

KEYSIGHT TECHNOLOGIES (AGILENT HP)

8350B

The Keysight (Agilent/HP) 8350B is a high-performance sweep oscillator mainframe designed for microwave measurements, CW signal generation, and automatic testing. Compatible with the HP 83500-series and 86200-series (via adapter) RF plug-ins, it offers a broad frequency range from 10 MHz to 40 GHz depending on the installed plug-in. It features HP-IB programmability, five independent markers, and nine save/recall registers for instrument states.

SPECIFICATIONS

General

Interfaces	HP-IB (IEEE-488), Sweep Output (BNC), Z-Axis Blanking/Marker (BNC), Pen Lift (BNC), Stop Sweep (BNC), External Sweep Input (BNC)
Display	Digital LED display showing frequency, output power, sweep time, and active marker values

Physical

Power Supply	100, 120, 220, or 240 V AC (+5%, -10%), 48 to 66 Hz, 270 VA maximum (including RF plug-in)
Operating Temperature	0 to 55 °C °C
Dimensions (W×H×D)	425 mm × 133.3 mm × 495 mm mm
Weight	16.5 kg

Frequency Specifications

Frequency Range	10 MHz to 40 GHz (RF plug-in dependent)
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Sweep Characteristics

Frequency Markers	5 independent, continuously variable markers
Marker Sweep	Sweeps between Marker 1 and Marker 2
Sweep Modes	Start/Stop, CF/DF, CW, Manual Sweep
Sweep Time Range	10 ms to 100 s
Sweep Output Voltage	0 to +10 V nominal ramp
External Sweep Input	0 to +10 V for full frequency sweep
Sweep Trigger Modes	Internal, Line, External, Single
Sweep Trigger Input	Rear panel BNC, TTL compatible, triggers on rising edge (> 2 V)
Stop Sweep Input	Rear panel BNC, TTL low (< 0.8 V) halts sweep
Alternate Sweep Mode	Alternates sweep-by-sweep between the current front panel state and a stored register state

System Integration and Interfaces

Save/Recall Registers	9 complete front panel settings
Z-Axis Blanking Output	+5 V during retrace and bandswitch points; 0 V during sweep (rear panel BNC)
Pen Lift Control Output	TTL levels or relay contact closure during sweep (rear panel BNC)
Plug-in Compatibility	HP 83500-series plug-ins natively; HP 86200-series plug-ins via HP 11869A adapter
Remote Control Interface	HP-IB (IEEE-488) standard, programming all mainframe and plug-in functions

Environmental and Compliance

Storage Temperature Range	-40 to +75 °C
Maximum Operating Altitude	4570 m

Physical and Power Specifications

Mainframe Form Factor	Full rack-width, 3U height
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Remote Programming

HP-IB Interface Function Codes	SH1, AH1, T6, L4, SR1, RL1, PP0, DC1, DT1, C0
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Power Requirements

Maximum Power Consumption	270 VA (with any RF plug-in installed)
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Signal Outputs

Pen Lift Output	Ground clamp during sweep, open circuit during retrace
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Display Characteristics

Frequency Display Resolution	5 digits (plug-in dependent)
Power Display Resolution	0.1 dB (plug-in dependent)

Internal Modulation

Internal Square Wave Output Frequency	1 kHz $\pm$ 100 Hz
Internal Square Wave Output Level	TTL compatible
Internal Square Wave Symmetry	45% to 55%

Rear Panel Outputs

V/GHz Output	1.0 V/GHz or 0.5 V/GHz (RF plug-in dependent)
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System Integration

Scalar Network Analyzer Compatibility	Directly compatible with HP 8755, HP 8756, and HP 8757 scalar analyzers
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TECHNOLOGY

Analog and digital RF/microwave sweeping

APPLICATIONS

Microwave swept measurements, CW signal generation, and automatic test equipment (ATE)

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