

## **Agilent EXA Signal Analyzer**

## 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<sup>®</sup> software options available from Agilent

EXA -: 01 

Eliminate the compromise between speed and price



## **Summary of Key Specifications**

Fastest signal<br/>analysisImage: Comparison of the second se

## Broadest set of applications



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

## www.agilent.com/find/exa

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 Center frequency tune and transfer (RF)	<5 ms <51 ms
Center frequency tune and transfer (uW)	<86 ms
Measurement/mode switching	<75 ms
W-CDMA ACLR fast measurement mode	$<14 \text{ ms} (\sigma = 0.2 \text{ dB})$
Analysis bandwidth	
	10 MHz
W-CDMA ACLR dynamic range (typ)	
	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	(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 <sup>-7</sup> /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

# Maximum versatility to make every millisecond count

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.

## Designed for versatility



The EXA signal analyzer is as functional as it is affordable. That makes the EXA signal analyzer the perfect choice for

- Research and development
- RF communications
- General purpose manufacturing test
- Automated manufacturing test

## Powerful user interface



- Auto tune
- Built-in help based on user's guide and manual
- Advanced trace math
- Markers

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 Usability, familiarity, and connectivity via open Windows operating system



For fast signal generation, see the Agilent MXG signal generator—optimized for manufacturing—www.agilent.com/find/mxg

## **The Design Test Solution**

## Broadest set of applications



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.

#### www.agilent.com/find/exa

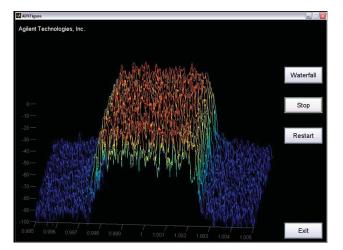
## Reach new insights faster with versatile measurement capabilities

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.

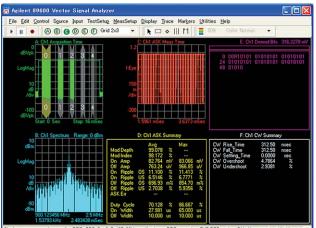
For advanced troubleshooting, the EXA supports more than 50 demodulation formats and measurement applications—phase noise, noise figure, analog demodulation (including AM/FM metrics and tune-and-listen), and more—as well as the industry-leading Agilent 89600 VSA software. To test a wide range of format-specific 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<sup>®</sup>-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.



Example application develped in MATLAB software for advanced signal identification.



Examine up to six displays simultaneously, including constellation and vector, EVM spectrum and time, and many more

## **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.

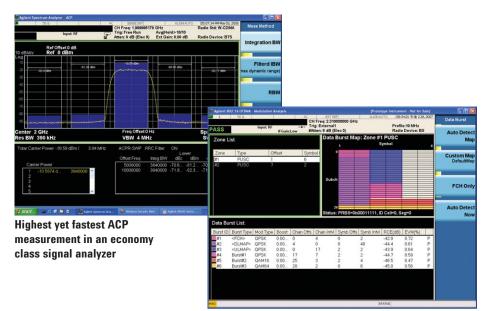
When demodulation is needed, quickly adapt to the latest standards—Mobile WiMAX, LTE, W-CDMA/HSDPA/HSUPA, GSM/EDGE, TD-SCDMA, cdma2000<sup>®</sup> by adding specific measurement applications that include proven, industry-tested algorithms without compromising speed. The fast, intuitive W-CDMA adjacent 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.



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

#### X-Series measurement applications

## Enhanced spectrum analysis (standard)

- Traditional spectrum analysis plus many enhanced and unique functions
- Power Suite provides standardsbased, 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

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

## **The Manufacturing Test Solution**

## Agilent Open



#### **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 LXIcompliant 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.

#### www.agilent.com/find/exa



## 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<sup>®</sup> 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, formatspecific, 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

# 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.

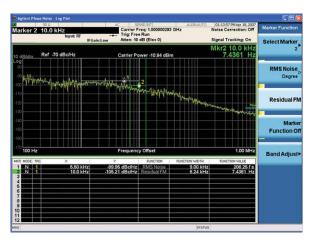
### Easily connect and configure your system

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.

