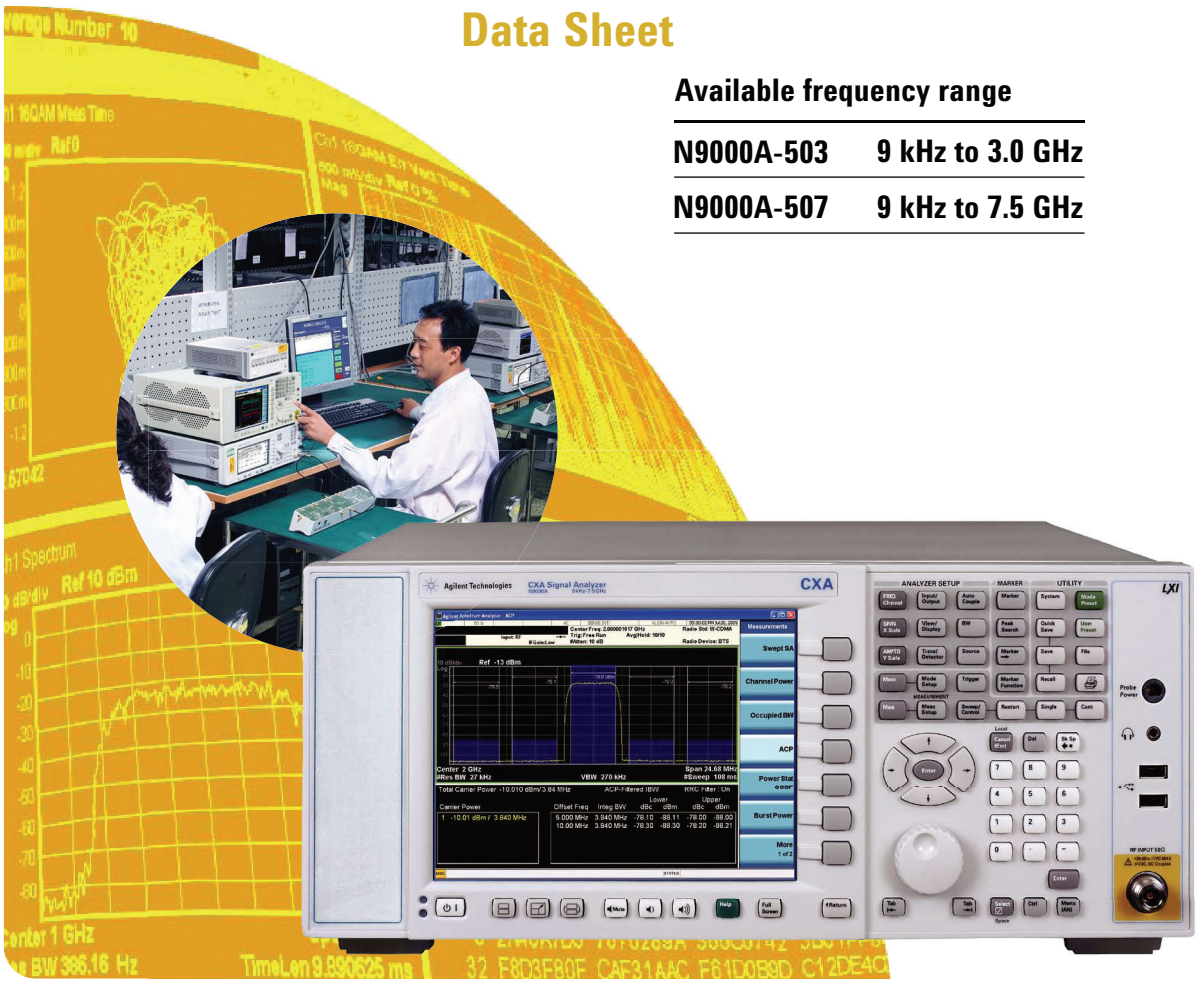
Agilent CXA Signal Analyzer N9000A

Data Sheet



Available frequency range

N9000A-503	9 kHz to 3.0 GHz
N9000A-507	9 kHz to 7.5 GHz

LXI class C certified

Agilent Technologies

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Expect more from a cost-effective N9000A CXA signal analyzer

The Agilent CXA is a versatile, low cost tool for spectrum and signal characterization. It helps you to accelerate product testing and development on multiple levels: cost reduction, throughput, design enhancement and more.

