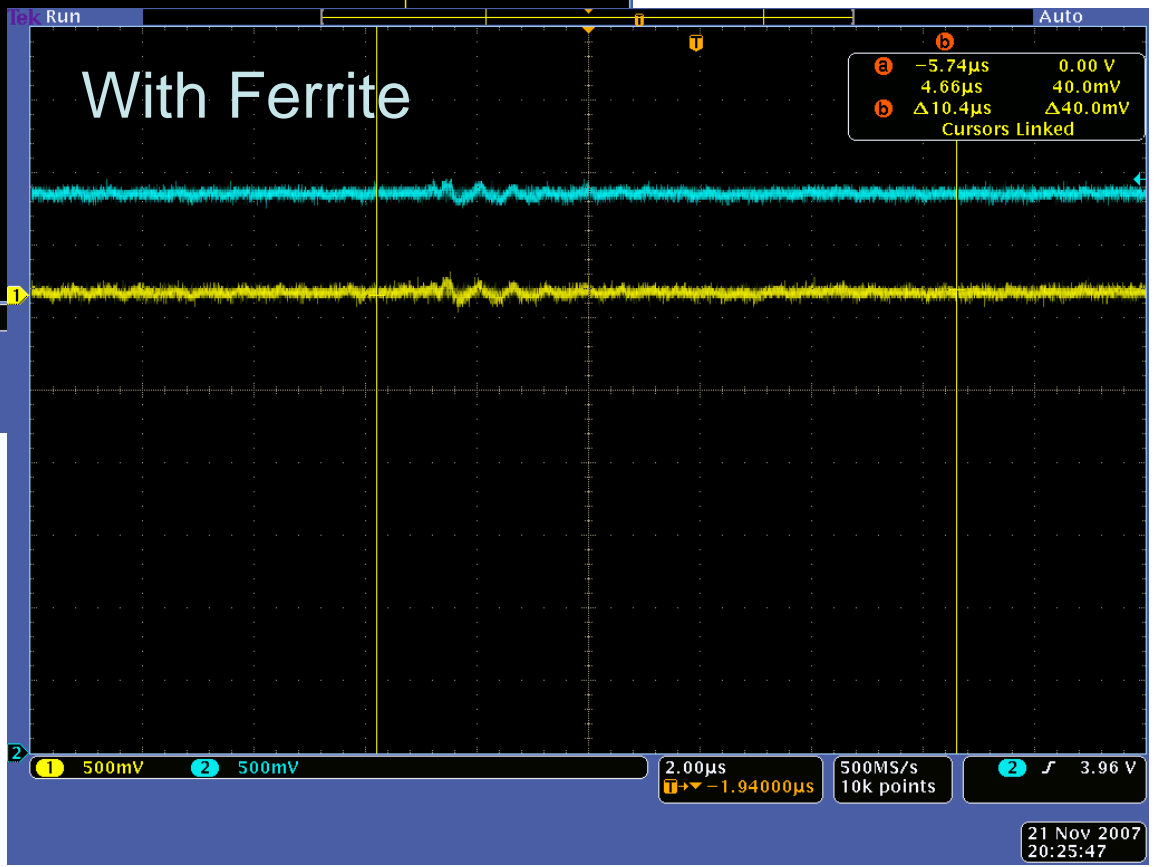
- Following Wiener's suggestion, put the ferrite at the backside of power supply like below for A3.3 of Layer4,5 (put two lines together to pick the common noise).



