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Data Sheet

August 14, 2026

AGILENT / KEYSIGHT

Agilent/Keysight 8753B

HP Agilent Keysight 8753B Vector Network Analyzer 300 kHz to 3 GHz The HP/Agilent 8753B isavector network analyzer covering 300 kHz to 3 GHz, with Option 006 enabling 6 GHz receiver operation when used with an 85047A doubler test set. OEM 8753 family tables list 1 Hz resolution, 100 mW source, 100 dB dynamic range below 3 GHz, 80 dB from 3 to 6 GHz, 1601 points, power-meter calibration, test sequencing, and optional harmonic measurements Option 002. Two-port S-parameter work to 3 GHz (6 GHz with Option 006 and 85047A), swept harmonics, time domain, and sequenced HP-IB production tests. The HP/Agilent 8753B isavector network analyzer covering 300 kHz to 3 GHz, with Option 006 enabling 6 GHz receiver operation when used with an 85047A doubler test set. OEM 8753 family tables list 1 Hz resolution, 100 mW source, 100 dB dynamic range below 3 GHz, 80 dB from 3 to 6 GHz, 1601 points, power-meter calibration, test sequencing, and optional harmonic measurements Option 002. Two-port S-parameter work to 3 GHz (6 GHz with Option 006 and 85047A), swept harmonics, time domain, and sequenced HP-IB production tests.



MODEL

**Agilent / Keysight
8753B**

CALIBRATION

**Available on
request**

CONDITION

Used

STATUS

In stock

RFQ / SKU

8753B

LISTING

<https://aumictechlabs.com/products/8753b-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 • 811210 • 541380

This unit

The Agilent/Keysight 8753B is a versatile Vector Network Analyzer designed for comprehensive RF and microwave device characterization. It operates within a frequency range of 300 kHz to 3 GHz, with an optional upgrade to 6 GHz. This instrument is well-suited for testing a wide array of

components and networks, including filters, amplifiers, and antennas, offering precise and reliable measurement capabilities for both laboratory and production environments. Technical Specifications Frequency Range: 300 kHz to 3 GHz Optional 6 GHz capability (requires Option 006 or 8753B/C with Option 006 for certain test sets) Source Characteristics: Integrated synthesized source Output Power: 100 mW Frequency Resolution: 1 Hz Sweep Types: Linear, log, list, power, CW Receiver Characteristics: Three tuned receivers Frequency Range: 300 kHz to 3 GHz Dynamic Range: Greater than 100 dB Measurement Points per Channel: Up to 1601 Measurement Accuracy and Performance: Dynamic Accuracy: 0.05 dB over a 40 dB range Reflection Coefficient: <0.05 (100 MHz to 1.0 GHz), <0.09 (1.0 to 2 GHz) Directivity: Varies by test set, e.g., 35 dB to 1.3 GHz, 30 dB to 3.0 GHz for 8753D. For 8753ES/ET, directivity can be up to 55 dB. Source Match: Varies by test set, e.g., 14 dB (0.3 MHz to 2.0 MHz), 20 dB (2.0 MHz to 1.3 GHz) for 8753D. For 8753ES/ET, source match can be up to 47 dB. Load Match: Varies by test set, e.g., 15 dB** for 8753D. For 8753ES/ET, load match can be up to 55 dB. Transmission Magnitude/Phase Tracking: Typically ± 1.5 dB, $\pm 10^\circ$ from 300 kHz to 3 GHz. For 8753ES/ET, ± 1 dB tracking is available in certain ranges. Reflection Magnitude/Phase Tracking: Typically ± 1.5 dB, $\pm 10^\circ$ from 300 kHz to 3 GHz. For 8753ES/ET, ± 1 dB tracking is available in certain ranges. Display and Analysis Features: Large 9" high-resolution display Multiple Display Formats: Log magnitude, SWR, phase, group delay, polar, Smith Chart Simultaneous measurement and display of reflection and transmission characteristics on two independent channels Time Domain Analysis capability Swept Harmonic Measurements Group Delay and Deviation from Linear Phase measurements Marker Resolution: 0.001 dB, 0.01 deg, 0.01 nanosec Test Sequence Function for executing complex test procedures Accuracy Enhancement capabilities Electrical Specifications: Impedance: 50 ohms nominal (also 75 ohm Type N options) Maximum Input Power: +24 dBm (250 mW) Interfaces: Test Port Connectors: Hybrid APC-7 Option 001: Type N female connectors Rear Panel BNC Outputs: One provides a TTL signal indicating the result of the Test Sequence function Physical Characteristics: Dimensions: 90 mm (H) x 426 mm (W) x 533 mm (D) (approximately 3.5 x 16.75 x 21 inches) Weight: 10 kg (22 lb) (6.8 kg / 15 lb net for 8753D) Compatibility and Options: Can be used with S-parameter test sets such as the HP 85046A or HP 85047A Option 006: 6 GHz Receiver Option (enables 6 GHz operation with specific test sets) Option 010: Time Domain Capability Option 011 (for 8753ES): Full 300 kHz to 6 GHz range without frequency doubler Why Choose Aumictech for Agilent/Keysight 8753B? At Aumictech, we specialize in supplying high-end RF and microwave test equipment. Whether you need the precise measurement capabilities of the Agilent/Keysight 8753B for complex filter analysis, reliable amplifier characterization, or accurate antenna testing, our team ensures this vector network analyzer delivers maximum performance for your application.

