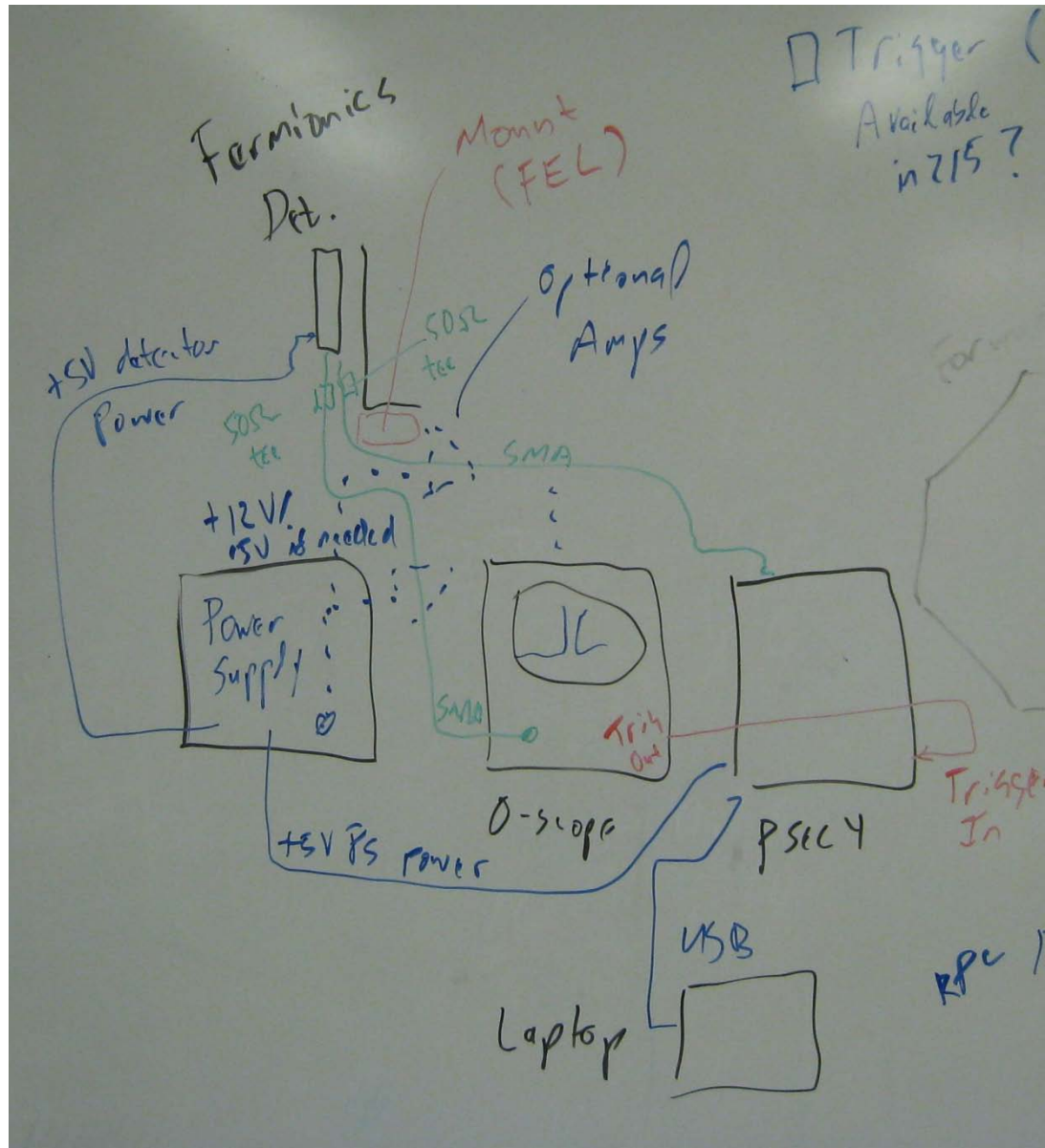
