

Calypso gain & threshold measurements

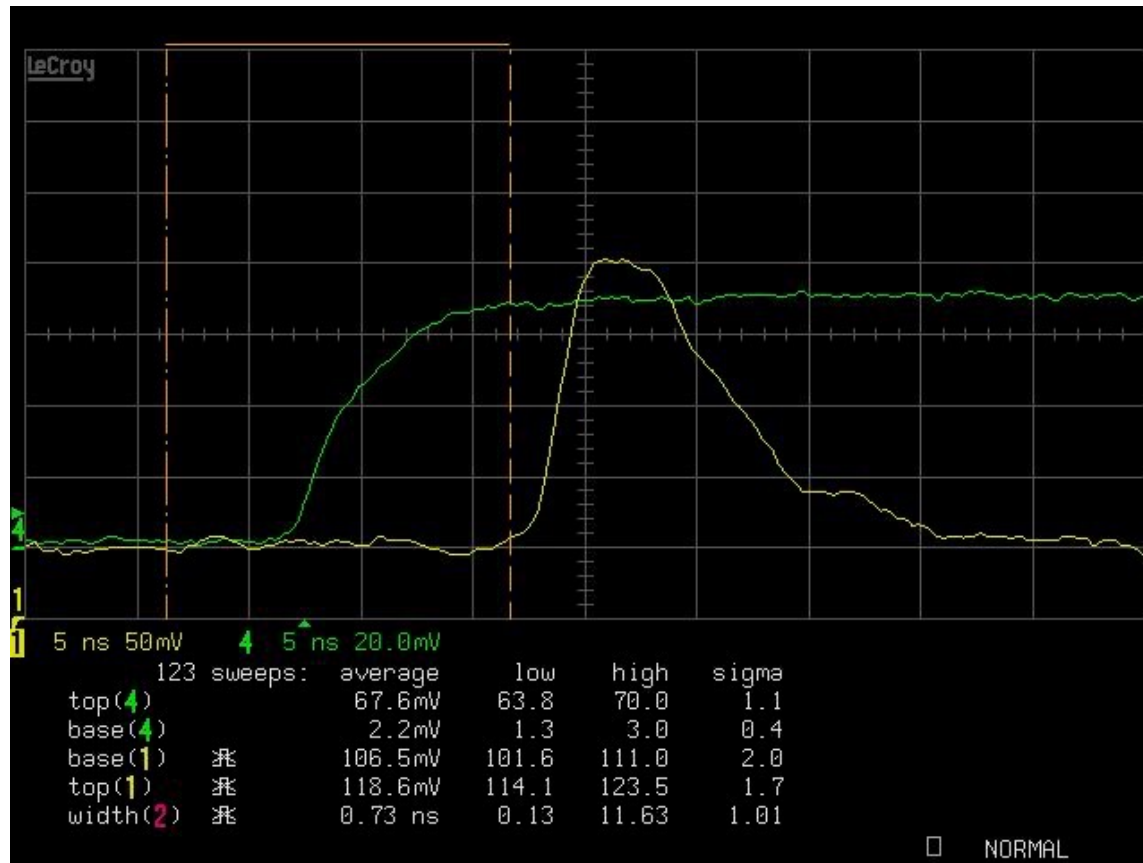
Board “#0806”

F9 SIC LAB WEEKLY

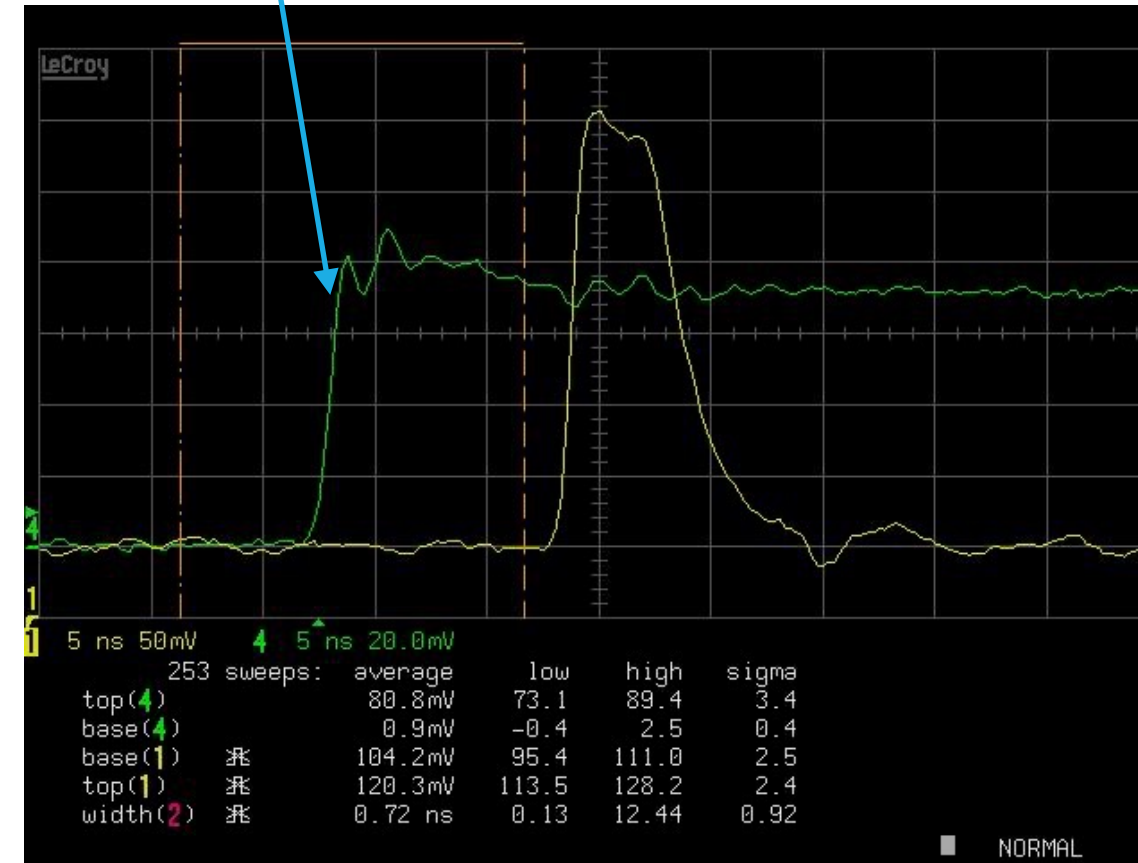
Analog gain measurements: pulser settings

