

KEYSIGHT TECHNOLOGIES (AGILENT HP)

8720ES

The Keysight (formerly Agilent / HP) 8720ES is a high-performance vector network analyzer designed for complete characterization of RF and microwave components. Operating from 50 MHz to 20 GHz, it integrates a synthesized source, an S-parameter test set, and a tuned receiver into a single instrument. It features 100 dB of dynamic range, fast sweep capabilities, and robust built-in vector accuracy enhancement, making it a reliable standard for both production and R&D environments.

SPECIFICATIONS

General

Interfaces	GPIB (IEEE-488.2), RS-232, Parallel (Centronics), VGA out
Display	Color LCD

Physical

Dimensions (W×H×D)	425 x 222 x 457 mm
Weight	25 kg kg

System Performance

Frequency Range	50 MHz to 20 GHz
Frequency Resolution	1 Hz
Standard Impedance	50 Ω

Test Port Characteristics

Test Port Connector Type	3.5 mm (male)
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Source Characteristics

Output Power Range	-75 to +5 dBm (standard)
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Measurement and Display Capabilities

Measured Parameters (S-Parameters)	S11, S21, S12, S22
Measurement Channels	2
Display Channels	4
Number of Data Points	3 to 1601
Sweep Types	Linear frequency, log frequency, power, CW time, list frequency

Data Processing and Calibration

Calibration Methods Supported	Full two-port, adapter-removal, optional TRL (with Option 400)
Electronic Calibration (ECal)	Supported
Test Sequencing	Internal automation supported
Pass/Fail Testing	Supported (with limit lines)

Hardware Options

Time Domain Analysis	Supported (Option 010)
Direct Sampler Access	Optional (Option 012)
High Power Test Set	Optional (Option 085)
Frequency-Offset Mode	Optional (Option 089)
Four Samplers and TRL Calibration	Optional (Option 400)

Source

Output Power Resolution	0.01 dB
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Receiver

IF Bandwidth Settings	10 Hz to 6 kHz
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Options

High-Stability Frequency Reference	Option 1D5
Mechanical Test Port Switch	Option 007

Storage

Removable Storage	3.5-inch floppy disk drive (1.44 MB, DOS format)
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Environmental

Storage Temperature	-40 °C to +70 °C
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Power

Power Consumption	280 VA maximum
AC Voltage Input	90 to 132 Vac or 198 to 264 Vac (automatically selected)
AC Frequency Input	48 to 66 Hz

Compliance

Electromagnetic Compatibility (EMC)	CISPR 11 / EN 55011 Group 1, Class A
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Performance

Sweep Averaging	Sweep-by-sweep averaging; 1 to 999 averages
Trace Smoothing	0 to 20% of span (selectable)

TECHNOLOGY

Vector Network Analysis

APPLICATIONS

RF & Microwave Component Characterization

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