CXA provides you with dependable and fast measurements in your manufacturing testing, ranging from frequency power measurements to specific tasks such as EMI pre-compliance measurements, spur search, interference test and TOI characterization. Optional measurement applications provide preconfigured test routines for general purpose, cellular communication, wireless connectivity and digital video.

Agilent 89600 VSA vector signal analysis software in the CXA enables FFT-based spectrum analysis, time-domain analysis for burst analysis, and advanced signal demodulation analysis and troubleshooting of more than 50 demodulation formates such as FSK, QPSK, QAM, and so on.

visit:
www.agilent.com/find/xseries_apps
for more information about applications.

Definitions and Conditions

Specifications describe the performance of parameters covered by the product warranty and apply over 5 to 50 °C unless otherwise noted. 95th percentile values indicate the breadth of the population (≈2σ) of performance tolerances expected to be met in 95 percent of the cases with a 95 percent confidence, for any ambient temperature in the range of 20 to 30 °C. In addition to the statistical observations of a sample of instruments, these values include the effects of the uncertainties of external calibration references. These values are not warranted. These values are updated occasionally if a significant change in the statistically observed behavior of production instruments is observed. Typical describes additional product performance information that is not covered by the product warranty. It is performance beyond specifications that 80 percent of the units exhibit with a 95 percent confidence level over the temperature range 20 to 30 °C. Typical performance does not include measurement uncertainty. Nominal values indicate expected performance, or describe product performance that is useful in the application of the product, but is not covered by the product warranty.

The analyzer will meet its specifications when:

- The analyzer is within its calibration cycle.
- Under auto couple control, except that Auto Sweep Time Rules = Accy.
- The analyzer has been stored at an ambient temperature within the allowed operating range for at least two hours before being turned on, if it had previously been stored at a temperature range inside the allowed storage range but outside the allowed operating range.
- The analyzer has been turned on at least 30 minutes with Auto Align set to normal, or if Auto Align is set to off or partial, alignments must have been run recently enough to prevent an Alert message. If the Alert condition is changed from Time and Temperature to one of the disabled duration choices, the analyzer may fail to meet specifications without informing the user.

This CXA signal analyzer data sheet is a summary of the complete specifications and conditions, which are available in the *CXA Signal Analyzer Specification Guide*. *The CXA Signal Analyzer Specification Guide* can be obtained on the web at:

www.agilent.com/find/cxa_specifications .

Frequency and Time Specifications

Frequency range

Option 503	9 kHz to 3.0 GHz
Option 507	9 kHz to 7.5 GHz

Band	LO Multiple (N)		Required options
0	1	9 kHz to 3.08 GHz	
1	1	2.95 to 3.80 GHz	Option 507
2	1	3.70 to 4.55 GHz	Option 507
3	1	4.45 to 5.30 GHz	Option 507
4	1	5.20 to 6.05 GHz	Option 507
5	1	5.95 to 6.80 GHz	Option 507
6	1	6.70 to 7.50 GHz	Option 507

Frequency reference

Accuracy	± [(time since last adjustment x aging rate) + temperature stability + calibration accuracy]
Aging rate	$\pm 1 \times 10^{-6}$ / year
Temperature stability	
20 to 30 °C	$\pm 2 \times 10^{-6}$
5 to 50 °C	$\pm 2 \times 10^{-6}$
Achievable initial calibration accuracy	$\pm 1.4 \times 10^{-6}$
Residual FM	<= (10 Hz) p-p in 20 ms nominal

Frequency readout accuracy (start, stop, center, marker)

± (marker frequency x frequency reference accuracy + 0.25% x span + 5% x RBW + 2 Hz + 0.5 x horizontal resolution[1])

1. Horizontal resolution is span/(sweep points – 1)

Marker frequency counter

Accuracy	± (marker frequency x frequency reference accuracy + 0.100 Hz)
Delta counter accuracy	± (delta frequency x frequency reference accuracy + 0.141 Hz)
Counter resolution	0.001 Hz

Frequency and Time Specifications (continued)

Frequency span (FFT and swept mode)

Range	0 Hz (zero span), 10 Hz to maximum frequency of instrument	
Resolution	2 Hz	
Accuracy		
Swept	±(0.25% x span + horizontal resolution)	
FFT	±(0.10% x span + horizontal resolution)	