- Disabled Analog & Anti-aliasing filter -> rise-time improved: 5 ns -> 1 ns
- 300 ns step pulse with 1 ns rise-time
- 80.1 fF capacitor with 15/16 attenuator settings: 468.75 e/mV

Slow 4-5 ns rise-time:



1 ns rise-time



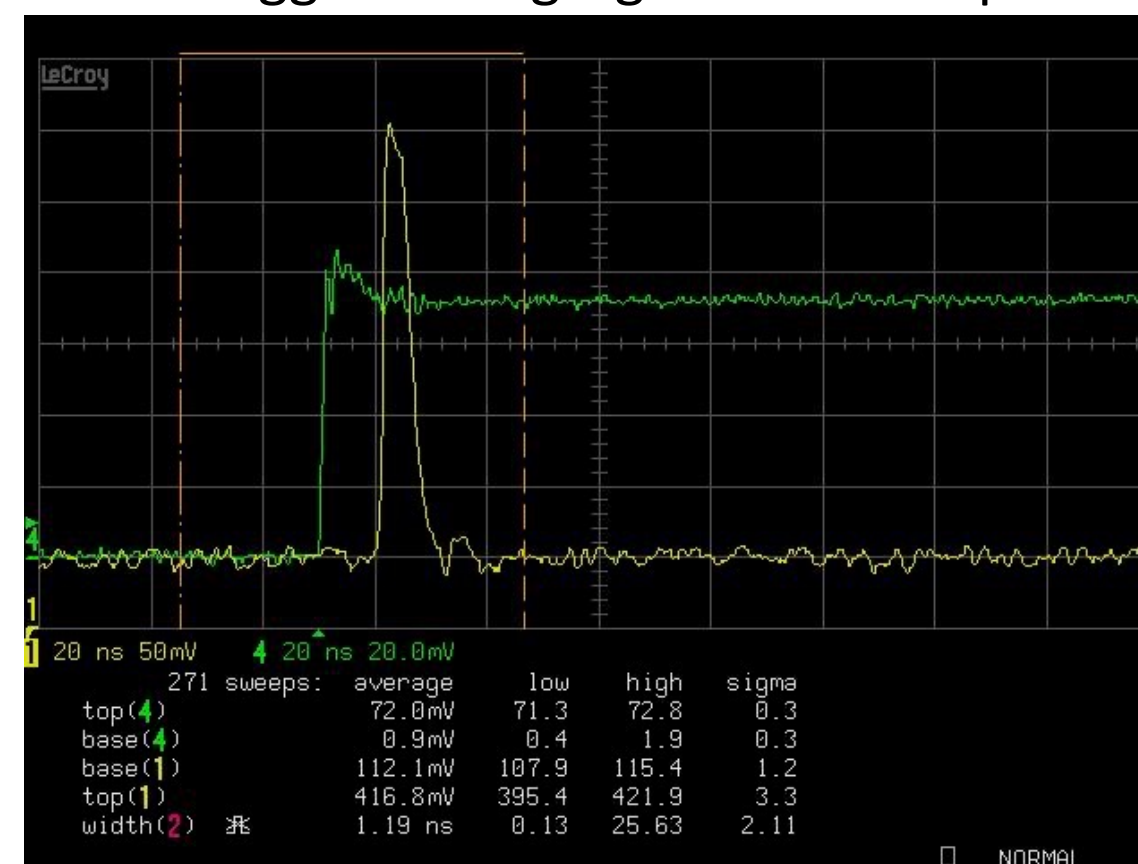
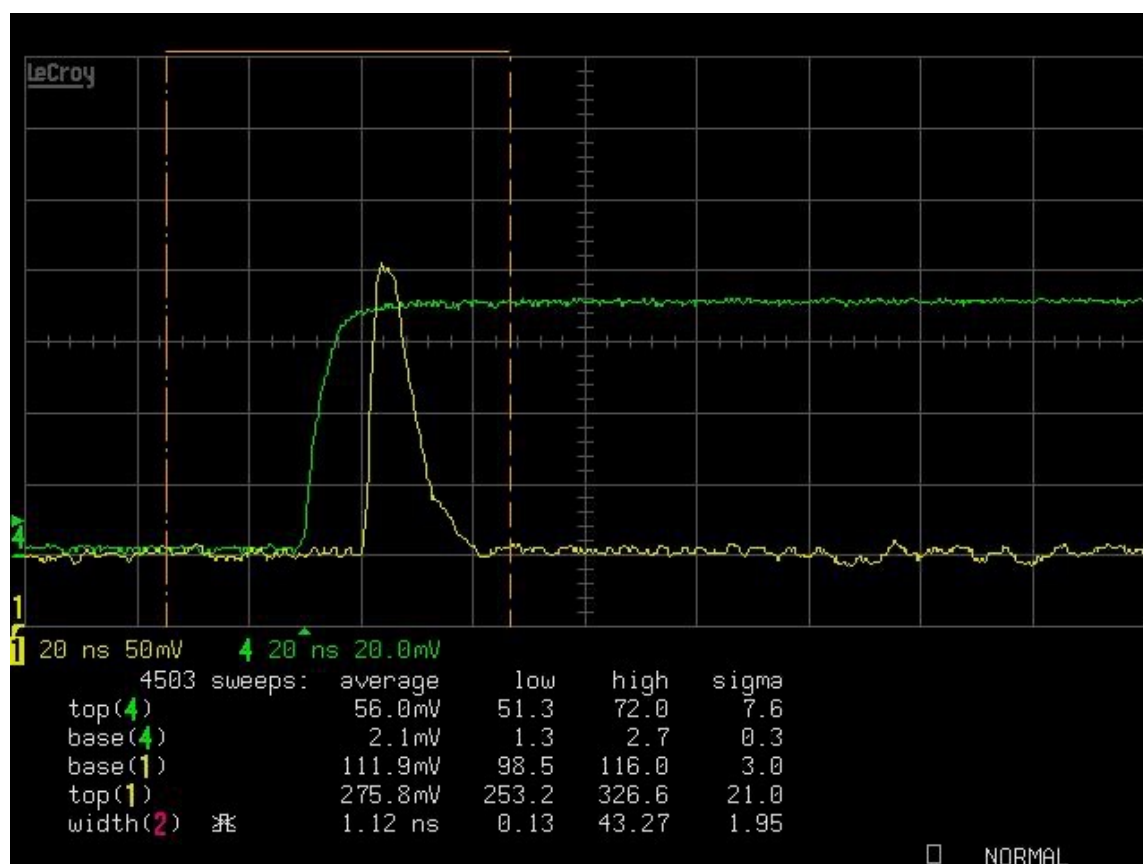
Configuration file based on *1_B13_all-on_LowT_posHV_fixed.txt*. Changed attenuator settings, thresholds and powered channels, main settings remained the same.

