

KEYSIGHT TECHNOLOGIES (AGILENT HP)

N9030B

The Keysight N9030B PXA Signal Analyzer is a high-performance X-Series signal analyzer designed for advanced aerospace, defense, commercial communications, and general-purpose research and development. It features a wide frequency range up to 50 GHz (extendable to higher frequencies with external mixers), wide analysis bandwidths up to 510 MHz, and an advanced multi-touch interface. The PXA delivers exceptional phase noise performance, high dynamic range, and high-precision amplitude accuracy, along with real-time spectrum analysis (RTSA) capabilities.

SPECIFICATIONS

General

Interfaces	USB 3.0, USB 2.0, LAN (10/100/1000Base-T), GPIB
Display	10.6-inch capacitive multi-touch color screen
Data Storage	Removable Solid State Drive (SSD)
Calibration Cycle	1 year
Warm-up Time	5 minutes

Physical

Power Supply	100 to 240 VAC, 50/60 Hz
Operating Temperature	0 to 55 °C
Weight	22 kg

Frequency Specifications

Frequency Range	3 Hz to 3.6, 8.4, 13.6, 26.5, 44, or 50 GHz (by option)
Phase Noise (10 kHz offset)	-136 dBc/Hz @ 1 GHz center frequency

Bandwidth Specifications

Resolution Bandwidth (RBW) Range	1 Hz to 3 MHz (10% steps), 4, 5, 6, 8 MHz
Analysis Bandwidth (Standard)	25 MHz
Analysis Bandwidth (Maximum Optional)	Up to 510 MHz (option dependent)

Amplitude Specifications

Absolute Amplitude Accuracy	±0.19 dB
Maximum Safe Input Level (Average Total Power)	+30 dBm (1 W)

Dynamic Range Specifications

Third-Order Intermodulation Distortion (TOI)	+22 dBm @ 1 GHz
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Front and Rear Panel Inputs/Outputs

RF Input Impedance	50 Ω (nominal)
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Connectivity and Interfaces

Operating System

Windows 10

Available Options and Upgrades

Frequency Range Options

503 (3.6 GHz), 508 (8.4 GHz), 513 (13.6 GHz), 526 (26.5 GHz), 544 (44 GHz), 550 (50 GHz)

Analysis Bandwidth Options

40 MHz, 85 MHz, 160 MHz, 255 MHz, 510 MHz

Real-Time Spectrum Analysis (RTSA) Option

Available (Option RT1 / RT2)

Noise Floor Extension Option

Standard on N9030B PXA

RF Input

Input Attenuator Range

0 to 70 dB in 2 dB steps

Electronic Attenuator (Option EA3)

0 to 24 dB in 1 dB steps (up to 3.6 GHz)

Sweep

Sweep Time (Zero Span)

1 μ s to 6000 s

Sweep Time (Span > 0 Hz)

1 ms to 4000 s

Inputs & Outputs

Reference Frequency Input

BNC female, 50 Ω

Reference Frequency Output

BNC female, 50 Ω (10 MHz)

External Trigger Inputs

2 x BNC female

Wideband IF Output

321.4 MHz center frequency (Option CR3)

Bandwidth

Video Bandwidth (VBW) Range

1 Hz to 3 MHz (10% steps), 4, 5, 6, 8 MHz, and wide open

Trigger

Trigger Sources

Free run, Line, Video, External 1, External 2, RF burst, Periodic timer

Amplitude

Attenuator Step Size

2 dB

Options

Preamplifier Options

Available up to instrument maximum frequency (Options P03, P08, P13, P26, P43, P44, P50)

TECHNOLOGY

Superheterodyne Signal Analyzer

APPLICATIONS

Aerospace and defense, advanced communications, high-frequency radar, and general RF/microwave design and troubleshooting.

