

**Aumictech**

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Data Sheet

August 13, 2026

HP / AGILENT

HP / Agilent 83623L Synthesized Swept-CW Generator, 10 MHz to 20 GHz, +15 dBm calibrated output

HP / Agilent 83623L Synthesized Swept CW Generator 10 MHz to 20 GHz The HP/Agilent 83623L is the 10 MHz to 20 GHz member of the 8360L synthesized swept-CW family. L-series instruments provide CW, step, list, and ramp sweep without the B-series pulse, AM, or FM modulators (Options 002 and 006 are not applicable). Maximum leveled power is +15 dBm, between the +13 dBm 83620B and the +17 dBm 83623B. Frequency resolution is 1 kHz standard, 1 Hz with Option 008. CW and swept microwave stimulus where modulation is not required; component and filter characterization; LO substitution; 8510-adjacent swept-CW work without pulse hardware. The HP/Agilent 83623L is the 10 MHz to 20 GHz member of the 8360L synthesized swept-CW family. L-series instruments provide CW, step, list, and ramp sweep without the B-series pulse, AM, or FM modulators (Options 002 and 006 are not applicable). Maximum leveled power is +15 dBm, between the +13 dBm 83620B and the +17 dBm 83623B. Frequency resolution is 1 kHz standard, 1 Hz with Option 008. CW and swept microwave stimulus where modulation is not required; component and filter characterization; LO substitution; 8510-adjacent swept-CW work without pulse hardware.



MODEL

**HP / Agilent
83623L**

CALIBRATION

**Available on
request**

CONDITION

Used

STATUS

In stock

RFQ / SKU

83623L

LISTING

<https://aumictechlabs.com/products/83623l-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 • 811210 • 541380

This unit

The HP/Agilent 83623L is a synthesized swept-CW generator delivering precise signal generation from 10 MHz to 20 GHz with +15 dBm calibrated output power. Built for receiver testing, system verification, and microwave circuit characterization, this instrument combines the frequency accuracy of a synthesized source with the flexibility of multiple sweep modes and fast switching performance. Technical Specifications Frequency Range: 10 MHz to 20 GHz Output Power: Calibrated Output: +15 dBm Minimum Settable Output Power (with Option 001): -110 dBm Power Sweep Range: -20 dBm to maximum available power Signal Purity: Harmonics: -50 dBc at frequencies < 20 GHz (typical) SSB Phase Noise: <-80 dBc at 10 GHz with 10 kHz offset Accuracy and Stability: Frequency Resolution: 1 Hz (with Option 008) Temperature Stability: 0.01 dB/°C (typical) Aging Rate: 5×10^{-10} per day Temperature Operating Range: 15 °C to 35 °C for specified accuracy Switching and Sweep Characteristics: Switching Time (no attenuator change): 10 ms (typical) Switching Time (within frequency band): 15 ms + (step size/1 GHz) × 5 ms Sweep Modes: CW, Step, List, Manual Sweep, Ramp Sweep Points per Table: 2 to 801 Dwell Time: 100 μs to 3.2 s Pulse Modulation: Available for output frequencies ≥ 400 MHz Option 002: Adds 30 ns delay and ±5 ns pulse compression for external inputs Key Features 1 Hz frequency resolution option for demanding metrology applications Step attenuator option extends dynamic range to -110 dBm Multiple sweep modes support complex measurement sequences Fast 10 ms switching enables rapid frequency changes Low phase noise and harmonic content suit sensitive receiver validation Typical Applications Receiver sensitivity and selectivity testing Component and subsystem characterization Frequency response measurements across microwave bands Modulated signal generation for system-level validation Compatibility & Integration GPIB bus control and power meter input Manual frequency entry User flatness power correction supported Option 001: Step Attenuator Option 002: External pulse modulation with delay and compression Option 004: Front-rear panel output retrofit kit Option 008: 1 Hz frequency resolution Firmware upgrade kits available for CPU assemblies

Features & description

From manufacturer datasheet

Features

- 8360L swept-CW generator: no pulse/AM/FM hardware • +15 dBm max leveled versus +17 dBm on 83623B and +13 dBm on 83620B • Same 10 MHz to 20 GHz span as 83620B/83623B • Step, list, and ramp sweep with timebase-referenced CW accuracy • Option 001 step attenuator to -110 dBm settable
- Precision 3.5 mm male RF; Type-N adapter supplied

