



# MXA



## N9020A MXA X-Series Signal Analyzer Configuration Guide

This MXA configuration guide will help you determine which performance options, measurement applications, accessories, and services to include with your new MXA or to add as upgrades to an existing MXA.



**Agilent Technologies**

# Configure Your Agilent MXA Signal Analyzer

This step-by-step process will help you configure your MXA. Capabilities that are listed as standard come with the instrument at no additional charge. Tailor the performance to meet your requirements.

For detailed specifications, refer to the MXA signal analyzer specification guide (N9020-90113). For a summary of specifications, refer to the MXA signal analyzer data sheet (5989-4942EN).

Step 1. Select maximum frequency range (required option; frequency range not upgradeable)		
Description	Option number	Additional information
Frequency range, 20 Hz to 3.6 GHz	N9020A-503	
Frequency range, 20 Hz to 8.4 GHz	N9020A-508	
Frequency range, 20 Hz to 13.6 GHz	N9020A-513	
Frequency range, 20 Hz to 26.5 GHz	N9020A-526	Useful frequency range for testing harmonics of higher frequency signals

Step 2. Add a preamplifier		
Description	Option number	Additional information
		Preamplifiers improve the noise floor for low-level signal detection; +20 dB: 100 kHz to 3.6 GHz, +35 dB: 3.6 GHz to 26.5 GHz
Preamplifier, 100 kHz to 3.6 GHz	N9020A-P03	Compatible with frequency range options: N9020A-503, N9020A-508, N9020A-513, and N9020A-526
Preamplifier, 100 kHz to 8.4 GHz	N9020A-P08	Compatible with frequency range options: N9020A-508, N9020A-513, and N9020A-526
Preamplifier, 100 kHz to 13.6 GHz	N9020A-P13	Compatible with frequency range options: N9020A-513 and N9020A-526
Preamplifier, 100 kHz to 26.5 GHz	N9020A-P26	Compatible with frequency range option: N9020A-526

Step 3. Choose frequency reference		
Description	Option number	Additional information
Frequency reference	Standard	Aging rate: $\pm 1 \times 10^{-6}$ /year
Precision frequency reference	N9020A-PFR	Reduces frequency drift for more accurate measurements Aging rate: $\pm 1 \times 10^{-7}$ /year

Step 4. Choose an attenuator		
Description	Option number	Additional information
Mechanical attenuator	Standard (N9020A-FSA)	2 dB steps, 0 to 70 dB
Electronic attenuator up to 3.6 GHz	N9020A-EA3	In addition to the mechanical attenuator; 1 dB steps, 0 to 24 dB

# Configure Your Agilent MXA Signal Analyzer

Step 5. Choose analysis bandwidth		
Description	Option number	Additional information
10 MHz/25 MHz analysis bandwidth	Standard (N9020A-B25) <sup>1</sup>	Useful for most cellular communications, wireless connectivity, and audio/video broadcasting measurement applications
40 MHz analysis bandwidth	N9020A-B40	Extends the analysis (demod) bandwidth to 40 MHz (RF and baseband)
Microwave preselector bypass	N9020A-MPB	Recommended with B40 for excellent wideband measurement repeatability above 3.6 GHz

Step 6. Add analog baseband IQ inputs		
Description	Option number	Additional information
I/Q baseband inputs, analog	N9020A-BBA	Single-ended/differential, 50 Ω/1 MΩ impedance

Step 7. Add optional features		
Description	Option number	Additional information
Digital processor with 2 GB capture memory	N9020A-DP2	Comes standard with Option B40
Enhanced display package	N9020A-EDP	Includes spectrogram, trace zoom, and zone span
Basic EMI precompliance	N9020A-EMC	Perform EMI precompliance measurements with CISPR 16-1-1 detectors and bandwidths; tune and listen, and measure at marker are also available
External source control	N9020A-ESC	Controls the Agilent RF MXG signal source (N5181A/N5182A) <sup>2</sup> for scalar stimulus/response measurements

Step 8. Add data storage		
Description	Option number	Additional information
Additional, removable solid-state drive	N9020A-SSD	Provides a fully-imaged, removable solid-state drive in addition to the one installed in the instrument

Step 9. Add rear panel output utilities		
Description	Option number	Additional information
Second IF output	N9020A-CR3	Wideband IF out; output center frequency depends on IF BW option (25/40); output on Aux IF connector at rear panel
Arbitrary IF output	N9020A-CRP	IF out 10 to 75 MHz (in 500 kHz steps); output on Aux IF connector at rear panel
Y-axis screen video output	N9020A-YAS	Screen video (0-1 volt open circuit) on rear panel analog out

1. N9020A-B25 is standard for all MXA's ordered after May 1, 2011.

2. Option UNZ (fast switching) is required on the MXG except for cases where all points in the sweep are less than 3.6 GHz and the point trigger method is set to external triggering (Ext Trig 1 or 2, using BNC cables). Even for the sweep less than 3.6 GHz with external triggering, Option UNZ on the MXG is recommended to achieve fastest tracking speed. For an existing MXG, customer-installable upgrades (N5181AK/N5182AK-UNZ) are available.

