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Data Sheet

August 13, 2026

HP / AGILENT

HP / Agilent 8719C 13.5GHz Microwave Network Analyzer

HP Agilent 8719C 13.5 GHz Microwave Vector Network Analyzer The HP 8719C is the 13.5 GHz member of the 8719C/8720C/8722C microwave VNA family. A fast-sweeping synthesized source, switching S-parameter test set, tuned receiver, and color display are integrated in one package. Frequency coverage is 50 MHz to 13.5 GHz with 3.5 mm test ports. Standard frequency resolution is 100 kHz; Option 001 provides 1 Hz. Maximum source power is +10 dBm with a -65 dBm minimum class and 0.05 dB power resolution. System dynamic range is 103 dB above 2 GHz. Option 010 adds time-domain (inverse FFT) display; Option 003 raises forward (S21) dynamic range; Option 006 replaces mechanical switches with solid-state switching. The HP 8719C is the 13.5 GHz member of the 8719C/8720C/8722C microwave VNA family. A fast-sweeping synthesized source, switching S-parameter test set, tuned receiver, and color display are integrated in one package. Frequency coverage is 50 MHz to 13.5 GHz with 3.5 mm test ports. Standard frequency resolution is 100 kHz; Option 001 provides 1 Hz. Maximum source power is +10 dBm with a -65 dBm minimum class and 0.05 dB power resolution. System dynamic range is 103 dB above 2 GHz. Option 010 adds time-domain (inverse FFT) display; Option 003 raises forward (S21) dynamic range; Option 006 replaces mechanical switches with solid-state switching. Two-port S-parameter characterization o



MODEL

HP / Agilent 8719C

CALIBRATION

Available on request

CONDITION

Used

STATUS

In stock

RFQ / SKU

8719C

LISTING

<https://aumictechlabs.com/products/8719c-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 • 811210 • 541380

This unit

The HP/Agilent 8719C is a 50 MHz to 13.5 GHz microwave network analyzer engineered for RF and microwave component characterization in development, manufacturing, and quality assurance environments. It combines a fast-sweeping synthesized source, integrated S-parameter test set, tuned receiver, and color display in a single benchtop instrument optimized for cost and space efficiency. Technical Specifications Frequency Range: 50 MHz to 13.5 GHz Source: Fast-sweeping built-in synthesized source with 10 ppm frequency accuracy. Standard frequency resolution is 100 kHz; optional 1 Hz resolution available. Output power: +10 dBm maximum, -65 dBm minimum, with 0.1 dB resolution and ± 2.5 dB flatness. Receiver: Tuned receivers with variable-bandwidth IF filters. System dynamic range exceeds 103 dB above 2 GHz. Sensitivity: -93 dBm above 2 GHz; -113 dBm above 2 GHz with Option 011. Measurement Speed: 6 μ s/point; typical update times approximately 1 ms per point. Full 2-port sweep (201 points) completes in less than 5 ms/point. Test Set: Integrated switching test set measures all four S-parameters with single connection. Optional Solid State Switch (Option 006) enables simultaneous forward and reverse parameter measurement and continuous all-parameter update; reduces system power and dynamic range by approximately 5 dB. Calibration & Correction: Supports two-port error correction, waveguide calibration including dispersion effects, and TRL calibration for non-coaxial devices. Key Features S-parameter measurements (all four parameters, forward and reverse) Insertion loss and impedance characterization Time-domain analysis displaying response versus time or distance Simultaneous dual-channel reflection and transmission measurements Power sweep and gain compression testing capability Material dielectric property measurements (via optional kits such as HP 85070B) Vector accuracy enhancement Interfaces & Physical GP-IB interface for instrument control. Optional external disk drive support (e.g., HP 9122). Dimensions: 425 mm W $\times$ 267 mm H $\times$ 502 mm D. Weight: 34 kg net. 3.5 mm connectors. Typical Applications Component characterization, filter and amplifier validation, transmission line analysis, impedance matching verification, and dielectric constant measurement in materials research and manufacturing environments.

8719C Characteristics / Specifications

PARAMETER	VALUE
Model	8719C
Manufacturer	Hewlett Packard / Agilent (Keysight)
Instrument Type	Microwave vector network analyzer
Family	8719C / 8720C / 8722C
Alias	HP 8719C; Agilent 8719C; Keysight 8719C
Frequency Range	50 MHz to 13.5 GHz
Frequency Resolution Standard	100 kHz
Frequency Resolution Option 0	1 Hz
Frequency Accuracy	10 ppm
Maximum Source Power	plus 10 dBm
Minimum Source Power	minus 65 dBm
Power Resolution	0.05 dB
Power Flatness	plus/minus 3.0 dB class (C series)
Power Sweep Range	20 dB class (8719C/8720C)
Receiver Sensitivity Above 2 GHz	minus 118 dBm class (C series summary)
System Dynamic Range Above 2 GHz	103 dB
Test Port Connector	3.5 mm
IF Filters	variable bandwidth tuned receiver (C series summary does not list discrete Hz settings)
Measurement Points Rate Spec	201 point sweep
Measurement Rate Single Port	less than 2 ms per point typical (201 points)
Measurement Rate Full Two Port	less than 5 ms per point typical (201 points)
Sweep Update Class	about 1 ms per point (family marketing figure)
Display Channels	2 independentSParameters: all four (S11, S21, S12, S22) with one connection
Internal Bias Tees	2

PARAMETER	VALUE
Markers Per Channel	up to 5
Limit Lines Per Channel	up to 22
Width	425 mm (16.75 in)
Height	267 mm (10.5 in)
Depth	502 mm (19.75 in)
Weight Net	34 kg (75 lb) class (family)
Weight Shipping	40 kg (88 lb) class (family)
HPIB Functions	SH1, AH1, T6, TE0, L4, LE0, SR1, RL1, PP0, DC1, DT0, C0, C1, C10, E2
Spec Temperature	23 C plus/minus 3 C
Related 8720C	50 MHz to 20 GHz; 3.5 mm; plus 10 dBm max; 103 dB dynamic range
Related 8722C	50 MHz to 40 GHz; 2.4 mm; minus 5 dBm max; 87 dB dynamic range class
Bandwidth	tuned receiver (C series summary does not list discrete Hz settings)

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	
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Limit Lines Per Channel	up to 22

Option 001: 1 Hz frequency resolution
Option 003: high forward (S21) dynamic range
Option 006: solid state switching test set
Option 010: time domain capability
Option 011: direct access receiver configuration
Option 802: add HP 9122C dual disk drive
Option 913: rack mount kit

Specifications

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Spec Temperature	23 C plus/minus 3 C
Related 8720C	50 MHz to 20 GHz; 3.5 mm; plus 10 dBm max; 103 dB dynamic range
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Notes
Numeric rows from HP 8719C/8720C/8722C catalog technical data (Keysight 8720C datasheet reprint of C-series summary). IF bandwidth discrete settings and 1601-point lists are not copied from D/ES series. Confirm installed options (001/003/006/010/011) on the faceplate/firmware. Calibration kit class is 3.5 mm (85052/85033 family).

Ordering Information

OPTION	DESCRIPTION
Option 001	provides 1 Hz. Maximum source power is +10 dBm with a -65 dBm minimum class and 0.05 dB power resolution. System dynamic range is 103 dB above 2 GHz. Option 010
Option 003	raises forward (S21) dynamic range; Option 006 replaces mechanical switches with solid-state switching.
Option 010	time domain
Option 011	deletes couplers/transfer switch for direct receiver access (antenna/RCS)

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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NIST-traceable calibration · SAM registered ·
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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.