KEYSIGHT TECHNOLOGIES (AGILENT HP)

N5222A

The Keysight (formerly Agilent) N5222A is a high-performance microwave vector network analyzer (VNA) belonging to the industry-leading PNA Series. It operates from 10 MHz to 26.5 GHz and is configurable with 2-port or 4-port options. Built for both passive and active device testing, it features up to 127 dB system dynamic range, high output power, and a remarkably low noise floor, making it an ideal instrument for demanding RF and microwave applications, including signal integrity and materials measurement.

SPECIFICATIONS

General

Interfaces	USB, LAN (Ethernet), GPIB (IEEE-488)
Display	10.4-inch color LCD touch screen
Warm-up Time	90 minutes (for guaranteed specifications)

Physical

Dimensions (W×H×D)	426 x 266 x 533 mm
Weight	24 (2-port) / 27 (4-port) kg

General System Characteristics

Test Port Count	2 or 4 ports (configuration dependent)
Number of Internal Sources	1 (2-port models) or 2 (4-port models)

Frequency Characteristics

Frequency Range	10 MHz to 26.5 GHz
Maximum IF Bandwidth	15 MHz

Sweep and Measurement Speed

Maximum Number of Points per Trace	100,001
Maximum Number of Channels	32,000

Physical & Ports

Test Port Connectors	3.5 mm (male)

System Performance

System Impedance	50 Ω

Analysis

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

Rear Panel Connections

10 MHz Reference Input/Output	BNC (female)
External Trigger Input/Output	BNC (female)

Frequency

Frequency Resolution	1 Hz

Performance

IF Bandwidth Range	1 Hz to 15 MHz

Measurement & Functionality

Sweep Types	Linear frequency, CW frequency, Segmented frequency, Power sweep
Supported Calibrations	SOLT, TRL, LRM, Unknown Thru, ECal

Options & Configurations

Hardware Configurations (2-Port)	Base (Option 200), Configurable test set (Option 201), Configurable test set with extended power and bias tees (Option 219)
Hardware Configurations (4-Port)	Base (Option 400), Configurable test set (Option 401), Configurable test set with extended power and bias tees (Option 419)

Inputs & Outputs

Bias Tee Maximum Voltage	±40 VDC (Option 219 / 419)
Bias Tee Maximum Current	±500 mA (Option 219 / 419)

TECHNOLOGY

Vector Network Analysis

APPLICATIONS

Passive and active device testing, filter/duplexer characterization, amplifier and frequency converter measurements, signal integrity, materials measurements