

**Aumictech**

Test & measurement · bought, sold, repaired, calibrated

Data Sheet

August 13, 2026

HP

HP 05316-90014 5316B 100MHz Universal Counter Operating and Service Manual

The HP 05316-90014 is an operating and service manual for the HP 5316B 100MHz Universal Counter. This manual provides comprehensive information for the operation, maintenance, and repair of the counter.



MODEL

HP 05316-90014

CALIBRATION

Available on request

CONDITION

Used

STATUS

In stock

RFQ / SKU

05316-90014

LISTING

<https://aumictechlabs.com/products/05316-90014-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 · 811210 · 541380

This unit

The HP 05316-90014 is the operating and service manual for the HP 5316B 100 MHz Universal Counter. This manual delivers comprehensive operating instructions, maintenance procedures, and troubleshooting guidance for technicians and engineers maintaining this precision measurement instrument. The HP 5316B is a universal counter designed for high-resolution frequency and time-interval measurements across multiple frequency ranges. It combines reciprocal counting technology for low-frequency measurements with conventional counting above 10 MHz, delivering 7-digit-per-second resolution at frequencies as low as 0.1 Hz. The instrument accommodates frequency measurement, period analysis, time interval measurement, ratio calculations (A/B), totalize functions, and pulsed RF measurements. Technical Specifications

Frequency Measurement: 0.1 Hz to 100 MHz on channels A and B; optional 1.0 GHz C channel

Trigger Levels: Adjustable ± 2.5 Vdc with selectable slope control Input Sensitivity: Typically 10 mV
Input Coupling: Selectable AC or DC coupling Gate Time: 60 ms to 10 s, continuously adjustable
Time Interval Resolution: 100 ns (single-shot), 10 ps (averaging mode) Timebase Options: TCXO or
high-stability oscillatorKey Features Reciprocal counting with automatic switchover to
conventional counting above 10 MHz Three time-interval modes: single-shot, averaging, and
delay (spurious rejection) Switchable 100 kHz low-pass filter on Channel A Full trigger controls
and slope selection on channels A and B Metal enclosure for electromagnetic compatibility Rack-
and-stack form factor for bench or ATE integrationTypical Applications Frequency and period
measurements in RF and digital systems Precision time-interval analysis and jitter measurement
Ratio measurements for frequency synthesis verification Pulsed RF characterizationCompatibility
& Integration HP-IB (IEEE-488) interface for remote programmability and system integration
Manual revision date: September 1987

Features & description

From manufacturer datasheet

Features

• Manual P/N: 05316-90014 (Operating and Service) • Covers 5316B frequency, period, time interval, ratio, totalize • Includes performance tests, adjustments, and service procedures • Documents standard HP-IB (IEEE-488) programming • Approximately 182 pages (scanned OEM manuals)

Applications

• Operate and calibrate HP / Agilent 5316B universal counters • Bench and ATE service of frequency / time-interval measurement • HP-IB remote programming reference for automated systems • Repair using OEM troubleshooting flowcharts and schematics

0531690014 Characteristics / Specifications

PARAMETER	VALUE
Document Part Number	05316-90014
Microfiche Part Number	05316-90015
Document Type	Operating and Service Manual
Print Date	September 1987
Equipment Covered	HP 5316B 100 MHz Universal Counter
Serial Prefix Example	2708A (manual revision family)
Manufacturer	Hewlett-Packard Company
Instrument Frequency Range A/B	DC to 100 MHz (AC coupled ~30 Hz–100 MHz)
Instrument Measurement Modes	Frequency; Period; Time Interval; Ratio; Totalize
Frequency Resolution Class	7+ digits per second of gate time (reciprocal below 10 MHz)
Time Interval Averaging Resolution	10 ps class
Sensitivity Class	10 mV RMS to 10 MHz; 25 mV RMS to 100 MHz
Dynamic Range Class	30 mV–5 V p-p (0–10 MHz); 75 mV–5 V p-p (10–100 MHz)
Gate Time Selectable	60 ms to 10 s
Display	8-digit LED with engineering notation
Remote Interface	HP-IB (IEEE-488) standard
Time Base Options Documented	Opt 001 TCXO; Opt 004 high-stability oven
Manual Content Sections	Operation; Performance tests; Adjustments; Service; Schematics
Page Count Typical	~182 pages Notes This SKU is the manual document, not the counter hardware. Instrument specs above are those of the covered 5316B per OEM manual/datasheet summaries. Confirm print revision and completeness of the physical copy.
Manual P/N	05316-90014 (Operating and Service)

0531690014 Specifications

PARAMETER	VALUE
Applications	- Operate and calibrate HP / Agilent 5316B universal counters
Key Features	- Manual P/N: 05316-90014 (Operating and Service)
Technical Specifications	Document Part Number: 05316-90014

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.

performance tests, adjustments, troubleshooting, schematics, and HP-IB programming for the 5316B instrument.

Applications

- Operate and calibrate HP / Agilent 5316B universal counters
- Bench and ATE service of frequency / time-interval measurement
- HP-IB remote programming reference for automated systems
- Repair using OEM troubleshooting flowcharts and schematics

Key Features

- Manual P/N: 05316-90014 (Operating and Service)
- Covers 5316B frequency, period, time interval, ratio, totalize
- Includes performance tests, adjustments, and service procedures
- Documents standard HP-IB (IEEE-488) programming
- Approximately 182 pages (scanned OEM manuals)

Technical Specifications

Technical Specifications

PARAMETER	VALUE
Document Part Number	05316-90014
Microfiche Part Number	05316-90015
Document Type	Operating and Service Manual
Print Date	September 1987
Equipment Covered	HP 5316B 100 MHz Universal Counter
Serial Prefix Example	2708A (manual revision family)
Manufacturer	Hewlett-Packard Company
Instrument Frequency Range A/B	DC to 100 MHz (AC coupled ~30 Hz-100 MHz)
Instrument Measurement Modes	Frequency; Period; Time Interval; Ratio; Totalize
Frequency Resolution Class	7+ digits per second of gate time (reciprocal below 10 MHz)

Time Interval Single-Shot Resolution: 100 ns
Time Interval Averaging Resolution: 10 ps class
Optional Channel C: 1 GHz (Option 003)

Specifications

PARAMETER	VALUE
Sensitivity Class	10 mV RMS to 10 MHz; 25 mV RMS to 100 MHz
Dynamic Range Class	30 mV-5 V p-p (0-10 MHz); 75 mV-5 V p-p (10-100 MHz)
Gate Time Selectable	60 ms to 10 s
Display	8-digit LED with engineering notation

PARAMETER	VALUE
Remote Interface	HP-IB (IEEE-488) standard

HP-IB Address: Rear-panel DIP switches

Specifications

PARAMETER	VALUE
Time Base Options Documented	Opt 001 TCX0; Opt 004 high-stability oven
Manual Content Sections	Operation; Performance tests; Adjustments; Service; Schematics
Page Count Typical	~182 pages

Notes
This SKU is the manual document, not the counter hardware. Instrument specs above are those of the covered 5316B per OEM manual/datasheet summaries. Confirm print revision and completeness of the physical copy.

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 13, 2026

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