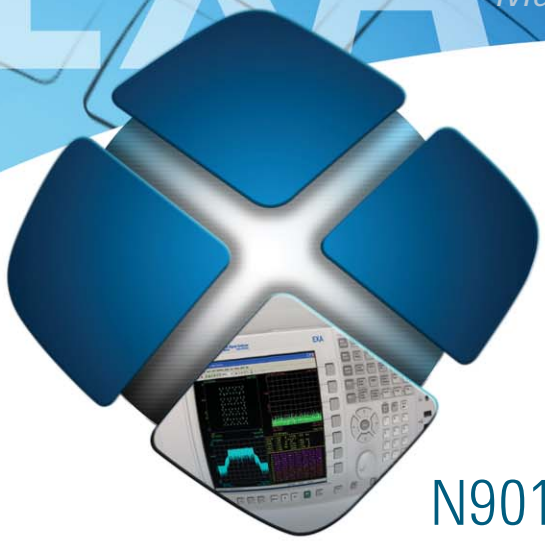


N9010A EXA
X-Series Signal Analyzer

- 9 kHz to 3.6, 7.0, 13.6, or 26.5 GHz frequency range
- +0.27 dB absolute amplitude accuracy
- +13 dBm TOI, –163 dBm DANL
- Up to 40 MHz analysis bandwidth
- Supports more than 25 advanced measurement applications
- Programming language compatible with ESA Series spectrum analyzers

Agilent Technologies

Fastest signal analysis

Optional dual-core CPU (Option PC2) enables even faster measurement.

Broadest set of applications

Enhanced spectrum analysis with more than 25 advanced measurement applications covering communications, wireless connectivity, and general purpose applications.

Industry-leading 89600B vector signal analysis (VSA) software running inside for advanced modulation analysis.

www.agilent.com/find/exa

Summary of Key Specifications

Frequency ranges

Option 503	9 kHz to 3.6 GHz
Option 507	9 kHz to 7.0 GHz
Option 513	9 kHz to 13.6 GHz
Option 526	9 kHz to 26.5 GHz

Measurement speed (nominal)

	Standard	With Option PC2
Local measurement and display update	< 11 ms	< 4 ms
Remote measurement and LAN transfer	< 6 ms	< 5 ms
Marker peak search	< 5 ms	< 1.5 ms
Center frequency tune and transfer (RF)	< 22 ms	< 20 ms
Center frequency tune and transfer (uW)	< 49 ms	< 47 ms
Measurement/mode switching	< 75 ms	< 39 ms
W-CDMA ACLR fast measurement mode	< 14 ms (σ = 0.2 dB)	< 14 ms (σ = 0.2 dB)

Analysis bandwidth

Standard	10 MHz
Option B25	25 MHz
Option B40	40 Mhz

W-CDMA ACLR dynamic range (typical)

	68 dB
	73 dB, noise correction on

Absolute amplitude accuracy (to 3.6 GHz, 95% confidence)

	±0.27 dB

Displayed average noise level with preamp on – DANL (typical)

1 GHz	–163 dBm

Displayed average noise level – DANL (typical)

1 GHz	–150 dBm

Third-order intermodulation distortion – TOI

1 GHz	+13 dBm

Phase noise (typical)

