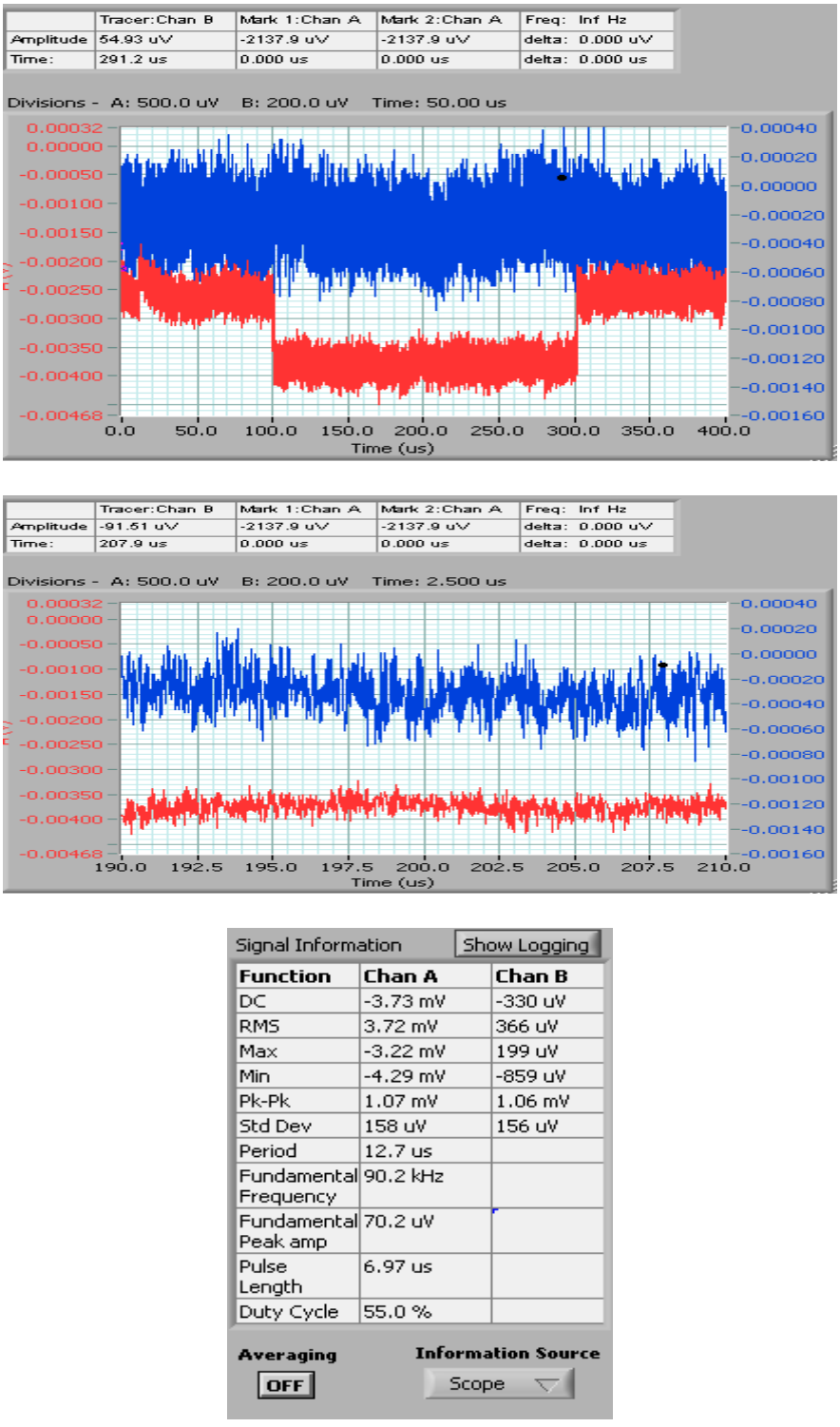

Fig. 1. Cleverscope resolution

On the input B is a 50Ohm load. On the input A is a 50Ohm generator output impedance.