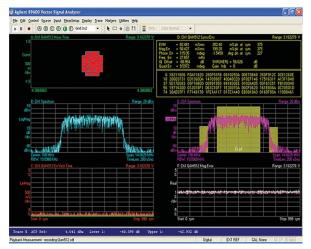
## **Evolve EXA capabilities as needed**

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



Phase noise measurement application N9068A



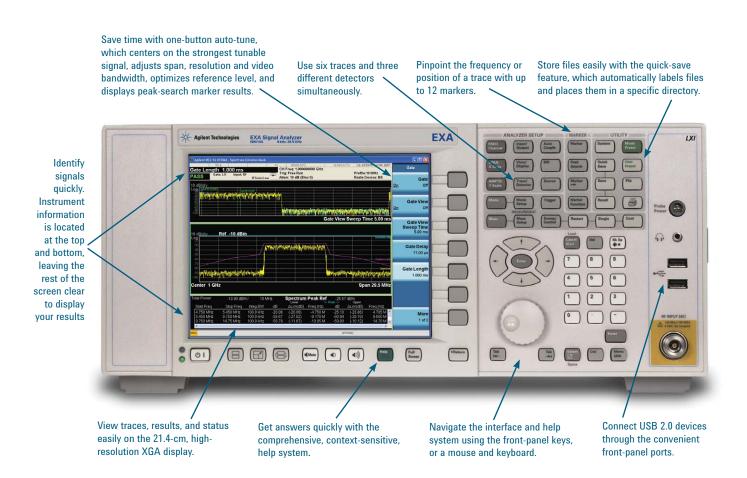
Examine up to six displays simultaneously, including constellation and vector, EVM spectrum and time, and many more

## 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<sup>®</sup> 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 codecompatible 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.



## ...Price Meet

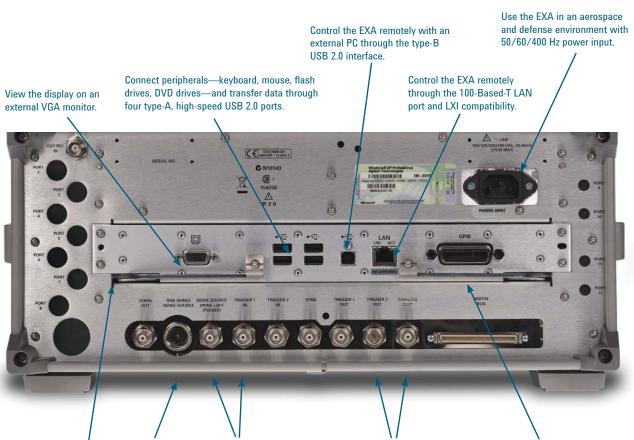
# Optimize performance, budgets, and productivity

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.



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

Make noise figure measurements using SNS Series noise sources with the N9069A noise figure measurement application. Start measurements based on specific conditions by connecting external trigger signals.

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

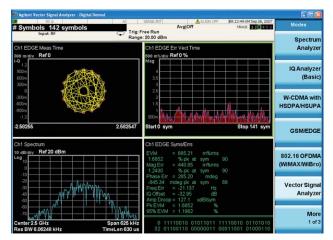
Send and receive SCPI commands over the GPIB interface.

## **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-D0	N9076A
• TD-SCDMA	N9079A-1FP
• HSPA/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



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.

Single acquisition combined measurement available

### www.agilent.com/find/xseries\_apps

#### **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.

### www.agilent.com/find/xseries\_trial

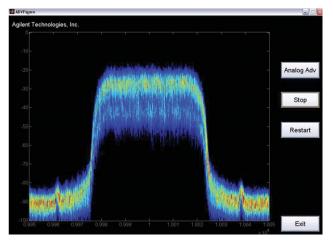
#### **New MATLAB options**

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.

### www.agilent.com/find/N6171A



## 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.

## **X-Series Measurement Applications (continued)**

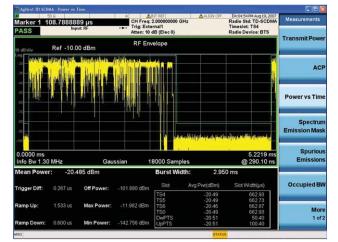


**Remote Language Compatibility for 856xE/EC N9061A-2FP** The N9061A remote language compatibility application software emulates the HP/Agilent 856xE/EC on the X-Series signal analyzers. It supports the most popular 856xE/EC commands to ease the migration from 856xE/EC to the X-Series analyzers in automated test environments.

