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Data Sheet

August 14, 2026

AGILENT / KEYSIGHT

Agilent / Keysight N5222B 26.5 GHz PNA Microwave Network Analyzer

Agilent Keysight N5222B PNA Series Network Analyzer The Keysight N5222B isaPNA Series microwave vector network analyzer covering 10 MHz to 26.5 GHz standard, or 900 Hz to 26.5 GHz with low-frequency extension options. OEM N5221B/N5222B technical specifications list 1 Hz frequency resolution, ± 0.7 ppm frequency accuracy, and 128 dB specified system dynamic range from 24 to 26.5 GHz (Options 200/400, ports 1 and 3). Broadband S-parameter characterization of RF/microwave components to 26.5 GHz, mixer and converter work with frequency-offset options, and production VNA test. The Keysight N5222B isaPNA Series microwave vector network analyzer covering 10 MHz to 26.5 GHz standard, or 900 Hz to 26.5 GHz with low-frequency extension options. OEM N5221B/N5222B technical specifications list 1 Hz frequency resolution, ± 0.7 ppm frequency accuracy, and 128 dB specified system dynamic range from 24 to 26.5 GHz (Options 200/400, ports 1 and 3). Broadband S-parameter characterization of RF/microwave components to 26.5 GHz, mixer and converter work with frequency-offset options, and production VNA test.



MODEL

**Agilent / Keysight
N5222B**

CALIBRATION

**Available on
request**

CONDITION

Used

STATUS

In stock

RFQ / SKU

N5222B

LISTING

<https://aumictechlabs.com/products/n5222b-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 · 811210 · 541380

This unit

The Keysight N5222B is a 26.5 GHz PNA Microwave Network Analyzer engineered for high-accuracy characterization of microwave components, subsystems, and systems. Operating from 10 MHz to 26.5 GHz, it delivers performance for active device testing including amplifiers, mixers, and frequency converters. Available in 2-port single-source or 4-port dual-source configurations, the N5222B combines fast measurement speed with exceptional dynamic range and trace noise stability.

Technical Specifications
Frequency Range: 10 MHz to 26.5 GHz
Port Configurations: 2-port single-source or 4-port dual-source
Source Output Power: +13 dBm at 1 GHz to +11 dBm at 67 GHz
Dynamic Range: 134 dB at 20 GHz (test port)
Trace Noise: 0.002 dB rms at 1 kHz bandwidth
Receiver Noise Floor: -114 dBm
Measurement Speed: 3.6 to 23 μ sec/point
Frequency Stability: < 0.03 dB/°C

Key Features
Precision S-parameter measurement with high accuracy and stability
Built-in pulse modulators and pulse generators for pulsed S-parameter measurements
Source and receiver attenuators with bias-tees
Internal second source and combiner on 4-port models
Mechanical switches and DDS synthesizers for improved performance
3.5 mm ruggedized test ports
Multi-touch display with intuitive operator interface
200 measurement channels with unlimited traces and up to 15 markers per trace
Time-domain analysis and equation editor
Context-sensitive built-in help

Measurement Capabilities
The analyzer measures S-parameters with high precision while supporting noise figure characterization using standard receivers. Pulsed S-parameter functionality enables rapid, accurate testing of modulated active devices.

Software Integration
Network analyzer software provides advanced investigation and troubleshooting tools. The instrument integrates with Advanced Design System (ADS) for circuit and system simulation workflows.

N5222B Characteristics / Specifications

PARAMETER	VALUE
Model	N5222B
Instrument Type	Microwave vector network analyzer
Instrument Family	PNA Series
Frequency Range Standard	10 MHz to 26.5 GHz
Frequency Range LFE Options	900 Hz to 26.5 GHz (typical 500 Hz to 900 Hz)
Frequency Resolution	1 Hz
Frequency Accuracy	±0.7 ppm
Initial Frequency Accuracy	±0.2 ppm specification, ±0.1 ppm typical
Test Port Impedance	50 ohm
Test Port Connector	ruggedized 3.5 mm male
Port Options	2-port Option 200 class or 4-port Option 400 class
Power Resolution	0.01 dB
Preset Power Standard Options	0 dBm (Options 200, 201, 205, 400, 401, 405)
Preset Power Extended Range Options	minus 5 dBm (Options 217, 219, 220, 417, 419, 420)
Maximum Settable Power Typical	+30 dBm
Minimum Settable Power Typical	minus 30 dBm
System Dynamic Range 10 MHz to 50 MHz Spec	102 dB at test port, Options 200 or 400, ports 1 and 3
System Dynamic Range 500 MHz to 2 GHz Spec	135 dB at test port, Options 200 or 400
System Dynamic Range 10 GHz to 13.5 GHz Spec	136 dB at test port, Options 200 or 400, ports 1 and 3
System Dynamic Range 13.5 GHz to 16 GHz Spec	135 dB at test port, Options 200 or 400, ports 1 and 3
System Dynamic Range 16 GHz to 20 GHz Spec	134 dB at test port, Options 200 or 400, ports 1 and 3
System Dynamic Range 20 GHz to 24 GHz Spec	130 dB at test port, Options 200 or 400, ports 1 and 3

