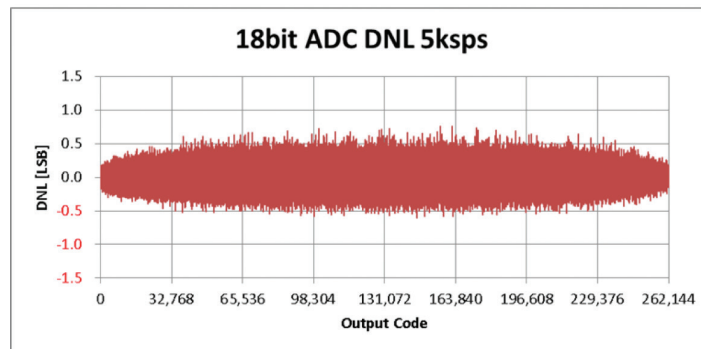
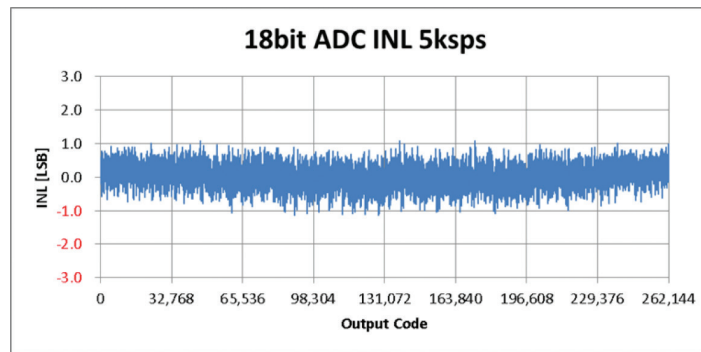


# ADC AC Linearity Test Solution

EVA100 MEASUREMENT SYSTEM



**FAST AND HIGH-PRECISION AC LINEARITY**



Easy Set-up and Control Software

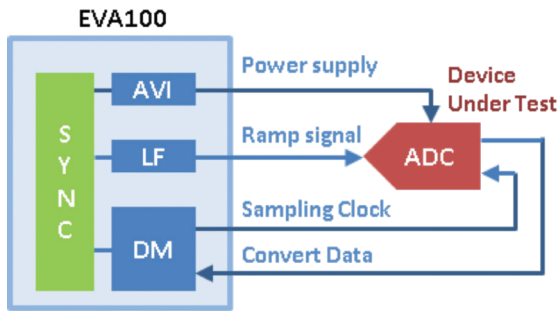
Intuitive Application Tools

Fastest Test Time and High-Precision Solution

## ■ ADC Linearity Test Using EVA100

The EVA100, equipped with multiple high-accuracy modules in a small body, can perform precise ADC linearity evaluations. Optimized application tools and template libraries enable easy and high-accuracy measurement.

### EVA100 Linearity Measurement Configuration

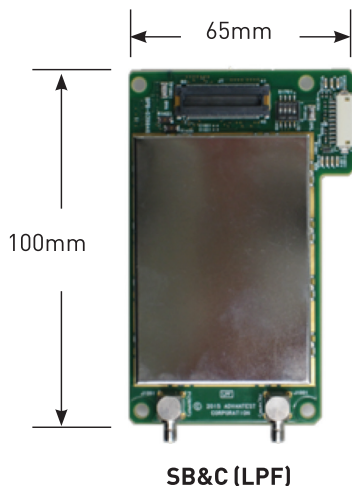


**AVI:** Voltage current monitor/source module  
**LF:** AWG, 24-bit resolution, THD -100 dB typ  
**DM:** Digital module, histogram calculation

## ■ Standard Board & Circuit (SB&C) LPF

The SB&C LPF provides the following elevated performance when combined with the LF-AWG:

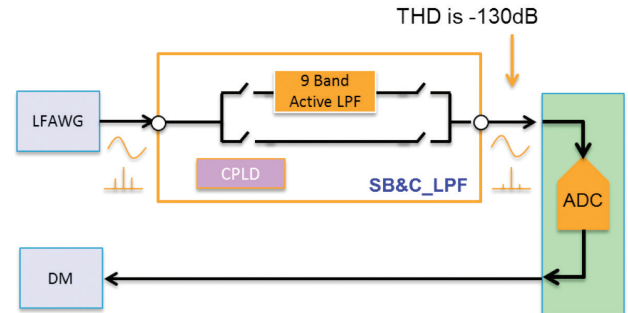
- Selectable 9-band LPF (100, 200, 500, 1k, 2k, 5k, 10k, 20k, 50k Hz)
- THD performance -130 dB typical with LF-AWG
- Standardized layout and digital control
- High repeatability and faster switching time



## ■ Purpose of SB&C LPF

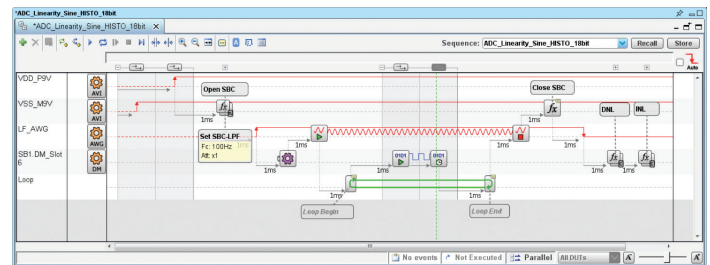
The EVA100 supports SB&C options to elevate the analog test capability for precision AD converters.

The SB&C is used between LF-AWG and DUT to remove harmonics or spurious noise that causes conversion errors, enabling the generation of a very pure sinusoidal wave signal (-130 dB typ.).

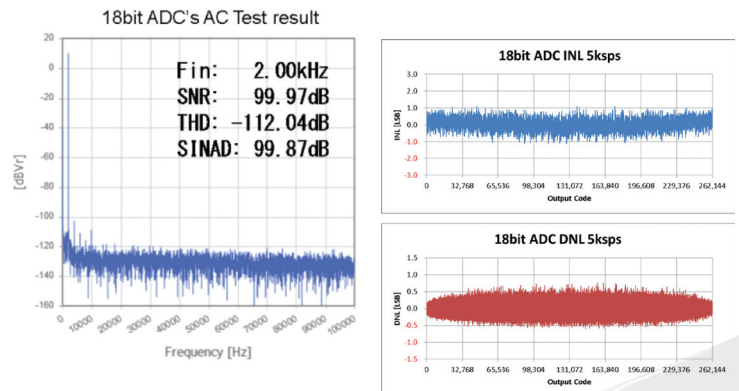


## ■ Test Sequence as a Standard

There are libraries of standard test sequences using the EVA100's SB&C. A sine wave histogram method for the AC linearity test sequence is shown below. By using the histogram engine from the digital module, the time required for downloads and calculations can be dramatically reduced.



## ■ Evaluation Result



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