

KEYSIGHT TECHNOLOGIES (AGILENT HP)

E8356A

The Keysight Agilent E8356A is a high-performance vector network analyzer belonging to the PNA Series platform. Operating over a frequency range of 300 kHz to 3 GHz, it delivers the speed and precision required for demanding RF component test applications. Featuring standard direct receiver access for extended dynamic range, built-in bias tees for active devices, and a four-receiver architecture enabling TRL/LRM calibration, the E8356A is highly optimized for both on-wafer and in-fixture component characterization.

SPECIFICATIONS

General

Interfaces	GPIB, LAN, USB, Parallel (LPT), Serial (RS-232), PS/2 Keyboard/Mouse, VGA Out
Display	8.4-inch color active-matrix LCD with touch screen

Physical

Power Supply	100 to 240 VAC (±10%), 50 to 60 Hz, 280 W typical (350 W maximum)
Operating Temperature	5 to 40 °C °C
Dimensions (W×H×D)	425 mm × 267 mm × 501 mm mm
Weight	26.0 kg kg

Frequency Specifications

Frequency Range	300 kHz to 3 GHz
Frequency Resolution	1 Hz
Number of Test Ports	2
Number of Receivers	4 (enabled for TRL/LRM)
Test Port Impedance	50 Ω nominal

Receiver & Dynamic Range Specifications

Direct Receiver Access Dynamic Range	143 dB (typical @ 10 Hz IFBW)
Direct Receiver Access	Optional (Option 014)

Test Port Output Specifications

Power Level Resolution	0.01 dB
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Measurement Accuracy & Calibration

Calibration Methods Supported	TRL, LRM, SOLT, Offset Short, Response, Isolation
Electronic Calibration (ECal) Compatibility	Compatible with Agilent/Keysight ECal modules

Measurement Speed & Performance

IF Bandwidth (IFBW) Range	1 Hz to 40 kHz
Number of Measurement Points per Sweep	1 to 16001

Measurement Capabilities & Display

Sweep Types	Linear frequency, log frequency, power sweep, segment sweep
Display Channels	Up to 32 independent channels
Traces per Channel	Up to 16 traces

System & Rear Panel Interfaces

Internal Bias Tees	Optional (Option UNL)
Test Port Connector Type	Type-N female (50 Ω)
10 MHz Reference Input	Rear panel BNC female
10 MHz Reference Output	Rear panel BNC female

Software, Control & Storage

Operating System	Windows OS
Internal Storage	Internal Hard Disk Drive
Remote Control Language	SCPI / COM / DCOM

Physical & Environmental

Storage Temperature Range	-40 to +70 °C
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Source

Source Power Range (Standard)	-15 to +5 dBm
Source Power Range (Option 1E1)	-85 to +5 dBm
Power Level Accuracy	± 1.0 dB (at -15 to +5 dBm)

Receiver

Maximum Test Port Input Level (Damage)	+30 dBm or 40 VDC
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Frequency

Internal Timebase Accuracy	± 1 ppm
Internal Timebase Aging	± 1 ppm/year

Speed

Measurement Speed (201 points, 35 kHz IFBW)	35 ms (uncorrected)
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Rear Panel Connections

External Trigger Input	BNC female, TTL compatible
External Trigger Output	BNC female, TTL compatible
Bias Tee Inputs	BNC female, max 500 mA, 40 VDC

Inputs & Outputs

USB Ports	4 ports (Type-A, USB 1.1 compliant)
LAN Interface	10/100 Base-T (RJ-45)
VGA Video Output	15-pin D-sub
GPIO Ports	2 ports (1 x Talker/Listener, 1 x Controller)
Serial Port	9-pin D-sub (RS-232)
Parallel Port	25-pin D-sub (IEEE 1284)
PS/2 Ports	2 ports (1 x Keyboard, 1 x Mouse)

Power

Maximum Power Consumption	350 W
AC Input Voltage	100 to 240 VAC (±10%), 50 to 60 Hz

Environmental

Operating Altitude	0 to 3,000 meters (9,842 ft)
Storage Altitude	0 to 15,240 meters (50,000 ft)
Operating Humidity	5% to 90% RH (non-condensing)

Compliance

EMC Compliance	Complies with IEC/EN 61326-1, CISPR 11 Group 1 Class A
Safety Compliance	Complies with IEC/EN 61010-1, CAN/CSA C22.2 No. 1010.1

TECHNOLOGY

Vector Network Analysis

APPLICATIONS

RF Component Characterization and Test

Generated by SpecAtlasHub (specatlashub.com). Specifications are compiled from available sources and are subject to change — verify critical values against the manufacturer before purchase.