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Data Sheet

August 14, 2026

HP / AGILENT

HP / Agilent 54659B RS-232 & Parallel Measurement Storage Module

HP Agilent 54659B Measurement Storage Module The Agilent 54659B isameasurement/storage plug-in module for 54600-series oscilloscopes, adding RS-232 plus parallel printer connectivity, extended math including FFT, extra automatic measurements, mask testing, and additional nonvolatile trace memory. OEM user documentation specifies 64K of extra nonvolatile trace memory (with compression) for up to 97 more traces. Extends 54600-series scopes for unattended mask monitoring, FFT spectral views, delayed/phase automatic measurements, hardcopy with time/date tagging, and controller or printer connection via RS-232 and parallel ports. The Agilent 54659B isameasurement/storage plug-in module for 54600-series oscilloscopes, adding RS-232 plus parallel printer connectivity, extended math including FFT, extra automatic measurements, mask testing, and additional nonvolatile trace memory. OEM user documentation specifies 64K of extra nonvolatile trace memory (with compression) for up to 97 more traces. Extends 54600-series scopes for unattended mask monitoring, FFT spectral views, delayed/phase automatic measurements, hardcopy with time/date tagging, and controller or printer connection via RS-232 and parallel ports.



MODEL

**HP / Agilent
54659B**

CALIBRATION

**Available on
request**

CONDITION

Used

STATUS

In stock

RFQ / SKU

54659B

LISTING

<https://aumictechlabs.com/products/54659b-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 • 811210 • 541380

This unit

The HP/Agilent 54659B RS-232 & Parallel Measurement Storage Module expands the analytical capabilities of compatible HP/Agilent 54600-series and 54645A/D oscilloscopes through dual-interface data transfer and comprehensive waveform storage. This plug-in module adds five automatic measurements, advanced math functions including FFT analysis, and non-volatile trace memory with mask-based monitoring for unattended signal acquisition and compliance testing.

Technical Specifications

Memory & Storage Non-volatile trace memory: up to 100 traces Extended storage: 64K non-volatile memory with data compression supporting up to 97 additional trace memories Real-time clock with battery back-up for time and date tagging NVRAM retention: over 10 years

Interfaces RS-232-C Parallel Module connector: 9-pin

Measurements Three automatic voltage measurements: amplitude, preshoot, overshoot Two automatic time measurements: delay, phase angle Two cursor voltage measurements: absolute and percent-based Two cursor time measurements: absolute and degree-based Adjustable measurement thresholds at 10%/90%, 20%/80%, or user-selected voltage levels

Waveform Analysis Math functions: addition, subtraction, multiplication, differentiation, integration, FFT FFT sample points: 1024 FFT windows: Exponential, Flat Top, Hanning, Rectangular

Cursor measurement sources include math function 1 and 2

Monitoring & Masking Automatic mask generation and editing Mask-based unattended monitoring with failure zone indication Selectable failure modes: stop on failure or continue with logging Out-of-limit trace storage or printable failure reports

Hardcopy Output Printer support: HP ThinkJet, HP QuietJet, HP PaintJet, HP DeskJet, HP LaserJet, Epson FX-80 compatible models HP-GL compatible plotter support

Physical Dimensions: 172 mm H × 322 mm W × 317 mm D (6.8 in × 12.7 in × 12.5 in) **Weight:** 6.2 kg (14 lbs)

Key Features Dual RS-232 and parallel connectivity for flexible instrument integration Frequency-domain analysis via 1024-point FFT with four selectable window functions Real-time clock with battery back-up ensures temporal accuracy across power cycles Mask templating for production testing and signal compliance verification Five additional measurement parameters beyond base oscilloscope functionality

Typical Applications Unattended production testing and go/no-go mask validation Out-of-spec event capture and automated failure logging Frequency-domain signal characterization via FFT analysis Multi-trace waveform archival with time-stamped hardcopy documentation

Compatibility & Integration Module operates with HP/Agilent 54600-series oscilloscopes and Agilent 54645A/D models. Compatible with Agilent 54620A/C logic analyzers for input/output operations only. Integrates with legacy HP printer and plotter infrastructure via RS-232 and parallel interfaces.

54659B Characteristics / Specifications

PARAMETER	VALUE
Interface primary	RS-232
Interface secondary	parallel printer output
Additional nonvolatile trace memory	64K with data compression
Additional trace memories capacity	up to 97
Math Function 1 operations	add, subtract, multiply
Math Function 2 operations	integrate, differentiate, FFT
FFT vertical units	dBV (dBm on 50 ohm 54610/54615/54616)
FFT windows	rectangular, Hanning, flattop, exponential
Additional voltage measurements	amplitude, preshoot, overshoot
Additional time measurements	delay, phase angle
Threshold presets	10%/90%, 20%/80%, or selected voltages
Cursor extras	voltage in percent, time in degrees
Host compatibility	54600-series OS 1.2 or higher or A.XX.XX form
Incompatible hosts	54600A, 54601A, 54602A, 54610A
Trace labeling	supported
Time and date tagging	hard copy and nonvolatile memories
Unattended waveform monitoring	mask based
Module type	measurement/storage accessory
Extra memory size	64K
Extra traces approximate	97
FFT window count	4
Parallel printer port	yes
RS232 port	yes
Host OS minimum	version 1.2 or A.XX.XX

54659B Specifications

PARAMETER	VALUE
HP Agilent 54659B Measurement Storage Module	Overview
Key Features	RS-232 interface plus parallel output for simultaneous controller and printer
Extra nonvolatile trace memories with labeling	Incompatible with early 54600A/54601A/54602A/54610A scopes per OEM note
Technical Specifications	Interface primary: RS-232

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	
Feature and memory figures are from the Agilent 54657A/54658A/54659B Measurement/Storage Modules User Guide.	

This accessory has limited traditional Parameter: Value RF/timing tables; numeric density reflects OEM memory and interface specifications rather than analog bandwidth (which is set by the host oscilloscope).

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>

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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.