

KEYSIGHT TECHNOLOGIES (AGILENT HP)

8515A

The Keysight (formerly Agilent / HP) 8515A is an S-parameter test set designed for the HP 8510 series network analyzers. It covers a wide frequency range from 45 MHz to 26.5 GHz, featuring a built-in solid-state electronic switch and dedicated reference channels for active and passive device characterization. It supports external DC bias application to the test ports, making it highly versatile for semiconductor and RF component testing.

SPECIFICATIONS

General

Interfaces	HP 8510 Test Set Interconnect, Rear-panel RF/LO/IF coaxial connectors
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Physical

Power Supply	100 / 120 / 220 / 240 VAC $\pm 10\%$, 48 to 66 Hz
Operating Temperature	0 to +55 °C °C
Dimensions (W×H×D)	425 mm × 133 mm × 546 mm mm
Weight	16 kg kg

Frequency and Port Characteristics

Frequency Range	45 MHz to 26.5 GHz
Number of Ports	2
Nominal Impedance	50 Ω
Test Port Connector Type	Precision 3.5 mm (male)

RF Signal Path Specifications

RF Switch Type	Electronic (solid-state)
Reference Channel Configuration	Separate reference channel for each incident port (4-sampler architecture)

DC Bias and Aux Input/Output

External DC Bias Inputs	Rear panel BNC connectors (Port 1 and Port 2)
Maximum DC Bias Current	500 mA
Maximum DC Bias Voltage	40 VDC

System Performance (Corrected)

System Dynamic Range (0.045 to 2 GHz)	79 dB (with HP 8510C)
System Dynamic Range (2 to 8 GHz)	92 dB (with HP 8510C)
System Dynamic Range (8 to 20 GHz)	86 dB (with HP 8510C)
System Dynamic Range (20 to 26.5 GHz)	79 dB (with HP 8510C)

Environmental and Compliance

Compatible Calibration Kits	HP 85052B / 85052D (3.5 mm)
Compatible Verification Kits	HP 85053B (3.5 mm)

Physical and Mechanical

Rack Unit Height	3U
Shipping Weight	21 kg

Uncorrected Performance

Uncorrected Directivity (0.045 to 2 GHz)	30 dB
Uncorrected Directivity (2 to 8 GHz)	26 dB
Uncorrected Directivity (8 to 20 GHz)	22 dB
Uncorrected Directivity (20 to 26.5 GHz)	18 dB
Uncorrected Source Match (0.045 to 2 GHz)	20 dB
Uncorrected Source Match (2 to 8 GHz)	16 dB
Uncorrected Source Match (8 to 20 GHz)	14 dB
Uncorrected Source Match (20 to 26.5 GHz)	12 dB
Uncorrected Load Match (0.045 to 2 GHz)	20 dB
Uncorrected Load Match (2 to 8 GHz)	16 dB
Uncorrected Load Match (8 to 20 GHz)	14 dB
Uncorrected Load Match (20 to 26.5 GHz)	12 dB

Rear Panel Connections

Rear RF Input Connector	Type-N female
Rear Bias Inputs	Two BNC female connectors (Port 1 and Port 2)

Options & Configurations

Step Attenuators Range	0 to 90 dB in 10 dB steps (Option 001 dependent)
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Hardware Features

Internal Bias Tees	Standard on both test ports
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Performance

Maximum RF Input Power	+20 dBm
Step Attenuators Step Size	10 dB

Interfaces

Test Set Interconnect	25-pin D-sub (female)
Receiver RF Outputs	Four Type-N (female), designated a1, b1, a2, b2

TECHNOLOGY

RF S-Parameter Test Set

APPLICATIONS

RF and Microwave Vector 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.