Sweep time and triggering

Range	Span = 0 Hz	1 µs to 6000 s
	Span ≥ 10 Hz	1 ms to 4000 s
Accuracy	Span ≥ 10 Hz, swept	±0.01% nominal
	Span ≥ 10 Hz, FFT	±40% nominal
	Span = 0 Hz	±1% nominal
Trigger	Free run, line, video, external 1, RF burst, Periodic Timer	
Trigger delay	Span = 0 Hz or FFT	–150 to +500 ms
	Span ≥ 10 Hz, swept	1 µs to 500 ms
	Resolution	0.1 µs

Time gating

Gate methods:	Gated LO; Gated video; Gated FFT
Gate length range (except method = FFT):	100.0 ns to 5.0 s
Gate delay range:	0 to 100.0 s
Gate delay jitter:	33.3 ns p-p nominal

Sweep (trace) point range

All spans	1 to 40001

Resolution bandwidth (RBW)

Range (–3.01 dB bandwidth)	1 Hz to 3 MHz (10% steps), 4, 5, 6, 8 MHz	
Bandwidth accuracy (power)	RBW range	
	1 Hz to 750 kHz	± 1.0% (± 0.044 dB) nominal
	820 kHz to 1.2 MHz (CF < 3 GHz)	± 2.0% (± 0.088 dB) nominal
	1.3 to 2.0 MHz (CF < 3 GHz)	± 0.07 dB nominal
	2.2 to 3 MHz (CF < 3 GHz)	± 0.15 dB nominal
	4 to 8 MHz (CF < 3 GHz)	± 0.25 dB nominal
Bandwidth accuracy (–3.01 dB) RBW range	1 Hz to 1.3 MHz	± 2% nominal
	1.5 to 3.0 MHz (CF < 3 GHz)	± 7% nominal
	4 to 8 MHz (CF < 3 GHz)	± 15% nominal
Selectivity (–60 dB/–3 dB)	4.1:1 nominal	
EMI bandwidths (CISPR compliant)	200 Hz, 9 kHz, 120 kHz, 1 MHz	(Opt EMC required)
EMI bandwidths (MIL STD 461D/E/F compliant)	10 Hz, 100 Hz, 1 kHz, 10 kHz 100 kHz, 1 MHz	(Opt EMC required)

Frequency and Time Specifications (continued)

Analysis bandwidth [1]	
Maximum bandwidth	10 MHz

1. Analysis bandwidth is the instantaneous bandwidth available around a center frequency over which the input signal can be digitized for further analysis or processing in the time, frequency, or modulation domain.

Video bandwidth (VBW)	
Range	1 Hz to 3 MHz (10% steps), 4, 5, 6, 8 MHz and wide open (labeled 50 MHz)
Accuracy	±6% nominal

Measurement speed [2]	
Local measurement and display update rate	11 ms (90/s) nominal
Remote measurement and LAN transfer rate	6 ms (167/s) nominal
Marker peak search	5 ms nominal
Center frequency tune and transfer (RF)	22 ms nominal
Measurement/mode switching	75 ms nominal

2. Sweep points = 101

Amplitude Accuracy and Range Specifications

Amplitude range	
Measurement range	
Preamp off	
100 kHz - 1 MHz	Displayed Average Noise Level (DANL) to +20 dBm
1 MHz - 7.5 GHz	Displayed Average Noise Level (DANL) to +23 dBm
Preamp on	
100 kHz - 7.5 GHz	Displayed Average Noise Level (DANL) to +15 dBm
Input attenuator range (100 kHz to 7.5 GHz)	
Standard	0 to 50 dB in 10 dB steps
Option FSA	0 to 50 dB in 2 dB steps

Maximum safe input level		
Average total power	+30 dBm (1 W)	Input attenuator setting ≥ 20 dB, preamp off
	+10 dBm (10 mW)	Input attenuator setting ≥ 20 dB, preamp on
Peak Pulse Power	+50 dBm (100 W)	< 10 µs pulse width, < 1% duty cycle, input attenuator ≥ 30 dB
AC coupled	±50 Vdc	

Display range	
Log scale	0.1 to 1 dB/division in 0.1 dB steps 1 to 20 dB/division in 1 dB steps (10 display divisions)
Linear scale	10 divisions
Scale units	dBm, dBmV, dBµV, dBmA, dBµA, V, W, A

Frequency response *(10 dB input attenuation, 20 to 30 °C, σ = nominal standard deviation)*

