

# ATF Analysis

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Neevia Document Converter Pro v6.8

# Outline

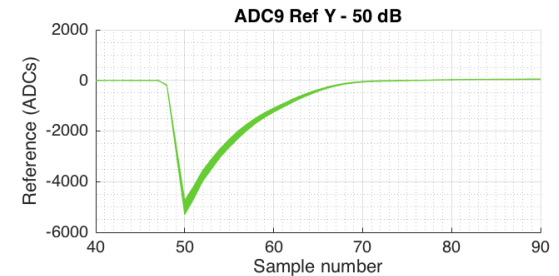
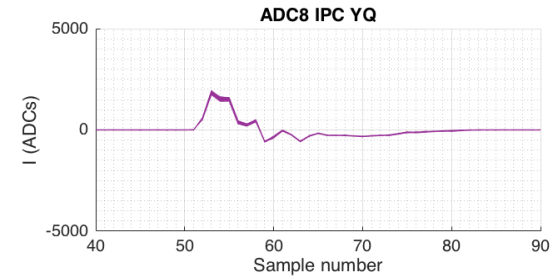
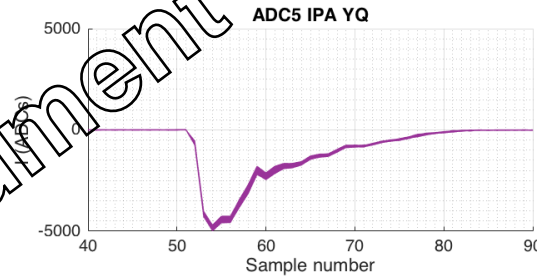
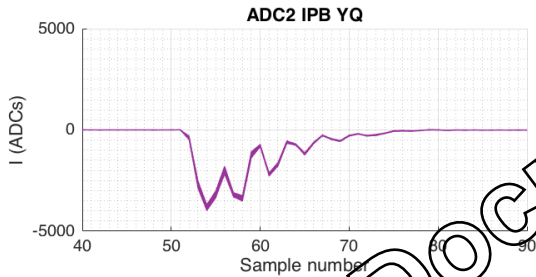
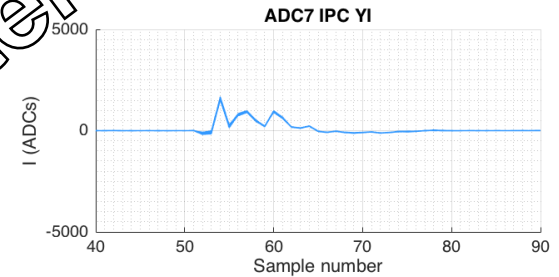
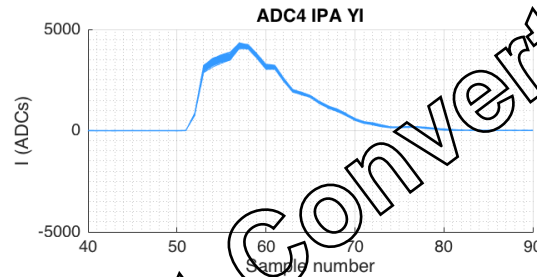
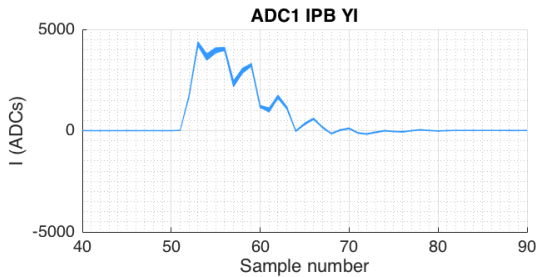
- ❖ Signal levels with / without indium sealing
- ❖ What is the I/Q distribution
- ❖ Resolution as a function of position

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# Signal levels – before indium

June 2015 – High beta optics – 10 dB dipole attenuation – 50 dB reference attenuation

