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Data Sheet

August 14, 2026

HP / AGILENT

HP / Agilent 5335A Universal Counter, 200 MHz

HP Agilent 5335A 200 MHz Universal Counter The Agilent 5335A is a 200 MHz universal counter with extensive pulse and timing measurements. OEM data sheet specifications cover ChannelsAandBinput characteristics, FrequencyAto 200 MHz with divide-by-2 prescaling, period, time interval, and additional functions including pulse width, rise/fall, duty cycle, slew rate, relative phase, and inverse time interval. Digital gate-time selection yields about 9 digits per second of gate time. Universal frequency and timing measurements to 200 MHz, pulse-parameter characterization, phase and duty-cycle checks, and automated systems use with selectable resolution versus gate time. The Agilent 5335A is a 200 MHz universal counter with extensive pulse and timing measurements. OEM data sheet specifications cover ChannelsAandBinput characteristics, FrequencyAto 200 MHz with divide-by-2 prescaling, period, time interval, and additional functions including pulse width, rise/fall, duty cycle, slew rate, relative phase, and inverse time interval. Digital gate-time selection yields about 9 digits per second of gate time. Universal frequency and timing measurements to 200 MHz, pulse-parameter characterization, phase and duty-cycle checks, and automated systems use with selectable resolution versus gate time.



MODEL

HP / Agilent 5335A

CALIBRATION

Available on request

CONDITION

Used

STATUS

In stock

RFQ / SKU

5335A

LISTING

<https://aumictechlabs.com/products/5335a-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 • 811210 • 541380

This unit

The HP Agilent 5335A is a 200 MHz universal counter delivering precision frequency, time interval, ratio, and pulse measurements across research, development, and manufacturing environments. This instrument combines multi-channel capability with flexible triggering and integrated math/statistics functions to support demanding metrology workflows.

Technical Specifications

Measurement Capabilities

Frequency: 200 MHz (Channel A), 100 MHz (Channel B), optional 1.3 GHz (Channel C)

Time Interval: 2 ns single-shot resolution, 100 ps average resolution

Ratio Measurements: Full function capability

Totalize: Up to 100 MHz

Rise/Fall Time: 20 ns to 10 ms range

Pulse Width: 5 ns to 10^7 seconds

Duty Cycle: 10% to 89%

Slew Rate: 50 V/ μ s to 10^8 V/ μ s

Phase: Automatic measurement supported

Math & Statistics: Scale, offset, normalize; averaging and standard deviation with N=100 or N=1000 selection

Input Characteristics (Channels A & B)

Coupling: DC; AC via 1 M Ω or 50 Ω impedance

Frequency Range: DC-coupled 0–100 MHz; AC 1 M Ω 30 Hz–100 MHz; AC 50 Ω 200 kHz–100 MHz (Channel A extends to 200 MHz in Frequency A and Ratio modes)

Sensitivity ($\times 1$): 25 mV rms sine; 75 mV peak-to-peak pulse (5 ns minimum width)

Dynamic Range ($\times 1$): 75 mV–5 V to 100 MHz; 75 mV–2.5 V above 100 MHz

Signal Range ($\times 1$, DC): –5 V to +5 V

Input Impedance: 1 M Ω nominal (<35 pF shunt) or switchable 50 Ω

Attenuator: X1 or X10 switchable

Triggering Modes: Manual and Automatic

Manual: ± 5 V dc range

Automatic: Selectable 10–90% rise/fall or 50% phase trigger; DC offset tracking

Trigger Level DVM: Built-in display for both channels

Trigger Level Range ($\times 1$): Auto OFF –5 V to +5 V (0 V nominal); Auto ON adjustable between signal peaks

Key Features

Dual-channel base configuration with optional third channel to 1.3 GHz

Switchable impedance and coupling for signal adaptation

Independent manual and automatic trigger control with peak tracking

Integrated trigger-level monitoring via dedicated DVM

Statistical analysis with selectable sample sizes

Typical Applications

Frequency and timing characterization in RF and digital circuits

Pulse parameter validation in semiconductor testing

Phase relationship measurement between signals

Time-interval analysis in timing systems and synchronization circuits

Compatibility & Integration

HP-IB interface supported for automatic trigger control and remote operation.