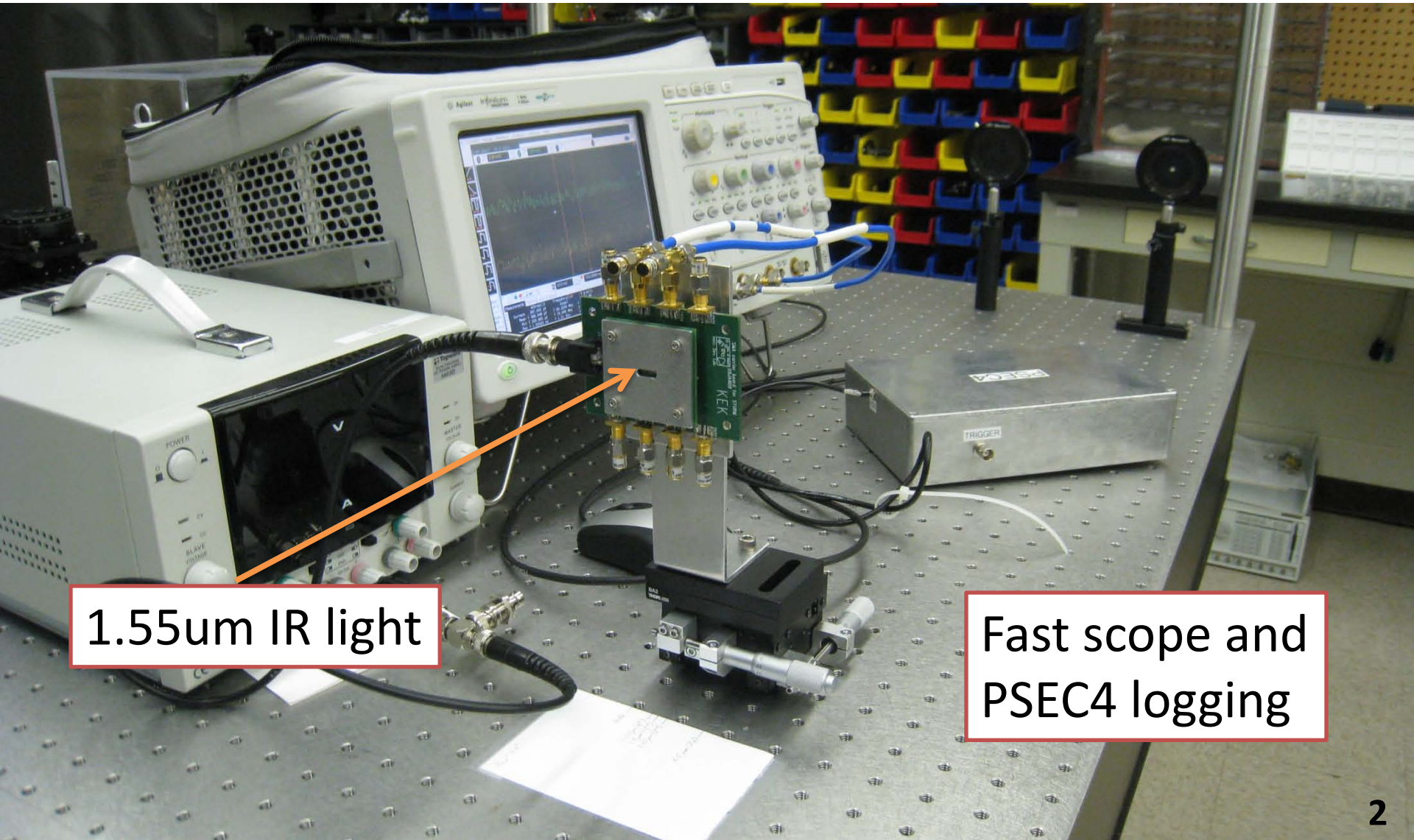