		Specification	95th Percentile (≈ 2σ)
	9 kHz to 10 MHz	± 0.60 dB	±0.45 dB
	10 MHz to 3 GHz	± 0.75 dB	± 0.55 dB
	3 to 5.25 GHz	± 1.45 dB	± 1.00 dB
	5.25 to 7.5 GHz	± 1.65 dB	± 1.20 dB
Preamp on (Option P03/P07) (0 dB attenuation)	100 kHz to 3 GHz		± 0.70 dB
	3 to 5.25 GHz		± 0.85 dB
	5.25 to 7.5 GHz		± 1.35 dB

Input attenuation switching uncertainty

	50 MHz (reference frequency) attenuation > 2 dB, preamp off	± 0.32 dB	± 0.15 dB typical
	100 kHz to 3.0 GHz		± 0.30 dB nominal
	3.0 to 7.5 GHz		± 0.50 dB nominal

Total Absolute Amplitude Accuracy ***(10 dB attenuation, 20 to 30 °C, 1 Hz ≤ RBW ≤ 1 MHz, input signal –10 to –50 dBm, all settings auto-coupled except Auto Swp = Accy. σ = nominal standard deviation)***

	At 50 MHz	± 0.40 dB	
	At all frequencies	± (0.40 dB + frequency response)	
	100 kHz to 10 MHz	± 0.40 dB	(95th Percentile (≈ 2σ))
	10 MHz to 2.0 GHz	± 0.50 dB	(95th Percentile (≈ 2σ))
	2.0 to 3.0 GHz	± 0.60 dB	(95th Percentile (≈ 2σ))
Preamp on (Option P03/P07)	100 kHz to 7.5 GHz	± (0.39 dB + frequency response) nominal	

Input voltage standing wave ratio (VSWR)

Attenuation = 10 dB	300 kHz to 1 GHz	< 1.2 : 1 nominal
	1 to 3 GHz	< 1.5 : 1 nominal
	3 to 7.5 GHz	< 2.0 : 1 nominal
Preamp on (Option P03/P07) (0 dB attenuation)	10 MHz to 3 GHz	< 2.2 : 1 nominal
	3 to 7.5 GHz	< 2.4 : 1 nominal

Amplitude Accuracy and Range Specifications (continued)

Resolution bandwidth switching uncertainty (referenced to 30 kHz RBW)	
1 Hz to 3 MHz RBW	± 0.15 dB
4, 5, 6, 8 MHz RBW	± 1.0 dB

Reference level	
Range	
Log scale	–170 to +30 dBm in 0.01 dB steps
Linear scale	707 pV to 7.07 V with 0.01 dB resolution (0.11%)
Accuracy	0 dB

Display scale switching uncertainty		
Switching between linear and log	0 dB	
Log scale/div switching	0 dB	

Display scale fidelity		
–80 dBm ≤ input mixer level < –15 dBm	± 0.15 dB	
–15 dBm ≤ input mixer level ≤ –10 dBm	± 0.30 dB	± 0.15 dB typical

Trace detectors
Normal, peak, sample, negative peak, log power average, RMS average, and voltage average

Preamplifier		
Frequency range	Option P03	100 kHz to 3.0 GHz
	Option P07	100 kHz to 7.5 GHz
Gain	100 kHz to 7.5 GHz	+20 dB nominal

Dynamic Range Specifications

1 dB gain compression (two-tone)

		Total power at input mixer
	50 MHz to 7.5 GHz	+2 dBm nominal
Preamp on (Option P03/P07)	50 MHz to 7.5 GHz	–19 dBm nominal

Displayed average noise level (DANL)
(Input terminated, sample or average detector, averaging type = Log, 0 dB input attenuation, IF gain = High, 20 to 30 °C)

		Specification	Typical
Preamp off	9 kHz to 1 MHz		–120 dBm
	1 to 10 MHz	–130 dBm	–137 dBm
	10 MHz to 1.5 GHz	–148 dBm	–150 dBm
	1.5 to 2.2 GHz	–144 dBm	–147 dBm
	2.2 to 3 GHz	–140 dBm	–143 dBm
	3 to 4.5 GHz	–137 dBm	–140 dBm
	4.5 to 6 GHz	–133 dBm	–136 dBm
	6 to 7.5 GHz	–128 dBm	–131 dBm
Preamp on	9 kHz to 1 MHz		–139 dBm
	1 to 10 MHz	–149 dBm	–157 dBm
	10 MHz to 1.5 GHz	–161 dBm	–163 dBm
	1.5 to 2.2 GHz	–160 dBm	–163 dBm
	2.2 to 3 GHz	–158 dBm	–161 dBm
	3 to 4.5 GHz	–155 dBm	–159 dBm
	4.5 to 6 GHz	–152 dBm	–156 dBm
	6 to 7.5 GHz	–148 dBm	–152 dBm

