KEYSIGHT TECHNOLOGIES (AGILENT HP)

N9020A-508

The Keysight N9020A-508 MXA Signal Analyzer is a high-performance midrange instrument designed for rapid, accurate RF signal and spectrum analysis from 10 Hz to 8.4 GHz. Featuring a standard 25 MHz analysis bandwidth, excellent absolute amplitude accuracy, and the open Windows operating system, it offers a versatile and fast test environment for modern wireless and general-purpose RF applications.

SPECIFICATIONS

General

Display	8.4 inch (213 mm) diagonal color LCD, 1024 x 768 XGA resolution with resistive touchscreen
Warm-Up Time	45 minutes
EMC Standards	Complies with European EMC Directive 2004/108/EC, IEC/EN 61326-1
Safety Standards	Complies with European Low Voltage Directive 2006/95/EC, IEC/EN 61010-1
Environmental Standard Compliance	MIL-PRF-28800F Class 3

Physical

Power Supply	100 to 120 V AC (50/60/400 Hz), 220 to 240 V AC (50/60 Hz)
Operating Temperature	5 to 50 °C °C
Dimensions (W×H×D)	426 mm × 177 mm × 368 mm mm
Weight	16 kg kg

Frequency and Time Specifications

Frequency Range	10 Hz to 8.4 GHz (Option 508)
Frequency Span Range	0 Hz (zero span), 10 Hz to 8.4 GHz
Frequency Reference Aging Rate (Standard)	±1 x 10^-6 per year
Frequency Reference Aging Rate (Option PFR)	±1 x 10^-7 per year
Temperature Stability (Standard)	±2 x 10^-6
Temperature Stability (Option PFR)	±1.5 x 10^-8

Amplitude Specifications

Measurement Range	DANL to +30 dBm
Maximum Input Level (RF Power)	+30 dBm (1 W) average power
Displayed Average Noise Level (DANL)	-151 dBm/Hz (-154 dBm/Hz typical)
Third-Order Intercept (TOI)	+15 dBm (at 1 GHz)
Absolute Amplitude Accuracy	±0.3 dB (at 50 MHz)
Attenuator Range	0 to 70 dB in 2 dB steps
Dynamic Range (W-CDMA ACLR)	73 dB (78 dB typical with noise correction on)

Bandwidth and Sweep

Resolution Bandwidth (RBW) Range	1 Hz to 8 MHz (in 1, 2, 3, 5 sequence)
Video Bandwidth (VBW) Range	1 Hz to 8 MHz
Sweep Time Range (Swept, Span > 0 Hz)	1 ms to 6000 s
Sweep Time Range (Zero Span)	1 µs to 6000 s
Sweep Points Range	1 to 40,001
Sweep Triggers	Free Run, Line, Video, External 1, External 2, RF Burst

Analysis and Real-Time Capabilities

Standard Analysis Bandwidth	10 MHz
Maximum Analysis Bandwidth (Optional)	40 MHz / 85 MHz / 125 MHz / 160 MHz (hardware/option dependent)

Inputs, Outputs, and Connectivity

RF Input Connector Type	Type-N female, 50 Ω nominal
10 MHz Reference Input	BNC female, 50 Ω nominal
10 MHz Reference Output	BNC female, 50 Ω nominal
Trigger Input	BNC female
Trigger Output	BNC female
Display Output Port	VGA, 15-pin D-sub

Control and Software

Operating System	Open Windows XP Professional (standard in older units)
Supported SCPI Commands	Standard SCPI command set, PSA compatibility mode
Optional Demodulation Suites	W-CDMA, HSDPA/HSUPA, Mobile WiMAX, Phase Noise, Noise Figure, Analog Demodulation

Physical, Environmental, and Power

Storage Temperature Range	-40 to +70 °C
Nominal Power Consumption	260 W (typical), 450 W (maximum)
Recommended Calibration Cycle	1 year

Inputs & Outputs

RF Input Impedance	50 Ω (nominal)
Maximum DC Input Voltage (DC Coupled)	±0.2 V
Maximum DC Input Voltage (AC Coupled)	±100 V

Performance

Mechanical Attenuator Range	0 to 70 dB in 2 dB steps
Electronic Attenuator Range (Option EA3)	0 to 24 dB in 1 dB steps
Preamplifier Frequency Range (Option P08)	100 kHz to 8.4 GHz
Second Harmonic Distortion (SHI)	+45 dBm (at 1 GHz input)
Residual Responses	<-100 dBm (nominal, with 0 dB attenuation and RF input terminated)

Interfaces & Connectivity

LAN Interface	1000Base-T (Gigabit Ethernet), RJ-45
LXI Compliance	LXI Class C

Environmental

Operating Altitude	Up to 4,600 meters (15,000 feet)
Operating Humidity	Up to 95% relative humidity at 40 °C (non-condensing)

Power

AC Input Voltage	100 to 120 V AC (50/60/400 Hz), 220 to 240 V AC (50/60 Hz)
Maximum Power Consumption	450 W

Connectivity

USB Ports	5 x USB 2.0 (1 front, 4 rear)
GPIB Interface	IEEE-488 bus connector, rear panel (Option GP3)

Frequency

External 10 MHz Reference Input Amplitude	-5 to +10 dBm (nominal)
External 10 MHz Reference Output Amplitude	≥ 0 dBm (nominal)

TECHNOLOGY

Signal and Spectrum Analysis

APPLICATIONS

RF and Wireless Testing, R&D, and High-Speed Manufacturing

Generated by SpecAtlasHub (specatlashub.com). Specifications are compiled from available sources and are subject to change — verify critical values against the manufacturer before purchase.