

Report

090709

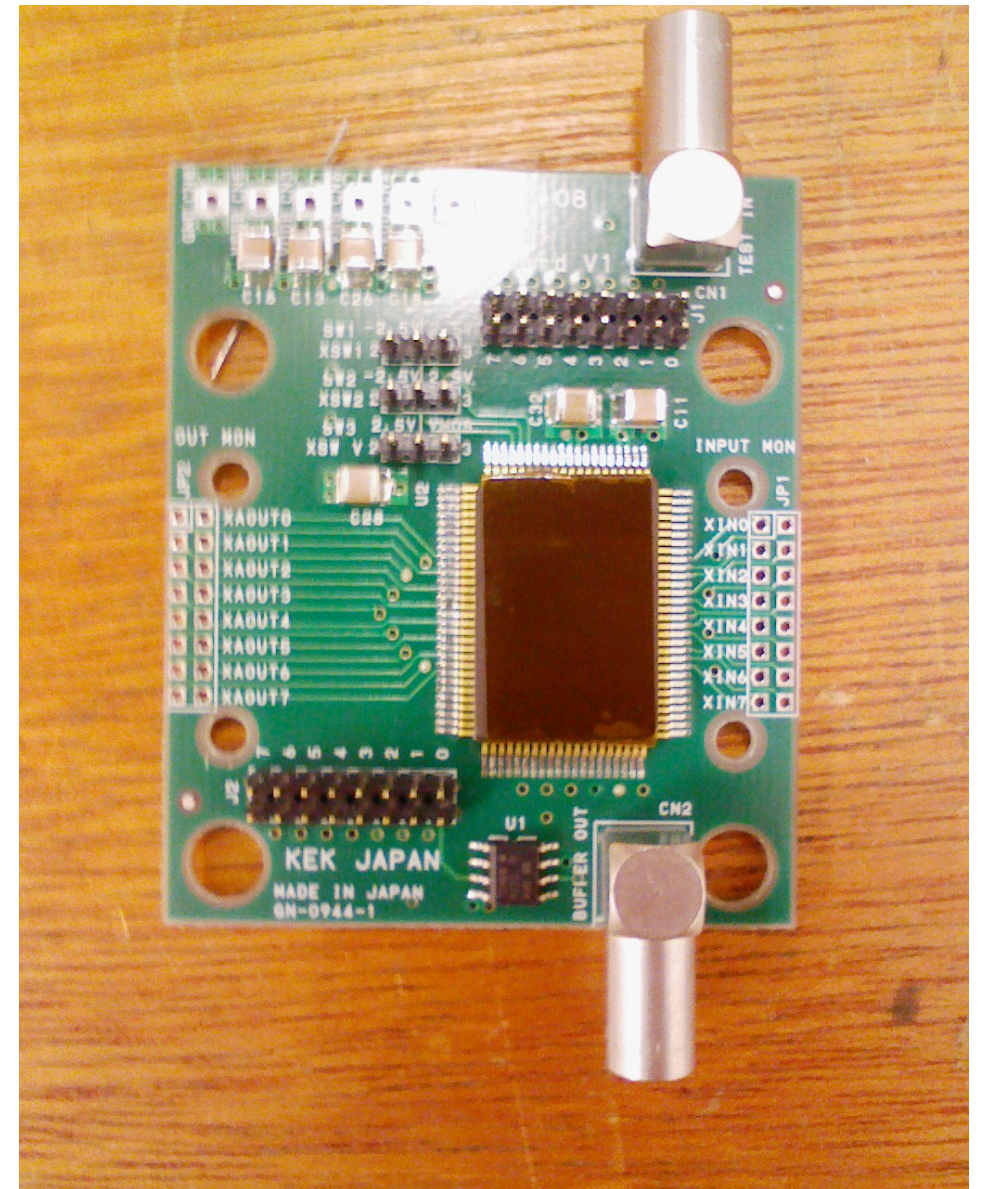
Takatoshi Higashi

Basic test