16-aug-2012 Exp Concept



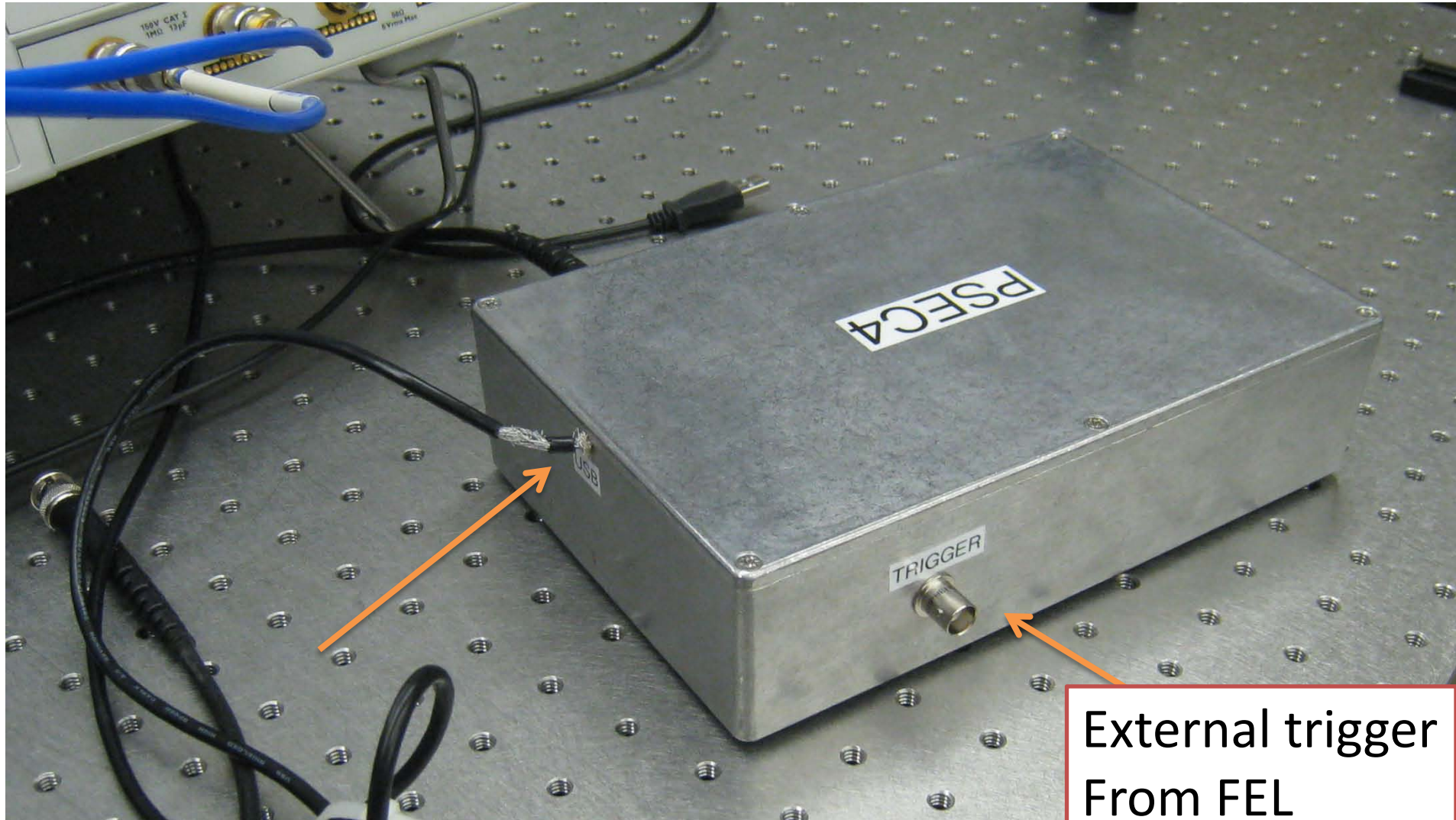
Fermionics InGaAs test (FEL IR light source – 1ps nom)



