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Data Sheet

August 5, 2026

KEYSIGHT

Keysight (Agilent) E5501B Phase Noise Measurement Solution, 50 kHz to 1.6 GHz

Keysight (Agilent) E5501B Phase Noise Measurement Solution, 50 kHz to 1.6 GHz The Keysight/Agilent E5501B is an E5500 B-series phase noise measurement solution for carriers from 50 kHz to 1.6 GHz. B-series extends offset coverage to 100 MHz (with spectrum/signal analyzer), versus A-series standard offsets to a few MHz. System includes N5500A/70420A-class phase noise test set, baseband digitizer path, measurement software, and PC. Typical system noise floor about -180 dBc/Hz at offsets >10 kHz (without reference/downconverter contributions dominating). The Keysight/Agilent E5501B is an E5500 B-series phase noise measurement solution for carriers from 50 kHz to 1.6 GHz. B-series extends offset coverage to 100 MHz (with spectrum/signal analyzer), versus A-series standard offsets to a few MHz. System includes N5500A/70420A-class phase noise test set, baseband digitizer path, measurement software, and PC. Typical system noise floor about -180 dBc/Hz at offsets >10 kHz (without reference/downconverter contributions dominating). ATE and R&D phase-noise test of VCOs, DROs, crystal oscillators, synthesizers; AM noise; absolute/residual PN to 1.6 GHz.

No photo

MODEL

Keysight E5501B

CALIBRATION

**N/A — off-catalog
OEM datasheet**

CONDITION

**See OEM
documentation**

STATUS

**Not listed on
Aumictech
inventory**

RFQ / SKU

E5501B

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

- Carrier frequency: 50 kHz to 1.6 GHz • B-series offsets: 0.01 Hz to 100 MHz (with optional analyzer); digitizer path typically 0.01 Hz to 2 MHz without swept analyzer • Direct AM noise measurement • System noise response: -180 dBc/Hz typically (>10 kHz) • System spurious: < -120 dBc typically • Phase detector input (<1.6 GHz): R = 0 to $+23$ dBm; L = $+15$ to $+23$ dBm • Measurement accuracy: ± 2 dB (<1 MHz offsets); ± 4 dB (<100 MHz offsets) • Related: E5501A (A-series); E5502B/E5503B/E5504B higher carrier ranges

E5501B Characteristics / Specifications

PARAMETER	VALUE
Model	E5501B
Manufacturer	Keysight Technologies (Agilent)
Instrument Type	Phase Noise Measurement Solution
Family	E5500 B-Series
Alias	E5501B; Agilent E5501B Frequency
Carrier	50 kHz–1.6 GHz
Offset	0.01 Hz–100 MHz (B-series with analyzer) Operational Notes Prefer Agilent E5500 datasheet 5989-0851 / configuration guide 5988-9891.
Carrier frequency	50 kHz to 1.6 GHz
B-series offsets	0.01 Hz to 100 MHz (with optional analyzer); digitizer path typically 0.01 Hz to 2 MHz without swept analyzer
System noise response	–180 dBc/Hz typically (>10 kHz)
System spurious	< –120 dBc typically
Phase detector input (<1.6 GHz)	R = 0 to +23 dBm; L = +15 to +23 dBm
Measurement accuracy	±2 dB (<1 MHz offsets); ±4 dB (<100 MHz offsets)
Related	E5501A (A-series); E5502B/E5503B/E5504B higher carrier ranges

E5501B Specifications

PARAMETER	VALUE
Applications	ATE and R&D phase-noise test of VCOs, DROs, crystal oscillators, synthesizers; AM noise; absolute/residual PN to 1.6 GHz.
Key Features	- Carrier frequency: 50 kHz to 1.6 GHz
Technical Specifications	Model: E5501B
Frequency	Carrier: 50 kHz–1.6 GHz
Operational Notes	Prefer Agilent E5500 datasheet 5989-0851 / configuration guide 5988-9891.

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	E5501B
Manufacturer	Keysight Technologies (Agilent)
Instrument Type	Phase Noise Measurement Solution
Family	E5500 B-Series
Alias	E5501B; Agilent E5501B

Frequency

Carrier: 50 kHz–1.6 GHz

Offset: 0.01 Hz–100 MHz (B-series with analyzer)

Operational Notes

Prefer Agilent E5500 datasheet 5989-0851 / configuration guide 5988-9891.

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.