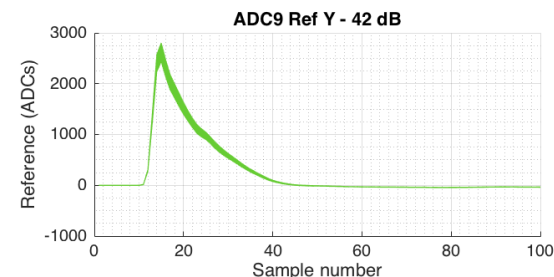
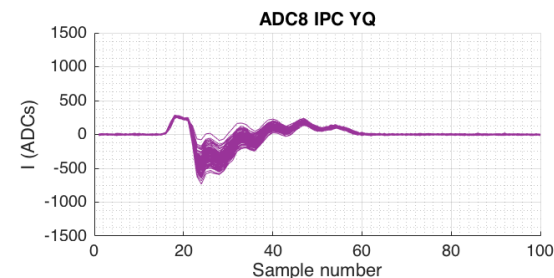
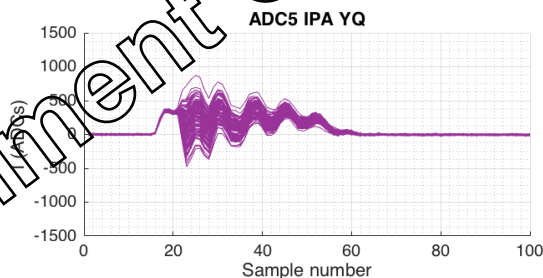
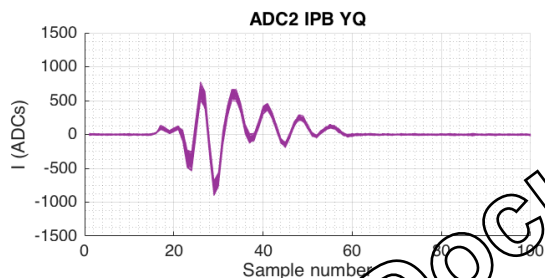
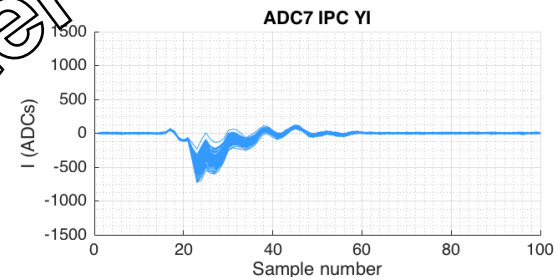
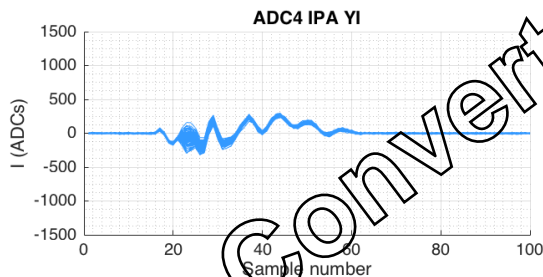
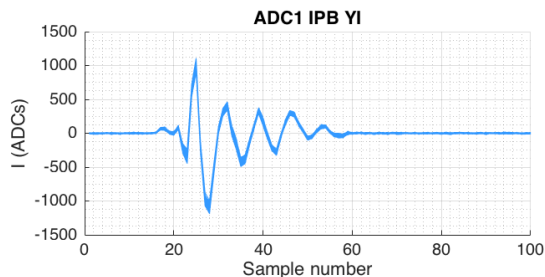
jitRun4\_10dB\_ipbpm\_150612 - IPY - SIS digitiser



# Signal levels – after indium

June 2017 – High beta optics – 10 dB dipole attenuation – 42 dB reference attenuation

