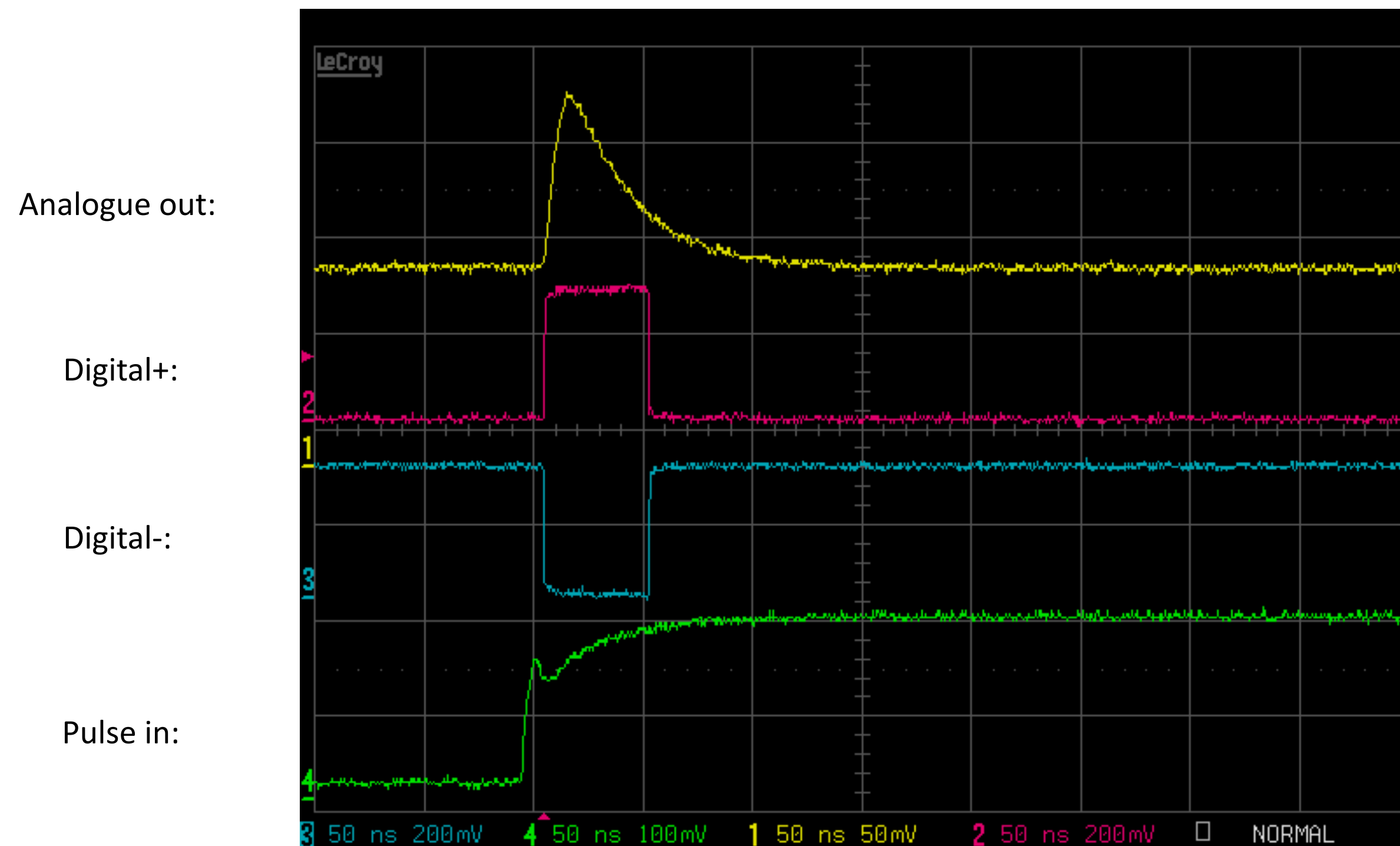


Calypso abort channel first test

F9 SiC lab weekly

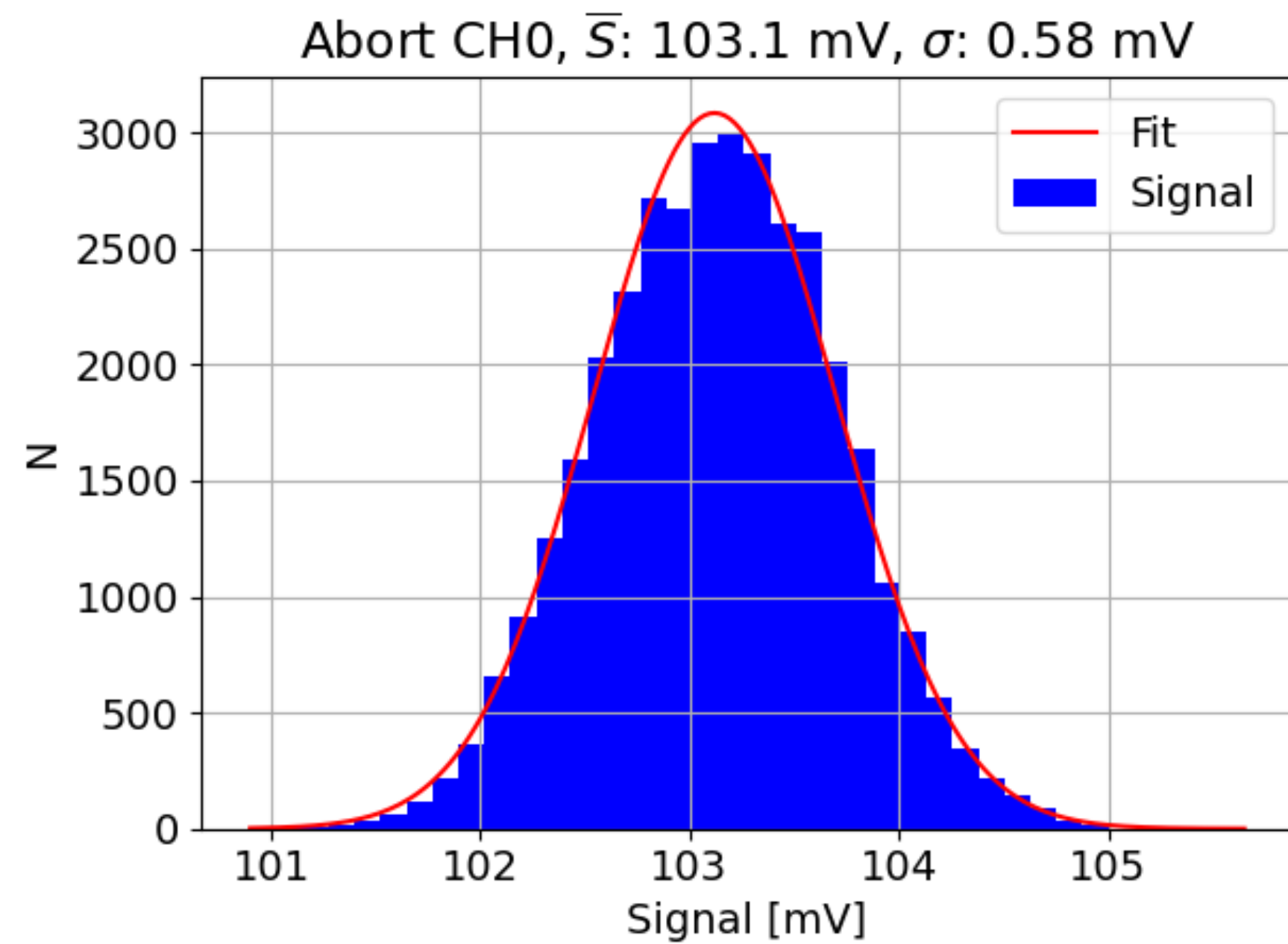
Abort channel

- CH0 on Calypso ASIC tested (1 out of 4 available channels)
- RC circuit connected between external pulser and abort channel pad, to simulate detector response
- C: 0.47 nF, R: 50 ohm, $\tau=23.5$ ns
- 1000 ns long external pulse (square)



