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Data Sheet

August 14, 2026

HP / AGILENT

HP / Agilent 5334A 100 MHz Universal Counter

The HP 5334A is a universal counter measuring to 100 MHz on the standard channels, with an optional C-channel extending capability to 1.3 GHz. OEM operating literature describes frequency, period, time, time delay, ratio, and totalize, plus push-button rise/fall and pulse-width measurements, ac/dc voltage of the input, math offset/normalize/average, auto trigger and auto attenuation, and full HP-IB programmability with up to 140 readings per second. Bench and system universal counting to 100 MHz, optional 1.3 GHz C-channel RF counting, automated HP-IB production test, and pulse-parameter measurements without external timing plugins. Bench and system universal counting to 100 MHz, optional 1.3 GHz C-channel RF counting, automated HP-IB production test, and pulse-parameter measurements without external timing plugins. 9 digits per second of gate time resolution to 100 MHz for frequency and period Time interval and TI delay to 2 ns resolution, 200 ps with averaging Nonvolatile memory storing up to nine front-panel setups (5334A)



MODEL

HP / Agilent 5334A

CALIBRATION

Available on request

CONDITION

Used

STATUS

In stock

RFQ / SKU

5334A

LISTING

<https://aumictechlabs.com/products/5334a-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 • 811210 • 541380

This unit

The HP/Agilent 5334A is a dual-channel 100 MHz universal counter engineered for precision frequency, period, and time interval measurements across electronics development, quality assurance, and scientific research. Two matched input channels deliver 9-digit resolution on frequency and period, with time interval resolution down to 2 ns single-shot or 200 ps averaged.

An optional C-channel extends range to 1.3 GHz. The instrument supports 12 measurement functions including frequency, period, rise/fall time, pulse width, peak amplitude, AC/DC voltage, time interval delay, ratio, and totalize. Technical Specifications Measurement Channels & Resolution Two matched 100 MHz input channels (A and B); optional C-channel to 1.3 GHz Frequency and period: 9 digits per second Time interval: 2 ns single-shot; 200 ps with 100 Gate Averaging Frequency range (DC coupled): 0 to 100 MHz Frequency range (AC coupled, 1 M Ω): 30 Hz to 100 MHz Frequency range (AC coupled, 50 Ω): 1 MHz to 100 MHz Input Sensitivity & Dynamic Range Sensitivity: 15 mV rms sine (to 20 MHz); 35 mV rms sine (to 100 MHz); 100 mV peak-to-peak pulse (5 ns minimum width) Adjustable to 150 mV rms via front panel control Dynamic range: 45 mV to 5 V peak-to-peak (DC to 20 MHz); 100 mV to 2.5 V peak-to-peak (to 100 MHz) Trigger level: ± 5.1 V (X1 attenuation); ± 51 V (X10 attenuation) Input impedance: 1 M Ω || <60 pF (AC or DC coupled); 500 Ω switchable Damage rating: 500 Ω input to 5 V rms; 1 M Ω (X1) to 200 V DC + peak AC (≤ 3.5 kHz); ± 15 Vdc + peak ac Operating Features AC or DC coupling with independent trigger slope selection (+ or -) 100 kHz low-pass filter (Channel A, switchable) Manual (X1/X10) or auto attenuator Arming input for measurement start/stop control Non-volatile memory: nine front panel setups HP-IB programmability standard for test system integration User-defined math functions with custom unit normalization and offset Key Features Dual 100 MHz channels with optional 1.3 GHz extension Nanosecond-class time interval resolution 12 measurement functions in one instrument Full HP-IB control for automated systems Field-selectable input impedance and coupling Typical Applications Frequency verification and calibration; pulse timing analysis; rise/fall time characterization; device parameter measurement via ratio and totalize functions; system integration via HP-IB control. Compatibility & Integration HP-IB (IEEE 488) programmability enables integration into automated test environments. Front panel setup storage supports repetitive measurement sequences without reconfiguration.

5334A Characteristics / Specifications

PARAMETER	VALUE
Standard Frequency Capability	to 100 MHz
Frequency Period Resolution	9 digits per second of gate time
Time Interval Resolution	2 ns
Time Interval Averaged Resolution	200 ps
Measurement Functions	frequency, period, time, time delay, ratio, totalize
Pushbutton Pulse Measurements	rise/fall time and pulse width
Input Voltage Measurement	ac/dc voltage of input signal
Math Functions	offset, normalize, average
Auto Features	auto triggering and auto attenuation
HP IB Programmability	full, optional rear inputs
Maximum Reading Rate	up to 140 readings per second
Setup Memory 5334A	up to 9 nonvolatile front-panel setups
External Arming	supported for synchronizing measurements
Form Factor	bench/system universal counter
Rise Fall Measurement	pushbutton supported
Pulse Width Measurement	pushbutton supported
Offset Normalize Average Math	supported
Rear Inputs Option	available for systems
High Stability Oven Option	available
MATE Interface Option	available
Attenuation	HP IB Programmability: full, optional rear inputs

5334A Specifications

PARAMETER	VALUE
HP 5334A Universal Counter	Overview
Key Features	9 digits per second of gate time resolution to 100 MHz for frequency and period
Technical Specifications	Standard Frequency Capability: to 100 MHz

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	
Standard Frequency Capability: to 100 MHz	
OptionalCChannel Frequency: to 1.3 GHz	
Specifications	
PARAMETER	VALUE
Frequency Period Resolution	9 digits per second of gate time
Time Interval Resolution	2 ns
Time Interval Averaged Resolution	200 ps
Measurement Functions	frequency, period, time, time delay, ratio, totalize
Pushbutton Pulse Measurements	rise/fall time and pulse width
Input Voltage Measurement	ac/dc voltage of input signal
Math Functions	offset, normalize, average
Auto Features	auto triggering and auto attenuation
HP IB Programmability	full, optional rear inputs
Maximum Reading Rate	up to 140 readings per second
Setup Memory 5334A	up to 9 nonvolatile front-panel setups
Optional Interfaces: MATE interface option	
Optional Time Base: high stability oven option	
Specifications	
PARAMETER	VALUE
External Arming	supported for synchronizing measurements
Form Factor	bench/system universal counter
Rise Fall Measurement	pushbutton supported
Pulse Width Measurement	pushbutton supported
Offset Normalize Average Math	supported
Rear Inputs Option	available for systems
High Stability Oven Option	available
MATE Interface Option	available

Notes

Specs from HP 5334A/B operating manual summaries (Opweb/HP). The 5334B omits nonvolatile setup memory; confirm AversusBand C-channel option on the nameplate.

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.