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Data Sheet

August 14, 2026

HP / AGILENT

HP / Agilent 3324A Synthesized Function/Sweep Generator

HP Agilent 3324A Synthesized Function Sweep Generator The HP 3324A is a synthesized function/sweep generator providing precision sine square and triangle waveforms with synthesized frequency accuracy and sweep capability for audio through HF stimulus. Precision function generation for filter amplifier and servo testing, logarithmic and linear sweeps, and HP-IB automated waveform stimulus. Synthesized frequency accuracy Sine square triangle waveforms Linear and log sweep DC offset and amplitude control HP-IB programmability The HP 3324A is a synthesized function/sweep generator providing precision sine square and triangle waveforms with synthesized frequency accuracy and sweep capability for audio through HF stimulus. Precision function generation for filter amplifier and servo testing, logarithmic and linear sweeps, and HP-IB automated waveform stimulus. Synthesized frequency accuracy Sine square triangle waveforms Linear and log sweep DC offset and amplitude control HP-IB programmability Instrument Type: Synthesized function sweep generator



MODEL

HP / Agilent 3324A

CALIBRATION

Available on request

CONDITION

Used

STATUS

In stock

RFQ / SKU

3324A

LISTING

<https://aumictechlabs.com/products/3324a-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 · 811210 · 541380

This unit

The HP/Agilent 3324A is a synthesized function and sweep generator delivering precise waveform synthesis across audio through RF bands. It generates sine, square, triangle, ramp, DC, and TTL clock signals with frequency resolution to 1 mHz and accuracy of ± 5 ppm. The instrument excels in broadband sweep applications, supporting linear, logarithmic, and multi-interval modes with up to 100 intervals in user-defined sequences. Phase-continuous sweeping across the full frequency range ensures clean transitions for characterization and testing tasks. Sine waveforms reach 21 MHz with exceptional spectral purity at -50 dBc phase noise and -55 dBc spurious content. Amplitude control spans 1 mV to 10 V peak-to-peak into 50 Ω loads, with optional high-voltage output extending to 40 V peak-to-peak into 500 Ω loads to 1 MHz. The 50 Ω output impedance and floating capability to 40 V support flexible test configurations. An optional high-stability frequency reference achieves 0.05 ppm/week drift after stabilization, meeting precision calibration and long-duration measurement requirements.

Technical Specifications

Frequency Range (Sine): 1 mHz to 21 MHz Frequency Range (Square): 1 mHz to 11 MHz Frequency Range (Triangle/Ramp): 1 mHz to 11 kHz Frequency Resolution: 1 mHz (9-digit display) Frequency Accuracy: ± 5 ppm at 20–30°C (at calibration) Frequency Stability: ± 5 ppm/year (standard); 0.05 ppm/week (Option 001, after 72 h) Amplitude Range: 1 mV to 10 V peak-to-peak into 50 Ω ; up to 40 V into 500 Ω (Option 002, to 1 MHz) Amplitude Accuracy: $\pm 2\%$ at 2 kHz Amplitude Flatness: $\pm 10\%$ relative to programmed value DC Offset Range: $\pm 4\times$ instrument standard range Output Impedance: 50 Ω $\pm 10\%$ (DC–10 kHz); $< 3\Omega$ DC; $< 10\Omega$ at 1 MHz Output Floating: ± 40 V (42 V peak AC+DC maximum) Sine Spectral Purity: -50 dBc phase noise; -55 dBc spurious Triangle/Ramp Linearity: 0.05% of full peak-to-peak Ramp Retrace Time: 3 ps (90%–10%, 50 Ω /500 pF load) Square Wave Overshoot: 10% peak-to-peak (50 Ω /500 pF load) Sweep Modes: Linear (10 ms–100 s); Logarithmic (100 ms–1000 s); Multi-Interval (up to 100 intervals) Minimum Sweep Width: 1 decade Phase Offset: $\pm 719.9^\circ$ adjustable

Key Features Nine-digit frequency display for precise readout and verification Phase-continuous sweeping eliminates glitches during frequency transitions Multi-interval sweep sequences enable complex, application-specific test profiles TTL clock output for digital synchronization GPIB interface with floating capability for isolated test setups

Typical Applications Component characterization and filter response measurement Frequency response testing of analog and mixed-signal circuits Production testing and automated calibration workflows Educational laboratory demonstrations and circuit validation

Compatibility & Integration GPIB programming interface. Floating outputs support isolated measurement environments.

3324A Characteristics / Specifications

PARAMETER	VALUE
Instrument Type	Synthesized function sweep generator
Waveforms	Sine Square Triangle
Frequency Synthesis	Phase locked synthesized
Sweep Modes	Linear and logarithmic
Remote Interface	HP-IB IEEE-488
Output Impedance Class	50 Ohm
Amplitude Control	Calibrated level control
DC Offset	yes
Duty Cycle Control Class	variable symmetry on pulse-like modes
Marker Outputs Class	sweep markers on series
Form Factor	Benchtop
Intended Band Class	Audio to HF function generation
Frequency Entry	Numeric synthesized setting
Flatness Class	Leveled output within band
Distortion Class	Low distortion sine of HP synthesized generators
Sync Output	yes
External Reference Class	accepted on series
Operating Temperature Class	0 to 55 C laboratory
Power	AC line
Display	Frequency and level readouts
Modulation Class	AM or sweep modulation features of series
Storage Class	Setup memories on later firmware
Attenuator	Precision output attenuator
Trigger Sweep	yes
Single Sweep	yes

PARAMETER	VALUE
Continuous Sweep	yes
Operating temperature	Class: 0 to 55 C laboratory

General Specifications & Supplementary Characteristics

PARAMETER	VALUE
Operating temperature	Class: 0 to 55 C laboratory
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Power	AC line
Display	Frequency and level readouts
Modulation Class	AM or sweep modulation features of series
Storage Class	Setup memories on later firmware
Attenuator	Precision output attenuator
Trigger Sweep	yes
Single Sweep	yes
Continuous Sweep	yes Notes Role and feature set from HP 3324A synthesized function/sweep generator literature. Confirm exact maximum frequency and amplitude tables in the 3324A operating manual for the installed options.

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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Notes

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