View/Display	AC SENSESTI ALLISNPARTIAL 07:38:10 PMAgr 21, 2008 CH Free: 850.000 000 MHz(ARFCN: < 955) Radio Band: R-GSM → Trig: External1 Burst: TCH&CCH #Atten: 14 dB (Elec 4)	Input RF
Display	Measurement Item	Measurement
	RMS 95th %tile EVM	Edge EVM 1
	Average RMS EVM	
Measuremen	Maximum of the Peak EVM	
[Show All:Off	Maximum Frequency Error	
	Mod, Offs13:-200.00 kHz, RBW:30.000 kHz, Low Delta	Output RF Spectrum 1
	Mod, Offs13:+200.00 kHz, RBW:30.000 kHz, Upp Delta	
Paramet	Mod, Offs15:-400.00 kHz, RBW:30.000 kHz, Low Delta	
Li	Mod, Offs15:+400.00 kHz, RBW:30.000 kHz, Upp Delta	
	Swt, Offs8:-600.00 kHz, RBW:30.000 kHz, Low Delta	
	Swt, Offs8:+600.00 kHz, RBW:30.000 kHz, Upp Delta	
<b>Result Metrie</b>	Group1, Pass/Fail Result	Power vs. Time 1
	Burst1, Pass/Fail Result	
	Burst2, Pass/Fail Result	
	Burst3, Pass/Fail Result	
	Average RMS Phase Error	Phase and Frequency Errors 2
	Maximum Peak Phase Error	
	Maximum Frequency Error	
	Mod, Offs12:-600.00 kHz, RBW:30.000 kHz, Low Delta	Output RF Spectrum 2
	Mod, Offs12:+600.00 kHz, RBW:30.000 kHz, Upp Delta	
	Med, Offs13:-250.00 kHz, RBW:30.000 kHz, Low Delta	
	Mod, Offs13:+250.00 kHz, RBW:30.000 kHz, Upp Delta	
Mo	Swt, Offs15:-400.00 kHz, RBW:30.000 kHz, Low Delta	
1 0	Swt, Offs15:+400.00 kHz, RBW:30.000 kHz, Upp Delta	
	Group1, Pass/Fail Result 🚽	Power vs. Time 2

#### 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 (160AM, 640AM), HSUPA (160AM), and 8PSK measurement capabilities as well as phase shift or rotation demodulation capability for different channel code.