PARAMETER	VALUE
System Dynamic Range 24 GHz to 26.5 GHz Spec	128 dB at test port, Options 200 or 400, ports 1 and 3
Receiver Dynamic Range Typical 20 GHz to 24 GHz	128 dB typical, all options
Receiver Dynamic Range Typical 24 GHz to 26.5 GHz	126 dB typical, all options
If Bandwidth For Dynamic Range Tables	10 Hz
System If Bandwidth Range	1 Hz to 15 MHz, nominal
Corrected Directivity 10 MHz to 2 GHz	48 dB with 85052B calibration kit
Display	12.1 inch LCD touch screen
Remote Interfaces	USB LAN GPIB
Operating Temperature Spec	25 C $\pm$ 5 C for warranted specs unless stated
Warm Up Time	90 minutes after turn-on for warranted specs
Form Factor	benchtop PNA
Bandwidth	For Dynamic Range Tables: 10 Hz
Operating temperature	Spec: 25 C $\pm$ 5 C for warranted specs unless stated

General Specifications & Supplementary Characteristics

PARAMETER	VALUE
Operating temperature	Spec: 25 C ±5 C for warranted specs unless stated
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Warm Up Time	90 minutes after turn-on for warranted specs
Form Factor	benchtop PNA Notes Numeric rows from Keysight N5221B and N5222B PNA Network Analyzer Technical Specifications Sheet (synthesizer revision 7). Warranted specs apply at 25 C ±5 C after 90 minutes warm-up unless stated. Dynamic-range tables are at 10 Hz IF bandwidth with isolation averaging factor of 8.

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, ± 0.7 ppm frequency accuracy, and 128 dB specified system dynamic range from 24 to 26.5 GHz (Options 200/400, ports 1 and 3).

Applications

Broadband S-parameter characterization of RF/microwave components to 26.5 GHz, mixer and converter work with frequency-offset options, and production VNA test.

Key Features

Integrated synthesized VNA with built-in S-parameter test set

12.1 inch LCD touch screen and solid-state drive

USB LAN GPIB remote IO

Two-port or four-port option architectures

Low frequency extension hardware options to 900 Hz

Ruggedized 3.5 mm male test ports

Coverage through 26.5 GHz on the same PNABplatform as N5221B

Technical Specifications

Technical Specifications

PARAMETER	VALUE
Model	N5222B
Instrument Type	Microwave vector network analyzer
Instrument Family	PNA Series
Frequency Range Standard	10 MHz to 26.5 GHz
Frequency Range LFE Options	900 Hz to 26.5 GHz (typical 500 Hz to 900 Hz)
Frequency Resolution	1 Hz
Frequency Accuracy	± 0.7 ppm
Initial Frequency Accuracy	± 0.2 ppm specification, ± 0.1 ppm typical
Test Port Impedance	50 ohm
Test Port Connector	ruggedized 3.5 mm male
Port Options	2-port Option 200 class or 4-port Option 400 class
Power Resolution	0.01 dB
Preset Power Standard Options	0 dBm (Options 200, 201, 205, 400, 401, 405)
Preset Power Extended Range Options	minus 5 dBm (Options 217, 219, 220, 417, 419, 420)
Maximum Settable Power Typical	+30 dBm
Minimum Settable Power Typical	minus 30 dBm

System Dynamic Range 10 MHz to 50 MHz Spec: 102 dB at test port, Options 200 or 400, ports 1 and 3

System Dynamic Range 500 MHz to 2 GHz Spec: 135 dB at test port, Options 200 or 400

System Dynamic Range 10 GHz to 13.5 GHz Spec: 136 dB at test port, Options 200 or 400, ports 1 and 3

System Dynamic Range 13.5 GHz to 16 GHz Spec: 135 dB at test port, Options 200 or 400, ports 1 and 3

System Dynamic Range 16 GHz to 20 GHz Spec: 134 dB at test port, Options 200 or 400, ports 1 and 3
System Dynamic Range 20 GHz to 24 GHz Spec: 130 dB at test port, Options 200 or 400, ports 1 and 3
System Dynamic Range 24 GHz to 26.5 GHz Spec: 128 dB at test port, Options 200 or 400, ports 1 and 3
Receiver Dynamic Range Typical 20 GHz to 24 GHz: 128 dB typical, all options
Receiver Dynamic Range Typical 24 GHz to 26.5 GHz: 126 dB typical, all options

Specifications

PARAMETER	VALUE
If Bandwidth For Dynamic Range Tables	10 Hz
System If Bandwidth Range	1 Hz to 15 MHz, nominal
Corrected Directivity 10 MHz to 2 GHz	48 dB with 85052B calibration kit
Display	12.1 inch LCD touch screen
Remote Interfaces	USB LAN GPIB
Operating Temperature Spec	25 C ±5 C for warranted specs unless stated
Warm Up Time	90 minutes after turn-on for warranted specs
Form Factor	benchtop PNA

Notes
Numeric rows from Keysight N5221B and N5222B PNA Network Analyzer Technical Specifications Sheet (synthesizer revision 7). Warranted specs apply at 25 C ±5 C after 90 minutes warm-up unless stated. Dynamic-range tables are at 10 Hz IF bandwidth with isolation averaging factor of 8.

Ordering Information

OPTION	DESCRIPTION
Option 200	class or 4-port Option 400 class

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.