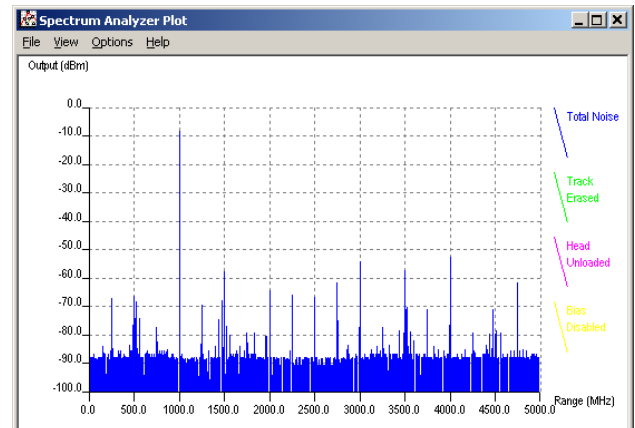


# GUZIK PRODUCT BULLETIN

## Digital Frequency Domain Analysis for D5000 Signal Analyzer

- Frequency Range from 0<sup>1</sup> to 5 GHz
- Spectral Integral SNR Measurement: 10 times faster than measurements via analog spectrum analyzer<sup>2</sup>
- Frequency Domain Tests: overwrite, spectrum analysis, NLTS, partial erasure
- 8 million points FFT implemented in hardware with selectable resolution bandwidth from 1 MHz to 10 kHz
- Programmable Averaging Mode
- Supported in WITE32 as a standard feature with D5000



D5000 Signal Analyzer allows for performing spectrum analysis much faster and in a wider frequency range comparing to standard SA-960 spectrum analyzer of RWA-2000 series.

D5000 spectrum analysis is performed by Fast Fourier Transform (FFT) of the read-back signal, as compared to SA-960 analog point-by-point measurements.

For example, Spectrum SNR test is executed 10 times faster compared with measurements through analog spectrum analyzer. Resolution bandwidth is programmable and can be as low as 10 kHz.

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<sup>1</sup> Actual lower frequency bound is limited by the RWA Analog Box bandwidth

<sup>2</sup> With typical setup

## D5000 FFT and SA-960

The table below compares parameters of SA-960 and D5000 FFT:

Spectrum Analyzer Model	Frequency Range	Resolution Bandwidth
SA-960	0.5–960 MHz	100 kHz (fixed)
D5000 FFT	0 – 5GHz	10 kHz – 1MHz (programmable)

## Typical Sweep Times

The table below compares spectral measurements performed in 500MHz band using SA-960 and D5000 FFT spectrum analyzers:

Spectrum Analyzer Model	Resolution Bandwidth	Test Time
SA-960	100 kHz (fixed)	56 sec
D5000 FFT	100 kHz	1.5 sec
D5000 FFT	10 kHz	1.9 sec

SpiSNR test setup: 1...500 MHz sweep with 0.1 MHz step, no partial noise, no band erase, signal is defined by first harmonic.

## Hardware and Software Requirements

1. Guzik D5000 Signal Analyzer
2. Guzik RWA-2000 Series
3. Guzik V2002 or Canon Spinstand
4. WITE32 Revision 3.40 or later



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