Aumictech
Test & measurement · bought, sold, repaired, calibrated

Data Sheet
August 13, 2026

HP / AGILENT

HP / Agilent 83624B High Power Swept-Signal Generator, 2 â€“ 20 GHz, +20 dBm calibrated output

HP / Agilent 83624B High Power Synthesized Swept Signal Generator 2 GHz to 20 GHz The HP/Agilent 83624B is the high-power 2 GHz to 20 GHz 8360B sweeper, with +20 dBm maximum leveled output standard (+17 dBm with Option 006 fast pulse). It is the highest-drive coaxial member of the 8360B 20 GHz group, intended for amplifier drive and mixer LO stimulus that the +13 dBm 83622B cannot supply. Option 001 extends minimum settable power to -110 dBm with the family attenuator derating. High-power amplifier drive; mixer LO at +20 dBm class; receiver overload/margin testing; automated production microwave test; scan modulation and two-tone frequency-offset measurements. The HP/Agilent 83624B is the high-power 2 GHz to 20 GHz 8360B sweeper, with +20 dBm maximum leveled output standard (+17 dBm with Option 006 fast pulse). It is the highest-drive coaxial member of the 8360B 20 GHz group, intended for amplifier drive and mixer LO stimulus that the +13 dBm 83622B cannot supply. Option 001 extends minimum settable power to -110 dBm with the family attenuator derating. High-power amplifier drive; mixer LO at +20 dBm class; receiver overload/margin testing; automated production microwave test; scan modulation and two-tone frequency-offset measurements.

MODEL HP / Agilent 83624B	CALIBRATION Available on request
CONDITION Used	STATUS In stock
RFQ / SKU 83624B	LISTING https://aumictechlabs.com/products/83624b-2/

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

NAICS 423690 · 811210 · 541380

This unit

The HP/Agilent 83624B is a synthesized swept-signal generator engineered for precision RF and microwave applications spanning 2 GHz to 20 GHz. It delivers calibrated output power to +20 dBm with exceptional spectral purity and phase noise performance. Built on the proven 8360B series architecture, this instrument combines synthesizer accuracy with analog sweep speed, making it ideal for demanding test scenarios including amplifier characterization, radar development, and complex system integration. Technical Specifications Frequency & Output Power Frequency range: 2 GHz to 20 GHz Calibrated output power: +20 dBm Maximum leveled output power: +20 dBm (83624B) With Option 001 Step Attenuator: minimum settable output power −110 dBm Frequency resolution: 1 kHz standard; 1 Hz with Option 008 Spectral Performance Harmonics: typically −50 dBc below 20 GHz Nonharmonically related spurious signals: typically −60 dBc (10 MHz to <2.0 GHz) SSB phase noise: 20 GHz: specifications apply 0 °C to 25 °C Maximum leveled output power at 35 °C to 55 °C: typically degrades <2 dB Sweep Capabilities Sweep types: analog, CW, step, list, manual, ramp, alternate Control modes: start/stop, center/span, marker (M1–M2) Trigger: auto, external, single, or GPIB Point capacity: 2 to 801 points per table; up to 8 tables Switching time without attenuator change: 10 ms typical Switching time within frequency band: 15 ms + (step size/1 GHz) × 5 ms Key Features Synthesized architecture with 1 kHz standard frequency resolution Analog sweep capability for rapid system characterization Manual, step, list, and ramp sweep modes for flexible stimulus control GPIB integration for automated test sequences Multiple trigger sources: auto, external, single, and bus-driven Temperature-compensated output level accuracy across operational range Typical Applications Amplifier gain and linearity testing Radar and EW system development and validation Filter and component characterization Receiver sensitivity and dynamic range assessment Microwave subsystem integration and troubleshooting

Features & description

From manufacturer datasheet

Features

• Highest 20 GHz coaxial leveled power in the 8360B table (+20 dBm standard) • Option 006 reduces max leveled power to +17 dBm while speeding pulse edges to 10 ns • 2 GHz start (no 10 MHz band) versus 83623B • Step, list, and ramp sweep; user flatness 2 to 801 points, up to 8 tables • Pulse on/off 80 dB at ALC 0 dBm and above (20 C to 55 C) • Precision 3.5 mm male RF; Type-N adapter 1250-1745 supplied