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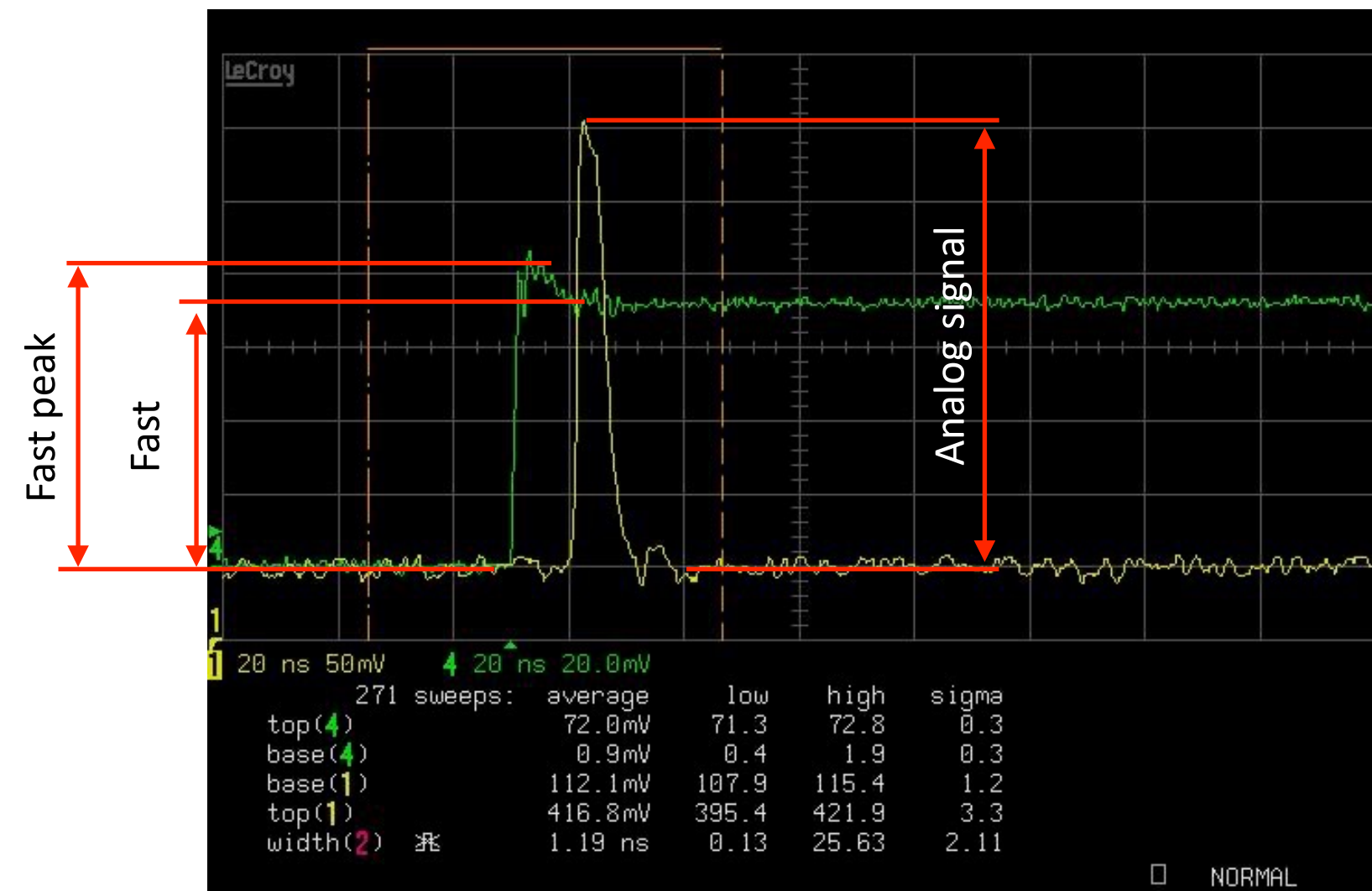
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