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Data Sheet
August 13, 2026

HP / AGILENT

HP / Agilent 83640L Synthesized Swept-CW Generator, 10 MHz to 40 GHz, +10 dBm calibrated

HP / Agilent 83640L Synthesized Swept CW Generator 10 MHz to 40 GHz The HP/Agilent 83640L is the 10 MHz to 40 GHz 8360L synthesized swept-CW generator. Maximum leveled power is +10 dBm below 26.5 GHz and +6 dBm from 26.5 GHz to 40 GHz, matching the 83640B power table without B-series pulse/AM/FM. RF output is 2.4 mm male. Resolution is 1 kHz standard, 1 Hz with Option 008. Option 001 extends minimum settable power to -110 dBm with 1.5/2 dB attenuator derating by band. Broadband CW and swept stimulus to 40 GHz without modulation hardware; Ka-band component test; converter and filter characterization; user-flatness-corrected ATE at 2.4 mm. The HP/Agilent 83640L is the 10 MHz to 40 GHz 8360L synthesized swept-CW generator. Maximum leveled power is +10 dBm below 26.5 GHz and +6 dBm from 26.5 GHz to 40 GHz, matching the 83640B power table without B-series pulse/AM/FM. RF output is 2.4 mm male. Resolution is 1 kHz standard, 1 Hz with Option 008. Option 001 extends minimum settable power to -110 dBm with 1.5/2 dB attenuator derating by band. Broadband CW and swept stimulus to 40 GHz without modulation hardware; Ka-band component test; converter and filter characterization; user-flatness-corrected ATE at 2.4 mm.

MODEL HP / Agilent 83640L	CALIBRATION Available on request
CONDITION Used	STATUS In stock
RFQ / SKU 83640L	LISTING https://aumictechlabs.com/products/83640l-2/

NIST-traceable cal · SAM registered · 30-day returns

NAICS 423690 · 811210 · 541380

This unit

The HP/Agilent 83640L Synthesized Swept-CW Generator delivers precise signal generation from 10 MHz to 40 GHz with +10 dBm calibrated output power. This instrument integrates synthesized frequency accuracy with swept-oscillator flexibility, enabling applications from component characterization to system validation across R&D, manufacturing, and field service environments. Technical Specifications Frequency Performance Frequency range: 10 MHz to 40 GHz Frequency resolution: 1 kHz standard (Option 008 provides 1 Hz resolution) Internal 10 MHz time base with aging rate $<5 \times 10^{-7}$ per day and 1×10^{-6} per year after 30-day warm-up Output Power Calibrated output power: +10 dBm Maximum leveled output: +10 dBm below 26.5 GHz; +6 dBm above 26.5 GHz Minimum settable output: -20 dBm (standard) or -110 dBm with Option 001 Step Attenuator Output power resolution: 0.02 dB Temperature stability: 0.01 dB/°C typical Spectral Purity Harmonics: ≥50 dBc (2.0–26.5 GHz); ≥40 dBc (26.5–40.0 GHz) Non-harmonic spurious signals: -60 dBc to -52 dBc depending on frequency band SSB phase noise ranges from -70 dBc/Hz at 100 Hz offset (10 MHz–7 GHz) to -52 dBc/Hz at 100 Hz offset (38–50 GHz) Key Features 1 kHz frequency resolution supports precise tuning and narrow-band measurements Settable power range from -20 dBm to +10 dBm accommodates diverse load impedances Low phase noise across all frequency bands enables sensitive receiver testing CW, step, list, manual sweep, and ramp sweep operating modes Optional Step Attenuator extends dynamic range to -110 dBm Typical Applications Receiver sensitivity and selectivity measurements Transmitter power and spurious emission testing Filter and amplifier characterization Radar and microwave subsystem validation Component evaluation in the 10 MHz to 40 GHz band

Features & description

From manufacturer datasheet

Features

• 8360L swept-CW to 40 GHz (no pulse/AM/FM) • Same +10/+6 dBm leveled breakpoints as 83640B • 2.4 mm male RF (not 3.5 mm used on 20/26.5 GHz models) • 2.4 mm to 2.92 mm and 2.4 mm to 2.4 mm adapters supplied • Step, list, and ramp sweep; 801-point user-flatness tables • Source-module interface for 83550-series millimeter modules

