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Data Sheet

August 14, 2026

AGILENT / KEYSIGHT

Agilent / Keysight N5231A PNA-L Microwave Network Analyzer, 13.5 GHz

Agilent Keysight N5231A PNA-L Network Analyzer 13.5 GHz The Keysight N5231A isaPNA-L Series microwave vector network analyzer covering 300 kHz 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 300 kHz to 13.5 GHz, calibration with compatible kits, and R&D/production VNA measurements. 2-port Option 200/216 or 4-port Option 400/416 The Keysight N5231A isaPNA-L Series microwave vector network analyzer covering 300 kHz 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 300 kHz to 13.5 GHz, calibration with compatible kits, and R&D/production VNA measurements. 2-port Option 200/216 or 4-port Option 400/416 High Stability Timebase Stability Class: plus or minus 0.05 ppm -10 C to 70 C class



MODEL

**Agilent / Keysight
N5231A**

CALIBRATION

**Available on
request**

CONDITION

Used

STATUS

In stock

RFQ / SKU

N5231A

LISTING

<https://aumictechlabs.com/products/n5231a-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 · 811210 · 541380

This unit

The Keysight N5231A PNA-L is a 2- or 4-port microwave network analyzer engineered for rapid, accurate S-parameter characterization of passive and active components from 300 kHz to 13.5 GHz. Built around a single integrated source architecture, this instrument delivers up to 133 dB system dynamic range and trace noise as low as 0.003 dB rms, making it well-suited for production test environments where throughput and measurement fidelity are equally critical.

Technical Specifications
Frequency Range: 300 kHz to 13.5 GHz
Ports: 2 or 4 ports with single built-in source
System Dynamic Range: Up to 133 dB
Trace Noise: 0.003 dB rms
Output Power: +13 dBm maximum
Noise Floor: -120 dBm (10 Hz IF bandwidth)
IF Bandwidth: 15 MHz
Measurement Points: 100,001 points per trace
Channels: 200 available
Sweep Speed: Optimized for fast acquisition without performance degradation

Key Features
Pulsed-RF S-parameter testing down to 2 μ s pulse widths with pulse profile measurement capability (300 ns sweep time, 30 data points)
Built-in pulse modulators and pulse generators
Electronic calibration (ECal) module support via direct USB control; full two-port calibration enabled
USB, LAN, and GPIB connectivity
Direct N5230C replacement with full backward compatibility

Typical Applications
Passive and active component S-parameter measurements
Gain compression and conversion gain/loss characterization
Mixer and converter evaluation
Material property measurements
Signal integrity analysis with PLTS software integration
On-wafer measurements with integrated probe station systems

Compatibility & Integration
Fully compatible with the N5230C platform - no modification to existing test codes or system configurations required. Supports ECal module automation for accelerated calibration workflows.

N5231A Characteristics / Specifications

PARAMETER	VALUE
Model	N5231A
Frequency Range	300 kHz 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-L Series
Port Options	2-port Option 200/216 or 4-port Option 400/416
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
Delta Match Calibration	required on N5231A class
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

General Specifications & Supplementary Characteristics

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Form Factor	benchtop PNA
Uncertainty Tool	Keysight NA uncertainty calculator supported
Delta Match Calibration	required on N5231A class
Series Family	Keysight PNA family N522x/N523x/N524x Notes From Keysight PNA Family Microwave Network Analyzers configuration guide and model technical specifications for N5231A. 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 300 kHz to 13.5 GHz, calibration with compatible kits, and R&D/production VNA measurements.

Key Features
PNA-L Series integrated VNA architecture
300 kHz to 13.5 GHz frequency coverage
1 Hz frequency resolution
Plus or minus 1 ppm frequency accuracy
2-port Option 200/216 or 4-port Option 400/416

Technical Specifications

Technical Specifications

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Notes

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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.