10 kHz offset	–103 dBc/Hz

Resolution bandwidths

	1 Hz to 3 MHz (10% steps); 4, 5, 8 MHz

Video bandwidths

	1 Hz to 3 MHz (10% steps); 4, 5, 8, 50 MHz

Frequency reference

Aging rate with Option PFR	±1 x 10^{-7}/year

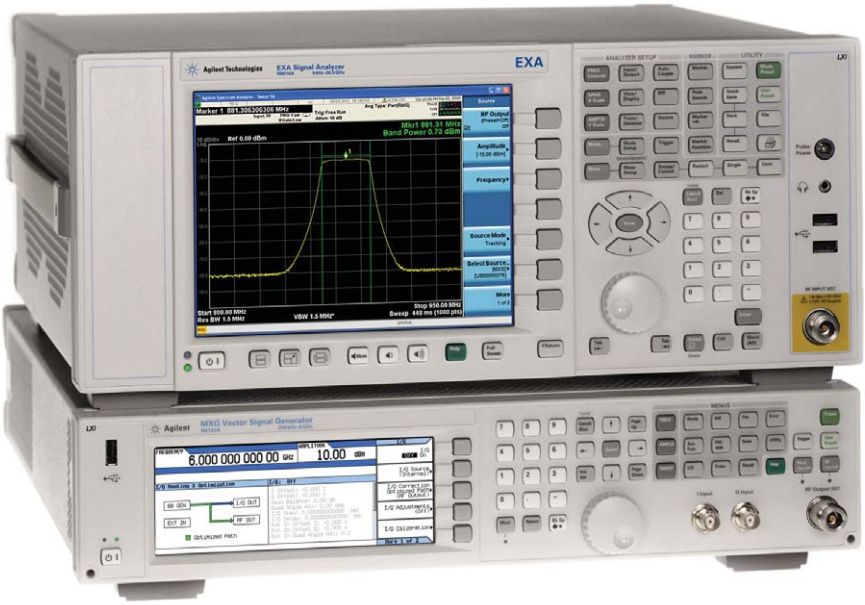
Sweep time

Span = 0 Hz	1 µs to 6000 s
Span ≥ 10 Hz	1 ms to 4000 s

Trace points

All spans	1 to 40001

Maximize Throughput



Use N9010A (with Option ESC installed) to control a MXG signal generator for flexible stimulus/response measurement

Express EXA

If you do not require specialized functionality, such as measurement applications or wider bandwidth, then a preconfigured EXA signal analyzer may be appropriate for you. Available through Agilent's distribution partners, these express configurations offer excellent value and the fastest delivery. For more information on the N9010AEP, see the EXA signal analyzer configuration guide (5989-6531EN).

www.agilent.com/find/express_exa

Whether you're focused on time-to-market, time-to-volume, or cost-of-test, your choice of economy-class signal analyzer should help you save both time and money. That's the idea that drives the Agilent EXA signal analyzer—and it's the fastest way to maximize throughput on the production line. From measurement speed to code compatibility, it makes every millisecond count and helps reduce your overall cost of test.

Enhance manufacturing test

When it's time to create solutions for automated test systems or manual testing stations, the EXA signal analyzer offers speed and simplicity. Fast remote sweep and rapid trace transfer accelerate throughput and enhance yield. Front-panel capabilities such as auto-tune, fast mode switching, and 5-ms peak search save time and effort.

UP GRADE

You Can Upgrade!
Options can be added after initial purchase.

The Design Test Solution

Improve testing with affordable accuracy

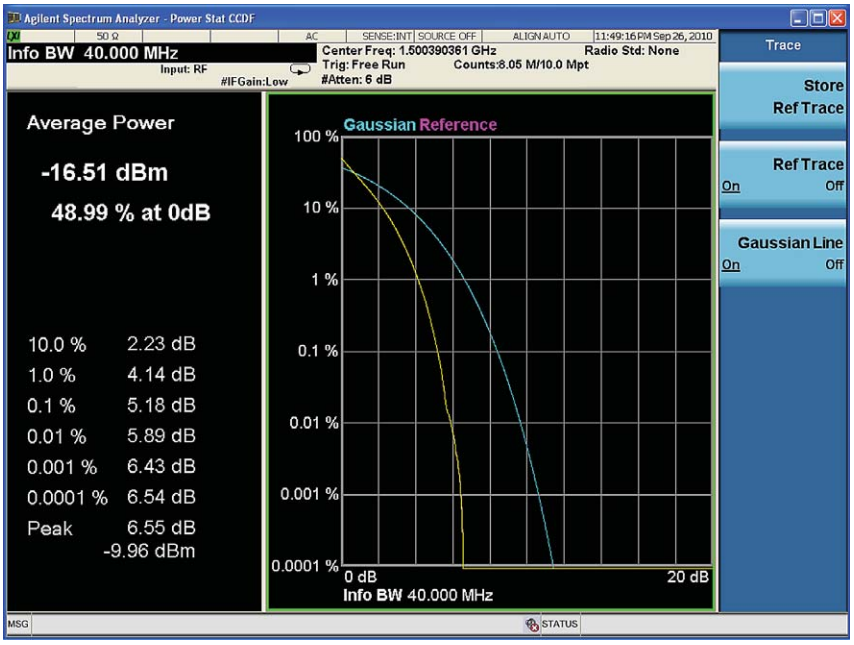
The EXA provides highly accurate measurement results at an affordable price. An economy analyzer, the EXA enhances test margins and error budgets with the following specifications:

