

KEYSIGHT TECHNOLOGIES (AGILENT HP)

8757E

The Keysight (Agilent/HP) 8757E is a classic 3-port scalar network analyzer designed to measure insertion loss, gain, return loss, SWR, and power quickly and accurately. It features three detector inputs and two independent display channels with a 75 dB dynamic range, supporting coaxial measurements up to 50 GHz and waveguide measurements up to 110 GHz.

SPECIFICATIONS

General

Interfaces	GPIB (HP-IB), Dedicated 8757 System Interface, External Sweep Input, External Trigger Input, Modulator Drive Output, DAC Output, Aux ADC Input
Display	9-inch monochrome CRT
Warm-up Time	30 minutes

Physical

Operating Temperature	0 to 55 °C °C
Dimensions (W×H×D)	177 mm H × 425 mm W × 482 mm D mm
Weight	20.0 kg

Measurement & Performance

Frequency Range	10 MHz to 50 GHz (coaxial), up to 110 GHz (waveguide) depending on detector
Dynamic Range	76 dB (-60 dBm to +16 dBm with standard detectors)
Number of Detector Inputs	3 (Channels A, B, and R)
Number of Display Channels	2 (Channels 1 and 2)
Vertical Scale Resolution	0.1 to 20 dB/division
Reference Level Range	-90 to +90 dBm in 0.01 dB steps
Measurement Resolution	0.01 dB
Sweep Points	101, 201, 401, 801, or 1601 points
Trace Noise	0.01 dB peak-to-peak typical

Input & Interface

Modulation Drive Output	27.778 kHz ± 20 Hz, 8 V p-p nominal
External Sweep Input	0 to 10 V nominal
External Trigger Input	TTL compatible
Active Detector Bias	Bias provided for all three inputs (A, B, R)

Measurement Functions

Calibration Modes	Thru (transmission calibration), Short/Open (reflection calibration)
Limit Lines	Two independent limit lines per channel for pass/fail testing
Trace Memory	Stores trace for normalization (Input - Memory)
Marker Functions	5 active markers, delta markers, min/max search, bandwidth search
Averaging	Exponential averaging, factors 1 to 256
Save/Recall Registers	9 non-volatile save/recall registers for instrument states

Compatible Accessories

Compatible AC Detectors	HP 11664A, 11664B, 11664C, 11664E
Compatible AC/DC Detectors	HP 85025A, 85025B, 85025C, 85025D, 85025E
Compatible Precision Detectors	HP 85037A, 85037B
Compatible Directional Bridges	HP 85027A, 85027B, 85027C, 85027D, 85027E
Compatible Power Splitters	HP 11667A, 11667B, 11667C
Compatible Swept RF Sources	HP 8350B, HP 8360 series, HP 8370 series

Physical & Environmental

Storage Temperature Range	-40 to +75 °C
Maximum Operating Humidity	95% relative humidity at 40 °C (non-condensing)
Altitude Limits	Up to 4,570 meters (15,000 feet) operating
Safety Certifications	CSA Certified, IEC 348 compliant

Options

Option 1CP	Rack mount flange kit with handles
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Display & Screen

Display Type	9-inch monochrome CRT
CRT Graticule	Internal, 8 x 10 divisions

Modulation Drive

Modulation Signal Output Level	> +8 V (high), < +0.2 V (low) into 10 k Ω
Modulation Frequency Accuracy	27.778 kHz $\pm$ 20 Hz
Modulation Frequency	27.778 kHz
Modulation Frequency Tolerance	$\pm$ 20 Hz
Modulation Output Impedance	600 Ω

Inputs & Outputs

Stop Sweep Port	TTL compatible, active low
Horizontal Sweep Input Range	0 to +10 V nominal
GPIO Interface Ports	2 separate ports (HP-IB general control and dedicated 8757 System Interface)

Power Requirements

AC Input Voltages	100 / 120 / 220 / 240 V ± 10% (switch selectable)
AC Input Frequency	48 to 66 Hz

Rear Panel Inputs & Outputs

Horizontal Input Impedance	10 kΩ (nominal)
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Sweep Characteristics

Minimum Sweep Time	40 ms
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TECHNOLOGY

Scalar Network Analysis

APPLICATIONS

RF and Microwave Component Characterization

Generated by SpecAtlasHub (specatlashub.com). Specifications are compiled from available sources and are subject to change — verify critical values against the manufacturer before purchase.