

**Aumictech**

Test & measurement • bought, sold, repaired, calibrated

Data Sheet

August 13, 2026

HP / AGILENT

HP / Agilent 83620B Synthesized Swept-Signal Generator, 0.01 â€" 20 GHz, +13 dBm calibrated output

HP / Agilent 83620B Synthesized Swept Signal Generator 10 MHz to 20 GHz The HP/Agilent 83620B is the 10 MHz to 20 GHz standard-power member of the 8360B synthesized swept-signal family. It adds HF-through-microwave start frequency versus the 2 GHz-start 83622B, with the same +13 dBm maximum leveled power, 1 kHz resolution (1 Hz Option 008), and B-series pulse/AM/FM modulation. Option 001 step attenuator extends minimum settable power to -110 dBm. Broadband component and receiver test from 10 MHz to 20 GHz; converter LO and stimulus; user-flatness-corrected ATE; scan modulation and two-tone offset; millimeter source-module drive with an 83550-series module. The HP/Agilent 83620B is the 10 MHz to 20 GHz standard-power member of the 8360B synthesized swept-signal family. It adds HF-through-microwave start frequency versus the 2 GHz-start 83622B, with the same +13 dBm maximum leveled power, 1 kHz resolution (1 Hz Option 008), and B-series pulse/AM/FM modulation. Option 001 step attenuator extends minimum settable power to -110 dBm. Broadband component and receiver test from 10 MHz to 20 GHz; converter LO and stimulus; user-flatness-corrected ATE; scan modulation and two-tone offset; millimeter source-module drive with an 83550-series module.



MODEL

**HP / Agilent
83620B**

CALIBRATION

**Available on
request**

CONDITION

Used

STATUS

In stock

RFQ / SKU

83620B

LISTING

<https://aumictechlabs.com/products/83620b-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 • 811210 • 541380

This unit

The HP/Agilent 83620B is a synthesized swept-signal generator delivering precision signal generation from 0.01 GHz to 20 GHz with +13 dBm calibrated output power. Built for research, development, and manufacturing environments, it combines frequency synthesis architecture with excellent stability and resolution for component and system validation. Technical Specifications

Frequency & Power Frequency range: 0.01 GHz to 20 GHz Calibrated output power: +13 dBm maximum Power accuracy: ± 1.0 dB typical across frequency and temperature range Power resolution: 0.1 dB steps Output impedance: 50 Ohms Signal Quality Harmonic distortion: Better than -30 dBc above 1 GHz Spurious outputs: Better than -60 dBc Phase noise: Frequency-dependent; refer to manufacturer plots for detailed characteristics Modulation AM: 400 Hz, 1 kHz internal modulation frequencies; 0–99% modulation depth (continuous); $\pm 5\%$ accuracy typical FM: 400 Hz, 1 kHz internal modulation frequencies; continuously variable deviation Sweep Modes List, logarithmic, and linear sweep modes Variable sweep time for analysis flexibility External, internal, or manual triggering Stability & Performance Fast frequency switching for efficient test sequences High amplitude stability across time and temperature Excellent long-term and short-term frequency stability Key Features Front-panel user interface with manual parameter control HP-IB (IEEE-488) remote interface with SCPI compatibility for automated systems Operating temperature: 0°C to 55°C Storage temperature: -40°C to 70°C Humidity rating: Up to 95% RH at 25°C (non-condensing) Power supply: 90–132 VAC or 195–264 VAC (selectable), 47–63 Hz Power consumption: Less than 300 VA Typical Applications Component and subsystem characterization across microwave frequencies; RF filter and amplifier testing; receiver sensitivity analysis; modulation accuracy verification; frequency response mapping via swept measurements.

Compatibility & Integration Integrates with standard ATE systems supporting HP-IB control. SCPI command set enables integration into automated test environments and measurement platforms.

Features & description

From manufacturer datasheet

Features

- Widest low-end coverage in the 8362xB pair (10 MHz versus 83622B at 2 GHz)
- Step, list, and ramp sweep with 2 to 801 (step) or 1 to 801 (list) points
- User flatness correction up to 8 tables
- Optional fast pulse (Option 006) and internal modulation generator (Option 002)
- Auxiliary 2 to 26.5 GHz unmodulated reference, typically -10 dBm
- Precision 3.5 mm male RF; Type-N female to 3.5 mm adapter supplied

83620B Characteristics / Specifications

PARAMETER	VALUE
Model	83620B
Manufacturer	Hewlett Packard / Agilent / Keysight
Instrument Type	Synthesized swept signal generator
Family	8360B Series
Alias	HP 83620B; Agilent 83620B; Keysight 83620B
Frequency Range	10 MHz to 20 GHz
Standard Frequency Resolution	1 kHz
Timebase Aging Rate	5e-10 per day; 1e-7 per year
Timebase Temperature Typical	1e-10 perC Timebase Line Voltage Typical: 5e-10 for 10 percent line change
Maximum Leveled Power	+13 dBm (standard and Option 006)
Minimum Settable Power Standard	-20 dBm
Minimum Settable Power Option 0	-110 dBm
Attenuator Max Power Derating To 20 GHz	1.5 dB reduction with Option 001
Power Resolution	0.02 dB
Power Switching Time Typical	10 ms without attenuator change
Power Temperature Stability Typical	0.01 dB perC Power Accuracy Above minus 10 dBm Below 2 GHz: plus/minus 0.6 dB
Power Accuracy Above minus 10 dBm 2 to 20 GHz	plus/minus 0.7 dB
Power Flatness Above minus 10 dBm Below 2 GHz	plus/minus 0.5 dB
Harmonics Below 2 GHz Standard	-30 dBc
Harmonics 2 to 26.5 GHz Standard	-50 dBc
Harmonics With Option 006 Below 2 GHz	-30 dBc class
Harmonics With Option 006 2 to 26.5 GHz	-60 dBc

