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Data Sheet

August 12, 2026

HP / AGILENT

HP / Agilent 83650A Synthesized Sweeper, 10 MHz to 50 GHz, Power: +10 dBm &

The 83650A is the 10 MHz to 50 GHz member of the HP 8360 series synthesized sweepers. It combines synthesized CW accuracy with sweep-oscillator speed for millimeter-wave component, receiver, and frequency-conversion test. Option 008 provides 1 Hz frequency resolution. Alias: 83650A; Agilent 83650A; HP 83650A; Keysight 83650A Power sweep range: -20 dBm to maximum power Harmonics 2.0 to 26.5 GHz: at least 50 dB below carrier Harmonics above 26.5 GHz: at least 40 dB below carrier



MODEL

**HP / Agilent
83650A**

CALIBRATION

**Available on
request**

CONDITION

Used

STATUS

In stock

RFQ / SKU

83650A

LISTING

<https://aumictechlabs.com/products/83650a-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 · 811210 · 541380

This unit

The HP/Agilent 83650A Synthesized Sweeper generates precise RF signals from 10 MHz to 50 GHz, delivering up to +10 dBm across its primary operating range and +5 dBm above 26.5 GHz. Built for component characterization, system integration, and automated test environments, this instrument combines fast frequency switching with flexible modulation and multiple sweep modes. Technical Specifications Frequency Performance Range: 10 MHz to 50 GHz Resolution: 1 kHz standard; 1 Hz optional (Option 008); 0.01 Hz Switching Speed: Less than 500 μ s Output Power Range: -20 dBm to +30 dBm Maximum: +10 dBm up to 26.5 GHz; +5 dBm above 26.5 GHz;

+2.5 dBm above 40 GHz Minimum: -20 dBm standard; -120 dBm with Option 001 Resolution: 0.01 dB Flatness: ± 1.5 dB (varies by frequency and power level) Signal Purity Harmonics: ≤ -50 dBc (2.0 to 26.5 GHz); ≤ -40 dBc (above 26.5 GHz) Non-harmonic spurious: 80 dB on/off ratio, < 10 ns rise/fall time (Option 006), 2 GHz external Sweep Capabilities Modes: Step, List, Ramp Time: 100 ms to 1000 s User flatness correction for remote levelingKey Features Frequency switching under 500 μ s enables rapid test sequences Power sweep range from -20 dBm to maximum per frequency band pulse modulation with nanosecond-level rise/fall times External trigger input/output for synchronizationCompatibility & Integration GPIB and RS-232 interfaces for remote operation and test automation

Features & description

From manufacturer datasheet

Features

- Widest frequency coverage in the 8360A synthesized sweeper family
- Step, list, and ramp sweep modes
- Scan modulation for antenna-scan simulation
- Optional 1 Hz resolution (Opt 008)

Applications

- Broadband microwave/mmWave component and filter test to 50 GHz
- Receiver and converter stimulus
- Step, list, and ramp frequency sweeps
- User flatness correction and two-tone offset setups

83650A Characteristics / Specifications

PARAMETER	VALUE
Model	83650A
Manufacturer	HP / Agilent
Instrument Type	Synthesized Sweeper
Alias	83650A; Agilent 83650A; HP 83650A; Keysight 83650A
Frequency range	10 MHz to 50 GHz
Standard frequency resolution	1 kHz
Maximum power below 26.5 GHz	+10 dBm
Maximum power 26.5 to 40 GHz	+5 dBm
Maximum power above 40 GHz	+2.5 dBm
Power sweep range	-20 dBm to maximum power
Harmonics 2.0 to 26.5 GHz	at least 50 dB below carrier
Harmonics above 26.5 GHz	at least 40 dB below carrier
Max FM deviation locked	+/-8 MHz
Sweep modes	Step, List, Ramp Notes Specs from HP/Agilent 83650A / 8360-series literature. Confirm Option 001/008 and connector type on the unit.

83650A Specifications

PARAMETER	VALUE
HP / Agilent 83650A Synthesized Sweeper	Overview
Applications	- Broadband microwave/mmWave component and filter test to 50 GHz
Key Features	- Widest frequency coverage in the 8360A synthesized sweeper family
Technical Specifications	Model: 83650A
Notes	Specs from HP/Agilent 83650A / 8360-series literature. Confirm Option 001/008 and connector type on the unit.

Full OEM specifications

Complete technical content extracted from the manufacturer datasheet. Sparse OEM tables are reconstructed as tables below; other text is preserved as paragraphs.

Specifications

Specifications

PARAMETER	VALUE
Model	83650A
Manufacturer	HP / Agilent
Instrument Type	Synthesized Sweeper
Alias	83650A; Agilent 83650A; HP 83650A; Keysight 83650A

Frequency range: 10 MHz to 50 GHz
Standard frequency resolution: 1 kHz
Option 008 frequency resolution: 1 Hz

Specifications

PARAMETER	VALUE
Maximum power below 26.5 GHz	+10 dBm
Maximum power 26.5 to 40 GHz	+5 dBm
Maximum power above 40 GHz	+2.5 dBm
Power sweep range	-20 dBm to maximum power
Harmonics 2.0 to 26.5 GHz	at least 50 dB below carrier
Harmonics above 26.5 GHz	at least 40 dB below carrier

Phase noise at 50 GHz, 10 kHz offset: -68 dBc
Max FM deviation locked: +/-8 MHz
Sweep modes: Step, List, Ramp

Notes
Specs from HP/Agilent 83650A / 8360-series literature. Confirm Option 001/008 and connector type on the unit.

Ordering Information

OPTION	DESCRIPTION
Option 008	provides 1 Hz frequency resolution.

Available from Aumictech

Used and refurbished unit evaluated in-house. Calibration: Available on request. Used · In stock.

Request a quote: sales@aumictech.com · +1 (484) 841-9341

Aumictech

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Technical content from manufacturer specifications. Unit photo/stock from Aumictech listing when available. Specifications subject to OEM documentation and unit condition.