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Data Sheet

August 15, 2026

AGILENT / KEYSIGHT

Agilent/Keysight 54651A

HP Agilent 54651A GPIB Interface Module for 54600 Oscilloscopes The HP 54651A adds IEEE-488 (HP-IB) talk/listen control to 54600-series digitizing oscilloscopes. OEM 54600 accessory literature listaplug-on interface module, IEEE-488.2 programming of the host scope, and use with 54600/54600A/B family mainframes that lack built-in GPIB. Automated waveform capture and setup recall of 54600-series scopes in HP-IB ATE racks. Host Oscilloscopes: HP 54600 54600A 54600B family The HP 54651A adds IEEE-488 (HP-IB) talk/listen control to 54600-series digitizing oscilloscopes. OEM 54600 accessory literature listaplug-on interface module, IEEE-488.2 programming of the host scope, and use with 54600/54600A/B family mainframes that lack built-in GPIB. Automated waveform capture and setup recall of 54600-series scopes in HP-IB ATE racks. Host Oscilloscopes: HP 54600 54600A 54600B family Function: talk and listen control of the host oscilloscope



MODEL

**Agilent / Keysight
54651A**

CALIBRATION

**Available on
request**

CONDITION

Used

STATUS

In stock

RFQ / SKU

54651A

LISTING

<https://aumictechlabs.com/products/54651a-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 · 811210 · 541380

This unit

The Agilent/Keysight 54651A is a mixed-signal oscilloscope within the 54600 Series, combining analog and digital channels for simultaneous capture and analysis of complex signal interactions. Built for embedded systems debugging and mixed-signal design verification, it delivers deep acquisition memory, high-speed sampling, and protocol-aware triggering in a single instrument. Technical Specifications The 54651A provides a 2+16 channel configuration: two

analog oscilloscope channels paired with 16 digital logic channels. Acquisition memory reaches 4 MB to 8 MB standard, enabling extended signal capture without sample rate compromise. Maximum sampling rate reaches 2 GSa/s with waveform display update rates to 3.0 million points per second.

Key Features

- MegaZoom Deep Memory** - 4 MB to 8 MB acquisition memory for extended signal duration capture with full zoom capability on waveform details
- Mixed-Signal Architecture** - 2 analog + 16 digital logic channels in unified display, eliminating the need for separate instruments
- High-Definition Display** Ultra-responsive refresh rate providing near-instantaneous waveform updates and clear visualization of signal anomalies
- Protocol Triggering** Native support for CAN, I2C, LIN, SPI, and USB serial protocols for precise isolation of complex signal conditions
- High Waveform Update Rate** Up to 2 GSa/s sampling with 3.0 million points per second display throughput
- Autoscale Function** Single-button setup automatically adjusts voltage, time, and trigger parameters across test points
- Autostore Capability** Live waveforms display at full brightness while retained acquisitions appear at half brightness for historical signal reference
- Automatic & Manual Measurements** Built-in voltage, frequency, and time measurements plus user-defined cursor analysis
- Peak Detect** Captures narrow glitches and transient events that standard acquisition modes may miss

Typical Applications Ideal for embedded systems development, microcontroller debugging, and mixed-signal circuit validation where simultaneous analog and digital signal observation is required.

Compatibility & Integration Member of the Agilent 54600 Series family with bandwidth and memory options across the product line.

54651A Characteristics / Specifications

PARAMETER	VALUE
Model	54651A
Instrument Type	GPIB interface module
Host Oscilloscopes	HP 54600 54600A 54600B family
Bus	IEEE-488 HP-IB
Protocol	IEEE-488.2
Function	talk and listen control of the host oscilloscope
Mounting	plug-on interface module
Sibling Rs2	54652A RS-232 and parallel interface module
Manufacturer	HP Agilent Keysight
Mechanical Package	54600 accessory module
Programming	remote setup and waveform transfer
Ate Use	rack GPIB automation of 54600 scopes
Connector	IEEE-488 GPIB connector on the module
Power	powered from the host oscilloscope
Family	54650-series interface modules
Scope Class	54600 digitizing oscilloscopes
Listen	supported
Talk	supported
Local Front Panel	scope remains usable locally
Documentation	54600-series programmer and accessory data
Replacement Path	later 54600B models added built-in I/O options
Standard	IEEE-488

54651A Specifications

PARAMETER	VALUE
Applications	Automated waveform capture and setup recall of 54600-series scopes in HP-IB ATE racks.
Key Features	Plug-on GPIB for 54600 family
No internal GPIB required on the scope	54652A is the RS-232/parallel sibling
Technical Specifications	Model: 54651A

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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Standard	IEEE-488
Notes	
From HP 54600-series accessory data for 54651A GPIB interface module. Confirm the host 54600 mainframe letter (A/B) and whether GPIB is already built in.	

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.