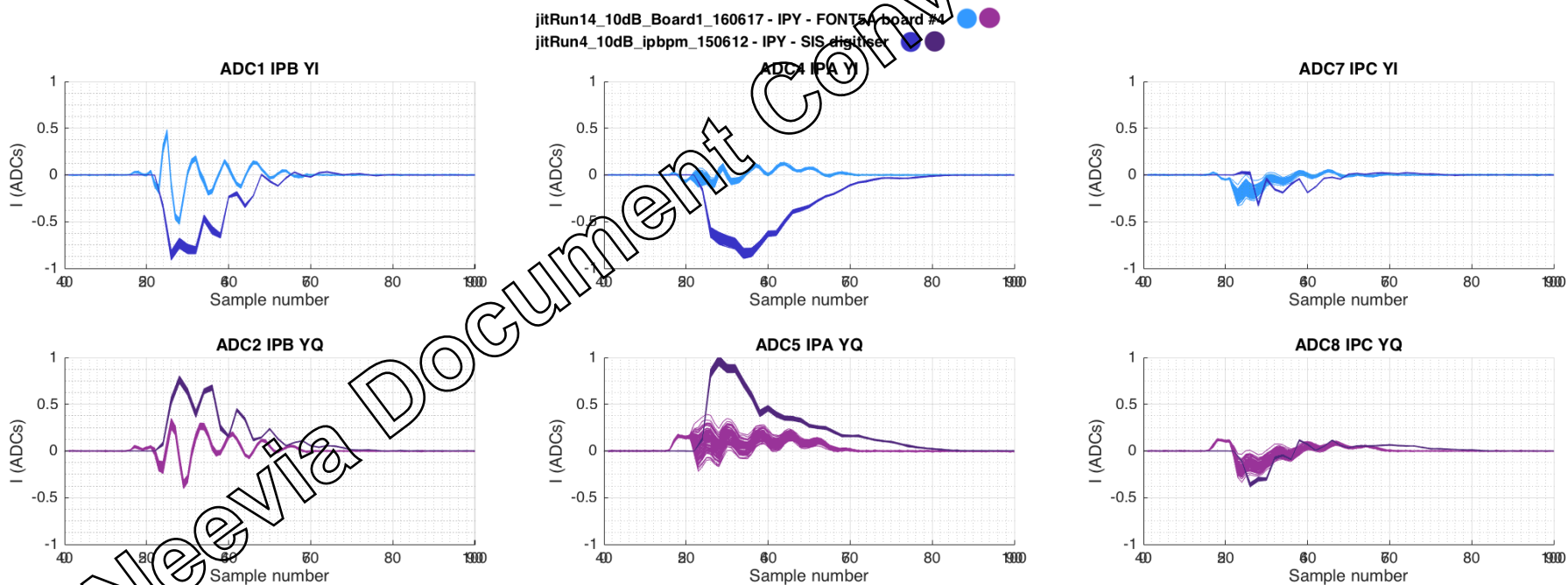
jitRun14\_10dB\_Board1\_160617 - IPY - FONT5A board #4



# Signal levels – comparison

Not sure how best to compare these data sets.

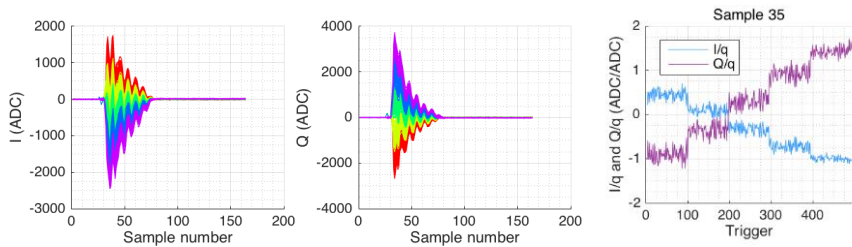
Attempt: Make the charges comparable by normalising charge to 50 dB.  
Charge normalise all the I and Q signals.  
Overlay.