8753B Characteristics / Specifications

PARAMETER	VALUE
Instrument Type	Vector network analyzer
Series Family	HP Agilent 8753A/B/C/D/E/ES/ET
Frequency Range Standard	300 kHz to 3 GHz
Frequency Range Option 0	300 kHz to 6 GHz
Frequency Resolution	1 Hz
Frequency Accuracy at 25 C	plus or minus 10 ppm
Source Power Range	minus 5 to plus 20 dBm
Source Output Power	100 mW
Power Accuracy 50 MHz plus 10 dBm	plus or minus 0.5 dB
Power Linearity 0 to plus 15 dBm Relative plus 10 dBm	plus or minus 0.2 dB
Source Impedance	50 ohm
Harmonics at plus 20 dBm	less than or equal to minus 25 dBc
Receiver Dynamic Range below 3 GHz	100 dB
Receiver Dynamic Range 3 to 6 GHz	80 dB
Maximum Input Level	0 dBm
Sensitivity 3 kHz BW below 3 GHz	minus 90 dBm
Sensitivity 10 Hz BW below 3 GHz	minus 100 dBm
Dynamic Accuracy	plus or minus 0.05 dB, plus or minus 0.3 deg over 50 dB input range
Input Crosstalk 300 kHz to 1 GHz	minus 100 dB
Input Crosstalk 1 to 3 GHz	minus 90 dB
Maximum Measurement Points	1601
Display	monochrome CRT
Test Set	external S-parameter
Time Domain Option 0	available
Harmonic Measurements Option 0	available

PARAMETER	VALUE
Power Meter Calibration	available
Test Sequencing	available
Interpolated Error Correction	available
External Source Capability	available
Tuned Receiver Mode	available
Remote Interface	HP-IB
System Dynamic Range 300 kHz to 16 MHz	100 dB
System Dynamic Range 16 MHz to 1.3 GHz	100 dB
System Dynamic Range 3 GHz to 6 GHz	80 dB
Power linearity	0 to plus 15 dBm Relative plus 10 dBm: plus or minus 0.2 dB

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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PARAMETER	VALUE
Instrument Type	Vector network analyzer
Series Family	HP Agilent 8753A/B/C/D/E/ES/ET
Frequency Range Standard	300 kHz to 3 GHz
Frequency Range Option 006	300 kHz to 6 GHz
Frequency Resolution	1 Hz
Frequency Accuracy at 25 C	plus or minus 10 ppm
Source Power Range	minus 5 to plus 20 dBm
Source Output Power	100 mW
Power Accuracy 50 MHz plus 10 dBm	plus or minus 0.5 dB
Power Linearity 0 to plus 15 dBm Relative plus 10 dBm: plus or minus 0.2 dB	
Specifications	
PARAMETER	VALUE
Source Impedance	50 ohm
Harmonics at plus 20 dBm	less than or equal to minus 25 dBc
Receiver Dynamic Range below 3 GHz	100 dB
Receiver Dynamic Range 3 to 6 GHz	80 dB
Maximum Input Level	0 dBm
Sensitivity 3 kHz BW below 3 GHz	minus 90 dBm
Sensitivity 10 Hz BW below 3 GHz	minus 100 dBm
Dynamic Accuracy	plus or minus 0.05 dB, plus or minus 0.3 deg over 50 dB input range
Input Crosstalk 300 kHz to 1 GHz	minus 100 dB
Input Crosstalk 1 to 3 GHz	minus 90 dB
Maximum Measurement Points	1601
Display	monochrome CRT
Test Set	external S-parameter

PARAMETER	VALUE
Time Domain Option 010	available
Harmonic Measurements Option 002	available
Power Meter Calibration	available
Test Sequencing	available
Interpolated Error Correction	available
External Source Capability	available
Tuned Receiver Mode	available
Remote Interface	HP-IB

Option 006 Implementation: software enable of 6 GHz receivers; 85047A provides the frequency doubler

System Dynamic Range 300 kHz to 16 MHz: 100 dB

System Dynamic Range 16 MHz to 1.3 GHz: 100 dB

System Dynamic Range 3 GHz to 6 GHz: 80 dB

Notes

Numeric rows from HP 8753 family comparison tables and 8753C source/receiver specification summaries applied to the 8753B column. 3 to 6 GHz system dynamic range is 80 dB on 8753B versus 95 dB on 8753C. Option 006 is not a 6 GHz internal source on 8753B.

Ordering Information

OPTION	DESCRIPTION
Option 006	enabling 6 GHz receiver operation when used with an 85047A doubler test set. OEM 8753 family tables list 1 Hz resolution, 100 mW source, 100 dB dynamic range be
Option 002	Interpolated error correction

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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Technical content from manufacturer specifications. Unit photo/stock from Aumictech listing when available. Specifications subject to OEM documentation and unit condition.