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Data Sheet

August 14, 2026

AGILENT / KEYSIGHT

Agilent / Keysight N5241A 13.5 GHz PNA-X Microwave Network Analyzer

Agilent Keysight N5241A PNA-X Network Analyzer 13.5 GHz The Keysight N5241A isaPNA-X 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 N5241A isaPNA-X 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
N5241A**

CALIBRATION

**Available on
request**

CONDITION

Used

STATUS

In stock

RFQ / SKU

N5241A

LISTING

<https://aumictechlabs.com/products/n5241a-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 · 811210 · 541380

This unit

The Keysight N5241A is a 13.5 GHz PNA-X Microwave Network Analyzer engineered for R&D and manufacturing characterization of active devices, amplifiers, mixers, and frequency converters. Operating from 10 MHz to 13.5 GHz across 2 to 4 ports, it delivers 127 dBm maximum dynamic range and supports S-parameters, noise figure, gain compression, intermodulation, harmonic distortion, and pulsed RF measurements. The instrument features narrowband detection for low-duty-cycle applications, pulse widths as low as 100 ns at 15 MHz IFBW, and 10 ns resolution for measurement delay adjustment. Advanced capabilities include X-parameter characterization, antenna testing, and receiver leveling for pulsed-RF power accuracy.

Technical Specifications
Frequency Range: 10 MHz to 13.5 GHz Ports: 2 to 4 ports (configurable) Test Port Connectors: 3.5 mm male (SMA and 2.92 mm compatible; 3.5 mm cables recommended) Maximum Dynamic Range: 127 dBm Maximum Leveled Output Power: 13 dBm Minimum Pulse Width: 100 ns (at 15 MHz IFBW) Measurement Delay Resolution: 10 ns Weight: 50 lbs

Key Features
Narrowband detection technique for improved dynamic range in low-duty-cycle pulsed measurements
Receiver leveling for enhanced pulsed-RF power accuracy
S-parameters (CW and pulsed), noise figure, gain compression, and intermodulation/harmonic distortion analysis
Nonlinear waveform and X-parameter characterization
Pulsed profile analysis with configurable pulse parameters

Typical Applications
Active device characterization (amplifiers, mixers, frequency converters)
Power amplifier load-pull and source-pull analysis
Noise and linearity measurements
Pulsed RF device testing
Antenna characterization

Configuration Options
2-Port: Standard (Option 200), extended power range with attenuators/bias-tees (Option 219), or internal second source with combiner/switches (Option 224)
4-Port: Standard (Option 400), extended power range with attenuators/bias-tees (Option 419), or internal combiner/switches (Option 423)
Noise Figure: High-accuracy hardware and firmware upgrade (Option 029)

N5241A Characteristics / Specifications

PARAMETER	VALUE
Model	N5241A
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-X 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

General Specifications & Supplementary Characteristics

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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 N5241A. 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-X 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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PARAMETER	VALUE
Form Factor	benchtop PNA
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Notes

From Keysight PNA Family Microwave Network Analyzers configuration guide and model technical specifications for N5241A. 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 ·
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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.