

**Aumictech**

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Data Sheet

August 5, 2026

KEYSIGHT

Keysight (Agilent) E5503A Phase Noise Measurement Solution, 50 kHz to 18.0 GHz

Keysight (Agilent) E5503A Phase Noise Measurement Solution, 50 kHz to 18.0 GHz The Keysight/Agilent E5503A is an E5500 A-series phase noise measurement solution configured for carrier frequencies from 50 kHz to 18.0 GHz. Designed to minimize production ATE test times for one-port VCOs, DROs, crystal oscillators, and synthesizers. A-series offset capability typically 0.01 Hz to 4 MHz (extendable with options). Includes phase noise test set hardware, digitizer path, selected microwave downconverter for 18 GHz coverage, and measurement software with a PC. The Keysight/Agilent E5503A is an E5500 A-series phase noise measurement solution configured for carrier frequencies from 50 kHz to 18.0 GHz. Designed to minimize production ATE test times for one-port VCOs, DROs, crystal oscillators, and synthesizers. A-series offset capability typically 0.01 Hz to 4 MHz (extendable with options). Includes phase noise test set hardware, digitizer path, selected microwave downconverter for 18 GHz coverage, and measurement software with a PC. Production ATE phase-noise test of oscillators and synthesizers; AM noise; absolute/residual PN characterization to 18 GHz.

No photo

MODEL Keysight E5503A	CALIBRATION N/A — off-catalog OEM datasheet
CONDITION See OEM documentation	STATUS Not listed on Aumictech inventory
RFQ / SKU E5503A	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 18.0 GHz
- A-series offsets: 0.01 Hz to 4 MHz (standard class; options extend)
- Fast ATE-oriented measurements
- Direct AM noise measurement capability
- Related models: E5501A (1.6 GHz), E5502A (6 GHz), E5504A (26.5 GHz); B-series (E5503B) extend offsets to 100 MHz

E5503A Characteristics / Specifications

PARAMETER	VALUE
Model	E5503A
Manufacturer	Keysight Technologies (Agilent)
Instrument Type	Phase Noise Measurement Solution
Family	E5500 A-Series
Alias	E5503A; Agilent E5503A Frequency
Carrier range	50 kHz to 18.0 GHz
Carrier frequency	50 kHz to 18.0 GHz
A-series offsets	0.01 Hz to 4 MHz (standard class; options extend)
Related models	E5501A (1.6 GHz), E5502A (6 GHz), E5504A (26.5 GHz); B-series (E5503B) extend offsets to 100 MHz

E5503A Specifications

PARAMETER	VALUE
Applications	Production ATE phase-noise test of oscillators and synthesizers; AM noise; absolute/residual PN characterization to 18 GHz.
Key Features	- Carrier frequency: 50 kHz to 18.0 GHz
Technical Specifications	Model: E5503A
Frequency	Carrier range: 50 kHz to 18.0 GHz
System Architecture	Phase noise test set with phase detectors / PLL; baseband digitizer; low-noise downconverter for 18 GHz coverage; PC software automation
Operational Notes	Prefer Agilent E5500 Series datasheet 5989-0851 / configuration guide. Successor rack systems include E5505A.

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	E5503A
Manufacturer	Keysight Technologies (Agilent)
Instrument Type	Phase Noise Measurement Solution
Family	E5500 A-Series
Alias	E5503A; Agilent E5503A

Frequency

Carrier range: 50 kHz to 18.0 GHz

Offset range (A-series): 0.01 Hz to 4 MHz (standard published class)

System Architecture

Phase noise test set with phase detectors / PLL; baseband digitizer; low-noise downconverter for 18 GHz coverage; PC software automation

Operational Notes

Prefer Agilent E5500 Series datasheet 5989-0851 / configuration guide. Successor rack systems include E5505A.

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.