# Configure Your Agilent MXA Signal Analyzer

## Step 10. Choose measurement application or software and license type

Note: The last two letters of the ordering numbers indicate the license type—FP stands for fixed perpetual, TP for transportable perpetual; it is recommended that you configure each application with the same license type; visit [www.agilent.com/find/X-Series\\_transportable](http://www.agilent.com/find/X-Series_transportable) for more information about transportable licenses

Description	Fixed license	Transportable license	Additional information
<b>Cellular communications</b>			
LTE-FDD	N9080A-1FP	N9080A-1TP	Standard-based, one-button LTE (FDD) measurements; requires Option B25 or Option B40 for analysis greater than 10 MHz
LTE-TDD	N9082A-1FP	N9082A-1TP	Standard-based, one-button LTE (TDD) measurements; requires Option B25 or Option B40 for analysis greater than 10 MHz
W-CDMA/HSPA/HSPA+	N9073A-1FP	N9073A-1TP	Standard-based, one-button W-CDMA measurements; analog baseband analysis with Option BBA (BBIQ inputs)
	N9073A-2FP	N9073A-2TP	Adds HSPA measurements; requires 1FP/1TP
	N9073A-3FP	N9073A-3TP	Adds HSPA+ measurements; requires 1FP/1TP, 2FP/2TP
	N9073A-XFP	N9073A-XTP	Adds single acquisition combined measurement, a SCPI-command-based measurement optimized for high-volume, high-throughput manufacturing; requires 1FP/1TP; not compatible with Options DP2, B40, or MPB
GSM/EDGE/EDGE Evolution	N9071A-2FP	N9071A-2TP	Standard-based, one-button GSM/EDGE measurements; analog baseband analysis with Option BBA (BBIQ inputs)
	N9071A-3FP	N9071A-3TP	Adds EDGE Evolution (EGPRS2) measurements; requires 2FP/2TP
	N9071A-XFP	N9071A-XTP	Adds single acquisition combined measurement, a SCPI-command-based measurement optimized for high-volume, high-throughput manufacturing; requires 2FP/2TP; not compatible with Options DP2, B40, or MPB
TD-SCDMA/HSPA	N9079A-1FP	N9079A-1TP	Standard-based, one-button TD-SCDMA measurements; analog baseband analysis with Option BBA (BBIQ inputs)
	N9079A-2FP	N9079A-2TP	Adds HSPA/8PSK measurements, requires 1FP/1TP
cdma2000®/cdmaOne	N9072A-2FP	N9072A-2TP	Standard-based, one-button cdma2000 and cdmaOne measurements; analog baseband analysis with Option BBA (BBIQ inputs)
1xEV-DO	N9076A-1FP	N9076A-1TP	Standard-based, one-button 1xEV-DO Rel 0, Rev A, and Rev B measurements; analog baseband analysis with Option BBA (BBIQ inputs)
iDEN/WiDEN/MotoTalk	N6149A-2FP	N6149A-2TP	Standard-based, one-button iDEN measurements