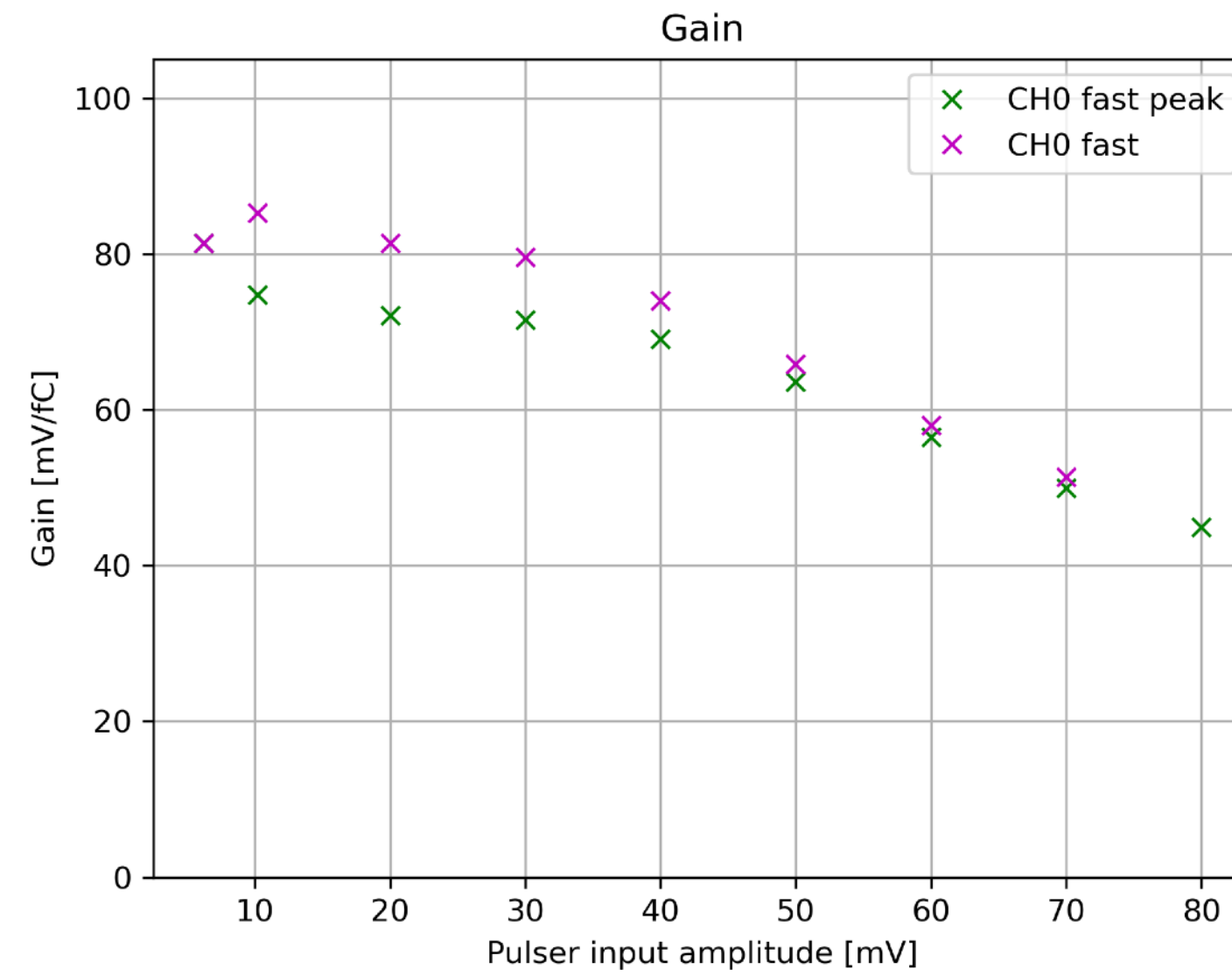
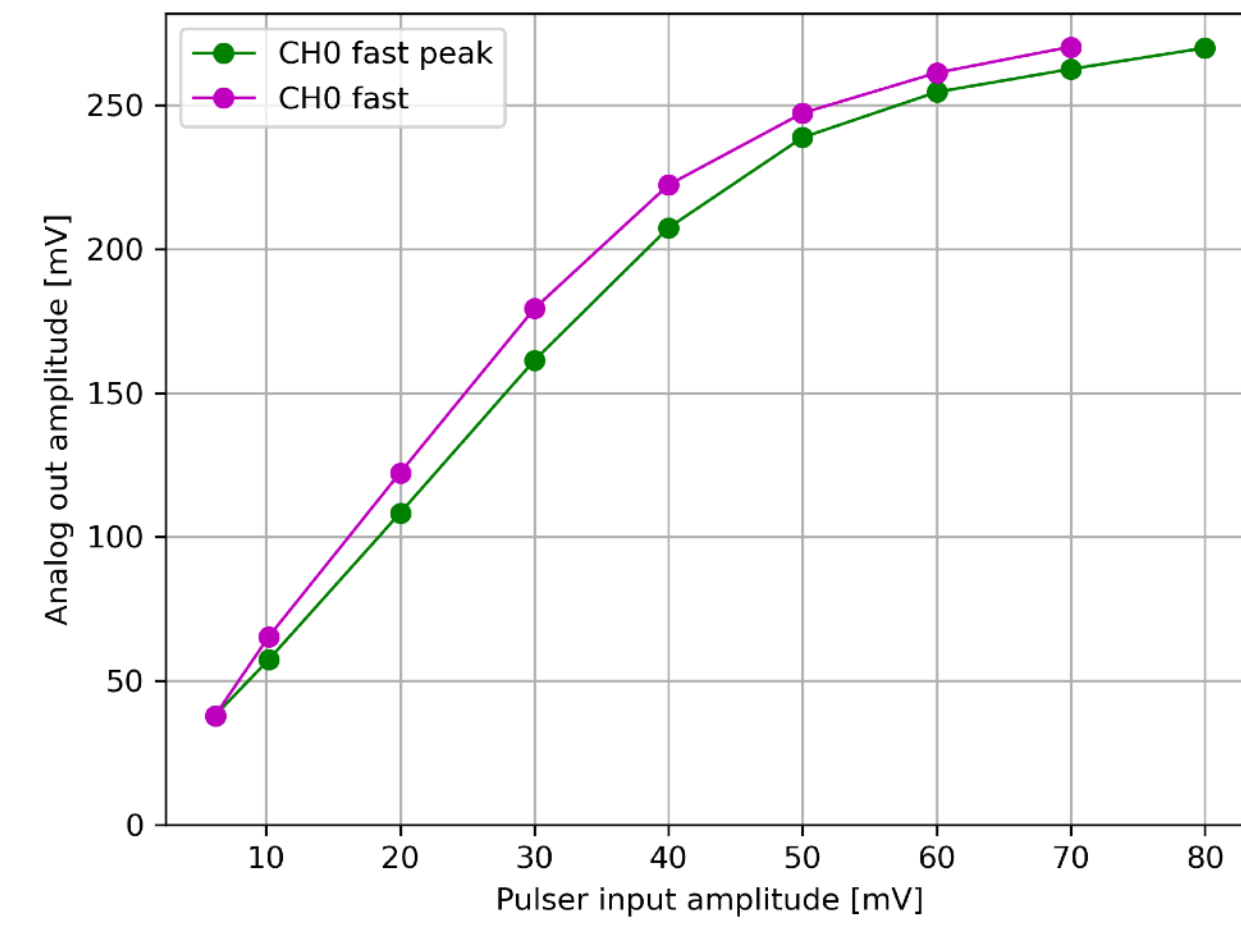
Much bigger analog signal with fast pulse:



