N9010A
9 kHz to 3.6, 7.0, 13.6, or 26.5 GHz

• Up to 300 percent faster than other economy analyzers
• +13 dBm TOI, –150 dBm/Hz DANL, 0.27 dB absolute amplitude accuracy
• Spectrum analysis and eleven advanced measurement applications−LTE, WiMAX, TD-SCDMA, noise figure, and more
• 89600 vector signal analysis software running inside the instrument supports more than 50 demodulation formats
• Code-compatible replacement for Agilent ESA Series economy spectrum analyzers
• MATLAB® software options available from Agilent

Eliminate the compromise between speed and price
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
- Local measurement and display update: <11 ms
- Remote measurement and LAN transfer: <4 ms
- Marker peak search: <5 ms
- Center frequency tune and transfer (RF): <51 ms
- Center frequency tune and transfer (uW): <86 ms
- Measurement/mode switching: <75 ms
- W-CDMA ACLR fast measurement mode: <14 ms (σ = 0.2 dB)

Analysis bandwidth
- 10 MHz

W-CDMA ACLR dynamic range (typ)
- 68 dB, noise correction on

Absolute amplitude accuracy (to 3.6 GHz, 95% confidence)
- ±0.27 dB

Displayed average noise level with preamp on (Option P03) – DANL (typ)
- 1 GHz: -162 dBm

Displayed average noise level – DANL (typ)
- 1 GHz: -150 dBm

Third-order intermodulation distortion – TOI
- 1 GHz: +13 dBm

Phase noise (typ)
- 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 20001

Enhanced spectrum analysis, measurement specific software applications, complex signal analysis, and troubleshooting capabilities
- 89600 VSA software (internal)
- One-button measurement applications including LTE, WiMAX, W-CDMA, TD-SCDMA, and more—see page 10 for a full list of measurement applications
- More than 50 total demodulation capabilities via one-button applications and VSA software
- MATLAB software to analyze data, execute custom demodulation schemes, and automate measurements
From product design to the production line, every new project demands decisions that require tradeoffs in your goals—customer specifications, throughput, and yield. Whether you’re focused on time-to-market, time-to-volume, or cost of test, your choice of an economy signal analyzer should help you achieve those goals, while also saving you time and money.

The EXA signal analyzer is part of the Agilent X-Series Signal Analyzers (MXA/EXA). The EXA leverages many of the advantages of the higher-performance MXA Series signal analyzer platform, while eliminating the compromise between speed and price.

It’s the fastest analyzer in its class. What’s more, the accuracy of the EXA accelerates the transition from design into manufacturing and lowers the cost of test. When you need speed you can afford, the Agilent EXA signal analyzer makes every millisecond count.

Accelerate product development and manufacturing test

During product design, the EXA signal analyzer helps you reach new insights faster. Pinpoint signal quality issues and optimize test margins and error budgets—confidently—with its wide array of fast, accurate measurement, and demodulation capabilities. The EXA shares these software applications with the midrange MXA signal analyzer, letting you select the level of performance you need from an X-Series analyzer, without compromising on speed, functionality, or connectivity.

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. In electronics, RF/microwave communications, and aerospace/defense, the EXA is the economy signal analyzer of choice.

Maximum versatility to make every millisecond count
The Design Test Solution

Reach new insights faster with versatile measurement capabilities

During product design, the EXA signal analyzer offers fast, accurate measurements that let you confidently pinpoint signal quality issues. Troubleshooting is made easy with capabilities formerly found only in high-end signal analyzers: 6 independent traces, 12 markers (24 delta pairs), band-power markers, a dynamic peak table, and more.

For advanced troubleshooting, the EXA supports more than 50 demodulation formats and measurement applications—phase noise, noise figure, analog demodulation (including AM/FM metrics and tune-and-listen), and more—as well as the industry-leading Agilent 89600 VSA software. To test a wide range of format-specific devices, you can also add fast, one-button power measurements. To perform custom analyses or proprietary tests unique to your design, import and run your own MATLAB macros. For your convenience, MATLAB software is now available for purchase directly from Agilent when you buy an EXA. All of these applications run inside the Windows®-based EXA.

