

KEYSIGHT TECHNOLOGIES (AGILENT HP)

83650L

The Keysight (Agilent HP) 83650L is a high-performance synthesized swept CW generator belonging to the 8360L Series. Operating from 10 MHz to 50 GHz, it combines the pinpoint accuracy and frequency resolution of a synthesized signal source with the fast sweep speed and versatility of a traditional analog sweep oscillator. It is designed for demanding CW and swept-frequency applications.

SPECIFICATIONS

General

Interfaces	GPIB (IEEE-488)
Power Consumption	400 VA maximum

Physical

Power Supply	90 to 132 VAC (48 to 440 Hz) / 198 to 264 VAC (48 to 66 Hz), 400 VA max
Operating Temperature	0 to 55 °C °C
Dimensions (W×H×D)	425 mm × 178 mm × 648 mm mm
Weight	27 kg kg

Frequency Specifications

Frequency Range	10 MHz to 50 GHz
Internal Timebase Reference Frequency	10 MHz
Frequency Sweep Range	10 MHz to 50 GHz

Output Power Specifications

Maximum Leveled Output Power	+2.5 dBm
Minimum Leveled Output Power (Standard)	-20 dBm
Minimum Leveled Output Power (Option 001)	-110 dBm
Output Impedance	50 ohms

Spectral Purity

Harmonics (26.5 to 50 GHz)	<-40 dBc
Non-Harmonic Spurious (10 MHz to 2.0 GHz)	<-50 dBc
Non-Harmonic Spurious (2.0 to 26.5 GHz)	<-60 dBc
Non-Harmonic Spurious (26.5 to 50 GHz)	<-54 dBc
Sub-Harmonics (20 to 26.5 GHz)	<-50 dBc
Sub-Harmonics (26.5 to 50 GHz)	<-40 dBc

Operating Modes

CW Mode	Supported
Step Sweep Mode	Supported
Ramp Sweep Mode	Supported
List Sweep Mode	Supported
Manual Sweep Mode	Supported
Power Sweep Mode	Supported

Connectivity & Control Interfaces

RF Output Connector Type	2.4 mm (male)
External Reference Input Frequency	10 MHz
Internal Reference Output Frequency	10 MHz
Internal Reference Output Level	0 dBm nominal
Analog Ramp Output (Sweep Out)	0 to 10 V
Z-Axis Blanking Output	Supported

Environmental & Reliability

Storage Temperature Range	-40 to 75 °C
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Ordering Information & Options

Option 001	Adds Step Attenuator (extends output range down to -110 dBm)
Option 004	Rear-panel RF output configuration
Option 1CP	Rackmount flange and handle kit

Options

Option 006	Fast Pulse Modulation
Option 008	1 Hz frequency resolution
Option 002	Internal Modulation Generator
Option 908	Rack mount flange kit without handles
Option 913	Rack mount flange kit for instruments with front handles

Remote Programming

Command Set Compatibility	SCPI (Standard Commands for Programmable Instruments) and Agilent 8340B/8341B code compatibility
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Sweep

Number of Step Sweep Points	2 to 801
Number of List Sweep Points	1 to 801

TECHNOLOGY

Synthesized Swept CW Signal Generator

APPLICATIONS

Microwave device characterization, swept-frequency measurement, and local oscillator substitution

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