

KEYSIGHT TECHNOLOGIES (AGILENT HP)

83640A

The Keysight (formerly Agilent / HP) 83640A is a broadband synthesized sweeper covering a frequency range of 10 MHz to 40 GHz. Combining the high performance and frequency accuracy of a synthesized source with the speed and versatility of a sweep oscillator, it uses indirect synthesis to achieve low single-sideband phase noise and excellent harmonic suppression. It is well-suited for component and receiver testing, frequency conversion, two-tone measurement, and antenna scan simulation.

SPECIFICATIONS

General

Interfaces	GPIB
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Physical

Power Supply	100/120/220/240 V, 48-66 Hz; 100/120 V, 360-440 Hz; 400 VA maximum
Operating Temperature	0 to 55 °C
Dimensions (W×H×D)	425 × 178 × 648 mm
Weight	27.2 kg

Frequency Specifications

Frequency Range	10 MHz - 40 GHz
Frequency Resolution	1 Hz (Option 008)

Output Power Specifications

Maximum Leveled Power (< 26.5 GHz)	+10 dBm
Power Sweep Range	-20 dBm to maximum power
Output Leveling	User flatness correction for leveling at remote points

Spectral Purity

Harmonics (2.0 to 26.5 GHz)	≤ -50 dBc
Harmonics (> 26.5 GHz)	≤ -40 dBc
Non-Harmonic Spurious (> 2.0 GHz)	< -50 dBc

Frequency Modulation (FM)

Maximum FM Deviation (Locked)	±8 MHz
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Inputs & Outputs

RF Output Connector	2.4 mm (male)
External Reference Input Frequencies	1, 2, 5, or 10 MHz

Outputs

Output Impedance	50 Ω (nominal)
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Environmental

Storage Temperature	-40 to +75 °C
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Performance

Internal Timebase Reference	10 MHz
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Power

Minimum Settable Power	-20 dBm (Standard) / -110 dBm (with Option 001)
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Frequency

Timebase Aging Rate	< 5 × 10 ⁻¹⁰ / day (after 72 hours warmup)
Frequency Switching Time	< 15 ms (synthesized step sweep)

Sweep

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

Synthesized / Indirect Synthesis

APPLICATIONS

Component test, receiver test, frequency conversion, antenna scan 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.