

KEYSIGHT TECHNOLOGIES (AGILENT HP)

8752A

The HP Keysight 8752A is a high-performance 50 Ω vector network analyzer designed for transmission and reflection measurements in laboratory and production environments. It features an integrated synthesized RF source, a built-in transmission/reflection test set, and a vivid color display, allowing complete RF network analysis without the need for external equipment.

SPECIFICATIONS

General

Interfaces	HP-IB (IEEE-488)
Display	Built-in monochrome display
Impedance Options	50 Ω (standard), 75 Ω (Option 075)

Physical

Power Supply	90 to 132 Vac / 198 to 264 Vac, 47 to 66 Hz, 200 VA maximum
Operating Temperature	0 to 55 $^{\circ}\text{C}$
Dimensions (W×H×D)	425 mm × 178 mm × 508 mm mm
Weight	22 kg kg

Source Specifications

Frequency Range (Standard)	300 kHz to 1.3 GHz
Frequency Range (with Option 003)	300 kHz to 3 GHz
Frequency Resolution	1 Hz
Test Port Power Range	-20 to +5 dBm

Receiver Specifications

Receiver Dynamic Range	100 dB
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Measurement Performance

Nominal System Impedance	50 Ω
Test Port Connector	Type-N (female), 50 Ω (nominal)
Magnitude Reference Level Range	± 500 dB
Magnitude Reference Level Resolution	0.001 dB
Phase Range	$\pm 180^{\circ}$
Phase Reference Level Range	$\pm 500^{\circ}$
Phase Reference Level Resolution	0.01 $^{\circ}$
Group Delay Aperture	Selectable (max aperture 20% of span, min span / (number of points - 1))
Group Delay Range	1 / (2 × minimum aperture)

Display & Measurement

Number of Measurement Channels	2 independent channels
Trace Formats	Rectangular, polar, Smith chart
Measurement Capabilities	Trace math, data averaging, trace smoothing, electrical delay, measurement calibration
Plotting/Printing Buffer	Supported (allows plotting/printing while making measurements)

Connectivity & Interfaces

External Reference Input Frequencies	1, 2, 5, and 10 MHz
External Reference Input Level	-10 dBm to +20 dBm
External Reference Input Impedance	50 Ω
External Auxiliary Input Voltage Range	-10 V to +10 V
External AM Input	± 1 V into a 5 k Ω resistor (1 kHz max, 8 dB/V modulation)
External Trigger Input	Negative TTL transition or contact closure to ground
HP-IB Transfer Formats	Binary, CITIFile ASCII, 32/64-bit IEEE 754 Floating Point Format

Sweep Characteristics

Sweep Points	3, 11, 26, 51, 101, 201, 401, 801, 1601
Sweep Types	Linear frequency, Logarithmic frequency, List frequency, Power sweep

Environmental

Storage Temperature	-40 °C to +70 °C
Operating Altitude	Up to 4,600 meters (15,000 feet)
Non-Operating Altitude	Up to 15,240 meters (50,000 feet)
Humidity	5% to 95% non-condensing

Power Requirements

Power Consumption	200 VA maximum
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Calibration & Accuracy

Measurement Calibration	Response, Response & Isolation, 1-Port (Reflection), One-path 2-Port (Transmission)
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Markers

Number of Markers	4 per channel
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Measurement Capabilities

Sweep Averaging	1 to 999 sweeps
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Source Characteristics

Frequency Accuracy	±10 ppm (at 25 °C ± 5 °C)
Frequency Temperature Stability	±7.5 ppm (over 0 °C to 55 °C)
Power Flatness	±1.0 dB (at maximum output power)
Power Sweep Range	20 dB

System Performance (Corrected)

Directivity (Corrected)	46 dB (300 kHz to 1.3 GHz) / 40 dB (1.3 GHz to 3 GHz with Option 003)
Source Match (Corrected)	40 dB (300 kHz to 1.3 GHz) / 36 dB (1.3 GHz to 3 GHz with Option 003)
Load Match (Corrected)	20 dB (300 kHz to 1.3 GHz) / 16 dB (1.3 GHz to 3 GHz with Option 003)

System Performance (Uncorrected)

Directivity (Uncorrected)	30 dB (300 kHz to 1.3 GHz) / 26 dB (1.3 GHz to 3 GHz with Option 003)
Source Match (Uncorrected)	20 dB (300 kHz to 1.3 GHz) / 16 dB (1.3 GHz to 3 GHz with Option 003)
Load Match (Uncorrected)	20 dB (300 kHz to 1.3 GHz) / 16 dB (1.3 GHz to 3 GHz with Option 003)

Options

Option 004 Step Attenuator	70 dB step attenuator in 10 dB steps
Option 010 Time Domain	Enables Time Domain bandpass and lowpass modes

Inputs & Outputs

Maximum Test Port DC Voltage	30 VDC
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TECHNOLOGY

Vector Network Analyzer

APPLICATIONS

RF component and active/passive network characterization (magnitude, phase, and group delay measurements)

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