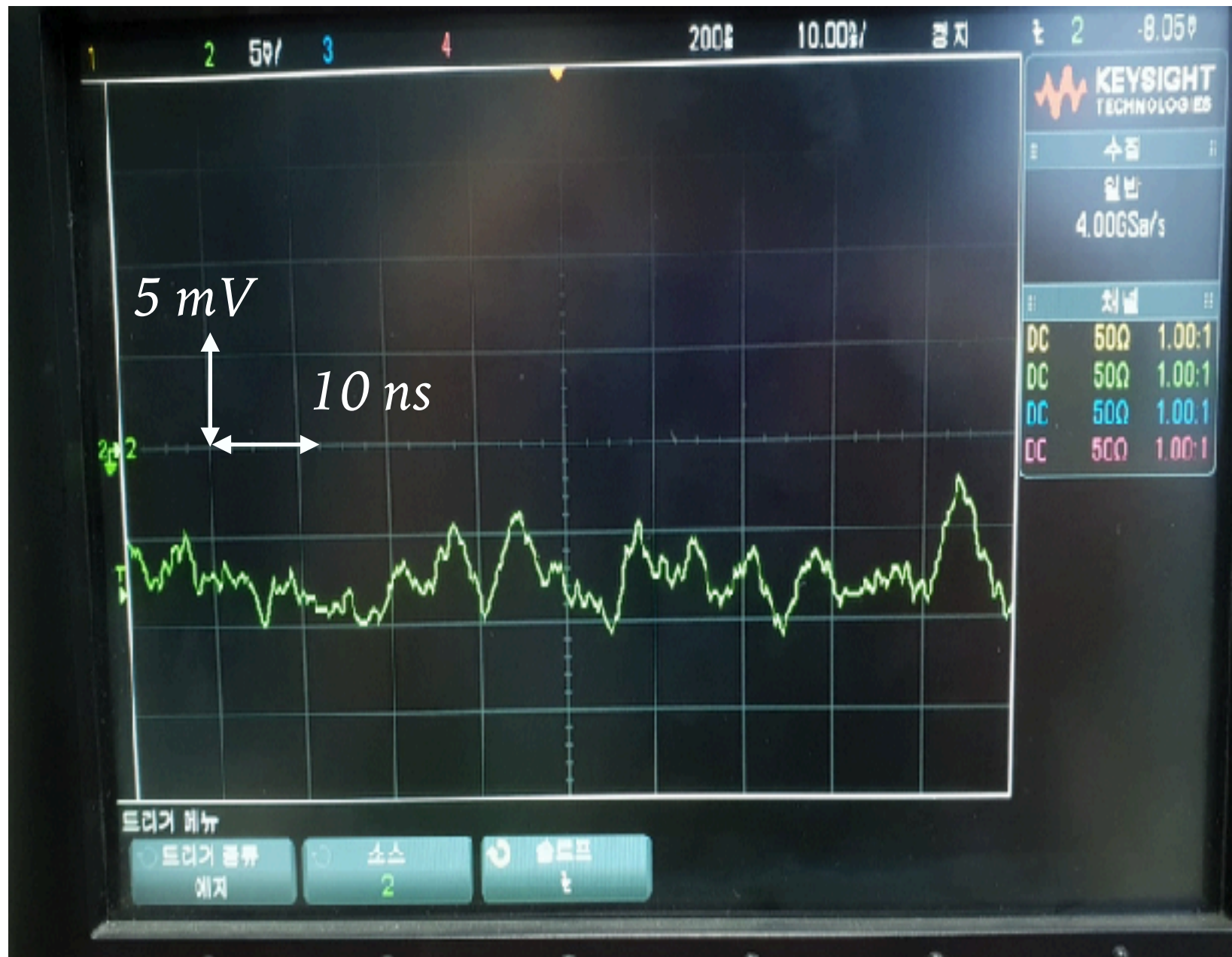


# HANUL MEETING

## Preamp noise filtering

# TESTS FOR NOISE FILTERING

Preamp noise



Maximum  $V_{p-p} \sim 18$  mV  
typical  $\sim 6$  mV

Frequency : 100 ~ 200 MHz

# TESTS FOR NOISE FILTERING

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## Test list

### 1. Bypass capacitor

MPPC power : 33  $\mu\text{F}$ , 2.2 $\mu\text{F}$ , 1 nF

Preamp power : 470  $\mu\text{F}$ , 10  $\mu\text{F}$ , 0.1  $\mu\text{F}$ , 1 nF

