

KEYSIGHT TECHNOLOGIES (AGILENT HP)

8591A

The Keysight (formerly Agilent/HP) 8591A is a portable RF spectrum analyzer offering a frequency range of 9 kHz to 1.8 GHz. Part of the 8590 Series, it provides basic RF measurement capabilities with a wide variety of hardware and software options to support specific applications, including tracking generators, precision frequency references, demodulators, and specialized triggering.

SPECIFICATIONS

General

Interfaces	HP-IB (Option 021) or RS-232 (Option 023)
Display	CRT
Data Storage	Optional memory card reader (Option 003)
Warm-up Time	30 minutes (for guaranteed specifications)

Physical

Power Supply	90-132 V (47-440 Hz) / 198-264 V (47-66 Hz)
Operating Temperature	0 to +55 °C °C
Dimensions (W×H×D)	325 × 163 × 427 mm

Frequency Specifications

Frequency Range	9 kHz to 1.8 GHz
Precision Frequency Reference	Available via Option 004

Sweep and Trigger Specifications

Sweep Time	20 ms to 100 s
Fast Time Domain Sweep	Available via Option 101
Time Gated Spectrum Analysis	Available via Option 105

Inputs and Outputs

RF Input Impedance	50 Ω (Standard) / 75 Ω (Option 001)
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Tracking Generator (Option)

Tracking Generator	50 Ω (Option 010) / 75 Ω (Option 011)
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Display and Interfaces

Detectors	Quasi-Peak Detection (Option 103)
Remote Control Interfaces	HP-IB (Option 021) / RS-232 (Option 023)

Bandwidth

Resolution Bandwidth (RBW)	1 kHz to 3 MHz (down to 30 Hz with Option 130)
Video Bandwidth (VBW)	30 Hz to 1 MHz

Amplitude

Amplitude Measurement Range	Displayed average noise level to +30 dBm
Maximum Safe Input Level	+30 dBm (1 W) continuous
Internal Calibration Signal	300 MHz, -20 dBm

Inputs & Outputs

RF Input Connector	50 Ω Type-N (f) standard; 75 Ω BNC (f) with Option 001
IF Output	21.4 MHz

Environmental

Storage Temperature	-40 °C to +75 °C
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TECHNOLOGY

Superheterodyne Spectrum Analysis

APPLICATIONS

RF Test and Measurement

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