

**Aumictech**

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Data Sheet

August 5, 2026

KEYSIGHT

Keysight (Agilent) N5500A Phase Noise Test Set

Keysight (Agilent) N5500A Phase Noise Test Set The Keysight/Agilent N5500A is the phase-noise test-set hardware at the core of the E5500/E5505A Phase Noise Measurement Solutions. Standard RF phase detector covers carriers from 50 kHz to 1.6 GHz with offset frequencies from 0.01 Hz to 100 MHz. Option 001/201 microwave phase detector extends carriers to 26.5 GHz (1.2–26.5 GHz microwave PD). External noise input port 0.01 Hz–100 MHz. Used with N5510A software, digitizer, and optional downconverters/reference sources. The Keysight/Agilent N5500A is the phase-noise test-set hardware at the core of the E5500/E5505A Phase Noise Measurement Solutions. Standard RF phase detector covers carriers from 50 kHz to 1.6 GHz with offset frequencies from 0.01 Hz to 100 MHz. Option 001/201 microwave phase detector extends carriers to 26.5 GHz (1.2–26.5 GHz microwave PD). External noise input port 0.01 Hz–100 MHz. Used with N5510A software, digitizer, and optional downconverters/reference sources. Absolute and residual phase-noise measurements of oscillators and two-port devices; AM noise; baseband noise; aerospace/defense and wireless source characterization (E5505A system).

No photo

MODEL

Keysight N5500A

CALIBRATION

**N/A — off-catalog
OEM datasheet**

CONDITION

**See OEM
documentation**

STATUS

**Not listed on
Aumictech
inventory**

RFQ / SKU

N5500A

LISTING

**Off-catalog — OEM dat
asheet only**

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 · 811210 · 541380

Features & description

From manufacturer datasheet

Features

- RF phase detector: carriers 50 kHz–1.6 GHz • Microwave PD (Opt 001/201): 1.2–26.5 GHz • Offset: 0.01 Hz–100 MHz • External noise input: 0.01 Hz–100 MHz, 50 Ω • Residual noise floor class: to about –170 dBc/Hz at ≥ 10 kHz offsets (RF PD; see datasheet tables) • Measurement accuracy class: ± 2 dB (<1 MHz offsets); ± 4 dB (<100 MHz offsets) (system) • GPIB; part of E5505A / N5500A hardware set

N5500A Characteristics / Specifications

PARAMETER	VALUE
Model	N5500A
Manufacturer	Keysight Technologies (Agilent)
Instrument Type	Phase Noise Test Set
Family	E5500 / E5505A Phase Noise Measurement Solutions
Alias	N5500A; Agilent N5500A Frequency
RF phase detector carriers	50 kHz to 1.6 GHz
Microwave phase detector (Opt 001/201)	1.2 GHz to 26.5 GHz
Offset frequency range	0.01 Hz to 100 MHz
External noise input	0.01 Hz to 100 MHz Phase Detector Levels (typical published)
RFRinput	0 to +23 dBm; L input: +15 to +23 dBm (<1.6 GHz)
Microwave reference input levels	per Option 001/201 tables (e.g. +7 to +10 dBm class at 26.5 GHz)
RF phase detector	carriers 50 kHz–1.6 GHz
Microwave PD (Opt 001/201)	1.2–26.5 GHz
Offset	0.01 Hz–100 MHz
Residual noise floor class	to about –170 dBc/Hz at ≥ 10 kHz offsets (RF PD; see datasheet tables)
Measurement accuracy class	± 2 dB (<1 MHz offsets); ± 4 dB (<100 MHz offsets) (system)

N5500A Specifications

PARAMETER	VALUE
Keysight (Agilent) N5500A Phase Noise Test Set	Overview
Key Features	- RF phase detector: carriers 50 kHz–1.6 GHz
Technical Specifications	Model: N5500A
Frequency	RF phase detector carriers: 50 kHz to 1.6 GHz
Phase Detector Levels (typical published)	RF R input: 0 to +23 dBm; L input: +15 to +23 dBm (<1.6 GHz)
Operational Notes	Successor systems include N5511A PNTS. Prefer Keysight E5500 Series datasheet 5989-0851 and N5500A Hardware Reference.

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

Specifications

PARAMETER	VALUE
Model	N5500A
Manufacturer	Keysight Technologies (Agilent)
Instrument Type	Phase Noise Test Set
Family	E5500 / E5505A Phase Noise Measurement Solutions
Alias	N5500A; Agilent N5500A

Frequency

Frequency

PARAMETER	VALUE
RF phase detector carriers	50 kHz to 1.6 GHz
Microwave phase detector (Opt 001/201)	1.2 GHz to 26.5 GHz
Offset frequency range	0.01 Hz to 100 MHz
External noise input	0.01 Hz to 100 MHz

Phase Detector Levels (typical published)

RFRinput: 0 to +23 dBm; L input: +15 to +23 dBm (<1.6 GHz)

Microwave reference input levels: per Option 001/201 tables (e.g. +7 to +10 dBm class at 26.5 GHz)

Noise Floor (residual, excludes reference source - RF PD examples)

0.01 Hz: -70 dBc/Hz class; 1 Hz: -130 dBc/Hz class; ≥10 kHz: -170 dBc/Hz class

Microwave PD floors are higher (see E5500 datasheet tables)

Operational Notes

Successor systems include N5511A PNTS. Prefer Keysight E5500 Series datasheet 5989-0851 and N5500A Hardware Reference.

Available from Aumictech

Used and refurbished unit evaluated in-house. Calibration: N/A — off-catalog OEM datasheet. See OEM documentation · Not listed on Aumictech inventory.

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.