1.55um IR light

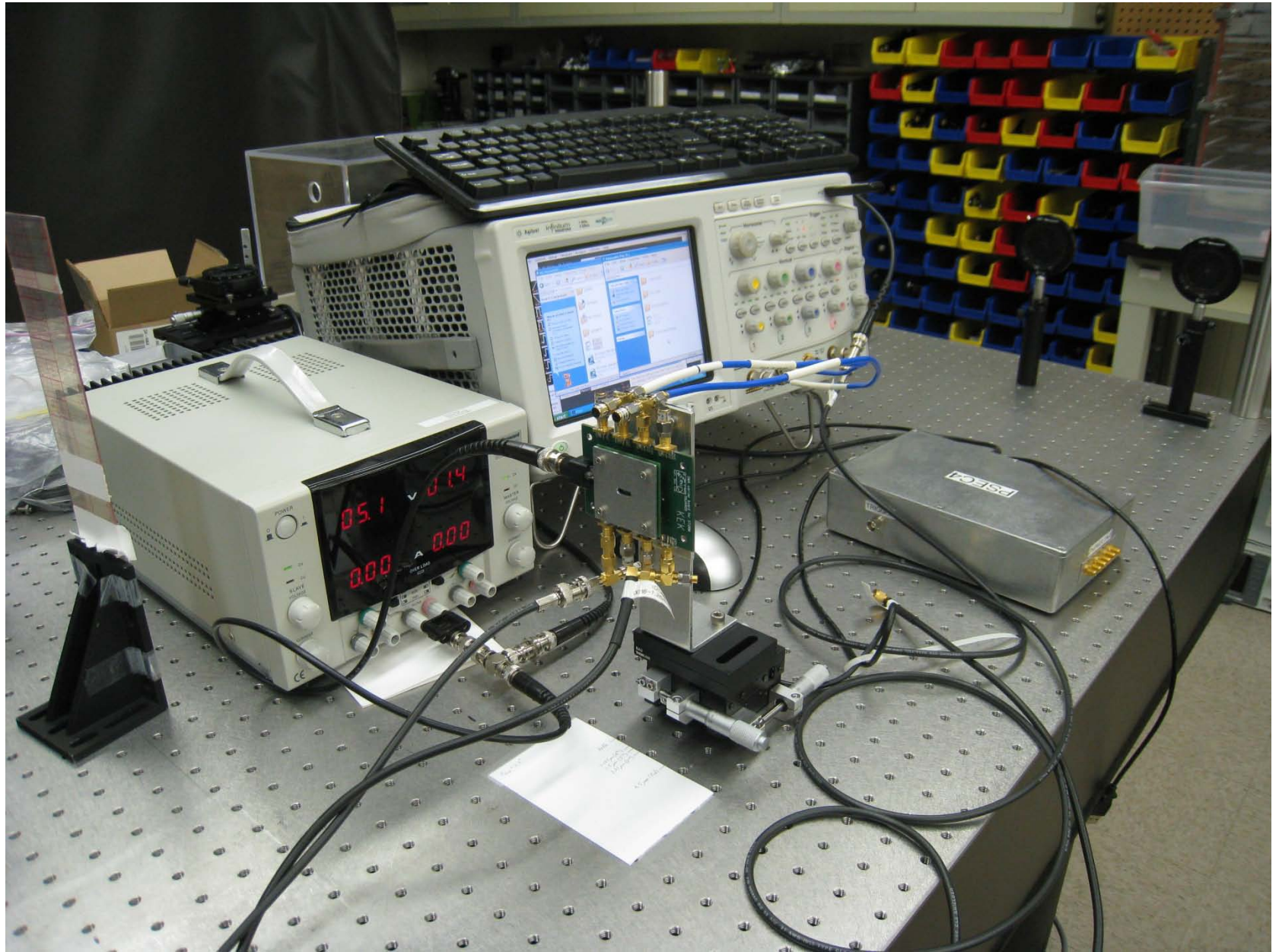
Fast scope and
PSEC4 logging

USB cable shield grounding to case



External trigger
From FEL

12-SEP-2012 Exp Set-up