- Then, measured the noise again



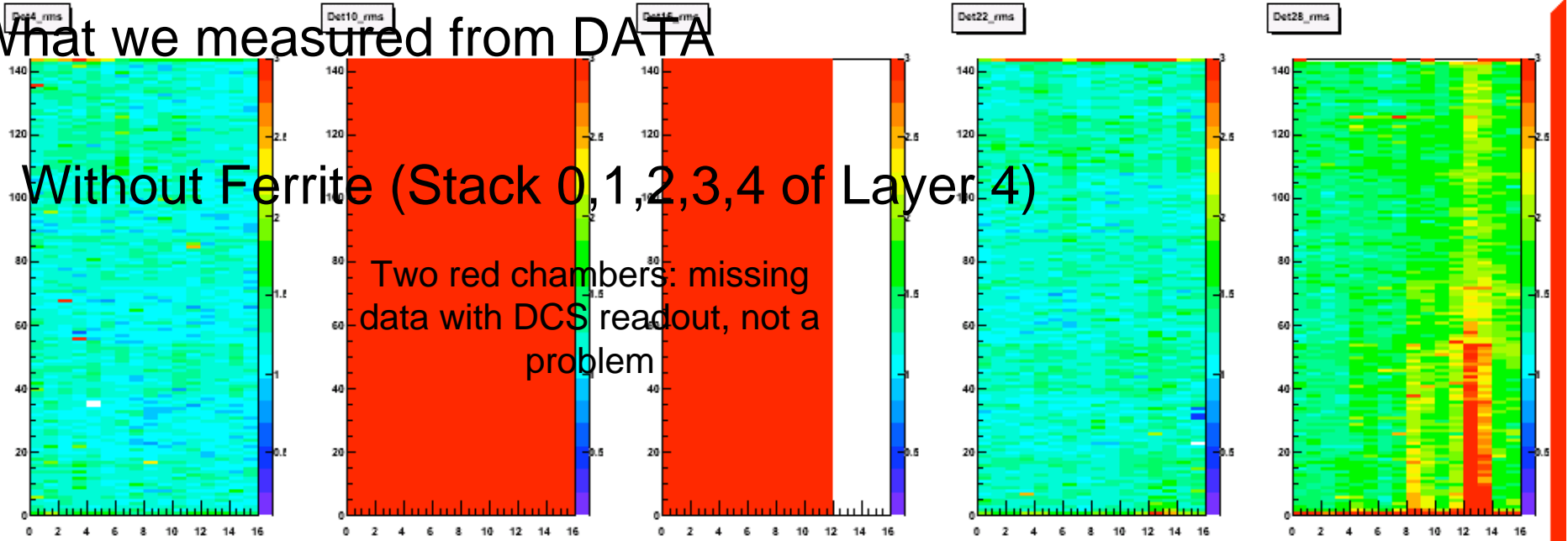
- What we measured from oscilloscope



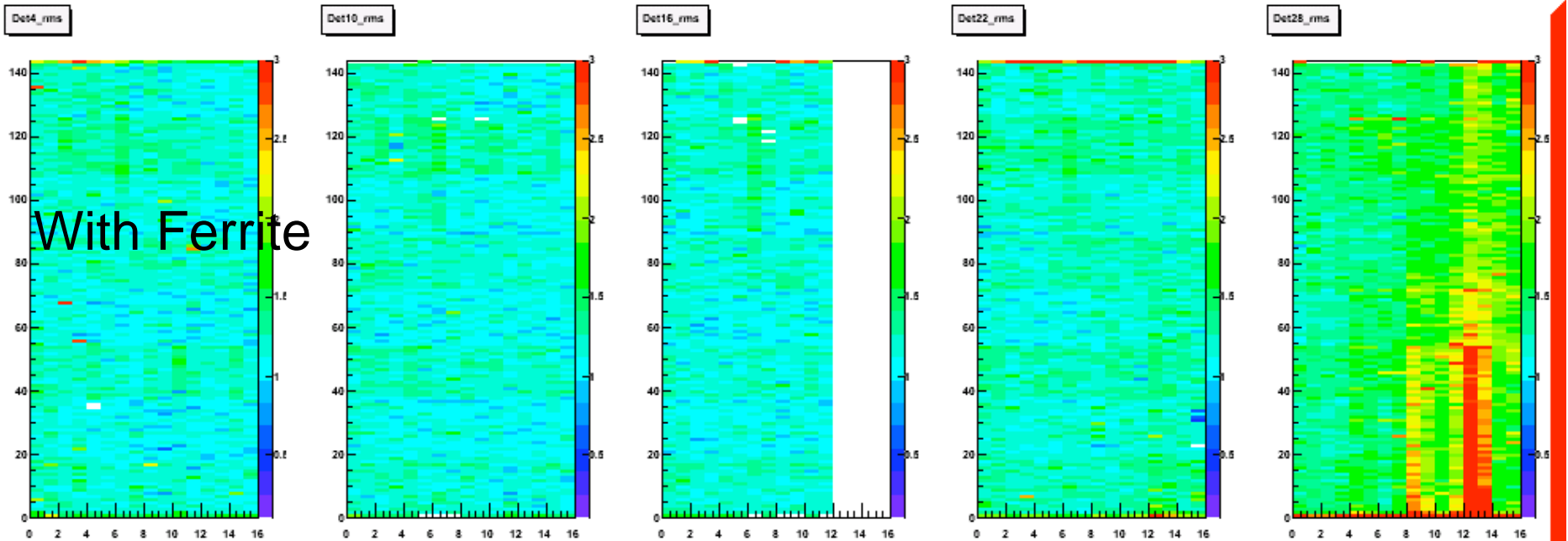
What we measured from DATA

Without Ferrite (Stack 0,1,2,3,4 of Layer 4)