### 2. Lowpass filter ( $f_c=3$ Mhz)

c.f) noise frequency : 100 ~ 200 MHz

### 3. Shielding with aluminum foil

Only written in red are effective.

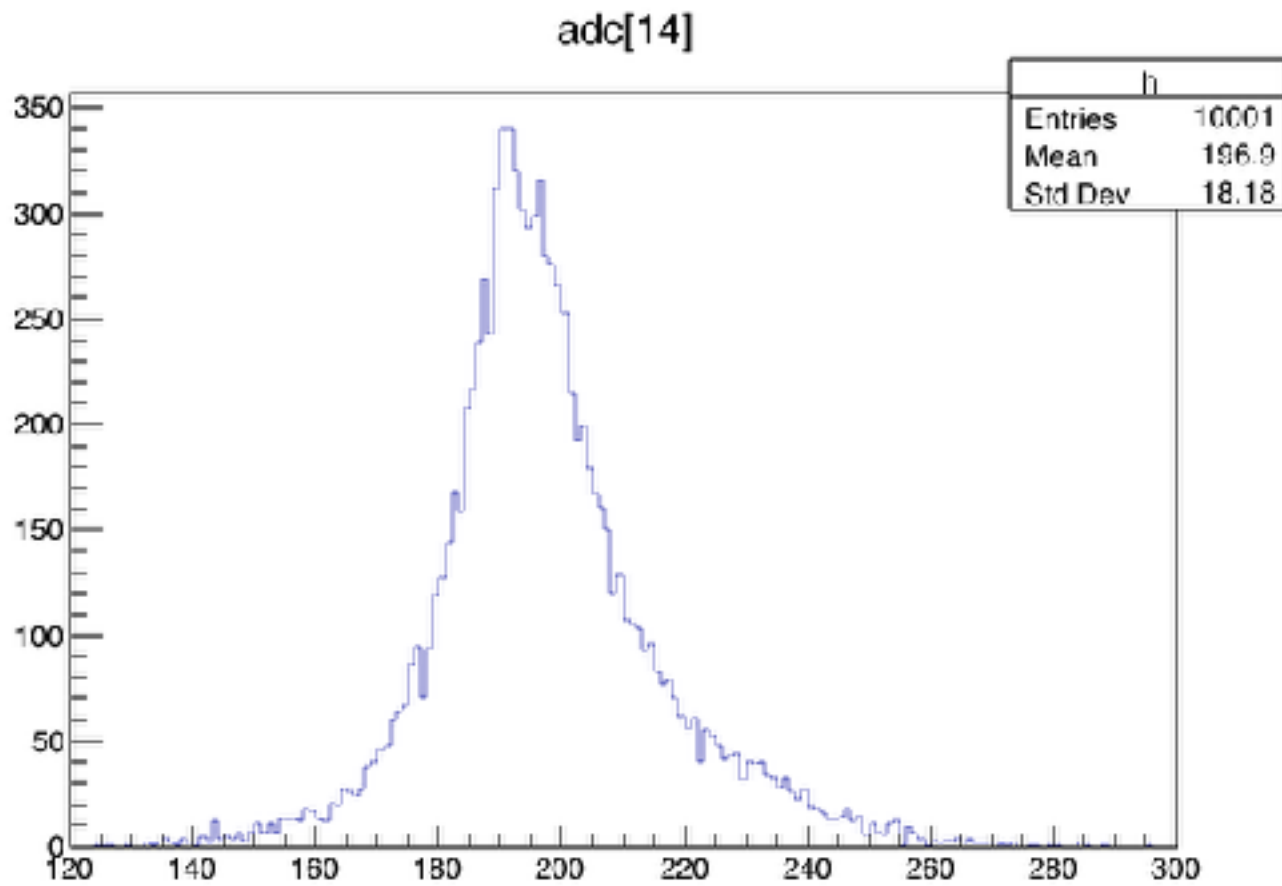
# BACKUP

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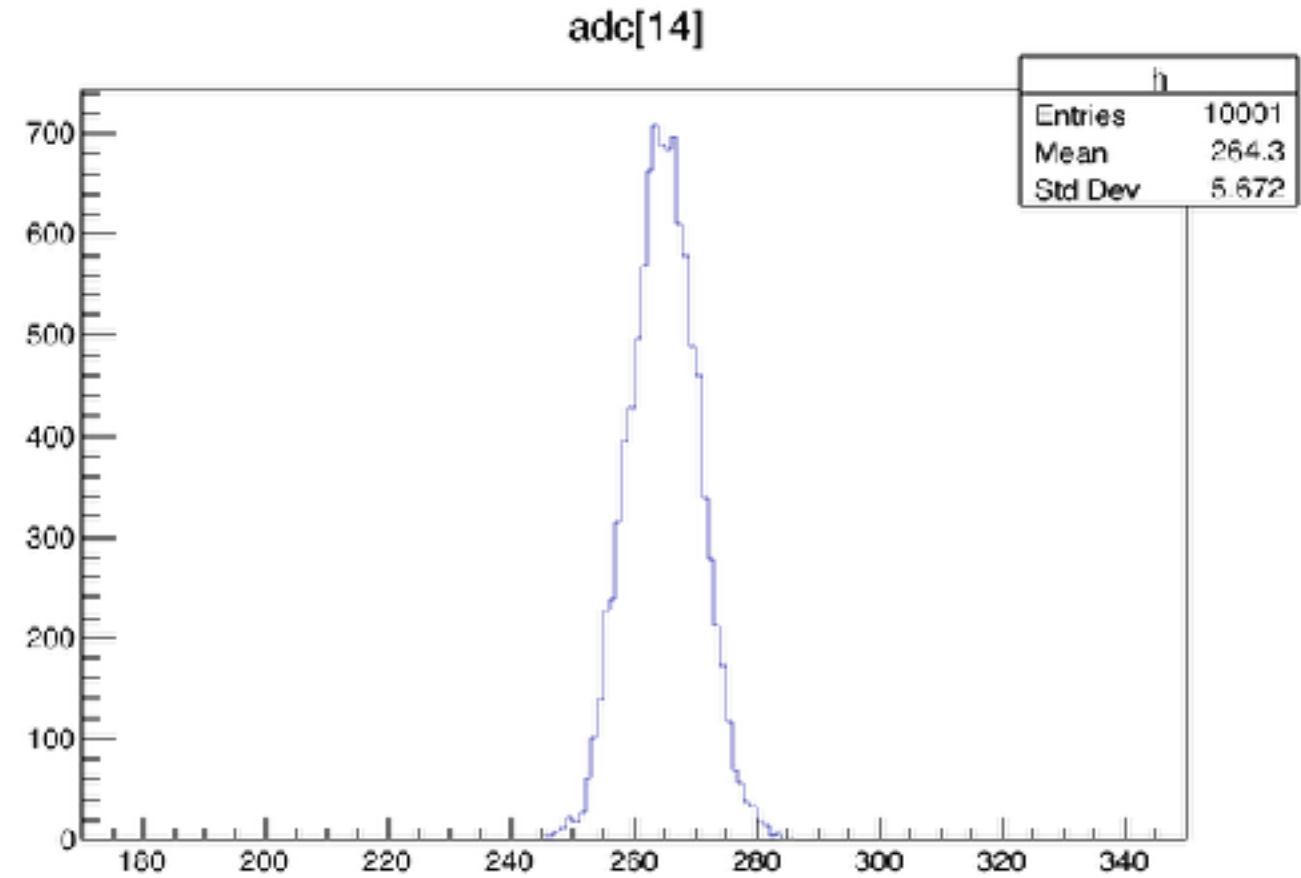
# BYPASS CAPACITOR