Spurious responses

Residual responses (Input terminated and 0 dB attenuation, 20 to 30 °C)	200 kHz to 7.5 GHz (swept)	–90 dBm
	Zero span or FFT or other frequencies	–100 dBm nominal
LO related spurious	10 MHz to 7.5 GHz	–60 dBc typical
System related sidebands	Offset from CW signal	
	50 to 200 Hz	–50 dBc nominal
	200 Hz to 3 kHz	–65 dBc nominal
	3 to 300 kHz	–72 dBc nominal
	300 kHz to 10 MHz	–80 dBc nominal

Dynamic Range Specifications (continued)

Second harmonic distortion (SHI) (Input level –20 dBm, Input attenuation 10 dB)

		SHI	
	10 MHz to 3.75 GHz	+35 dBm	+42 dBm nominal
Preamp on (Option P03/P07)	10 MHz to 3.75 GHz	+10 dBm nominal (Input level –40 dBm, attenuation 10 dB)	

Third-order intermodulation distortion (TOI) (Two –20 dBm tones at input mixer spaced by 100 kHz, 0 dB attenuation, 20 to 30 °C)

		Distortion	TOI	Typical
	10 to 400 MHz	–60 dBc	+10 dBm	+14 dBm
	400 MHz to 3 GHz	–66 dBc	+13 dBm	+17 dBm
	3 to 7.5 GHz	–66 dBc	+13 dBm	+15 dBm
Preamp on (Option P03/P07)	10 MHz to 7.5 GHz			–8 dBm nominal (Two –45 dBm tones at the preamp input, spaced by 100 kHz, 20 to 30 °C)

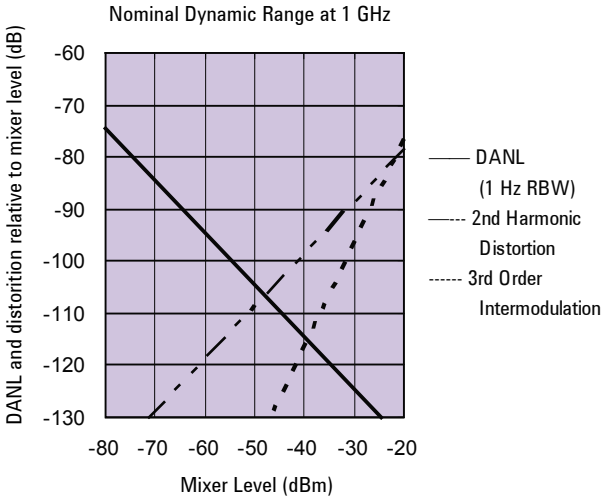

Figure 1. Nominal dynamic range - Band 0, for second and third order distortion, 10 MHz to 3 GHz

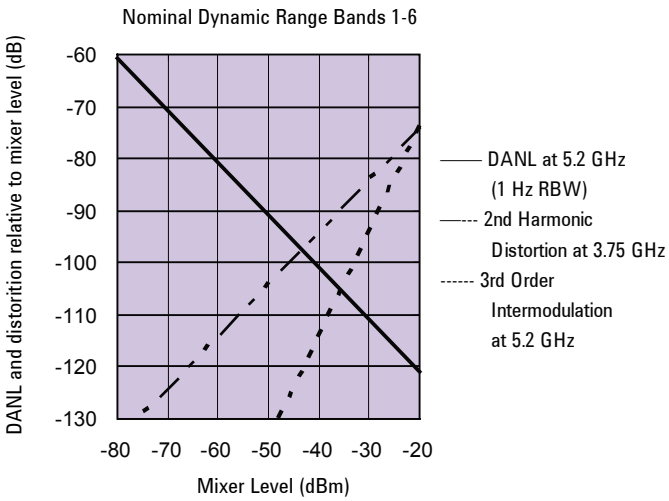

Figure 2. Nominal dynamic range - Band 1 to 6, for second and third order distortion, 3 GHz to 7.5 GHz

Dynamic Range Specifications (continued)

Phase noise [1]

Noise sidebands (20 to 30 °C, CF = 1 GHz)	Offset	Specification	Typical
	1 kHz	–94 dBc/Hz	–98 dBc/Hz nominal
	10 kHz	–99 dBc/Hz	–102 dBc/Hz
	100 kHz	–102 dBc/Hz	–104 dBc/Hz
	1 MHz	–120 dBc/Hz	–121 dBc/Hz
	10 MHz		–143 dBc/Hz nominal