Cleverscope calculates rms as regards to the mean value of the frame (screen). The pulse shown in the top picture mocks the ADC Driver output signal. Then the frame is stretched (shown in the bottom picture), and the rms on the pulse flat top is measured (snown in the table).
Pulse: 0.4V (-50)dB, -> 1.3mV. Number of samples 2000.

Cleverscope resolution is about 160uV=1.3bit. OK.

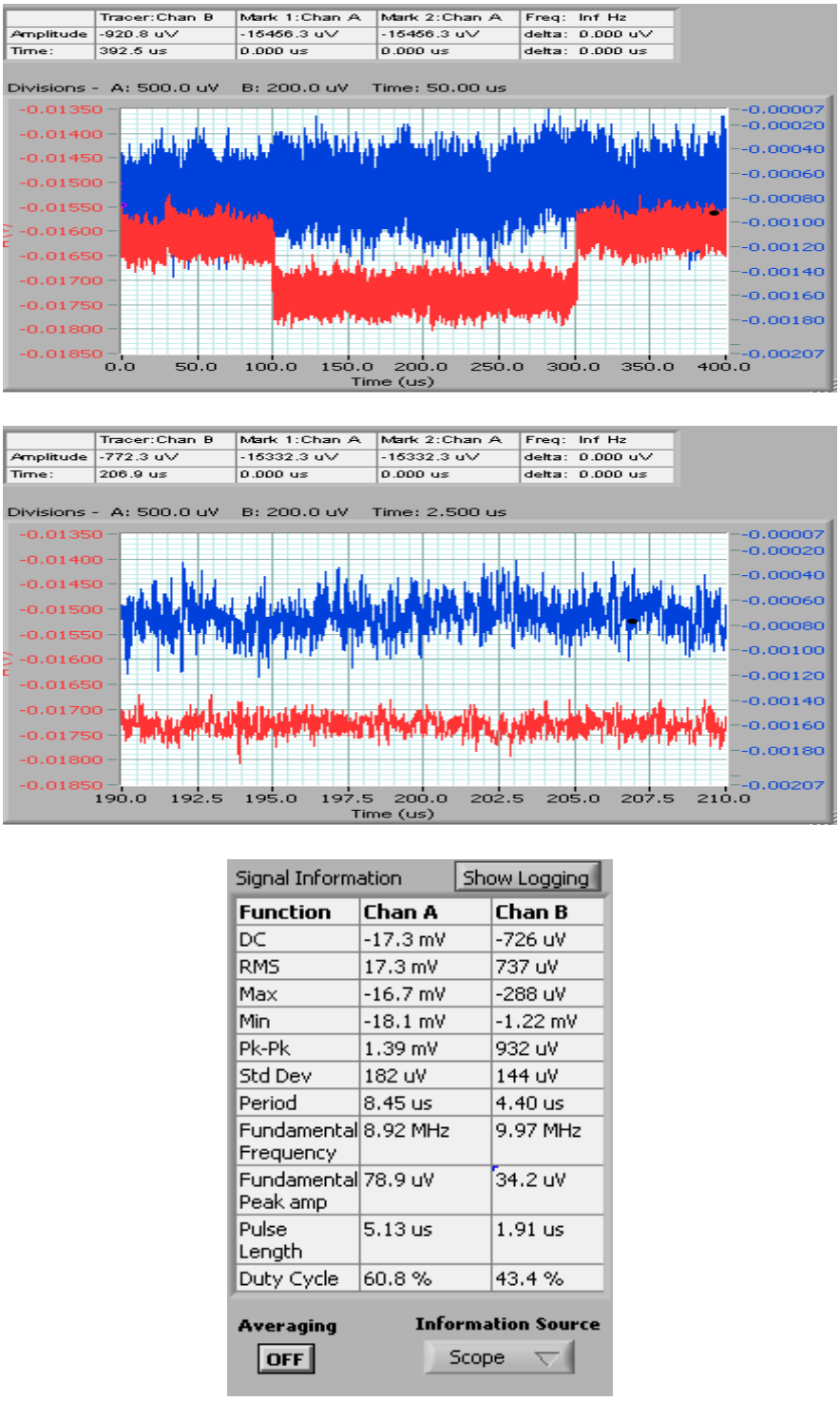

Fig. 2. No1 ADC Driver noise

On the Cleverscope input B is a 50Ohm load. To the input A, the ADC Driver No1 is connected (AD8000, output impedance is 50Ohm, Gain=3.75).

