

# 3 Series MDO vs. Keysight N9320B BSA Spectrum Analyzer

## COMPETITIVE FACT SHEET



### 3 Series Mixed Domain Oscilloscope

- 2 or 4 analog channels
- Integrated spectrum analyzer (1GHz standard; 3GHz optional)
- 16 digital channels (optional)
- Integrated arbitrary/function generator (optional)
- Serial bus decoding and triggering (optional)
- Power analysis (optional)
- 11.6-inch HD touch display
- Award winning user interface

Specifications		Tektronix 3 Series MDO		Keysight N9320B
Frequency Range	✓	9 kHz - 1 GHz (standard) 9 kHz - 1 GHz (optional)	✓	9 kHz - 3 GHz
Frequency Span	✓	Up to 1 GHz (standard) Up to 3 GHz (optional)	✓	Up to 3 GHz
Phase Noise at 1 GHz CF (typical)				
10 kHz offset		<-81 dBc/Hz, <-85 dBc/Hz		<-88 dBc/Hz, <-90 dBc/Hz
100 kHz offset	✓	<-97 dBc/Hz, <-101 dBc/Hz	✓	<-100 dBc/Hz, <-102 dBc/Hz
1 MHz offset		<-118 dBc/Hz, <-122 dBc/Hz		<-110 dBc/Hz, <-112 dBc/Hz
Displayed Average Noise Level (DANL) at 1 GHz	✓	-136 dBm/Hz, -140 dBm/Hz (typical)	✗	-127 dBm/Hz
2nd Harmonic Distortion at 1 GHz	✗	-55 dBc, -60 dBc (typical)	✓	-73 dBc
3rd Order Intermodulation Distortion at 1 GHz	✗	-55dBc, -60 dBc (typical)	✓	-60 dBc, -66 dBc (typical)
Residual Response	✓	-78 dBm, -84 dBm (typical)	✓	-83 dBm
Display Size and Resolution	✓	11.6" HD (1920x1080)	✗	6.5" VGA (640 x 480)
Touch Screen	✓	Yes	✗	No
Dimensions (HxWxD)	✓	252 x 370 x 149 mm (9.9 x 14.6 x 5.9 in)	✗	133 x 320 x 400 mm (5.2 x 12.6 x 15.7 in)
Weight	✓	5.3 kg (11.7 lbs.)	✗	8.4 kg (18 lbs.)
Warranty	✓	3 year	✓	3 year
Spectrum Analyzer Price	✓	Max. Frequency to 1 GHz: <b>Standard, Free</b> Max. Frequency to 3 GHz: <b>Optional, \$3,000*</b>	✗	<b>\$8,667*</b>

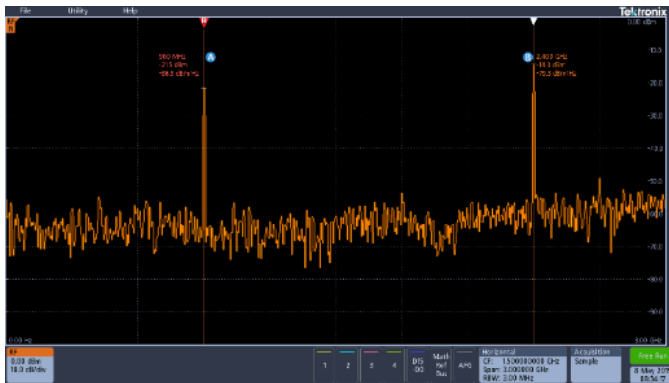
\* US list prices as of July 21, 2020 from [www.tek.com](http://www.tek.com) and [www.keysight.com](http://www.keysight.com)

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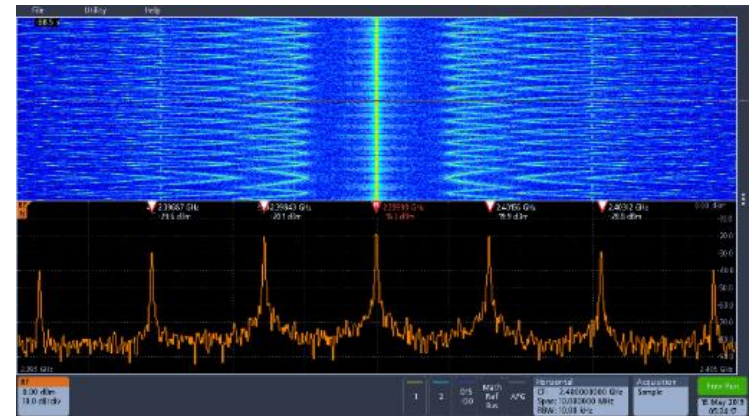
## COMPETITIVE FACT SHEET - 3 SERIES MDO FEATURE HIGHLIGHTS



**Integration with Oscilloscope, Logic and Protocol Analysis**  
Use the same instrument for making measurements in the time domain and the frequency domain.



**Exceptionally Wide Capture Bandwidth**  
With 3 GHz of capture bandwidth and long RF acquisition times, the MDO is the ultimate product for debugging modern wideband, time varying RF signals.



**Spectrogram Display**  
Use the built-in spectrogram display to see how the spectrum's peaks are changing in both frequency and amplitude – ideal for monitoring slow-changing RF phenomena.



**Automated Markers**  
Define threshold and excursion values, and the 3 series MDO will automatically search your entire spectrum and mark all peaks that meet your criteria, enabling you to quickly see each peak's frequency and amplitude.