1. For nominal values, refer to Figure 3.

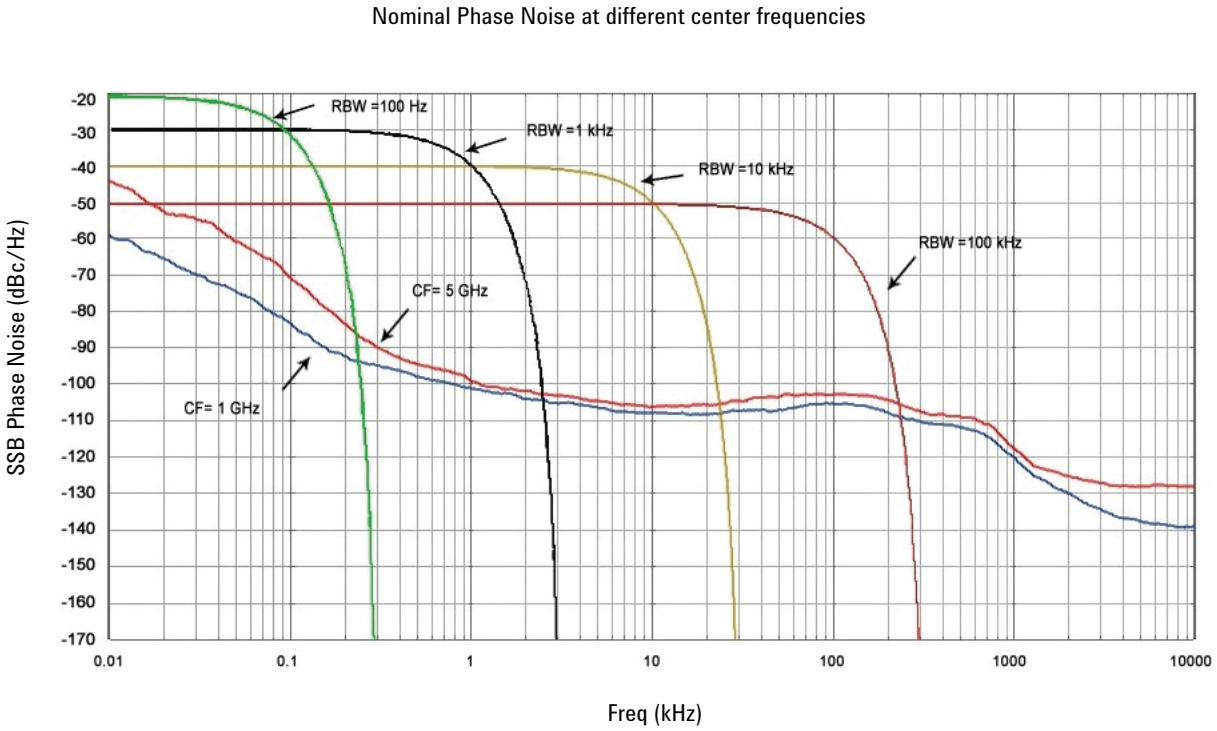

Figure 3. Nominal phase noise at different center frequencies

Power Suite Measurement Specifications

Channel power

Amplitude accuracy, W-CDMA or IS95 (20 to 30 °C, attenuation = 10 dB)	±1.15 dB (±0.60 dB 95th percentile)

Occupied bandwidth

Frequency accuracy	±[span/1000] nominal

Adjacent channel power

Accuracy, W-CDMA (ACLR) (at specific mixer levels and ACLR ranges)	Adjacent	Alternate
MS	±0.41 dB	±0.55 dB
BTS	±1.92 dB	±1.22 dB
Dynamic range (typical)		
Without noise correction	–63 dB	–67 dB
With noise correction	–66 dB	–72 dB
Offset channel pairs measured	1 to 6	
Multiple number of carriers measured	Up to 12	

Power statistics CCDF

Histogram resolution	0.01 dB

Burst power

Methods	Power above threshold, power within burst width
Results	Single burst output power, average output power, maximum power, minimum power within burst, burst width

Spurious emission

W-CDMA (1 to 3.0 GHz)	
Table driven spurious signals; search across regions	
Dyanmic range	86.6 dB (91.6 dB typical)
Absolute sensitivity	–75.4 dBm (–80.4 dBm typical)

