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Data Sheet

August 13, 2026

KEYSIGHT / AGILENT

Keysight (Agilent) N5250C PNA Millimeter-Wave Network Analyzer

Keysight / Agilent N5250C PNA Millimeter-Wave Network Analyzer System The Keysight (Agilent) N5250C is an integrated broadband millimeter-wave vector network analyzer system providing single-sweep measurements from 10 MHz to 110 GHz. The factory-integrated system combines an E8361C PNA microwave network analyzer (with IF access Option H11 and required options 014/UNL/080/081), an N5260A millimeter-wave test set controller, 67-110 GHz test head modules, and a 1.0 mm combiner assembly. Optional integrated tri-axial bias tees support accurate on-wafer device bias (force/sense). The PNA platform provides 32 channels, 64 traces, 20,001 points per trace, and 29 IF bandwidth settings, with LAN/GPIB/USB connectivity. The Keysight (Agilent) N5250C is an integrated broadband millimeter-wave vector network analyzer system providing single-sweep measurements from 10 MHz to 110 GHz. The factory-integrated system combines an E8361C PNA microwave network analyzer (with IF access Option H11 and required options 014/UNL/080/081), an N5260A millimeter-wave test set controller, 67-110 GHz test head modules, and a 1.0 mm combiner assembly. Optional integrated tri-axial bias tees support accurate on-wafer device bias (force/sense). The PNA platform provides 32 channels, 64 traces, 20,001 points per trace, and 29 IF bandwidth settings, with LAN/GPIB/USB connectivity. Broadband coaxial and on-wafer



MODEL

**Keysight / Agilent
N5250C**

CALIBRATION

**Available on
request**

CONDITION

Used

STATUS

In stock

RFQ / SKU

N5250C

LISTING

<https://aumictechlabs.com/products/n5250c-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 · 811210 · 541380

This unit

The Keysight N5250C PNA Millimeter-Wave Network Analyzer delivers single-sweep S-parameter characterization from 10 MHz to 110 GHz, with optional extension to 0.5 THz and further to 1.1 THz. Built on the E8361C PNA measurement engine and N5260A controller, this system uses 1.0 mm coaxial connectors across its entire frequency range, eliminating test discontinuities. It supports up to 64 channels, 20,001 measurement points per trace, and 29 IFBW settings for precise component and subsystem characterization.

Technical Specifications
Frequency Range: 10 MHz to 110 GHz single sweep; optional extension to 0.5 THz; further extension to 1.1 THz with specific configurations
Measurement Engine: Keysight E8361C PNA network analyzer
Controller: Keysight N5260A for millimeter-wave test module interfacing
Test Port Connectors: 1.0 mm coaxial connectors across entire frequency range
Channels: Up to 64
Measurement Points: Up to 20,001 per trace
IF Bandwidth Settings: 29 discrete IFBW selections
Dynamic Range: Up to 127 dB at 20 GHz (PNA-X models); superb range for N5250C system
Trace Noise: 0.002 dB rms at 1 kHz bandwidth
Measurement Speed: 4.5 to 26 μ sec/point
Frequency Stability: 0.05 dB/°C
Port 1 Attenuator: 25 dB micrometer attenuator for power control

Key Features
Patented 1.0 mm calibration techniques for enhanced accuracy
Data-based calibration standards with expanded algorithm support
Accurate leveled power delivery enabling power sweeps at 1.0 mm port
Built-in bias-tees on E8361C PNA for test port biasing
Optional bias-tees (Options 017 and 018) in millimeter-wave test head modules with tri-axial connectors for force, sense, and ground
Waveguide measurement configuration support

Typical Applications
High-frequency component characterization (microwave and millimeter-wave)
Device biasing and active load-pull measurements
Frequency-dependent S-parameter extraction
THz extension measurements with optional modules

Compatibility & Integration
The N5250C integrates the proven E8361C PNA architecture with N5260A millimeter-wave control, providing seamless 1.0 mm connector continuity from component test through system-level validation.

Features & description

From manufacturer datasheet

Features

- Single sweep 10 MHz to 110 GHz

N5250C Characteristics / Specifications

PARAMETER	VALUE
Model	N5250C
Manufacturer	Keysight Technologies / Agilent Technologies
Instrument Type	PNA millimeter-wave vector network analyzer system
Frequency Coverage	10 MHz to 110 GHz (single sweep)
Microwave Analyzer	E8361C PNA with Option H11 (IF access)
Required PNA Options Class	014 configurable test set; UNL extended power/bias-tees; 080 frequency-offset; 081 reference switch
Millimeter Controller	N5260A millimeter-wave test set controller
Test Heads	67 GHz to 110 GHz modules (micrometer attenuator on port 1 class)
Test Port Interface	1.0 mm combiner assembly
Channels	32
Traces	64
Points per Trace	20001
IF Bandwidth Settings	29
Interfaces	LAN; GPIB; multiple USB
Test Port Damage Level Class	+27 dBm
Alias	N5250C; Agilent N5250C; Keysight N5250C
Related	N5250A predecessor; N5251A successor class architectures Notes Specs from Agilent/Keysight N5250C millimeter-wave PNA technical overview and N5260 head installation guides. Confirm exact option set (bias tees, attenuators, apps) and 1.0 mm port condition on the integrated system.
Options	time domain, pulsed-RF, frequency converter
Bandwidth	settings, with LAN/GPIB/USB connectivity.

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	
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Microwave Analyzer	E8361C PNA with Option H11 (IF access)
Required PNA Options Class	014 configurable test set; UNL extended power/bias-tees; 080 frequency-offset; 081 reference switch
Specifications	
PARAMETER	VALUE
Millimeter Controller	N5260A millimeter-wave test set controller
Test Heads	67 GHz to 110 GHz modules (micrometer attenuator on port 1 class)
Test Port Interface	1.0 mm combiner assembly
Optional Bias Tees: Option 017 / 018 mm-wave modules with tri-axial bias tees	
Specifications	
PARAMETER	VALUE
Channels	32
Traces	64
Points per Trace	20001
IF Bandwidth Settings: 29	
Interfaces: LAN; GPIB; multiple USB	
Optional Time Domain: Option 010	
Optional Pulsed-RF: Option H08	
Optional Frequency Converter App: Option 083	
mm-wave Head RF Input Freq Class: about 11.167-18.333 GHz (x6)	

mm-wave Head LO Input Freq Class: about 8.375-13.75 GHz (x8)

Test Port Output Power Class (67-110 GHz heads): about 0 dBm min / +3 dBm typical (without attenuator head variant)

Specifications

PARAMETER	VALUE
Test Port Damage Level Class	+27 dBm
Alias	N5250C; Agilent N5250C; Keysight N5250C
Related	N5250A predecessor; N5251A successor class architectures

Notes

Specs from Agilent/Keysight N5250C millimeter-wave PNA technical overview and N5260 head installation guides. Confirm exact option set (bias tees, attenuators, apps) and 1.0 mm port condition on the integrated system.

Ordering Information

OPTION	DESCRIPTION
Option 017	/ 018 mm-wave modules with tri-axial bias tees
Option 010	Optional Pulsed-RF: Option H08
Option 083	mm-wave Head RF Input Freq Class: about 11.167-18.333 GHz (x6)

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.