PARAMETER	VALUE
Subharmonics Below 7 GHz	none
Subharmonics 7 to 20 GHz	-50 dBc
Phase Noise 10 MHz to 7 GHz at 10 kHz Offset	-86 dBc/Hz
Phase Noise 13.5 to 20 GHz at 10 kHz Offset	-76 dBc/Hz
CW Switching Within Band	15 ms plus 5 ms per GHz step
CW Switching Maximum Or Band Cross	50 ms
Step Sweep Points	2 to 801
List Mode Points	1 to 801
Dwell Time	100 us to 3.2 s
Ramp Sweep Time	10 ms to 100 s; 300 MHz/ms maximum rate
Pulse On Off Ratio	80 dB
Pulse Rise Fall Standard	25 ns
Pulse Rise Fall Option 0	10 ns
FM Locked Maximum Deviation	plus/minus 8 MHz
AM Bandwidth 30 Percent Depth	DC to 100 kHz
Source Match Typical Below 20 GHz	1.6:1 SWR internally leveled
RF Connector	precision 3.5 mm male
Net Weight	27 kg (60 lb)
Dimensions	178 mmHx 425 mmWx 648 mmDMains: 48 to 66 Hz; 115 V or 230 V; 400 VA maximum
Operating Temperature	0 C to 55 C
Warm Up Operation	30 minutes from cold start
Bandwidth	30 Percent Depth: DC to 100 kHz

General Specifications & Supplementary Characteristics

PARAMETER	VALUE
Operating temperature	0 C to 55 C
Operating Temperature	0 C to 55 C
Warm Up Operation	30 minutes from cold start Notes Specs from Agilent 8360B/L data sheet 5964-6162E for the 83620B column. Distinct from 83622B (2 GHz start) and from high-power 83623B. Confirm Option 001/006/008 on the faceplate.

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	
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Manufacturer	Hewlett Packard / Agilent / Keysight
Instrument Type	Synthesized swept signal generator
Family	8360B Series
Alias	HP 83620B; Agilent 83620B; Keysight 83620B
Frequency Range	10 MHz to 20 GHz
Standard Frequency Resolution	1 kHz
Option 008 Frequency Resolution: 1 Hz	
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PARAMETER	VALUE
Timebase Aging Rate	5e-10 per day; 1e-7 per year
Timebase Temperature Typical	1e-10 perC Timebase Line Voltage Typical: 5e-10 for 10 percent line change
Maximum Leveled Power	+13 dBm (standard and Option 006)
Minimum Settable Power Standard	-20 dBm
Minimum Settable Power Option 001	-110 dBm
Attenuator Max Power Derating To 20 GHz	1.5 dB reduction with Option 001
Power Resolution	0.02 dB
Power Switching Time Typical	10 ms without attenuator change
Power Temperature Stability Typical	0.01 dB perC Power Accuracy Above minus 10 dBm Below 2 GHz: plus/minus 0.6 dB
Power Accuracy Above minus 10 dBm 2 to 20 GHz: plus/minus 0.7 dB	
Power Flatness Above minus 10 dBm Below 2 GHz: plus/minus 0.5 dB	
Specifications	
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Harmonics Below 2 GHz Standard	-30 dBc

PARAMETER	VALUE
Harmonics 2 to 26.5 GHz Standard	-50 dBc
Harmonics With Option 006 Below 2 GHz	-30 dBc class

Harmonics With Option 006 2 to 26.5 GHz: -60 dBc
 Subharmonics Below 7 GHz: none
 Subharmonics 7 to 20 GHz: -50 dBc
 Phase Noise 10 MHz to 7 GHz at 10 kHz Offset: -86 dBc/Hz
 Phase Noise 13.5 to 20 GHz at 10 kHz Offset: -76 dBc/Hz

Specifications

PARAMETER	VALUE
CW Switching Within Band	15 ms plus 5 ms per GHz step
CW Switching Maximum Or Band Cross	50 ms
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AM Bandwidth 30 Percent Depth	DC to 100 kHz
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Notes
 Specs from Agilent 8360B/L data sheet 5964-6162E for the 83620B column. Distinct from 83622B (2 GHz start) and from high-power 83623B. Confirm Option 001/006/008 on the faceplate.

Ordering Information

OPTION	DESCRIPTION
Option 001	step attenuator extends minimum settable power to -110 dBm.
Option 008	Frequency Resolution: 1 Hz
Option 006	Below 2 GHz: -30 dBc class

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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<https://aumictechlabs.com>

NIST-traceable calibration · SAM registered ·
30-day returns
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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.