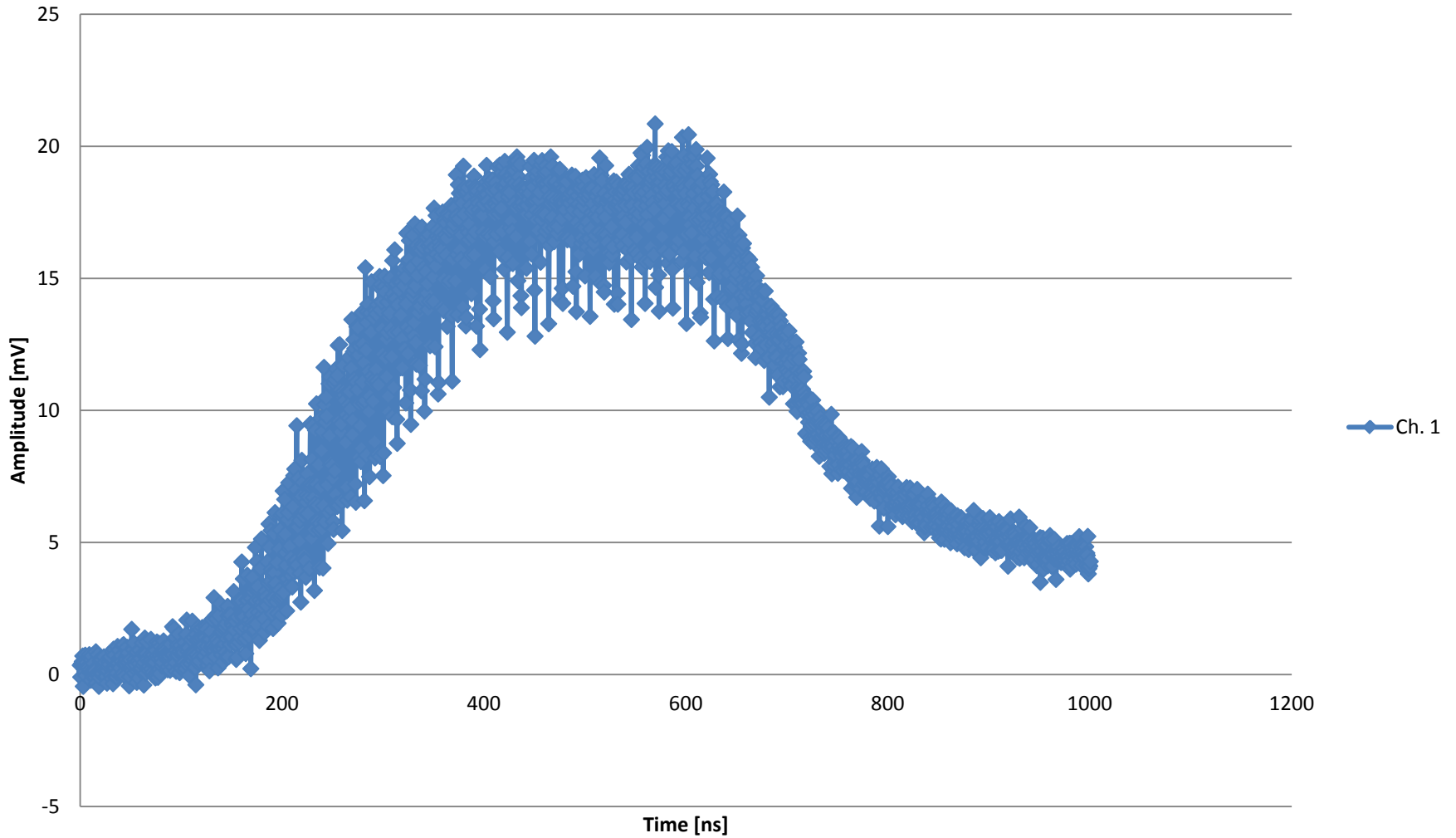
Data Logging via PSEC4



~6us delay from the kicker signal for logging

Sample Scope Trace

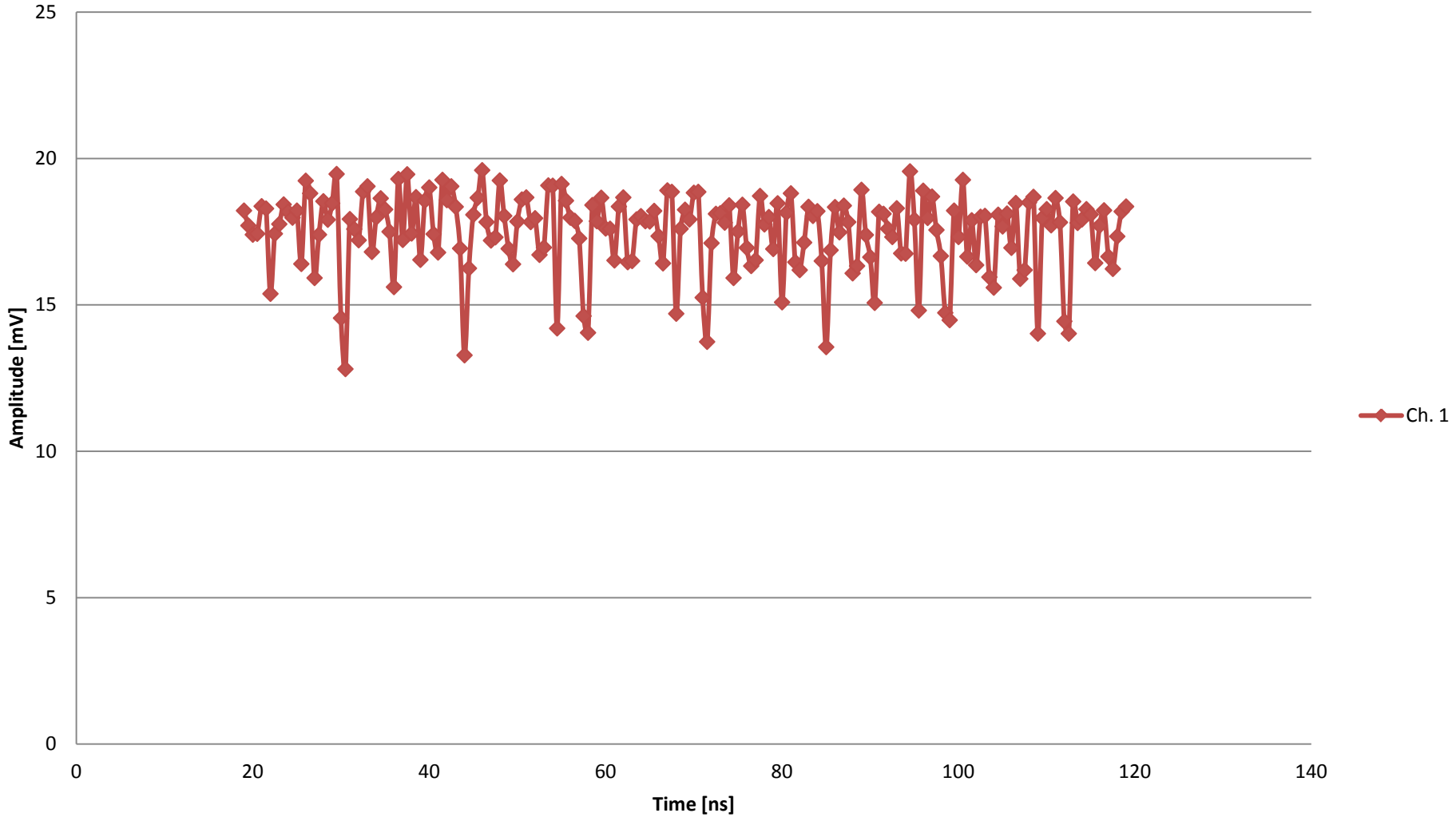
IR Laser pulse



2GSa/s & 1GHz ABW

