

KEYSIGHT TECHNOLOGIES (AGILENT HP)

8563EC

The Keysight (formerly Agilent / HP) 8563EC is a high-performance, portable microwave spectrum analyzer offering benchtop measurement capabilities in a rugged package. It features a standard frequency range of 9 kHz to 26.5 GHz, fast digital resolution bandwidths down to 1 Hz, and a color VGA display, making it ideal for both laboratory and demanding field applications.

SPECIFICATIONS

General

Display	Color LCD (VGA)
Warm-up Time	5 minutes (to meet electrical specifications in ambient temperature)

Physical

Operating Temperature	-10 to +55 °C
Dimensions (W×H×D)	327 × 163 × 427 mm

Frequency Specifications

Frequency Range (Standard)	9 kHz to 26.5 GHz
Frequency Range (Option 006)	30 Hz to 26.5 GHz
Preselected Frequency Range	2.75 GHz to 26.5 GHz
Resolution Bandwidth (RBW) Range	1 Hz to 2 MHz
Video Bandwidth (VBW) Range	1 Hz to 3 MHz
Phase Noise (Offset at 10 kHz)	≤ -113 dBc/Hz (@ 1 GHz)

Amplitude Specifications

Maximum Safe Input Level (Continuous Wave)	+30 dBm (1 W)
Maximum Safe Input Level (Peak Pulse)	+50 dBm (100 W) for < 10 μs pulse width, < 1% duty cycle
Maximum DC Input Voltage	0 V (DC coupled)
Input Attenuator Range	0 to 70 dB
Input Attenuator Step Size	10 dB

Sweep Specifications

Sweep Time Range (Span > 0 Hz)	50 ms to 100 s
Sweep Time Range (Zero Span)	50 μs to 6000 s
Sweep Trigger Modes	Free Run, Line, Video, External

Input and Output Interfaces

RF Input Connector Type	APC-3.5 mm (male)
RF Input Impedance	50 Ω
10 MHz Reference Input	BNC (female), -10 to +10 dBm

Available Options and Upgrades

Low End Frequency Coverage Option	Option 006 (Extends frequency down to 30 Hz)
-----------------------------------	--

Frequency

Span Range	0 Hz (zero span), 100 Hz to 26.5 GHz
------------	--------------------------------------

Sweep

Trace Sweep Points	601 points
Sweep Time Accuracy (Span > 0 Hz)	$\pm 10\%$
Sweep Time Accuracy (Zero Span)	$\pm 1\%$ (sweep time ≥ 30 ms)

Performance

Trace Detectors	Normal, Positive Peak, Negative Peak, Sample
Audio Demodulation	AM and FM (built-in speaker and front-panel earphone jack)

Display

Amplitude Scale (Log)	1, 2, 5, and 10 dB/division
Amplitude Scale (Linear)	10% of Reference Level/division

Inputs & Outputs

Rear Panel IF Output	310.7 MHz (nominal)
Calibrator Signal Output	300 MHz, -10 dBm ± 0.3 dB

Amplitude

Resolution Bandwidth Switching Uncertainty	± 0.5 dB (normalized to 300 kHz RBW)
--	--

Spurious Responses

Residual Responses	< -90 dBm (no signal at input, 0 dB attenuation, ≥ 200 kHz)
--------------------	--

Compliance

Electromagnetic Compatibility (EMC)	CISPR 11 / EN 55011, MIL-STD-461C
-------------------------------------	-----------------------------------

TECHNOLOGY

Superheterodyne Spectrum Analysis

APPLICATIONS

Microwave test, field service, R&D, and manufacturing

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