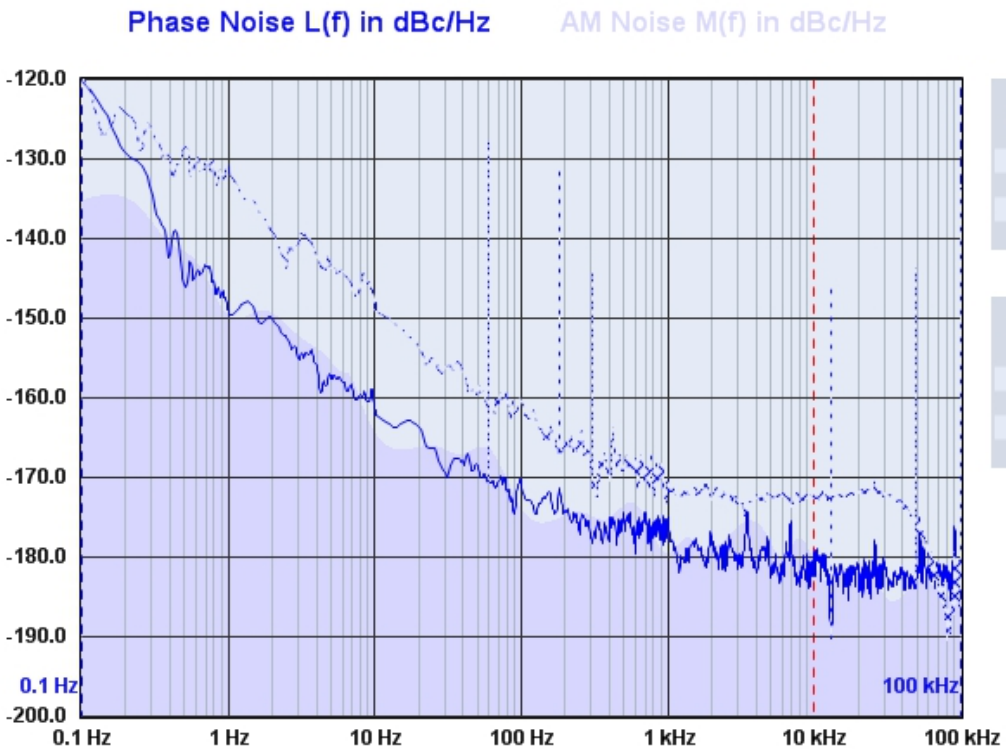
TimePod®

5330A PROGRAMMABLE CROSS SPECTRUM ANALYZER

Introducing phase noise and frequency stability analysis with some of the lowest numbers in the industry . . .

phase noise	< -175 dBc/Hz
AM noise	< -165 dBc/Hz
Allan deviation	< 1E-13/sec
price	US $4995.00



PM Spur Offset (Hz)	dBc
59.7	-156.5
12953.7	-145.5
48677.3	-143.6
100646.0	-133.6

AM Spur Offset (Hz)	dBc
60.4	-127.9
180.0	-130.8
301.2	-144.1
100646.0	-135.3

Trace	Input Freq	dBc/Hz at 10 kHz	RMS Jitter	Duration	Instrument
Residual noise	5000002.100 Hz	-180.8	1.6E-014 s	8 h	TimePod