- +0.27 dB absolute amplitude accuracy
- –163 dBm displayed average noise level (DANL)
- +13 dBm third-order (TOI) intermodulation distortion
- –103 dBc/Hz phase noise

PowerSuite one-button measurements

Make faster measurements with adjacent channel power (ACP), channel power, occupied bandwidth (OBW), spectrum emission mask, complementary cumulative density function (CCDF), burst power, spurious emissions, intermodulation (TOI), and harmonic distortion one-button measurements.

www.agilent.com/find/PowerSuite



40 MHz bandwidth CCDF measurement

Standard mechanical and optional electronic attenuator

Small step sizes enable you to optimize the mixer level for maximum dynamic range. EXA's electronic attenuator is able to withstand millions of switches—making it ideal for high-speed manufacturing.

Up to 40 MHz analysis bandwidth

Get optional 25 MHz or 40 MHz analysis bandwidth that supports up to 40 MHz bandwidth CCDF, burst power, IQ waveform, and QPSK EVM measurements. Conduct complex signal analysis up to 40 MHz with 89600B VSA software or the N9064A VXA application.

The RF Test Solution

The EXA signal analyzer gives you an edge in the test solution for RF and microwave communications devices. It starts with enhanced spectrum analysis capabilities, complemented with PowerSuite, a comprehensive suite of standards-based power measurements.

Leverage your existing test software

To help accelerate system development, the EXA provides the highest level of compatibility with Agilent ESA spectrum analyzers. When you need to replace these slower analyzers, SCPI programmability and versatile connectivity provides a solid foundation. Whether you want to streamline the design-to-manufacturing transition or need to update an existing test system, add the EXA without completely revising your system test code.

Discover remote operation

Utilizing Windows® Remote Desktop functionality, you can control your EXA signal analyzer from across the room, in the next building, or around the world. This makes it possible to connect to a system installed in your contract manufacturer's facility and make measurements on the latest device.

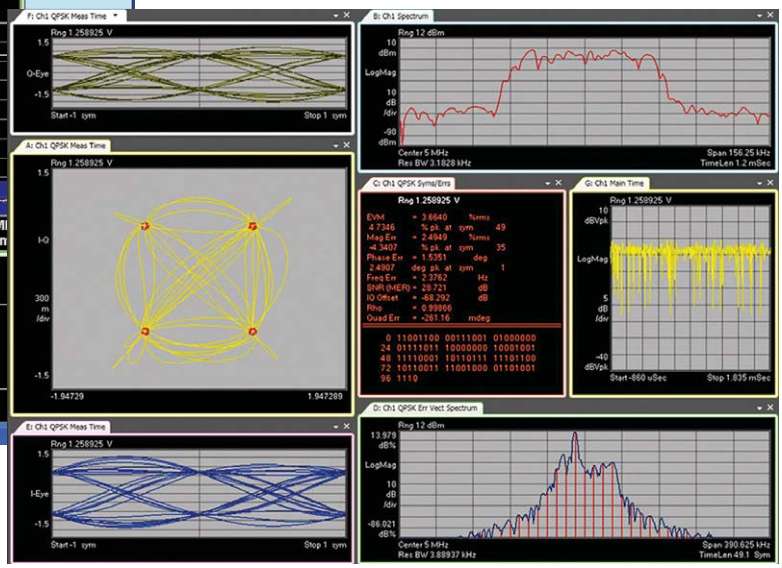
89600B VSA software

On the leading edge of wireless design, signal interactions can cause the unexpected. Recognizing there is a problem is relatively easy—achieving the clarity to find the root cause is the real challenge.

