

KEYSIGHT TECHNOLOGIES (AGILENT HP)

87511A

The Keysight (Agilent/HP) 87511A is a 50 Ω S-Parameter Test Set designed for use with the HP 8751A Network Analyzer. Operating over a frequency range of 100 kHz to 500 MHz, it provides the transmission and reflection measurement capability required to fully characterize 50 Ω RF components.

SPECIFICATIONS

General

Interfaces	Test Set Interconnect (multi-pin), DC Bias inputs (BNC female)
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Physical

Power Supply	Powered directly by the HP 8751A Network Analyzer via interconnect cable
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Operating Temperature	0 to 55 °C °C
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Dimensions (W×H×D)	90 mm × 426 mm × 495 mm mm
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Weight	5.7 kg kg
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RF & Frequency Characteristics

Frequency Range	100 kHz to 500 MHz
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Nominal Impedance	50 Ω
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Number of Test Ports	2
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Test Port Connector Type	Type-N female
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RF Input Connector Type	Type-N female
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Test Set Functionality	Full S-parameter measurement (S11, S21, S12, S22)
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DC Bias Capabilities

DC Bias Ports	2
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DC Bias Inputs Connector Type	BNC female
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Maximum Bias Voltage	30 V
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Maximum Bias Current	200 mA
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Control & Interfaces

Control Interface to Analyzer	Special interconnect cable connected to the HP 8751A
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Ordering Options & Accessories

Compatible Analyzer	HP 8751A Network Analyzer
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50 Ohm Port Impedance Option	Standard (HP 87511A)
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75 Ohm Port Impedance Option	Available as HP 87511B
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RF Performance

Directivity	≥ 40 dB (300 kHz to 500 MHz), ≥ 35 dB (100 kHz to 300 kHz)
Source Match	≥ 36 dB (300 kHz to 500 MHz), ≥ 30 dB (100 kHz to 300 kHz)
Load Match	≥ 36 dB (300 kHz to 500 MHz), ≥ 30 dB (100 kHz to 300 kHz)
Transmission Tracking	±1.5 dB
Reflection Tracking	±1.5 dB
Maximum Input Level	+20 dBm
Nominal Insertion Loss	13 dB (Input to Port 1 or Port 2)

Performance

Test Set Type	S-Parameter (fully bi-directional)
Crosstalk	>= 100 dB

Power Supply

Power Source	Supplied by compatible network analyzer via interconnect cable
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TECHNOLOGY

RF / Microwave

APPLICATIONS

S-Parameter Measurement & Network Analysis

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