83623L Characteristics / Specifications

PARAMETER	VALUE
Model	83623L
Manufacturer	Hewlett Packard / Agilent / Keysight
Instrument Type	Synthesized swept CW generator
Family	8360L Series
Alias	HP 83623L; Agilent 83623L; Keysight 83623L
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 perCMaximum Leveled Power: +15 dBm
Minimum Settable Power Standard	-20 dBm
Minimum Settable Power Option 0	-110 dBm
Power Resolution	0.02 dB
Power Switching Time Typical	10 ms without attenuator change
Power Temperature Stability Typical	0.01 dB perCPower 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
Harmonics Below 2 GHz Standard	-25 dBc
Harmonics 2 to 26.5 GHz Standard	-45 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
CW Switching Within Band	15 ms plus 5 ms per GHz step
CW Switching Maximum Or Band Cross	50 ms

PARAMETER	VALUE
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
Analog Power Sweep Range	-20 dBm to maximum available power
User Flatness Points Per Table	2 to 801
User Flatness Tables	up to 8
Source Match Typical Below 20 GHz	1.6:1 SWR internally leveled
External Detector Leveling Range	-36 to +4 dBm at 33330D/E
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 (30 VA standby)
Operating Temperature	0 C to 55 C
Storage Temperature	-40 C to 75 C
Warm Up Operation	30 minutes from cold start
RelatedBHHigh Power	83623B +17 dBm with pulse/AM/FM

General Specifications & Supplementary Characteristics

PARAMETER	VALUE
Storage temperature	40 C to 75 C
Operating temperature	0 C to 55 C
Operating Temperature	0 C to 55 C
Warm Up Operation	30 minutes from cold start
RelatedBHigh Power	83623B +17 dBm with pulse/AM/FM Notes Specs from Agilent 8360B/L data sheet 5964-6162E 83623L column. L-series instruments do not accept Option 002 or Option 006. Confirm Option 001 and 008 on the unit; do not apply B-series pulse rise/fall rows to this CW generator.

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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Model	83623L
Manufacturer	Hewlett Packard / Agilent / Keysight
Instrument Type	Synthesized swept CW generator
Family	8360L Series
Alias	HP 83623L; Agilent 83623L; Keysight 83623L
Frequency Range	10 MHz to 20 GHz
Standard Frequency Resolution	1 kHz
Option 008 Frequency Resolution: 1 Hz	
Timebase Aging Rate: 5e-10 per day; 1e-7 per year	
Timebase Temperature Typical: 1e-10 perCMaximum Leveled Power: +15 dBm	
Option 006 Pulse: not applicable	
Specifications	
PARAMETER	VALUE
Minimum Settable Power Standard	-20 dBm
Minimum Settable Power Option 001	-110 dBm
Power Resolution	0.02 dB
Power Switching Time Typical	10 ms without attenuator change
Power Temperature Stability Typical	0.01 dB perCPower 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	
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PARAMETER	VALUE
Harmonics Below 2 GHz Standard	-25 dBc
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Phase Noise 10 MHz to 7 GHz at 10 kHz Offset: -86 dBc/Hz
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Specifications

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CW Switching Within Band	15 ms plus 5 ms per GHz step
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Source Match Typical Below 20 GHz	1.6:1 SWR internally leveled
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Notes
Specs from Agilent 8360B/L data sheet 5964-6162E 83623L column. L-series instruments do not accept Option 002 or Option 006. Confirm Option 001 and 008 on the unit; do not apply B-series pulse rise/fall rows to this CW generator.

Ordering Information

OPTION	DESCRIPTION
Option 001	step attenuator to -110 dBm settable
Option 008	Frequency Resolution: 1 Hz
Option 006	Pulse: not applicable
Option 002	or Option 006. Confirm Option 001 and 008 on the unit; do not apply B-series pulse rise/fall times to this CW generator.

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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NIST-traceable calibration · SAM registered ·
30-day returns
NAICS 423690 · 811210 · 541380
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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.