Analog gain measurements



Analog signal for different pulse height definitions



Analog gain measurements

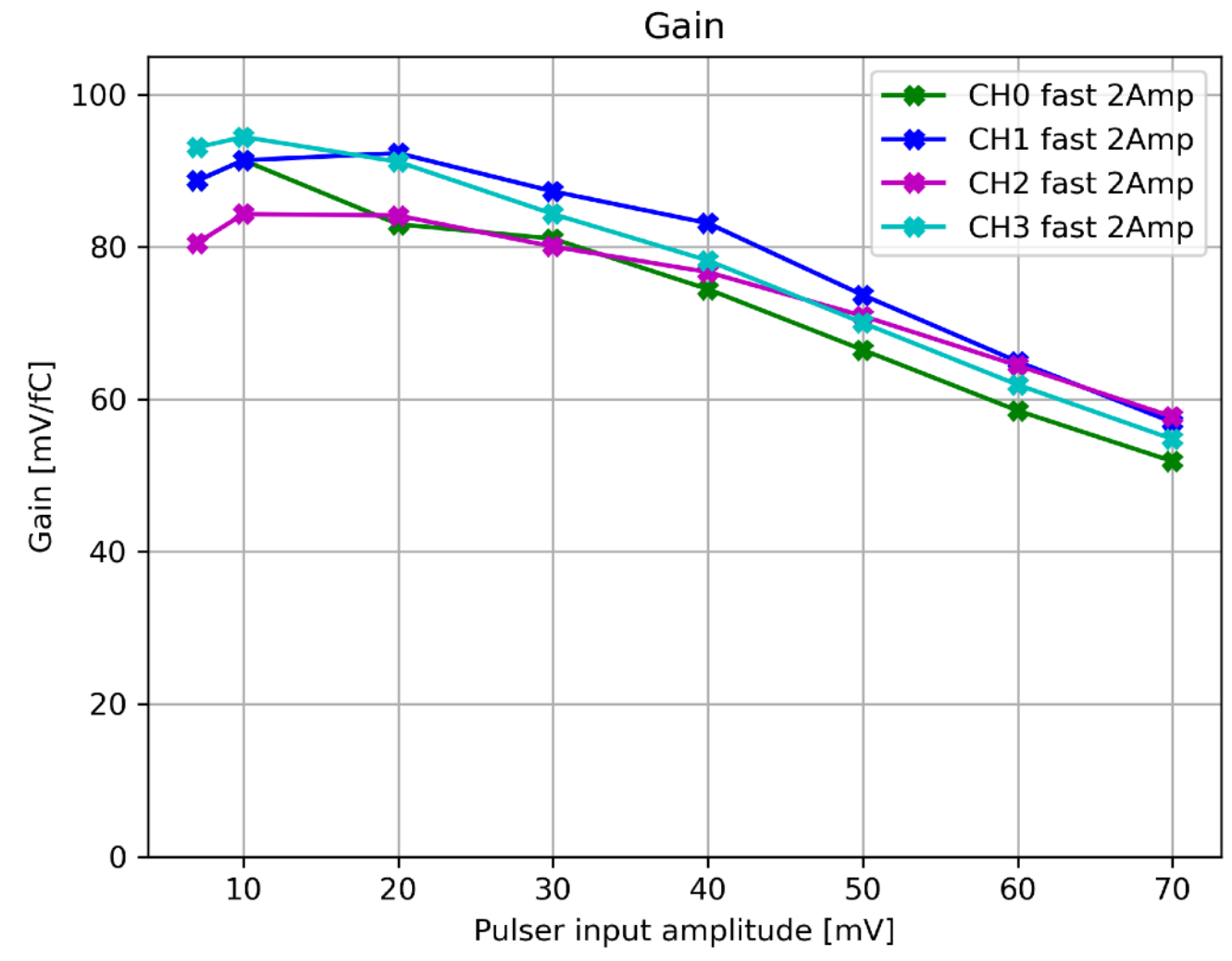
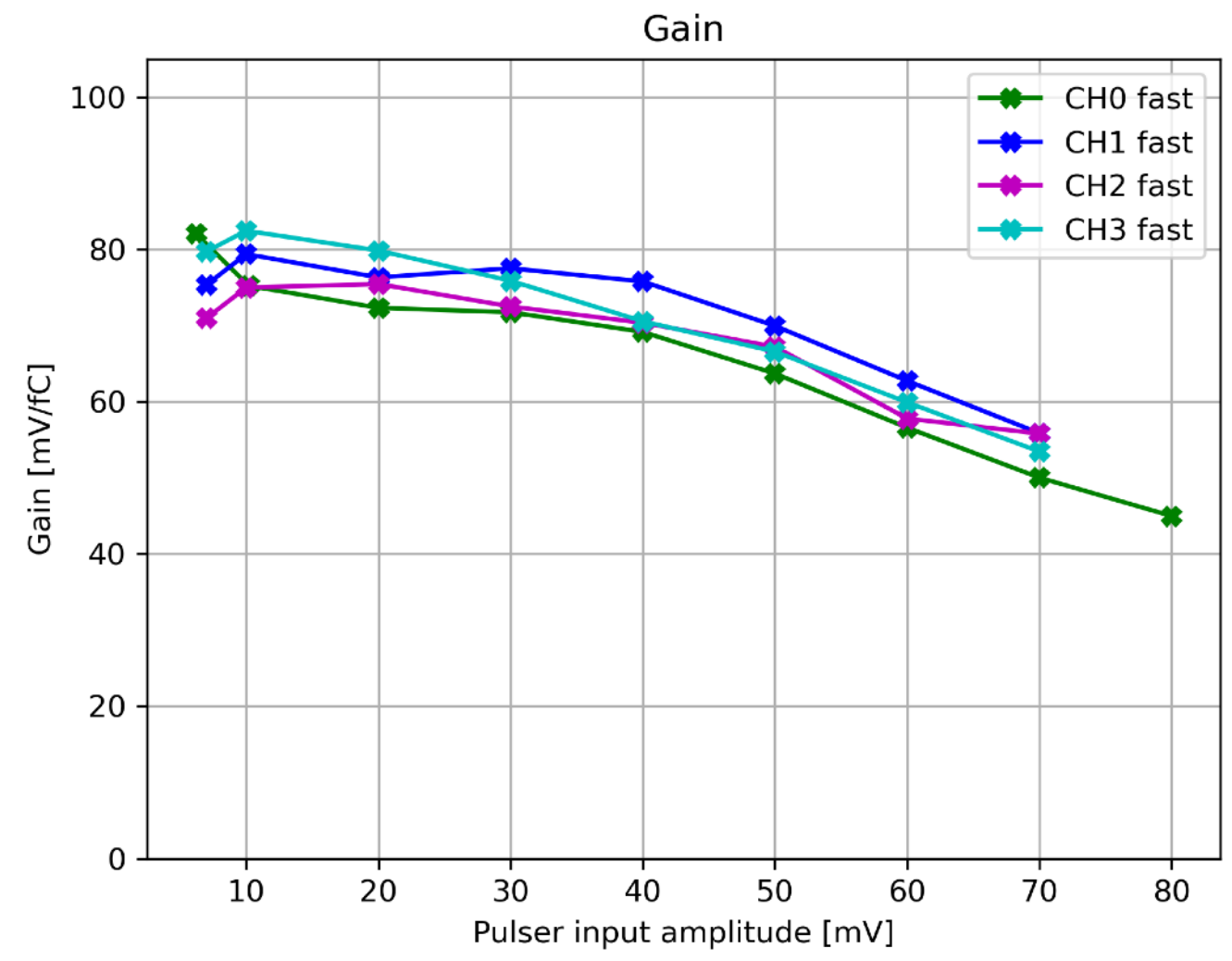
Modify configuration to set the 2nd amplifier to max:

