

**Aumictech**

Test & measurement · bought, sold, repaired, calibrated

Data Sheet

August 13, 2026

HP / AGILENT

HP / Agilent 83712A Synthesized CW generator, 0.01 to 20 GHz

HP 83712A Synthesized CW Generator 10 MHz to 20 GHz The HP 83712A is the 10 MHz to 20 GHz synthesized CW generator in the 83711A/83712A family. It provides leveled CW microwave output without the pulse/AM/FM hardware of the 83731A/83732A signal generators. Frequency resolution is 1 kHz (1 Hz Option 1E8). Maximum leveled power is about +13 dBm (0.01 to 1 GHz) and +11 dBm (1 to 20 GHz), or +10 dBm with Option 1E1; minimum leveled is 0 dBm (-90 dBm with Option 1E1 on A-series tables). CW microwave stimulus 10 MHz to 20 GHz; LO substitution; noise-figure source; ATE where modulation is not required. The HP 83712A is the 10 MHz to 20 GHz synthesized CW generator in the 83711A/83712A family. It provides leveled CW microwave output without the pulse/AM/FM hardware of the 83731A/83732A signal generators. Frequency resolution is 1 kHz (1 Hz Option 1E8). Maximum leveled power is about +13 dBm (0.01 to 1 GHz) and +11 dBm (1 to 20 GHz), or +10 dBm with Option 1E1; minimum leveled is 0 dBm (-90 dBm with Option 1E1 on A-series tables). CW microwave stimulus 10 MHz to 20 GHz; LO substitution; noise-figure source; ATE where modulation is not required.



MODEL

**HP / Agilent
83712A**

CALIBRATION

**Available on
request**

CONDITION

Used

STATUS

In stock

RFQ / SKU

83712A

LISTING

<https://aumictechlabs.com/products/83712a-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 · 811210 · 541380

This unit

The HP/Agilent 83712A is a synthesized continuous-wave generator delivering precise frequency control across 10 MHz to 20 GHz. Built for RF and microwave testing in telecommunications, radar, and electronic warfare applications, it combines high spectral purity with stable frequency synthesis and flexible output power management.

Technical Specifications

Frequency Performance Frequency range: 10 MHz to 20 GHz Frequency resolution: 1 kHz standard; 1 Hz with Option 1E8 Switching time: <50 ms to within 1 kHz Stability (with Option 1E5 high stability timebase): aging rate $<1.5 \times 10^{-7}$ /day; temperature effects $<1 \times 10^{-7}$ over 0–55°C Stability (standard timebase): aging rate $<1.0 \times 10^{-6}$ /day; temperature effects $<5 \times 10^{-6}$ over 0–55°C

External 10 MHz reference input supported

RF Output Power Maximum leveled output: +13 dBm at 0.01–1 GHz; +11 dBm at 1–20 GHz (+10 dBm with Option 1E1) Minimum leveled output: 0 dBm standard; –90 dBm with Option 1E1 Level accuracy: ± 1.0 dB typical; ± 1.3 dB (10–50 MHz), ± 1.0 dB (50 MHz–20 GHz) at mid-range; ± 2.3 dB and ± 2.0 dB over temperature Level resolution: 0.01 dB

Flatness: ± 0.5 dB at power ≥ -90 dBm

Spectral Purity Harmonics: < -50 dBc typical Non-harmonic spurious: < -60 dBc

Phase noise (SSB): –103 dBc/Hz at 500 MHz offset; –91 dBc/Hz at 2 GHz offset; –73 dBc/Hz at 18 GHz offset

Phase noise floor: –140 dBc/Hz; offsets <100 Hz require Option 1E5

Key Features Synthesized architecture for frequency agility and precision Dual timebase options: standard or high-stability (Option 1E5) for low-noise applications Extended dynamic range to –90 dBm with Option 1E1 Sub-harmonic-free output Fine-resolution level control (0.01 dB steps)

Typical Applications Component and subsystem characterization in microwave systems Receiver sensitivity and selectivity testing Frequency response measurement in RF circuits Phase noise and spectral purity assessment CW signal generation for radar and EW testing

Compatibility & Integration External 10 MHz reference input allows phase locking to precision frequency standards. Internally driven operation requires no external references.

Features & description

From manufacturer datasheet

Features

- CW only (use 83732A if modulation required) • 10 MHz to 20 GHz versus 83711A starting at 1 GHz • Option 1E1 step attenuator; 1E5 high-stability timebase; 1E8 1 Hz; 1E9 3.5 mm RF • 0.5 V/GHz output for mm-wave source modules • SCPI / HP-IB programmable

83712A Characteristics / Specifications

PARAMETER	VALUE
Model	83712A
Manufacturer	Hewlett Packard / Agilent
Instrument Type	Synthesized CW generator
Frequency Range	10 MHz to 20 GHz
Frequency Resolution Standard	1 kHz
Frequency Resolution Option 1E	1 Hz
Maximum Leveled Power 0.01 to 1 GHz	+13 dBm
Maximum Leveled Power 1 to 20 GHz	+11 dBm
Maximum Leveled Power With Option 1E	+10 dBm class
Minimum Leveled Power	0 dBm
Minimum Leveled Power Option 1E	-90 dBm
Display Power Resolution	0.01 dB
Flatness Power At Or Above Minus 90 dBm	plus/minus 0.5 dB
Flatness Lower Power Class	plus/minus 0.7 dB
Output SWR Nominal	50 ohm
RF Connector Standard	TypeNprecision
RF Connector Option 1E	3.5 mm precision
Reference Input	10 MHz plus/minus 100 Hz; 0 to +10 dBm; 50 ohm nominal
Reference Output	10 MHz nominally +3 dBm
Millimeter Drive Output	0.5 V/GHz
Related 1 GHz Start CW	83711A
Related Modulated Sibling	83732A
Alias	HP 83712A; Agilent 83712A

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	83712A
Manufacturer	Hewlett Packard / Agilent
Instrument Type	Synthesized CW generator
Frequency Range	10 MHz to 20 GHz
Frequency Resolution Standard	1 kHz
Frequency Resolution Option 1E8	1 Hz
Maximum Leveled Power 0.01 to 1 GHz	+13 dBm
Maximum Leveled Power 1 to 20 GHz	+11 dBm
Maximum Leveled Power With Option 1E1	+10 dBm class
Minimum Leveled Power	0 dBm
Minimum Leveled Power Option 1E1	-90 dBm
Display Power Resolution	0.01 dB

Flatness Power At Or Above Minus 90 dBm: plus/minus 0.5 dB

Specifications

PARAMETER	VALUE
Flatness Lower Power Class	plus/minus 0.7 dB
Output SWR Nominal	50 ohm
RF Connector Standard	TypeNprecision
RF Connector Option 1E9	3.5 mm precision
Reference Input	10 MHz plus/minus 100 Hz; 0 to +10 dBm; 50 ohm nominal
Reference Output	10 MHz nominally +3 dBm
Millimeter Drive Output	0.5 V/GHz

Option 1E1: output step attenuator
Option 1E5: high stability timebase
Option 1E8: 1 Hz frequency resolution
Option 1E9: 3.5 mm RF output

Specifications

PARAMETER	VALUE
Related 1 GHz Start CW	83711A
Related Modulated Sibling	83732A
Alias	HP 83712A; Agilent 83712A

Notes
Specs from HP 83712A product literature and 83711A/12A documentation. B-series units use different minimum leveled (-4 / -110 dBm) tables; do not mixAandBpower rows.

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

Technical content from manufacturer specifications. Unit photo/stock from Aumictech listing when available. Specifications subject to OEM documentation and unit condition.