## Pedestal histograms

cap : 10  $\mu\text{F}$ , 0.1  $\mu\text{F}$



cap : 470  $\mu\text{F}$ , 10  $\mu\text{F}$ , 0.1  $\mu\text{F}$ , 1 nF

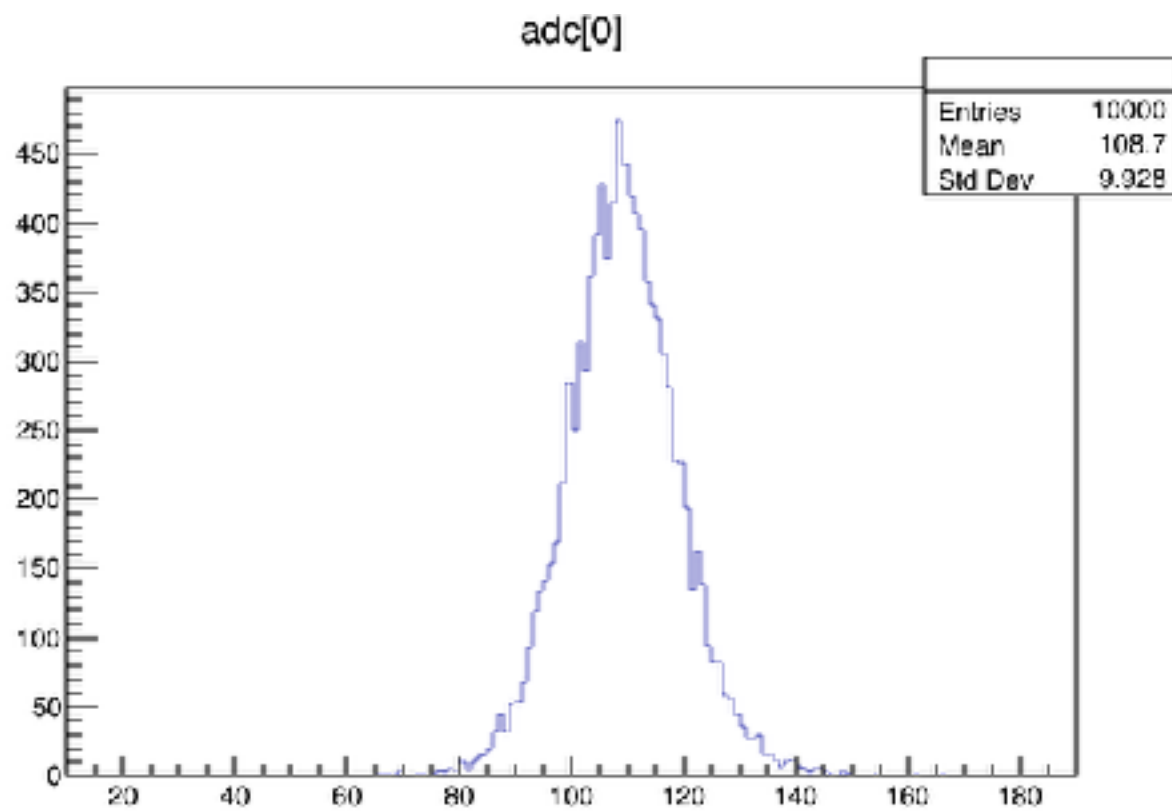


# PEDESTAL HISTOGRAM OF 4 MPPC DATA

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## Pedestal histograms

4 MPPC with previous preamp



8 MPPC with current preamp

