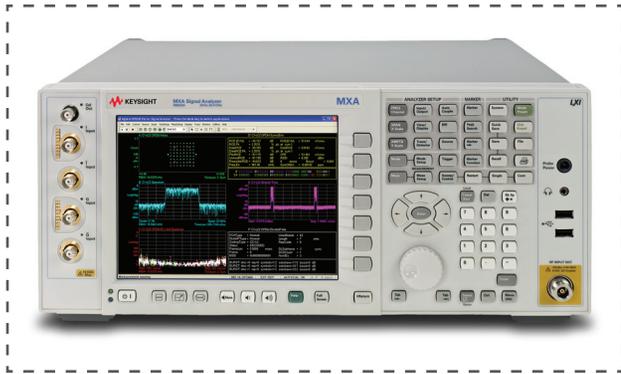# Keysight N9020A MXA X-Series Signal Analyzer

Frequency ranges: 10 Hz to 3.6, 8.4, 13.6, or 26.5 GHz

Accelerate in wireless

Standards evolve, product cycles get shorter, and each project demands tradeoffs and decisions about specs and capabilities, about throughput and yield. A highly flexible signal analyzer helps you make solid choices and keep things moving—quickly. The Keysight Technologies, Inc. MXA is the accelerator as you develop new wireless devices and deliver them to manufacturing and the marketplace. It has the versatility to easily adapt to your evolving test requirements, today and tomorrow. Address multiple formats, generations and devices with the MXA—and accelerate in wireless.

MXA is part of the X-Series which is an evolutionary approach to signal analysis that spans instrumentation, measurements and software. It gives you the flexibility to satisfy your business and technical requirements across multiple products and programs—now and in the future. The X-Series also creates a consistent framework that enables your teams to move at a faster pace. Stay ready, stay in sync and arrive ahead—with the Keysight X-Series.

Ideal for:

– 3G cellular R&D
– 4G cellular manufacturing
– Wireless connectivity

X-Series benefits and features: Future-ready instruments—so you can evolve as technology changes

– Move along the performance curve today and tomorrow without rewriting your test code, optimizing price and performance for whichever technologies you're pursuing and whichever X-Series analyzer you choose to use
– Evolve with commercial PC technology, keeping your test assets current and extending instrument longevity with upgradeable CPU, memory, disk drives, and I/O ports
– Upgrade instrument functionality and applications with no downtime via license key upgrades
– Enhance uptime with proven X-Series reliability and robust hardware architecture

Consistent measurement framework enables teams to move at a faster pace

– Ensure repeatable results and measurement integrity with proven algorithms used across the X-Series
– Boost efficiency and productivity with a common, familiar user-interface: learning one X-Series signal analyzer means knowing them all
– Leverage test-system software from R&D to design verification to manufacturing with 100% code compatibility (programming commands) across the full range of X-Series performance points.
– Transport applications across multiple X-Series analyzers, from EXA to PXA, across the lab or around the globe

Broadest set of applications and software to address all your test needs

– Supports over 25 measurement applications, covering communications, wireless connectivity, digital video and general purpose
– Advanced analysis of more than 70 signal formats, with industry-leading 89600 vector signal analysis (VSA) software
– MATLAB data analysis software for general purpose data analysis, visualization, and measurement automation
– Keysight's PowerSuite one-button power measurements included as standard

Summary of key specifications

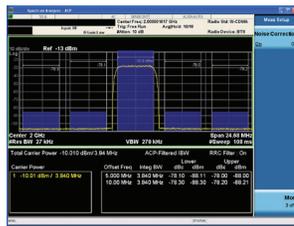| Option	Description
Analysis bandwidth	25 MHz standard; 40 MHz
Displayed average noise level (DANL)	-166 dBm
Third-order intermodulation (TOI) distortion	+20 dBm
W-CDMA ACLR dynamic range	-78 dB
Phase noise	-106 dBc/Hz
Amplitude accuracy	±0.23 dB

Figure 1. 40 MHz BW IQ waveform measurement

Figure 2. 78 dB W-CDMA ACLR dynamic range

Frequency range options

Option number	Description (not upgradeable)
503	10 Hz to 3.6 GHz
508	10 Hz to 8.4 GHz
513	10 Hz to 13.6 GHz
526	10 Hz to 26.5 GHz

Hardware options

Option number	Description (license key upgradeable)
P03	Preamplifier, 3.6 GHz
P08	Preamplifier, 8.4 GHz
P13	Preamplifier, 13.6 GHz
P26	Preamplifier, 26.5 GHz
PFR	Precision frequency reference
B40	40 MHz analysis bandwidth
EA3	3.6 GHz electronic attenuator
PRC	Portable configuration

Accessories

Option number	Description
1CP	Rack mount and handle kit
1CM	Rack mount kit
1CN	Front handle kit
1CR	Rack slide kit
HTC	Hard transit case

Measurement applications

Option number	Description
N9051A	Pulse Measurement
N9061A	Remote Language Compatibility, 856xE/EC
N9063A	Analog Demodulation
N9064A	VXA Vector Signal Analyzer Application
N9068A	Phase Noise
N9069A	Noise Figure
N9071A	GSM/EDGE
N9072A	cdma2000®
N9073A	W-CDMA
N9073A	HSDPA/HSUPA
N9075A	802.16 OFDMA
N9076A	1xEV-DO
N9079A	TD-SCDMA
N9079A	HSDPA/HSUPA/8PSK
N9080A	LTE FDD
N9082A	LTE TDD
N9081A	*Bluetooth*®
89601B	89600 VSA Software
N6141A	EMI

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Keysight's commitment to superior product quality and lower total cost of ownership. The only test and measurement company with three-year warranty standard on all instruments, worldwide.

Keysight Assurance Plans

www.keysight.com/find/AssurancePlans

Up to five years of protection and no budgetary surprises to ensure your instruments are operating to specification so you can rely on accurate measurements.

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