

noise studies in ICEBERG

ICEBERG PD meeting

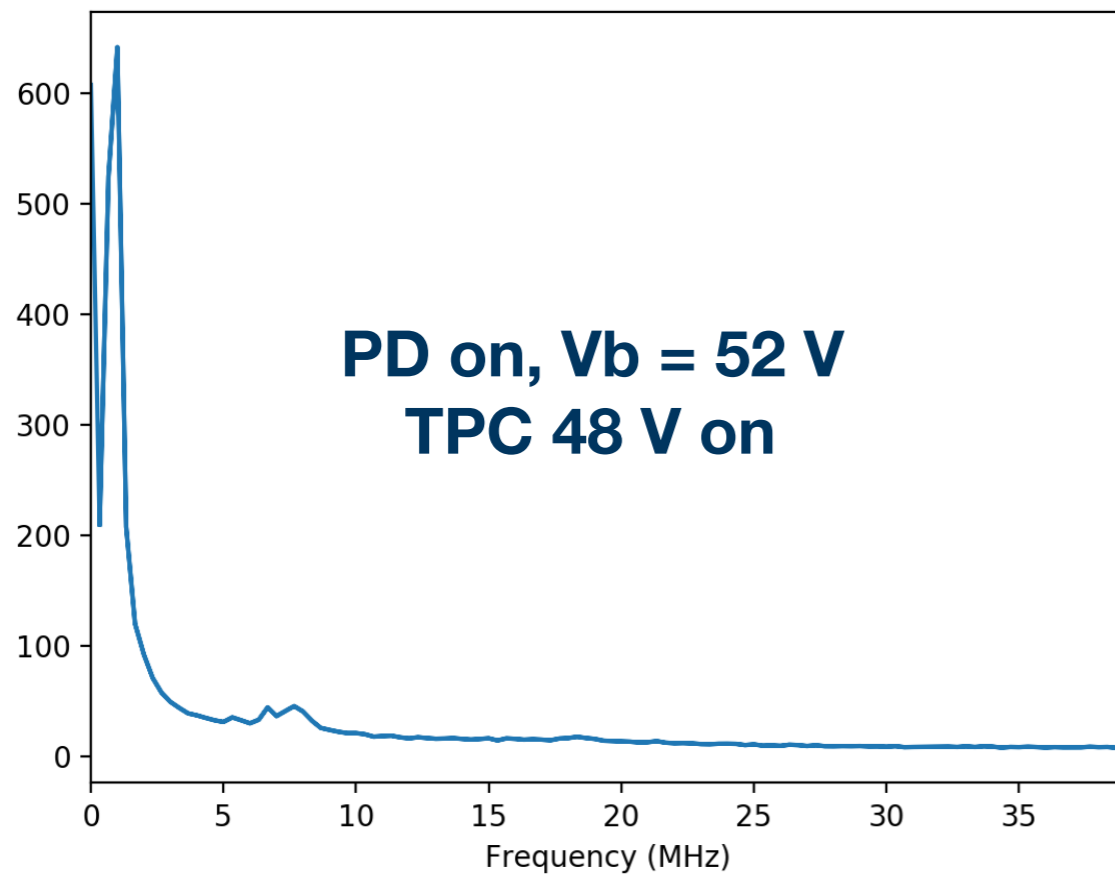
June 24, 2019

notes since last time

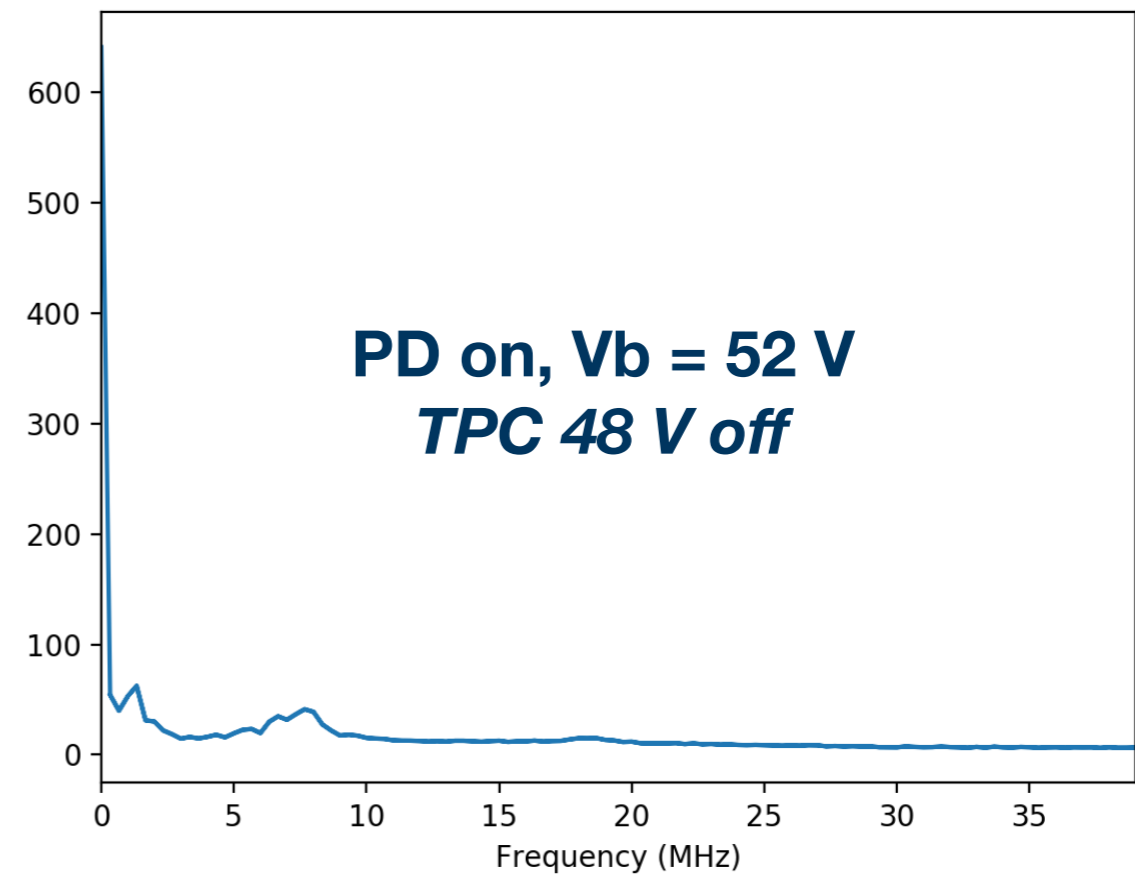
- For the time being we've reterminated the power cables for the sipm bias with banana plugs so we could plug into the Keithley to test CE and PD noise when the systems are powered from independent supplies.
- CE noise when both were powered by the PL506 was inspected more closely and it was determined that the noise induced by PD is not as substantial as it originally appeared.
- But there is significant cross talk from CE to PD when both are powered with the PL506, plus the SSP will need that channel eventually.

CE-induced noise on PD (PL506)