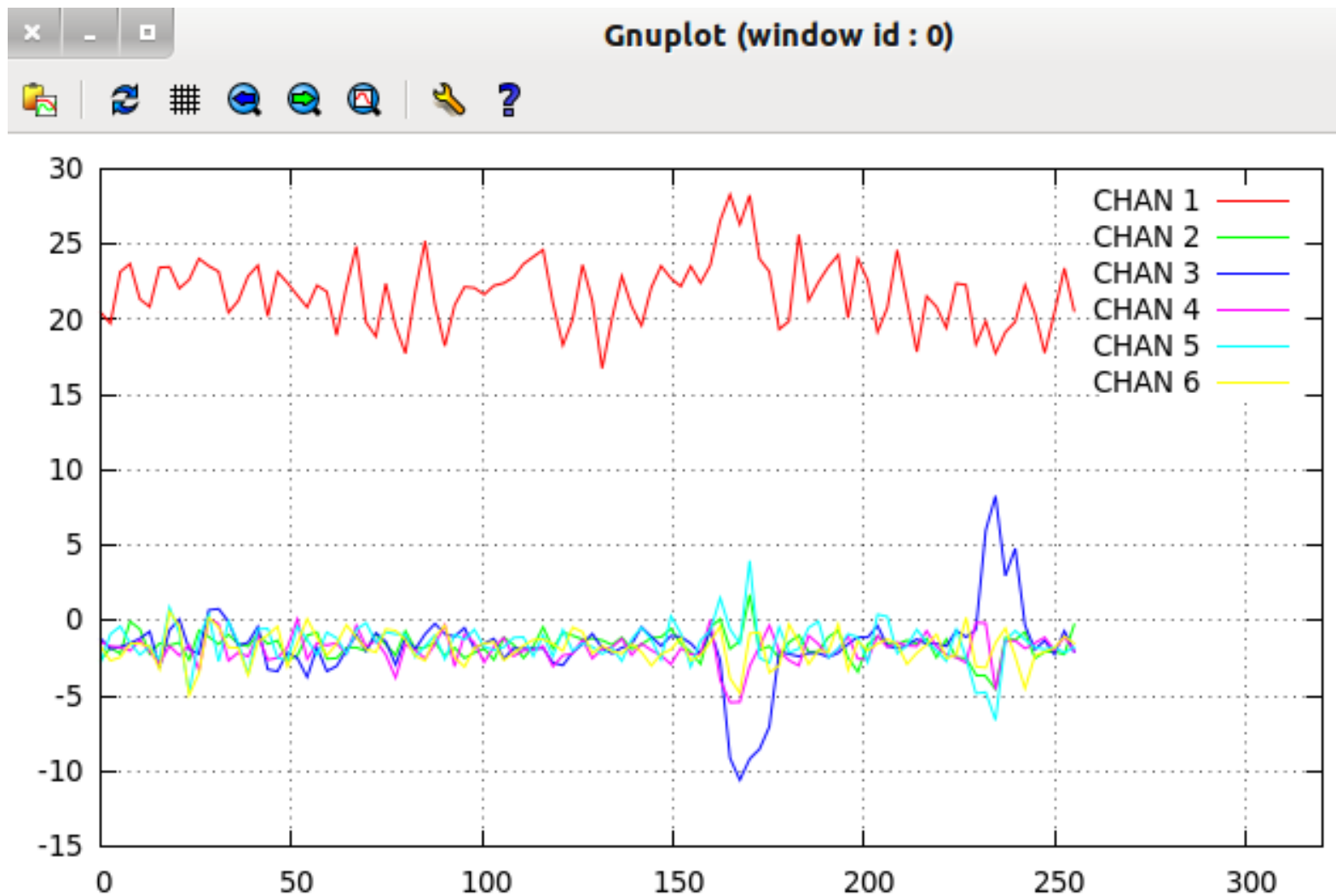
Scope Undersampled

IR Laser pulse



2GSa/s & 1GHz ABW

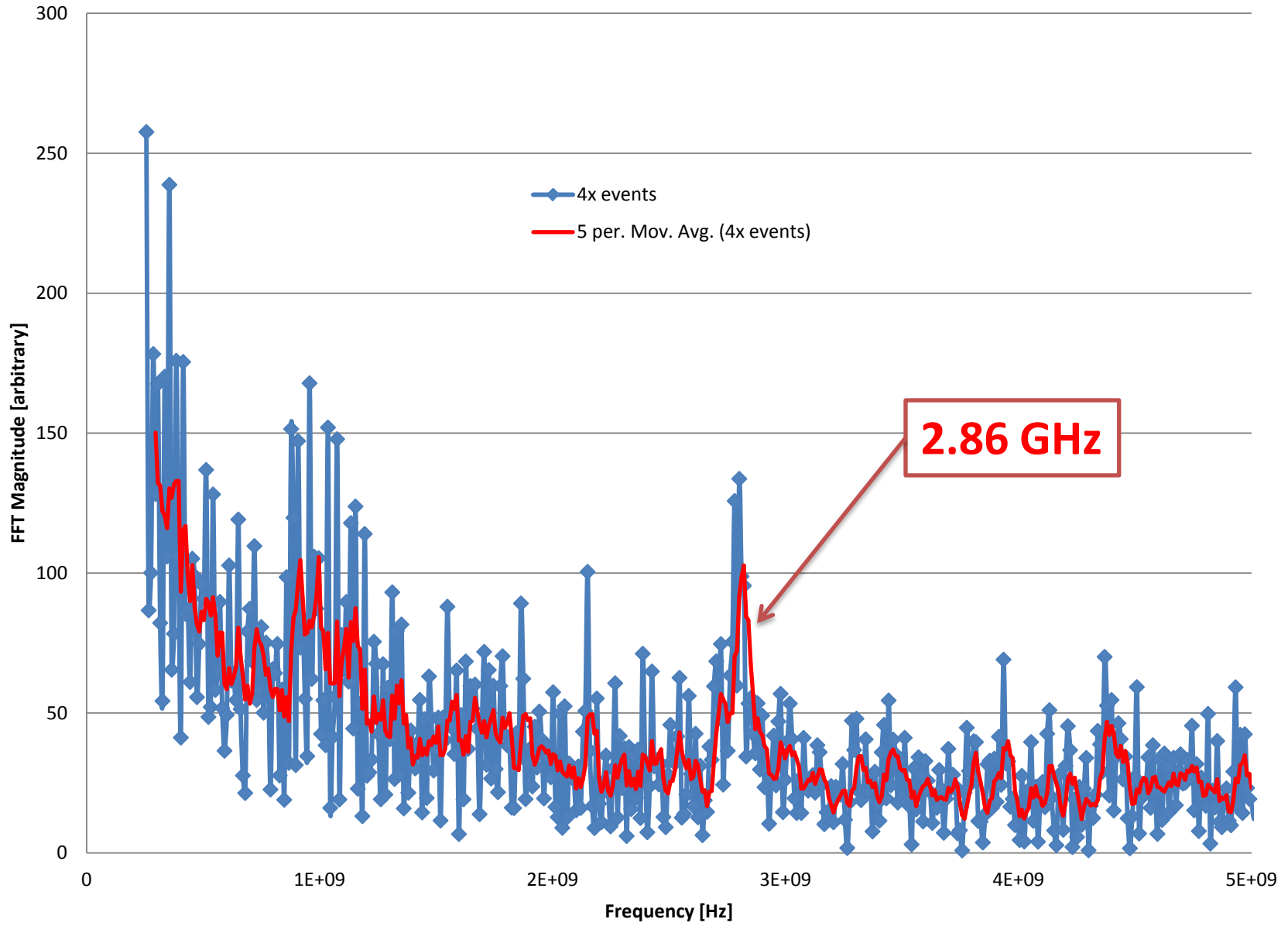
Signal into Chan 1



Wed Sep 12 16:24:21 2012

10GSa/s & 1.5GHz ABW

