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Data Sheet

August 15, 2026

AGILENT / KEYSIGHT

Agilent/Keysight E5081A

Keysight E5081A ENA-X Vector Network Analyzer The Keysight E5081A ENA-X is an RF/microwave vector network analyzer covering 10 MHz to 20 GHz or 44 GHz by option, with 2-port or 4-port test sets, configurable test set access on ports 1 and 2, and integrated modulation-distortion / noise-figure class measurement hardware per the Keysight E5081A datasheet. 5G and satellite component characterization, amplifier and mixer modulated-distortion / EVM analysis, noise figure, and multiport S-parameter production test. The Keysight E5081A ENA-X is an RF/microwave vector network analyzer covering 10 MHz to 20 GHz or 44 GHz by option, with 2-port or 4-port test sets, configurable test set access on ports 1 and 2, and integrated modulation-distortion / noise-figure class measurement hardware per the Keysight E5081A datasheet. 5G and satellite component characterization, amplifier and mixer modulated-distortion / EVM analysis, noise figure, and multiport S-parameter production test. ENA-X midrange VNA with modulation distortion analysis



MODEL

**Agilent / Keysight
E5081A**

CALIBRATION

**Available on
request**

CONDITION

Used

STATUS

In stock

RFQ / SKU

E5081A

LISTING

<https://aumictechlabs.com/products/e5081a-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 • 811210 • 541380

This unit

The Keysight E5081A ENA-X is a vector network analyzer engineered for RF component and circuit characterization across 5G and satellite communication applications. This instrument consolidates multiple measurement functions into a single platform, delivering high accuracy and repeatability while reducing test cycle time and minimizing error sources. Available in 2-port and

4-port configurations with frequency coverage from 9 kHz to 44 GHz (extendable to 54 GHz), the E5081A provides dynamic range up to 173 dB and integrates modulation distortion analysis, spectrum analysis, and noise figure measurement capabilities.

Technical Specifications

Frequency Range: 9 kHz to 20 GHz, 10 MHz to 44 GHz, or extended to 54 GHz depending on configuration

Port Configuration: 2-port or 4-port options; 4-port models available with integrated second source and upconverter for modulation distortion measurements

Port Connectors: 2.4 mm and 3.5 mm male

Port Impedance: 50 Ω

Dynamic Range: 112 dB to 173 dB (system dynamic range defined as source maximum output power minus receiver noise floor)

Noise Floor: -114 dBm to -59 dBm

Power Sweep Range: -80 dBm to 19 dBm

Directivity: 36 dB to 42 dB

IF Bandwidth: 10 Hz

Harmonics: -50 dBc to -25 dBc

Linearity: ± 0.2 dB to ± 2 dB

Key Features

- Modulation distortion measurements to 44 GHz including Error Vector Magnitude (EVM) and Adjacent Channel Power (ACPR)
- Integrated spectrum analysis with software enablement options
- Noise figure measurement capability with wideband and noise-power options
- Direct receiver access for high-power testing with external amplifiers, attenuators, or directional couplers
- Vector-corrected calibration with full correction at the DUT plane
- Spectral correlation technique for direct frequency-domain analysis of modulated signals
- Built-in low-noise receivers

Typical Applications

- Component characterization under complex modulation schemes
- 5G and satellite communication RF testing
- Modulation quality assessment
- High-sensitivity receiver measurements

Compatibility & Integration

The E5081A supports direct receiver access architecture enabling integration with external signal conditioning and amplification equipment. Specific configurations such as the E5081A-4N6 provide integrated second source and upconverter functionality for advanced modulation distortion analysis.

