

KEYSIGHT TECHNOLOGIES (AGILENT HP)

83623A

The Keysight / Agilent 83623A is a high-power synthesized swept-signal generator providing broadband frequency coverage from 10 MHz to 20 GHz. It combines the precise accuracy of a synthesized source with the versatility of a sweep oscillator. Designed for applications requiring elevated signal levels, it delivers +17 dBm maximum leveled power and low single-sideband phase noise, making it an excellent general-purpose source for component testing, receiver testing, and frequency conversion.

SPECIFICATIONS

General

Interfaces	GPIB (HP-IB)
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Physical

Power Supply	100/120/220/240 V, 48-66 Hz (400 Hz at 115 V), 400 VA max
Operating Temperature	0 to 55 °C
Dimensions (W×H×D)	425 × 178 × 648 mm mm
Weight	27.2 kg

Frequency Specifications

Frequency Range	10 MHz - 20 GHz
Frequency Resolution	1 kHz (1 Hz with Option 008)

Output Power

Maximum Leveled Power	+17 dBm
Power Sweep Range	-20 dBm to maximum power
User Flatness Correction	Supported (for leveling at remote points)
Power Resolution	0.01 dB

Spectral Purity

SSB Phase Noise (10 kHz offset)	-76 dBc/Hz @ 20 GHz
Harmonics	<-25 dBc (2.0 to 20 GHz)
Non-Harmonic Spurious (≥ 2.0 GHz)	< -50 dBc

Amplitude Modulation (AM)

Scan Modulation	Supported (to simulate antenna scan patterns)
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Inputs and Outputs

RF Output Connector	3.5 mm (male)
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Frequency

Timebase Aging Rate	< 5 × 10 ⁻¹⁰ / day
Timebase Temperature Stability	< 2 × 10 ⁻¹⁰ / °C

Modulation

Pulse Modulation On/Off Ratio	> 80 dB
Pulse Modulation Rise/Fall Time	< 25 ns
Minimum Pulse Width	50 ns (unleveled) / 1 μs (internally leveled)
Amplitude Modulation Bandwidth (3 dB)	DC to 100 kHz
Frequency Modulation Bandwidth	DC to 8 MHz

Sweep

Sweep Time (Analog Sweep)	10 ms to 100 s
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Power

Maximum Power Consumption	400 VA
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Environmental

Storage Temperature	-40 °C to +75 °C
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Sweep Modes

Step Sweep Points	2 to 801
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TECHNOLOGY

Synthesized Sweeper

APPLICATIONS

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

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