

KEYSIGHT TECHNOLOGIES (AGILENT HP)

N5245A

The Keysight (formerly Agilent HP) N5245A is a high-performance 50 GHz Microwave PNA-X Series Vector Network Analyzer (VNA). Highly configurable with 2 or 4 ports, the N5245A enables multiple comprehensive measurements—including S-parameters, compression, IMD, and noise figure—using a single connection. It features an integrated internal second source, built-in combiner, internal signal-routing switches, and internal pulse modulators, making it an exceptionally capable instrument for testing active components like amplifiers, mixers, and frequency converters.

SPECIFICATIONS

General

Interfaces	LAN, GPIB, USB
Display	10.4 inch color touch screen
Nominal Impedance	50 Ω
Operating System	Windows

System Characteristics

Frequency Range	10 MHz to 50 GHz
Number of Test Ports	2 or 4 (configuration dependent)
Number of Built-in Sources	Up to 2 sources (configuration dependent)
Test Port Connector Type	2.4 mm (male)

Sweep and Measurement Speed

Number of Channels	32
--------------------	----

Advanced Measurement Capabilities and Options

Internal Second Source Option	Available (for fast IMD measurements)
Internal Combiner Option	Built-in combiner available
Pulse Modulator Option	Internal pulse modulators and generators available
Signal Routing	Internal signal-routing switches for external instrument connection
Non-linear Component Characterization	Supported (Optional NVNA application)

Frequency

Source Frequency Resolution	1 Hz
-----------------------------	------

Power

Source Power Resolution	0.01 dB
-------------------------	---------

Inputs & Outputs

Time Base Reference Output	10 MHz
----------------------------	--------

Display & Analysis

Data Formats	Log magnitude, linear magnitude, phase, unwrapped phase, group delay, Smith chart, polar, SWR, real, imaginary
--------------	--

Software & Calibration

Calibration Types	SOLT, TRL, LRM, TRM, Unknown Thru, ECal
-------------------	---

Measurements

Supported Sweep Types	Linear frequency, CW time, power, segment, log frequency
-----------------------	--

Interfaces

LAN Interface	10/100/1000 BaseT Ethernet (RJ-45)
USB Ports	USB 2.0 Host (front and rear), USB 2.0 Device (rear)
External Reference Input	10 MHz (typical)
External Reference Output	10 MHz
Trigger Connectors	BNC female (rear panel)

Software & Control

Programming Interface	SCPI, COM/DCOM, LXI Class C
-----------------------	-----------------------------

Measurement Options

Noise Figure Measurements	Option 029
Frequency Offset Measurements	Option 080
Vector and Scalar Converter Measurements	Option 083
Intermodulation Distortion (IMD) Measurements	Option 087
True-Mode Stimulus	Option 460 (requires 4-port configuration)

TECHNOLOGY

Vector Network Analyzer (VNA)

APPLICATIONS

Active device characterization, amplifier testing, mixer/converter measurements, pulse measurements, Intermodulation Distortion (IMD), Noise Figure (NF), and non-linear component testing.

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