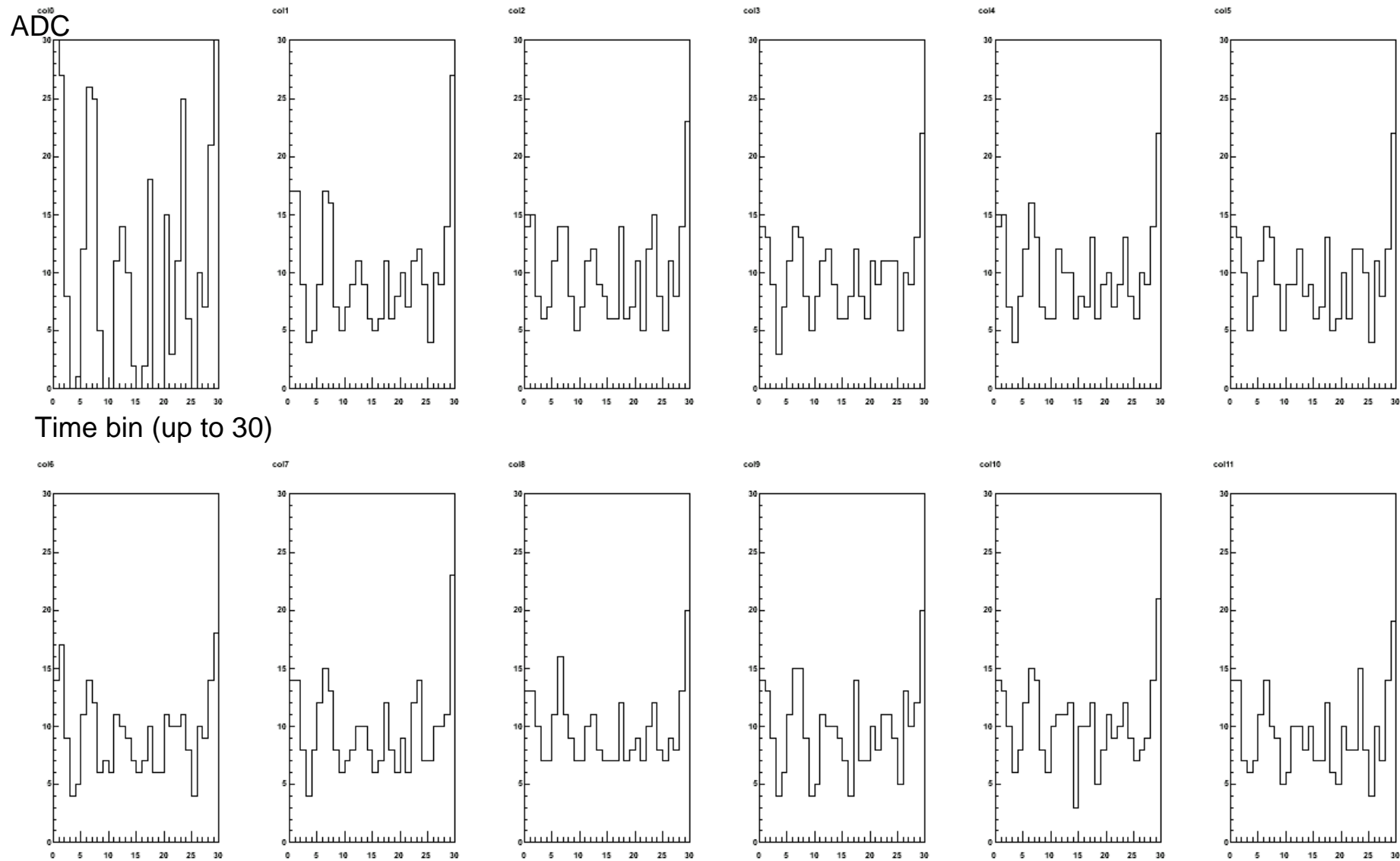
Two red chambers: missing data with DCS readout, not a problem



With Ferrite



With Ferrite, we still see this type of noise(600ns) from data at the most noisy pixels



Conclusion up to now

- We don't see noise reduction with the ferrite installation at pit
- Then, the noise we see at the last stack
 - might not from the LV PL512
 - if it is due to LVPL512, still the ferrite is not suitable for the noise reduction
 - we are also checking SM grounding to space frame (we will change some ground connection and see if gives difference)
 - if it doesn't give difference, we check with PL508 to conclude if it is really power supply problem
- Does the ferrite help for TPC?