## **EXA Ordering Information**

## 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

### www.agilent.com/find/exa



N9010A-PRC portable configuration

InstrumentEXA signal analyzer N9010A (includes spectrum analyzer measurement application)Frequency range, 20 Hz to 7.0 GHzN9010A-507NoFrequency range, 20 Hz to 13.6 GHzN9010A-513NoInstrument security, additional CPU and HDDN9010A-CPUYesPortable configurationN9010A-PRCYesPerformance optionsPrecision frequency referenceN9010A-PRCYesPrecision frequency referenceN9010A-PRAYesPreamplifier, 3.6 GHzN9010A-PA3YesMeasurement applicationN9061AYesMeasurement applicationN9063AYesPhase noise measurement applicationN9069A (requires preamplifier)YesSingle acquisition combined GSM/EDGEN9071A-IFPYesSingle acquisition combined GSM/EDGEN9073A-IFPYesW-CDMA measurement applicationN9073A-1FPYesHSDPA/HSUPA measurement applicationN9073A-1FPYesHSDPA/HSUPA measurement applicationN9073A-1FPYesSingle acquisition combined W-CDMAN9073A-1FPYesHSDPA/HSUPA measurement applicationN9075AYesTD-SCDMA measurement applicationN9075AYesTD-SCDMA measurement applicationN9079A-1FPYesTD-SCDMA measurement applicationN9079A-1FPYesTD-SCDMA measurement applicationN9079A-1FPYesTD-SCDMA measurement applicationN9079A-1FPYesTD-SCDMA measurement applicationN9079A-1FPYesMasserement	Description	Ordering number	Upgradeable
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Frequency range, 20 Hz to 26.5 GHzN9010A-526NoInstrument security, additional CPU and HDDN9010A-CPUYesPortable configurationN9010A-PRCYesPertormance optionsYesPrecision frequency referenceN9010A-FRRYesElectronic attenuator, 3.6 GHzN9010A-EA3YesMeasurement applicationsYesRemote language compatibility applicationN9061AYesAnalog demodulation measurement applicationN9068AYesNoise figure measurement applicationN9068AYesNoise figure measurement applicationN9069A (requires preamplifier)YesGSM/EDGE measurement applicationN9071A-TFPYesSingle acquisition combined GSM/EDGEN9071A-XFP (requires YesYesW-CDMA measurement applicationN9072AYesW-CDMA measurement applicationN9073A-TFPYesHSDPA/HSUPA measurement applicationN9073A-YFP (requires YesYesHSDPA/HSUPA measurement applicationN9073A-YFP (requires YesYesTD-SCDMA measurement applicationN9075AYesTD-SCDMA measurement applicationN9076AYesTD-SCDMA measurement applicationN9078AYesTD-SCDMA measurement applicationN9078AYesTD-SCDMA measurement applicationN9078AYesTD-SCDMA measurement applicationN9078AYesTD-SCDMA measurement applicationN9078AYesTD-SCDMA measurement applicationN9078AYesT	Frequency range, 20 Hz to 7.0 GHz	N9010A-507	No
Instrument security, additional CPU and HDDN9010A-CPUYesPortable configurationN9010A-PRCYesPerformance optionsPrecision frequency referenceN9010A-PRCYesPrecision frequency referenceN9010A-EA3YesPreamplifier, 3.6 GHzN9010A-P03YesMeasurement applicationsN9061AYesRemote language compatibility applicationN9063AYesPhase noise measurement applicationN9068AYesNoise figure measurement applicationN9069A (requires preamplifier)YesGSM/EDGE measurement applicationN9071A-IFPYesSingle acquisition combined GSM/EDGEN9071A-XFP (requires YesYesW-CDMA measurement applicationN9072AYesW-CDMA measurement applicationN9072AYesW-CDMA measurement applicationN9073A-IFPYesHSDPA/HSUPA measurement applicationN9073A-YEP (requires YesYesSingle acquisition combined W-CDMAN9073A-YEP (requires YesYesMSDPA/HSUPA measurement applicationN9075AYesSingle acquisition combined W-CDMAN9075AYesTD-SCDMA measurement applicationN9076AYesTD-SCDMA measurement applicationN9076AYesTD-SCDMA measurement applicationN9078AYesTD-SCDMA measurement applicationN9078AYesTD-SCDMA measurement applicationN9078AYesTD-SCDMA measurement applicationN9078AYesTD-SCDMA measurement applicationN9078A<	Frequency range, 20 Hz to 13.6 GHz	N9010A-513	No
