

**Aumictech**

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Data Sheet

August 13, 2026

HP / AGILENT

HP / Agilent 83732B Synthesized Signal Generator, 0.01 â€" 20 GHz, output power (typically >+14 dBm)

HP / Agilent 83732B Synthesized Signal Generator 10 MHz to 20 GHz The HP/Agilent 83732B is the 10 MHz to 20 GHz synthesized signal generator in the 8370B family. Unlike the 83712B CW generator, the 83731B/83732B add pulse, linear AM, log (scan) AM, FM, and optional analog phase modulation (Option 800). Frequency resolution is 1 kHz (1 Hz with Option 1E8). Minimum leveled power is -4 dBm, or -110 dBm with Option 1E1 110 dB step attenuator. Microwave receiver and component stimulus with pulse/AM/FM; radar and EW pulse envelopes; scalar and noise-figure source (8970B Special Function 41.5); ATE with SCPI and 8673 mnemonic compatibility. The HP/Agilent 83732B is the 10 MHz to 20 GHz synthesized signal generator in the 8370B family. Unlike the 83712B CW generator, the 83731B/83732B add pulse, linear AM, log (scan) AM, FM, and optional analog phase modulation (Option 800). Frequency resolution is 1 kHz (1 Hz with Option 1E8). Minimum leveled power is -4 dBm, or -110 dBm with Option 1E1 110 dB step attenuator. Microwave receiver and component stimulus with pulse/AM/FM; radar and EW pulse envelopes; scalar and noise-figure source (8970B Special Function 41.5); ATE with SCPI and 8673 mnemonic compatibility.



MODEL

**HP / Agilent
83732B**

CALIBRATION

**Available on
request**

CONDITION

Used

STATUS

In stock

RFQ / SKU

83732B

LISTING

<https://aumictechlabs.com/products/83732b-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 · 811210 · 541380

This unit

The HP/Agilent 83732B is a synthesized signal generator delivering precision RF and microwave signal generation across 10 MHz to 20 GHz. Built for component testing, system simulation, and automated test environments, it combines broad frequency coverage with exceptional spectral purity and stable frequency control. The instrument achieves typical output power exceeding +14 dBm with 1 kHz frequency resolution and ± 0.01 ppm accuracy, making it suitable for demanding laboratory and production applications.

Technical Specifications

Frequency Performance
Frequency range: 10 MHz to 20 GHz
Frequency resolution: 1 kHz standard; 1 Hz with Option 1E8
Frequency accuracy: ± 0.01 ppm
Frequency stability: $\pm 1 \times 10^{-8}$
Frequency switching: <50 ms to within 1 kHz (any step); <35 ms for <1 GHz steps

Output Power
Maximum leveled output: +13 dBm (0.01–1 GHz); +11 dBm (1–18 GHz standard); +10 dBm (18–20 GHz standard)
Minimum leveled output: –4 dBm; –110 dBm with Option 1E1

Output resolution: 0.01 dB
Output impedance: 50 ohms
Output SWR: <2.0:1 nominal
Power accuracy: ± 1.0 dB (50 MHz to 20 GHz)

Spectral Purity
Harmonics: $\leftarrow 55$ dBc (at 3 kHz); –60 dBc
SSB phase noise: –115 dBc/Hz to –65 dBc/Hz depending on offset frequency and carrier

Stability Options
High-stability timebase (Option 1E5): Aging $< 1.5 \times 10^{-9}$ /day; temperature effects $< 1 \times 10^{-7}$ over 0–55°C
Standard timebase: Aging $< 1.0 \times 10^{-8}$ /day after 72 hours at 25°C $\pm 10^\circ\text{C}$

Key Features
Synthesized architecture ensures signal stability and accuracy
User level correction for leveled power delivery at remote test ports
50-ohm matched output with 2:1 SWR rating
Settable power resolution to 0.01 dB

Typical Applications
RF and microwave component characterization
System-level signal simulation and stimulus
Production and R&D test automation
Frequency and power sweep measurements

Compatibility & Integration
Optional timebase upgrades and external 10 MHz reference capability support integration with synchronized multi-instrument test systems.

Features & description

From manufacturer datasheet

Features

- Full 10 MHz to 20 GHz coverage (83731B starts at 1 GHz)
- Pulse on/off greater than 80 dB; internal pulse 25 ns to 419 ms
- Linear AM to 90 percent depth; log AM greater than 60 dB
- Optional internal modulation generator (Option 1E2) and analog PM (Option 800)
- User flatness: 2 to 401 points per table, up to 4 tables
- Type-N precision RF, or 3.5 mm with Option 1E9

83732B Characteristics / Specifications

PARAMETER	VALUE
Model	83732B
Manufacturer	Hewlett Packard / Agilent / Keysight
Instrument Type	Synthesized signal generator
Family	8370B
Alias	HP 83732B; Agilent 83732B; Keysight 83732B
Frequency Range	10 MHz to 20 GHz
Frequency Resolution Standard	1 kHz
Frequency Resolution Option 1E	1 Hz
Standard Aging After 72 h	less than 1.0e-8 per day at 25 plus/minus 10 C
Frequency Switching Any Step	less than 50 ms to within 1 kHz
Frequency Switching Under 1 GHz Step	less than 35 ms to within 1 kHz (not across 10 GHz band switch)
Minimum Leveled Power	-4 dBm
Minimum Leveled Power Option 1E	-110 dBm
Display Power Resolution	0.01 dB
Max Leveled 0.01 to 1 GHz	+13 dBm
Max Leveled 1 to 18 GHz Standard	+11 dBm
Max Leveled 1 to 18 GHz Option 1E	+10 dBm
Max Leveled 18 to 20 GHz Standard	+10 dBm
Max Leveled 18 to 20 GHz Option 1E	+8 dBm
Power Accuracy 50 MHz to 20 GHz At Max Leveled	plus/minus 1.0 dB
Power Accuracy 10 to 50 MHz At Max Leveled	plus/minus 1.3 dB
Flatness Power At Or Above minus 90 dBm	plus/minus 0.5 dB
Level Switching Time	less than 17 ms without attenuator range change
Output SWR Nominal	less than 2.0:1

