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Data Sheet

August 13, 2026

KEYSIGHT / AGILENT

Keysight (Agilent) 16864A 136-Channel Portable Logic Analyzer

Keysight (Agilent) 16864A 136-Channel Portable Logic Analyzer The Keysight 16864A is the 136-channel portable logic analyzer in the 16860A Series. Base configuration includes 350 MHz state analysis, 2.5 GHz full-channel / 5.0 GHz half-channel timing, 12.5 GHz timing zoom at 256 K depth, and 2 Mb memory. Option 700 raises state clock to 700 MHz and state data rate to 1400 Mb/s; Option T10 (requires Option 700) adds 10 GHz quarter-channel timing. Memory options scale to 128 Mb full-channel (256 Mb half / 512 Mb quarter). The Keysight 16864A is the 136-channel portable logic analyzer in the 16860A Series. Base configuration includes 350 MHz state analysis, 2.5 GHz full-channel / 5.0 GHz half-channel timing, 12.5 GHz timing zoom at 256 K depth, and 2 Mb memory. Option 700 raises state clock to 700 MHz and state data rate to 1400 Mb/s; Option T10 (requires Option 700) adds 10 GHz quarter-channel timing. Memory options scale to 128 Mb full-channel (256 Mb half / 512 Mb quarter). High-speed digital debug; DDR/LPDDR and memory-bus validation at ≤ 1400 MT/s class with B4661A; FPGA and embedded system state/timing analysis; ONFi capture with quarter-channel timing.



MODEL

**Keysight / Agilent
16864A**

CALIBRATION

**Available on
request**

CONDITION

Used

STATUS

In stock

RFQ / SKU

16864A

LISTING

<https://aumictechlabs.com/products/16864a-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 • 811210 • 541380

This unit

The Keysight (Agilent) 16864A is a 136-channel portable logic analyzer built for digital system debugging, validation, and protocol analysis. It delivers dual-mode capture: state analysis up to 1.4 Gb/s (with Option 700) and timing analysis reaching 10 GHz on quarter channels (with Option T10), with timing zoom capability to 12.5 GHz at 80 ps resolution. The instrument supports up to 128 Mpts of memory, scales dynamically across channel configurations, and integrates a 15-inch color touch-screen display for efficient field and lab operation.

Technical Specifications

Capture Performance 136 channels; single-ended and differential signal types State analysis: 350 MHz standard; up to 1.4 Gb/s with Option 700 State clock rates: up to 700 MHz (with Option 700) Timing analysis: 2.5 GHz (full channel), 5.0 GHz (half channel), 10 GHz (quarter channel with Option T10) Timing zoom: 12.5 GHz with 80 ps resolution Trigger sequencer: 1.4 GHz (1400 MSa/s) Memory & Storage Standard depth: 2 Mb; maximum depth: 128 Mpts Optional depths: 4 Mb, 8 Mb, 16 Mb, 32 Mb, 64 Mb, 128 Mb Memory depth scales with channel configuration (2x in half-channel timing; 4x in quarter-channel timing) Built-in removable SSD, USB 3.0 ports, LAN

Display & Interfaces 15-inch color touch-screen display DDR protocol support: LPDDR4, LPDDR3, LPDDR2, LPDDR, DDR4, DDR3, DDR2, DDRKey

Features Portable form factor with integrated keyboard, mouse, and accessory bag Upgradable architecture - purchase capability as needs evolve; 16864AU upgrade model available Oscilloscope integration: trigger synchronization, marker tracking, and unified waveform display with Keysight oscilloscopes No pattern generation (stimulus) capability

Typical Applications Memory interface validation (DDR/LPDDR), high-speed digital protocol debugging, timing closure analysis, and multi-channel system characterization.

Compatibility & Integration Probes (general-purpose and application-specific) and application software ordered separately. Oscilloscope integration enables cross-instrument triggering and synchronized analysis.

Features & description

From manufacturer datasheet

Features

- 136 channels (128 data + 8 clock)

16864A Characteristics / Specifications

PARAMETER	VALUE
Model	16864A
Manufacturer	Keysight Technologies
Instrument Type	Portable logic analyzer
Family	16860A Series
Alias	16864A; Keysight 16864A; Agilent 16864A
Channels	136 (128 data + 8 clock)
Timing zoom	12.5 GHz at 256 K depth
State clock rate (standard)	350 MHz
State clock rate (Option 700)	700 MHz
State data rate (standard)	700 Mb/s
State data rate (Option 700)	1400 Mb/s
Memory depth (standard)	2 Mb
Memory depth options	4 Mb; 8 Mb; 16 Mb; 32 Mb; 64 Mb; 128 Mb
Minimum setup/hold (single clock)	80 ps / 80 ps
Minimum data valid window (single clock)	160 ps
Probe compatibility	U4200A Series; 90-pin SE/differential Notes Specs from Keysight 16860A Series data sheet (model 16864A column). Confirm Option 700, Option T10, and installed memory option on the unit.
Probe ecosystem	U4200A Series and 90-pin single-ended/differential probes
Data Rate	to 1400 Mb/s; Option T10 (requires Option 700) adds 10 GHz quarter-channel timing. Memory options scale to 128 Mb full-channel (256 Mb half / 512 Mb quarter).

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	16864A
Manufacturer	Keysight Technologies
Instrument Type	Portable logic analyzer

Specifications

PARAMETER	VALUE
Family	16860A Series
Alias	16864A; Keysight 16864A; Agilent 16864A
Channels	136 (128 data + 8 clock)

Timing zoom: 12.5 GHz at 256 K depth

Conventional timing (full-channel): 2.5 GHz (400 ps sample period class)

Conventional timing (half-channel): 5.0 GHz (200 ps)

Quarter-channel timing (Option T10): 10 GHz (100 ps); requires Option 700

Specifications

PARAMETER	VALUE
State clock rate (standard)	350 MHz
State clock rate (Option 700)	700 MHz
State data rate (standard)	700 Mb/s

Specifications

PARAMETER	VALUE
State data rate (Option 700)	1400 Mb/s
Memory depth (standard)	2 Mb
Memory depth options	4 Mb; 8 Mb; 16 Mb; 32 Mb; 64 Mb; 128 Mb

Memory scaling half-channel: up to 256 Mb

Memory scaling quarter-channel: up to 512 Mb

Clock qualifiers (single-clock mode): 4

Reset qualifier (single-clock mode): 1

Specifications

PARAMETER	VALUE
Minimum setup/hold (single clock)	80 ps / 80 ps
Minimum data valid window (single clock)	160 ps
Probe compatibility	U4200A Series; 90-pin SE/differential

Notes

Specs from Keysight 16860A Series data sheet (model 16864A column). Confirm Option 700, Option T10, and installed memory option on the unit.

Ordering Information

OPTION	DESCRIPTION
Option 700	raises state clock to 700 MHz and state data rate to 1400 Mb/s; Option T10 (requires Option 700) adds 10 GHz quarter-channel timing. Memory options scale to 128

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

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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.