5335A Characteristics / Specifications

PARAMETER	VALUE
ChannelA Frequency Range Mode	0 to 200 MHz, prescaled by 2
ChannelA and BDC Coupled Range	0 to 100 MHz
AC 1 Mohm Range	30 Hz to 100 MHz
AC 50 Ohm Range	200 kHz to 100 MHz
Sensitivity X1 Sine	25 mV rms
Sensitivity X1 Pulse	75 mV peak to peak at 5 ns minimum width
Auto Trigger Minimum Signal	100 mV rms
Auto Trigger Duty Cycle Range	10% to 89%
Auto Trigger Response Time	3 seconds typical
Period Range	10 ns to 1e7 s
Time Interval Range	to 1e7 s class per datasheet TI section
LSD Example Frequency	9 digits in a second of gate time
Resolution Example	$\pm(2 \times \text{LSD}) \pm 1.4 \times (\text{Trigger Error/Gate Time}) \times \text{FREQ}$
Additional Measurements	pulse width, rise/fall, duty cycle, slew rate, relative phase, inverse TI
Ratio and Totalize	supported
Gate Time Selection	digital selectable resolution vs measurement time
Input Attenuator	X1 sensitivity specifications stated
Coupling Modes	DC and AC with 1 Mohm or 50 ohm paths
Display Resolution Class	up to 9 digits per second gate time
Pulse Width Measurement	supported
Rise Fall Measurement	supported
Duty Cycle Measurement	supported
Slew Rate Measurement	supported
Relative Phase Measurement	supported

5335A Specifications

PARAMETER	VALUE
HP Agilent 5335A 200 MHz Universal Counter	Overview
Independent A/B input conditioning for TI and pulse work	High-resolution LSD examples of 9 digits in one second
Technical Specifications	Channel A Frequency Range Mode: 0 to 200 MHz, prescaled by 2

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 cover ChannelsAandBinput characteristics, FrequencyAto 200 MHz with divide-by-2 prescaling, period, time interval, and additional functions including pulse width, rise/fall, duty cycle, slew rate, relative phase, and inverse time interval. Digital gate-time selection yields about 9 digits per second of gate time.

Applications
Universal frequency and timing measurements to 200 MHz, pulse-parameter characterization, phase and duty-cycle checks, and automated systems use with selectable resolution versus gate time.

Key Features
Selectable digital gate time trading resolution vs speed
Expanded measurements beyond classic universal counter set
Auto trigger with typical 3 s response on repetitive signals
Independent A/B input conditioning for TI and pulse work
High-resolution LSD examples of 9 digits in one second

Technical Specifications

Technical Specifications

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ChannelAFrequency Range Mode	0 to 200 MHz, prescaled by 2
ChannelAandBDC Coupled Range	0 to 100 MHz
AC 1 Mohm Range	30 Hz to 100 MHz
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Sensitivity X1 Sine	25 mV rms
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Additional Measurements	pulse width, rise/fall, duty cycle, slew rate, relative phase, inverse TI
Ratio and Totalize	supported
Gate Time Selection	digital selectable resolution vs measurement time
Input Attenuator	X1 sensitivity specifications stated
Coupling Modes	DC and AC with 1 Mohm or 50 ohm paths

PARAMETER	VALUE
Display Resolution Class	up to 9 digits per second gate time
Pulse Width Measurement	supported
Rise Fall Measurement	supported
Duty Cycle Measurement	supported
Slew Rate Measurement	supported
Relative Phase Measurement	supported

Notes

Specs from Agilent 5335A Universal Counter 200 MHz data sheet (Test Equipment Center reprint). Exact TI LSD and accuracy terms follow the reciprocal formulas on the sheet; use the full datasheet for trigger-error definitions.

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.