

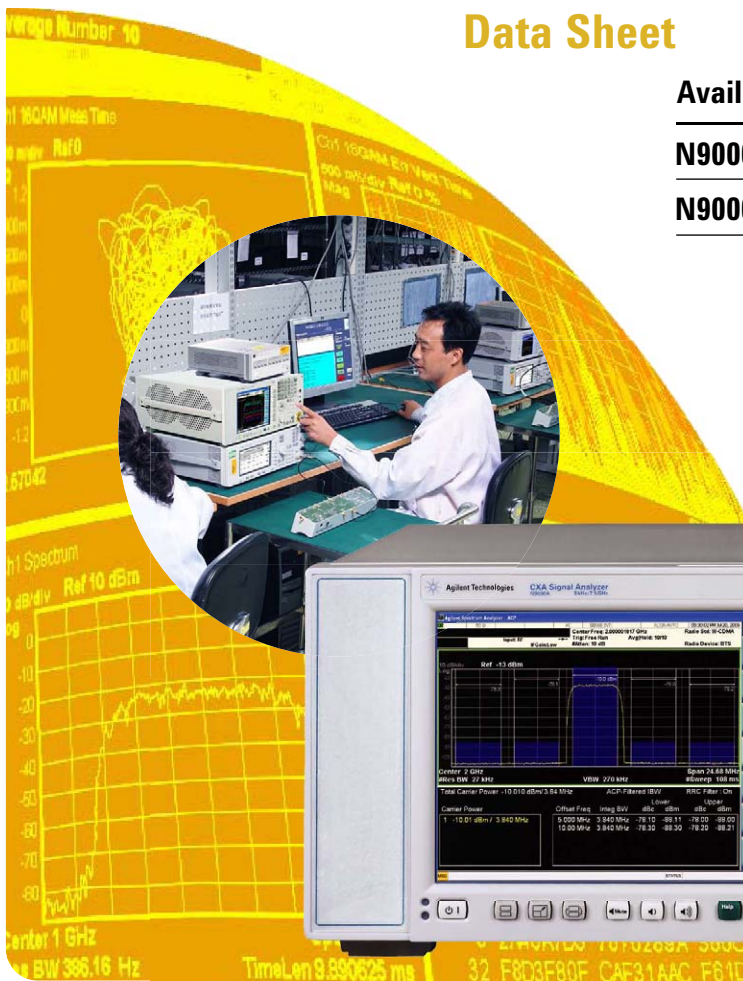
# Agilent CXA Signal Analyzer N9000A

## 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. More measurement applications with CXA are available for noise figure, phase noise, analog demodulation, and vector signal analysis.

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 formats such as FSK, QPSK, QAM, and so on.

visit:

[www.agilent.com/find/xseries\\_apps](http://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 ( $\approx 2\sigma$ ) 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](http://www.agilent.com/find/CXA)

## 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	$\pm [(time\ since\ last\ adjustment\ \times\ aging\ rate) + temperature\ stability + calibration\ accuracy]$
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	$\leq (10\ Hz)\ p-p\ in\ 20\ ms\ nominal$

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

$\pm (\text{marker frequency} \times \text{frequency reference accuracy} + 0.25\% \times \text{span} + 5\% \times \text{RBW} + 2\ Hz + 0.5 \times \text{horizontal resolution}^1)$
------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

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

### Marker frequency counter

Accuracy	$\pm (\text{marker frequency} \times \text{frequency reference accuracy} + 0.100\ Hz)$
Delta counter accuracy	$\pm (\text{delta frequency} \times \text{frequency reference accuracy} + 0.141\ Hz)$
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	$\pm(0.25\% \times \text{span} + \text{horizontal resolution})$
FFT	$\pm(0.10\% \times \text{span} + \text{horizontal resolution})$

### Sweep time and triggering

Range	Span = 0 Hz Span $\geq$ 10 Hz	1 $\mu$ s to 6000 s 1 ms to 4000 s
Accuracy	Span $\geq$ 10 Hz, swept Span $\geq$ 10 Hz, FFT Span = 0 Hz	$\pm 0.01\%$ nominal $\pm 40\%$ nominal $\pm 1\%$ nominal
Trigger	Free run, line, video, external 1, RF burst, Periodic Timer	
Trigger delay	Span = 0 Hz or FFT Span $\geq$ 10 Hz, swept Resolution	-150 to +500 ms 1 $\mu$ s to 500 ms 0.1 $\mu$ s

### 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
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### Resolution bandwidth (RBW)

