

**Aumictech**

Test & measurement • bought, sold, repaired, calibrated

Data Sheet

August 12, 2026

KEYSIGHT / AGILENT

Keysight (Agilent) E5056A SSA-X Signal Source Analyzer, 1 MHz to 26.5 GHz

Keysight / Agilent E5056A SSA-X Signal Source Analyzer The E5056A is an SSA-X signal source analyzer for absolute and residual phase noise and related source measurements from 1 MHz to 26.5 GHz. Uses ultra-low-noise sensitivity and cross-correlation methods. The E5056A is an SSA-X signal source analyzer for absolute and residual phase noise and related source measurements from 1 MHz to 26.5 GHz. Uses ultra-low-noise sensitivity and cross-correlation methods.



MODEL

**Keysight / Agilent
E5056A**

CALIBRATION

**Available on
request**

CONDITION

Used

STATUS

In stock

RFQ / SKU

E5056A

LISTING

<https://aumictechlabs.com/products/e5056a-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 • 811210 • 541380

This unit

The Keysight E5056A SSA-X Signal Source Analyzer characterizes signal sources from 1 MHz to 26.5 GHz with integrated phase noise, residual noise, spectrum analysis, and vector network analysis capabilities. Built for R&D and manufacturing, this instrument delivers phase noise sensitivity to -171 dBc/Hz and supports absolute phase noise measurements above 54 GHz via external mixers. It combines single and dual-port configurations with optional VNA functionality, VCO control outputs, and clock jitter analysis - eliminating the need for multiple benchtop instruments. Technical Specifications Frequency Range: 1 MHz to 26.5 GHz Phase Noise

Sensitivity: -171 dBc/Hz (RF = 16 GHz @ 1 MHz offset, typical) Offset Frequency Range: 1 mHz to > 1 GHz Cross-Correlation Factor: 1 to 100,000 Residual Spurious Level: < -50 dBc for carrier < 100 MHz; < -80 dBc for carrier $\geq$ 100 MHz (typical) Level Measurement Uncertainty (1 MHz to 8 GHz, sinusoidal input): ± 1.2 dB (-20 to -10 dBm), ± 1 dB (-10 to +15 dBm), ± 1.5 dB (+15 to +20 dBm) Warm-up Period: 90 minutes minimum Operating Temperature: 0 °C to 40 °C

Key Features Phase noise (absolute and residual) and AM noise measurement Baseband noise, frequency/power/phase transient characterization Full span spectrum analysis with two-port vector network analysis Clock jitter analysis including RJ and PJ components Built-in clean internal signal source for residual phase noise benchmarking Two DC voltage channels and tuning outputs for VCO analysis External mixer support for DUTs above 54 GHz VNA option with ECal and mechanical calibration kit compatibility

Typical Applications VCO and oscillator characterization Phase noise profiling of RF/microwave sources. Signal purity assessment in communication and radar systems. Network analysis of passive and active components. Clock jitter evaluation in timing-sensitive applications.

Compatibility & Integration Available in 1-port (standard or enhanced low-noise) and 2-port configurations with optional low-noise internal source. Supports external mixer and power divider integration for extended frequency coverage.

Features & description

From manufacturer datasheet

Features

• RF frequency range: 1 MHz to 26.5 GHz • Family: SSA-X (E5055A 8 GHz; E5056A 26.5 GHz; E5057A 44 GHz; E5058A 54 GHz) • Minimum offset frequency: 1 mHz • Maximum offset (default mode): up to 1 GHz for carriers from 1.61 GHz to 54 GHz class (family table for E5056A/57A/58A) • Max offset extension mode ON: up to 8 GHz / 3 GHz depending on carrier band • Measurement: absolute and residual phase noise with cross-correlation • Related models differ mainly by max carrier frequency

Applications

• Oscillator / synthesizer phase noise characterization • Residual phase noise measurements • RF source spectral purity evaluation to 26.5 GHz

E5056A Characteristics / Specifications

PARAMETER	VALUE
Model	E5056A
Manufacturer	Keysight / Agilent
Instrument Type	SSA-X Signal Source Analyzer
Alias	E5056A; Keysight E5056A
Frequency range	1 MHz to 26.5 GHz
Min offset	1 mHz
Max carrier	26.5 GHz
Method	cross-correlation phase noise Notes Specs from Keysight E5055A SSA-X Signal Source Analyzer data sheet family tables (E5056A column). Confirm options and residual measurement hardware on the unit.
RF frequency range	1 MHz to 26.5 GHz
Family	SSA-X (E5055A 8 GHz; E5056A 26.5 GHz; E5057A 44 GHz; E5058A 54 GHz)
Minimum offset frequency	1 mHz
Maximum offset (default mode)	up to 1 GHz for carriers from 1.61 GHz to 54 GHz class (family table for E5056A/57A/58A)
Max offset extension mode ON	up to 8 GHz / 3 GHz depending on carrier band
Measurement	absolute and residual phase noise with cross-correlation

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	E5056A
Manufacturer	Keysight / Agilent
Instrument Type	SSA-X Signal Source Analyzer
Alias	E5056A; Keysight E5056A

Specifications

PARAMETER	VALUE
Frequency range	1 MHz to 26.5 GHz
Min offset	1 mHz
Max carrier	26.5 GHz
Method	cross-correlation phase noise

Notes

Specs from Keysight E5055A SSA-X Signal Source Analyzer data sheet family tables (E5056A column). Confirm options and residual measurement hardware on the unit.

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

Aumictech

788 S 500 E, Pleasant Grove, UT 84062
sales@aumictech.com · +1 (484) 841-9341
<https://aumictechlabs.com>

NIST-traceable calibration · SAM registered ·
30-day returns
NAICS 423690 · 811210 · 541380
Generated August 12, 2026

Technical content from manufacturer specifications. Unit photo/stock from Aumictech listing when available. Specifications subject to OEM documentation and unit condition.