83624B Characteristics / Specifications

PARAMETER	VALUE
Model	83624B
Manufacturer	Hewlett Packard / Agilent / Keysight
Instrument Type	High power synthesized swept signal generator
Family	8360B Series
Alias	HP 83624B; Agilent 83624B; Keysight 83624B
Frequency Range	2 GHz to 20 GHz (high power)
Standard Frequency Resolution	1 kHz
Timebase Aging Rate	5e-10 per day; 1e-7 per year
Maximum Leveled Power Standard	+20 dBm
Maximum Leveled Power Option 0	+17 dBm
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 Accuracy Above plus 10 dBm 2 to 20 GHz	plus/minus 1.3 dB
Power Accuracy Above minus 10 dBm 2 to 20 GHz	plus/minus 0.7 dB
Harmonics 2 to 26.5 GHz Standard	-25 dBc
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 13.5 to 20 GHz at 10 kHz Offset	-76 dBc/Hz

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
Analog Power Sweep Range	-20 dBm to maximum available power
Pulse On Off Ratio	80 dB (ALC 0 dBm and above; 20 C to 55 C)
Pulse Rise Fall Standard	25 ns
Pulse Rise Fall Option 0	10 ns
Video Feedthrough 2 GHz And Above	1 percent class
FM Locked Maximum Deviation	plus/minus 8 MHz
AM Linear Sensitivity	100 percent per volt
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
Leveled Power Temperature Window	0 C to 35 C (spec)
Warm Up Operation	30 minutes from cold start
Related Standard Power	83622B +13 dBm same span
Related 10 MHz High Power	83623B +17 dBm

General Specifications & Supplementary Characteristics

PARAMETER	VALUE
Operating temperature	0 C to 55 C
Operating Temperature	0 C to 55 C
Leveled Power Temperature Window	0 C to 35 C (spec)
Warm Up Operation	30 minutes from cold start
Related Standard Power	83622B +13 dBm same span
Related 10 MHz High Power	83623B +17 dBm Notes Specs from Agilent 8360B/L data sheet 5964-6162E 83624B column. Option 006 both speeds pulse edges and reduces maximum leveled power from +20 dBm to +17 dBm on this model only among the 20 GHz high-power pair.

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	83624B
Manufacturer	Hewlett Packard / Agilent / Keysight
Instrument Type	High power synthesized swept signal generator
Family	8360B Series
Alias	HP 83624B; Agilent 83624B; Keysight 83624B
Frequency Range	2 GHz to 20 GHz (high power)
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 Standard	+20 dBm
Maximum Leveled Power Option 006	+17 dBm
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 Accuracy Above plus 10 dBm 2 to 20 GHz: plus/minus 1.3 dB
Power Accuracy Above minus 10 dBm 2 to 20 GHz: plus/minus 0.7 dB
Harmonics 2 to 26.5 GHz Standard: -25 dBc
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 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

PARAMETER	VALUE
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
Analog Power Sweep Range	-20 dBm to maximum available power
Pulse On Off Ratio	80 dB (ALC 0 dBm and above; 20 C to 55 C)
Pulse Rise Fall Standard	25 ns
Pulse Rise Fall Option 006	10 ns
Video Feedthrough 2 GHz And Above	1 percent class
FM Locked Maximum Deviation	plus/minus 8 MHz
AM Linear Sensitivity	100 percent per volt
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
Leveled Power Temperature Window	0 C to 35 C (spec)
Warm Up Operation	30 minutes from cold start
Related Standard Power	83622B +13 dBm same span
Related 10 MHz High Power	83623B +17 dBm

Notes

Specs from Agilent 8360B/L data sheet 5964-6162E 83624B column. Option 006 both speeds pulse edges and reduces maximum leveled power from +20 dBm to +17 dBm on this model only among the 20 GHz high-power pair.

Ordering Information

OPTION	DESCRIPTION
Option 006	fast pulse). It is the highest-drive coaxial member of the 8360B 20 GHz group, intended for amplifier drive and mixer LO stimulus that the +13 dBm 83622B cannot
Option 001	extends minimum settable power to -110 dBm with the family attenuator derating.
Option 008	Frequency Resolution: 1 Hz

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
788 S 500 E, Pleasant Grove, UT 84062
sales@aumictech.com · +1 (484) 841-9341
https://aumictechlabs.com

NIST-traceable calibration · SAM registered · 30-day returns
NAICS 423690 · 811210 · 541380
Generated August 13, 2026