

KEYSIGHT TECHNOLOGIES (AGILENT HP)

N4000A

The Keysight N4000A is a smart noise source from the SNS series, operating from 10 MHz to 18 GHz with a nominal Excess Noise Ratio (ENR) of 6 dB. It is specifically designed to accurately measure devices with a low noise figure (up to 20 dB) or those whose gain is especially sensitive to small changes in source impedance. The N4000A features internal electronic storage of ENR calibration data, automatic data download to compatible NFA series analyzers, and temperature compensation for improved measurement accuracy.

SPECIFICATIONS

General

Interfaces	Proprietary SNS multi-pin connector
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Physical

Power Supply	Powered via SNS multi-pin cable from host instrument (+28V pulsed)
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Operating Temperature	0 to 55 °C °C
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Frequency Specifications

Frequency Range	10 MHz to 18 GHz
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Noise Specifications

Nominal Excess Noise Ratio (ENR)	5.25 dB
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Performance

Temperature Compensation	Included (improves measurement accuracy)
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Maximum VSWR (0.01 to 0.03 GHz)	1.04:1
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Maximum VSWR (0.03 to 1.5 GHz)	1.04:1
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Maximum VSWR (1.5 to 3.0 GHz)	1.04:1
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Maximum VSWR (3.0 to 7.0 GHz)	1.13:1
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Maximum VSWR (7.0 to 18.0 GHz)	1.22:1
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ENR Calibration Uncertainty (0.03 to 1.5 GHz)	±0.16 dB
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ENR Calibration Uncertainty (1.5 to 3.0 GHz)	±0.15 dB
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ENR Calibration Uncertainty (3.0 to 7.0 GHz)	±0.15 dB
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ENR Calibration Uncertainty (7.0 to 18.0 GHz)	±0.16 dB
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Impedance and RF Characteristics

Nominal Impedance	50 Ω
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Calibration and Data Storage

Internal Calibration Data Storage	Electronic storage of ENR calibration data
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Automatic Data Download	Supported (to NFA series)
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Connectivity and Interfaces

RF Output Connector	APC 3.5 (m) (standard)
Compatible Instruments	NFA Series

TECHNOLOGY

Smart Noise Source

APPLICATIONS

Noise Figure Measurement, Low Noise Figure Devices, Impedance Sensitive Devices

Generated by SpecAtlasHub (specatlashub.com). Specifications are compiled from available sources and are subject to change — verify critical values against the manufacturer before purchase.