Analog output noise & baseline level

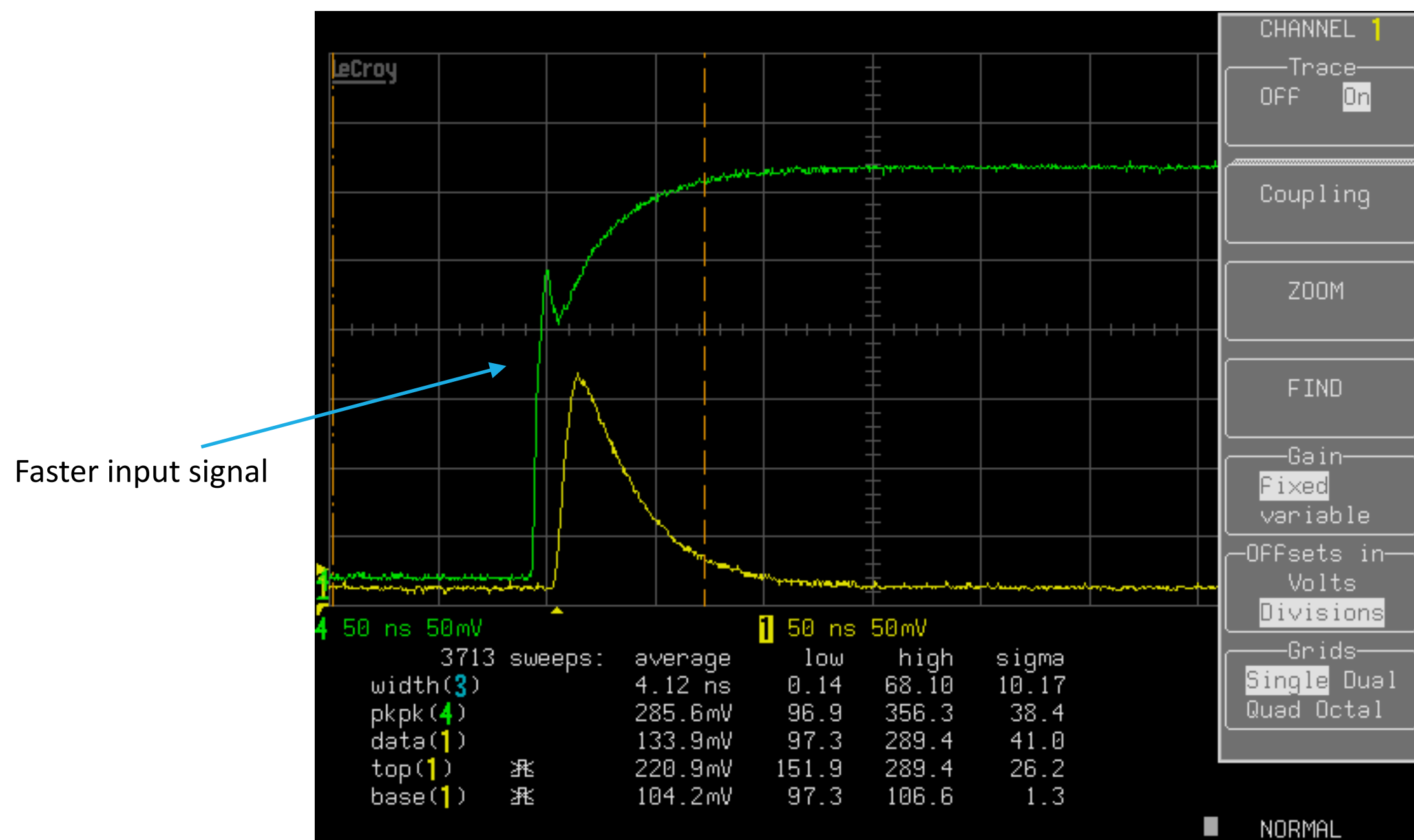
- Baseline: 103.1 mV
- Noise: 0.58 mV
- N samples: 36000



