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**Data Sheet**

August 15, 2026

AGILENT / KEYSIGHT

# Agilent/Keysight 5006A

Operating Temperature Class: laboratory digital-service window Primary Power Class: mains powered benchtop Literature: HP 5006A signature analyzer catalogs Measurement: compressed CRC-style signature ofanode Primary Power Class: mains powered benchtop Literature: HP 5006A signature analyzer catalogs Measurement: compressed CRC-style signature ofanode Compare Mode: known-good signature tables



MODEL

**Agilent / Keysight  
5006A**

CALIBRATION

**Available on  
request**

CONDITION

**Used**

STATUS

**In stock**

RFQ / SKU

**5006A**

LISTING

[https://aumictechlabs.c  
om/products/5006a-2/](https://aumictechlabs.com/products/5006a-2/)

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 · 811210 · 541380

## This unit

The Agilent/Keysight 5006A Signature Analyzer is a digital circuit troubleshooting instrument that employs patented signature analysis to rapidly isolate faults in complex systems. The instrument captures a compressed four-digit signature representing the digital data stream at any logic node, then compares measured signatures against known-good references to identify faulty components or logic states without analyzing entire bit streams. Technical Specifications  
Maximum Clock Frequency: 25 MHz Signature Resolution: Compressed four-digit signatures derived from 16-bit cyclic redundancy codes (CRCs) of data blocks Logic Family Support: Compatible with multiple logic families; TTL trigger thresholds standard with field-selectable CMOS sense input Minimum Pulse Width Detection: 10 nanoseconds Signature Memory Capacity: Thirty-two sequential signatures with recall, edit, and overwrite capability Composite Signature: Automatically accumulates all triggered signatures since last clear or power-up; updates when

memory is edited Pulse Stretching: 100 millisecond stretching available for Gate and Unstable indicators Signature Latch: Selectable hold function retains displayed signature until replaced or manually cleared Unstable Signature Latch: Selectable function for capturing unstable measurement conditions Key Features Windowed signature collection enables fault isolation in specific modules or devices within complex circuits Probe provides real-time logic level indication (High, Low, Open) with pulsing status and 100 msec stretching Probe switch directly initiates signature entry into memory Status indicators for Composite Signature, Gate, and Unstable states Reference signatures obtained from operational circuits or external stimulation sources Typical Applications Production test and repair Depot repair operations Field service troubleshooting Compatibility & Integration Fully programmable via HP-IB (IEEE 488) interface for remote measurement and control. Optional HP-IL interface support available.

## 5006A Characteristics / Specifications

| PARAMETER                   | VALUE                                    |
|-----------------------------|------------------------------------------|
| Model                       | 5006A                                    |
| Instrument Type             | Signature analyzer                       |
| Clock Frequency             | DC to 25 MHz                             |
| Display                     | 4-digit hexadecimal signature            |
| Qualifiers                  | start, stop, and clock                   |
| Family                      | HP 5005 / 5006 signature analysis        |
| Related Multimeter          | 5005B signature multimeter               |
| Remote Control              | HP-IB option                             |
| Use Case                    | digital board signature tracing          |
| Form Factor                 | benchtop signature analyzer              |
| Manufacturer                | HP Agilent Keysight                      |
| Probe Class                 | data probe with clock/start/stop         |
| Logic Family Class          | TTL CMOS compatible class                |
| Operating Temperature Class | laboratory digital-service window        |
| Primary Power Class         | mains powered benchtop                   |
| Literature                  | HP 5006A signature analyzer catalogs     |
| Measurement                 | compressed CRC-style signature of anode  |
| Compare Mode                | known-good signature tables              |
| Gate                        | start/stop windowing of the bit stream   |
| Clock Edge                  | qualified clock input                    |
| System Role                 | component-level digital troubleshooting  |
| Documentation Type          | OEM catalog specifications               |
| Operating temperature       | Class: laboratory digital-service window |

# General Specifications & Supplementary Characteristics

| PARAMETER                   | VALUE                                                                                                                                                                                                           |
|-----------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Operating temperature       | Class: laboratory digital-service window                                                                                                                                                                        |
| Operating Temperature       | Class: laboratory digital-service window                                                                                                                                                                        |
| Operating Temperature Class | laboratory digital-service window                                                                                                                                                                               |
| Primary Power Class         | mains powered benchtop                                                                                                                                                                                          |
| Literature                  | HP 5006A signature analyzer catalogs                                                                                                                                                                            |
| Measurement                 | compressed CRC-style signature ofanode                                                                                                                                                                          |
| Compare Mode                | known-good signature tables                                                                                                                                                                                     |
| Gate                        | start/stop windowing of the bit stream                                                                                                                                                                          |
| Clock Edge                  | qualified clock input                                                                                                                                                                                           |
| System Role                 | component-level digital troubleshooting                                                                                                                                                                         |
| Documentation Type          | OEM catalog specifications Notes From HP 5006A signature-analyzer catalog identity (DC to 25 MHz, 4-digit hex). Probe threshold, signature polynomial, and HP-IB command set are in the 5006A operating manual. |

# 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                                                                                                                                                                          | 5006A                                   |
| Instrument Type                                                                                                                                                                | Signature analyzer                      |
| Clock Frequency                                                                                                                                                                | DC to 25 MHz                            |
| Display                                                                                                                                                                        | 4-digit hexadecimal signature           |
| Qualifiers                                                                                                                                                                     | start, stop, and clock                  |
| Family                                                                                                                                                                         | HP 5005 / 5006 signature analysis       |
| Related Multimeter                                                                                                                                                             | 5005B signature multimeter              |
| Remote Control                                                                                                                                                                 | HP-IB option                            |
| Use Case                                                                                                                                                                       | digital board signature tracing         |
| Form Factor                                                                                                                                                                    | benchtop signature analyzer             |
| Manufacturer                                                                                                                                                                   | HP Agilent Keysight                     |
| Probe Class                                                                                                                                                                    | data probe with clock/start/stop        |
| Logic Family Class                                                                                                                                                             | TTL CMOS compatible class               |
| Operating Temperature Class                                                                                                                                                    | laboratory digital-service window       |
| Primary Power Class                                                                                                                                                            | mains powered benchtop                  |
| Literature                                                                                                                                                                     | HP 5006A signature analyzer catalogs    |
| Measurement                                                                                                                                                                    | compressed CRC-style signature ofanode  |
| Compare Mode                                                                                                                                                                   | known-good signature tables             |
| Gate                                                                                                                                                                           | start/stop windowing of the bit stream  |
| Clock Edge                                                                                                                                                                     | qualified clock input                   |
| System Role                                                                                                                                                                    | component-level digital troubleshooting |
| Documentation Type                                                                                                                                                             | OEM catalog specifications              |
| Notes                                                                                                                                                                          |                                         |
| From HP 5006A signature-analyzer catalog identity (DC to 25 MHz, 4-digit hex). Probe threshold, signature polynomial, and HP-IB command set are in the 5006A operating manual. |                                         |

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