

Keysight Technologies N9000A CXA Signal Analyzer

Essential Signal Characterization
Now Up to 26.5 GHz



Figure 1. The new 26.5 GHz CXA X-Series signal analyzer

Low-cost CXA X-Series Signal Analyzer

A great low-cost signal analyzer surpasses the basics and delivers crucial functionality. That's the strength of the CXA signal analyzer, the leading low-cost tool for essential signal characterization, now with frequency coverage up to 26.5 GHz. Its capabilities provide a foundation for cost-effective testing and seamless integration with the other X-Series signal analyzers. Get must-have capability with X-Series expandability in the CXA—and master the essentials.

- Perform essential signal characterization up to microwave frequencies in general purpose and wireless communications
 - 9 kHz to 3.0, 7.5, 13.6, or 26.5 GHz frequency range
 - Preamplifier to 3.0, 7.5, 13.6, or 26.5 GHz, license key upgradable
- Meet tighter test requirements and enhance test margins with premium capabilities at a cost-effective price
 - –163 dBm DANL at 1 GHz, –147 dBm DANL at 26.5 GHz with preamp on
 - –102 dBc/Hz phase noise at 10 kHz offset, 1 GHz carrier
 - +15 dBm TOI at 1 GHz, +14 dBm TOI at 26.5 GHz
 - Standard 10 MHz analysis bandwidth, optional 25 MHz analysis bandwidth

- Reduces capital expenditure with flexible hardware and software options
 - X-Series measurement applications include phase noise, noise figure and VXA vector signal analysis
 - Free trial license
 - Upgradable CPU module, removable solid-state drive

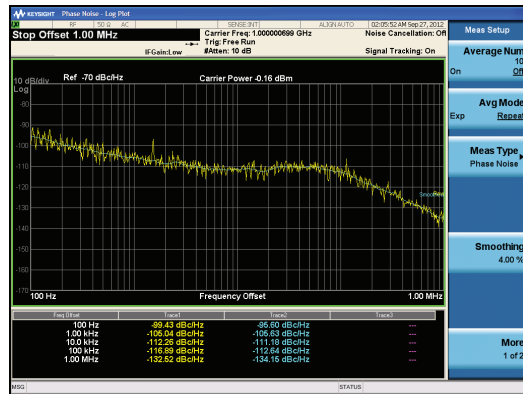


Figure 2. Premium phase noise performance

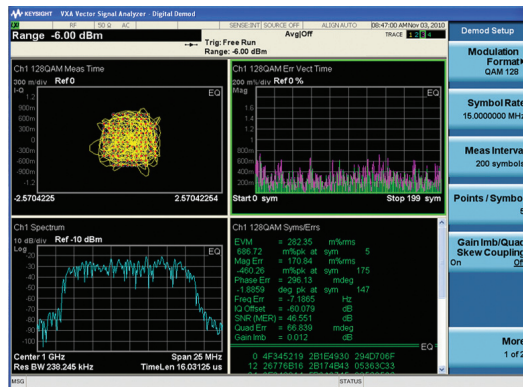


Figure 3. W9064A VXA vector signal analysis measurement application

Ordering information

Option	Description
N9000A-513	Frequency range, 9 kHz to 13.6 GHz
N9000A-526	Frequency range, 9 kHz to 26.5 GHz
N9000A-P13	Preamplifier, 13.6 GHz
N9000A-P26	Preamplifier, 26.5 GHz

For more information, visit www.keysight.com/find/CXA

Top 3 Reasons to Migrate from the ESA-L Spectrum Analyzer to the CXA X-Series Signal Analyzer

The N9000A CXA signal analyzer, the most affordable member of the Keysight Technologies X-Series signal analyzer family, is a perfect replacement for the RF and microwave ESA-L Series spectrum analyzers. With more powerful performance, sophisticated analysis capabilities, and faster measurement speeds, the CXA brings you a versatile and essential signal characterization toolset available at a lower price point than ever before.

Better performance

With advances in RF/microwave design and digital IF technologies, the CXA signal analyzers offers dramatic performance improvements over the ESA-L spectrum analyzers.

Table 1. ESA-L and CXA key specifications comparison

RF performance	ESA-L	CXA	
Available frequency ranges	9 kHz to 1.5 GHz (E4411B)	N/A	
	9 kHz to 3.0 GHz (E4403B)	9 kHz to 3.0 GHz	
	N/A	9 kHz to 7.5 GHz	
	N/A	9 kHz to 13.6 GHz	
	9 kHz to 26.5 GHz (E4408B)	9 kHz to 26.5 GHz	
DANL	1 GHz	-130 dBm, 100 Hz RBW	-163 dBm, with preamplifier ON
	26.5 GHz	-122 dBm, 100 Hz RBW	-147 dBm, with preamplifier ON
Phase noise (at 1 GHz) offset	10 kHz	-94 dBc/Hz	-102 dBc/Hz
TOI		+7.5 dBm	Up to +17 dBm
Analysis bandwidth		N/A	10 MHz standard, 25 MHz optional

More capabilities

With more than 25 X-Series measurement applications, the CXA signal analyzers have increased their measurement coverage substantially beyond the ESA-L Series to meet increasingly advanced measurement needs.

Table 2. ESA-L and CXA key measurement applications comparison

Applications/Options	ESA-L	CXA
PowerSuite	Standard	Standard
Tracking generator	Option BTG	Option T03/T06 1
75 Ω input	Option 1DP	Option C75 1
CATV	E4411B only	Digital video measurement applications 1
Preamplifier	N/A	Option P03/P07/P13/P26
Analysis bandwidth	N/A	10 MHz std., 25 MHz opt.
EMI pre-compliance	N/A	W6141A EMI measurement application 1
General purpose	N/A	Analog demodulation 1, phase noise, noise figure
Wireless connectivity	N/A	802.16 OFDMA, Bluetooth®, WLAN 1
Cellular communications	N/A	Supports 2G, 3G and 4G standards 1
Vector signal analysis	N/A	W9064A VXA measurement application or 89600 VSA software

1. Not compatible with 13.6 and 26.5 GHz frequency options.

Faster speed

CXA helps you reduce time to market and boost throughput with much-improved measurement and data transfer speeds – The CXA is up to 90 times faster than the ESA-L.

Table 3. ESA-L and CXA measurement speed comparison

Measurement throughput	ESA-L (msec)	CXA (msec)	Speed improvement
Local measurement and display update rate	21	11	2X
Remote measurement and transfer rate	32	6	5X
Center frequency tune and transfer (RF)	121	22	5X
Marker peak search	454	5	90X

For more information, visit www.keysight.com/find/esa2cxa

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