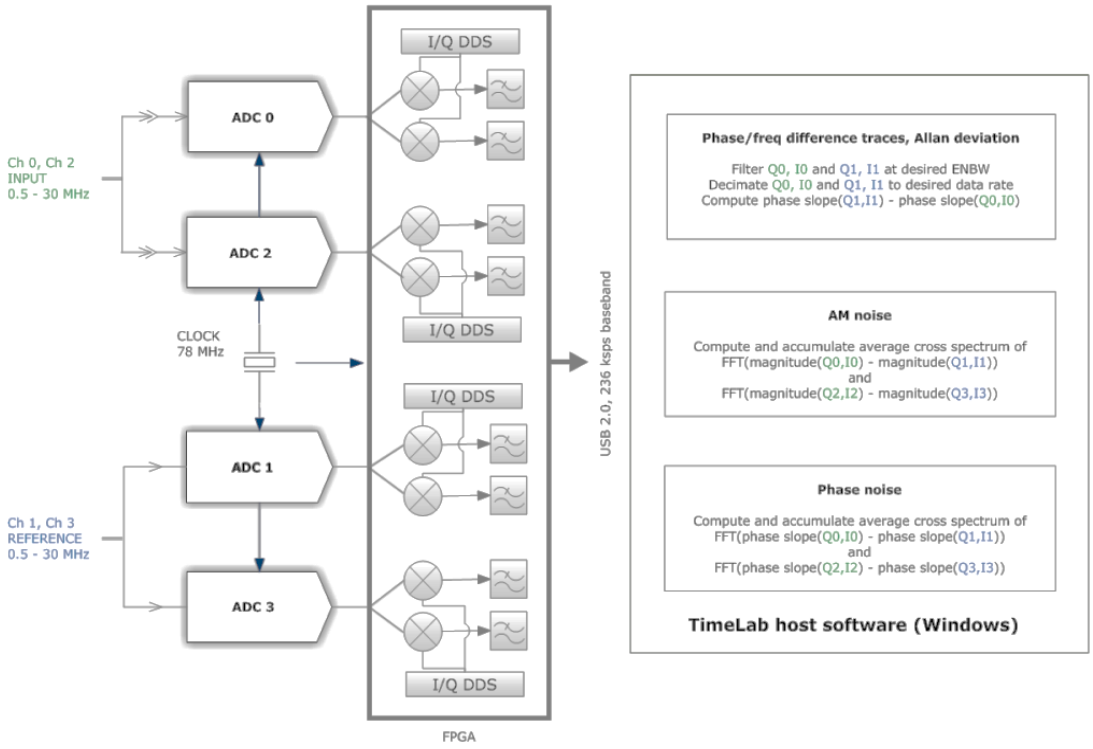
Miles Design LLC • 16758 45th Ave NE Lake Forest Park, Washington, USA 98155

milesdesign

wøw.miles.io

Performance your lab can afford

How It Works



The TimePod® 5330A Programmable Cross Spectrum Analyzer's story begins at its two input jacks and ends with publication-ready graphics on your Windows® PC, updated in real time. Do you need to characterize the quietest oscillators, the most stable atomic standards, or the highest-quality synthesizers? Then you need an instrument that won't lose the plot beneath its own residual floor. **Cross-correlation holds the key.** With two independent ADC pairs in one box, the 5330A's residual noise vanishes from the picture as if by magic. More than 20 dB of improvement over a single digital phase comparator is achievable… and the 5330A can even render an estimate of its receding noise floor as the measurement progresses.

Chances are that the 5330A is nothing like other phase noise or ADEV test sets you've used. There are no measurement-specific calibration steps, and no additional isolation amplifiers are needed. There's nothing to phase lock, and nothing to tune. And you can use any reference in the house, regardless of your DUT frequency! In short, the 5330A's capabilities and performance specs have never been available at less than five times its price. **Freedom to measure any signal with any reference: the TimePod 5330A from Miles Design. It changes *everything* about noise and stability measurements.**

Features and Applications

- Independent input and reference frequencies from 0.5 MHz to 30 MHz
- Cross-correlated measurements of PM and AM noise at offsets from 0.1 Hz to 100 kHz
- RMS integrated jitter measurements to less than 30 fs (5 MHz carrier, 0.1 Hz – 100 kHz)
- Allan deviation (ADEV), modified Allan deviation (MDEV), Hadamard deviation (HDEV), and time deviation (TDEV) measurement floors 10x lower than the best counters
- SFDR specified at -100 dBc, typically << -120 dBc
- Frequency and phase difference graphs depict oscillator drift with 1 million+ point records
- 17-digit frequency-count chart updated in real time using multiple averaging filters
- Includes digital I/O expansion port and independent access to input ADCs
- Easy-to-use software with exceptional multithreaded real-time performance
- Straightforward ASCII file format with flexible data import/export options
- Open hardware architecture – full schematics and FPGA interface details provided