Range (-3.01 dB bandwidth)	1 Hz to 3 MHz (10% steps), 4, 5, 6, 8 MHz	
Bandwidth accuracy (power)	1 Hz to 750 kHz	$\pm 1.0\%$ ( $\pm 0.044$ dB) nominal
RBW range	820 kHz to 1.2 MHz (CF < 3 GHz)	$\pm 2.0\%$ ( $\pm 0.088$ dB) nominal
	1.3 to 2.0 MHz (CF < 3 GHz)	$\pm 0.07$ dB nominal
	2.2 to 3 MHz (CF < 3 GHz)	$\pm 0.15$ dB nominal
	4 to 8 MHz (CF < 3 GHz)	$\pm 0.25$ dB nominal
Bandwidth accuracy (-3.01 dB)	1 Hz to 1.3 MHz	$\pm 2\%$ nominal
RBW range	1.5 to 3.0 MHz (CF < 3 GHz)	$\pm 7\%$ nominal
	4 to 8 MHz (CF < 3 GHz)	$\pm 15\%$ nominal
Selectivity (-60 dB/-3 dB)	4.1:1 nominal	

## Frequency and Time Specifications (continued)

### Analysis bandwidth <sup>1</sup>

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Maximum bandwidth	10 MHz
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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)

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

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### Measurement speed <sup>2</sup>

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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

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2. Sweep points = 101

# Amplitude Accuracy and Range Specifications

## Amplitude range

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### 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
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### 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

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## Maximum safe input level

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Average total power	+30 dBm (1 W) +10 dBm (10 mW)	Input attenuator setting $\geq$ 20 dB, preamp off Input attenuator setting $\geq$ 20 dB, preamp on
Peak Pulse Power	+50 dBm (100 W)	< 10 $\mu$ s pulse width, < 1% duty cycle, input attenuator $\geq$ 30 dB
AC coupled	$\pm$ 50 Vdc	

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## Display range

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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, dB $\mu$ V, dBmA, dB $\mu$ A, V, W, A

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## Amplitude Accuracy and Range Specifications (continued)

### Frequency response (10 dB input attenuation, 20 to 30 °C, $\sigma$ = nominal standard deviation)

		Specification	95 <sup>th</sup> Percentile ( $\approx 2\sigma$ )
	9 kHz to 10 MHz	$\pm 0.60$ dB	$\pm 0.45$ dB
	10 MHz to 3 GHz	$\pm 0.75$ dB	$\pm 0.55$ dB
	3 to 5.25 GHz	$\pm 1.45$ dB	$\pm 1.00$ dB
	5.25 to 7.5 GHz	$\pm 1.65$ dB	$\pm 1.20$ dB
Preamp on (Option P03/P07) (0 dB attenuation)	100 kHz to 3 GHz		$\pm 0.70$ dB
	3 to 5.25 GHz		$\pm 0.85$ dB
	5.25 to 7.5 GHz		$\pm 1.35$ dB

### Input attenuation switching uncertainty

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

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

	At 50 MHz	$\pm 0.40$ dB	
	At all frequencies	$\pm (0.40$ dB + frequency response)	
	100 kHz to 10 MHz	$\pm 0.40$ dB	(95 <sup>th</sup> Percentile ( $\approx 2\sigma$ ))
	10 MHz to 2.0 GHz	$\pm 0.50$ dB	(95 <sup>th</sup> Percentile ( $\approx 2\sigma$ ))
	2.0 to 3.0 GHz	$\pm 0.60$ dB	(95 <sup>th</sup> Percentile ( $\approx 2\sigma$ ))
Preamp on (Option P03/P07)	100 kHz to 7.5 GHz	$\pm (0.39$ 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	$\pm 0.15$ dB
4, 5, 6, 8 MHz RBW	$\pm 1.0$ dB

### Reference level

Range	–170 to +30 dBm in 0.01 dB steps	
Log scale	707 pV to 7.07 V with 0.01 resolution (0.11%)	
Linear scale		
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 $\leq$ input mixer level $< -15$ dBm	$\pm 0.15$ dB	
$-15$ dBm $\leq$ input mixer level $\leq -10$ dBm	$\pm 0.30$ dB	$\pm 0.15$ 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 (f > 600 MHz from carrier)	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 dB, 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)

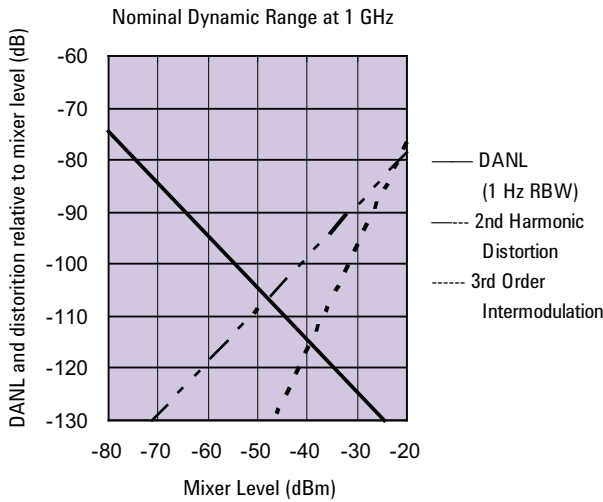


Figure 1. Nominal dynamic range - Band 0, for second and third order distortion, 10 MHz to 3 GHz

