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Data Sheet

August 14, 2026

AGILENT / KEYSIGHT

Agilent / Keysight N5247B 10 MHz to 67 GHz PNA-X Microwave Network Analyzer

Agilent Keysight N5247B PNA-X Network Analyzer The Keysight N5247B isaPNA-X microwave vector network analyzer covering 10 MHz to 67 GHz (typical 67 to 70 GHz; 900 Hz to 67 GHz with Option 425). OEM N5247B technical specifications (synthesizer revision 7) list 1 Hz frequency resolution, ± 0.7 ppm frequency accuracy, and ruggedized 1.85 mm male test ports. Active-device S-parameter, noise-figure, IMD, and mixer measurements to 67 GHz on the PNA-X platform. Option 029 high-accuracy noise-figure hardware The Keysight N5247B isaPNA-X microwave vector network analyzer covering 10 MHz to 67 GHz (typical 67 to 70 GHz; 900 Hz to 67 GHz with Option 425). OEM N5247B technical specifications (synthesizer revision 7) list 1 Hz frequency resolution, ± 0.7 ppm frequency accuracy, and ruggedized 1.85 mm male test ports. Active-device S-parameter, noise-figure, IMD, and mixer measurements to 67 GHz on the PNA-X platform. Option 029 high-accuracy noise-figure hardware Instrument Type: Microwave vector network analyzer



MODEL

**Agilent / Keysight
N5247B**

CALIBRATION

**Available on
request**

CONDITION

Used

STATUS

In stock

RFQ / SKU

N5247B

LISTING

<https://aumictechlabs.com/products/n5247b-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 · 811210 · 541380

This unit

The Keysight N5247B PNA-X is a 10 MHz to 67 GHz microwave network analyzer engineered for R&D characterization of RF, 5G, and radar components. This integrated platform consolidates S-parameter, noise figure, and intermodulation distortion measurements into a single instrument, eliminating the need for multiple test systems. The analyzer delivers system dynamic range up to 129 dB with trace noise as low as 0.002 dB RMS, enabling high-accuracy linear and nonlinear measurements across passive and active devices.

Technical Specifications

- Frequency Range: 10 MHz to 67 GHz
- System Dynamic Range: Up to 129 dB (129–153 dB in select configurations)
- Trace Noise: 0.002 dB RMS minimum
- Output Power: +13 dBm nominal; +10 dBm at 67 GHz
- Power Sweep Range: 40 dB
- Harmonics: –60 dBc
- Connectors: 1.85 mm coaxial; waveguide interfaces (WR12) supported for extended range
- Ports: 2-port and 4-port configurations available
- Internal Sources: Dual sources with optional third RF source (Option -XSB) up to 13.5 GHz

Key Features

- S-Parameter Measurements:** Full two-port and four-port characterization across the instrument's frequency range
- Noise Figure Analysis:** Integrated noise receiver operating to 50 GHz; Option -029 provides enhanced low-noise capabilities
- Pulsed-RF Measurements:** 30 measurement points within 300 ns pulses; 10 ns timing resolution for dynamic range and power accuracy optimization
- Active Device Characterization:** Optimized for amplifiers, mixers, and frequency converters with gain compression and IMD measurement capability
- Advanced Error Correction:** High-accuracy linear and nonlinear device characterization through calibrated signal processing
- Configurable Test Set:** Flexible RF access with bias tees and combiner integration
- IF Inputs:** Option -020 provides IF input capability

Typical Applications

- Component validation for 5G RF front-end modules
- Amplifier and converter gain, noise, and distortion characterization
- Active and passive filter measurement and optimization
- Pulsed-radar transmitter and receiver subsystem validation

Compatibility & Integration

The instrument accepts 1.85 mm coaxial and waveguide connectors, supporting both laboratory benchtop and automated test environments through configurable port and source architectures.

