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Data Sheet

August 14, 2026

HP / AGILENT

HP / Agilent 5307A HIGH RESOLUTION COUNTER

HP Agilent 5307A High Resolution Counter Module The HP 5307A is a high-resolution frequency counter snap-on module for the 5300 measurement system providing reciprocal counting techniques for improved resolution at lower frequencies within the 5300 modular family. Higher-resolution frequency measurements on 5300 mainframes, production line frequency checks, and modular counting where period-derived resolution is preferred. Reciprocal high-resolution counting architecture of the 5307 family The HP 5307A is a high-resolution frequency counter snap-on module for the 5300 measurement system providing reciprocal counting techniques for improved resolution at lower frequencies within the 5300 modular family. Higher-resolution frequency measurements on 5300 mainframes, production line frequency checks, and modular counting where period-derived resolution is preferred. Reciprocal high-resolution counting architecture of the 5307 family Manual gate and resolution controls of the module



MODEL

HP / Agilent 5307A

CALIBRATION

Available on request

CONDITION

Used

STATUS

In stock

RFQ / SKU

5307A

LISTING

<https://aumictechlabs.com/products/5307a-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 • 811210 • 541380

This unit

The HP/Agilent 5307A is a high-resolution counter module designed for integration into the HP 5300 Measuring System mainframe. It delivers precise frequency, time interval, and ratio measurements with six-digit resolution across multiple operational modes. The instrument combines selectable triggering, adjustable sensitivity control, and low-pass filtering to address

demanding electronics testing, calibration, and research applications requiring detailed measurement fidelity. Technical Specifications Frequency Measurement Range: 5 Hz to 2 MHz (Hz mode); 50 to 10,000,000 CPM / 0.833 Hz to 166 kHz (CPM mode) Resolution: Six digits Sensitivity: 100 mV peak minimum for 100 nsec pulses; continuously adjustable to 2.5 Vrms Time Interval Measurement Hold-off: 0.35 μ sec to 3.5 seconds and 1 msec to 10 msec Periods Averaged: Two periods at signals up to 100 Hz; increases by factor of 10 per decade, up to 200,000 periods above 1 MHz Accuracy: $\pm 3 \times 10^{-7} \pm 1$ count + trigger error $\pm$ time base error Internal Reference 1.00000 MHz (Hz mode); 100,000 M (CPM mode) Key Features Selectable positive or negative triggering Input attenuation: X1 (non-attenuated) and X10 settings Low-pass filters with 100 Hz and 10 kHz cutoff frequencies Six-digit LED display Continuous sensitivity adjustment via front-panel control Mode selection between Hz and CPM display via pushbutton Typical Applications Electronics testing, calibration work, and precision research requiring high-resolution frequency and time interval characterization. Compatibility & Integration Designed as a plug-in module for the HP 5300 Measuring System mainframe, which provides power and system integration.

5307A Characteristics / Specifications

PARAMETER	VALUE
Instrument Family	HP 5300 measurement system
Module Type	High resolution frequency counter plug-on
Mainframe Compatibility	5300A and 5300B
Display Digits With 5300B	up to 8
Display Digits With 5300A	up to 6
Counting Technique	Reciprocal high resolution
Input Channel Class	Single primary frequency input
Intended Frequency Class	Audio to HF counting within module rating
Sensitivity Class	Millivolt-level sine sensitivity typical of 5300 plug-ons
Input Impedance Class	1 MOhm
Coupling Class	AC/DC selectable on module
Gate Control	Manual selectable gates
Resolution Benefit	Improved digits at low frequency versus direct gating
Form Factor	Snap-on module
Systems Path	Optional HP-IB via 5312A with 5300B
Check Mode	Module self-check supported in system
Portability	Yes with 5300 battery options
Bench Use	Frequency readout on 5300 display
Attenuator Class	Front-panel attenuator on typical builds
Trigger Level Class	Adjustable trigger on typical builds
Overload Protection Class	Input protection per 5300 plug-on design
Timebase Source	From 5300 mainframe
External Timebase Path	Via mainframe input

5307A Specifications

PARAMETER	VALUE
HP Agilent 5307A High Resolution Counter Module	Overview
Key Features	Snap-on 5300 system module
Manual gate and resolution controls of the module	Portable when used with battery-capable 5300 systems
Technical Specifications	Instrument Family: HP 5300 measurement system

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	
Module role and mainframe digit chart from HP 5300 system literature. Use the 5307A operating manual for authoritative frequency ceiling sensitivity and resolution 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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Technical content from manufacturer specifications. Unit photo/stock from Aumictech listing when available. Specifications subject to OEM documentation and unit condition.