

KEYSIGHT TECHNOLOGIES (AGILENT HP)

8592A

The Keysight (Agilent HP) 8592A is a portable microwave spectrum analyzer operating in the 50 kHz to 22 GHz frequency range. It features a built-in preselector and comb generator, a built-in frequency counter, and options for remote computer control, making it a robust and versatile solution for legacy RF and microwave testing.

SPECIFICATIONS

General

Interfaces	Optional HP-IB (GPIB), RS-232, or HP-IL interfaces
Display	Monochrome CRT
Memory Capacity	Up to 50 state and trace registers (non-volatile)

Physical

Power Supply	86 to 127 V AC / 195 to 253 V AC, 47 to 66 Hz, < 150 VA
Operating Temperature	0 °C to +55 °C °C
Dimensions (W×H×D)	366 mm × 213 mm × 460 mm mm
Weight	20 kg kg

Frequency Specifications

Frequency Range	50 kHz to 22 GHz
Frequency Span Range	0 Hz (zero span), 50 kHz to 22 GHz

Bandwidth Specifications

Resolution Bandwidth (RBW) Range	1 kHz to 3 MHz
RBW Steps	1, 3 sequence

Amplitude Specifications

Maximum Safe Input Level	+30 dBm (1 Watt)
Input Attenuator Range	0 to 70 dB in 10 dB steps

Inputs and Outputs

RF Input Connector Type	Type-N female
RF Input Impedance	50 Ω

System and User Interface

Internal Preselector	Built-in preselector and comb filters
Control Settings Storage	Store and recall of control settings and trace displays
Programmable Functions	Over 100 functions programmable via optional interfaces

Sweep & Trigger

Sweep Time Range (Span > 0)	20 ms to 100 s
Sweep Time Range (Zero Span)	20 μ s to 100 s
Sweep Trigger Modes	Free Run, Single, Line, Video, External

Bandwidth (RBW/VBW)

Video Bandwidth (VBW) Range	30 Hz to 3 MHz
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Internal Calibrator

Calibrator Output Frequency	300 MHz
Calibrator Output Amplitude	-20 dBm
Calibrator Output Connector	BNC female

Amplitude Accuracy

Linear Scale Fidelity	$\pm 3\%$ of reference level
Reference Level Range	-120 to +30 dBm

Frequency Reference

External Reference Input Frequency	10 MHz
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Spurious Responses

Third-Order Intermodulation Distortion (10 MHz to 22 GHz)	<-70 dBc (for two -30 dBm tones at input mixer)
LO Emission (with preselector)	<-75 dBm (at RF input)

Environmental

Storage Temperature Range	-40 °C to +75 °C
Operating Altitude Limit	4570 m
Operating Humidity Range	Up to 95% (non-condensing)

Display

Display Resolution (Horizontal $\times$ Vertical)	401 $\times$ 256 points
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Inputs & Outputs

External Trigger Input Level	TTL compatible
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RF Performance

Preselector Tuning Range	2.75 GHz to 22 GHz
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TECHNOLOGY

Superheterodyne Spectrum Analysis

APPLICATIONS

RF and Microwave Spectrum Analysis