Improve testing with affordable accuracy

The EXA provides highly accurate measurement results at an affordable price. Although the EXA is an economy analyzer, it enhances test margins and error budgets with specifications such as +13 dBm third-order intermodulation distortion, –146 dBm/Hz displayed average noise level, and –99 dBc/Hz phase noise.

**For advanced demodulation analysis and troubleshooting,** the EXA and MXA signal analyzers **provide enhanced spectrum analysis capabilities,** support the 89600 VSA software, and offer optional measurement applications that address more than 50 demodulation formats including 2G, 3G, 3.5G, WiMAX, LTE, WLAN, RFID, and Private Mobile Radio. Select the performance you need without sacrificing usability, connectivity, or application coverage. In addition, optional MATLAB packages deliver MATLAB software that runs inside the EXA for advanced analysis and custom measurements.

For advanced troubleshooting, the EXA and MXA signal analyzers provide enhanced spectrum analysis capabilities, support the 89600 VSA software, and offer optional measurement applications that address more than 50 demodulation formats including 2G, 3G, 3.5G, WiMAX, LTE, WLAN, RFID, and Private Mobile Radio. Select the performance you need without sacrificing usability, connectivity, or application coverage. In addition, optional MATLAB packages deliver MATLAB software that runs inside the EXA for advanced analysis and custom measurements.

www.agilent.com/find/exa
The RF Test Solution

Reduce the cost-of-test in RF/µW wireless communications

The EXA signal analyzer gives you an edge in the manufacturing of RF and microwave communications devices. It starts with enhanced spectrum analysis capabilities, complemented with a comprehensive suite of standards-based power measurements. These fast, one-button, measurements include adjacent channel power (ACP), channel power, occupied bandwidth (OBW), spectrum emission mask, complementary cumulative density function (CCDF), burst power, and spurious emissions.

When demodulation is needed, quickly adapt to the latest standards—Mobile WiMAX, LTE, W-CDMA/HSUPA, TD-SCDMA, cdma2000®—by adding specific measurement applications that include proven, industry-tested algorithms without compromising speed. The fast, intuitive W-CDMA adjacent channel power ratio (ACPR) measurements retain excellent, class-leading dynamic range even at high speed—unlike “fast ACPR” functions available elsewhere.

Leverage your existing test software

To help accelerate system development, the EXA is code-compatible with the Agilent MXA signal analyzer and provides the highest level of compatibility with Agilent PSA and 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 Desktop Remote 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.

For more information, please visit the X-Series page at www.agilent.com/find/X-Series

Enhanced spectrum analysis
(standard)
- Traditional spectrum analysis plus many enhanced and unique functions
- Power Suite provides standards-based, one-button measurements compliant with industry specifications
- MATLAB driver support for custom measurements
- Excellent tool for development and manufacturing

Measurement-specific software applications (optional)
- LTE, Mobile WiMAX, W-CDMA, HSDPA/HSUPA, GSM/EDGE, phase noise, noise figure, vector signal analysis, WLAN, flexible digital demodulation, analog demodulation
- One-button press or SCPI command initiates the measurement
- Optimized for speed in manufacturing

Advanced troubleshooting and complex signal analysis (optional)
- Industry-leading 89600 VSA software provides WiMAX, LTE, HSPA+, RFID, WLAN-MIMO, and more
- Free 14-day trial license
- Excellent design tool in R&D

Highest yet fastest ACP measurement in an economy class signal analyzer

Easily make one-button, pass/fail, standards-based measurements with the N9075A 802.16 OFDMA (WiMAX) measurement application

For more information, please visit the X-Series page at www.agilent.com/find/X-Series
The Manufacturing Test Solution

Simplify manual testing with an advanced—yet familiar—interface

When used within a test bench or rework station for general RF and microwave manufacturing, the EXA user interface is instantly familiar. The analyzer uses an open Windows XP Professional® operating system, letting you save files in formats compatible with common Windows applications and enabling easy connectivity to LAN, GPIB, and USB-based peripherals and accessories.