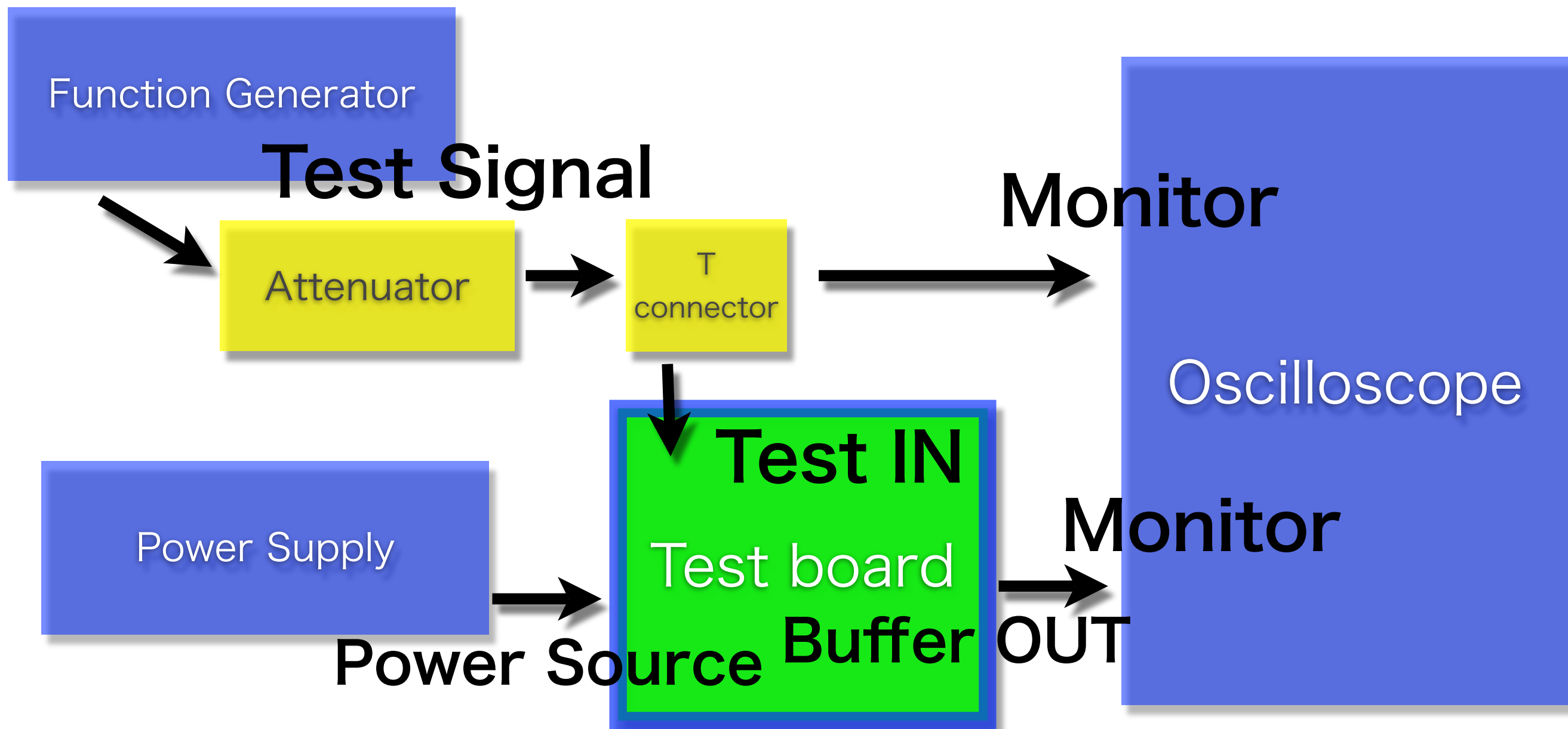
- Linearity (Dynamic Range, Gain)
- Equivalent Noise Charge

