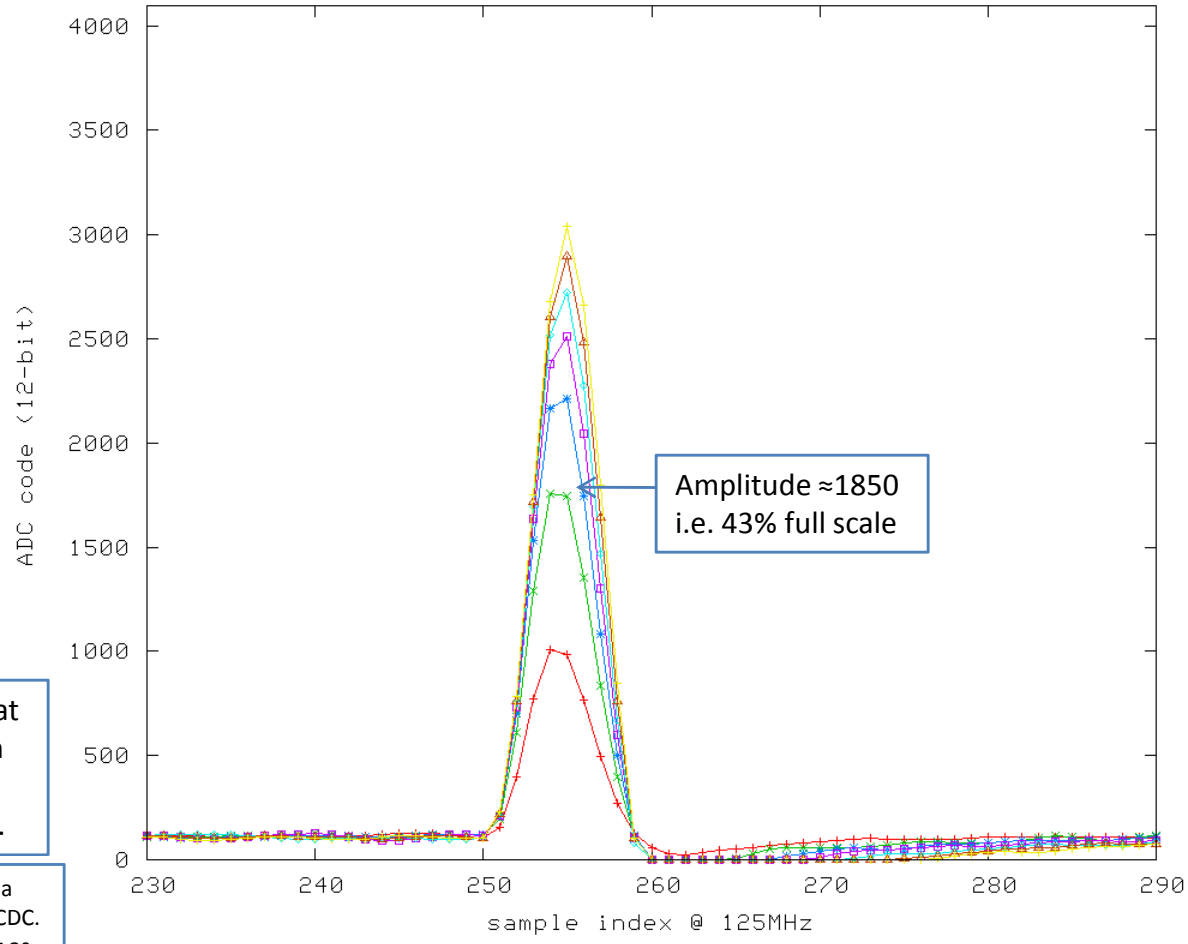
G. Visser 4/13/2011

A quick check of GAS-II / cable / ADC125 linearity

→It certainly looks like we **should increase the gain of the ADC125** by about a factor of 2…
(Or better from a signal/noise standpoint, improve the linearity and output range of the ASIC, but too late for this now?)

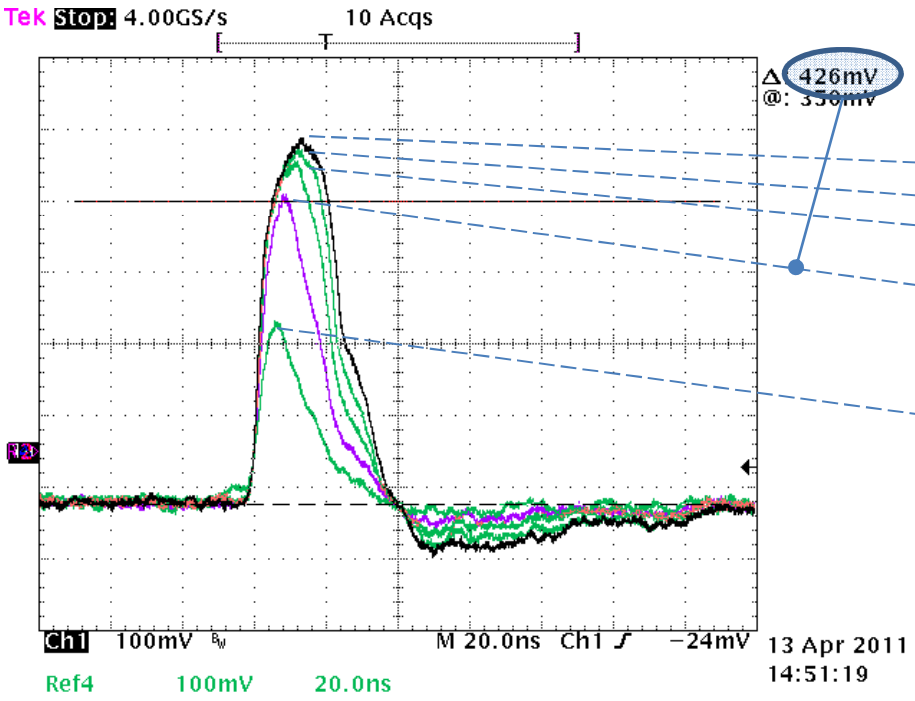


Caveat: This measurement is on a preamp board that I have. It is set for cathodes, and quite different gain setting than the CDC is using. The measurement should be repeated on a board setup for CDC usage.

Fernando: "The preamp you have is set for a gain of 3.2 mV/fC and a dynamic range of 110 fC (@ 5% linearity), quite different from the CDC. This is the fifth row in the Table 2 of GlueX-doc-1364 (the CDC is set as per the second row - 0.57 mV/fC, DR=380 fC). "

Voltage at GAS-II output terminals (with cable/ADC connected)

250MHz BWL, P6247 differential probe



ADC125 record, different events

125MHz sampling, 14 bit data divided by 4