# Configure Your Agilent MXA Signal Analyzer

Step 10. Choose measurement application software and license type, continued			
Description	Fixed license	Transportable license	Additional information
<b>Wireless connectivity</b>			
802.16 OFDMA	N9075A-2FP	N9075A-2TP	Standard-based, one-button Mobile WiMAX™ measurements; analog baseband analysis with Option BBA (BBIQ inputs)
Fixed WiMAX	N9074A-XFP	N9074A-XTP	Single acquisition combined measurement, a SCPI-command-based measurement optimized for high-volume, high-throughput manufacturing; not compatible with Options DP2, B40, or MPB
802.11 WLAN	N9077A-XFP	N9077A-XTP	Single acquisition combined measurement, a SCPI-command-based measurement approach that allows manufacturing users to make accelerated measurements for high-volume, high-throughput production; not compatible with Options DP2, B40, or MPB
Bluetooth®	N9081A-2FP	N9081A-2TP	Standard-based, one-button Bluetooth version 2.1+ EDR and Low Energy (LE) measurements
<b>Digital video</b>			
CMMB	N6158A-2FP	N6158A-2TP	Standard-based, one-button, CMMB measurements; analog baseband analysis with Option BBA (BBIQ inputs)
Digital Cable TV	N6152A-2FP	N6152A-2TP	Standard-based, one-button DVB-C (J.83 Annex A/C) measurements; analog baseband analysis with Option BBA (BBIQ inputs)
	N6152A-3FP	N6152A-3TP	Standard-based, one-button J.83 Annex B measurements; analog baseband analysis with Option BBA (BBIQ inputs)
DTMB (CTTB)	N6156A-2FP	N6156A-2TP	Standard-based, one-button, DTMB (CTTB) measurements; analog baseband analysis with Option BBA (BBIQ inputs)
DVB-T/H with T2	N6153A-2FP	N6153A-2TP	Standard-based, one-button DVB-T/H measurements; analog baseband analysis with Option BBA (BBIQ inputs)
	N6153A-3FP	N6153A-3TP	Adds DVB-T2 measurements; requires 2FP/2TP
ISDB-T	N6155A-2FP	N6155A-2TP	Standard-based, one-button ISDB-T, ISDB-T <sub>B</sub> , and ISDB-T <sub>SB</sub> ; analog baseband analysis with Option BBA (BBIQ inputs)
ISDB-T <sub>mm</sub>	N6155A-3FP	N6155A-3TP	Adds ISDB-T <sub>mm</sub> measurements; requires 2FP/2TP
<b>General purpose</b>			
Spectrum analyzer	Standard	Not available	Traditional spectrum analysis plus many new and enhanced functions; power measurements based on industry specifications
Analog demodulation	N9063A-2FP	N9063A-2TP	Adds one-button measurement for AM/FM/PM demodulation with metrics, tune and listen, and AF spectrum
Phase noise	N9068A-2FP	N9068A-2TP	Adds one-button measurements for analyzing phase noise in frequency domain (log plot) and time domain (spot frequency)

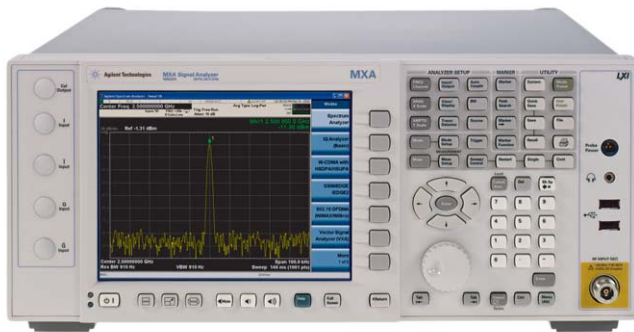
# Configure Your Agilent MXA Signal Analyzer

Step 10. Choose measurement application software and license type, continued			
Description	Fixed license	Transportable license	Additional information
<b>General purpose, continued</b>			
Noise figure	N9069A-1FP (requires preamplifier)	N9069A-1TP (requires preamplifier)	Adds one-button measurements for noise figure, gain, and related metrics; requires preamplifier to meet specifications; works with Agilent N400xA Series smart noise sources and 346 Series noise sources
VXA vector signal and WLAN modulation analysis	N9064A-1FP	N9064A-1TP	Vector signal analysis; high-resolution, FFT-based spectrum and time-domain measurements, time gating, AM/FM/PM demodulation, statistical measurements; analog baseband analysis with Option BBA (BBIQ inputs)
	N9064A-2FP	N9064A-2TP	Adds flexible digital modulation analysis; general purpose digital modulation for 2-16FSK, 2-8PSK, and 16-1024QAM, as well as more than 15 additional formats; requires -1FP/1TP
	N9064A-3FP	N9064A-3TP	Adds IEEE 802.11 a/b/g/j/p WLAN modulation analysis; requires 1FP/1TP
EMC	N6141A-2FP	N6141A-2TP	Pre-compliance conducted and radiated emission measurements
MATLAB software	N6171A-M01	Not available	Basic signal analysis package; adds MATLAB software environment and the Instrument Control Toolbox (not upgradeable)
	N6171A-M02	Not available	Standard signal analysis package; includes basic package and adds Communications Toolbox and Signal Processing Toolbox (not upgradeable)
	N6171A-M03	Not available	Advanced signal analysis package; includes standard package and adds Filter Design Toolbox, RF Toolbox, and System Test (not upgradeable)
Pulse	N9051A-2FP	Not available	Automates pulse measurements; combines signal analysis and amplitude-vs-time measurements
	N9051A-3FP	Not available	Adds phase and frequency measurements; requires 2FP
	N9051A-4FP	Not available	Adds extended analysis and statistics; requires 2FP
SCPI command language compatibility	N9062A-2FP	Not available	Adds capability to emulate the R&S FSP/FSU/FSE spectrum analyzers
Remote language compatibility	N9061A-1FP	Not available	Adds capability to emulate the HP/Agilent 8566/68 spectrum analyzers
	N9061A-2FP	Not available	Adds capability to emulate the HP/Agilent 856xE/EC spectrum analyzers
89600B vector signal analysis (VSA) software	89601B	Not available	Industry-leading measurement software for evaluating and troubleshooting signals in R&D; PC-based software supporting more than 30 measurement platforms, plus more than 70 signal standards and modulation types including MIMO analysis; <b><a href="http://www.agilent.com/find/89600B">www.agilent.com/find/89600B</a></b>