Test board

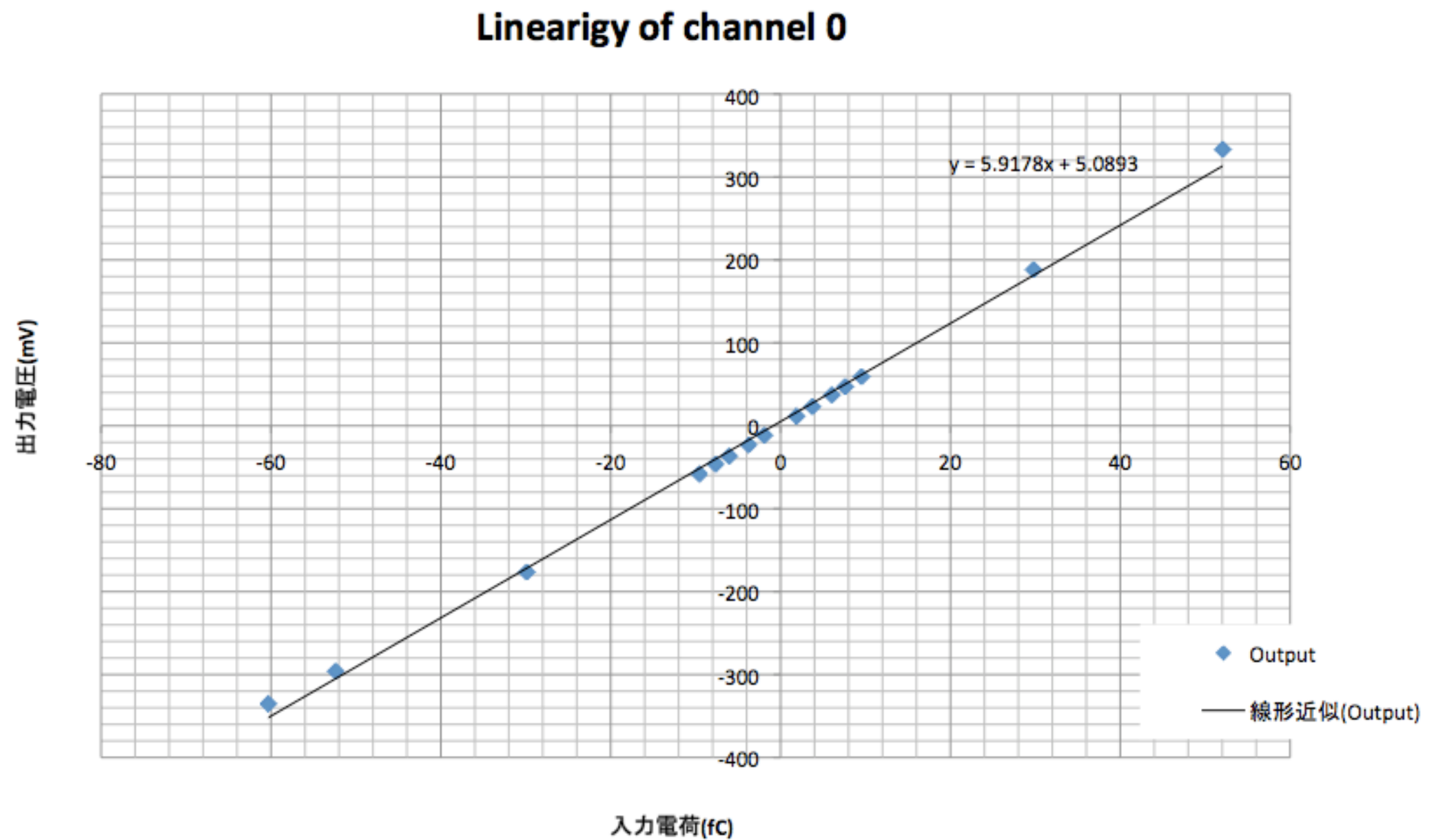
- Chip 1: GND製PCB
ASIC Pb free
- Chip 2: GND製PCB
ASIC Pb solder