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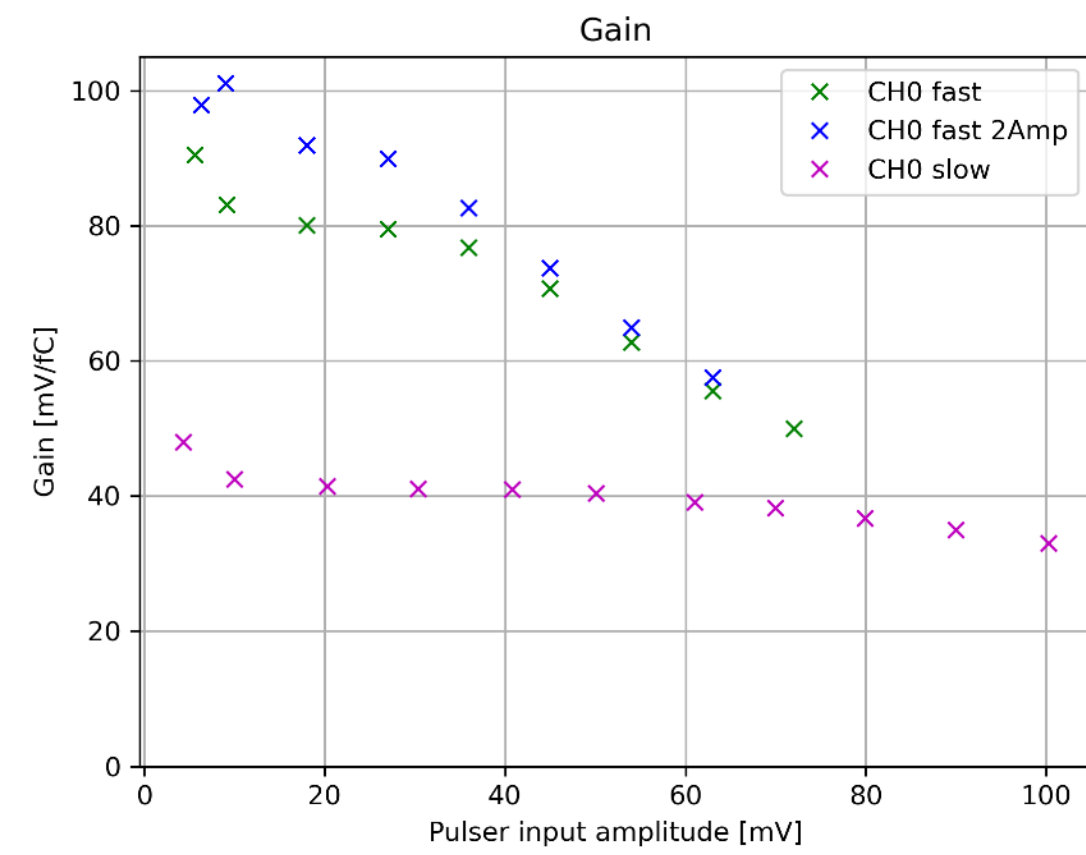
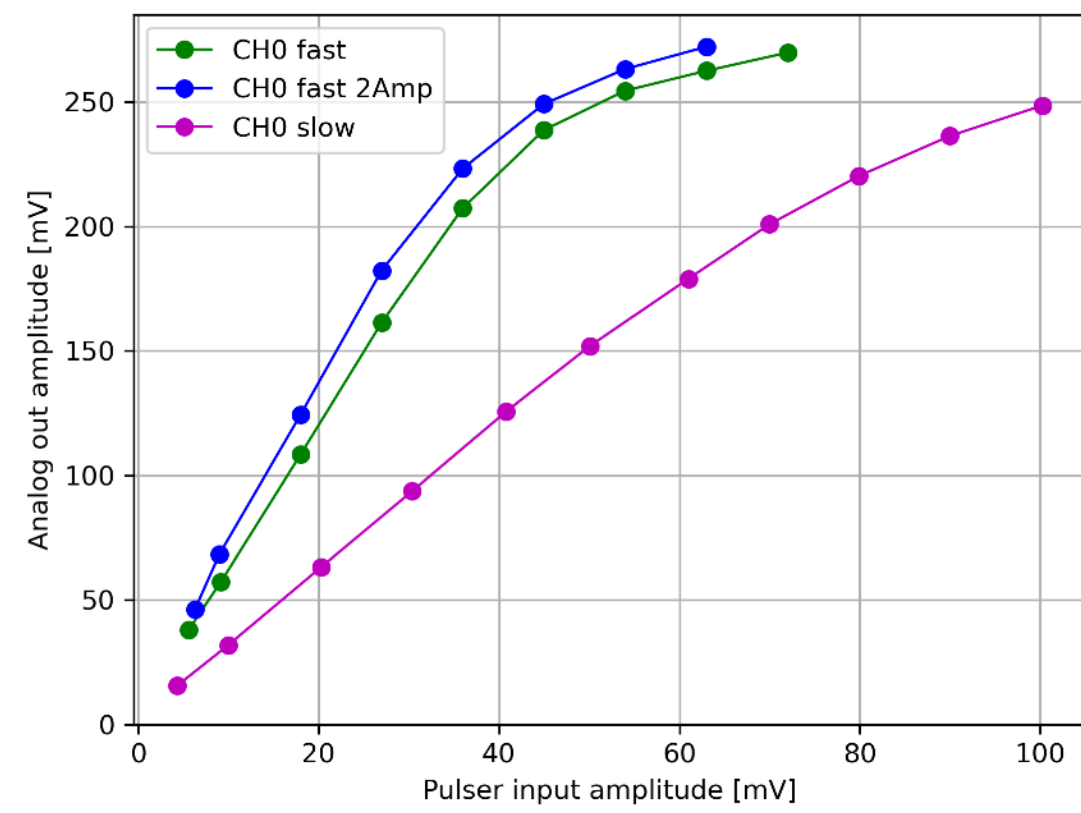
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0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0
0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0
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Gain for all 4 channels with both Calypso configurations:

