KEYSIGHT TECHNOLOGIES (AGILENT HP)

83622A

The Keysight (Agilent/HP) 83622A is a high-performance synthesized sweeper that combines the accuracy and resolution of a synthesized signal generator with the speed and versatility of a sweep oscillator. Operating from 2 GHz to 20 GHz, it is optimized for component testing, receiver testing, and frequency conversion applications.

SPECIFICATIONS

Frequency

Minimum Frequency	2 GHz Hz
Maximum Frequency	20 GHz Hz
Frequency Resolution	1 kHz (standard) / 1 Hz (with Option 008)

Output

Phase Noise	-76 dBc/Hz at 10 kHz offset, 20 GHz carrier

Modulation

Modulation	AM, FM, Phase, Pulse
Sweep Modes	Step, List, Ramp
Pulse Modulation Rise/Fall Time	< 10 ns
Pulse Modulation On/Off Ratio	> 80 dB
Minimum Unleveled Pulse Width	50 ns
Minimum Leveled Pulse Width	1 µs
AM 3 dB Bandwidth	DC to 250 kHz
Maximum AM Depth	90%
PM Max Deviation	16 rad (low-rate), 4 rad (high-rate)

General

Interfaces	GPIB
Display	Vacuum Fluorescent Display (VFD)
Programming Languages	SCPI, HP 8340/41 emulation

Physical

Power Supply	90 to 132 Vac (48 to 440 Hz) / 198 to 264 Vac (48 to 66 Hz), 400 VA maximum
Dimensions (W×H×D)	425 mm × 178 mm × 648 mm mm
Weight	27 kg kg

Amplitude Specifications

Minimum Output Power	-20 dBm
Amplitude Resolution	0.02 dB
Output Impedance	50 Ohm

Spectral Purity

Harmonics	<-50 dBc (from 2.0 to 20 GHz)
Non-Harmonics (Spurious)	<-60 dBc

Analog Modulation

Scan Modulation	Supported (simulates antenna scan patterns)

Operating Features

Flatness Correction	User flatness correction for leveling at remote points
Two-Tone Offset Sweeps	Accurate fixed and swept frequency offset

Inputs & Outputs

RF Output Connector	3.5 mm male (50 ohm nominal)

Environmental

Operating Temperature Range	0 °C to +55 °C
Storage Temperature Range	-40 °C to +75 °C

Power

Maximum Power Consumption	400 VA

Sweep

Sweep Time Range	10 ms to 100 s
Number of Sweep Points	2 to 801

Output Characteristics

Output SWR	< 1.5 (typical)

TECHNOLOGY

Indirect Synthesis

APPLICATIONS

Component test, receiver test, frequency conversion, and antenna scan simulation