Linearity

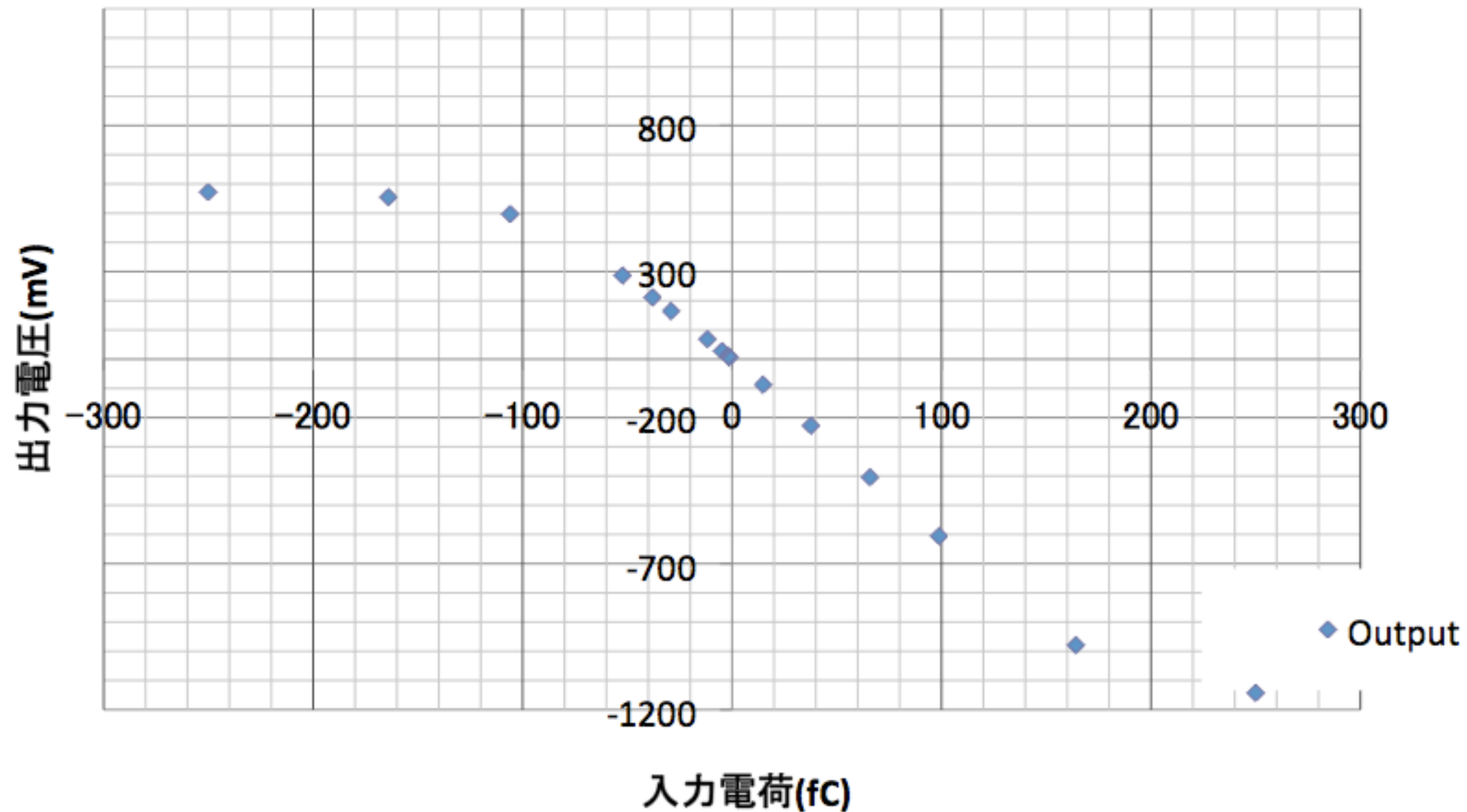


Linearity