The pulse 0.36mV shown in the top picture mocks the SD output signal.
The CS rms = 160uV. The DR+CS rms = 190uV. Calculating, the DR rms = 120uV.
So, the ADC Driver output noise is 100uV. Compare to 122uV estimated for G=4 in 070318 Kalinin Noise-Resolution Chart.

The No1 ADC Driver output noise is about 100uV <1.0bit. OK.

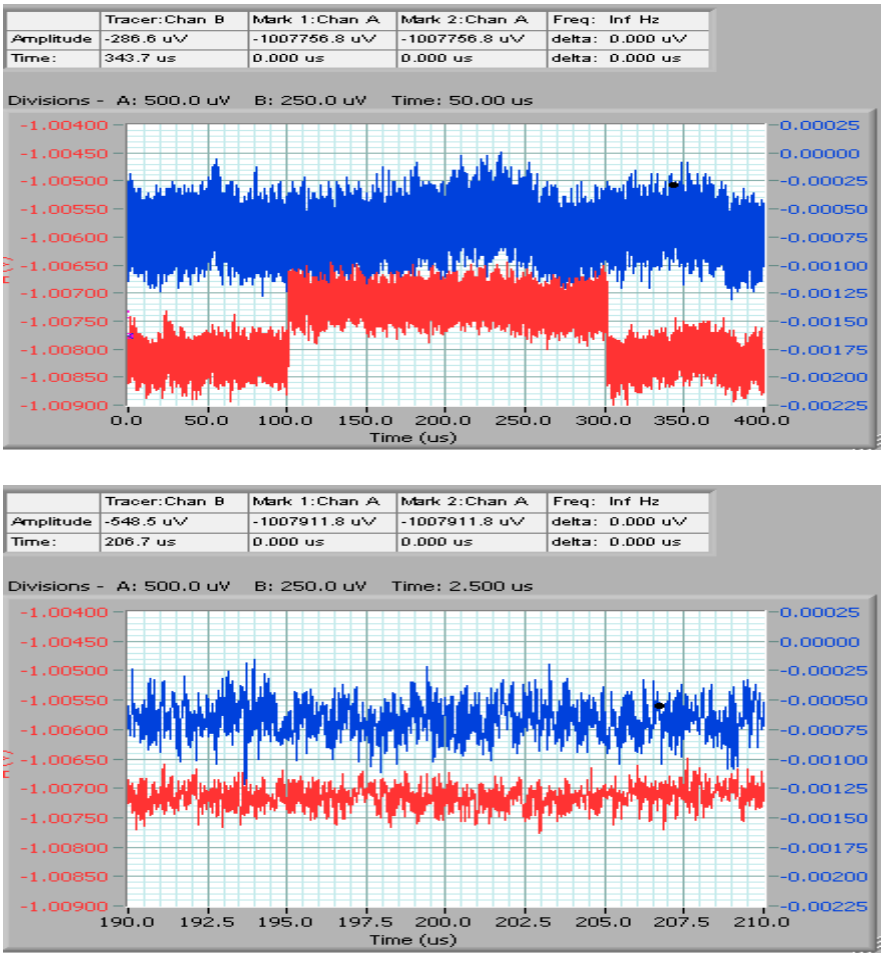

Fig. 3. No 2 ADC Driver noise

On the Cleverscope input B is a 50Ohm load. To the input A, the ADC Driver No2 is connected (AD8000, output impedance is 50Ohm, Gain=3.75, the DC output offset is (–1)V).

The pulse 0.36mV shown in the top picture mocks the SD output signal.
The CS rms = 160uV. The DR+CS rms = 190uV. Calculating, the DR rms = 100uV.

The ADC Driver output noise is same 100uV on a DC pedestal. OK.