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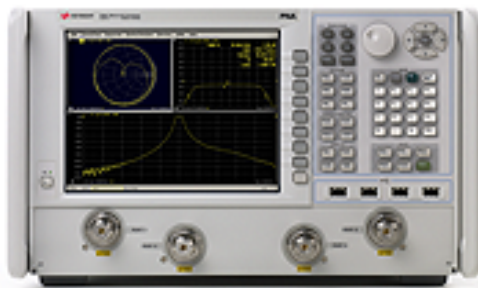
Data Sheet

August 14, 2026

AGILENT / KEYSIGHT

Agilent / Keysight N5221A 13.5 GHz PNA Microwave Network Analyzer

Agilent Keysight N5221A PNA Network Analyzer 13.5 GHz The Keysight N5221A isaPNA Series microwave vector network analyzer covering 10 MHz to 13.5 GHz. OEM PNA family configuration guides and technical specifications list 1 Hz frequency resolution and plus or minus 1 ppm frequency accuracy with 2-port and/or 4-port option architectures. S-parameter characterization of RF/microwave components across 10 MHz to 13.5 GHz, calibration with compatible kits, and R&D/production VNA measurements. High Stability Timebase Stability Class: plus or minus 0.05 ppm -10 C to 70 C class The Keysight N5221A isaPNA Series microwave vector network analyzer covering 10 MHz to 13.5 GHz. OEM PNA family configuration guides and technical specifications list 1 Hz frequency resolution and plus or minus 1 ppm frequency accuracy with 2-port and/or 4-port option architectures. S-parameter characterization of RF/microwave components across 10 MHz to 13.5 GHz, calibration with compatible kits, and R&D/production VNA measurements. High Stability Timebase Stability Class: plus or minus 0.05 ppm -10 C to 70 C class



MODEL

**Agilent / Keysight
N5221A**

CALIBRATION

**Available on
request**

CONDITION

Used

STATUS

In stock

RFQ / SKU

N5221A

LISTING

<https://aumictechlabs.com/products/n5221a-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 · 811210 · 541380

This unit

The Keysight N5221A is a 13.5 GHz PNA microwave network analyzer delivering precision S-parameter measurements across 10 MHz to 13.5 GHz. Available in 2-port and 4-port configurations, it combines 127 dB system dynamic range with trace noise as low as 0.002 dB rms at 1 kHz bandwidth, enabling accurate characterization of active and passive microwave devices. The instrument achieves measurement speeds from 4.5 to 26 μ sec/point, with full-span sweeps completing in 6.3 ms at 201 points. Maximum output power reaches +13 dBm at the test port, supported by a noise floor of -114 dBm at 10 Hz IF bandwidth and receiver compression at +12 dBm input power. The analyzer maintains temperature stability of 0.05 dB/°C and supports 200 channels with up to 100,001 points per channel and unlimited traces. A 10.4" LCD touch screen provides intuitive control, while 3.5 mm connectors, USB, LAN, and GPIB interfaces enable flexible integration into test systems.

Technical Specifications

Frequency Range:	10 MHz to 13.5 GHz
System Dynamic Range:	127 dB
Receiver Dynamic Range:	131 dB
Trace Noise (Magnitude):	0.002 dB rms at 1 kHz bandwidth
Noise Floor:	-114 dBm at 10 Hz IF bandwidth
Temperature Stability:	0.05 dB/°C
Maximum Output Power:	+13 dBm at test port
Power Sweep Range:	38 dB
Receiver Compression (0.1 dB point):	+12 dBm input power at test port
Source Harmonics:	< 60 dBc
Measurement Speed:	4.5 to 26 μ sec/point; 6.3 ms for 201-point full-span sweep
IF Bandwidth:	10 Hz to 15 MHz
Channels:	200 (32 measurement channels)
Points per Channel:	Up to 100,001 (16,001 typical)
RF Connectors:	3.5 mm Male
Operating Temperature:	0 °C to 40 °C
Storage Temperature:	-40 °C to 70 °C
Display:	10.4" LCD touch screen
Dimensions:	24 × 20 × 16 in
Weight:	50 lbs

Key Features

- Dual source architecture supports both 2-port and 4-port operation
- Unlimited trace capability with 200 channel capacity
- Advanced calibration support including ECal module compatibility
- Low trace noise enables high-sensitivity measurements
- Wide power sweep range for dynamic characterization

Typical Applications

- S-parameter measurement of microwave components
- Active and passive device characterization
- Signal integrity analysis
- Materials measurement
- R&D and manufacturing test

Compatibility & Integration

USB, LAN, and GPIB interfaces support direct integration into automated test systems and remote operation. Standard 3.5 mm connectors ensure compatibility with industry-standard test fixtures and calibration standards.

