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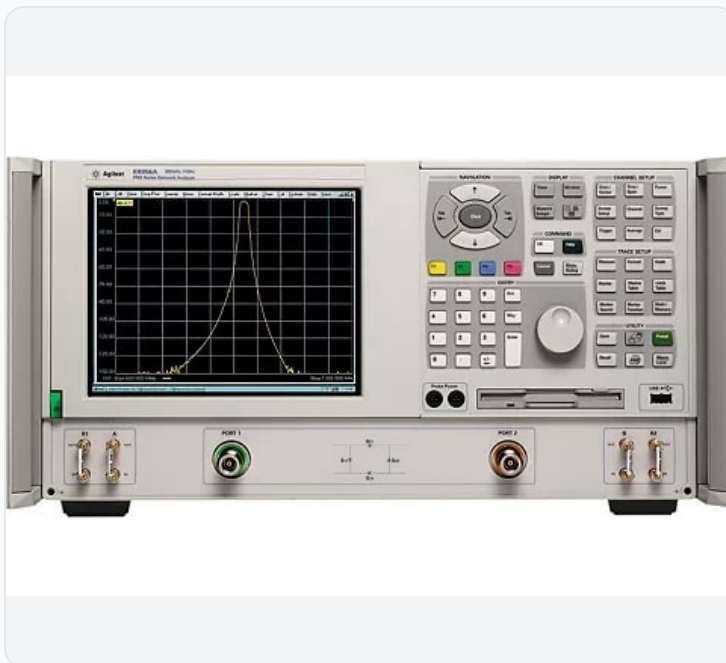
Data Sheet

August 15, 2026

AGILENT / KEYSIGHT

Agilent / Keysight E8356A 3GHz PNA Network Analyzer

Agilent / Keysight E8356A PNA RF Network Analyzer 300 kHz to 3.0 GHz The Agilent E8356A is a 2-port four-receiver PNA Series RF vector network analyzer covering 300 kHz to 3.0 GHz. OEM PNA RF data sheets rate test-port system dynamic range of 125 dB from 300 kHz to 25 MHz and 128 dB from 25 MHz to 3 GHz, with receiver-input dynamic range to 143 dB from 25 MHz to 3 GHz, frequency resolution of 1 Hz, and source power range about -85 to +10 dBm to 6 GHz. RF S-parameter characterization, filter and amplifier production test, in-fixture TRL measurements, and high-dynamic-range component analysis to the model upper frequency. The Agilent E8356A is a 2-port four-receiver PNA Series RF vector network analyzer covering 300 kHz to 3.0 GHz. OEM PNA RF data sheets rate test-port system dynamic range of 125 dB from 300 kHz to 25 MHz and 128 dB from 25 MHz to 3 GHz, with receiver-input dynamic range to 143 dB from 25 MHz to 3 GHz, frequency resolution of 1 Hz, and source power range about -85 to +10 dBm to 6 GHz. RF S-parameter characterization, filter and amplifier production test, in-fixture TRL measurements, and high-dynamic-range component analysis to the model upper frequency.



MODEL

**Agilent / Keysight
E8356A**

CALIBRATION

**Available on
request**

CONDITION

Used

STATUS

In stock

RFQ / SKU

E8356A

LISTING

<https://aumictechlabs.com/products/e8356a-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 · 811210 · 541380

This unit

The Agilent/Keysight E8356A is a 2-port vector network analyzer operating from 300 kHz to 3 GHz, engineered for precise RF and microwave component characterization in R&D and manufacturing environments. It delivers 128 dBm dynamic range, 10 dBm output power, and low trace noise across fast sweep speeds. The instrument supports S-parameter and impedance measurements, time domain analysis, and advanced calibration methods including TRL/LRM calibration for in-fixture and on-wafer devices. Standard bias-tees enable active device testing, while direct receiver access extends measurement dynamic range. Mixer and converter measurements benefit from frequency-offset mode and advanced mixer calibrations (VMC, SMC). Optional electronic calibration (ECal) provides precision, single-connection, multi-port calibration. The analyzer runs embedded Windows, supports SCPI commands and COM programming, and includes automation and self-help tools. Standard 3.5mm or 2.4mm connectors accommodate various test configurations.