PARAMETER	VALUE
Harmonics At Levels Below plus 6 dBm	less than -55 dBc (83731B/83732B)
Nonharmonic Spurious At Or Above 3 kHz	less than -60 dBc
Nonharmonic Spurious Below 3 kHz	less than -50 dBc
Subharmonics	none
SSB Phase Noise 10 to 20 GHz at 10 kHz Offset	-76 dBc/Hz
Pulse On Off Ratio	greater than 80 dB
Internal Pulse Width	25 ns to 419 ms
Internal Pulse PRI	300 ns to 419 ms
Internal Pulse PRF	3 Hz to greater than 3 MHz
Pulse Level Accuracy Relative To CW	plus/minus 1.0 dB
Linear AM Maximum Depth	90 percent
Linear AM Bandwidth 30 Percent	DC to greater than 100 kHz
Log AM Maximum Depth	greater than 60 dB
Log AM Sensitivity	-10 dB perVFM Rates: 1 kHz to 1 MHz
FM Max Deviation 2 to 20 GHz	10 MHz peak
Remote Interface	GPIB; SCPI IEEE 488.2; 8673 emulation
Mains	90 to 132 V 48 to 440 Hz; 198 to 264 V 48 to 66 Hz; 260 VA maximum
Size	133 mmHx 426 mmWx 498 mmDNet Weight: less than 16 kg (35 lb)
Operating Temperature	0 C to 55 C
Bandwidth	30 Percent: DC to greater than 100 kHz

General Specifications & Supplementary Characteristics

PARAMETER	VALUE
Operating temperature	0 C to 55 C
Operating Temperature	0 C to 55 C

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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PARAMETER	VALUE
Model	83732B
Manufacturer	Hewlett Packard / Agilent / Keysight
Instrument Type	Synthesized signal generator
Family	8370B
Alias	HP 83732B; Agilent 83732B; Keysight 83732B
Frequency Range	10 MHz to 20 GHz
Frequency Resolution Standard	1 kHz
Frequency Resolution Option 1E8	1 Hz
Option 1E5 Aging After 24 h: less than 1.5e-9 per day	
Specifications	
PARAMETER	VALUE
Standard Aging After 72 h	less than 1.0e-8 per day at 25 plus/minus 10 C
Frequency Switching Any Step	less than 50 ms to within 1 kHz
Frequency Switching Under 1 GHz Step	less than 35 ms to within 1 kHz (not across 10 GHz band switch)
Minimum Leveled Power	-4 dBm
Minimum Leveled Power Option 1E1	-110 dBm
Display Power Resolution	0.01 dB
Max Leveled 0.01 to 1 GHz	+13 dBm
Max Leveled 1 to 18 GHz Standard	+11 dBm
Max Leveled 1 to 18 GHz Option 1E1: +10 dBm	
Max Leveled 18 to 20 GHz Standard: +10 dBm	
Max Leveled 18 to 20 GHz Option 1E1: +8 dBm	
Power Accuracy 50 MHz to 20 GHz At Max Leveled: plus/minus 1.0 dB	
Power Accuracy 10 to 50 MHz At Max Leveled: plus/minus 1.3 dB	
Flatness Power At Or Above minus 90 dBm: plus/minus 0.5 dB	
Specifications	

PARAMETER	VALUE
Level Switching Time	less than 17 ms without attenuator range change
Output SWR Nominal	less than 2.0:1
Harmonics At Levels Below plus 6 dBm	less than -55 dBc (83731B/83732B)
Nonharmonic Spurious At Or Above 3 kHz	less than -60 dBc
Nonharmonic Spurious Below 3 kHz	less than -50 dBc
Subharmonics	none

SSB Phase Noise 10 to 20 GHz at 10 kHz Offset: -76 dBc/Hz

Specifications

PARAMETER	VALUE
Pulse On Off Ratio	greater than 80 dB
Internal Pulse Width	25 ns to 419 ms
Internal Pulse PRI	300 ns to 419 ms
Internal Pulse PRF	3 Hz to greater than 3 MHz
Pulse Level Accuracy Relative To CW	plus/minus 1.0 dB
Linear AM Maximum Depth	90 percent
Linear AM Bandwidth 30 Percent	DC to greater than 100 kHz
Log AM Maximum Depth	greater than 60 dB
Log AM Sensitivity	-10 dB perVFM Rates: 1 kHz to 1 MHz
FM Max Deviation 2 to 20 GHz	10 MHz peak
Remote Interface	GPIB; SCPI IEEE 488.2; 8673 emulation
Mains	90 to 132 V 48 to 440 Hz; 198 to 264 V 48 to 66 Hz; 260 VA maximum
Size	133 mmHx 426 mmWx 498 mmDNet Weight: less than 16 kg (35 lb)
Operating Temperature	0 C to 55 C

Notes

Specs from Agilent 83711B/83712B/83731B/83732B data sheet 5963-6615E. This file is the 10 MHz-start signal generator 83732B, not the CW-only 83712B and not the 1 GHz-start 83731B. Confirm Option 1E1 attenuator, 1E5 timebase, 1E8 1 Hz, 1E2 internal modulation, and 1E9 3.5 mm connector.

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.