83640L Characteristics / Specifications

PARAMETER	VALUE
Model	83640L
Manufacturer	Hewlett Packard / Agilent / Keysight
Instrument Type	Synthesized swept CW generator
Family	8360L Series
Alias	HP 83640L; Agilent 83640L; Keysight 83640L
Frequency Range	10 MHz to 40 GHz
Standard Frequency Resolution	1 kHz
Timebase Aging Rate	5e-10 per day; 1e-7 per year
Maximum Leveled Power Below 26.5 GHz	+10 dBm
Maximum Leveled Power 26.5 to 40 GHz	+6 dBm
Minimum Settable Power Standard	-20 dBm
Minimum Settable Power Option 0	-110 dBm
Attenuator Derating To 20 GHz	1.5 dB
Attenuator Derating Above 20 GHz	2 dB
Power Resolution	0.02 dB
Power Switching Time Typical	10 ms without attenuator change
Power Accuracy Above minus 10 dBm 2 to 20 GHz	plus/minus 0.7 dB
Power Accuracy Above minus 10 dBm 20 to 40 GHz	plus/minus 0.9 dB
Harmonics Below 2 GHz Standard	-30 dBc
Harmonics 2 to 26.5 GHz Standard	-50 dBc
Harmonics 26.5 GHz And Above Standard	-40 dBc
Subharmonics Below 7 GHz	none
Subharmonics 7 to 20 GHz	-50 dBc
Subharmonics 20 to 40 GHz	-50 dBc

PARAMETER	VALUE
Phase Noise 26.5 to 38 GHz at 10 kHz Offset	-70 dBc/Hz
Phase Noise 38 to 50 GHz at 10 kHz Offset	-68 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
Source Match Typical Below 20 GHz	1.6:1 SWR
Source Match Typical Below 40 GHz	1.8:1 SWR
RF Connector	2.4 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
Leveled Power Above 20 GHz Temperature	0 C to 25 C for the max-power spec
Warm Up Operation	30 minutes from cold start
RelatedBModel	83640B same span and power with pulse/AM/FM

General Specifications & Supplementary Characteristics

PARAMETER	VALUE
Operating temperature	0 C to 55 C
Operating Temperature	0 C to 55 C
Leveled Power Above 20 GHz Temperature	0 C to 25 C for the max-power spec
Warm Up Operation	30 minutes from cold start
RelatedBModel	83640B same span and power with pulse/AM/FM Notes Specs from Agilent 8360B/L data sheet 5964-6162E 83640B/L column. The 26.5 GHz to 40 GHz band note in the phase-noise table applies to 83640B/L. Confirm 2.4 mm connector and Option 001/008. Do not apply 50 GHz 83650L power rows (+5/+2.5 dBm) to this 40 GHzLmodel.

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	83640L
Manufacturer	Hewlett Packard / Agilent / Keysight
Instrument Type	Synthesized swept CW generator
Family	8360L Series
Alias	HP 83640L; Agilent 83640L; Keysight 83640L
Frequency Range	10 MHz to 40 GHz
Standard Frequency Resolution	1 kHz

Option 008 Frequency Resolution: 1 Hz

Specifications

PARAMETER	VALUE
Timebase Aging Rate	5e-10 per day; 1e-7 per year
Maximum Leveled Power Below 26.5 GHz	+10 dBm
Maximum Leveled Power 26.5 to 40 GHz	+6 dBm

Option 006 Pulse: not applicable

Specifications

PARAMETER	VALUE
Minimum Settable Power Standard	-20 dBm
Minimum Settable Power Option 001	-110 dBm
Attenuator Derating To 20 GHz	1.5 dB
Attenuator Derating Above 20 GHz	2 dB
Power Resolution	0.02 dB
Power Switching Time Typical	10 ms without attenuator change

Power Accuracy Above minus 10 dBm 2 to 20 GHz: plus/minus 0.7 dB
Power Accuracy Above minus 10 dBm 20 to 40 GHz: plus/minus 0.9 dB

Specifications

PARAMETER	VALUE
Harmonics Below 2 GHz Standard	-30 dBc
Harmonics 2 to 26.5 GHz Standard	-50 dBc
Harmonics 26.5 GHz And Above Standard	-40 dBc
Subharmonics Below 7 GHz	none
Subharmonics 7 to 20 GHz	-50 dBc
Subharmonics 20 to 40 GHz	-50 dBc

Phase Noise 26.5 to 38 GHz at 10 kHz Offset: -70 dBc/Hz
Phase Noise 38 to 50 GHz at 10 kHz Offset: -68 dBc/Hz
Note On 26.5 Band: 26.5 GHz to 40 GHz on 83640B/L (not 38 GHz split used on 50 GHz models)

Specifications

PARAMETER	VALUE
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
Source Match Typical Below 20 GHz	1.6:1 SWR
Source Match Typical Below 40 GHz	1.8:1 SWR
RF Connector	2.4 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
Leveled Power Above 20 GHz Temperature	0 C to 25 C for the max-power spec
Warm Up Operation	30 minutes from cold start
RelatedBModel	83640B same span and power with pulse/AM/FM

Notes
Specs from Agilent 8360B/L data sheet 5964-6162E 83640B/L column. The 26.5 GHz to 40 GHz band note in the phase-noise table applies to 83640B/L. Confirm 2.4 mm connector and Option 001/008. Do not apply 50 GHz 83650L power rows (+5/+2.5 dBm) to this 40 GHzLmodel.

Ordering Information

OPTION	DESCRIPTION
Option 001	extends minimum settable power to -110 dBm with 1.5/2 dB attenuator derating by band.
Option 008	Frequency Resolution: 1 Hz
Option 006	Pulse: not applicable

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

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