For greater one-box productivity, applications such as the Agilent 89600 vector signal analysis (VSA) software run inside the EXA. To make proprietary or frequently used measurements unique to your device, run MATLAB inside the EXA and create new analysis functions or import an existing macro library.

The EXA enhances its usability with built-in contextual help, which provides quick access to hints about instrument operation, infrequently used measurements, and more.

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 power suite, 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 the 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 an unconventional approach that allows manufacturers to trade accuracy for much faster measurement throughput. For more information visit:

www.agilent.com/find/N9071A_XFP
www.agilent.com/find/N9073A_XFP

Experience testing your way

Your test system architecture should give you choices. Its range of possibilities should fit your requirements, your preferences, and your existing test assets—hardware, software, and I/O. That's the power of Agilent Open, a combination of proven standards and time-saving tools for test automation:

- PC-standard I/O working alongside GPIB
- An increasing number of LXI-compliant devices
- Instruments designed to boost throughput
- Software tools such as the Agilent IO Libraries
- MATLAB instrument driver tested and supported by Agilent

These tools enable complete system configuration in less than 15 minutes. By giving you greater flexibility, Agilent Open accelerates the creation of cost-effective measurement solutions—and enables testing, your way.
The features that matter for manufacturing

Save software efforts
The EXA is code-compatible with the Agilent PSA and ESA spectrum analyzers, so software written for either of these analyzers 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—with every keystroke, the EXA displays the equivalent SCPI command.

Reduce test time
The EXA is the only economy instrument to provide capabilities such as auto-tune, 6 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 EXA and MXA signal analyzers, ensuring valid comparison of production test results with R&D benchmarks. If further 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, enabling fast, efficient, and cost-effective IEEE 1588 features such as time stamps and event logs to give unprecedented visibility into timing relationships and optimization. Peer-to-peer communication, multicast triggers, and downloadable scripts help improve test times, simplify critical timing relationships, increase system insight, and ease troubleshooting tasks. In addition, with IEEE 1588, instruments that are separated by long distances can still maintain communication and time synchronization. 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.

Evolve EXA capabilities as needed
Enhancing instrument functionality is easy. Any of the EXA’s advanced measurement applications can be added at any time as your test needs—and budgets—evolve. All currently available instrument options are also license-key enabled, ensuring fast upgrades. Use EXA and MXA signal analyzers interchangeably to match the performance your device requires at each phase of development and manufacturing. Consistent applications, connectivity, and user interface ensure consistent results.

Eliminating the compromise between speed and price
When Speed and...

Explore new dimensions in speed

Up to 300 percent faster than other economy analyzers, the EXA’s speed is equally impressive from the front panel or as part of an automated test system. Its screen refresh rate is up to four times faster than the ESA and other economy analyzers. What’s more, marker peak searches are more than 80 times faster than the alternatives, including the time required to send a command and receive data via GPIB—and it’s even faster via LAN or USB. Speed comes from instant familiarity, too. The EXA utilizes an open Windows® XP Professional operating system and includes one-button help so you can quickly learn more about new, unfamiliar or complex functions.

The EXA is the fastest replacement for your current economy instrument—and switching from other analyzers is fast and simple. If you’re already using the Agilent ESA spectrum analyzer, the EXA signal analyzer is the most code-compatible replacement. If you’re using another economy or midrange analyzer, the EXA’s Standards Commands for Programmable Instrumentations (SCPI) programmability and versatile connectivity make it easy to replace older, slower instruments.

Save time with one-button auto-tune, which centers on the strongest tunable signal, adjusts span, resolution and video bandwidth, optimizes reference level, and displays peak-search marker results.

Use six traces and three different detectors simultaneously.

Pinpoint the frequency or position of a trace with up to 12 markers.

Store files easily with the quick-save feature, which automatically labels files and places them in a specific directory.

Identify signals quickly. Instrument information is located at the top and bottom, leaving the rest of the screen clear to display your results.

View traces, results, and status easily on the 21.4-cm, high-resolution XGA display.

