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Data Sheet

August 14, 2026

AGILENT / KEYSIGHT

Agilent / Keysight N5227B 67GHz PNA Microwave Network Analyzer

Agilent Keysight N5227B PNA Series Network Analyzer The Keysight N5227B isaPNA Series microwave vector network analyzer covering 10 MHz to 67 GHz (typical 67 to 70 GHz). OEM N5227B technical specifications for Option 210/410 list 1 Hz frequency resolution, ± 0.7 ppm frequency accuracy, 1.85 mm male test ports, and 27 dBm / 40 VDC damage input level. Millimeter-wave S-parameter characterization to 67 GHz, calibration with 85058B or N4694A ECal, and broadband device measurements on the PNABplatform. The Keysight N5227B isaPNA Series microwave vector network analyzer covering 10 MHz to 67 GHz (typical 67 to 70 GHz). OEM N5227B technical specifications for Option 210/410 list 1 Hz frequency resolution, ± 0.7 ppm frequency accuracy, 1.85 mm male test ports, and 27 dBm / 40 VDC damage input level. Millimeter-wave S-parameter characterization to 67 GHz, calibration with 85058B or N4694A ECal, and broadband device measurements on the PNABplatform. Metrology Option 210 2-port single source and Option 410 4-port dual source



MODEL

**Agilent / Keysight
N5227B**

CALIBRATION

**Available on
request**

CONDITION

Used

STATUS

In stock

RFQ / SKU

N5227B

LISTING

<https://aumictechlabs.com/products/n5227b-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 · 811210 · 541380

This unit

The Keysight N5227B is a 67 GHz PNA microwave network analyzer engineered for precision S-parameter measurements from 900 Hz to 67 GHz, with optional extension to 110 GHz via external

frequency extenders. Available in 2-port and 4-port configurations, it delivers dynamic range to 128 dB at 67 GHz and 134 dB at 20 GHz, enabling characterization of microwave and millimeter-wave components in research, development, and manufacturing environments.

Technical Specifications

Frequency range: 900 Hz to 67 GHz standard; extendable to 110 GHz with external frequency extenders; optional 10 MHz lower frequency range

Ports: 2-port (single source) or 4-port (dual source) configurations

Test ports: 50 ohm, ruggedized 1.85 mm connectors (male)

Dynamic range: 128 dB at 67 GHz; 134 dB at 20 GHz; 127–128 dB general

Output power: +13 dBm at 1 GHz declining to +11 dBm at 67 GHz

Receiver noise floor: –116 dBm

Trace noise: 0.003 dB RMS; 0.002 dB RMS at 1 kHz bandwidth

Frequency stability: < 0.03 dB/°C

Harmonic content: –60 dBc

Measurement speed: 201-point sweep in 5.5–6.3 ms; 3.6–23 µsec per point

Display: 12.1 inch LCD touchscreen with multi-touch interface

Form factor: Benchtop

Interfaces: USB

Key Features

Dual synthesized sources enable single-unit testing of two-port and four-port devices

Built-in S-parameter test set with source and receiver attenuators

Bias-tees and noise figure measurement capability

Pulse modulators and pulse generators for pulsed S-parameter characterization

Solid-state drive storage

Frequency-tracking software for group delay measurement of frequency converters with embedded local oscillators

Measurement Capabilities

S-parameter acquisition with high accuracy across the frequency range

Active component characterization: amplifiers, mixers, frequency converters

Gain compression and intermodulation distortion analysis

Pulsed RF, noise figure, EVM, and source-phase control measurements

Operating Conditions

All specifications apply at 25 °C ±5 °C after 90 minutes thermal stabilization.

