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**Data Sheet**

August 15, 2026

AGILENT / KEYSIGHT

## Agilent/Keysight 1682AD

The HP 1682AD is a 68-channel member of the 1680AD-series benchtop logic analyzers. OEM 1680AD family data list 200 MHz state, 800 MHz timing, 1M memory depth, and channel counts 136/102/68/34 on 1680AD/1681AD/1682AD/1683AD. Windows-based 1680/1690 family UI with standard LAN. Deep-memory state and timing on 68-channel embedded targets. Series Family: 1680AD 1681AD 1682AD 1683AD User Interface: Windows-based 1680/1690 family Deep-memory state and timing on 68-channel embedded targets. Series Family: 1680AD 1681AD 1682AD 1683AD User Interface: Windows-based 1680/1690 family Mechanical Package: benchtop logic analyzer



MODEL

**Agilent / Keysight  
1682AD**

CALIBRATION

**Available on  
request**

CONDITION

**Used**

STATUS

**In stock**

RFQ / SKU

**1682AD**

LISTING

[https://aumictechlabs.c  
om/products/1682ad-2/](https://aumictechlabs.com/products/1682ad-2/)

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 · 811210 · 541380

### This unit

The Agilent/Keysight 1682AD is a standalone portable logic analyzer built for debugging and characterizing complex digital systems. Equipped with 68 channels and a 12.1-inch color display, it combines timing and state analysis capabilities with flexible memory configurations and advanced triggering to capture and visualize signal behavior across a wide range of acquisition speeds. Technical Specifications Acquisition Channels & Memory 68 channels Deep memory up to 4 M (conventional timing) State acquisition memory: 1 M at 200 MHz Selectable memory depths: 1 M, 4 M, 16 M, 32 M Timing Analysis Maximum timing speed: 2 GHz Conventional timing: 800 MHz (full-channel) or 400 MHz (half-channel) Timing zoom: 4 GHz with 250 ps resolution at 64K

memory depth Transitional timing: 200 MHz State Analysis Maximum state speed: 800 MHz State analysis speed: 200 MHz Triggering & Control 16 trigger sequence levels Edge, pattern, and glitch trigger definitions Graphical drag-and-drop complex trigger scenarios Trigger In/Trigger Out via BNC connectors Trigger delay: 15 ns (Trigger In to Logic Analyzer Arm); 150 ns (Trigger In to Trigger Out) Display & Analysis Tools 12.1-inch built-in color flat panel display Data formats: binary, hexadecimal, decimal, ASCII, user-defined symbols Navigation: Beginning, Trigger, and End markers; scroll and zoom controls Find, Filter, and Overlay tools for signal comparison Bus visualization with activity indicators Inverse assembler support for common microprocessors (optional) System Configuration Operating system: Microsoft Windows XP Professional Internal storage: 40 GB minimum hard drive Connectivity: Two IEEE 1394 ports, two USB ports, 10/100Base-T LAN, parallel printer port, external video port Removable media: 1.44 MB floppy drive; 24x CD-ROM drive for software updates

**Key Features** Rapid signal navigation with dedicated knobs and graphical scroll bars. Color and size customization for individual signals and buses. Deep memory configurations support extended capture windows at full channel count. Multiple trigger sequences enable sophisticated acquisition scenarios without manual reconfiguration.

**Typical Applications** Microprocessor and bus-level debugging. Protocol analysis. Logic verification. FPGA and digital circuit characterization. Real-time signal capture and timing correlation.

**Compatibility & Integration** Supports inverse assembler modules for standard microprocessor instruction decoding. LAN interface enables remote data transfer and archival. IEEE 1394 ports support external storage devices.

## 1682AD Characteristics / Specifications

| PARAMETER            | VALUE                                                 |
|----------------------|-------------------------------------------------------|
| Model                | 1682AD                                                |
| Instrument Type      | Benchtop logic analyzer                               |
| Channel Count        | 68                                                    |
| State Rate           | 200 MHz                                               |
| Timing Rate          | 800 MHz                                               |
| Memory Depth         | 1M                                                    |
| Series Family        | 1680AD 1681AD 1682AD 1683AD                           |
| Sibling 136 Ch       | 1680AD                                                |
| Sibling 102 Ch       | 1681AD                                                |
| Sibling 34 Ch        | 1683AD                                                |
| User Interface       | Windows-based 1680/1690 family                        |
| Lan                  | standard on AD models                                 |
| Manufacturer         | HP Agilent Keysight                                   |
| Mechanical Package   | benchtop logic analyzer                               |
| Analysis Modes       | state and timing                                      |
| Deep Memory Class    | 1M                                                    |
| Probe Family         | 1680-series logic analyzer probes                     |
| Related Pc Hosted    | 1690AD-series same speed/memory different form factor |
| Minimum State Clock  | 200 MHz maximum state as published                    |
| Maximum Timing Clock | 800 MHz                                               |
| Application Class    | embedded hardware/software integration                |
| Documentation        | 1680AD-series logic analyzer data sheet               |

# 1682AD Specifications

| PARAMETER                     | VALUE                                                        |
|-------------------------------|--------------------------------------------------------------|
| Applications                  | Deep-memory state and timing on 68-channel embedded targets. |
| Key Features                  | 68 channels 1M deep                                          |
| LAN standard in the AD family | 1680AD is the 136-channel sibling                            |
| Technical Specifications      | Model: 1682AD                                                |

# 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                                                 |
| Model                                                                                                                                                  | 1682AD                                                |
| Instrument Type                                                                                                                                        | Benchtop logic analyzer                               |
| Channel Count                                                                                                                                          | 68                                                    |
| State Rate                                                                                                                                             | 200 MHz                                               |
| Timing Rate                                                                                                                                            | 800 MHz                                               |
| Memory Depth                                                                                                                                           | 1M                                                    |
| Series Family                                                                                                                                          | 1680AD 1681AD 1682AD 1683AD                           |
| Sibling 136 Ch                                                                                                                                         | 1680AD                                                |
| Sibling 102 Ch                                                                                                                                         | 1681AD                                                |
| Sibling 34 Ch                                                                                                                                          | 1683AD                                                |
| User Interface                                                                                                                                         | Windows-based 1680/1690 family                        |
| Lan                                                                                                                                                    | standard on AD models                                 |
| Manufacturer                                                                                                                                           | HP Agilent Keysight                                   |
| Mechanical Package                                                                                                                                     | benchtop logic analyzer                               |
| Analysis Modes                                                                                                                                         | state and timing                                      |
| Deep Memory Class                                                                                                                                      | 1M                                                    |
| Probe Family                                                                                                                                           | 1680-series logic analyzer probes                     |
| Related Pc Hosted                                                                                                                                      | 1690AD-series same speed/memory different form factor |
| Minimum State Clock                                                                                                                                    | 200 MHz maximum state as published                    |
| Maximum Timing Clock                                                                                                                                   | 800 MHz                                               |
| Application Class                                                                                                                                      | embedded hardware/software integration                |
| Documentation                                                                                                                                          | 1680AD-series logic analyzer data sheet               |
| Notes                                                                                                                                                  |                                                       |
| From HP/Agilent 1680AD-series logic analyzer family table, 1682AD 68-channel column (200 MHz state, 800 MHz timing, 1M). Confirm installed probe pods. |                                                       |

### Available from Aumictech

Used and refurbished unit evaluated in-house. Calibration: Available on request. Used · In stock.

Request a quote: [sales@aumictech.com](mailto: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.