Portable configurationN9010A-PRCYesPerformance optionsPrecision frequency referenceN9010A-PFRYesElectronic attenuator, 3.6 GHzN9010A-EA3YesPreamplifier, 3.6 GHzN9010A-P03YesMeasurement applicationsN9061AYesRemote language compatibility applicationN9063AYesPhase noise measurement applicationN9068AYesNoise figure measurement applicationN9069A (requires preamplifier)YesGSM/EDGE measurement applicationN9071A-TFPYesSingle acquisition combined GSM/EDGEN9071A-XFP (requires YesYesCdma2000 measurement applicationN9072AYesW-CDMA measurement applicationN9073A-TFPYesSingle acquisition combined W-CDMAN9073A-TFPYesHSDPA/HSUPA measurement applicationN9073A-TFPYesSingle acquisition combined W-CDMAN9073A-XFP (requires TFP)YesSingle acquisition combined W-CDMAN9075AYesTD-SCDMA measurement applicationN9076AYesTD-SCDMA measurement applicationN9076AYesTD-SCDMA measurement applicationN9079A-ZFPYesTD-SCDMA measurement applicationN9078AYesTD-SCDMA measurement applicationN9078AYesTD-SCDMA measurement applicationN9078AYesBasic VSA-Lite89601AYesWA vector signal analyzer measurement89601AYesWA vector signal analyzer measurement89601XYes <tr< td=""><td>Frequency range, 20 Hz to 26.5 GHz</td><td>N9010A-526</td><td>No</td></tr<>	Frequency range, 20 Hz to 26.5 GHz	N9010A-526	No
Performance optionsPrecision frequency referenceN9010A-PFRYesElectronic attenuator, 3.6 GHzN9010A-EA3YesPreamplifier, 3.6 GHzN9010A-P03YesMeasurement applicationsN9061AYesRemote language compatibility applicationN9063AYesPhase noise measurement applicationN9068AYesNoise figure measurement applicationN9068AYesNoise figure measurement applicationN9069A (requires preamplifier)YesGSM/EDGE measurement applicationN9071A-IFPYesSingle acquisition combined GSM/EDGEN9071A-XFP (requires YesYesw-CDMA measurement applicationN9072AYesW-CDMA measurement applicationN9073A-IFPYesHSDPA/HSUPA measurement applicationN9073A-XFP (requires TFP)YesSingle acquisition combined W-CDMAN9073A-XFP (requires TFP)YesSingle acquisition combined W-CDMAN9075AYesMo2.16 OFDMA (WiMAX) measurementN9075AYesTD-SCDMA measurement applicationN9076AYesTD-SCDMA measurement applicationN9079A-IFPYesTD-SCDMA measurement application HSPA/N9079A-2FPYesBasic VSA-Lite89601AYesBasic VSA-Lite89601XYesStrike connectivity89601XYesX-Series connectivity89601X Opt 333 (requires 205)Yes	Instrument security, additional CPU and HDD	N9010A-CPU	Yes
Precision frequency referenceN9010A-PFRYesElectronic attenuator, 3.6 GHzN9010A-P03YesPreamplifier, 3.6 GHzN9010A-P03YesMeasurement applicationsN9061AYesRemote language compatibility applicationN9063AYesPhase noise measurement applicationN9068AYesNoise figure measurement applicationN9069A (requires preamplifier)YesGSM/EDGE measurement applicationN9071A-1FPYesSingle acquisition combined GSM/EDGEN9071A-XFP (requires the preamplifier)Yescdma2000 measurement applicationN9072AYesW-CDMA measurement applicationN9073A-1FPYesHSDPA/HSUPA measurement applicationN9073A-2FP (requires the preamplifier)YesSingle acquisition combined W-CDMAN9073A-2FP (requires the preamplifier)YesSingle acquisition combined W-CDMAN9073A-2FP (requires the preamplifier)YesSingle acquisition combined W-CDMAN9075AYesMactionN9076AYesYesTD-SCDMA measurement applicationN9079A-1FPYesTD-SCDMA measurement applicationN9079A-2FPYesSPSKLTE measurement application HSPA/N9079A-2FPYesUT ScDMA measurement applicationN9079A-1FPYesS9600 VSA software89601AYesS9600 VSA software89601AYesS9600 VSA software89601AYesS9600 VSA software89601XYesS9600 VSA software89601X Opt 20<	Portable configuration	N9010A-PRC	Yes
Electronic attenuator, 3.6 GHzN9010A-EA3YesPreamplifier, 3.6 GHzN9010A-P03YesMeasurement applicationsN9010A-P03YesRemote language compatibility applicationN9061AYesAnalog demodulation measurement applicationN9063AYesPhase noise measurement applicationN9068AYesNoise figure measurement applicationN9069A (requires preamplifier)YesGSM/EDGE measurement applicationN9071A-1FPYesSingle acquisition combined GSM/EDGEN9071A-XFP (requires TFP)Yescdma2000 measurement applicationN9072AYesW-CDMA measurement applicationN9073A-1FPYesHSDPA/HSUPA measurement applicationN9073A-2FP (requires TFP)YesSingle acquisition combined W-CDMAN9073A-2FP (requires TFP)YesSingle acquisition combined W-CDMAN9075AYesMSD2.16 0FDMA (WiMAX) measurement TFP)YesYes802.16 0FDMA (WiMAX) measurement applicationN9076AYesTD-SCDMA measurement applicationN9079A-1FPYesTD-SCDMA measurement applicationN9079A-2FPYes89600 VSA software89601AYes89600 VSA software89601AYesWXA vector signal analyzer measurement89601X Opt 20YesX-Series connectivity89601X Opt 333 (requires 205)Yes	Performance options		