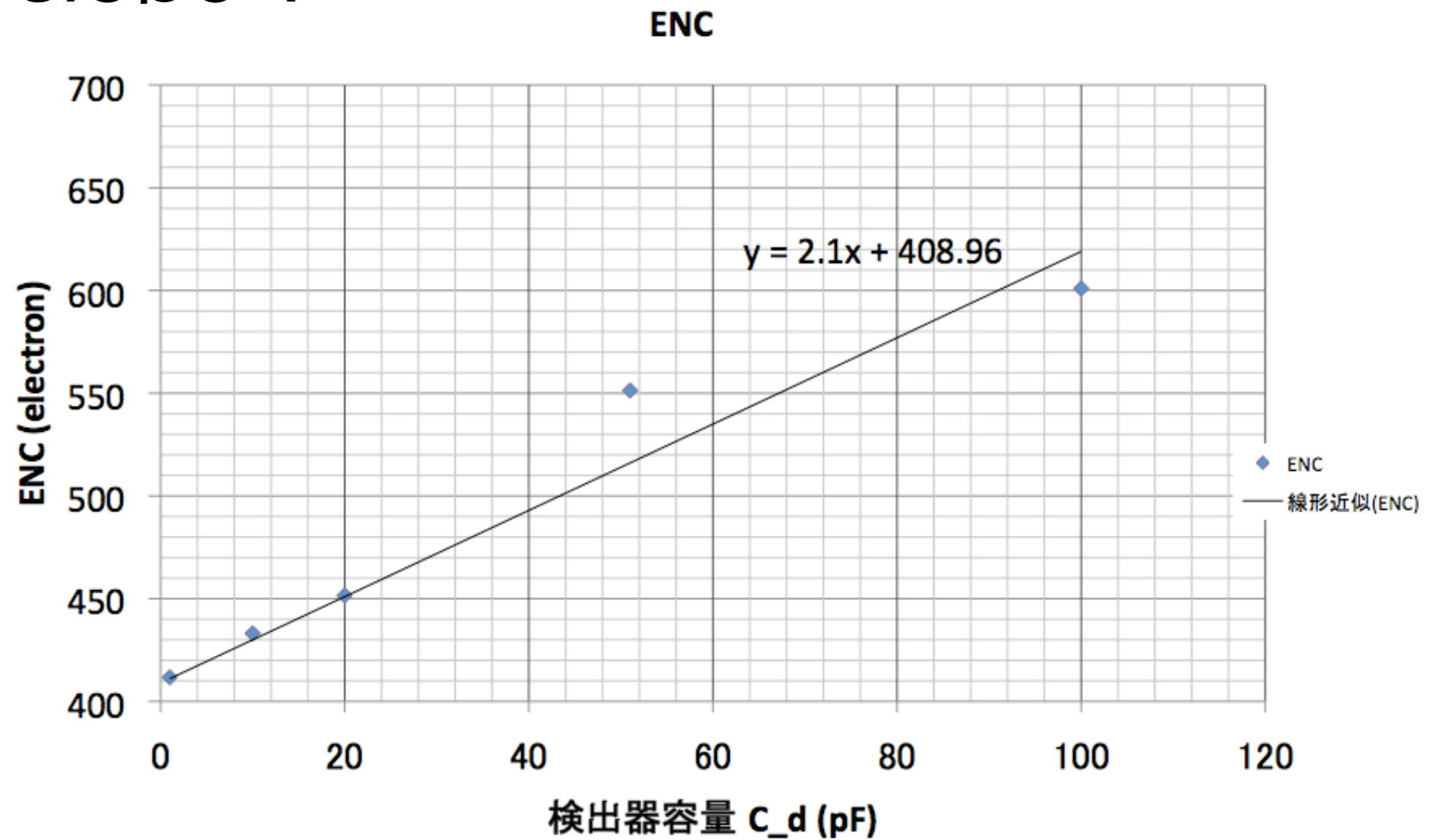
Dynamic Range

Dynamic Range of channel 1



