

KEYSIGHT TECHNOLOGIES (AGILENT HP)

8530A

The Keysight Agilent 8530A is a high-performance, fast, and accurate microwave receiver engineered for both manual and automated antenna measurement and radar cross-section (RCS) measurement applications. Reconfigured from the industry-standard 8510 network analyzer platform, it delivers outstanding sensitivity, broad frequency coverage, and multi-channel versatility without compromising measurement precision.

SPECIFICATIONS

General

Interfaces	HP-IB (GPIB)
Display	Color CRT

Physical

Power Supply	90 to 132 VAC / 198 to 264 VAC, 47 to 66 Hz
Operating Temperature	0 to +55 °C °C
Dimensions (W×H×D)	425 mm × 222 mm × 560 mm mm
Weight	21 kg kg

Frequency

Frequency Range	45 MHz to 26.5 GHz
Frequency Extension	Up to 110 GHz

Measurement Performance

Phase Linearity	Better than 0.5° over a 70 dB range
Magnitude Linearity	Better than 0.06 dB over a 70 dB range

Data Storage & Buffering

Data Buffer Capacity	100,000 measurement points
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Measurement Capabilities

Supported Measurement Applications	Antenna measurement, radar cross-section (RCS) measurement
Time-Domain Measurement Capability	Optional
Multi-Parameter Capability	Supported (allows fast measurements of multiple output antennas)

Performance

Sensitivity	-113 dBm at 20 GHz (with 10 Hz IF BW using HP 85320A mixers)
Maximum Input Level	-17 dBm (for 0.1 dB compression at 20 GHz)
IF Bandwidth Settings	10 kHz, 1 kHz, 100 Hz, 10 Hz
Internal Data Buffer Storage	Up to 100,000 data points

Receiver Specifications

IF Input Frequency	20 MHz
Number of IF Input Channels	5

Display & Resolution

Magnitude Display Resolution	0.001 dB
Phase Display Resolution	0.01°

Data Performance

Data Transfer Rate	Up to 5000 points/s (single parameter, fast-active mode)
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Storage

Internal Floppy Disk Drive	3.5-inch (1.44 MB or 720 KB)
Supported Disk Formats	LIF, MS-DOS

System Integration

Compatible Microwave Sources	HP 8360 series, HP 8340/8341 series, HP 8350B
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TECHNOLOGY

Superheterodyne Microwave Receiver

APPLICATIONS

Antenna and Radar Cross-Section (RCS) Measurements

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