

KEYSIGHT TECHNOLOGIES (AGILENT HP)

8719C

The Keysight (formerly Agilent / HP) 8719C is a high-performance vector network analyzer designed to characterize RF and microwave components from 50 MHz to 13.5 GHz. It integrates a fast-sweeping synthesized source, an S-parameter test set, and a tuned receiver into a single compact package, making it highly suitable for R&D, manufacturing, and quality assurance.

SPECIFICATIONS

General

Interfaces	HP-IB (GPIB)
Display	9-inch color CRT

Physical

Power Supply	90 - 132 VAC / 198 - 264 VAC, 47 - 66 Hz
Operating Temperature	0 to 55 °C °C
Dimensions (W×H×D)	425 mm × 267 mm × 508 mm mm
Weight	34 kg kg

Frequency & Stimulus

Frequency Range	50 MHz to 13.5 GHz
Frequency Resolution	100 kHz (standard) / 1 Hz (with Option 001)
Number of Test Ports	2
Test Port Impedance	50 Ω

Receiver & Dynamic Range

System Dynamic Range	103 dB
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Measurement Capabilities & Calibration

Measured Parameters	S11, S21, S12, S22
Display Channels	2 independent channels
Display Formats	Log Magnitude, Phase, Group Delay, Smith Chart, Polar, SWR, Linear Magnitude
Time Domain Capability	Optional (Option 010)
Vector Accuracy Enhancement	Supported (including two-port error correction)

Hardware Options

Solid State Switch	Optional (allows continuous update of 4 S-parameters)
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Hardware Interfaces & Connections

Test Port Connector Type	3.5 mm (male)
Output Capabilities	Direct printer/plotter output of results

System & Controller

Productivity Features	Pass/fail testing, advanced marker functions, save/recall of configurations
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Source Specifications

Output Power Range	-15 to -75 dBm
Power Resolution	0.05 dB
Power Sweep Range	20 dB
Harmonics	< -15 dBc (at maximum output power)
Non-Harmonic Spurious	< -30 dBc (at maximum output power)

Receiver Specifications

Maximum Input Level	-15 dBm (0.1 dB compression)
Maximum Safe Input Level	+20 dBm
Port-to-Port Crosstalk	> 100 dB

Sweep Characteristics

Number of Measurement Points	3, 11, 26, 51, 101, 201, 401, 801, 1601
Sweep Types	Linear frequency, logarithmic frequency, list frequency, power sweep

Group Delay

Group Delay Aperture	Selectable from 0.25% to 20% of frequency span
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Frequency Reference

External Reference Input Frequency	1, 2, 5, or 10 MHz (± 10 ppm)
External Reference Input Level	-10 to +20 dBm (typically 0 dBm)

Frequency Reference (Option 1D5)

High Stability Reference Temperature Stability	± 0.05 ppm (0 °C to 55 °C)
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Rear Panel Connections

Auxiliary Voltage Input	BNC, ± 10 V range
External AM Input	BNC, 0 to 10 V into 10 k Ω for up to 15 dB power control
Test Port Bias Input	Max 500 mA, 40 VDC

System Control

HP-IB Interface Codes	SH1, AH1, T6, TE0, L4, LE0, SR1, RL1, PP0, DC1, DT1, C0, E2
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Environmental

Non-Operating Temperature Range	-40 °C to +75 °C
Operating Humidity	5% to 95% at 40 °C (non-condensing)
Maximum Operating Altitude	4,500 m (15,000 ft)

TECHNOLOGY

Vector Network Analysis

APPLICATIONS

RF and 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.