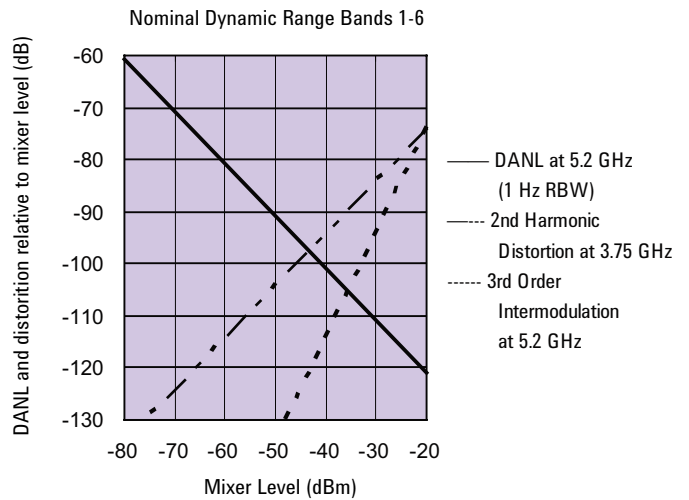


Figure 2. Nominal dynamic range - Band 1 to 6, for second and third order distortion, 3 GHz to 7.5 GHz

## Dynamic Range Specifications (continued)

### Phase noise <sup>1</sup>

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.

Nominal Phase Noise at different center frequencies

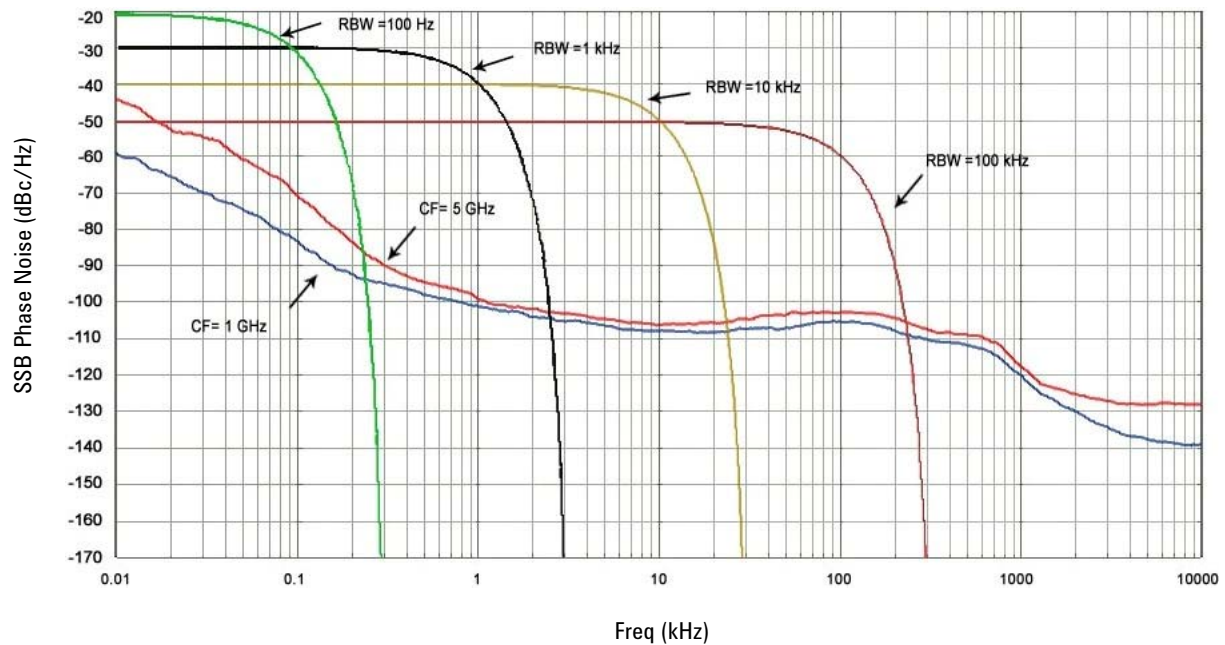


Figure 3. Nominal phase noise at different center frequencies

# 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)
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## Occupied bandwidth

Frequency accuracy	±[span/1000] nominal
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## 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
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Multiple number of carriers measured	Up to 12
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## Power statistics CCDF

Histogram resolution	0.01 dB
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## Burst power

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

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Operating	5 to 50 °C
Storage	-40 to 65 °C

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### EMC

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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.

