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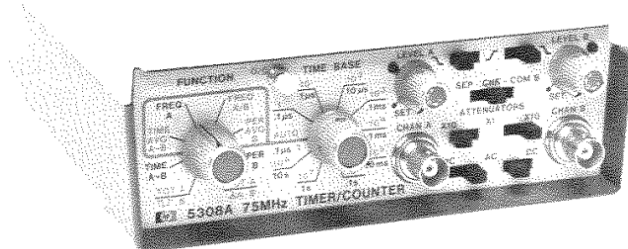
Data Sheet

August 14, 2026

HP / AGILENT

HP / Agilent 5308A UNIVERSAL COUNTER / TIMER

Periods Averaged: 1 to 1e8 selectable manual or automatic Time Interval Range A to B: 200 ns to 1e5 s with 25 ns minimum pulse width Time Interval Average Resolution: 1 ns to 10 s with 200 ns dead time Specs from HP 5308A / 5300 measurement system catalog and operating manual input tables. Time Interval Range A to B: 200 ns to 1e5 s with 25 ns minimum pulse width Time Interval Average Resolution: 1 ns to 10 s with 200 ns dead time Specs from HP 5308A / 5300 measurement system catalog and operating manual input tables.



MODEL

HP / Agilent 5308A

CALIBRATION

Available on request

CONDITION

Used

STATUS

In stock

RFQ / SKU

5308A

LISTING

<https://aumictechlabs.com/products/5308a-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 • 811210 • 541380

This unit

The HP/Agilent 5308A is a modular universal counter/timer module designed for operation within the HP 5300B mainframe. It delivers precise frequency, period, time interval, and totalization measurements across multiple functions with selectable gate times and automatic resolution optimization. Technical Specifications Measurement Functions Frequency: 0 to 75 MHz on Channel A or B Frequency Ratio: Channel A (0 to 75 MHz) divided by Channel B (0 to 5 MHz) Period: Channel B only, up to 5 MHz Period Average: Channel B only, up to 5 MHz Time Interval: Channel A to B, or Channel B only; 1 ns to 10 s range with 200 ns minimum dead time Time Interval Average: Channel A to B, or Channel B only; 1 ns to 10 s range Totalize: Single or two-channel operation Stopwatch Function: Available Self-Check Function: Available Time Base & Gate Internal Reference: 10 MHz Gate Times: Eight manual selections from 1 μ s to 10 seconds, plus

AUTO position for maximum resolution within 1.1-second measurement window Accuracy: ± 1 count plus time base accuracy Triggering Adjustable level control via rear-panel BNC connectors with DVM monitoring Independent positive or negative slope selection Trigger indicator lamps for internal amplifier confirmation Display Automatic resolution selection for frequency, frequency ratio, period average, and time interval average Units displayed in nanoseconds, microseconds, or seconds with positioned decimal point Display scaling with TIME BASE annunciator Key Features Maximum frequency measurement: 75 MHz Time interval resolution: 1 nanosecond Dual-channel input architecture Power consumption: 15 watts (including 5300B mainframe) BNC input connectors for Channels A and B Typical Applications Electronic component testing, calibration verification, frequency and period measurement, timing analysis, and research requiring sub-microsecond time interval resolution. Compatibility & Integration Module integrates with HP 5300B mainframe. Operates as a plug-in counter/timer unit within the 5300B ecosystem.

5308A Characteristics / Specifications

PARAMETER	VALUE
Input Frequency Range DC Coupled	0 to 75 MHz
Input Frequency Range AC Coupled	20 Hz to 75 MHz
Sensitivity to 10 MHz	25 mV rms
Sensitivity to 75 MHz	50 mV rms
Pulse Sensitivity	150 mV p-p at 10 ns minimum width
Input Impedance	1 MOhm shunted by less than 48 pF
Attenuator	X1 and X10
Frequency Range Channel A or B	0 to 75 MHz
Gate Times	8 selectable from 1 μ s to 10 s
Period Range Channel B	0 to 5 MHz
Period Resolution	100 ns to 10 s
Period Average Range Channel B	0.1 Hz to 5 MHz
Periods Averaged	1 to 1e8 selectable manual or automatic
Time Interval Range A to B	200 ns to 1e5 s with 25 ns minimum pulse width
Time Interval Resolution	100 ns to 10 s
Time Interval Average Resolution	1 ns to 10 s with 200 ns dead time
Intervals Averaged	1 to 1e8
Ratio Range Channel A	to 75 MHz
Ratio Range Channel B	to 5 MHz
Mainframe Compatibility	5300B only
Display Digits With 5300B	8
Form Factor	Snap-on module
Self Check	yes
Stopwatch Mode	yes

5308A Specifications

PARAMETER	VALUE
HP Agilent 5308A 75 MHz Universal Timer Counter Module	Overview
Key Features	Channels A and B to 75 MHz
Manual or automatic gate/period averaging	Time interval average to 1 ns resolution
Technical Specifications	Input Frequency Range DC Coupled: 0 to 75 MHz
Notes	Specs from HP 5308A / 5300 measurement system catalog and operating manual input tables.

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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Gate Times	8 selectable from 1 us to 10 s
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Period Resolution	100 ns to 10 s
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Periods Averaged	1 to 1e8 selectable manual or automatic
Time Interval RangeAto B	200 ns to 1e5 s with 25 ns minimum pulse width
Time Interval Resolution	100 ns to 10 s
Time Interval Average Resolution	1 ns to 10 s with 200 ns dead time
Intervals Averaged	1 to 1e8
Ratio Range Channel A	to 75 MHz
Ratio Range Channel B	to 5 MHz
Mainframe Compatibility	5300B only
Display Digits With 5300B	8
Form Factor	Snap-on module
Self Check	yes
Stopwatch Mode	yes
Notes	
Specs from HP 5308A / 5300 measurement system catalog and operating manual input tables.	

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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NIST-traceable calibration · SAM registered ·
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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.