

Tektronix TDS3000B Series

The Complete Story Behind Record Length and Measurement Fidelity

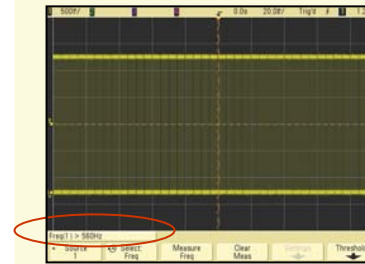
	Agilent DSO6000A	Tektronix TDS3000B
Measurement Record	✗ 1,000 points	✓ 10,000 points
FFT Input	✗ 1,000 points	✓ 10,000 points
FFT Output	✗ 1,000 point image	✓ 5,000 points
Averaging Record Length	✗ 1,000 points	✓ 10,000 points
Peak Detect Record Length	✗ 1,000 points	✓ 10,000 points
Math Record	✗ 1,000 point image	✓ 10,000 points
Reference Memories	✗ 1,000 point image	✓ 10,000 points
Saved .csv File	✗ 1,000 points max	✓ 10,000 points
Mathcad File	✗ Not available	✓ 10,000 points
Internal File	✗ 1,000 point image	✓ 10,000 points
ET Record	✓ 1,000 points	✗ Not applicable
Delayed Waveform	✗ 1,000 points	✓ 10,000 points
Max. Standard Record Length	✓ 1 million points*	✗ 10,000 points

* Only under very specific conditions (see below)

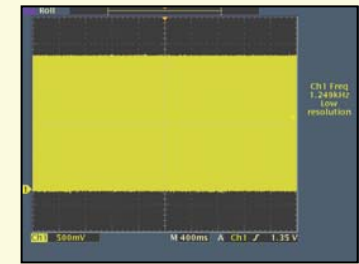
* Only when ALL of the following are applied simultaneously: When only one of channel 1 or 2 is turned on; when logic channels are turned off; when in single shot mode; when in normal acquire mode, or Average set to 1; when horizontal mode set to main

Automatic Measurement

✗ DSO6000A

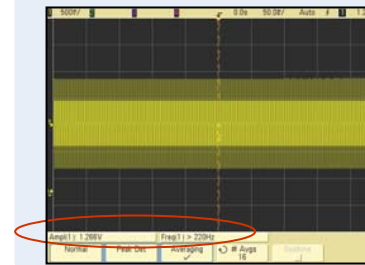


✓ TDS3000B

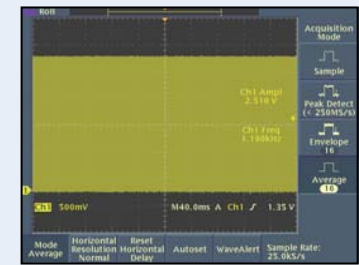


Waveform Averaging

✗ DSO6000A



✓ TDS3000B

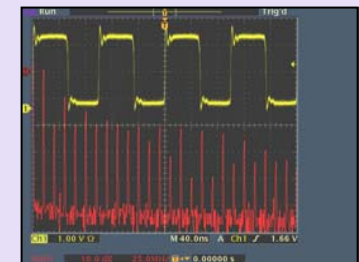


FFT Function

✗ DSO6000A



✓ TDS3000B



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DS06000A



TDS3000B

FFT Comparison

Agilent DSO6000A

- ✗ FFT based on 1,000 point display image only
- ✗ Inconsistent measurement results on many simple and complex signals

Tektronix TDS3000B

- ✓ FFT based on 10,000 point waveform data
 - ✓ Higher frequency resolution
 - ✓ Lower noise floor
- ✓ Consistently reliable and correct waveform measurements

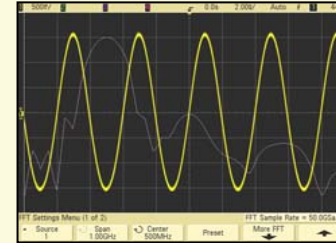
Tektronix TDS3000B Summary

- ✓ Reliable and consistent measurement results
- ✓ Waveform-based acquisition averaging
- ✓ Waveform-based measurements
- ✓ Greater Math and FFT accuracy and resolution
- ✓ Easily accessible waveform data
- ✓ Greater Reference resolution and usefulness

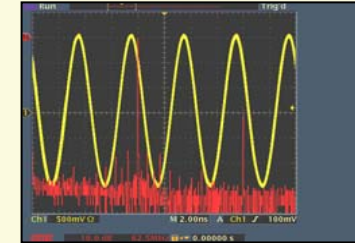
Consistency on Simple Signals

250MHz Sine Wave...

✗ DS06000A

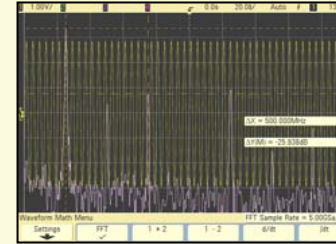


✓ TDS3000B

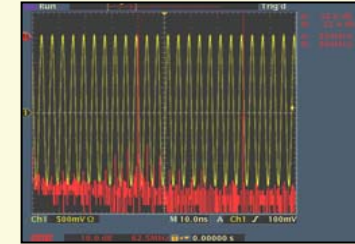


...Timebase slowed to 20nsec/div

✗ DSO6000A



✓ TDS3000B



Accuracy on Complex Signals

✗ DSO6000A



✓ TDS3000B

