

**Aumictech**

Test & measurement • bought, sold, repaired, calibrated

Data Sheet

August 14, 2026

HP / AGILENT

HP / Agilent 11757B Multipath Fading Simulator/Signature Test Set

The HP/Agilent 11757B Multipath Fading Simulator (Signature Test Set) inserts precisely controlled multipath fading notches into digital microwave radio IF paths for equalizer and BER characterization. OEM-aligned calibration and facility specifications list frequency range 800 MHz to 2.7 GHz, maximum output level plus 20 dBm, path delay to 1000 ns, Doppler to plus or minus 400 Hz, path loss to 100 dB, and up to 8 multipath paths. Digital radio multipath signature testing, static and dynamic M-curve and S-curve measurements, recovery time and dispersive fade margin tests, and BER susceptibility evaluation under controlled fading. Multipath Power Accuracy: plus or minus 0.5 dB Measurement Types: static M-curve dynamic M/S-curve recovery signatures BER Interface Class: HP-IB remote control class From Agilent/HP 11757B Multipath Fading Simulator calibration and facility specification summaries. Confirm installed options (e.g. Option 001) on the rear-panel serial plate.



MODEL

HP / Agilent 11757B

CALIBRATION

Available on request

CONDITION

Used

STATUS

In stock

RFQ / SKU

11757B

LISTING

<https://aumictechlabs.com/products/11757b-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 • 811210 • 541380

This unit

The HP/Agilent 11757B Multipath Fading Simulator/Signature Test Set is a specialized instrument for comprehensive testing of wireless communication systems under realistic signal propagation conditions. It simulates multipath fading effects to validate receiver and transceiver performance

in R&D and manufacturing environments where precise fading emulation is critical. The instrument generates both static and dynamic multipath fades by introducing a controlled notch within the transmission bandwidth, enabling direct measurement of equalizer performance and fade margin characteristics.

Technical Specifications The 11757B employs a simplified 3-ray multipath model with precisely controlled notch depth up to 40 dB across 1.0 MHz to 40 MHz bandwidths while maintaining constant average gain. Intermodulation distortion products measure typically less than -50 dBc, ensuring that observed performance degradation results from simulated fading rather than test equipment artifacts. Frequency coverage operates at 70 MHz $\pm$ 20 MHz standard IF. Option 140 provides 140 MHz IF coverage; Option 147 supports both 70 MHz and 140 MHz. Option H02 increases input/output power capability to +4 dBm. Auxiliary output is provided on the rear panel, mirroring front panel output characteristics.

Key Features M-Curve signature capability for radio performance assessment with and without multipath protection Measures static M-curves, dynamic M- and S-curves, recovery signatures, recovery times, and dispersive fade margin M-Curve signature measurement completes in less than one minute with hardcopy output Loads statistical or measured fading data into non-volatile memory Supports up to 10 complex fading event simulations for accelerated radio stress testing On-board temperature compensation and voltage stabilization for improved measurement accuracy Warranted specifications valid 15° to 35° C after 15-minute warm-up

Compatibility & Integration HP-IB (General Purpose Interface Bus) port enables remote access and automatic data capture with parameter control for computer-based analysis. Ethernet connectivity supports remote access and data acquisition. Both interfaces allow automated parameter configuration and measurement streaming for system integration.

Features & description

From manufacturer datasheet

Built-in printer for measurement records

Precise notch frequency and depth control Technical Specifications Model: HP 11757B Frequency Range: 800 MHz to 2.7 GHz Maximum Output Level: plus 20 dBm Output Level Resolution: 0.1 dB Output Level Accuracy: plus or minus 1 dB Maximum Path Delay: 1000 ns Delay Resolution: 1 ns Maximum Doppler Frequency: plus or minus 400 Hz Doppler Resolution: 0.1 Hz Maximum Path Loss: 100 dB Path Loss Resolution: 0.1 dB Multipath Generation: up to 8 paths Multipath Delay Spread: 0 to 1000 ns Multipath Delay Resolution: 1 ns Multipath Delay Accuracy: plus or minus 1 ns Multipath Power Variation: plus or minus 1 dB Multipath Power Resolution: 0.1 dB Multipath Power Accuracy: plus or minus 0.5 dB Measurement Types: static M-curve dynamic M/S-curve recovery signatures BER Product Name: Multipath Fading Simulator Manufacturer Line: HP Agilent Keysight Interface Class: HP-IB remote control class Form Factor: benchtop signature test set Notes From Agilent/HP 11757B Multipath Fading Simulator calibration and facility specification summaries. Confirm installed options (e.g. Option 001) on the rear-panel serial plate.