average FFT

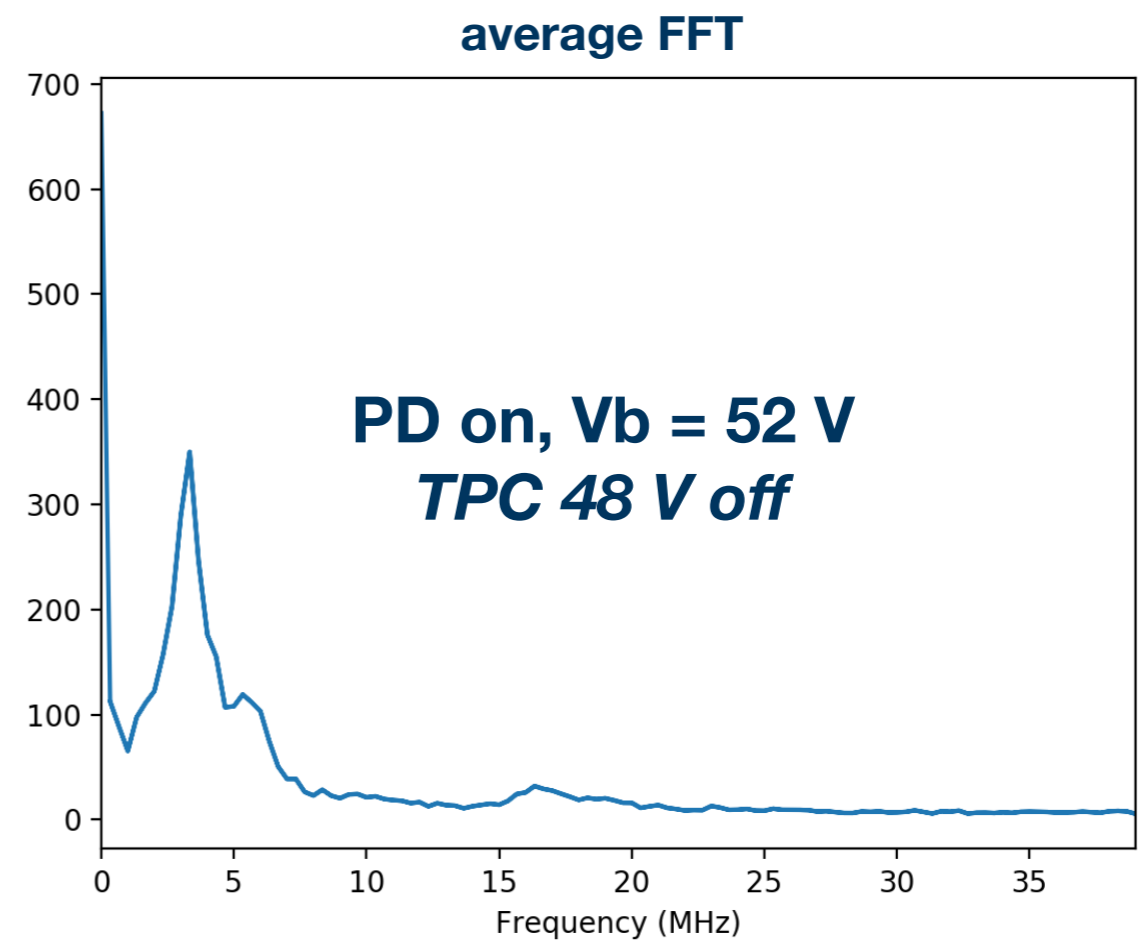
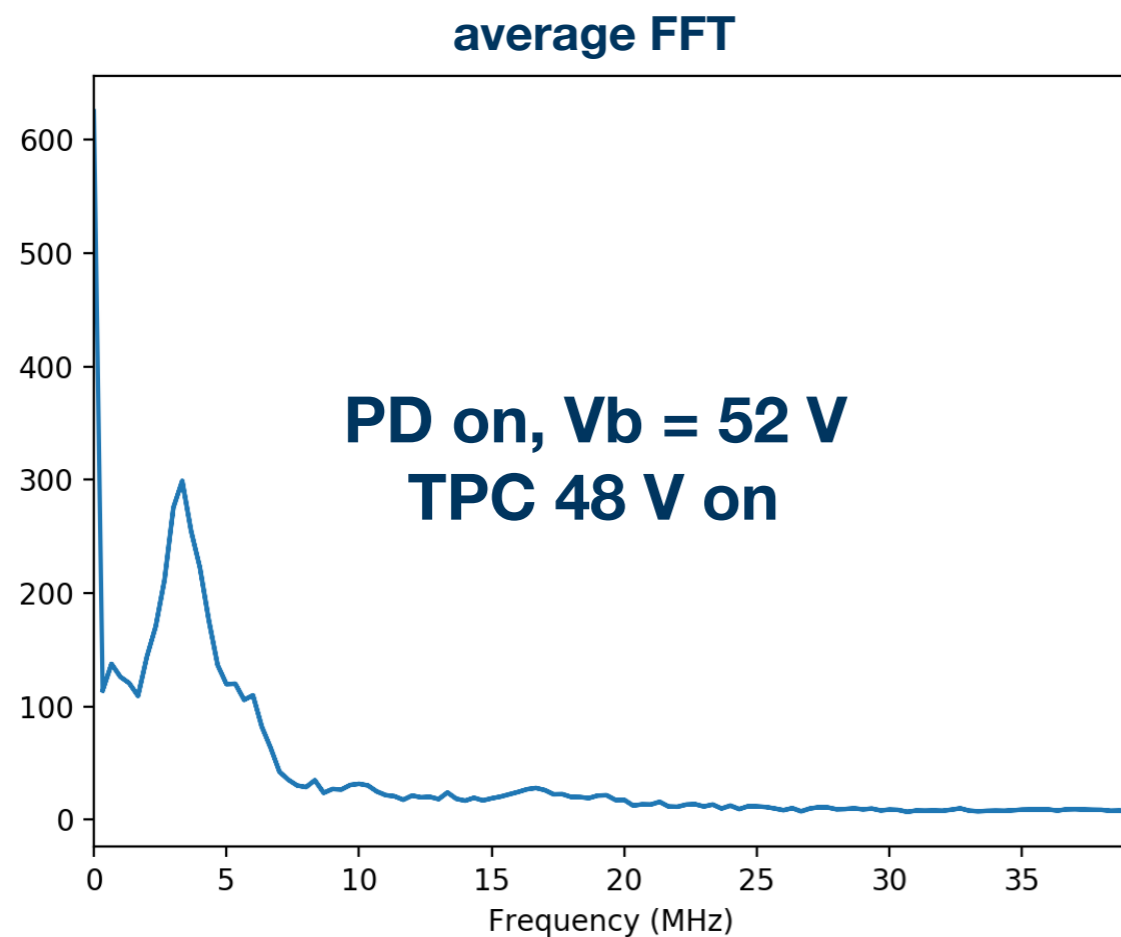


