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Data Sheet

August 14, 2026

HP / AGILENT

HP / Agilent 5328A 100 MHz Universal Counter

The HP/Keysight 5328A is a 9-digit programmable universal counter for benchtop and system automation. Public OEM product descriptions list standard measurements of frequency A, period A, period average A, time interval A to B, time interval average A to B, ratio B/A, and frequency C, with options for high-stability time base, 1.3 GHz C-channel, digital voltmeter, and expanded GPIB control. Automated universal counting in ATE, dual-channel time interval and ratio measurements, optional microwave frequency C to 1.3 GHz, and optional DVM integration for voltage readout in the same instrument. Form Factor: programmable electronic counter Option Flexibility: matches system requirements Frequency C Path: standard measurement list includes frequency C Period Average: supported Core option and measurement list from Keysight/HP 5328A product documentation summaries. Detailed sensitivity and accuracy tables vary by option set; expand from the specific option manual when available for a given serial configuration.



MODEL

HP / Agilent 5328A

CALIBRATION

Available on request

CONDITION

Used

STATUS

In stock

RFQ / SKU

5328A

LISTING

<https://aumictechlabs.com/products/5328a-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 · 811210 · 541380

This unit

The HP/Agilent 5328A is a 100 MHz universal counter delivering precision frequency and time interval measurements for electronic testing, calibration, and research. Introduced in 1976, this modular instrument combines ROM-controlled measurement cycles with a 9-digit LED display to support frequency, period, time interval, ratio, and totalize functions. Single-shot time interval

resolution reaches 100 ns standard, while repetitive interval measurements achieve better than 10 ps resolution down to 100 ps intervals. A comprehensive trigger system with adjustable levels from -2.50 V to +2.50 V and switchable AC/DC coupling accommodates diverse signal types.

Technical Specifications

Measurement Ranges Frequency (burst and CW): DC to 100 MHz Period and period averaging Time interval: 100 ns single-shot resolution; <10 ps for repetitive intervals ≥ 100 ps Ratio (e.g., C/A) and totalize Scale and arming functions Display & Output 9-digit LED readout with leading zero blanking Gate output: TTL levels, rear panel Timebase output: TTL levels, rear panel Marker outputs: operational to 100 MHz for oscilloscope triggering Input System Trigger level range: -2.50 V to +2.50 V Trigger level resolution: 1 mV display Each channel: attenuator, trigger slope detector, level control, AC/DC coupling Switchable impedance (1 M Ω / 50 Ω) with Option 040 Timebase Standard crystal oscillator; aging $<3 \times 10^{-7}$ per month Line voltage stability: $<1 \times 10^{-7}$ for 10% change Option 010 (oven oscillator): aging $<5 \times 10^{-10}$ per day Sampling Measurement interval: <2 ms to HOLD (variable) Key Features Modular architecture supports frequency extensions to 512 MHz (Option 030) and 1300 MHz (Option 031) Universal Module (Option 040): 10 ns single-shot resolution, improved averaging, A $\rightarrow$ B marker, hysteresis compensation HP-IB interface (Option 011): remote programming and digital output at up to 500 readings/sec Display storage preserves readings between samples Typical Applications Frequency and period characterization, time interval analysis, signal ratio measurements, event counting, and precision calibration in RF and digital circuit validation. Compatibility & Integration HP-IB interface option enables integration into automated test systems with maximum data throughput of 500 readings/sec.

5328A Characteristics / Specifications

PARAMETER	VALUE
Display Digits	9
FrequencyA Measurement	standard
PeriodA Measurement	standard
Period Average A	standard
Time IntervalA to B	standard
Time Interval AverageA to B	standard
RatioB over A	standard
FrequencyC Measurement	standard path for C channel
Remote Interface	GPIB/HP-IB programmable
Intended Use	benchtop and system automation
Measurement Catalog	frequency, period, TI, ratio, frequencyC Channel Architecture: A and B universal inputs plus C Programmability: full for system matching via options
Form Factor	programmable electronic counter
Universal Counter Digits	9
Benchtop and System Use	yes
FrequencyC Path	standard measurement list includes frequencyC Period Average: supported
TI AverageA to B	supported

5328A Specifications

PARAMETER	VALUE
HP 5328A Universal Frequency Counter	Overview
Key Features	9-digit display programmable universal counter
Option flexibility matching system requirements	Optional Option 031 1.3 GHz C-channel
Optional Option 020 digital voltmeter	Optional Option 040 expanded GPIB control and Option 010 oven time base
Technical Specifications	Display Digits: 9

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
Display Digits	9
FrequencyAMeasurement	standard
PeriodAMeasurement	standard
Period Average A	standard
Time IntervalAto B	standard
Time Interval AverageAto B	standard
RatioBover A	standard
FrequencyCMeasurement	standard path forCchannel
Option 010: high stability time base	
Option 031 C Channel Frequency: 1.3 GHz	
Option 020: digital voltmeter	
Option 040: expanded GPIB control	
Specifications	
PARAMETER	VALUE
Remote Interface	GPIB/HP-IB programmable
Intended Use	benchtop and system automation
Measurement Catalog	frequency, period, TI, ratio, frequencyCChannel Architecture: A andBuniversal inputs plusCProgrammability: full for system matching via options
Form Factor	programmable electronic counter
Universal Counter Digits	9
Benchtop and System Use	yes
Option Flexibility: matches system requirements	
FrequencyCPath: standard measurement list includes frequencyCPeriod Average: supported	
TI AverageAto B: supported	
Notes	
Core option and measurement list from Keysight/HP 5328A product documentation summaries. Detailed sensitivity and accuracy tables vary by option set; expand from the specific option manual when available foragiven serial configuration.	

Ordering Information

OPTION	DESCRIPTION
Option 031	1.3 GHz C-channel
Option 020	digital voltmeter
Option 040	expanded GPIB control and Option 010 oven time base

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.