Preamplifier, 3.6 GHzN9010A-P03YesMeasurement applicationsN9061AYesRemote language compatibility applicationN9063AYesAnalog demodulation measurement applicationN9063AYesPhase noise measurement applicationN9068AYesNoise figure measurement applicationN9069A (requires preamplifier)YesGSM/EDGE measurement applicationN9071A-1FPYesGSM/EDGE measurement applicationN9071A-XFP (requires TFP)Yescdma2000 measurement applicationN9072AYesW-CDMA measurement applicationN9073A-1FPYesHSDPA/HSUPA measurement applicationN9073A-2FP (requires TFP)YesSingle acquisition combined W-CDMAN9073A-XFP (requires TFP)YesSingle acquisition combined W-CDMAN9075AYesTD-SCDMA measurement applicationN9076AYesTD-SCDMA measurement applicationN9076AYesTD-SCDMA measurement applicationN9079A-1FPYesLTE measurement applicationN9078A-2FPYesUTE measurement applicationN9078A-2FPYesB3600 VSA software89601AYesVXA vector signal analyzer measurement applicationSesYesBasic VSA-Lite89601X Opt 20YesX-Series connectivity89601X Opt 333 (requires 205)Yes	Precision frequency reference	N9010A-PFR	Yes
Measurement applicationsN9061AYesRemote language compatibility applicationN9063AYesAnalog demodulation measurement applicationN9063AYesPhase noise measurement applicationN9068AYesNoise figure measurement applicationN9069A (requires yesYesSingle acquisition combined GSM/EDGEN9071A-1FPYescdma2000 measurement applicationN9072AYesw-CDMA measurement applicationN9072AYesW-CDMA measurement applicationN9073A-1FPYesHSDPA/HSUPA measurement applicationN9073A-2FP (requires 1FP)YesSingle acquisition combined W-CDMAN9073A-2FP (requires 1FP)YesSingle acquisition combined W-CDMAN9075AYesTD-SCDMA measurement applicationN9075AYes1xEV-D0 measurement applicationN9076AYesTD-SCDMA measurement applicationN9079A-1FPYesTD-SCDMA measurement applicationN9079A-2FPYesLTE measurement applicationN9078A-2FPYesLTE measurement applicationN9078A-2FPYesB3600 VSA software89601AYesVXA vector signal analyzer measurement applicationSesYesBasic VSA-Lite89601X Opt 20YesX-Series connectivity89601X Opt 333 (requires 205)Yes	Electronic attenuator, 3.6 GHz	N9010A-EA3	Yes
Remote language compatibility applicationN9061AYesAnalog demodulation measurement applicationN9063AYesPhase noise measurement applicationN9068AYesNoise figure measurement applicationN9069A (requires preamplifier)YesGSM/EDGE measurement applicationN9071A-1FPYesSingle acquisition combined GSM/EDGE measurementN9071A-XFP (requires 1FP)Yescdma2000 measurement applicationN9072AYesW-CDMA measurement applicationN9073A-1FPYesHSDPA/HSUPA measurement applicationN9073A-2FP (requires 1FP)YesSingle acquisition combined W-CDMA measurementN9075AYesSingle acquisition combined W-CDMA measurementN9075AYesSingle acquisition combined W-CDMA measurementN9075AYesTD-SCDMA measurement applicationN9076AYesTD-SCDMA measurement applicationN9079A-1FPYesTD-SCDMA measurement application HSPA/ 895KN9079A-2FPYesLTE measurement application HSPA/ 89600 VSA software89601AYesStore89601AYesYesVXA vector signal analyzer measurement applicationSecont 200YesBasic VSA-Lite89601X Opt 20YesX-Series connectivity89601X Opt 333 (requires 205)Yes	Preamplifier, 3.6 GHz	N9010A-P03	Yes
Analog demodulation measurement applicationN9063AYesPhase noise measurement applicationN9068AYesNoise figure measurement applicationN9069A (requires preamplifier)YesGSM/EDGE measurement applicationN9071A-1FPYesSingle acquisition combined GSM/EDGE measurementN9071A-XFP (requires 1FP)Yescdma2000 measurement applicationN9073A-1FPYesW-CDMA measurement applicationN9073A-1FPYesHSDPA/HSUPA measurement applicationN9073A-2FP (requires 1FP)YesSingle acquisition combined W-CDMA measurementN9073A-2FP (requires 1FP)YesSingle acquisition combined W-CDMA measurementN9075AYesTD-SCDMA (WiMAX) measurement applicationN9076AYesTD-SCDMA measurement applicationN9079A-1FPYesTD-SCDMA measurement applicationN9079A-2FPYesTD-SCDMA measurement applicationN9079A-2FPYesStyckWith analyzer measurement applicationYesUTE measurement applicationN9080AYesStyckYesYesUTE measurement applicationN9080AYesStyckStyckYesUTE measurement applicationN9080AYesStyckStyckYesStyckStyckYesStyckStyckYesStyckStyckYesStyckStyckYesStyckStyckYesStyckStyckYesStyc	Measurement applications		