Agilent 89600B VSA software is your window into what's happening inside complex wireless devices.

www.agilent.com/find/89600B

Highest and fastest ACP measurement in an economy class signal analyzer



89601B 802.11a analysis and 20:20 trace/marker features

The Manufacturing Test Solution

Enhance automated test throughput and yield with excellent speed and connectivity

For automated testing of RF and microwave devices, assemblies, and subsystems, the EXA improves test-system throughput with capabilities such as fast trace transfers and fastest-in-class, 11-ms remote sweep. You can also quickly characterize signal quality with PowerSuite, a set of one-button, format-specific, RF power measurements.

A range of available applications provide built-in measurements of analog demodulation, noise figure, phase noise, and more. These applications are common across X-Series signal analyzers, ensuring comparable results between R&D and manufacturing.

Achieve unprecedented test throughput with single acquisition combined measurements

Single acquisition combined measurements is a breakthrough solution that increases manufacturing throughput up to 20 times faster than traditional approaches. Its combined measurement application options allow for multiple and simultaneous RF measurements at a signal frequency, or measurements repeated over a series of rapidly-stepped frequencies. The single acquisition combined measurements execute a SCPI-based approach for parameter setup, data acquisition/calculation, and simple user interface view. Compared to the traditional one-button measurements implemented programmatically, the combined measurement method is a revolutionary approach that allows manufacturers to trade accuracy for much faster measurement throughput. For more information please visit:

www.agilent.com/find/N9071A_XFP
(Combined GSM/EDGE measurement application)

www.agilent.com/find/N9073A_XFP
(Combined W-CDMA measurement application)

www.agilent.com/find/N9074A_XFP
(Combined WLAN measurement application)

www.agilent.com/find/N9077A_XFP
(Combined fixed WiMAX measurement application)

Features That Matter for Manufacturing

Protect software investments

The EXA is code-compatible with the Agilent ESA spectrum analyzers, so software written for the ESA will work with the EXA—usually without modification. To further protect your system-software investment, instrument drivers are the same across all Agilent X-Series signal analyzers. When you need to create new software, the embedded help capability lets you migrate from manual keystrokes to automated procedures. The EXA displays the equivalent SCPI command for every keystroke.

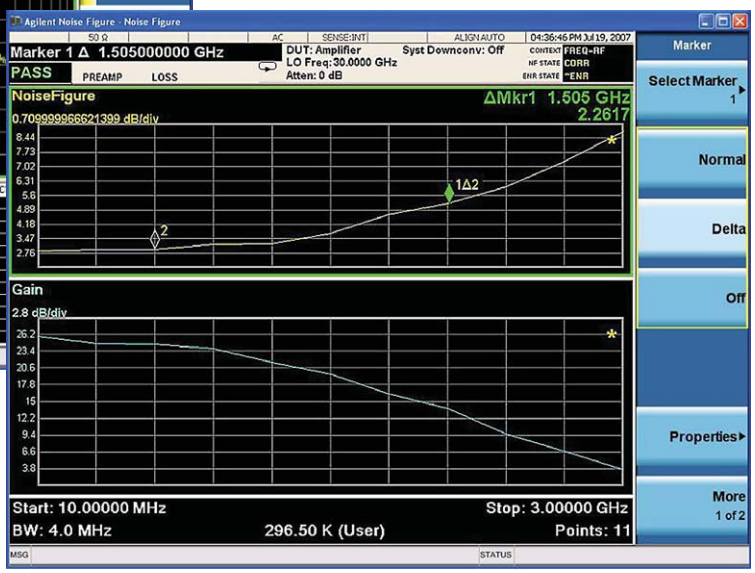
Reduce test time

The EXA is the only economy instrument to provide capabilities such as auto-tune, six independent traces, 12 independent markers (24 delta pairs), and 5-ms peak search. To further accelerate signal characterization, available measurement applications include analog demodulation and noise figure. These applications are common to the Agilent X-Series signal analyzers, ensuring valid comparison of production test results with R&D benchmarks. If additional analysis is necessary, transfer test results through the built-in LAN and USB ports.