Get answers quickly with the comprehensive, context-sensitive, help system.

Navigate the interface and help system using the front-panel keys, or a mouse and keyboard.

Connect USB 2.0 devices through the convenient front-panel ports.
Optimize performance, budgets, and productivity

Meet your performance needs and budget constraints without compromising on high-end features, connectivity, user interface, or speed. Buy just the performance you need, knowing you can upgrade capabilities at any time.

The affordability of the EXA lets you boost productivity by putting its speed, accuracy, and versatility on every bench. With built-in GPIB, USB 2.0, and LAN connectivity—and LXI-C capabilities—setting up automated tests is quick and easy. What’s more, the simple update process lets you enhance any individual instrument as test needs and budgets evolve.

The fastest economy class signal analyzer

Whether you’re focused on time-to-market, time-to-volume, or cost of test, the EXA signal analyzer includes capabilities that will help you save both time and money. From the easy-to-read display to auto-tune and one-touch measurements, from context-sensitive help to easy, versatile connectivity, the EXA makes signal analysis faster, simpler, and more effective.

Connect peripherals—keyboard, mouse, flash drives, DVD drives—and transfer data through four type-A, high-speed USB 2.0 ports.

Control the EXA remotely with an external PC through the type-B USB 2.0 interface.

Control the EXA remotely through the 100-Based-T LAN port and LXI compatibility.

Use the EXA in an aerospace and defense environment with 50/60/400 Hz power input.

Send and receive SCPI commands over the GPIB interface.

Synchronize the EXA to other test equipment using trigger output signals.

Start measurements based on specific conditions by connecting external trigger signals.

Make noise figure measurements using SNS Series noise sources with the N9069A noise figure measurement application.

Easily upgrade the instrument in the future through internal expansion slots and the removable CPU and hard drive.

View the display on an external VGA monitor.
X-Series Measurement Applications

Ideal for manufacturing, practical for R&D

X-Series measurement applications provide application-specific and standard-based measurements with one-button simplicity and SCPI programmability.

Available Today:

- LTE N9080A
- 802.16 OFDMA N9075A
- W-CDMA N9073A-1FP*
- HSDPA/HSUPA N9073A-2FP
- GSM/EDGE N9071A*
- cdma2000® N9072A
- 1xEV-DO N9076A
- TD-SCDMA N9079A-1FP
- HSUPA/8PSK N9079A-2FP
- Analog demodulation N9063A
- Phase noise N9068A
- Noise figure N9069A
- Remote language compatibility N9061A-2FP
  for 856xE/EC
- VXA vector signal analyzer 89601X
- Basic vector signal analysis 205/333
- Flexible digital modulation analysis AYA

* Single acquisition combined measurement available

Agilent VXA signal analyzer measurement application

Adds basic vector signal analysis with AM/FM/PM or optional flexible modulation analysis of 2-16FSK, 2-8PSK, and 16-1024QAM signals—all with front panel control and SCPI programming.

Advanced signal identification application developed with MATLAB software

Extend the functionality of Agilent signal and spectrum analyzers with MATLAB by analyzing and visualizing measurements, testing modulation schemes, and automating measurements.

FREE Trial License

Try the X-Series measurement applications FREE for 14 days. Trial license provides unrestricted use of each application’s features and functionality. Redeem a trial license for your X-Series signal analyzer online today.

New MATLAB options

Purchase one of several MATLAB options with your MXA to analyzer data or execute custom demodulation schemes.

Visit www.agilent.com/find/N6171A for more information.
Remote Language Compatibility for 856xE/EC N9061A-2FP

The N9061A remote language compatibility application software emulates the HP/Agilent 856xE/EC on the X-Series signal analyzers. It supports the most popular 856xE/EC commands to ease the migration from 856xE/EC to the X-Series analyzers in automated test environments.

Combined GSM/EDGE measurement N9071A-XFP

Table view of an example of C-GSM measurement list which corresponds with “READ:CGSM1” result of SCPI command. Combined measurement improves test throughput up to 20x.