Phase noise measurement applicationN9068AYesNoise figure measurement applicationN9069A (requires preamplifier)YesGSM/EDGE measurement applicationN9071A-1FPYesSingle acquisition combined GSM/EDGEN9071A-XFP (requires TFP)Yescdma2000 measurement applicationN9072AYesW-CDMA measurement applicationN9073A-1FPYesHSDPA/HSUPA measurement applicationN9073A-2FP (requires TFP)YesSingle acquisition combined W-CDMAN9073A-2FP (requires TFP)YesSingle acquisition combined W-CDMAN9075AYesmeasurement1FP)YesSingle acquisition combined W-CDMAN9075AYesmeasurement1FP)YesSingle acquisition combined W-CDMAN9075AYesmeasurement1FP)YesSingle acquisition combined W-CDMAN9075AYesmeasurement1FP)YesSingle acquisition combined W-CDMAN9075AYesTD-SCDMA measurement applicationN9076AYesTD-SCDMA measurement application HSPA/N9079A-2FPYesYA vector signal analyzer measurement applicationN9080AYesWXA vector signal analyzer measurement applicationSel01XYesBasic VSA-Lite89601X Opt 20YesX-Series connectivity89601X Opt 333 (requires 205)Yes	Remote language compatibility application	N9061A	Yes
Noise figure measurement applicationN9069A (requires preamplifier)YesGSM/EDGE measurement applicationN9071A-1FPYesSingle acquisition combined GSM/EDGEN9071A-XFP (requires 1FP)Yescdma2000 measurement applicationN9072AYesW-CDMA measurement applicationN9073A-1FPYesHSDPA/HSUPA measurement applicationN9073A-2FP (requires 1FP)YesSingle acquisition combined W-CDMAN9073A-2FP (requires 1FP)YesSingle acquisition combined W-CDMAN9075AYesmeasurement1FP)YesStoppe acquisition combined W-CDMAN9075AYesmeasurement1FP)YesStoppe acquisition combined W-CDMAN9075AYesmeasurementN9075AYesTD-SCDMA measurement applicationN9076AYesTD-SCDMA measurement application HSPA/ 895KN9079A-2FPYesLTE measurement applicationN9080AYesStoppe acquisitionN9080AYesVXA vector signal analyzer measurement applicationSecont YesBasic VSA-Lite89601X Opt 20YesX-Series connectivity89601X Opt 20Yes	Analog demodulation measurement application	N9063A	Yes
preamplifier)GSM/EDGE measurement applicationN9071A-1FPYesSingle acquisition combined GSM/EDGE measurementN9071A-XFP (requires 1FP)Yescdma2000 measurement applicationN9072AYesW-CDMA measurement applicationN9073A-1FPYesHSDPA/HSUPA measurement applicationN9073A-2FP (requires 1FP)YesSingle acquisition combined W-CDMA measurementN9073A-XFP (requires 1FP)YesSingle acquisition combined W-CDMA measurementN9075AYes1FP)Solo fDDMA (WiMAX) measurement applicationN9075AYes1xEV-D0 measurement applicationN9076AYesTD-SCDMA measurement applicationN9079A-1FPYesTD-SCDMA measurement applicationN9079A-2FP SPSKYesLTE measurement applicationN9080AYes89600 VSA software89601AYesBasic VSA-Lite89601X Opt 20YesX-Series connectivity89601X Opt 333 (requires 205)Yes	Phase noise measurement application	N9068A	Yes
Single acquisition combined GSM/EDGE measurementN9071A-XFP (requires 1FP)Yescdma2000 measurement applicationN9072AYesW-CDMA measurement applicationN9073A-1FPYesHSDPA/HSUPA measurement applicationN9073A-2FP (requires 1FP)YesSingle acquisition combined W-CDMAN9073A-2FP (requires 1FP)Yes802.16 OFDMA (WiMAX) measurement applicationN9075AYes1xEV-D0 measurement applicationN9076AYesTD-SCDMA measurement applicationN9079A-1FPYesTD-SCDMA measurement applicationN9079A-2FPYesETE measurement applicationN9080AYesVXA vector signal analyzer measurement applicationSe01AYesVXA vector signal analyzer measurement application89601X Opt 20YesX-Series connectivity89601X Opt 333 (requires 205)Yes	Noise figure measurement application		Yes
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W-CDMA measurement applicationN9073A-1FPYesHSDPA/HSUPA measurement applicationN9073A-2FP (requires 1FP)YesSingle acquisition combined W-CDMA measurementN9073A-XFP (requires 1FP)Yes802.16 OFDMA (WiMAX) measurement applicationN9075AYes1xEV-D0 measurement applicationN9076AYesTD-SCDMA measurement applicationN9079A-1FPYesTD-SCDMA measurement application HSPA/ 8PSKN9079A-2FPYesLTE measurement applicationN9080AYes89600 VSA software89601AYesVXA vector signal analyzer measurement application89601X Opt 20YesX-Series connectivity89601X Opt 333 (requires 205)Yes	5		Yes
HSDPA/HSUPA measurement applicationN9073A-2FP (requires 1FP)YesSingle acquisition combined W-CDMA measurementN9073A-XFP (requires 1FP)Yes802.16 OFDMA (WiMAX) measurement applicationN9075AYes1xEV-D0 measurement applicationN9076AYesTD-SCDMA measurement applicationN9079A-1FPYesTD-SCDMA measurement application HSPA/ 8PSKN9079A-2FPYesLTE measurement applicationN9080AYes89600 VSA software89601AYesVXA vector signal analyzer measurement application89601X Opt 20YesX-Series connectivity89601X Opt 333 (requires 205)Yes	cdma2000 measurement application	N9072A	Yes
