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Data Sheet
August 14, 2026

AGILENT / KEYSIGHT

Agilent/Keysight N5291A 900 Hz to 120 GHz PNA MM-Wave System

Power Traceability: power measurements traceable to 110 GHz Controller: N5292A millimeter-wave test set controller Engine Options: N5222B, N5227B, N5242B, or N5247B PNA/PNA-X per system option Dynamic-range rows from Keysight N5291A Technical Specifications Table 1 (synthesizer revision 7). Stability, bias-tee, and +1 dBm at 110 GHz rows from N5290A/N5291A configuration guide 5992-2179. Agilent Keysight N5291A Broadband Millimeter Wave Network Analyzer The Keysight N5291A isapreconfigured 2- or 4-port broadband millimeter-wave VNA covering 900 Hz to 120 GHz, with typical extension to 500 Hz to 125 GHz. OEM N5291A technical specifications (synthesizer revision 7) and configuration guide 5992-2179 list N5295AX03 120 GHz extenders, 1.0 mm ports, and optional 50 V / 1 A Kelvin bias tees. Broadband on-wafer S-parameters through 120 GHz; mmWave PA/LNA and mixer characterization; single-connection 1.0 mm coaxial tests.

MODEL **Agilent / Keysight N5291A**	CALIBRATION **Available on request**
CONDITION **Used**	STATUS **In stock**
RFQ / SKU **N5291A**	LISTING **https://aumictechlabs.com/products/n5291a-2/**

NIST-traceable cal · SAM registered · 30-day returns · NAICS 423690 · 811210 · 541380

This unit

The Agilent/Keysight N5291A is a network analyzer designed for testing and characterizing RF and microwave components and systems. It has wide frequency coverage, fast measurement speed, and advanced analysis capabilities. Ideal for demanding applications in aerospace,

defense, and telecommunications. It has accurate and reliable measurements for S-parameters, impedance, and other critical parameters.

Features & description

From manufacturer datasheet

Built-in 50 V, 1 A Kelvin bias tee option

Magnitude stability ±0.015 dB over 24 hours (config-guide feature set) Phase stability ±0.15 deg over 24 hours (config-guide feature set) Technical Specifications Model: N5291A Instrument Type: Broadband millimeter-wave vector network analyzer Series Family: Keysight N5290A/N5291A Frequency Range Standard: 900 Hz to 120 GHz Frequency Range Extended: 500 Hz to 125 GHz Test Port Connector: 1.0 mm throughout the frequency range Extender Module: N5295AX03, 120 GHz, 1.2 m cable, LFE with bias tee System Dynamic Range 10 Mhz To 50 Mhz: 67 dB specification, 86/85 dB typical System Dynamic Range 50 Mhz To 100 Mhz: 90 dB specification, 105 dB typical System Dynamic Range 100 Mhz To 500 Mhz: 99 dB specification, 117 dB typical System Dynamic Range 1 Ghz To 2 Ghz: 121 dB specification, 131 dB typical System Dynamic Range 105 Ghz To 110 Ghz: 105 dB specification, 114 dB typical System Dynamic Range 110 Ghz To 115 Ghz: 98 dB specification, 114 dB typical System Dynamic Range 115 Ghz To 120 Ghz: 93 dB specification, 107 dB typical System Dynamic Range 120 Ghz To 125 Ghz: 103 dB typical (specification not listed) Maximum Output At 110 Ghz Config Guide: greater than +1 dBm, +6 dBm typical Bias Tee Rating Config Guide: 50 V, 1 A Kelvin

