

KEYSIGHT TECHNOLOGIES (AGILENT HP)

83640B

The Keysight (Agilent/HP) 83640B is a high-performance synthesized swept-signal generator from the 8360B Series. It is designed to combine the precision and spectral purity of a synthesized source with the speed and versatility of a classic analog sweep oscillator. Covering a broadband frequency range of 10 MHz to 40 GHz, the 83640B utilizes indirect synthesis to achieve excellent single-sideband phase noise and features complete analog sweep capabilities alongside standard AM, FM, and pulse modulation.

SPECIFICATIONS

General

Interfaces	HP-IB (GPIB)
Save/Recall Registers	10 instrument states

Physical

Power Supply	100/120/220/240 VAC ($\pm 10\%$), 48 to 66 Hz; 400 VA max (100/120 VAC supports up to 440 Hz)
Operating Temperature	0 to 55 °C °C
Dimensions (W×H×D)	425 × 178 × 648 mm
Weight	27.4 kg

Frequency Specifications

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

Sweep Specifications

Sweep Modes	Analog sweep, Step sweep
Step Sweep Points	2 to 801

Output Power Specifications

Minimum Settable Power	-110 dBm (Option 001 dependent)
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Spectral Purity

Harmonics (2.0 to 26.5 GHz)	<-50 dBc (typical)
Harmonics (> 26.5 GHz)	<-40 dBc
SSB Phase Noise (10 kHz offset)	<-80 dBc/Hz @ 10 GHz
Non-Harmonic Spurious (> 2.0 GHz)	< -50 dBc

Pulse Modulation

Pulse Modulation	Supported (Standard on 8360B Series)
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Amplitude Modulation

Amplitude Modulation	Supported (Standard on 8360B Series)
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Frequency and Phase Modulation

Frequency Modulation	Supported (Standard on 8360B Series)
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Connectivity and Interfaces

RF Output Connector	2.4 mm (male)
Remote Control Interface	HP-IB (GPIB)

Amplitude

Amplitude Resolution	0.01 dB
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Sweep

Sweep Triggers	Auto, External, Single, Line
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Frequency

Internal Timebase Frequency	10 MHz
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Environmental

Storage Temperature	-40 °C to +75 °C
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RF Output

Output Impedance	50 Ω
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Frequency Reference

External Reference Input Frequencies	1, 2, 5, or 10 MHz
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Modulation

Pulse Modulation On/Off Ratio	> 80 dB
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TECHNOLOGY

Synthesized Sweep Signal Generation

APPLICATIONS

RF & Microwave Test and Measurement

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