TD-SCDMA measurement application N9079A

N9079A is fully 3GPP standard-compliant for TD-SCDMA power, spectrum measurements, and modulation analysis. It provides HSDPA (16QAM, 64QAM), HSUPA (16QAM), and 8PSK measurement capabilities as well as phase shift or rotation demodulation capability for different channel code.
The Agilent X-Series Signal Analyzers

Eliminate the compromises

When your test requirements demand top speed, the Agilent X-Series meets your needs without compromise. The midrange Agilent MXA signal analyzer delivers amazing speed and performance, while the economy Agilent EXA signal analyzer provides excellent speed for the price. For advanced analysis, the Agilent 89600 VSA software and our full range of X-Series applications run inside both the MXA and EXA. In automated testing, code written for the MXA works with the EXA and vice versa. From the front panel, all X-Series analyzers provide an innovative and useful user interface.

To learn more about the X-Series advanced measurement applications, please visit
www.agilent.com/find/xseries_apps

<table>
<thead>
<tr>
<th>Description</th>
<th>Ordering number</th>
<th>Upgradeable</th>
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</thead>
<tbody>
<tr>
<td><strong>Instrument</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EXA signal analyzer N9010A (includes spectrum analyzer measurement application)</td>
<td>N9010A-507</td>
<td>No</td>
</tr>
<tr>
<td>Frequency range, 20 Hz to 7.0 GHz</td>
<td>N9010A-513</td>
<td>No</td>
</tr>
<tr>
<td>Frequency range, 20 Hz to 13.6 GHz</td>
<td>N9010A-526</td>
<td>No</td>
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<tr>
<td>Instrument security, additional CPU and HDD</td>
<td>N9010A-CPU</td>
<td>Yes</td>
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<tr>
<td>Portable configuration</td>
<td>N9010A-PRC</td>
<td>Yes</td>
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<tr>
<td><strong>Performance options</strong></td>
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<tr>
<td>Precision frequency reference</td>
<td>N9010A-PFR</td>
<td>Yes</td>
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<tr>
<td>Electronic attenuator, 3.6 GHz</td>
<td>N9010A-EA3</td>
<td>Yes</td>
</tr>
<tr>
<td>Preamplifier, 3.6 GHz</td>
<td>N9010A-P03</td>
<td>Yes</td>
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<tr>
<td><strong>Measurement applications</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Remote language compatibility application</td>
<td>N9061A</td>
<td>Yes</td>
</tr>
<tr>
<td>Analog demodulation measurement application</td>
<td>N9063A</td>
<td>Yes</td>
</tr>
<tr>
<td>Phase noise measurement application</td>
<td>N9068A</td>
<td>Yes</td>
</tr>
<tr>
<td>Noise figure measurement application</td>
<td>N9069A (requires preamplifier)</td>
<td>Yes</td>
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<tr>
<td>GSM/EDGE measurement application</td>
<td>N9071A-1FP</td>
<td>Yes</td>
</tr>
<tr>
<td>Single acquisition combined GSM/EDGE measurement</td>
<td>N9071A-XFP (requires 1FP)</td>
<td>Yes</td>
</tr>
<tr>
<td>cdma2000 measurement application</td>
<td>N9072A</td>
<td>Yes</td>
</tr>
<tr>
<td>W-CDMA measurement application</td>
<td>N9073A-1FP</td>
<td>Yes</td>
</tr>
<tr>
<td>HSUPA/HSPA measurement application</td>
<td>N9073A-2FP (requires 1FP)</td>
<td>Yes</td>
</tr>
<tr>
<td>Single acquisition combined W-CDMA measurement</td>
<td>N9073A-XFP (requires 1FP)</td>
<td>Yes</td>
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<tr>
<td>802.16 OFDMA (WiMAX) measurement application</td>
<td>N9075A</td>
<td>Yes</td>
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<tr>
<td>1xEV-DO measurement application</td>
<td>N9076A</td>
<td>Yes</td>
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<tr>
<td>TD-SCDMA measurement application</td>
<td>N9079A-1FP</td>
<td>Yes</td>
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<tr>
<td>TD-SCDMA measurement application HSPA/8PSK</td>
<td>N9079A-2FP</td>
<td>Yes</td>
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<tr>
<td>LTE measurement application</td>
<td>N9080A</td>
<td>Yes</td>
</tr>
<tr>
<td>89600 VSA software</td>
<td>89601A</td>
<td>Yes</td>
</tr>
<tr>
<td>VXA vector signal analyzer measurement application</td>
<td>89601X</td>
<td>Yes</td>
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<tr>
<td>Basic VSA-Lite</td>
<td>89601X Opt 20</td>
<td>Yes</td>
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<td>X-Series connectivity</td>
<td>89601X Opt 333</td>
<td>Yes</td>
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<tr>
<td>General purpose digital modulation</td>
<td>89601X Opt AYA</td>
<td>Yes</td>
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<tr>
<td>MATLAB - Basic Signal Analysis Package</td>
<td>N6171A-M01</td>
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<tr>
<td>MATLAB - Standard Signal Analysis Package</td>
<td>N6171A-M02</td>
<td>No</td>
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<tr>
<td>MATLAB - Advanced Signal Analysis Package</td>
<td>N6171A-M03</td>
<td>No</td>
</tr>
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</table>
## EXA Ordering Information (continued)