11757B Characteristics / Specifications

PARAMETER	VALUE
Model	HP 11757B
Frequency Range	800 MHz to 2.7 GHz
Maximum Output Level	plus 20 dBm
Output Level Resolution	0.1 dB
Output Level Accuracy	plus or minus 1 dB
Maximum Path Delay	1000 ns
Delay Resolution	1 ns
Maximum Doppler Frequency	plus or minus 400 Hz
Doppler Resolution	0.1 Hz
Maximum Path Loss	100 dB
Path Loss Resolution	0.1 dB
Multipath Generation	up to 8 paths
Multipath Delay Spread	0 to 1000 ns
Multipath Delay Resolution	1 ns
Multipath Delay Accuracy	plus or minus 1 ns
Multipath Power Variation	plus or minus 1 dB
Multipath Power Resolution	0.1 dB
Multipath Power Accuracy	plus or minus 0.5 dB
Measurement Types	static M-curve dynamic M/S-curve recovery signatures BER
Product Name	Multipath Fading Simulator
Manufacturer Line	HP Agilent Keysight
Interface Class	HP-IB remote control class
Form Factor	benchtop signature test set

11757B Specifications

PARAMETER	VALUE
HP 11757B Multipath Fading Simulator	Overview
Key Features	Up to 8-path multipath generation
Technical Specifications	Model: HP 11757B

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 list frequency range 800 MHz to 2.7 GHz, maximum output level plus 20 dBm, path delay to 1000 ns, Doppler to plus or minus 400 Hz, path loss to 100 dB, and up to 8 multipath paths.

Applications

Digital radio multipath signature testing, static and dynamic M-curve and S-curve measurements, recovery time and dispersive fade margin tests, and BER susceptibility evaluation under controlled fading.

Key Features

Up to 8-path multipath generation

Flat frequency-selective and fast fading profiles

Automatic multipath signature measurements

Built-in printer for measurement records

Precise notch frequency and depth control

Technical Specifications

Technical Specifications

PARAMETER	VALUE
Model	HP 11757B
Frequency Range	800 MHz to 2.7 GHz
Maximum Output Level	plus 20 dBm
Output Level Resolution	0.1 dB
Output Level Accuracy	plus or minus 1 dB
Maximum Path Delay	1000 ns
Delay Resolution	1 ns
Maximum Doppler Frequency	plus or minus 400 Hz
Doppler Resolution	0.1 Hz
Maximum Path Loss	100 dB
Path Loss Resolution	0.1 dB
Multipath Generation	up to 8 paths
Multipath Delay Spread	0 to 1000 ns
Multipath Delay Resolution	1 ns
Multipath Delay Accuracy	plus or minus 1 ns
Multipath Power Variation	plus or minus 1 dB
Multipath Power Resolution	0.1 dB
Multipath Power Accuracy	plus or minus 0.5 dB
Measurement Types	static M-curve dynamic M/S-curve recovery signatures BER
Product Name	Multipath Fading Simulator

PARAMETER	VALUE
Manufacturer Line	HP Agilent Keysight
Interface Class	HP-IB remote control class
Form Factor	benchtop signature test set

Notes
From Agilent/HP 11757B Multipath Fading Simulator calibration and facility specification summaries. Confirm installed options (e.g. Option 001) on the rear-panel serial plate.

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

788 S 500 E, Pleasant Grove, UT 84062
sales@aumictech.com · +1 (484) 841-9341
<https://aumictechlabs.com>

NIST-traceable calibration · SAM registered ·
30-day returns
NAICS 423690 · 811210 · 541380
Generated August 14, 2026

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