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Data Sheet

August 14, 2026

HP / AGILENT

HP / Agilent 54658A RS-232 measurement/storage module for HP 546xx

Agilent 54658A Measurement Storage Module RS-232 The Agilent 54658A Measurement/Storage Module adds RS-232 connectivity plus the same extended automatic measurements, waveform math/FFT, mask testing, and nonvolatile trace storage as the 54657A for Agilent 54600-Series oscilloscopes. OEM user guide 54657-97019 documents 25-pin RS-232 signaling and the shared measurement/storage feature set. 54600-Series scope automation over RS-232, extended measurements/FFT, and stored-trace mask monitoring without GPIB. The Agilent 54658A Measurement/Storage Module adds RS-232 connectivity plus the same extended automatic measurements, waveform math/FFT, mask testing, and nonvolatile trace storage as the 54657A for Agilent 54600-Series oscilloscopes. OEM user guide 54657-97019 documents 25-pin RS-232 signaling and the shared measurement/storage feature set. 54600-Series scope automation over RS-232, extended measurements/FFT, and stored-trace mask monitoring without GPIB. Additional automatic voltage and time measurements



MODEL

**HP / Agilent
54658A**

CALIBRATION

**Available on
request**

CONDITION

Used

STATUS

In stock

RFQ / SKU

54658A

LISTING

<https://aumictechlabs.com/products/54658a-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 · 811210 · 541380

This unit

The HP/Agilent 54658A RS-232 measurement/storage module extends the capabilities of HP/Agilent 54600 series oscilloscopes by providing remote programmability, advanced measurement functions, and high-capacity waveform storage. Connected to the rear panel of compatible instruments, this module delivers an RS-232-C interface for bidirectional communication with computers and peripherals, enabling full remote control and test automation. The 54658A adds five new automatic measurements: amplitude, preshoot, and overshoot (voltage domain); delay and phase angle (time domain). User-defined measurement thresholds support 10%/90%, 20%/80%, or custom voltage levels. Two additional cursor measurement sources - math function 1 and math function 2 - extend analysis flexibility with voltage-percent and time-degree readouts. Waveform math processing includes addition, subtraction, multiplication, differentiation, integration, and Fast Fourier Transform (FFT). Three uncompressed nonvolatile trace memories store waveforms; an additional 64K of compressed nonvolatile memory accommodates up to 97 additional traces. All stored data and hardcopy output carry time and date tags for traceability. Unattended operation is enabled through mask template functionality with automatic mask generation and editing. Software-protected test sequences and mask configurations prevent accidental modification during monitoring tasks. The RS-232 interface operates as a 25-pin DTE port using XON/XOFF or hardwire protocols, with 8 data bits, no stop bits, and no parity. Hardcopy output supports Epson FX-80 compatible printers, HP ThinkJet, HP QuietJet, HP PaintJet, HP LaserJet printers, and HP-GL-compatible plotters. Technical Specifications Interface: RS-232-C, 25-pin DTE port Protocols: XON/XOFF, hardwire Data bits: 8; Stop bits: None; Parity: None Nonvolatile trace memory: 3 uncompressed + 64K compressed (up to 97 additional traces) Voltage measurements: Amplitude, preshoot, overshoot Time measurements: Delay, phase angle Measurement thresholds: 10%/90%, 20%/80%, or user-selected voltage levels Cursor measurements: Voltage (percent), time (degrees) Math functions: Addition, subtraction, multiplication, differentiation, integration, FFT Key Features Full remote programmability via RS-232 for test automation Mask template monitoring with automatic generation and editing Time and date tagging of stored traces and hardcopy output Software-protected test sequences and mask configurations Extended cursor measurement sources (math functions 1 and 2) Typical Applications Unattended waveform monitoring with pass/fail mask testing Automated data acquisition and remote oscilloscope control Advanced signal analysis via FFT and waveform mathematics Hardcopy documentation with automatic timestamping Compatibility & Integration Compatible with HP/Agilent 54600A, 54601A, 54602A (OS v2.2+); 54600B, 54601B, 54602B, 54603B (OS v1.2 or A.XX.XX format). Not compatible with 54610A or 54659B.

54658A Characteristics / Specifications

PARAMETER	VALUE
Model	54658A
Interface	RS-232
Connector	25-pin female
Compatible Scopes	Agilent 54600 Series except early OS on 54600A/54601A/54602A below 2.2
Additional Voltage Measurements	amplitude, preshoot, overshoot
Additional Time Measurements	delay and phase angle
Measurement Thresholds	10/90 percent, 20/80 percent, or selected voltage levels
Additional Cursor Measurements	voltage in percent and time in degrees
Waveform Math Functions	addition subtraction multiplication differentiation integration FFT
Uncompressed Nonvolatile Trace Memories	3
Additional Compressed Trace Memory	64K for up to 97 more traces
Time And Date Tagging	yes for hard copy and nonvolatile memories
Example Cable Lengths	1.5 m to 5 m class RS-232 accessory cables
Module Type	Measurement/Storage plug-in module
FFT Measurement	yes
Mask Testing	Automask Autostore line-segment editing supported
Unattended Waveform Monitoring	yes
Printer Plotter Computer Link	via RS-232
Series Family	54657A/54658A/54659B Measurement Storage Modules
Form Factor	rear/module attachment for 54600 Series
OS Update Kit Class	54601-68702 for early 54600A/54601A/54602A
Brand Lineage	HP / Agilent / Keysight
Nonvolatile Memory Type	trace storage with compression support

54658A Specifications

PARAMETER	VALUE
Applications	54600-Series scope automation over RS-232, extended measurements/FFT, and stored-trace mask monitoring without GPIB.
Key Features	RS-232 interface for 54600-Series scopes
Three uncompressed nonvolatile trace memories	Additional compressed nonvolatile memory for up to 97 traces
Technical Specifications	Model: 54658A
Notes	From Agilent 54657A/54658A/54659B Measurement/Storage Modules User Guide (54657-97019) feature and RS-232 interface tables for 54658A.

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

From Agilent 54657A/54658A/54659B Measurement/Storage Modules User Guide (54657-97019) feature and RS-232 interface tables for 54658A.

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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NIST-traceable calibration · SAM registered ·
30-day returns
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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.