# Configure Your Agilent MXA Signal Analyzer

## Step 11. Choose physical instrument configuration

Description	Option number	Additional information
Bench top configuration	Standard	Provides two side carrying straps, four rear feet, and four bottom feet with a tilt stand; a front panel protective cover is included
Portable configuration	N9020A-PRC	Provides a convenient, pivoting carrying handle as well as rubber protective corners and end guards; this configuration is intended for applications requiring more rugged packaging, such as in the field



**MXA bench top configuration**



**Portable configuration includes pivoting carrying handle and protective corner rubber guards (front protective cover comes standard) – N9020A-PRC**

# Configure Your Agilent MXA Signal Analyzer

Step 12. Choose accessories		
Description	Option number	Additional information
Mouse, USB interface	Standard	Every MXA is shipped with a USB mouse, which enhances the usability of the Windows XP® Professional operating system
User guide	Standard	<ul style="list-style-type: none"> <li>• US – English localization</li> <li>• All user documentation is included in the MXA's embedded, context-sensitive help system and on a CD that is shipped with the instrument</li> <li>• User documentation can be downloaded from: <b><a href="http://www.agilent.com/find/mxa_manuals">www.agilent.com/find/mxa_manuals</a></b></li> </ul>
Rack mount	N9020A-1CM	Adds rack mount flanges to the MXA
Front handles	N9020A-1CN	Adds front handles to the MXA
Rack mount with handles	N9020A-1CP	Adds rack mount flanges and handles to the MXA
Rack slide	N9020A-1CR	Adds a non-tilting rack slide to the MXA
Accessory pouch	N9020A-BAG	Easily store and carry the N9020A-KB2 keyboard and USB mouse
USB DVD-ROM/CD-R/RW drive	N9020A-DVR	Enhances the usability of the Windows XP Professional operating system
USB storage device (blank)	N9020A-EFM	Enhances the usability of the Windows XP Professional operating system
Hard transit case	N9020A-HTC	Ultra-durable, wheeled carrying case offers maximum protection and portability
US 65-key USB keyboard	N9020A-KB2	Compact design fits in N9020A-BAG accessory pouch for convenient storage
Keyboard, USB interface	N9020A-KYB	Enhances the usability of the Windows XP Professional operating system (Note: Does not fit N9020A-BAG accessory pouch)
Minimum loss pad, 50 to 75 Ω (type-N to BNC)	N9020A-MLP	<ul style="list-style-type: none"> <li>• 50 Ω type-N male to 75 Ω BNC female adapter</li> <li>• Frequency range: 9 MHz to 2 GHz</li> <li>• Input/output return loss: 20 dB and 11 dB</li> <li>• Insertion loss: 5.7 dB</li> </ul>

Step 13. Choose localized Getting Started guides	
Description	Option number
Getting Started Korean	N9020A-AB1
Getting Started Guide Simplified Chinese	N9020A-AB2
Getting Started German	N9020A-ABD
Getting Started French	N9020A-ABF
Getting Started Japanese	N9020A-ABJ
Getting Started Russian	N9020A-AKT

For more information on accessories go to: [www.agilent.com/find/accessories](http://www.agilent.com/find/accessories)