Easily connect and configure your system

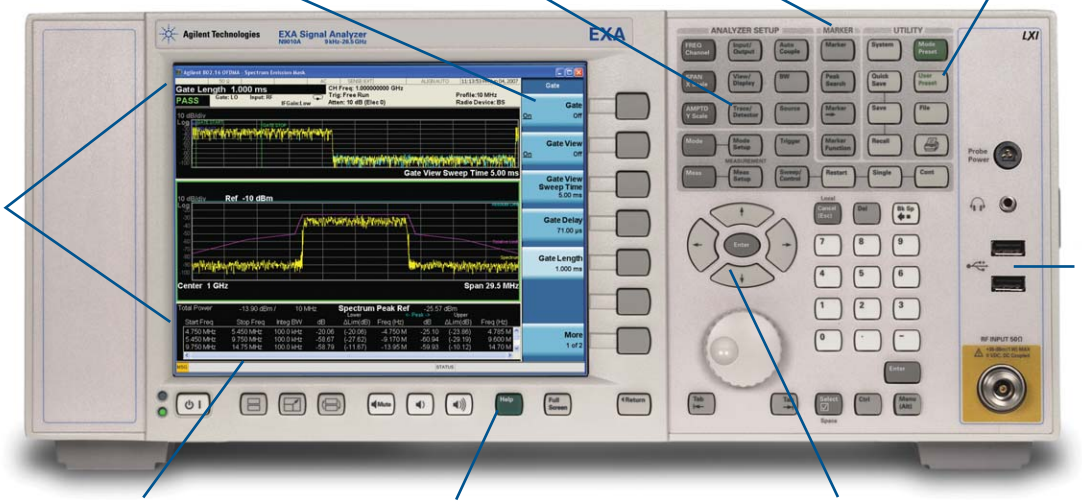
For flexible system connectivity, choose the interface you need: GPIB, LAN, or USB. Through its 100 Base-T LAN port, the EXA signal analyzer is LXI Class C compliant. When high-speed USB connectivity is needed, connect accessory devices through six built-in ports and communicate with the EXA through a USB test and measurement class (USBTMC) interface.

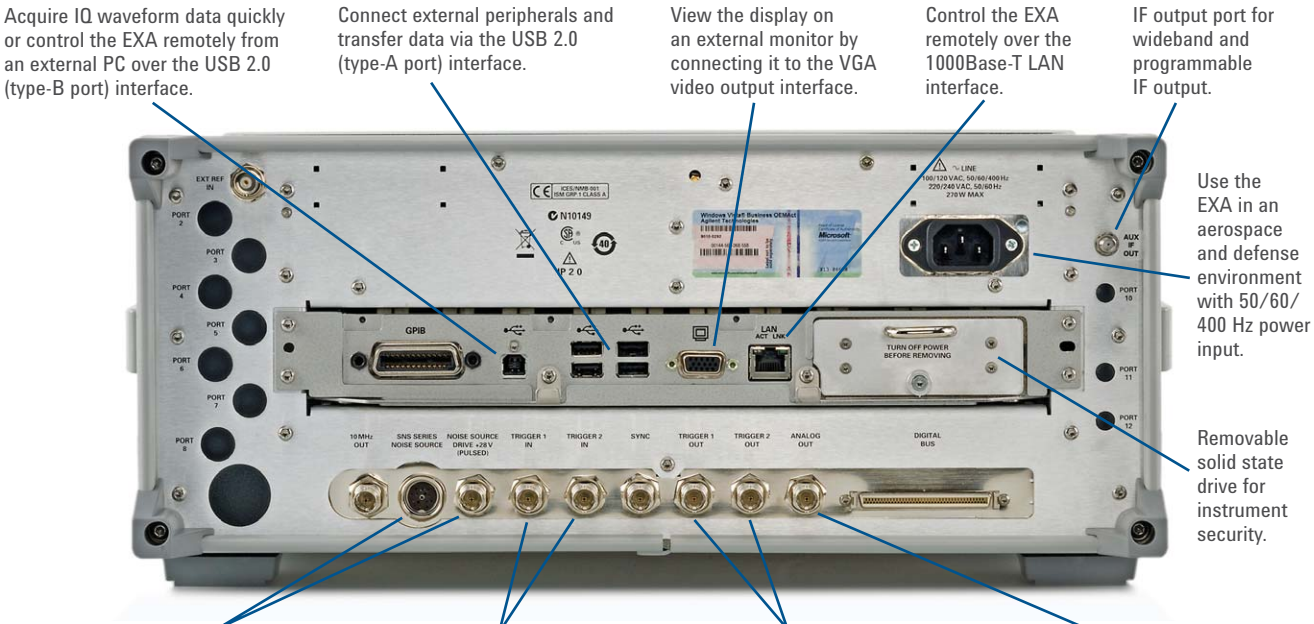
N9068A phase noise measurement application