<table>
<thead>
<tr>
<th>Description</th>
<th>Ordering number</th>
<th>Upgradeable</th>
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</thead>
<tbody>
<tr>
<td><strong>Accessories</strong></td>
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<td></td>
</tr>
<tr>
<td>Hard transit case</td>
<td>N9010A-HTC</td>
<td>Yes</td>
</tr>
<tr>
<td>Rack mount kit with handles</td>
<td>N9010A-1CP</td>
<td>Yes</td>
</tr>
<tr>
<td>Front handle kit</td>
<td>N9010A-1CN</td>
<td>Yes</td>
</tr>
<tr>
<td>Rack mount kit with handles</td>
<td>N9010A-1CM</td>
<td>Yes</td>
</tr>
<tr>
<td>Rack slide kit</td>
<td>N9010A-1CR</td>
<td>Yes</td>
</tr>
<tr>
<td><strong>Calibration (Options not available in all countries)</strong></td>
<td></td>
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</tr>
<tr>
<td>Commercial calibration certification with test data</td>
<td>N9010A-UK6</td>
<td>No</td>
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<tr>
<td>ISO 17025 compliant calibration</td>
<td>N9010A-1A7</td>
<td>No</td>
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<tr>
<td>ANSI Z540 compliant calibration</td>
<td>N9010A-A6J</td>
<td>No</td>
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<tr>
<td>Minimum loss pad, 50 to 75 ohms (Type N to BNC)</td>
<td>N9010A-MLP</td>
<td>Yes</td>
</tr>
</tbody>
</table>
# The X-Series Advantage

## X-Series signal analyzer comparison

<table>
<thead>
<tr>
<th>Capabilities and characteristics</th>
<th>EXA economy signal analyzer</th>
<th>MXA midrange signal analyzer</th>
</tr>
</thead>
<tbody>
<tr>
<td>Auto tune</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Traces with independent detector control</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>Individual markers</td>
<td>12</td>
<td>12</td>
</tr>
<tr>
<td>Easy-to-read marker table</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>One-button power suite measurements</td>
<td>7</td>
<td>7</td>
</tr>
<tr>
<td>89600 VSA software running inside</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Absolute amplitude accuracy (to 3.6 GHz)</td>
<td>±0.27 dB</td>
<td>±0.23 dB</td>
</tr>
<tr>
<td>Analysis bandwidth (standard; optional)</td>
<td>10 MHz</td>
<td>10 MHz; 25 MHz</td>
</tr>
<tr>
<td>Third-order intermodulation distortion (TOI)</td>
<td>+13 dBm</td>
<td>+16 dBm</td>
</tr>
<tr>
<td>Displayed average noise level (DANL) (typical; pre)</td>
<td>–150 dBm/Hz; –162 dBm/Hz</td>
<td>–154 dBm/Hz; –166 dBm/Hz</td>
</tr>
<tr>
<td>Phase noise</td>
<td>–99 dBc/Hz at 10 kHz offset</td>
<td>–103 dBc/Hz at 10 kHz offset</td>
</tr>
<tr>
<td>Hardware options</td>
<td>Four: EA3, P03, FSA, PFR</td>
<td>Seven: EA3, PFR, P03, P08, P13, P26, B25, BAA</td>
</tr>
<tr>
<td>X-Series advanced applications (See page 10 for full list)</td>
<td>All</td>
<td>All</td>
</tr>
</tbody>
</table>