# Configure Your Agilent MXA Signal Analyzer

Step 14. Choose warranty length		
Description	Option number	Additional information
1-year return-to-Agilent warranty and service	Standard (R-51B-001-C)	1-year warranty is included at no additional charge
3-year return-to-Agilent warranty and service	R-51B-001-3C	Recommended

Step 15. Add calibration, technical training, support, and upgrade services		
Description	Option number	Additional information
Commercial calibration certificate with test data	N9020A-UK6	Calibration certificate only available at time of instrument purchase; only provides measurement results
ISO 17025 compliant calibration	N9020A-1A7 <sup>1</sup>	Provides ISO 17025A compliant calibration from factory
ANSI Z540 compliant calibration	N9020A-A6J <sup>1</sup>	Provides ANSI Z540 compliant calibration from factory
Calibration service: Agilent upfront support plan, 3-year term	R-50C-011-3	Agilent tests your instrument against its original specifications and automatically makes adjustments if outside of specified parameters; pre- and post-adjustment measurement data reports also provided
Service: remote scheduled productivity assistance	PS-S10-100	Hourly phone-in technical support service designed to help you understand and operate your equipment through convenient phone and Web access
Service: 1-day start-up assistance	PS-S20-01	Training on how to operate your instrument effectively (recommended)
Service: productivity assistance	PS-S20-100	Daily instrument and application consulting using your equipment and device under test
Service: custom engineering service	PS-X10-100	Application-specific technical assistance

1. These are standard-compliant calibrations provided by the Agilent factory. If local accreditation is required (i.e. A2LA, UKAS, DKD, NVLAP, etc.), please contact your local Agilent Service Center.

Other calibration options may be available; for more information on calibration go to: [www.agilent.com/find/calibration](http://www.agilent.com/find/calibration)

For more information on training and application support services go to: [www.agilent.com/find/training](http://www.agilent.com/find/training)

# Instrument Upgrades

## Upgrade your existing MXA



[www.agilent.com/find/mxa\\_upgrades](http://www.agilent.com/find/mxa_upgrades)

Fast license-key upgrades for performance options that do not require additional hardware:

1. Place an order for the upgrade with Agilent and request to receive the software entitlement certificate through email
2. Redeem the certificate through the Web by following the instructions on the certificate
3. Install the license file and latest software in the MXA
4. Begin using the new capability <sup>1,2</sup>

Installation, calibration, and verification information is available at: [www.agilent.com/find/mxa\\_upgrades](http://www.agilent.com/find/mxa_upgrades)

Description	Upgrade number	Requirements (MXA must already include the following)	Additional information
Increase analysis bandwidth from 10 MHz to 25 MHz	N9020AK-B25 <sup>3</sup>	None	Also enables 25 MHz per channel baseband bandwidth if Option BBA is installed
Increase analysis bandwidth from 10 to 40 MHz	N9020AK-B40 <sup>3</sup>	DP2 or MPB	Also enables 25 MHz per channel baseband bandwidth if Option BBA is installed
Increase analysis bandwidth from 25 to 40 MHz	N9020AK-BU1	B25 and DP2 or MPB	Also enables 25 MHz per channel baseband bandwidth if Option BBA is installed
Increase analysis bandwidth to 40 MHz	N9020AK-HL4	508, 513, or 526	Requires hardware and license key; also adds microwave preselector bypass; not compatible with Option 503
Upgrade to the precision frequency reference	N9020AK-PFR	None	
Add an electronic attenuator, 3.6 GHz	N9020AK-EA3	None	
Add preamplifier, 3.6 GHz	N9020AK-P03	None	
Add preamplifier, 8.4 GHz	N9020AK-P08	None	Not compatible with Option 503
Add preamplifier, 13.6 GHz	N9020AK-P13	None	Not compatible with Options 503, 508
Add preamplifier, 26.5 GHz	N9020AK-P26	None	Not compatible with Options 503, 508, 513
Add analog baseband IQ inputs	N9020AK-BBA	None	
Add basic precompliance EMI features	N9020AK-EMC	None	
Add external source control	N9020AK-ESC	None for analyzer	Adds feature to control the Agilent RF MXG signal source (N5181A/N5182A) <sup>4</sup> for scalar stimulus/response measurements
Upgrade to dual core processor with removable solid-state drive	N9020AK-PC2	None	Upgrades to a faster CPU for speed enhancement and adds a removable solid-state drive for data sanitization; for instruments with serial number prefixes less than MY/SG/US 4910 only
Additional removable solid-state drive	N9020AK-SSD	Requires N9020AK-PC2 for instrument with serial number prefixes less than MY/SG/US 4910	
Revision to current, core instrument firmware	N9020AK-R2C		One-time upgrade which enables the latest feature set for the instrument

