

**Aumictech**

Test & measurement • bought, sold, repaired, calibrated

Data Sheet

August 14, 2026

HP / AGILENT

HP / Agilent 5381A 80 MHZ FREQUENCY COUNTER

The HP 5381A is a direct-counting frequency counter covering 10 Hz to 80 MHz with a 7-digit display. Period literature lists sensitivity of 25/50 mV and resolution to 0.1 Hz class with a precision time base. HF frequency measurements to 80 MHz, service and lab counting, and direct-count frequency readout without reciprocal conversion. Intended Use Class: service and laboratory frequency measurement Display Type Class: numeric digit display Model Series: 5380 series frequency counters Operating Region: HF through low VHF to 80 MHz Year Class Literature: mid 1970s service counter Range, digits, sensitivity, and resolution from contemporary HP 5381A published notes (including Radiomuseum OEM summary). Prefer the operating manual for authoritative sensitivity-versus-frequency and timebase aging tables.



MODEL

HP / Agilent 5381A

CALIBRATION

Available on request

CONDITION

Used

STATUS

In stock

RFQ / SKU

5381A

LISTING

<https://aumictechlabs.com/products/5381a-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 • 811210 • 541380

This unit

The HP/Agilent 5381A is a direct-counting frequency counter that measures signals from 10 Hz to 80 MHz with a 7-digit LED display. Designed for production line testing, equipment calibration, frequency monitoring, and educational use, this instrument delivers repeatable results across industrial and laboratory environments. Technical Specifications Frequency Range: 10 Hz to 80 MHz Display: 7-digit LED readout Sensitivity: 25 mV RMS (sinewave) from 30 Hz to 20 MHz 50 mV

RMS (sinewave) from 10 Hz to 80 MHz Input Characteristics: 1 M Ω impedance with 5 MHz $\times 10$ attenuator: 200 V (dc + peak ac) DC to 40 Hz; 250 V rms 40 Hz to 1 MHz; 2.5×10^7 V Hz 1 MHz to 50 MHz; 5 V rms 50 MHz to 80 MHz Key Features Direct counting architecture ensures straightforward operation and stable performance Manual gate time selection supports both fast production measurements and high-resolution calibration work External time base input via rear-panel connector enables connection of precision oscillators and permits ratio measurements High input impedance minimizes loading effects on measured circuits Typical Applications Production line frequency validation, radio and test equipment service and calibration, continuous frequency monitoring, and technical education. Compatibility & Integration Introduced in the early 1970s and manufactured through the early 1980s. Agilent Technologies discontinued support for this product. Aluminum case construction.

5381A Characteristics / Specifications

PARAMETER	VALUE
Frequency Range	10 Hz to 80 MHz
Display Digits	7
Counting Method	direct counting
Resolution Class	0.1 Hz possible
Sensitivity Class	25/50 mV
Timebase Class	precision time base
Power	110 or 220 VAC
Form Factor	tabletop laboratory counter
Lower Frequency	10 Hz
Upper Frequency	80 MHz
Intended Use Class	service and laboratory frequency measurement
Display Type Class	numeric digit display
Resolution Continuity	0.1 Hz class available
Sensitivity Continuity	25 mV and 50 mV class settings
Manufacturer	Hewlett Packard
Model Series	5380 series frequency counters
Input Class	frequency counter input
Operating Region	HF through low VHF to 80 MHz
Architecture	direct count
Decimal Display	seven digits
AC Mains	dual voltage 110/220 class
Year Class Literature	mid 1970s service counter

5381A Specifications

PARAMETER	VALUE
HP Agilent 5381A Frequency Counter	Overview
Applications	HF frequency measurements to 80 MHz, service and lab counting, and direct-count frequency readout without reciprocal conversion.
Precision time base	0.1 Hz resolution class available
Technical Specifications	Frequency Range: 10 Hz to 80 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	
Specifications	
PARAMETER	VALUE
Frequency Range	10 Hz to 80 MHz
Display Digits	7
Counting Method	direct counting
Resolution Class	0.1 Hz possible
Sensitivity Class	25/50 mV
Timebase Class	precision time base
Power	110 or 220 VAC
Form Factor	tabletop laboratory counter
Lower Frequency	10 Hz
Upper Frequency	80 MHz
Intended Use Class	service and laboratory frequency measurement
Display Type Class	numeric digit display
Resolution Continuity	0.1 Hz class available
Sensitivity Continuity	25 mV and 50 mV class settings
Manufacturer	Hewlett Packard
Model Series	5380 series frequency counters
Input Class	frequency counter input
Operating Region	HF through low VHF to 80 MHz
Architecture	direct count
Decimal Display	seven digits
AC Mains	dual voltage 110/220 class
Year Class Literature	mid 1970s service counter
Notes	
Range, digits, sensitivity, and resolution from contemporary HP 5381A published notes (including Radiomuseum OEM summary). Prefer the operating manual for authoritative sensitivity-versus-frequency and timebase aging 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

788 S 500 E, Pleasant Grove, UT 84062
sales@aumictech.com · +1 (484) 841-9341
<https://aumictechlabs.com>

NIST-traceable calibration · SAM registered ·
30-day returns
NAICS 423690 · 811210 · 541380
Generated August 14, 2026

Technical content from manufacturer specifications. Unit photo/stock from Aumictech listing when available. Specifications subject to OEM documentation and unit condition.