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Data Sheet

August 14, 2026

AGILENT / KEYSIGHT

Agilent / Keysight N5245B PNA-X Microwave Network Analyzer, 10 MHz to 50 GHz

Agilent Keysight N5245B PNA-X Network Analyzer The Keysight N5245B isaPNA-X microwave vector network analyzer covering 10 MHz to 50 GHz, or 900 Hz to 50 GHz with Option 425 low-frequency extension. OEM N5244B/N5245B technical specifications list 1 Hz frequency resolution, ± 0.7 ppm frequency accuracy, and ruggedized 2.4 mm male test ports. Active-device S-parameter, noise-figure, IMD, and mixer measurements to 50 GHz on the PNA-X platform. PNA-X dual-source architecture with combiner options The Keysight N5245B isaPNA-X microwave vector network analyzer covering 10 MHz to 50 GHz, or 900 Hz to 50 GHz with Option 425 low-frequency extension. OEM N5244B/N5245B technical specifications list 1 Hz frequency resolution, ± 0.7 ppm frequency accuracy, and ruggedized 2.4 mm male test ports. Active-device S-parameter, noise-figure, IMD, and mixer measurements to 50 GHz on the PNA-X platform. PNA-X dual-source architecture with combiner options Option 029 high-accuracy noise-figure hardware



MODEL

**Agilent / Keysight
N5245B**

CALIBRATION

**Available on
request**

CONDITION

Used

STATUS

In stock

RFQ / SKU

N5245B

LISTING

<https://aumictechlabs.com/products/n5245b-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 · 811210 · 541380

This unit

The Keysight N5245B PNA-X is a microwave network analyzer spanning 10 MHz to 50 GHz, delivering integrated multi-port characterization for active and passive devices. This dual- or quad-port instrument consolidates S-parameter measurement, noise analysis, and nonlinear device testing into a single platform, eliminating the need for separate test engines. With dynamic range exceeding 140 dB, output power to +16 dBm, and measurement accuracy below 0.001 dB on S-parameters, the N5245B addresses demanding RF and microwave development workflows.

Technical Specifications

Frequency range: 10 MHz to 50 GHz (configurable to 900 Hz lower limit)
Port configurations: 2-port or 4-port
Built-in signal sources: 1 or 2, expandable to 3 (third source to 13.5 GHz)
System dynamic range: 126–135 dB; receiver dynamic range: 129 dB;
peak capability: >140 dB
S-parameter accuracy: <0.001 dB
Group delay accuracy: <0.3 ps
IMD: <–120 dBc
Output power: +16 dBm maximum; 10–13 dBm at 20 GHz
Power sweep range: 38–41 dB
IF bandwidth: 15 MHz (standard); 1 kHz (trace noise); 10 Hz (noise floor)
Noise floor: –111 dBm at 10 Hz IF bandwidth
Trace noise: 0.002 dB rms (1 kHz BW)
Harmonics: –51 to –60 dBc typical
Measurement points: 32,001 maximum
Measurement channels: 200; unlimited traces
Data transfer: up to 3.2 Gbps
Dimensions (H × W × D): 280 × 459 × 649 mm
Weight (2-port): 46 kg

Key Features

Sweep modes: linear, log, power, CW, phase, and segment
S-parameter and noise receivers with optional noise capability to 50 GHz
Pulse modulators and generators for transient characterization
Bias tees, source and receiver attenuators, mechanical switches
Advanced calibration with multiport error correction
Multi-touch display with equation editor and time-domain analysis
PathWave Calibration Advisor for interval tracking

Typical Applications

Active device characterization: amplifiers, mixers, frequency converters
S-parameter and noise measurement across microwave bands
Power-dependent nonlinear device testing
Multiport component and subsystem validation

Compatibility & Integration

Compatible with Keysight PLTS software and PathWave measurement solutions for automated test workflows.

N5245B Characteristics / Specifications

PARAMETER	VALUE
Model	N5245B
Instrument Type	Microwave vector network analyzer
Instrument Family	PNA-X Series
Frequency Range Standard	10 MHz to 50.0 GHz
Frequency Range Option 4	900 Hz to 50.0 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 2.4 mm male
Port Options	2-port Option 201 class or 4-port Option 401 class
Power Resolution	0.01 dB
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 one of Option 22x or 42x
Source Attenuator Steps	10 dB steps up to 60 dB on N5244/45B class
Receiver Attenuator Steps	5 dB steps up to 35 dB on N5244/45B class
Form Factor	benchtop PNA-X
Warm Up Time	90 minutes after turn-on for warranted specs
Solid State Drive	included
Bandwidth	For Dynamic Range Tables: 10 Hz
Operating temperature	Spec: 25 C ±5 C after 90 minutes warm-up

N5245B Specifications

PARAMETER	VALUE
Applications	Active-device S-parameter, noise-figure, IMD, and mixer measurements to 50 GHz on the PNA-X platform.
Option 425 LFE to 900 Hz (N5245B)	Option 029 high-accuracy noise-figure hardware
Ruggedized 2.4 mm male test ports	12.1 inch LCD touch screen
Technical Specifications	Model: N5245B
Notes	Numeric rows from Keysight N5244B/45B Technical Specifications 9018-04523 (synthesizer revision 7). Option 425 LFE is listed for N5245B.

General Specifications & Supplementary Characteristics

PARAMETER	VALUE
Operating temperature	Spec: 25 C ±5 C after 90 minutes warm-up
Operating Temperature	Spec: 25 C ±5 C after 90 minutes warm-up
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 one of Option 22x or 42x
Source Attenuator Steps	10 dB steps up to 60 dB on N5244/45B class
Receiver Attenuator Steps	5 dB steps up to 35 dB on N5244/45B class
Form Factor	benchtop PNA-X
Warm Up Time	90 minutes after turn-on for warranted specs
Solid State Drive	included Notes Numeric rows from Keysight N5244B/45B Technical Specifications 9018-04523 (synthesizer revision 7). Option 425 LFE is listed for N5245B.

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 ruggedized 2.4 mm male test ports.

Applications

Active-device S-parameter, noise-figure, IMD, and mixer measurements to 50 GHz on the PNA-X platform.

Key Features

PNA-X dual-source architecture with combiner options

Option 425 LFE to 900 Hz (N5245B)

Option 029 high-accuracy noise-figure hardware

Ruggedized 2.4 mm male test ports

12.1 inch LCD touch screen

Technical Specifications

Technical Specifications

PARAMETER	VALUE
Model	N5245B
Instrument Type	Microwave vector network analyzer
Instrument Family	PNA-X Series
Frequency Range Standard	10 MHz to 50.0 GHz
Frequency Range Option 425	900 Hz to 50.0 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 2.4 mm male
Port Options	2-port Option 201 class or 4-port Option 401 class
Power Resolution	0.01 dB
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 one of Option 22x or 42x
Source Attenuator Steps	10 dB steps up to 60 dB on N5244/45B class
Receiver Attenuator Steps	5 dB steps up to 35 dB on N5244/45B class
Form Factor	benchtop PNA-X

PARAMETER	VALUE
Warm Up Time	90 minutes after turn-on for warranted specs
Solid State Drive	included

Notes
Numeric rows from Keysight N5244B/45B Technical Specifications 9018-04523 (synthesizer revision 7). Option 425 LFE is listed for N5245B.

Ordering Information

OPTION	DESCRIPTION
Option 425	low-frequency extension. OEM N5244B/N5245B technical specifications list 1 Hz frequency resolution, ± 0.7 ppm frequency accuracy, and ruggedized 2.4 mm male test
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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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.