1. At the time of manufacture, the hardware related to many of these options was fully adjusted and the option performance was verified to be within its warranted specifications. Within one year of the initial calibration date of the analyzer, this option is fully calibrated with no further adjustment or verification testing.
2. If this analyzer has been adjusted as part of a repair or calibration during its first year, or if the analyzer is more than one year old, additional adjustment and performance verification tests are required to ensure that some newly installed options are functioning properly. However, the completion of these tests does not guarantee that the analyzer meets all warranted specifications.
3. This upgrade option is for instrument(s) ordered before May 1, 2011.
4. Option UNZ (fast switching) is required on the MXG except for cases where all points in the sweep are less than 3.6 GHz and the point trigger method is set to external triggering (Ext Trig 1 or 2, using BNC cables). Even for the sweep less than 3.6 GHz with external triggering, Option UNZ on the MXG is recommended to achieve fastest tracking speed. For an existing MXG, customer-installable upgrades (N5181AK/N5182AK-UNZ) are available.

# Instrument Upgrades

Description	Upgrade number	Requirements (MXA must already include the following)	Additional information
Add second IF output	N9020AK-CR3	B40, DP2, MPB, or CRP	
Add arbitrary IF output	N9020AK-CRP	B40, DP2, MPB, or CR3	
Add second IF output and arbitrary IF output	N9020AK-HL3	None	Requires hardware and license key
Add Y-axis screen video output	N9020AK-YAS	None	
Add enhanced display package	N9020AK-EDP	None	
USB storage device (blank)	N9020AK-EFM	None	
USB DVD-ROM/CD-R/RW drive	N9020AK-DVR	None	
Keyboard, USB interface	N9020AK-KYB	None	Enhances the usability of the Windows XP Professional operation system (Note: Does not fit N9020A-BAG accessory pouch)
US 65-Key USB keyboard	N9020AK-KB2	None	Compact design fits in N9020A-BAG accessory pouch for convenient storage
Accessory pouch	N9020AK-BAG	None	Easily store and carry the N9020AK-KB2 keyboard and USB mouse in this attachable pouch
Hard transit case	N9020AK-HTC	None	
Rack mount and handle kit	N9020AK-1CP	None	Not compatible with Options PRC, 1CM, 1CN
Front handle kit	N9020AK-1CN	None	Not compatible with Options PRC, 1CM, 1CP
Rack mount kit	N9020AK-1CM	None	Not compatible with Options PRC, 1CP, 1CN
Rack slide kit	N9020AK-1CR	None	Not compatible with Option PRC
Portable configuration	N9020AK-PRC	None	Not compatible with Options 1CM, 1CP, 1CN, 1CR
Minimum loss pad, 50 to 75 $\Omega$ (type-N to BNC)	N9020AK-MLP	None	
Front panel protective cover, additional	N9020AK-CVR	None	
USB storage device loaded with MXA instrument software	N9020AK-SWM	None	
System memory upgrade (2 GB)	N9020AK-MS1	None	Increases system memory; does not increase capture memory and is not required for instruments with serial number prefix brakes equal to or greater than MY4738, SG4738, US4736; revision to current, core instrument firmware N9020AK-R2C; one-time upgrade which enables the latest feature set for the instrument

## Related Literature

### Agilent MXA Signal Analyzers

<i>Brochure</i>	5989-5047EN
<i>Data Sheet</i>	5989-4942EN
<i>X-Series Measurement Applications, Brochure</i>	5989-8019EN



### Agilent Email Updates

[www.agilent.com/find/emailupdates](http://www.agilent.com/find/emailupdates)  
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Mexico	01800 5064 800
United States	(800) 829 4444

### Asia Pacific

Australia	1 800 629 485
China	800 810 0189
Hong Kong	800 938 693
India	1 800 112 929
Japan	0120 (421) 345
Korea	080 769 0800
Malaysia	1 800 888 848
Singapore	1 800 375 8100
Taiwan	0800 047 866
Other AP Countries	(65) 375 8100

### Europe & Middle East

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	49 (0) 7031 464 6333
Ireland	1890 924 204
Israel	972-3-9288-504/544
Italy	39 02 92 60 8484
Netherlands	31 (0) 20 547 2111
Spain	34 (91) 631 3300
Sweden	0200-88 22 55
United Kingdom	44 (0) 131 452 0200

For other unlisted countries:

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