Another advantage to using the Agilent X-Series signal analyzers is that the common platform provides you with the ability to better leverage your investment of measurement applications. Now you can run the same applications on an MXA as the EXA without making any adjustments. Think of the time you can save using these X-Series advanced measurement applications.

To learn more about the MXA signal analyzer, please visit [www.agilent.com/find/mxa](http://www.agilent.com/find/mxa)

To learn more about the EXA signal analyzer, please visit [www.agilent.com/find/exa](http://www.agilent.com/find/exa)
Literature Resources

**Agilent MXA Signal Analyzer**
- Agilent MXA Signal Analyzer, Brochure, Literature number: 5989-5047EN
- Agilent MXA Signal Analyzer, Data Sheet, Literature number: 5989-4942EN
- Agilent MXA Signal Analyzer Configuration Guide, Literature number: 5989-4943EN

**Agilent EXA Signal Analyzer**
- Agilent EXA Signal Analyzer, Brochure, Literature number: 5989-6527
- Agilent EXA Signal Analyzer, Data Sheet, Literature number: 5989-6529EN
- Agilent EXA Signal Analyzer Configuration Guide, Literature number: 5989-6531EN

**Agilent X-Series Signal Analyzers**
- Agilent X-Series Signal Analyzer (MXA/EXA) Demonstration Guide, Literature number: 5989-6126EN
- Agilent X-Series Signal Analyzers (MXA/EXA) W-CDMA, HSDPA/HSUPA Technical Overview, Literature number: 5989-5352EN
- Agilent X-Series Signal Analyzers (MXA/EXA) 802.16 OFDMA Technical Overview, Literature number: 5989-5353EN
- Agilent X-Series Signal Analyzers (MXA/EXA) Phase Noise Technical Overview, Literature number: 5989-5354EN
- Agilent X-Series Signal Analyzers (MXA/EXA) GSM/EDGE Technical Overview, Literature number: 5989-6532EN
- Agilent X-Series Signal Analyzers (MXA/EXA) cdma2000, 1xEV-DO Technology Overview, Literature number: 5989-6533EN
- Agilent X-Series Signal Analyzers (MXA/EXA) TD-SCDMA Technical Overview, Literature number: 5989-6534EN
- Agilent X-Series Signal Analyzers (MXA/EXA) Analog Demodulation Technical Overview, Literature number: 5989-6535EN
- Agilent X-Series Signal Analyzers (MXA/EXA) Noise Figure Technical Overview, Literature number: 5989-6536EN
- Agilent X-Series Signal Analyzers (MXA/EXA) Remote Language Compatibility, Technical Overview, Literature number: 5989-6539EN
- Using Agilent X-Series Signal Analyzers (MXA/EXA) for Measuring and Troubleshooting Digitally Modulated Signals, Application Note Literature number: 5989-4944EN
- Using Agilent X-Series Signal Analyzers (MXA/EXA) Preselector Tuning for Amplitude Accuracy in Microwave Spectrum Analysis, Application Note Literature number: 5989-4946EN
- Maximizing Measurement Speed with Agilent X-Series Signal Analyzers (MXA/EXA), Application Note, Literature number: 5989-4947EN

**VXA Vector Signal Analyzer Measurement Applications**
- VXA Measurement Application, Technical Overview, Literature number: 5989-7463EN
- Option AYA Vector Demodulation, Technical Overview, Literature number: 5989-7464EN
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