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### Safety

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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

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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

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### Environmental stress

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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.

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## General Specifications (continued)

### Power requirements

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Voltage and frequency (nominal)	100 to 120 V, 50/60/400 Hz 220 to 240 V, 50/60 Hz
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### Power consumption

On	270 W (fully loaded with options)
Standby	20 W

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### Display

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

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Internal	40 GB nominal
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External	Supports USB 2.0 compatible memory devices
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### Weight (without options)

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Net	14 kg (30.8 lbs) nominal
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Shipping	26 kg (57.2 lbs) nominal
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### Dimensions

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

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

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### Calibration cycle

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

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## Inputs and Outputs

### Front panel

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RF input	
Connector	Type-N female, 50 $\Omega$ nominal

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Probe power	
Voltage/current	+15 Vdc, $\pm 7\%$ at 150 mA max nominal –12.6 Vdc, $\pm 10\%$ at 150 mA max nominal

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USB 2.0 ports	
Master (2 ports)	Compatible with USB 2.0 standard, type-A female connector, output current 0.5 A nominal
Standard	Compatible with USB 2.0 standard
Connector	Type A female
Output current	0.5 A nominal

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### Rear panel

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10 MHz out	
Connector	BNC female, 50 $\Omega$ nominal
Output amplitude	$\geq 0$ dBm nominal
Frequency	10 MHz $\pm$ (10 MHz x frequency reference accuracy)

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Ext Ref In	
Connector	BNC female, 50 $\Omega$ nominal
Input amplitude range	–5 to 10 dBm nominal
Input frequency	10 MHz nominal
Frequency lock range	$\pm 5 \times 10^{-6}$ of specified external reference input frequency

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Trigger 1 input	
Connector	BNC female
Impedance	$> 10$ k $\Omega$ nominal
Trigger level range	–5 to 5 V

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Trigger 1 output	
Connector	BNC female
Impedance	50 $\Omega$ nominal
Level	5 V TTL nominal

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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

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Noise source drive +28 V (pulsed)	
Connector	BNC female

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SNS series noise source	Connecting to SNS series noise sources for noise figure measurement application
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Analog out	
Connector	BNC female

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## Inputs and Outputs (continued)

### Rear panel

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#### 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

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#### 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

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#### LAN TCP/IP interface

Standard	100Base-T
Connector	RJ45 Ethertwist

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#### Sync (Reserved for future use)

Connector	BNC female
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#### AUX IF Output (Reserved for future use)

Use of this connector may affect instrument performance	
Connector	SMA female

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# 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
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## 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)
89601X	VXA Vector Signal Analysis application
89601XFP-205	VXA Basic VSA-Lite (required option at initial order of 89601X)
89601XFP-333	VXA X-Series connectivity (required option at initial order of 89601X, requires 205)
89601XFP-AYA	VXA vector modulation analysis (requires 205/333)
89601A	89600 Vector Signal Analysis VSA software
N6171A-M01	MATLAB - Basic Signal Analysis Package
N6171A-M02	MATLAB - Standard Signal Analysis Package
N6171A-M03	MATLAB - Advanced Signal Analysis Package

## Accessories

N9000A-KYB <sup>1</sup>	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 $\Omega$
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

## Warranty and service

Standard warranty is one year

R-51B-001-3C	1 year return-to-Agilent warranty extended to 3 years
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## Calibration<sup>2</sup>

N9000A-UK6	Commercial calibration certification with test data
R-50C-011-3	Inclusive calibration plan, 3 year coverage
R-50C-013-3	Inclusive calibration plan and cal data, 3 year coverage

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

<sup>2</sup> Options not available in all countries

## Literature Resources

Literature title	Literature number
<a href="#">Agilent CXA Signal Analyzers</a>	
<i>Brochure</i>	5990-3927EN
<i>Data Sheet</i>	5990-4327EN
<i>Configuration Guide</i>	5990-4341EN

For more information on the CXA, visit: [www.agilent.com/find/CXA](http://www.agilent.com/find/CXA)

<a href="#">Agilent EXA Signal Analyzers</a>	
<i>Brochure</i>	5989-6527EN
<i>Data Sheet</i>	5989-6529EN
<i>Configuration Guide</i>	5989-6531EN

<a href="#">Agilent MXA Signal Analyzers</a>	
<i>Brochure</i>	5989-5047EN
<i>Data Sheet</i>	5989-4942EN
<i>Configuration Guide</i>	5989-4943EN
<i>Option BBA: Analog Baseband IQ Inputs Technical Overview</i>	5898-6538EN

### [Agilent X-Series Signal Analyzers](#)

For more information about X-Series applications, visit: [www.agilent.com/find/xseries\\_apps](http://www.agilent.com/find/xseries_apps)



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