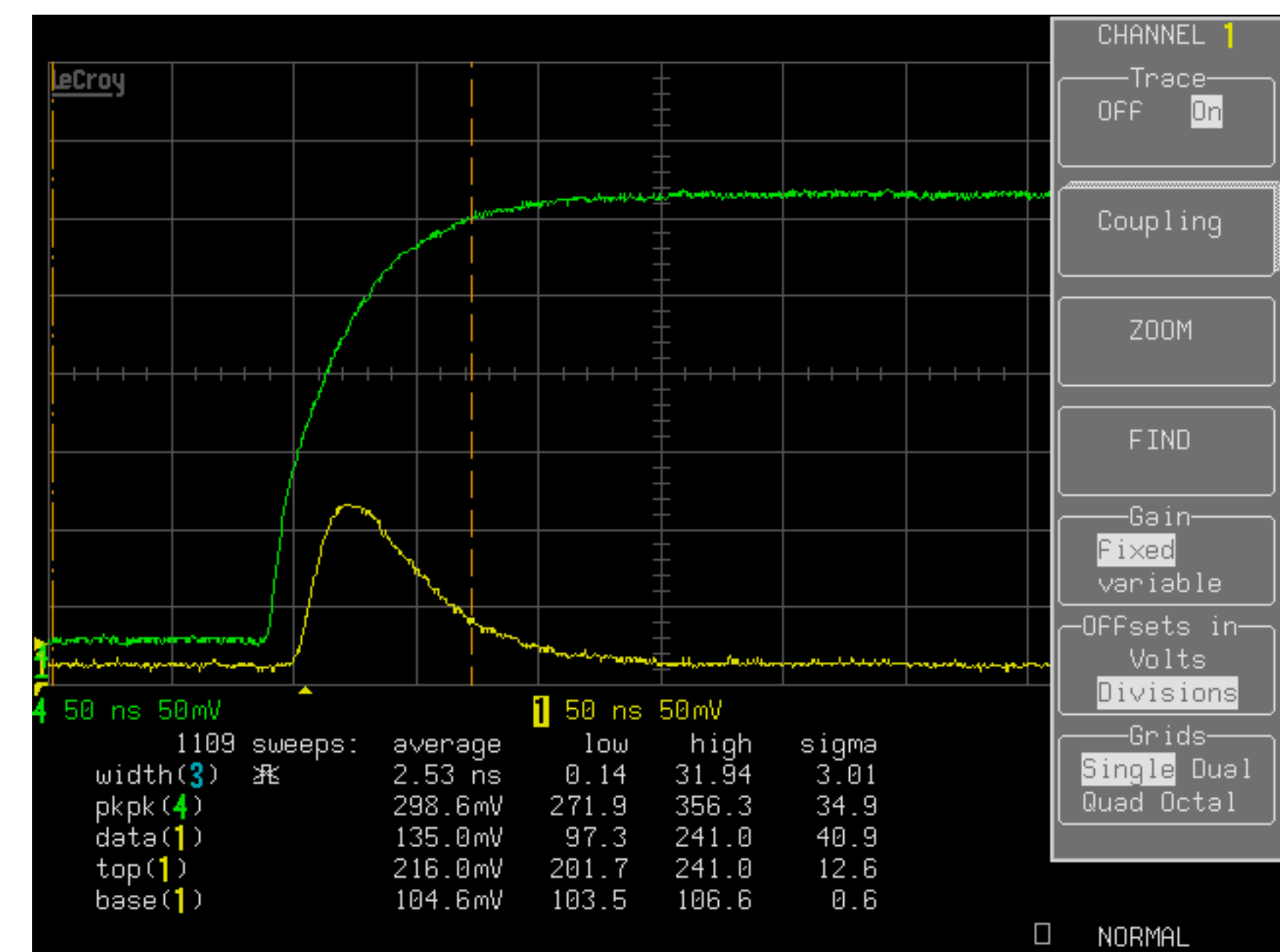
Amplifier gain

- Large RC constant -> slow charging
- Small input signals (<350 mV): pulse emulator FAST mode
- Large input signals (<1050 mV): pulse emulator HDR mode