N5227B Characteristics / Specifications

PARAMETER	VALUE
Model	N5227B
Instrument Type	Microwave vector network analyzer
Instrument Family	PNA Series
Frequency Range Specification	10 MHz to 67 GHz
Frequency Range Typical	67 GHz to 70 GHz typical
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 1.85 mm male
Port Options	2-port Option 210 metrology or 4-port Option 410 metrology
Power Resolution	0.01 dB
Preset Power Option 210 4	minus 5 dBm
Maximum Settable Power Typical	+30 dBm
Minimum Settable Power Typical	minus 30 dBm
Damage Input Level Rf	27 dBm
Damage Input Level Dc	40 V
If Bandwidth For Dynamic Range Tables	10 Hz
Operating Temperature Spec	25 C ±5 C for warranted specs unless stated
Warm Up Time	90 minutes after turn-on for warranted specs
Display	12.1 inch LCD touch screen
Remote Interfaces	USB LAN GPIBSPParameter Test Set: built-in integrated
Calibration Kits Cited	85058B mechanical and N4694A 2-port ECal
Form Factor	benchtop PNA
Series Family	Keysight PNA family N522xB

PARAMETER	VALUE
Bandwidth	For Dynamic Range Tables: 10 Hz
Operating temperature	Spec: 25 C ±5 C for warranted specs unless stated

N5227B Specifications

PARAMETER	VALUE
Agilent Keysight N5227B PNA Series Network Analyzer	Overview
Key Features	Metrology Option 210 2-port single source and Option 410 4-port dual source
Ruggedized 1.85 mm male test ports	12.1 inch LCD touch screen
Technical Specifications	Model: N5227B

General Specifications & Supplementary Characteristics

PARAMETER	VALUE
Operating temperature	Spec: 25 C ±5 C for warranted specs unless stated
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Calibration Kits Cited	85058B mechanical and N4694A 2-port ECal
Form Factor	benchtop PNA
Series Family	Keysight PNA family N522xB Notes Numeric rows from Keysight N5227B Data Sheet and Technical Specifications for Option 210 and 410 (9018-04369). Typical 67 to 70 GHz performance is degraded at particular frequencies due to 1.85 mm connector modes.

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 for Option 210/410 list 1 Hz frequency resolution, ±0.7 ppm frequency accuracy, 1.85 mm male test ports, and 27 dBm / 40 VDC damage input level.	
Applications	
Millimeter-wave S-parameter characterization to 67 GHz, calibration with 85058B or N4694A ECal, and broadband device measurements on the PNABplatform.	
Key Features	
Metrology Option 210 2-port single source and Option 410 4-port dual source	
Ruggedized 1.85 mm male test ports	
12.1 inch LCD touch screen	
Typical performance documented 67 to 70 GHz	
USB LAN GPIB remote IO	
Technical Specifications	
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PARAMETER	VALUE
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Minimum Settable Power Typical	minus 30 dBm
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Damage Input Level Dc	40 V
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PARAMETER	VALUE
Display	12.1 inch LCD touch screen
Remote Interfaces	USB LAN GPIB
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Calibration Kits Cited	85058B mechanical and N4694A 2-port ECal
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Series Family	Keysight PNA family N522xB

Technical Specifications

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If Bandwidth For Dynamic Range Tables	10 Hz
Operating Temperature Spec	25 C ±5 C for warranted specs unless stated
Warm Up Time	90 minutes after turn-on for warranted specs
Display	12.1 inch LCD touch screen
Remote Interfaces	USB LAN GPIBSParameter Test Set: built-in integrated
Calibration Kits Cited	85058B mechanical and N4694A 2-port ECal
Form Factor	benchtop PNA

PARAMETER	VALUE
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Series Family	Keysight PNA family N522xB
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Notes

Numeric rows from Keysight N5227B Data Sheet and Technical Specifications for Option 210 and 410 (9018-04369). Typical 67 to 70 GHz performance is degraded at particular frequencies due to 1.85 mm connector modes.

Ordering Information

OPTION	DESCRIPTION
Option 210	2-port single source and Option 410 4-port dual source

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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<https://aumictechlabs.com>

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.