N5247B Characteristics / Specifications

PARAMETER	VALUE
Model	N5247B
Instrument Type	Microwave vector network analyzer
Instrument Family	PNA-X Series
Frequency Range Specification	10 MHz to 67 GHz
Frequency Range Typical	67 GHz to 70 GHz typical
Frequency Range Option 4	900 Hz to 67 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 1.85 mm male
Port Options	2-port Option 201 class or 4-port Option 401 class
Power Resolution	0.01 dB
Preset Power Options 201 4	0 dBm
Preset Power Extended Options	minus 5 dBm on 219/419/224/423/425 class ports
If Bandwidth For Dynamic Range Tables	10 Hz
Operating Temperature Spec	25 C ±5 C after 90 minutes warm-up
Display	12.1 inch LCD touch screen
Remote Interfaces	USB LAN GPIB
Noise Figure Option	Option 029 requires Option 224, 423, or 425
Source Attenuator Steps	10 dB steps up to 50 dB on N5247B class
Receiver Attenuator Steps	10 dB steps up to 50 dB on N5247B class
Form Factor	benchtop PNA-X
Warm Up Time	90 minutes after turn-on for warranted specs
Bandwidth	For Dynamic Range Tables: 10 Hz

PARAMETER	VALUE
Operating temperature	Spec: 25 C ±5 C after 90 minutes warm-up

N5247B Specifications

PARAMETER	VALUE
Applications	Active-device S-parameter, noise-figure, IMD, and mixer measurements to 67 GHz on the PNA-X platform.
Key Features	Highest-frequency PNA-X B model (67 GHz)
Option 425 LFE to 900 Hz	Option 029 high-accuracy noise-figure hardware
Ruggedized 1.85 mm male test ports	12.1 inch LCD touch screen
Technical Specifications	Model: N5247B

General Specifications & Supplementary Characteristics

PARAMETER	VALUE
Operating temperature	Spec: 25 C ±5 C after 90 minutes warm-up
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Operating Temperature Spec	25 C ±5 C after 90 minutes warm-up
Display	12.1 inch LCD touch screen
Remote Interfaces	USB LAN GPIB
Noise Figure Option	Option 029 requires Option 224, 423, or 425
Source Attenuator Steps	10 dB steps up to 50 dB on N5247B class
Receiver Attenuator Steps	10 dB steps up to 50 dB on N5247B class
Form Factor	benchtop PNA-X
Warm Up Time	90 minutes after turn-on for warranted specs Notes Numeric rows from Keysight N5247B Technical Specifications (synthesizer revision 7) and PNA Family configuration guide. Typical 67 to 70 GHz performance is shown where available.

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 (synthesizer revision 7) list 1 Hz frequency resolution, ±0.7 ppm frequency accuracy, and ruggedized 1.85 mm male test ports.

Applications

Active-device S-parameter, noise-figure, IMD, and mixer measurements to 67 GHz on the PNA-X platform.

Key Features

Highest-frequency PNA-XBmodel (67 GHz)
Option 425 LFE to 900 Hz
Option 029 high-accuracy noise-figure hardware
Ruggedized 1.85 mm male test ports
12.1 inch LCD touch screen

Technical Specifications

Technical Specifications

PARAMETER	VALUE
Model	N5247B
Instrument Type	Microwave vector network analyzer
Instrument Family	PNA-X Series
Frequency Range Specification	10 MHz to 67 GHz
Frequency Range Typical	67 GHz to 70 GHz typical
Frequency Range Option 425	900 Hz to 67 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 1.85 mm male
Port Options	2-port Option 201 class or 4-port Option 401 class
Power Resolution	0.01 dB
Preset Power Options 201 401	0 dBm
Preset Power Extended Options	minus 5 dBm on 219/419/224/423/425 class ports
If Bandwidth For Dynamic Range Tables	10 Hz
Operating Temperature Spec	25 C ±5 C after 90 minutes warm-up
Display	12.1 inch LCD touch screen
Remote Interfaces	USB LAN GPIB
Noise Figure Option	Option 029 requires Option 224, 423, or 425

PARAMETER	VALUE
Source Attenuator Steps	10 dB steps up to 50 dB on N5247B class
Receiver Attenuator Steps	10 dB steps up to 50 dB on N5247B class
Form Factor	benchtop PNA-X
Warm Up Time	90 minutes after turn-on for warranted specs

Notes

Numeric rows from Keysight N5247B Technical Specifications (synthesizer revision 7) and PNA Family configuration guide. Typical 67 to 70 GHz performance is shown where available.

Ordering Information

OPTION	DESCRIPTION
Option 425	LFE to 900 Hz
Option 029	high-accuracy noise-figure hardware
Option 201	class or 4-port Option 401 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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Technical content from manufacturer specifications. Unit photo/stock from Aumictech listing when available. Specifications subject to OEM documentation and unit condition.