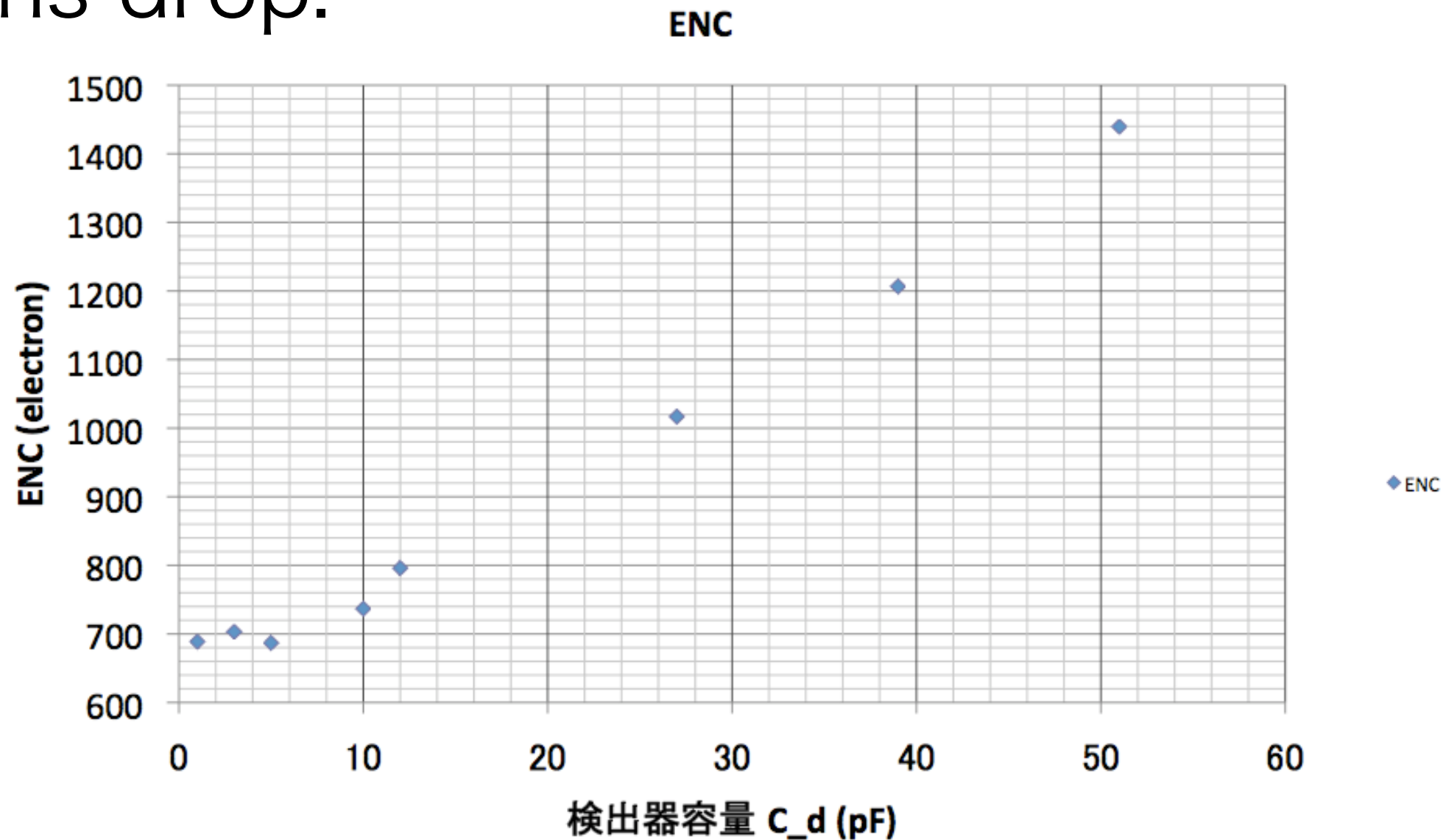
ENC

- Why is it a gentle slope ?