IFP)Single acquisition combined W-CDMA measurementN9073A-XFP (requires 1FP)Yes802.16 OFDMA (WiMAX) measurement applicationN9075AYes1xEV-D0 measurement applicationN9076AYesTD-SCDMA measurement applicationN9079A-1FPYesTD-SCDMA measurement application HSPA/ &PSKN9079A-2FPYesLTE measurement applicationN9080AYes89600 VSA software89601AYesVXA vector signal analyzer measurement application89601X Opt 20YesX-Series connectivity89601X Opt 333 (requires 205)Yes	W-CDMA measurement application	N9073A-1FP	Yes
measurement1FP)802.16 OFDMA (WiMAX) measurement applicationN9075AYes1xEV-D0 measurement applicationN9076AYesTD-SCDMA measurement applicationN9079A-1FPYesTD-SCDMA measurement application HSPA/ 8PSKN9079A-2FPYesLTE measurement applicationN9080AYes89600 VSA software89601AYesVXA vector signal analyzer measurement application89601X Opt 20YesSasic VSA-Lite89601X Opt 333 (requires 205)Yes	HSDPA/HSUPA measurement application		Yes
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TD-SCDMA measurement applicationN9079A-1FPYesTD-SCDMA measurement application HSPA/ 8PSKN9079A-2FPYesLTE measurement applicationN9080AYes89600 VSA software89601AYesVXA vector signal analyzer measurement application89601XYesBasic VSA-Lite89601X Opt 20YesX-Series connectivity89601X Opt 333 (requires 205)Yes	. ,	N9075A	Yes
TD-SCDMA measurement application HSPA/ 8PSKN9079A-2FPYesLTE measurement applicationN9080AYes89600 VSA software89601AYesVXA vector signal analyzer measurement application89601XYesBasic VSA-Lite89601X Opt 20YesX-Series connectivity89601X Opt 333 (requires 205)Yes	1xEV-DO measurement application	N9076A	Yes
8PSK         LTE measurement application       N9080A       Yes         89600 VSA software       89601A       Yes         VXA vector signal analyzer measurement application       89601X       Yes         Basic VSA-Lite       89601X Opt 20       Yes         X-Series connectivity       89601X Opt 333 (requires 205)       Yes	TD-SCDMA measurement application	N9079A-1FP	Yes
89600 VSA software89601AYesVXA vector signal analyzer measurement application89601XYesBasic VSA-Lite89601X Opt 20YesX-Series connectivity89601X Opt 333 (requires 205)Yes		N9079A-2FP	Yes
VXA vector signal analyzer measurement application89601XYesBasic VSA-Lite89601X Opt 20YesX-Series connectivity89601X Opt 333 (requires 205)Yes	LTE measurement application	N9080A	Yes
application       Basic VSA-Lite     89601X Opt 20     Yes       X-Series connectivity     89601X Opt 333     Yes       (requires 205)	89600 VSA software	89601A	Yes
X-Series connectivity 89601X Opt 333 Yes (requires 205)		89601X	Yes
(requires 205)	Basic VSA-Lite	89601X Opt 20	Yes
General nurnose digital modulation 80601V Opt AVA Voc	X-Series connectivity		Yes
(requires 205/333)	General purpose digital modulation	89601X Opt AYA (requires 205/333)	Yes
MATLAB - Basic Signal Analysis Package N6171A-M01 No	MATLAB - Basic Signal Analysis Package	N6171A-M01	No
MATLAB - Standard Signal Analysis Package N6171A-M02 No	MATLAB - Standard Signal Analysis Package	N6171A-M02	No
MATLAB - Advanced Signal Analysis Package N6171A-M03 No	MATLAB - Advanced Signal Analysis Package	N6171A-M03	No

## **EXA Ordering Information (continued)**

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

## **The X-Series Advantage**

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



## The Agilent X-Series Signal Analyzers

## Leverage your investment

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

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-D0 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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Hong Kong	800 938 693
India	1 800 112 929
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Korea	080 769 0800
Malaysia	1 800 888 848
Singapore	1 800 375 8100
Taiwan	0800 047 866
Thailand	1 800 226 008

#### **Europe & Middle East**

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Belgium	32 (0) 2 404 93 40
Denmark	45 70 13 15 15
Finland	358 (0) 10 855 2100
France	0825 010 700*
	*0.125 €/minute
Germany	07031 464 6333**
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Ireland	1890 924 204
Israel	972-3-9288-504/544
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Revised: July 17, 2008	

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