

KEYSIGHT TECHNOLOGIES (AGILENT HP)

16804A

The Keysight (Agilent) 16804A is a 136-channel portable logic analyzer designed to deliver high-performance timing and state analysis with a built-in 15-inch color display. It offers 1 GHz timing, up to 450 MHz state analysis speed, and timing zoom capability at 4 GHz (250 ps resolution) with 64K deep memory. The instrument supports seamless integration with oscilloscopes via View Scope, providing a complete picture of analog and digital signal relationships.

SPECIFICATIONS

General

Interfaces	LAN (10/100/1000 Base-T), 6 x USB 2.0 (2 front, 4 rear), VGA, DVI-D, Parallel, Serial (RS-232), BNC Trigger In, BNC Trigger Out
Display	15-inch color XGA LCD, 1024 x 768 pixels (touch screen optional)

Physical

Power Supply	100 - 240 V AC ($\pm 10\%$), 48 - 66 Hz, 615 W max
Operating Temperature	0 to +40 °C °C
Dimensions (W×H×D)	426.5 mm x 340.0 mm x 396.2 mm mm
Weight	12.9 kg

Logic Analyzer Channels

Number of Channels	136 channels
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Timing Analysis

Timing Zoom Sample Rate	4.0 GHz (250 ps)
Timing Zoom Memory Depth	64K samples
Half-Channel Timing Speed	1.0 GHz (1.0 ns)
Full-Channel Timing Speed	500 MHz (2.0 ns)
Transitional Timing Speed	250 MHz (full channel), 500 MHz (half channel)

State Analysis

Standard State Clock Speed	250 MHz
Upgradeable State Clock Speed	Up to 450 MHz
Maximum State Data Rate	250 Mb/s (standard), 500 Mb/s (with 450 MHz option)
Minimum State Clock Pulse Width	1.5 ns (standard), 1.0 ns (upgraded)
Setup and Hold Time Window	1.5 ns
Setup and Hold Resolution	100 ps
Number of State Clocks	4

Memory Depth

Standard Memory Depth	1 M samples
Upgradeable Memory Depth Options	4 M, 16 M, 32 M samples

Triggering

Trigger Sequence Levels	16 levels
Max Trigger Sequencer Speed	450 MHz

Analog Integration

View Scope Integration	Seamlessly integrates Keysight/Agilent Infiniium or InfiniiVision oscilloscope waveforms via LAN/BNC
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System Hardware

Operating System	Windows Embedded (Windows XP Professional or Windows 7 depending on revision)
Internal Storage Type	Removable Hard Disk Drive (80 GB or larger)
LAN Port Speed	10/100/1000 Mb/s
External Monitor Outputs	15-pin VGA, DVI-D
PS/2 Ports	1 x keyboard, 1 x mouse
Trigger Input Connector	BNC female (rear panel)
Trigger Output Connector	BNC female (rear panel)

Environmental

Operating Altitude Limit	Up to 3,000 meters (10,000 ft)
Relative Humidity	8% to 80% (non-condensing)
Vibration Limits	Operating: 0.27 g (rms) random; Non-operating: 2.41 g (rms) random
Shock Limits	Half-sine 40 g, 3 ms

Physical Dimensions

Net Weight	12.9 kg (28.5 lbs)
Shipping Weight	18.2 kg (40.0 lbs)

Probing

Number of 90-pin Probe Connectors	4
Probe Compatibility	Keysight 90-pin logic analyzer probes

Analog Input / Probing

Threshold Range	-5.0 V to +5.0 V (10 mV increments)
Threshold Accuracy	±(30 mV + 1% of setting)
Minimum Input Voltage Swing	250 mV p-p
Input Dynamic Range	±10 V (relative to threshold)

Interfaces

PCI Expansion Slot	1 low-profile PCI slot
USB Ports	6 USB 2.0 (2 front, 4 rear)
LAN Interface Type	10/100/1000 Base-T (RJ-45)
Video Interface Options	DisplayPort and DVI-I, or VGA (motherboard dependent)

Display

External Display Resolution	Up to 1600 x 1200
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PC Specifications

Processor	Intel Celeron 2.0 GHz or Intel Core 2 Duo 3.0 GHz (hardware revision dependent)
System RAM	1 GB, 2 GB, or 4 GB (hardware revision dependent)
Display Size	15 inch (38.1 cm)
Display Type	Active matrix color TFT LCD with touch screen
Hard Disk Drive	>= 80 GB SATA (removable)

Power

Maximum Power Consumption	375 W
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TECHNOLOGY

Logic Analyzer

APPLICATIONS

Digital hardware debug, state and timing analysis, FPGA validation, memory interface debugging

Generated by SpecAtlasHub (specatlashub.com). Specifications are compiled from available sources and are subject to change — verify critical values against the manufacturer before purchase.