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Data Sheet
August 14, 2026

AGILENT / KEYSIGHT

Agilent/Keysight 8720ES

HP Agilent 8720ES Microwave Vector Network Analyzer The Agilent 8720ES isamicrowave S-parameter vector network analyzer in the 8720E family covering 50 MHz to 20 GHz with an integrated synthesized source, tuned receiver, and S-parameter test set. OEM 8720E documentation lists full two-port calibration, optional time domain Option 010, and frequency offset Option 089. Microwave S-parameter characterization to 20 GHz, filter tuning with optional time domain, amplifier gain compression with power sweep, and mixer conversion measurements with Option 089. The Agilent 8720ES isamicrowave S-parameter vector network analyzer in the 8720E family covering 50 MHz to 20 GHz with an integrated synthesized source, tuned receiver, and S-parameter test set. OEM 8720E documentation lists full two-port calibration, optional time domain Option 010, and frequency offset Option 089. Microwave S-parameter characterization to 20 GHz, filter tuning with optional time domain, amplifier gain compression with power sweep, and mixer conversion measurements with Option 089.

MODEL **Agilent / Keysight 8720ES**	CALIBRATION **Available on request**
CONDITION **Used**	STATUS **In stock**
RFQ / SKU **8720ES**	LISTING **https://aumictechlabs.com/products/8720es-2/**

NIST-traceable cal · SAM registered · 30-day returns

NAICS 423690 · 811210 · 541380

This unit

The Agilent/Keysight 8720ES is a vector network analyzer for RF and microwave component characterization across 50 MHz to 20 GHz. It delivers 100 dB dynamic range, dual independent measurement channels, and four display channels with full two-port error correction.Technical

Specifications Frequency & Resolution Operating range: 50 MHz to 20 GHz Frequency resolution: 1 Hz Integrated synthesized source with +5 dBm standard output power 55 dB step attenuator standard Measurement Architecture Two independent measurement channels; four display channels Dynamic range: Up to 100 dB S-parameter test set supports forward and reverse measurements Full two-port calibration, TRL/LRM, adapter removal, and electronic calibration (ECal) Measurement Formats & Functions Magnitude, phase, group delay, SWR, Smith chart, polar, and time domain Pass/fail testing with powerful marker functions Test-sequencing automation Power and frequency sweep capability with fast data transfer Pulsed RF Characterization Minimum pulse width: ~500 nanoseconds Minimum PRF: 20 Hz or greater (10 Hz IF bandwidth) External RF modulation and triggering required for single or random-timed pulses Measurement Accuracy Error-corrected temperature stability: ±1°C of calibration temperature Full two-port error correction Electrical & Environmental Line power: 115 V nominal (90–132 V) or 230 V nominal (198–264 V), 48–66 Hz Maximum power consumption: 350 VA External reference inputs: 1, 2, 5, 10 MHz (±200 Hz at 10 MHz); –10 to +20 dBm; 50 ohmsInterfaces & Physical Test ports: 3.5 mm precision NMD 3.5 male connectors, 50 ohm nominal impedance Data transfer: GPIB, parallel, RS-232 External monitor: VGA-compatible output Dimensions: 222 mm W × 425 mm D × 457 mm H Weight: 25 kg net; 28 kg shippingTypical Applications RF and microwave device R&D, manufacturing test, field service, and filter/amplifier/transmission line characterization requiring multi-channel measurement and rapid sweep execution.

Features & description

From manufacturer datasheet

High Power Test Set Option: Option 085 to 20 W class

Direct Receiver Access Option: Option 012 High Stability Reference Option: Option 1D5 Mechanical Transfer Switch Option: Option 007 Display Channels: Four display channels Measurement Channels: Two independent measurement channels Sweep Modes: Frequency power and list segments ECal Support: Yes with 85097A control Data Formats: CITIFILE and Touchstone S2P Remote Interface: GPIB Backward Compatibility: 8720D class command set Dynamic Range Class: 100 dB class family literature Port Connector Class: 3.5 mm class for 20 GHz ES IntuiLink Support: Yes Notes Frequency coverage and option map from Agilent 8720E Family product overview and configuration guide 5968-5161E / 5968-5162E. Corrected dynamic range and power accuracy are highly option and calibration dependent; cite 5968-5163E data sheet for numeric residual tables.

8720ES Characteristics / Specifications

PARAMETER	VALUE
Frequency Range	50 MHz to 20 GHz
Analyzer Family	8720E ES S-parameter
Test Set Type	Integrated S-parameter
Calibration Full Two Port	Supported
Calibration One Port	Supported
Calibration Enhanced Response	Supported
Calibration TRL LRM Star	Supported
Calibration TRL LRM Option 4	True TRL with fourth sampler
Time Domain Option	Option 010
Frequency Offset Option	Option 089
High Power Test Set Option	Option 085 to 20 W class
Direct Receiver Access Option	Option 012
High Stability Reference Option	Option 1D5
Mechanical Transfer Switch Option	Option 007
Display Channels	Four display channels
Measurement Channels	Two independent measurement channels
Sweep Modes	Frequency power and list segments
ECal Support	Yes with 85097A control
Data Formats	CITIFILE and Touchstone S2P
Remote Interface	GPIB
Backward Compatibility	8720D class command set
Dynamic Range Class	100 dB class family literature
Port Connector Class	3.5 mm class for 20 GHz ES
IntuiLink Support	Yes

8720ES Specifications

PARAMETER	VALUE
HP Agilent 8720ES Microwave Vector Network Analyzer	Overview
Optional time domain Option 010	Optional frequency offset mode Option 089
Technical Specifications	Frequency Range: 50 MHz to 20 GHz

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

Specifications

PARAMETER	VALUE
Frequency Range	50 MHz to 20 GHz
Analyzer Family	8720E ES S-parameter
Test Set Type	Integrated S-parameter
Calibration Full Two Port	Supported
Calibration One Port	Supported
Calibration Enhanced Response	Supported
Calibration TRL LRM Star	Supported
Calibration TRL LRM Option 400	True TRL with fourth sampler
Time Domain Option	Option 010
Frequency Offset Option	Option 089
High Power Test Set Option	Option 085 to 20 W class
Direct Receiver Access Option	Option 012
High Stability Reference Option	Option 1D5
Mechanical Transfer Switch Option	Option 007
Display Channels	Four display channels
Measurement Channels	Two independent measurement channels
Sweep Modes	Frequency power and list segments
ECal Support	Yes with 85097A control
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Notes
Frequency coverage and option map from Agilent 8720E Family product overview and configuration guide 5968-

5161E / 5968-5162E. Corrected dynamic range and power accuracy are highly option and calibration dependent; cite 5968-5163E data sheet for numeric residual tables.

Ordering Information

OPTION	DESCRIPTION
Option 010	Optional frequency offset mode Option 089
Option 085	to 20 W class
Option 012	High Stability Reference Option: Option 1D5
Option 007	Display Channels: Four display channels

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

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