KEYSIGHT TECHNOLOGIES (AGILENT HP)

N5224A

The Keysight (formerly Agilent) N5224A is a high-performance microwave vector network analyzer from the industry-leading PNA Series. Delivering a frequency range of 10 MHz to 43.5 GHz, it is optimized for passive and active device testing. Available in 2-port or 4-port configurations with up to two built-in sources, the N5224A provides exceptional measurement accuracy, featuring a system dynamic range of 127 dB, a 38 dB power sweep range, and advanced linear receivers.

SPECIFICATIONS

General

Interfaces	LAN, USB, GPIB (IEEE-488)
Display	10.4-inch color LCD touchscreen
Warm-up Time	90 minutes (for full specifications)

Physical

Dimensions (W×H×D)	426 × 266 × 533 mm

General System Specifications

Frequency Range	10 MHz - 43.5 GHz
Frequency Resolution	1 Hz
System Impedance	50 Ω
Number of Ports	2 or 4 (configuration dependent)
Test Port Connector Type	2.4 mm (male)
Number of Points per Trace	Up to 100,001

Measurement Capabilities & Options

Standard Measurements	Full S-parameters (S11, S21, S12, S22, etc.)
Electronic Calibration (ECal) Support	Yes
Time Domain Analysis Option	Option 010

Front Panel Interfaces

Display Type	Color LCD Touchscreen
Display Size	10.4 inch

Software & Processing

Internal Operating System	Windows
Supported Data Formats	Touchstone (.sNp)
Programming Interfaces	SCPI, COM, DCOM

Test Ports

Test Port Damage Level (DC)	40 VDC

Inputs & Outputs

External Reference Input Frequency	10 MHz
Rear Panel Trigger Inputs/Outputs	BNC (female)

Sweep & Measurements

Sweep Types	Linear frequency, Log frequency, CW time, Power sweep, Segment sweep

Source

Source Power Resolution	0.01 dB

Power

Maximum Power Consumption	450 W

Software & Measurement Options

Frequency Offset Option	Option 080
Scalar Mixer/Converter (SMC) Option	Option 082
Vector Mixer/Converter (VMC) Option	Option 083
Gain Compression Application Option	Option 086
Intermodulation Distortion (IMD) Option	Option 087
Source Phase Control Option	Option 088
Spectrum Analysis Option	Option 090
True-Mode Stimulus Option	Option 460 (requires 4-port configuration)

Hardware Configurations

Standard 2-Port Configuration	Option 200 (base) / Option 201 (configurable test set)
Advanced 2-Port Configuration	Option 219 (configurable test set, extended power range, bias tees)
Standard 4-Port Configuration	Option 400 (base) / Option 401 (configurable test set)
Advanced 4-Port Configuration	Option 419 (configurable test set, extended power range, bias tees)

Compliance

EMC Compliance	IEC/EN 61326-1, CISPR 11
Safety Compliance	IEC/EN 61010-1

TECHNOLOGY

Vector Network Analysis

APPLICATIONS

Passive and active device testing, filter and amplifier characterization, frequency converters, millimeter-wave analysis, signal integrity, and materials measurements.