average FFT



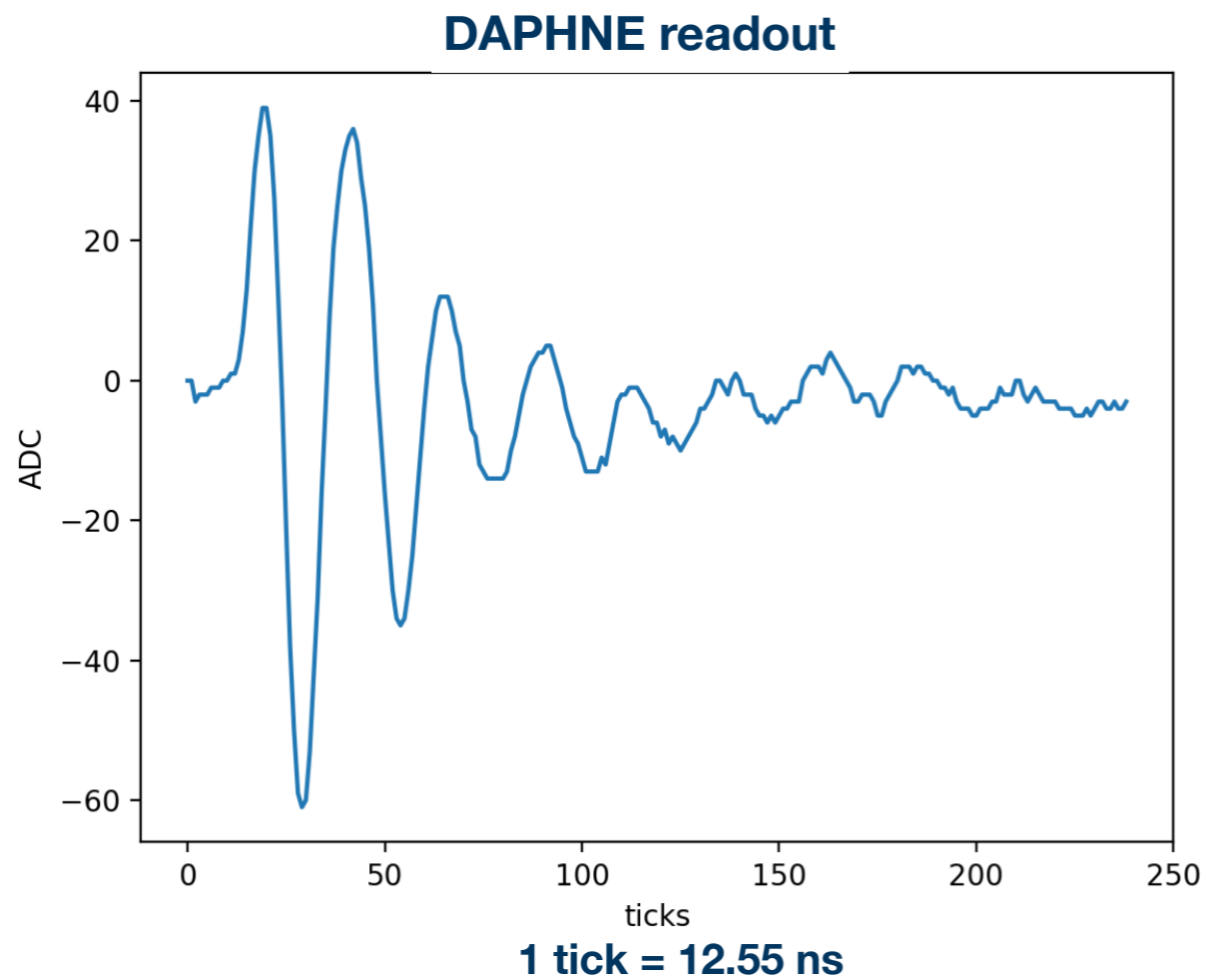
significant cross talk between systems

CE-induced noise on PD (Keithley)



not as much cross talk (800 kHz noise)

Keithley noise



PD on, $V_b = 52$ V
TPC 48 V off

A reminder of the noise being radiated by the Keithley.