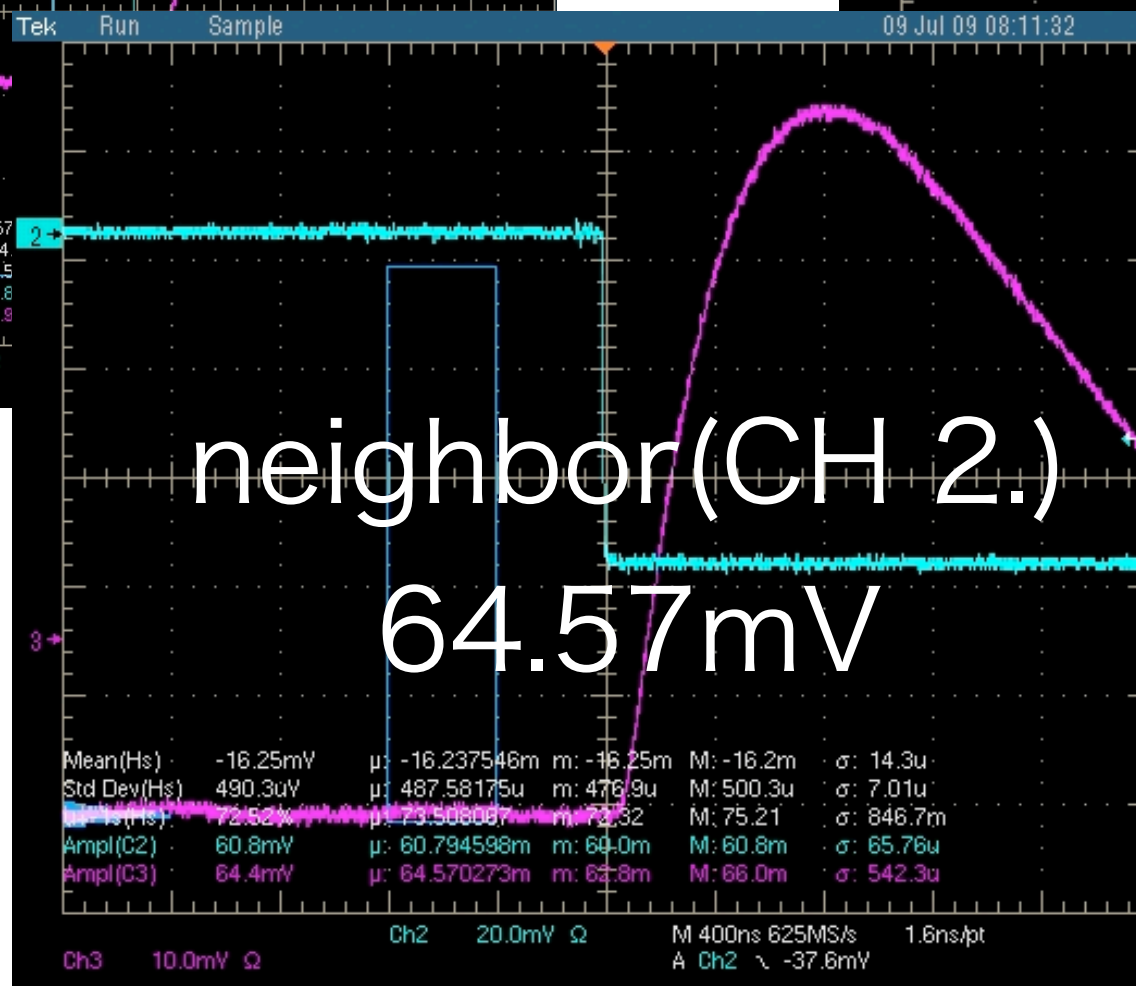
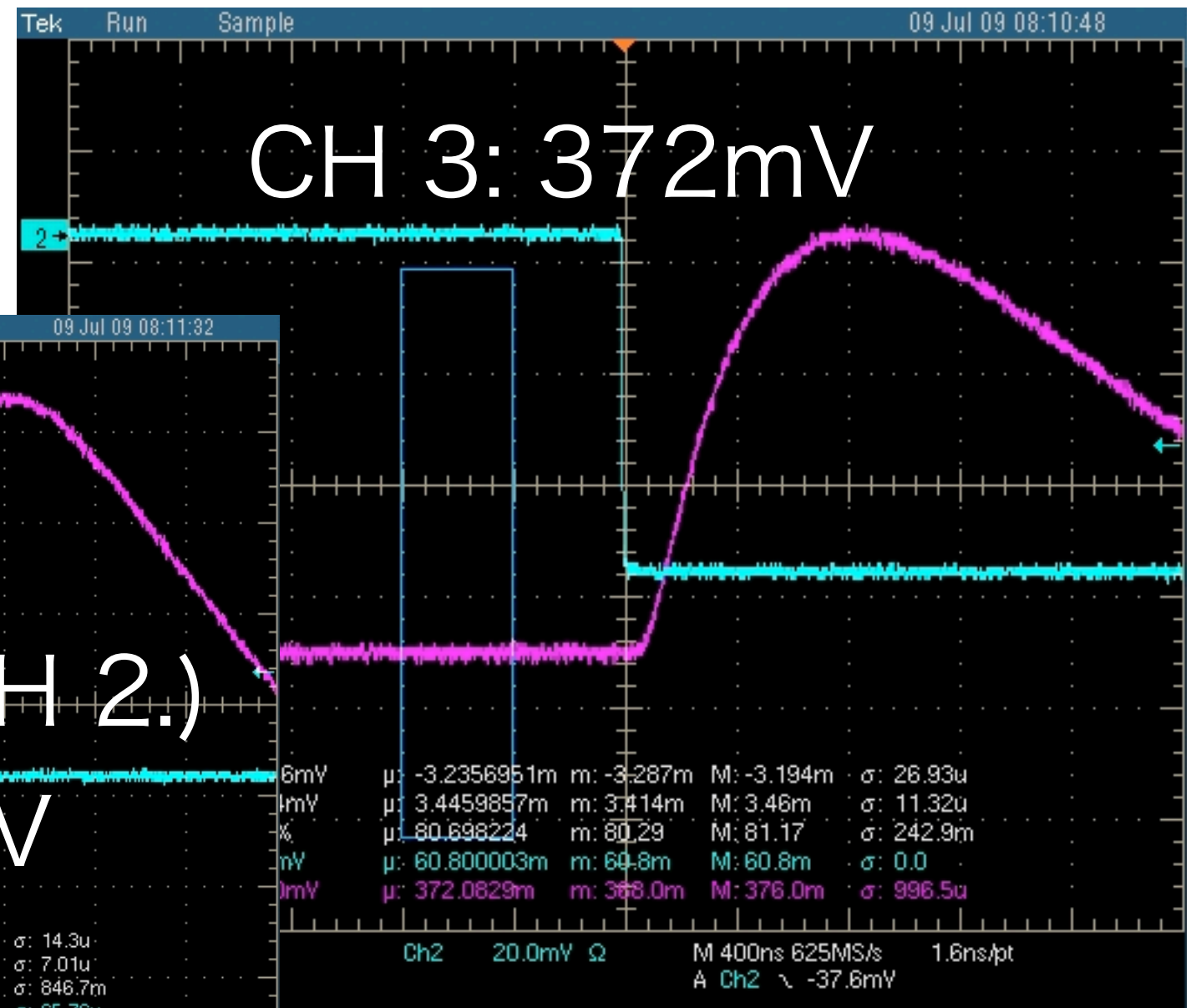
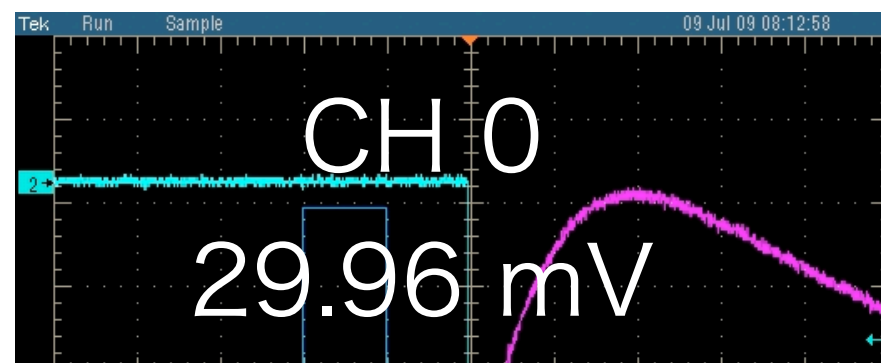
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- Considering Gains drop.



The newest data

- Cross Talk (ch 3. Input 60mV)



予定

- ノイズ試験の残り
- 冷却試験を本日もしくは明日に行う

Simulation

- Verbose カットを解除

```
### G4EmSaturation::FindBirksCoefficient Birks coefficient for LXe 0.126 mm/MeV
Energy weighted position of hits in LXe : (-0.169833,0.114778,-103.46)
Total energy deposition in scintillator : 511 (keV)
Reconstructed position of hits in LXe : (0,-4.02857,0)
Number of photons that hit PMTs in this event : 140
Number of PMTs above threshold(1) : 2
Number of photons produced by scintillation in this event : 5552
Number of photons produced by cerenkov in this event : 2
Number of photons absorbed (OpAbsorption) in this event : 5415
Number of photons absorbed at boundaries (OpBoundary) in this event : 0
Unaccounted for photons in this event : -1
Run terminated.
Run Summary
  Number of events processed : 1
  User=0.48s Real=0.84s Sys=0.02s
1 event has been kept for refreshing and/or reviewing.
```

