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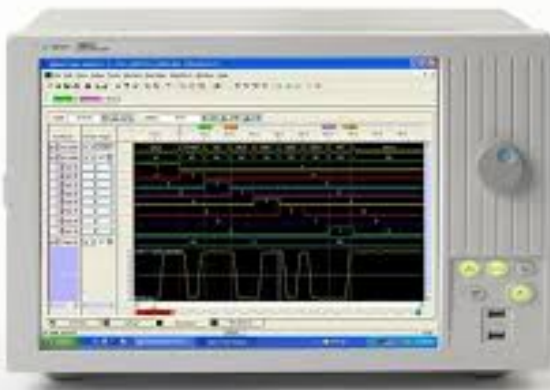
Data Sheet

August 14, 2026

AGILENT / KEYSIGHT

Agilent/Keysight 16804A

Agilent Keysight 16804A Portable Logic Analyzer 136 Channel The Agilent 16804A is the 136-channel 16800-series portable logic analyzer without a pattern generator. OEM 16800 Series data sheet 5989-5063 lists 136 logic channels, 4 GHz (250 ps) timing zoom with 64K depth, 1.0 GHz / 500 MHz half/full conventional timing, 250 or 450 MHz state options, and 1M/4M/16M/32M memory options. Portable 136-channel state/timing debug of embedded, FPGA, and board designs. Pattern Generator Channels: not applicable (16804A/16806A have no built-in pattern generator) The Agilent 16804A is the 136-channel 16800-series portable logic analyzer without a pattern generator. OEM 16800 Series data sheet 5989-5063 lists 136 logic channels, 4 GHz (250 ps) timing zoom with 64K depth, 1.0 GHz / 500 MHz half/full conventional timing, 250 or 450 MHz state options, and 1M/4M/16M/32M memory options. Portable 136-channel state/timing debug of embedded, FPGA, and board designs. Pattern Generator Channels: not applicable (16804A/16806A have no built-in pattern generator) State Analysis Channels Class: 136 conventional timing channels

**MODEL****Agilent / Keysight
16804A****CALIBRATION****Available on
request****CONDITION****Used****STATUS****In stock****RFQ / SKU****16804A****LISTING**<https://aumictechlabs.com/products/16804a-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 · 811210 · 541380

This unit

The Agilent/Keysight 16804A is a 136-channel portable logic analyzer built for signal capture and timing analysis in complex digital debug environments. It combines flexible memory architecture with dual-mode acquisition - timing and state analysis - on a 15-inch color LCD display. Engineers

can scale memory from 1 M to 32 M samples as requirements evolve, while timing zoom reaches 4 GHz at 64K depth and conventional timing operates at 1.0 GHz across full channel capacity.

Technical Specifications Acquisition Modes & Timing

Timing sample rate: 1 GHz (full channel), 0.5 GHz (half channel) Timing zoom: 4 GHz with 64K memory depth Conventional timing: 1.0 GHz / 0.5 GHz with deep memory Transitional timing: 500 MHz Time interval accuracy: 250 ps (4 GHz resolution) Between-pod accuracy: $\pm (1.0 \text{ ns} + 0.01\% \text{ reading})$ or $\pm (1.75 \text{ ns} + 0.01\% \text{ reading})$ Minimum data pulse width: 1 ns Minimum time between active clock edges: 2.0 ns Master-to-slave clock time: 1 ns minimum Slave-to-slave clock time: 4.0 ns minimum State clock pulse width: 1.0 ns (single and multiple edge) State Analysis (Synchronous) Maximum state clock rate: 450 MHz Maximum state data rate: 500 Mb/s tSetup/tHold: 0.5 tWidth; tWidth: 1.5 ns tSample range: -3.2 ns to +3.2 ns tSample adjustment resolution: 80 ps typical Clock qualifiers: 4 available

Memory & Triggering Standard memory: 1 M samples Upgradeable to: 4 M, 16 M, or 32 M samples Trigger position options: Start, center, end, or user-defined Trigger actions: Go To, Trigger, e-mail alert, fill memory, selective store Sequence level counters: 1 per level; global counters: 2 Flags: 4 available

Display & Signal Integrity 15-inch XGA color TFT LCD (1024 × 768) Optional touchscreen available Eye scan for signal integrity analysis across buses Eye finder for automatic threshold and sample position setup Skew detection capabilities

Typical Applications Digital system verification, multi-protocol bus analysis, signal timing correlation, and signal integrity characterization across wide operating condition ranges.

16804A Characteristics / Specifications

PARAMETER	VALUE
Model	16804A
Instrument Type	Portable logic analyzer
Series Family	Agilent 16800 Series
Logic Analyzer Channels	136
Pattern Generator Channels	not applicable (16804A/16806A have no built-in pattern generator)
State Analysis Channels Class	136 conventional timing channels
Timing Zoom	4 GHz (250 ps) with 64K depth
Maximum Timing Sample Rate Half Full	1.0 GHz (1.0 ns) / 500 MHz (2.0 ns)
Maximum State Clock Option 2	250 MHz
Maximum State Clock Option 5	450 MHz with Option 500
Maximum State Data Rate Option 2	250 Mb/s
Maximum State Data Rate Option 5	500 Mb/s
Memory Option 0	16 M samples
Setup Hold Window Class	minus 3.2 ns to plus 3.2 ns class of 16800 state table
Sample Adjustment Resolution Typical	80 ps typical
Twidth	1.5 ns
Ac Power	115/230 V, 48 to 66 Hz, 775 W max
Sibling 16801A	34 channels, 605 W max
Sibling 16806A	204 channels, 775 W max
Form Factor	16800 portable logic analyzer
Data Rate	Option 250: 250 Mb/s

16804A Specifications

PARAMETER	VALUE
Applications	Portable 136-channel state/timing debug of embedded, FPGA, and board designs.
Key Features	136 logic analyzer channels
Up to 32M state/timing memory	250 or 500 Mb/s state data rate options
Technical Specifications	Model: 16804A

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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PARAMETER	VALUE
Model	16804A
Instrument Type	Portable logic analyzer
Series Family	Agilent 16800 Series
Logic Analyzer Channels	136
Pattern Generator Channels	not applicable (16804A/16806A have no built-in pattern generator)
State Analysis Channels Class	136 conventional timing channels
Timing Zoom	4 GHz (250 ps) with 64K depth
Maximum Timing Sample Rate Half Full	1.0 GHz (1.0 ns) / 500 MHz (2.0 ns)
Maximum State Clock Option 250	250 MHz
Maximum State Clock Option 500	450 MHz with Option 500
Maximum State Data Rate Option 250	250 Mb/s
Maximum State Data Rate Option 500	500 Mb/s
Memory Option 001	1 M samples
Memory Option 004	4 M samples
Memory Option 016	16 M samples
Memory Option 032	32 M samples
Setup Hold Window Class	minus 3.2 ns to plus 3.2 ns class of 16800 state table
Sample Adjustment Resolution Typical	80 ps typical
Twidth	1.5 ns
Ac Power	115/230 V, 48 to 66 Hz, 775 W max
Sibling 16801A	34 channels, 605 W max
Sibling 16806A	204 channels, 775 W max
Form Factor	16800 portable logic analyzer
Notes	
Numeric rows from Agilent 16800 Series Portable Logic Analyzers data sheet 5989-5063 (16804A column: 136 LA channels, no pattern generator, timing zoom, state options, memory options, 775 W).	

Ordering Information

OPTION	DESCRIPTION
Option 500	Maximum State Data Rate Option 250: 250 Mb/s

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.