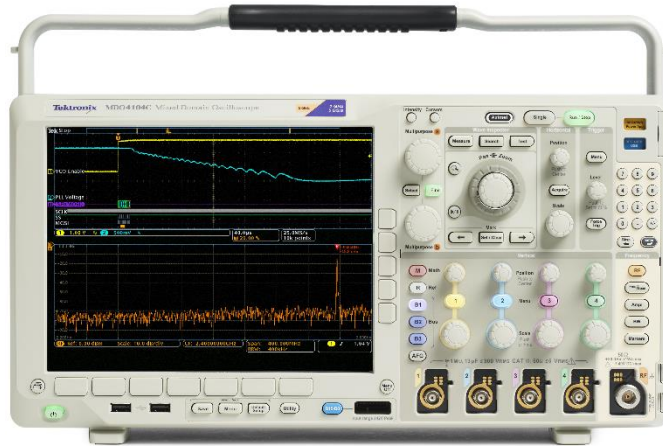# MDO4000C Series vs. Keysight N9322C Spectrum Analyzer
COMPETITIVE FACT SHEET

Mixed Domain Oscilloscope

- 4 analog channels
- 16 digital channels (optional)
- Integrated spectrum analyzer
  - Dedicated front panel controls
  - Dedicated N connector
- Integrated arbitrary/function generator (optional)
- Serial bus decoding and triggering (optional)

Key Specifications		Tektronix MDO4000C w/ opt. SA3		Keysight N9322C
Frequency Range	✘	9 kHz - 3 GHz	✔	9 kHz - 7 GHz
Capture / Analysis Bandwidth	✔	3 GHz	✘	3 MHz
Phase Noise at 1 GHz CF 10 kHz offset 100 kHz offset	✔	<-108 dBc/Hz, <-111 dBc/Hz (typical) <-110 dBc/Hz, <-113 dBc/Hz (typical)	✘	N/A, <-90 dBc/Hz (typical) <-98 dBc/Hz, <-100 dBc/Hz (typical)
Displayed Average Noise Level (DANL) at 1 GHz	✔	<-147 dBm/Hz , <-149 dBm/Hz (typical)	✘	<-141 dBm/Hz, <-145 dBm/Hz (typical)
2nd Harmonic Distortion at 1 GHz (0 dB atten.)	✘	<-60 dBc,< -65 dBc (typical)	✔	<<-65 dBc
3rd Order Intermodulation Distortion at 1 GHz	✘	<-62dBc,<-65 dBc (typical)	✔	-62 dBc, -70 dBc (typical)
Other Input Related Spurious Response	✘	<-60 dBc, <-65 dBc (typical) w/ exceptions to <-55 dBc, <-60 dBc (typ.)	✔	<-75 dBc w/ exceptions to <-65 dBc
Residual Response	✘	<-85 dBm w/ exceptions at <-78 and <-73 dBm	✔	<-90 dBm, <-98 dBm (typical)
Display Size and Resolution	✔	10.4" XGA	✘	6.5" VGA
Dimensions (HxWxD in inches)	✔	9.0 x 17.3 x **5.8**	✘	5.2 x 12.6 x **15.7**
Weight	✔	11 lbs.	✘	17.4 lbs.
Warranty	✔	3 years	✔	3 years

Tektronix

# MDO4000C Series vs. Keysight N9322C Spectrum Analyzer

COMPETITIVE FACT SHEET

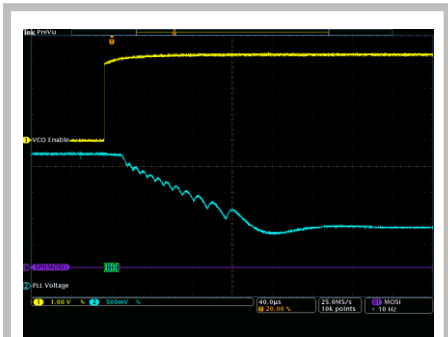**MDO4000C Capabilities Not Available on Keysight N9322C**

- 4 analog channels and 16 digital channels
- Function generator and DVM
- Serial / Parallel bus decode
- Capture bandwidth wide enough for modern RF signals
- Time-correlated views of analog, digital, serial / parallel buses and RF signals for complete system visibility. RF signals include:
    - Spectrum shown in Frequency Domain
    - Amplitude, Frequency, and Phase vs. Time traces shown in Time Domain

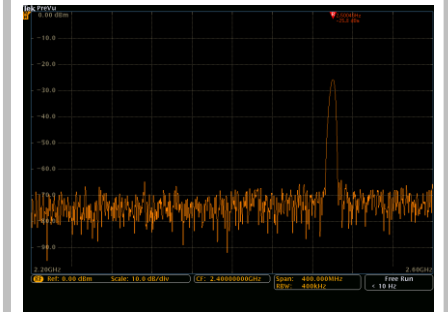Time Domain Only

Frequency Domain Only
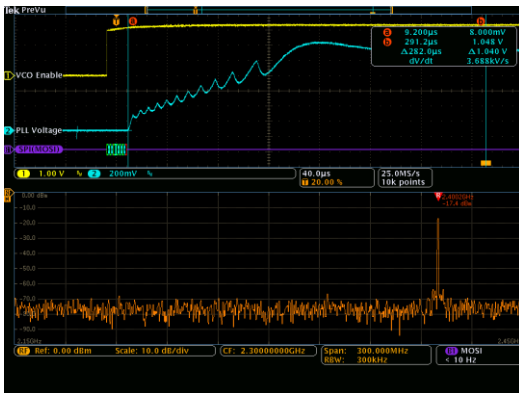
Correlating RF to other system signals

The most common application is making timing measurements from control logic (often serial or parallel bus commands) to when the RF output changes take effect.
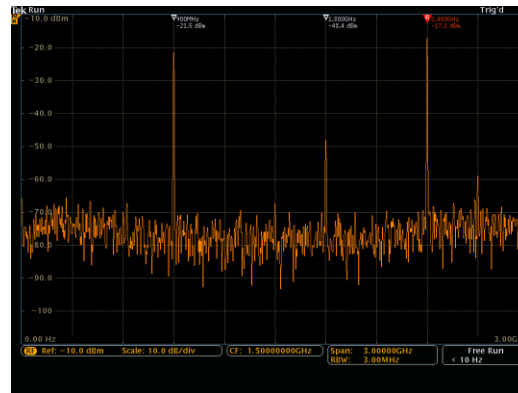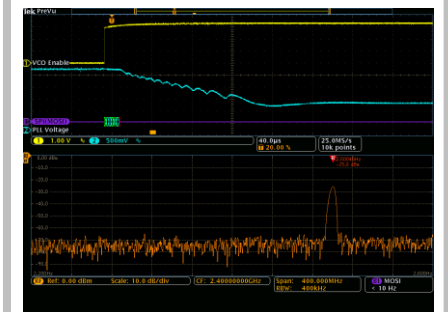
Exceptionally Wide Capture Bandwidth

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.

Both Domains at Once

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