FAST mode

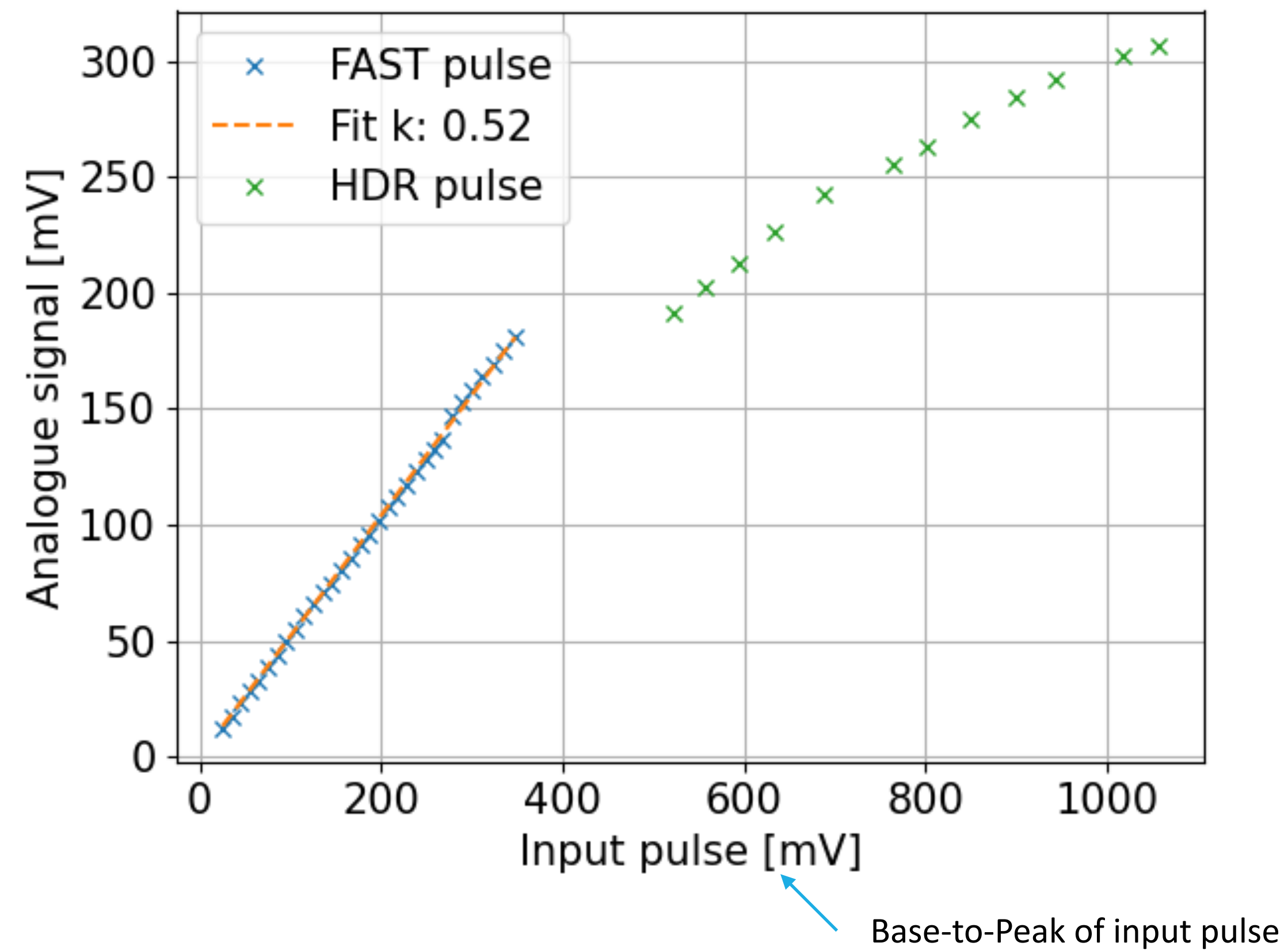


HDR mode



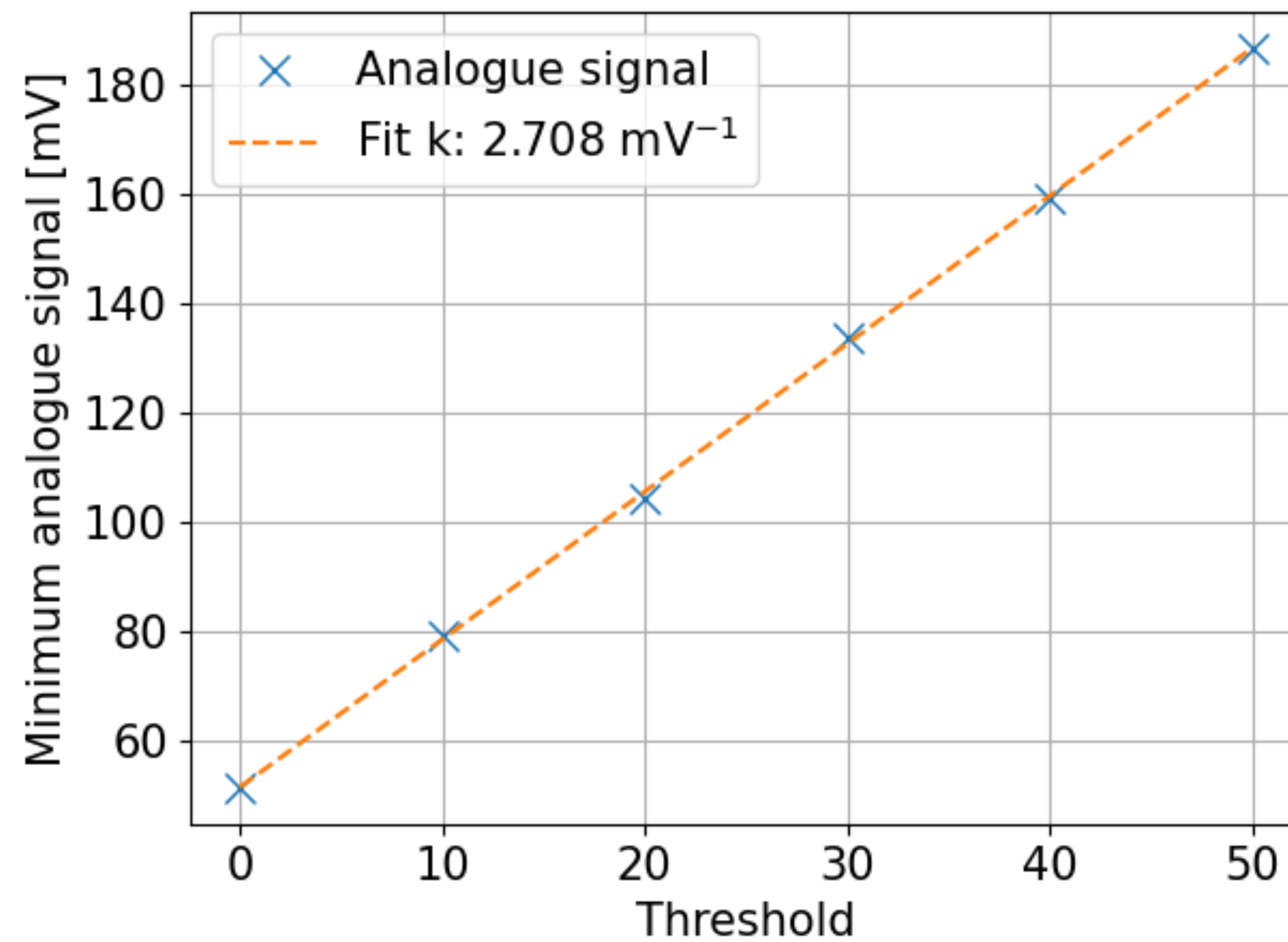
Amplifier gain

- Calculated gain from fitted line: 0.0011 mV/fC



Threshold scan

- Minimal analogue signal above selected CFD threshold
- 50 mV to cross the lowest threshold



Digital signals

- Digital signal pulse width represents Time-over-Threshold
- ToT vs. analogue pulse height