Technical Specifications
Frequency Range: 300 kHz to 3 GHz
Number of Ports: 2
Dynamic Range: 128 dBm
Output Power: 10 dBm
Weight: 50 lbs
Dimensions: 24 × 20 × 16 inches

Key Features
S-parameter and impedance characterization
Time domain analysis for device troubleshooting
TRL/LRM calibration with four-receiver enablement
Adapter removal and unknown thru calibration support
Optional electronic calibration (ECal)
Standard bias-tees for active device testing
Direct receiver access for extended dynamic range
Frequency-offset mode and advanced mixer calibrations (VMC, SMC)
Low trace noise across measurement range
Embedded Windows operating system with SCPI and COM support

Typical Applications
RF component characterization
Microwave device testing
In-fixture and on-wafer measurements
Mixer and converter analysis
Active device bias and characterization

Compatibility & Integration
Standard 3.5mm and 2.4mm connector options
SCPI command programming
COM (Component Object Model) interface
Embedded Windows-based automation and control

E8356A Characteristics / Specifications

PARAMETER	VALUE
Model	E8356A
Instrument Type	PNA RF vector network analyzer
Frequency Range	300 kHz to 3.0 GHz
Port Count	2
Receiver Architecture	4 receivers
Frequency Resolution	1 Hz
Cw Accuracy	plus or minus 1 ppm
Frequency Stability Typical	plus or minus 1 ppm from -10 C to 70 C
System Dynamic Range 300 Khz To 25 Mhz	125 dB at test port
System Dynamic Range 25 Mhz To 3 Ghz	128 dB at test port
Receiver Dynamic Range 300 Khz To 25 Mhz	140 dB at receiver input
Receiver Dynamic Range 25 Mhz To 3 Ghz	143 dB at receiver input
Source Power Range 300 Khz To 6 Ghz Class	-85 to +10 dBm
Power Level Accuracy 300 Khz To 6 Ghz	plus or minus 1.0 dB variation from 0 dBm in power range 0
Power Level Linearity 300 Khz To 9 Ghz Minus 15 To Plus 5 Dbm	plus or minus 0.3 dB
Power Level Resolution	0.01 dB
Power Sweep Range 300 Khz To 6 Ghz Class	25 dB
Trace Noise Class At 35 Khz Ifbw	about 0.004 dB rms class literature
Measurement Speed Class	about 35 us per point at widest IFBW class
Harmonics At Max Output Characteristic	less than -25 dBc
Interfaces	LAN USB GPIB class PNA
Calibration Class	full two-port TRL TRM and ECal family

PARAMETER	VALUE
Card Geometry	benchtop PNA RF analyzer

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	E8356A
Instrument Type	PNA RF vector network analyzer
Frequency Range	300 kHz to 3.0 GHz
Port Count	2
Receiver Architecture	4 receivers
Frequency Resolution	1 Hz
Cw Accuracy	plus or minus 1 ppm
Frequency Stability Typical	plus or minus 1 ppm from -10 C to 70 C

System Dynamic Range 300 Khz To 25 Mhz: 125 dB at test port
System Dynamic Range 25 Mhz To 3 Ghz: 128 dB at test port
Receiver Dynamic Range 300 Khz To 25 Mhz: 140 dB at receiver input
Receiver Dynamic Range 25 Mhz To 3 Ghz: 143 dB at receiver input
Source Power Range 300 Khz To 6 Ghz Class: -85 to +10 dBm
Power Level Accuracy 300 Khz To 6 Ghz: plus or minus 1.0 dB variation from 0 dBm in power range 0
Power Level Linearity 300 Khz To 9 Ghz Minus 15 To Plus 5 Dbm: plus or minus 0.3 dB
Power Level Resolution: 0.01 dB
Power Sweep Range 300 Khz To 6 Ghz Class: 25 dB

Specifications

PARAMETER	VALUE
Trace Noise Class At 35 Khz Ifbw	about 0.004 dB rms class literature
Measurement Speed Class	about 35 us per point at widest IFBW class
Harmonics At Max Output Characteristic	less than -25 dBc
Interfaces	LAN USB GPIB class PNA
Calibration Class	full two-port TRL TRM and ECal family
Card Geometry	benchtop PNA RF analyzer

Notes

From Agilent PNA Series RF Network Analyzers E8356/7/8A data sheet. Spurious residuals may limit dynamic range to about 100 dB at particular frequencies below 750 MHz.

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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30-day returns
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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.