KEYSIGHT TECHNOLOGIES (AGILENT HP)

8757C

The Keysight (Agilent HP) 8757C is a high-performance scalar network analyzer designed for swept microwave and millimeter-wave component measurements from 10 MHz up to 110 GHz with appropriate detectors and directional bridges.

SPECIFICATIONS

General

Interfaces	HP-IB (GPIB), 8757 System Interface
Display	9-inch internal color CRT raster display, 1024 x 400 graphics resolution, 25.5 kHz horizontal scan rate
Compatible Signal Sources	HP 8360 series, HP 8350B, HP 8340/8341 synthesized sweepers

Physical

Operating Temperature	0 to +55 °C °C
Dimensions (W×H×D)	425 mm × 178 mm × 482 mm mm
Weight	15 kg kg
Rack Mounting	Compatible with HP System II cabinet/rack slide kits

Receiver & Measurement Characteristics

Frequency Range	10 MHz to 110 GHz (detector and bridge dependent)
Number of Display Channels	4 independent channels
Standard Detector Inputs	3 inputs (A, B, R)
Optional Detector Inputs	4 inputs (A, B, C, R) with Option 001
Detection Modes	AC and DC detection modes
AC Detection Modulation Frequency	27.778 kHz square wave
Auxiliary ADC Voltage Input Range	-10 to +10 V (via BNC ADC IN)

Display & Trace Functions

Display Horizontal Resolution	101, 201, 401, 801, or 1601 trace points
Averaging Factors	2, 4, 8, 16, 32, 64, 128, or 256 successive traces
Smoothing Aperture Range	0.1% to 20% of trace width
Normalization	Traces stored and normalized at highest resolution, independent of scale/div or offset
dBm Mode Resolution	0.1 to 20 dB/division
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Graphics Resolution	1024 x 400 pixels
Simultaneous Monitor Support	Drives internal display and one external monitor simultaneously

Source Control & System Interface

On-Screen Graphics Language	HP-GL compatible subset
System Interface	Controls external printers, plotters, and sweep sources
Programmable Interrupts	Front panel key, soft key, numeric entry, operation complete, limit test failed, syntax error, impossible action, self-test error, knob activity

Rear Panel Interfaces & Inputs

Stop Sweep Connector	Rear-panel BNC input/output
DAC Out Connector	Rear-panel BNC output
ADC IN Connector	Rear-panel BNC input
Video Output Connector	Rear-panel output for external monitor
Modulation Signal Output	Rear-panel 27.778 kHz square wave output

Compatible Sensors & Accessories

Storage Compatibility	Stores states and calibration data to external HP-IB disk drives

Options

Option 001	Adds a fourth detector input (Input C)

Performance

Selectable Trace Points	101, 201, 401, 801, or 1601 points
Save/Recall Registers	9 non-volatile registers for instrument states
Number of Markers	5 independent markers per channel
AC Mode Dynamic Range (11664 detectors)	60 dB (+10 to -50 dBm)
AC Mode Dynamic Range (85037 detectors)	75 dB (+20 to -55 dBm)
AC Mode Dynamic Range (85025 detectors)	+16 to -55 dBm
DC Mode Dynamic Range (85025 detectors)	+16 to -50 dBm
Display Scale Factor Range	0.1 dB/div to 20 dB/div (in 1, 2, 5 sequences)
Display Reference Level Range	-90 to +90 dBm (absolute) or -90 to +90 dB (relative)

Power Requirements

Power Consumption	150 VA maximum
Power Line Frequency	48 to 66 Hz
Power Line Voltages	100, 120, 220, or 240 VAC □%

Environmental

Storage Temperature Range	-40 □C to +75 □C
Operating Altitude	Up to 4,570 m (15,000 ft)
Storage Altitude	Up to 15,240 m (50,000 ft)
Operating Humidity	95% relative humidity at +40 □C (non-condensing)

Connectivity & I/O

Direct Plot/Print Compatibility	HP-IB plotters and printers supporting HP-GL or PCL

Inputs & Outputs

Sweep Voltage Input Range	0 V to 10 V (nominal sweep ramp)
Sweep Voltage Input Impedance	> 10 kΩ
Rear Panel Video Outputs	Red, Green, Blue BNC connectors (75 Ω)
System Interface GPIB Dedicated Port	HP-IB port for exclusive control of sweep oscillator and plotter
Standard Detector Ports	3 ports (A, B, R)
Maximum Detector Ports with Option 001	4 ports (A, B, C, R)

TECHNOLOGY

Scalar Network Analysis

APPLICATIONS

Microwave & Millimeter-Wave Component Characterization