E5081A Characteristics / Specifications

PARAMETER	VALUE
Instrument Type	ENA-X vector network analyzer
Series Family	Keysight ENA-X E5081A
Frequency Range Option 2K5 2K6 4K5 4K	10 MHz to 20 GHz
Frequency Range Option 2N5 2N6 2N7 4N5 4N6 4N	10 MHz to 44 GHz
Frequency Resolution	1 Hz
Frequency Accuracy Spec	plus or minus 7 ppm
Frequency Accuracy Option 1E5 Typical	plus or minus 0.45 ppm
Frequency Stability Option 1E	plus or minus 0.05 ppm from 0 to 40 C
Frequency Aging Option 1E	plus or minus 0.1 ppm per year maximum
System Dynamic Range At 4 GHz Spec	143 dB at 10 Hz IFBW ports 1 and 2
System Dynamic Range At 20 GHz Spec	134 dB at 10 Hz IFBW ports 1 and 2
Trace Noise At 4 GHz Spec	0.0015 dBrms at 10 kHz IFBW
Maximum Output Power Port1 Port2 1 MHz To 5 GHz Spec	plus 16 dBm
Maximum Output Power Port1 Port2 5 GHz To 6.5 GHz Spec	plus 17 dBm
Maximum Output Power Port1 Port2 19 GHz To 20 GHz Spec	plus 10 dBm
Power Sweep Range Port1 Port2 At 4 GHz Typical	minus 80 to plus 16 dBm
Power Level Accuracy Port1 Port2 50 MHz To 15 GHz Spec	plus or minus 1.5 dB at 0 dBm stepped
Test Port Connectors 20 GHz Options	3.5 mm male
Test Port Connectors 44 GHz Options	2.4 mm male
Port Count	2 port or 4 port by option
Display	12.1 inch touchscreen WXGA

PARAMETER	VALUE
Remote Interfaces	USB LAN GPIB Handler IO
Maximum output power	Port1 Port2 1 MHz To 5 GHz Spec: plus 16 dBm

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
Instrument Type	ENA-X vector network analyzer
Series Family	Keysight ENA-X E5081A
Frequency Range Option 2K5 2K6 4K5 4K6	10 MHz to 20 GHz
Frequency Range Option 2N5 2N6 2N7 4N5 4N6 4N7: 10 MHz to 44 GHz	
Specifications	
PARAMETER	VALUE
Frequency Resolution	1 Hz
Frequency Accuracy Spec	plus or minus 7 ppm
Frequency Accuracy Option 1E5 Typical	plus or minus 0.45 ppm
Frequency Stability Option 1E5	plus or minus 0.05 ppm from 0 to 40 C
Frequency Aging Option 1E5	plus or minus 0.1 ppm per year maximum
System Dynamic Range At 4 GHz Spec	143 dB at 10 Hz IFBW ports 1 and 2
System Dynamic Range At 20 GHz Spec	134 dB at 10 Hz IFBW ports 1 and 2
Trace Noise At 4 GHz Spec	0.0015 dBrms at 10 kHz IFBW
Maximum Output Power Port1 Port2 1 MHz To 5 GHz Spec: plus 16 dBm	
Maximum Output Power Port1 Port2 5 GHz To 6.5 GHz Spec: plus 17 dBm	
Maximum Output Power Port1 Port2 19 GHz To 20 GHz Spec: plus 10 dBm	
Power Sweep Range Port1 Port2 At 4 GHz Typical: minus 80 to plus 16 dBm	
Power Level Accuracy Port1 Port2 50 MHz To 15 GHz Spec: plus or minus 1.5 dB at 0 dBm stepped	
Specifications	
PARAMETER	VALUE
Test Port Connectors 20 GHz Options	3.5 mm male
Test Port Connectors 44 GHz Options	2.4 mm male
Port Count	2 port or 4 port by option
Display	12.1 inch touchscreen WXGA
Remote Interfaces	USB LAN GPIB Handler IO

Notes

Numeric rows from Keysight E5081A ENA-X Vector Network Analyzer datasheet and ENA-X configuration guide.
Dynamic range at 10 Hz IFBW; power values are specification or typical as labeled on the OEM sheet.

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

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NIST-traceable calibration · SAM registered ·
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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.