Spectrum emission mask (SEM)

cdma2000® (750 kHz offset)	
Relative dynamic range (30 kHz RBW)	71.5 dB (79.1 dB typical)
Absolute sensitivity	–90.7 dBm (–95.7 dBm typical)
Relative accuracy	±0.11 dB
3GPP W-CDMA (2.515 MHz offset)	
Relative dynamic range (30 kHz RBW)	70.5 dB (74.7 dB typical)
Absolute sensitivity	–90.7 dBm (–95.7 dBm typical)
Relative accuracy	±0.11 dB

General Specifications

Temperature range	
Operating	5 to 50 °C
Storage	–40 to 65 °C

EMC

Complies with European EMC Directive 2004/108/EC
- IEC/EN 61326-1 or IEC/EN 61326-2-1
- CISPR Pub 11 Group 1, class A
- AS/NZS CISPR 11:2002
- ICES/NMB-001

This ISM device complies with Canadian ICES-001.
Cet appareil ISM est conforme a la norme NMB-001 du Canada.

Safety

Complies with European Low Voltage Directive 73/23/EEC, amended by 93/68/EEC
- IEC/EN 61010-1 2nd Edition
- Canada: CSA C22.2 No. 61010-1
- USA: UL 61010-1 2nd Edition

Audio noise	
Acoustic noise emission	Geraeuschemission
LpA < 70 dB	LpA < 70 dB
Operator position	Am Arbeitsplatz
Normal position	Normaler Betrieb
Per ISO 7779	Nach DIN 45635 t.19

Environmental stress

Samples of this product have been type tested in accordance with the Agilent Environmental Test Manual and verified to be robust against the environmental stresses of storage, transportation and end-use; those stresses include but are not limited to temperature, humidity, shock, vibration, altitude and power line conditions. Test methods are aligned with IEC 60068-2 and levels are similar to MIL-PRF-28800F Class 3.

General Specifications (continued)

Power requirements	
Voltage and frequency (nominal)	100 to 120 V, 50/60/400 Hz 220 to 240 V, 50/60 Hz
Power consumption	
On	270 W (fully loaded with options)
Standby	20 W

Display	
Resolution	1024 x 768, XGA
Size	213 mm (8.4 in.) diagonal (nominal)

Data storage	
Internal	40 GB nominal
External	Supports USB 2.0 compatible memory devices

Weight (without options)	
Net	14 kg (30.8 lbs) nominal
Shipping	26 kg (57.2 lbs) nominal

Dimensions	
Height	177 mm (7.0 in)
Width	426 mm (16.8 in)
Length	368 mm (14.5 in)

Warranty

The CXA signal analyzer is supplied with a one-year warranty.

Calibration cycle

The recommended calibration cycle is one year. Calibration services are available through Agilent service centers.

Inputs and Outputs

Front panel

RF input	
Connector	Type-N female, 50 Ω nominal
Probe power	
Voltage/current	+15 Vdc, ±7% at 150 mA max nominal –12.6 Vdc, ±10% at 150 mA max nominal
USB 2.0 ports	
Master (2 ports)	
Standard	Compatible with USB 2.0 standard
Connector	Type A female
Output current	0.5 A nominal

Rear panel

10 MHz out	
Connector	BNC female, 50 Ω nominal
Output amplitude	≥ 0 dBm nominal
Frequency	10 MHz ± (10 MHz x frequency reference accuracy)
Ext Ref In	
Connector	BNC female, 50 Ω nominal
Input amplitude range	–5 to 10 dBm nominal
Input frequency	10 MHz nominal
Frequency lock range	± 5 x 10^{-6} of specified external reference input frequency
Trigger 1 input	
Connector	BNC female
Impedance	> 10 kΩ nominal
Trigger level range	–5 to 5 V
Trigger 1 output	
Connector	BNC female
Impedance	50 Ω nominal
Level	5 V TTL nominal
Monitor output	
Connector	VGA compatible, 15-pin mini D-SUB
Format	XGA (60 Hz vertical sync rates, non-interlaced) Analog RGB
Resolution	1024 x 768
Noise source drive +28 V (pulsed)	
Connector	BNC female
SNS series noise source	Connecting to SNS series noise sources for noise figure measurement application
Analog out	
Connector	BNC female

Inputs and Outputs (continued)