N5291A Characteristics / Specifications

PARAMETER	VALUE
Model	N5291A
Instrument Type	Broadband millimeter-wave vector network analyzer
Series Family	Keysight N5290A/N5291A
Frequency Range Standard	900 Hz to 120 GHz
Frequency Range Extended	500 Hz to 125 GHz
Test Port Connector	1.0 mm throughout the frequency range
Extender Module	N5295AX03, 120 GHz, 1.2 m cable, LFE with bias tee
System Dynamic Range 10 Mhz To 50 Mhz	67 dB specification, 86/85 dB typical
System Dynamic Range 50 Mhz To 100 Mhz	90 dB specification, 105 dB typical
System Dynamic Range 100 Mhz To 500 Mhz	99 dB specification, 117 dB typical
System Dynamic Range 1 Ghz To 2 Ghz	121 dB specification, 131 dB typical
System Dynamic Range 105 Ghz To 110 Ghz	105 dB specification, 114 dB typical
System Dynamic Range 110 Ghz To 115 Ghz	98 dB specification, 114 dB typical
System Dynamic Range 115 Ghz To 120 Ghz	93 dB specification, 107 dB typical
System Dynamic Range 120 Ghz To 125 Ghz	103 dB typical (specification not listed)
Maximum Output At 110 Ghz Config Guide	greater than +1 dBm, +6 dBm typical
Bias Tee Rating Config Guide	50 V, 1 A Kelvin
Magnitude Stability Config Guide	±0.015 dB over 24 hours across the frequency range
Phase Stability Config Guide	±0.15 deg over 24 hours across the frequency rangeSParameter Traceability: S-parameters traceable to 120 GHz
Power Traceability	power measurements traceable to 110 GHz

PARAMETER	VALUE
Controller	N5292A millimeter-wave test set controller
Engine Options	N5222B, N5227B, N5242B, or N5247B PNA/PNA-X per system option

N5291A Specifications

PARAMETER	VALUE
Applications	Broadband on-wafer S-parameters through 120 GHz; mmWave PA/LNA and mixer characterization; single-connection 1.0 mm coaxial tests.
Key Features	900 Hz to 120 GHz preconfigured system (500 Hz to 125 GHz extended)
N5295AX03 120 GHz frequency extenders	Built-in 50 V, 1 A Kelvin bias tee option
Technical Specifications	Model: N5291A

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) and configuration guide 5992-2179 list N5295AX03 120 GHz extenders, 1.0 mm ports, and optional 50 V / 1 A Kelvin bias tees.

Applications
Broadband on-wafer S-parameters through 120 GHz; mmWave PA/LNA and mixer characterization; single-connection 1.0 mm coaxial tests.

Key Features
900 Hz to 120 GHz preconfigured system (500 Hz to 125 GHz extended)
N5295AX03 120 GHz frequency extenders
Built-in 50 V, 1 A Kelvin bias tee option
Magnitude stability ±0.015 dB over 24 hours (config-guide feature set)
Phase stability ±0.15 deg over 24 hours (config-guide feature set)

Technical Specifications

Specifications

PARAMETER	VALUE
Maximum Output At 110 Ghz Config Guide	greater than +1 dBm, +6 dBm typical
Bias Tee Rating Config Guide	50 V, 1 A Kelvin
Magnitude Stability Config Guide	±0.015 dB over 24 hours across the frequency range
Phase Stability Config Guide	±0.15 deg over 24 hours across the frequency range
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Power Traceability	power measurements traceable to 110 GHz
Controller	N5292A millimeter-wave test set controller
Engine Options	N5222B, N5227B, N5242B, or N5247B PNA/PNA-X per system option

Technical Specifications

PARAMETER	VALUE
Model	N5291A
Instrument Type	Broadband millimeter-wave vector network analyzer
Series Family	Keysight N5290A/N5291A
Frequency Range Standard	900 Hz to 120 GHz
Frequency Range Extended	500 Hz to 125 GHz
Test Port Connector	1.0 mm throughout the frequency range
Extender Module	N5295AX03, 120 GHz, 1.2 m cable, LFE with bias tee

System Dynamic Range 10 Mhz To 50 Mhz: 67 dB specification, 86/85 dB typical
System Dynamic Range 50 Mhz To 100 Mhz: 90 dB specification, 105 dB typical
System Dynamic Range 100 Mhz To 500 Mhz: 99 dB specification, 117 dB typical

System Dynamic Range 1 Ghz To 2 Ghz: 121 dB specification, 131 dB typical
System Dynamic Range 105 Ghz To 110 Ghz: 105 dB specification, 114 dB typical
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System Dynamic Range 115 Ghz To 120 Ghz: 93 dB specification, 107 dB typical
System Dynamic Range 120 Ghz To 125 Ghz: 103 dB typical (specification not listed)

Specifications

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Notes
Dynamic-range rows from Keysight N5291A Technical Specifications Table 1 (synthesizer revision 7). Stability, bias-tee, and +1 dBm at 110 GHz rows from N5290A/N5291A configuration guide 5992-2179.

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

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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.