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Data Sheet

August 14, 2026

AGILENT / KEYSIGHT

Agilent/Keysight 8712ES

HP Agilent 8712ES S-Parameter Vector Network Analyzer The Agilent 8712ES is an RF vector network analyzer in the 8712E series covering 300 kHz to 1.3 GHz with full S-parameter two-port capability. OEM 8712E technical specifications detail 1 Hz frequency resolution, synthesized source purity, and corrected system performance with Type-N 50 ohm calibration kits. Two-port RF component characterization to 1.3 GHz, filter and amplifier S-parameter production test, and 50/75 ohm cable measurements with appropriate options. The Agilent 8712ES is an RF vector network analyzer in the 8712E series covering 300 kHz to 1.3 GHz with full S-parameter two-port capability. OEM 8712E technical specifications detail 1 Hz frequency resolution, synthesized source purity, and corrected system performance with Type-N 50 ohm calibration kits. Two-port RF component characterization to 1.3 GHz, filter and amplifier S-parameter production test, and 50/75 ohm cable measurements with appropriate options. Full S-parameter measurements S11 S21 S12 S22



MODEL

**Agilent / Keysight
8712ES**

CALIBRATION

**Available on
request**

CONDITION

Used

STATUS

In stock

RFQ / SKU

8712ES

LISTING

<https://aumictechlabs.com/products/8712es-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 • 811210 • 541380

This unit

The Agilent/Keysight 8712ES is an RF network analyzer engineered for S-parameter and impedance measurements from 300 kHz to 1.3 GHz. The instrument integrates a two-port vector-error corrected test set with dual independent channels, delivering 100 dB dynamic range and 40 ms sweep times. It operates across 50-ohm and 75-ohm system impedances and supports full

two-port vector-error correction for calibration. Technical Specifications Frequency Range: 300 kHz to 1.3 GHz Measurement Parameters: S11, S21, S12, S22; impedance; time-domain responses; transmission and reflection characteristics Dynamic Range: 100 dB Sweep Time: 40 ms or faster per sweep Source: Synthesized, 1 Hz resolution, +13 dBm output power, 60 dB attenuator (standard ES models) for 70 dB total power-level control Measurement Bandwidth: 15 Hz (fine setting) Display Channels: Two independent channels Display Formats: Rectangular, polar, Smith chart Data Formats: Log magnitude, linear magnitude, SWR, phase, group delay, real and imaginary, Smith chart, polar Markers: Eight per channel with search, delta, bandwidth, and target-value functions Limit Lines: User-definable for pass/fail testing System Impedance: 50 ohm (standard); 75 ohm (Option 1EC) Power Consumption: 230 W nominal Operating Temperature: Specifications apply over 25°C $\pm$ 5°C Key Features Internal memory stores up to 20 instrument states Disk storage in MS-DOS format: binary, PCX, HP-GL, ASCII data formats Full two-port vector-error correction Keysight Instrument BASIC (IBASIC) standard for test automation and custom applications Typical Applications R&D and manufacturing test of RF and microwave components and systems; impedance and S-parameter characterization; transmission-line and filter analysis. Compatibility & Integration LAN interface for network connectivity and remote control GPIB, RS-232C, Centronics interfaces Optional PC keyboard support for custom test development Firmware: Compatible with revision E.06.00 and later

8712ES Characteristics / Specifications

PARAMETER	VALUE
Frequency Range	300 kHz to 1.3 GHz
Frequency Resolution	1 Hz
Frequency Stability Typical	+/-5 ppm, 0 to 55 C
CW Accuracy	+/-5 ppm at 25 C +/-5 C
Harmonics	less than -30 dBc
Phase Noise at 10 kHz Offset Characteristic	less than -67 dBc/Hz
Residual FM 30 Hz to 15 kHz Nominal	less than 1.5 kHz peak
Level Accuracy 50 Ohm	+/-2.0 dB
Level Accuracy 75 Ohm less than 1.3 GHz	+/-3.0 dB
Maximum Power 50 Ohm	10 dBm class to 1.3 GHz
Minimum Power 50 Ohm Nominal	-60 dBm
Power Resolution	0.01 dBm
Corrected Directivity Type N 50 Ohm	50 dB
Corrected Source Match Type N 50 Ohm	42 dB
Corrected Load Match Type N 50 Ohm	50 dB
Reflection Tracking Type N 50 Ohm	+/-0.02 dB
Transmission Tracking Type N 50 Ohm	+/-0.04 dB
Analyzer Type	S-parameter VNA
Warm Up For Specs	60 minutes
Net Weight Nominal	24.4 kg class family
Shipping Weight Nominal	40 kg class family
Residual AM in 100 kHz BW Nominal	less than -50 dBc
Remote Interface	GPIB
Test Set	Integrated S-parameter

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 detail 1 Hz frequency resolution, synthesized source purity, and corrected system performance with Type-N 50 ohm calibration kits.

Applications

Two-port RF component characterization to 1.3 GHz, filter and amplifier S-parameter production test, and 50/75 ohm cable measurements with appropriate options.

Key Features

Full S-parameter measurements S11 S21 S12 S22

300 kHz to 1.3 GHz synthesized coverage

1 Hz frequency resolution

50 ohm and 75 ohm Option 1EC configurations

User 2-port calibration with multiple connector kits

Technical Specifications

Technical Specifications

PARAMETER	VALUE
Frequency Range	300 kHz to 1.3 GHz
Frequency Resolution	1 Hz
Frequency Stability Typical	+/-5 ppm, 0 to 55 C
CW Accuracy	+/-5 ppm at 25 C +/-5 C
Harmonics	less than -30 dBc
Phase Noise at 10 kHz Offset Characteristic	less than -67 dBc/Hz

Residual FM 30 Hz to 15 kHz Nominal: less than 1.5 kHz peak

Level Accuracy 50 Ohm: +/-2.0 dB

Level Accuracy 75 Ohm less than 1.3 GHz: +/-3.0 dB

Specifications

PARAMETER	VALUE
Maximum Power 50 Ohm	10 dBm class to 1.3 GHz
Minimum Power 50 Ohm Nominal	-60 dBm
Power Resolution	0.01 dBm
Corrected Directivity Type N 50 Ohm	50 dB
Corrected Source Match Type N 50 Ohm	42 dB
Corrected Load Match Type N 50 Ohm	50 dB
Reflection Tracking Type N 50 Ohm	+/-0.02 dB
Transmission Tracking Type N 50 Ohm	+/-0.04 dB
Analyzer Type	S-parameter VNA

PARAMETER	VALUE
Warm Up For Specs	60 minutes
Net Weight Nominal	24.4 kg class family
Shipping Weight Nominal	40 kg class family
Residual AM in 100 kHz BW Nominal	less than -50 dBc
Remote Interface	GPIB
Test Set	Integrated S-parameter

Notes

From Agilent 8712E Series RF Vector Network Analyzers technical specifications (8712ES columns). Corrected residuals depend on calibration kit and IF bandwidth; fine IF BW assumed for corrected tables. Power maxima are family class values from the 8712E sheet.

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 ·
30-day returns
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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.