N9069A noise figure measurement application

EXA Front and Rear Panels





X-Series Signal Analysis

Arrive ahead

We can't predict the future, but Agilent can help you shape it with our future-ready test assets. The X-Series is an evolutionary approach to signal analysis that spans instrumentation, measurements, and software. It gives you the flexibility to satisfy your business and technical requirements across multiple products and programs —now and in the future. The X-Series creates a consistent framework that enables your teams to move at a faster pace.

Instruments

X-Series signal analyzers are ready to evolve as technology changes. With upgradeable CPU, memory, disk drives, and I/O ports, you can keep your test assets current and extend instrument longevity. Adding functionality or applications is simply a license-key upgrade, and with proven X-Series reliability you'll enhance asset uptime.

PXA

The high-performance PXA is the evolutionary replacement for your current performance signal analyzer.

MXA

The mid-performance MXA is the ultimate accelerator as your products move from design to manufacturing to the marketplace.

EXA

The economy-class EXA is the fastest way to maximize throughput on the production line.

CXA

The low-cost CXA is a versatile tool for essential signal characterization.

Measurements

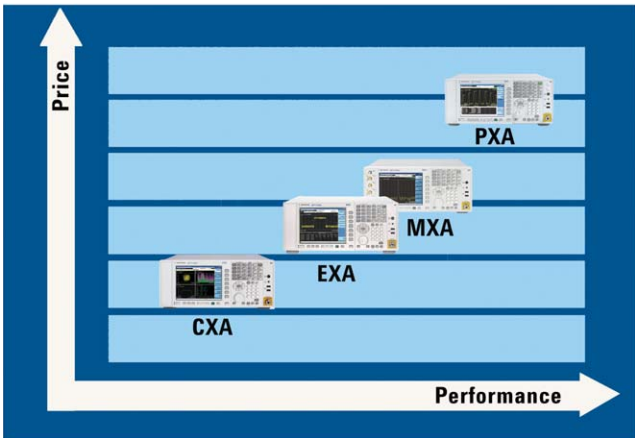
Proven algorithms, 100% code-compatibility, and a common UI across the X-Series create a consistent measurement framework for signal analysis that ensures repeatable results and measurement integrity so you can leverage your test system software through all phases of product development. You can further extend your test assets by transporting applications across multiple X-Series analyzers. Learn one X-Series analyzer, know them all.

Applications and software

All X-Series signal analyzers share a common library of more than 25 advanced measurement applications, and with the open Windows OS you can run applications such as MATLAB or 89600B VSA software. The industry-leading VSA software supports over 70 signal standards and modulation types, with a first-to-market track record that can accelerate your own designs to market.

Stay ready, stay in sync and arrive ahead—with the Agilent X-Series.

www.agilent.com/find/X-Series



Mix and match the X-Series instruments, applications, and software to meet the needs of your specific tests and measurements.

www.agilent.com

www.agilent.com/find/exa

Related Literature

Agilent EXA Signal Analyzers

Data Sheet 5989-6529EN

Configuration Guide 5989-6531EN

X-Series Measurement Applications Brochure 5989-8019EN

Agilent Email Updates

www.agilent.com/find/emailupdates
Get the latest information on the products and applications you select.

LXI

www.lxistandard.org
LAN eXtensions for Instruments puts the power of Ethernet and the Web inside your test systems. Agilent is a founding member of the LXI consortium.

Agilent Channel Partners

www.agilent.com/find/channelpartners
Get the best of both worlds: Agilent's measurement expertise and product breadth, combined with channel partner convenience.

Agilent Advantage Services

Agilent Advantage Services is committed to your success throughout your equipment's lifetime. We share measurement and service expertise to help you create the products that change our world. To keep you competitive, we continually invest in tools and processes that speed up calibration and repair, reduce your cost of ownership, and move us ahead of your development curve.

www.agilent.com/find/advantageservices

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	*0.125 €/minute
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