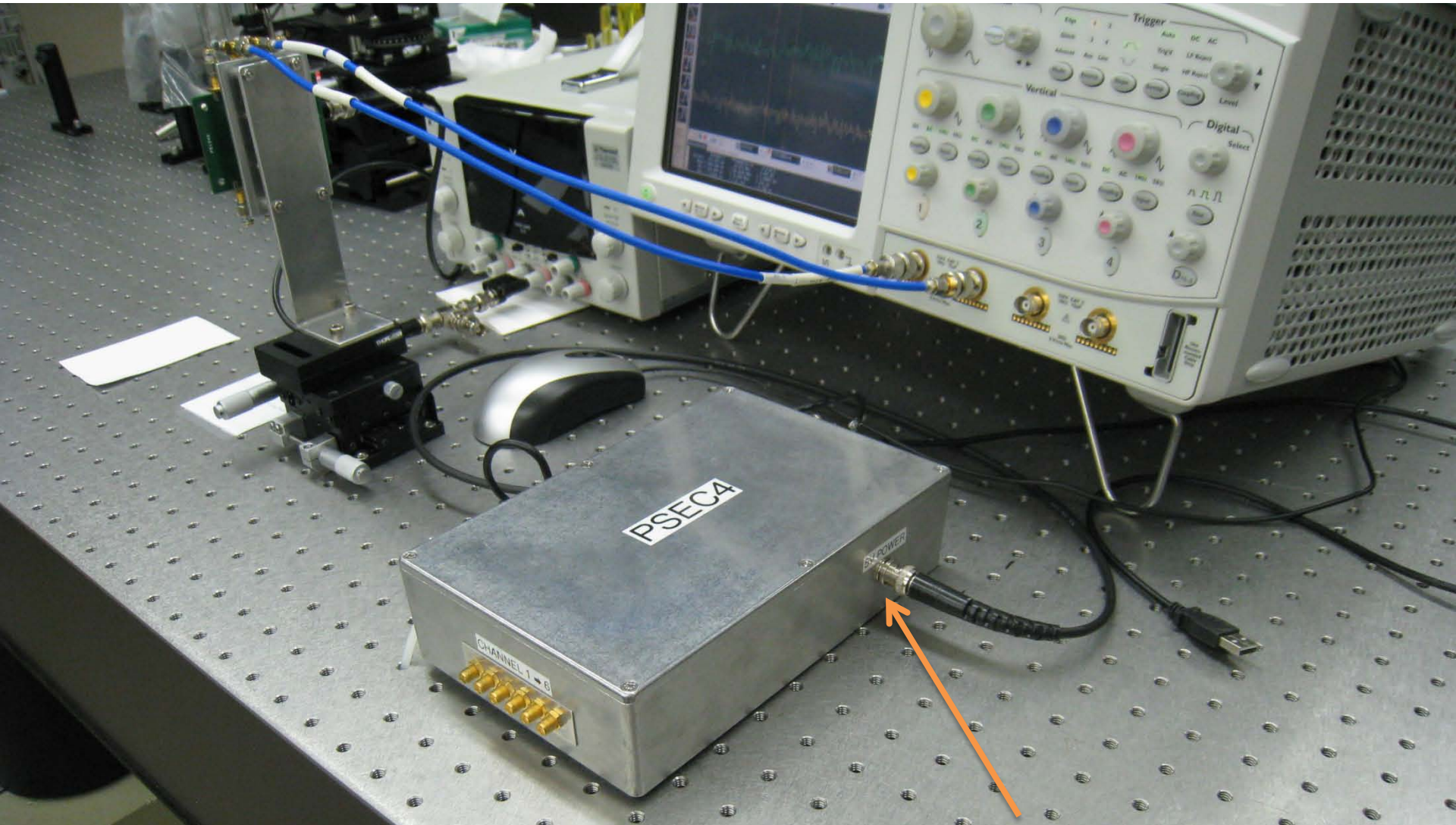
4 shots concatenated



Summary

- Detector (in current sub-optimal packaging) seems to have response to resolve microbunch structure
- Next step is to try measuring with higher ABW scope, to see how well we should expect to do
- In principle the STURM2 ASIC should have 3GHz ABW, which should be sufficient to resolve

Input Power (ext PS)



SMA Inputs

