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Data Sheet

August 14, 2026

HP / AGILENT

HP / Agilent 3312A Function Generator

The HP 3312A combines a main function generator and an independent modulation generator with a modulator section in one instrument. Main frequency covers 0.1 Hz to 13 MHz in eight decade ranges with AM FM sweep trigger gate and burst capability. General laboratory waveform stimulus, AM/FM and tone-burst testing, and dual-generator modulation experiments without external modulators. Two independent generators plus modulator Sine square triangle ramp pulse waveforms Modulation Generator Level: greater than 1.0 V p-p into 10 kOhm Modulation Types: Internal and external AM FM sweep trigger gate burst Sync Output Level: greater than 1 V p-p open circuit Specs from HP 3312A specifications sheets and HPWiki frequency summary.



MODEL

HP / Agilent 3312A

CALIBRATION

Available on request

CONDITION

Used

STATUS

In stock

RFQ / SKU

3312A

LISTING

<https://aumictechlabs.com/products/3312a-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 • 811210 • 541380

This unit

The HP/Agilent 3312A is a dual-channel function generator combining two independent signal sources with integrated modulation capability in a single compact chassis. The main generator produces sine, square, triangle, ramp, and variable-symmetry pulse waveforms from 0.1 Hz to 13 MHz across eight decade ranges, delivering up to 20 V p-p into open circuit or >10 V p-p into 50 Ω loads. A secondary modulation generator operating from 0.01 Hz to 10 kHz enables complex signal conditioning through amplitude modulation (0–100% depth), frequency modulation ($\pm 5\%$ deviation), and linear sweep (>100:1 width). The instrument supports internal and external trigger,

gate, and burst modes, with the main generator capable of being triggered by the modulation generator. Technical Specifications Main Generator Output: Frequency range: 0.1 Hz to 13 MHz (eight decade ranges) Waveforms: Sine, square, triangle, ramp, pulse (variable symmetry 80:20 to 80% up to 1 MHz) Output levels: 20 V p-p (open circuit), >10 V p-p (50 Ω at 1 kHz), 10 V p-p (50 Ω terminated) Output impedance: 50 Ω $\pm$ 10% DC offset: $\pm$ 10 V p-p (50 Ω), $\pm$ 10 V maximum (open circuit), $\pm$ 5 V maximum (50 Ω terminated) Attenuator: >10,000:1 range with 1:1, 10:1, 100:1, 1000:1, and continuous (>10:1) settings; <5% error Signal Quality: Sine THD: 30 dB below fundamental from 50 kHz to 13 MHz Square rise/fall time: <20 ns Triangle linearity error: 100:1 width (internal/external) Modulation Generator: Frequency: 0.01 Hz to 10 kHz Output level: >1.0 V p-p (10 k Ω load) Sync Output: Impedance: 50 Ω Level: >1 V p-p square wave (open circuit) Key Features Independent dual-channel architecture with cross-triggering capability Frequency modulation and AM depth control without external equipment Comprehensive sweep functionality across all frequency bands Low-distortion sine output across audio and ultrasonic ranges >10,000:1 continuous amplitude control with preset attenuation steps Typical Applications Component and subsystem characterization Filter and amplifier frequency response testing Modulation index and deviation measurement Pulse timing and shape verification System integration and signal conditioning Physical & Compatibility Shipping weight: 15 lbs. External modulation inputs support AM, FM, and sweep signals. Trigger/gate/burst inputs accept external logic. This is a legacy instrument no longer in active manufacturer support.

3312A Characteristics / Specifications

PARAMETER	VALUE
Main Frequency Range	0.1 Hz to 13 MHz
Main Frequency Decade Ranges	8
Dial Accuracy	plus or minus 5 percent of full scale
Output Waveforms	Sine Square Triangle Ramp Pulse
Square Rise Fall Time	less than 20 ns
Square Aberrations	less than 10 percent
Triangle Linearity Error at 100 Hz	less than 1 percent
Variable Symmetry	80:20:80 to 1 MHz
Sine Distortion 10 Hz to 50 kHz	less than 0.5 percent THD (minus 46 dB)
Sine Harmonics 50 kHz to 13 MHz	greater than 30 dB below fundamental at full output
Output Impedance	50 Ohm plus or minus 10 percent
Output Level Open Circuit	20 V p-p
Output Level Into 50 Ohm	greater than 10 V p-p at 1 kHz
Level Flatness 10 Hz to 100 kHz	less than plus or minus 3 percent at full output
Attenuator Steps	1:1 10:1 100:1 1000:1 plus continuous
DC Offset Range	up to plus or minus 10 V open circuit
Modulation Generator Frequency	0.01 Hz to 10 kHz
Modulation Generator Level	greater than 1.0 V p-p into 10 kOhm
Modulation Types	Internal and external AM FM sweep trigger gate burst
Sync Output Impedance	50 Ohm
Sync Output Level	greater than 1 V p-p open circuit
Form Factor	Benchtop function generator
Aberrations	less than 10 percent

3312A Specifications

PARAMETER	VALUE
HP Agilent 3312A Function Generator	Overview
Sine square triangle ramp pulse waveforms	Variable symmetry to 1 MHz
Technical Specifications	Main Frequency Range: 0.1 Hz to 13 MHz
Notes	Specs from HP 3312A specifications sheets and HPWiki frequency summary.

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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Form Factor	Benchtop function generator
Notes	
Specs from HP 3312A specifications sheets and HPWiki frequency summary.	

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