N5221A Characteristics / Specifications

PARAMETER	VALUE
Model	N5221A
Frequency Range	10 MHz to 13.5 GHz
Frequency Resolution	1 Hz
Frequency Accuracy	plus or minus 1 ppm
High Stability Timebase Stability Class	plus or minus 0.05 ppm -10 C to 70 C class
High Stability Aging Class	plus or minus 0.1 ppm/yr maximum class
Instrument Family	PNA Series
Port Options	2-port or 4-port via Option 2xx/4xx
Display	10.4 inch LCD touch screen class PNA family
Internal Storage	solid-state drive class PNA family
Remote Interfaces	USB LAN GPIB class PNA family
Test Port Impedance	50 ohm
Source Architecture	synthesized source stimulus class PNA familySPParameter Test Set: built-in integrated
IF Bandwidth Settings	per PNA firmware / OEM sheet
System Dynamic Range	banded tables in OEM technical specifications option dependent
Receiver Dynamic Range	banded tables in OEM technical specifications option dependent
Test Port Power	banded leveled power tables in OEM tech specs
Operating Temperature Spec Class	25 C plus or minus 5 C for warranted specs unless stated
Warm Up Time Class	90 minutes after turn-on for warranted specs class PNA-L sheets
Form Factor	benchtop PNA
Uncertainty Tool	Keysight NA uncertainty calculator supported
Test Port Connector Class	ruggedized 3.5 mm male
Series Family	Keysight PNA family N522x/N523x/N524x
Bandwidth	Settings: per PNA firmware / OEM sheet

PARAMETER	VALUE
Operating temperature	Spec Class: 25 C plus or minus 5 C for warranted specs unless stated

N5221A Specifications

PARAMETER	VALUE
Agilent Keysight N5221A PNA Network Analyzer 13.5 GHz	Overview
PNA Series integrated VNA architecture	10 MHz to 13.5 GHz frequency coverage
Plus or minus 1 ppm frequency accuracy	2-port or 4-port via Option 2xx/4xx
Technical Specifications	Model: N5221A

General Specifications & Supplementary Characteristics

PARAMETER	VALUE
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Warm Up Time Class	90 minutes after turn-on for warranted specs class PNA-L sheets
Form Factor	benchtop PNA
Uncertainty Tool	Keysight NA uncertainty calculator supported
Test Port Connector Class	ruggedized 3.5 mm male
Series Family	Keysight PNA family N522x/N523x/N524x Notes From Keysight PNA Family Microwave Network Analyzers configuration guide and model technical specifications for N5221A. Dynamic-range and power numbers are banded–use OEM tables for the installed option.

Full OEM specifications

Complete technical content extracted from the manufacturer datasheet. Sparse OEM tables are reconstructed as tables below; other text is preserved as paragraphs.

specifications list 1 Hz frequency resolution and plus or minus 1 ppm frequency accuracy with 2-port and/or 4-port option architectures.

Applications

S-parameter characterization of RF/microwave components across 10 MHz to 13.5 GHz, calibration with compatible kits, and R&D/production VNA measurements.

Key Features

PNA Series integrated VNA architecture

10 MHz to 13.5 GHz frequency coverage

1 Hz frequency resolution

Plus or minus 1 ppm frequency accuracy

2-port or 4-port via Option 2xx/4xx

Technical Specifications

Technical Specifications

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Notes

From Keysight PNA Family Microwave Network Analyzers configuration guide and model technical specifications for N5221A. Dynamic-range and power numbers are banded-use OEM tables for the installed option.

Available from Aumictech

Used and refurbished unit evaluated in-house. Calibration: Available on request. Used · In stock.

Request a quote: sales@aumictech.com · +1 (484) 841-9341

Aumictech

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NIST-traceable calibration · SAM registered ·
30-day returns
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Technical content from manufacturer specifications. Unit photo/stock from Aumictech listing when available. Specifications subject to OEM documentation and unit condition.