# I/Q distribution - calibrations

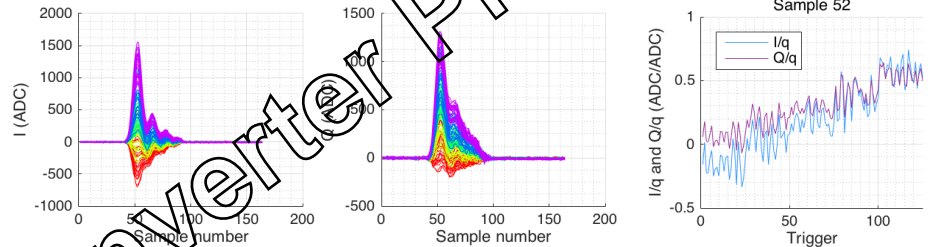
IPA

May 2017, no BPFs

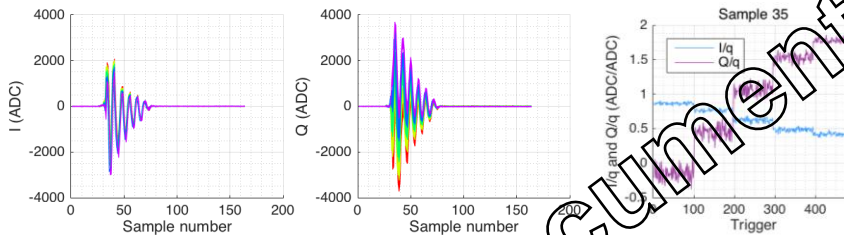


IPA

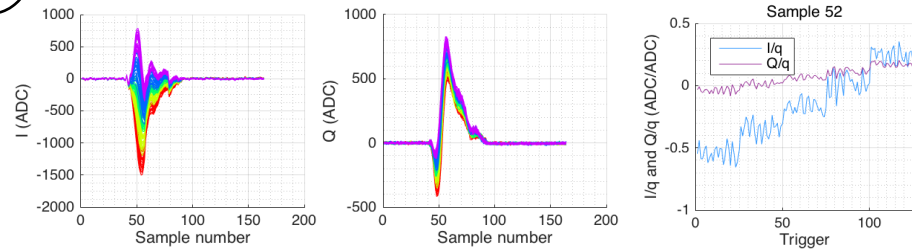
June 2017, BPFs



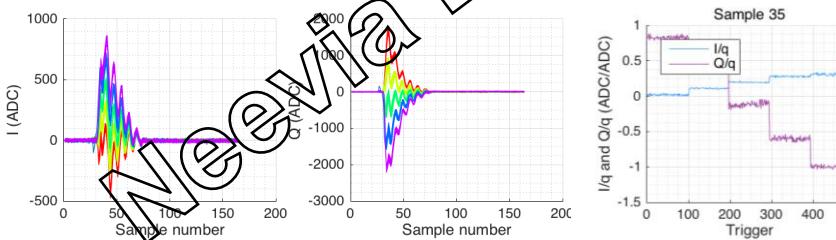
IPB



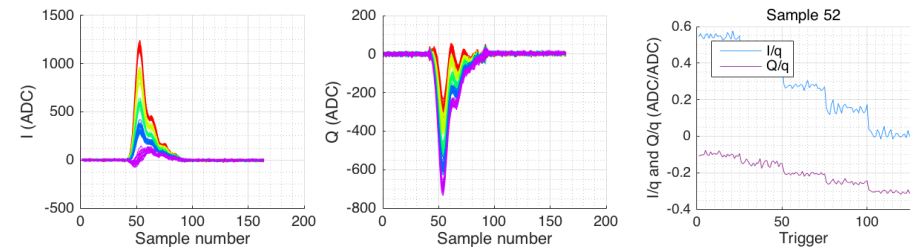
IPB



IPC



IPC



# Resolution vs position

50 dB data sets the uncertainty on resolution is bigger than the variation.

0 dB no clear pattern

20 dB maybe??? → Still not a clear dependence.