Rear panel

USB 2.0 ports	
Master (4 ports)	
Standard	Compatible with USB 2.0 standard
Connector	Type A female
Output current	0.5 A nominal
Slave (1 port)	
Standard	Compatible with USB 2.0 standard
Connector	Type B female
Output current	0.5 A nominal
GPIB interface	
Connector	IEEE-488 bus connector
GPIB codes	SH1, AH1, T6, SR1, RL1, PP0, DC1, C1, C2, C3, C28, DT1, L4, C0
GPIB mode	Controller or Device
LAN TCP/IP interface	
Standard	100Base-T
Connector	RJ45 Ethertwist
Sync (Reserved for future use)	
Connector	BNC female
AUX IF Output (Reserved for future use)	Use of this connector may affect instrument performance
Connector	SMA female

CXA Signal Analyzer Ordering Information

For further information, refer to *CXA Signal Analyzer Configuration Guide* (5990-4341EN)

Hardware	
N9000A	CXA signal analyzer
N9000A-503	Frequency range, 9 kHz to 3.0 GHz
N9000A-507	Frequency range, 9 kHz to 7.5 GHz
N9000A-P03	Preamplifier, 3.0 GHz
N9000A-P07	Preamplifier, 7.5 GHz
N9000A-FSA	Fine step attenuator

Optional features	
N9000A-EMC	Basic precompliance EMI features

Applications

Note: The last two letters of ordering numbers indicate the license type. FP stands for Fixed Perpetual.

W9063A-2FP	Analog demodulation measurement application
W9068A-2FP	Phase noise measurement application
W9069A-1FP	Noise figure measurement application (requires preamplifier)
N9051A-2FP	Pulse measurement
W9071A-2FP	GSM/EDGE measurement application
W9073A-1FP	W-CDMA measurement application
W9073A-2FP	HSDPA/HSUPA measurement application (requires W9073A-1FP)
W9075A-2FP	802.16 OFDMA measurement application
W9079A-1FP	TD-SCDMA measurement application
W9079A-2FP	HSPA/8PSK measurement application (requires W9079A-1FP)
W9081A-2FP	Bluetooth® measurement application
W6153A-2FP	DVB-T/H measurement application
W6155A-2FP	ISDB-T measurement application
W6156A-2FP	DTMB measurement application
W6158A-2FP	CMMB measurement application
89601A	89600 Vector Signal Analysis VSA software
W9064A-1FP	Vector signal analysis measurement application
W9064A-2FP	Flexible digital modulation analysis (requires W9064A-1FP)
N6171A-M01	MATLAB - Basic Signal Analysis Package
N6171A-M02	MATLAB - Standard Signal Analysis Package
N6171A-M03	MATLAB - Advanced Signal Analysis Package

Accessories	
N9000A-KYB[1]	Keyboard
N9000A-KB2	US 65 key USB keyboard
N9000A-BAG	Accessory pouch
N9000A-DVR	USB DVD-ROM/CD-R/RW drive
N9000A-MLP	Minimum loss pad, 50 to 75 Ω
N9000A-PRC	Portable configuration
N9000AK-CVR	Front panel cover, additional
N9000A-1CP	Rack mount and handle kit
N9000A-1CM	Rack mount kit
N9000A-1CN	Front handle kit
N9000A-1CR	Rack slide kit
N9000A-HTC	Hard transit case

1 Does not fit Option N9000A-BAG accessory pouch. Order N9000A-KB2 for accessory pouch that fits keyboard.

CXA Signal Analyzer Ordering Information (continued)

For further information, refer to *CXA Signal Analyzer Configuration Guide* (5990-4341EN)

Warranty and service	
Standard warranty is one year	
R-51B-001-3C	1 year return-to-Agilent warranty extended to 3 years

Calibration [1]	
N9000A-UK6	Commercial calibration certification with test data
N9000A-1A7	ISO 17025 compliant calibration
N9000A-A6J	ANSI Z540 compliant calibration
R-50C-011-3	Inclusive calibration plan, 3 year coverage
R-50C-013-3	Inclusive calibration plan and cal data, 3 year coverage

1 Options not available in all countries

Literature Resources

Literature title	Literature number
Agilent CXA Signal Analyzers	
Brochure	5990-3927EN
Data Sheet	5990-4327EN
Configuration Guide	5990-4341EN

For more information on the CXA, visit: **www.agilent.com/find/CXA**

Agilent EXA Signal Analyzers	
Brochure	5989-6527EN
Data Sheet	5989-6529EN
Configuration Guide	5989-6531EN

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Revised: October 1, 2009

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Printed in USA, July 1, 2010
5990-4327EN

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