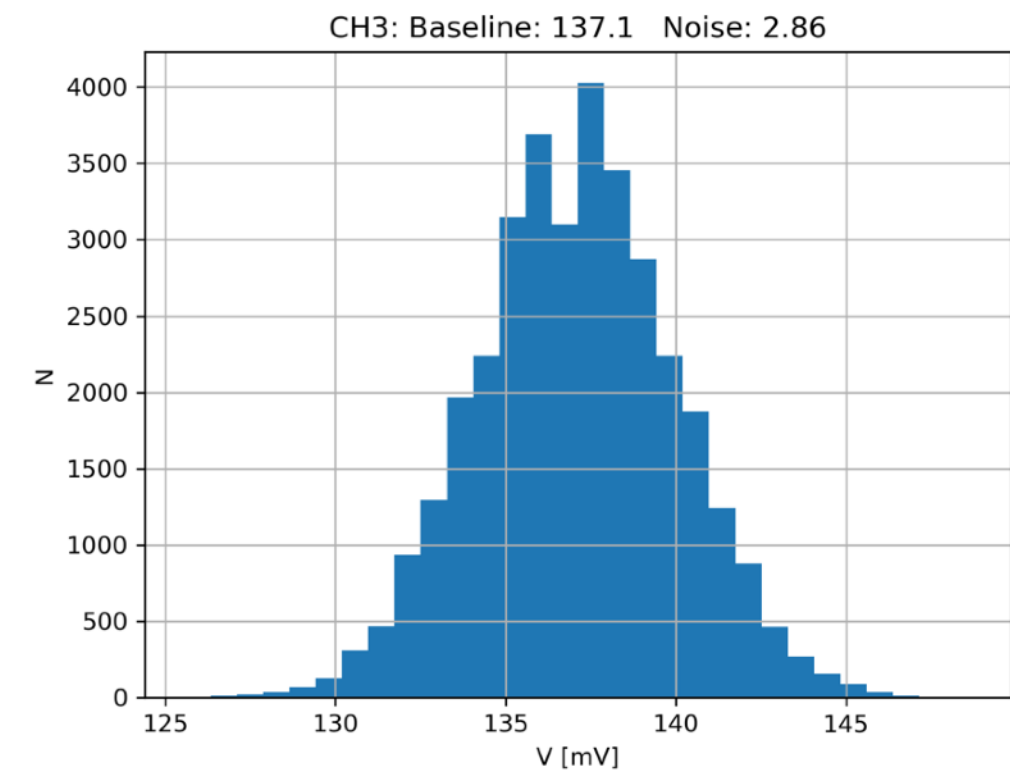
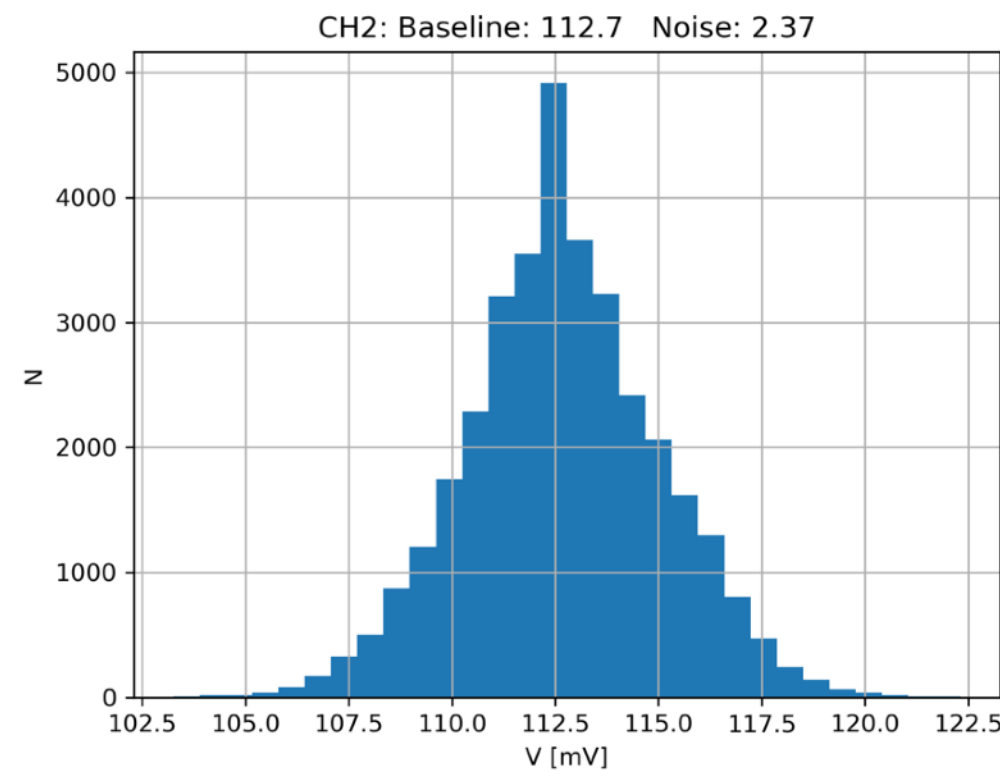
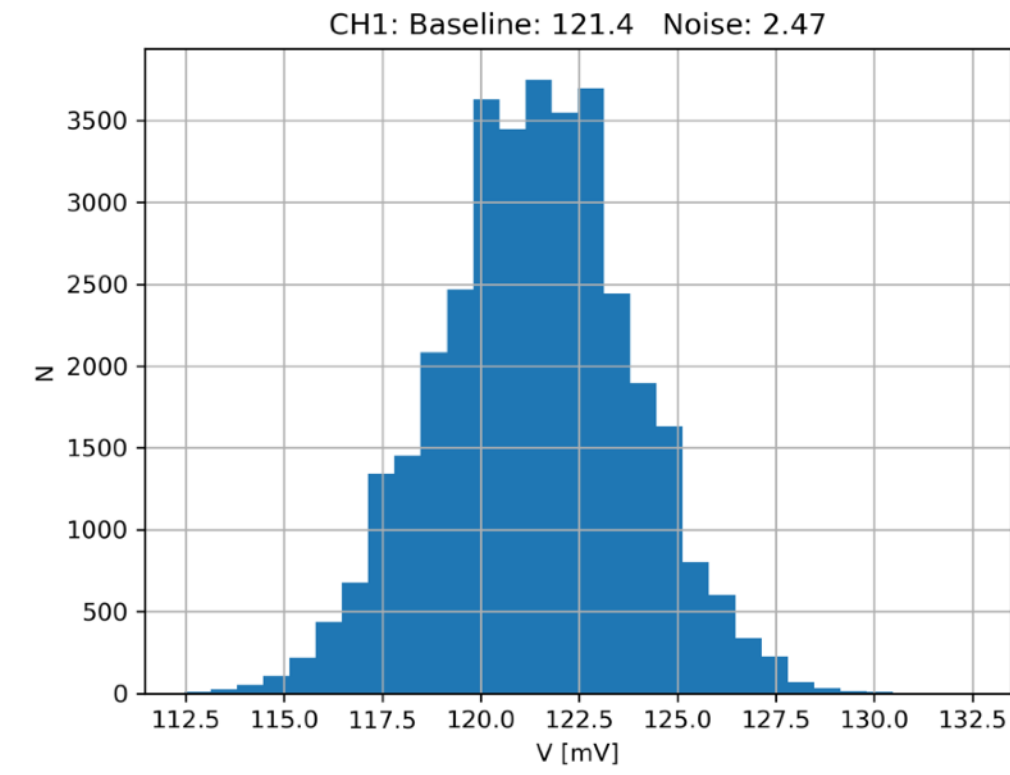
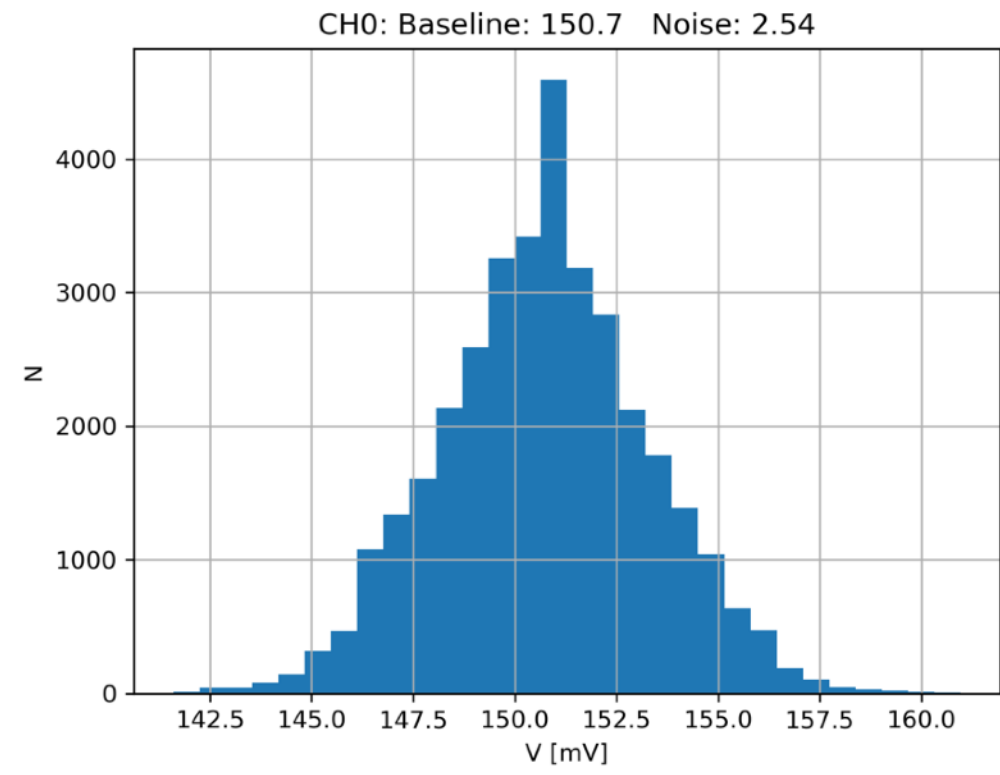


Slow pulse, fast pulse with normal & fast pulse with full 2nd amp config.



Noise & threshold scan

Noise for all 4 analog channels:



Threshold scan for all 4 channels:

