

KEYSIGHT TECHNOLOGIES (AGILENT HP)

N5242B

The Keysight N5242B is a PNA-X microwave network analyzer providing industry-leading performance and extreme flexibility for characterizing active and passive microwave devices. Operating up to 26.5 GHz, it is available in 2- or 4-port configurations and features a large, capacitive multi-touch interface. The PNA-X family replaces multiple racks of equipment by integrating multiple measurement applications (such as spectrum analysis, noise figure, and intermodulation distortion) into a single instrument.

SPECIFICATIONS

General

Interfaces	LAN (10/100/1000Base-T), USB (front and rear), GPIB (IEEE-488)
Display	12.1-inch WXGA color capacitive multi-touch LCD
Mass Storage	Removable Solid State Drive (SSD)

System Characteristics

Frequency Range	10 MHz to 26.5 GHz (starts at 900 Hz with option)
Number of Test Ports	2 or 4 ports (configuration dependent)
Frequency Resolution	1 Hz
System Impedance	50 Ω

Interfaces and Connectivity

Test Port Connector Type	3.5 mm (male)
10 MHz Reference Input	BNC (female)
10 MHz Reference Output	BNC (female)
External Trigger I/O	BNC (female)
LAN Interface	10/100/1000 Mbps Ethernet (RJ-45)

Sweep and Measurement Speed

Sweep Types	Linear frequency, CW time, log frequency, power sweep, segment sweep
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Test Port Output (Source)

Internal Sources	Up to 2 independent internal sources (for 4-port models)
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Measurement and Display Capabilities

Data Formats	Log magnitude, linear magnitude, phase, group delay, SWR, Smith chart, polar, real, imaginary
Display Resolution	1280 x 800 pixels (WXGA)
Operating System	Windows 10

Performance

Receiver IF Bandwidth	1 Hz to 15 MHz
Maximum Points per Trace	100,001

Measurement Capabilities

Supported Calibrations	SOLT, TRL, LRM, Unknown Thru, ECal
Spectrum Analysis	Supported (Option 090 dependent)
Noise Figure Measurement	Supported (Option 029 dependent)
Intermodulation Distortion (IMD)	Supported (Option 087 dependent)
True-Mode Stimulus (Differential)	Supported (Option 460 dependent)
Non-Linear VNA (NVNA)	Supported (Option 510 dependent)

Interfaces

GPIB Interface	IEEE 488.2 compatible
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TECHNOLOGY

Vector Network Analyzer (VNA)

APPLICATIONS

Microwave component characterization, active device testing, S-parameter measurements, spectrum analysis, noise figure, intermodulation distortion

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