

KEYSIGHT TECHNOLOGIES (AGILENT HP)

16806A

The Keysight Technologies (formerly Agilent) 16806A is a 204-channel portable logic analyzer within the 16800 Series. It features 1 GHz timing analysis, 250 MHz (standard) or 450 MHz (optional) state analysis, and simultaneous 4 GHz / 250 ps high-speed Timing Zoom. With a built-in 15-inch color display and upgradable memory depth up to 32 M, it is engineered for efficient digital system debugging and validation.

SPECIFICATIONS

General

Interfaces	LAN (10/100/1000 Base-T), USB 2.0 (6 ports), VGA, DVI-I, Trigger In (BNC), Trigger Out (BNC)
Display	15-inch color XGA TFT LCD, 1024 x 768 resolution (touchscreen optional)

Physical

Power Supply	100 - 240 V AC $\pm 10\%$ @ 48 - 66 Hz / 400 Hz (100 - 120 V AC only), 325 W maximum
Operating Temperature	0 to +40 °C °C
Dimensions (W×H×D)	454 mm x 383 mm x 295 mm mm
Weight	12.9 kg kg

State Analysis

Maximum State Clock Rate	250 MHz (standard), 450 MHz (optional)
Maximum Data Rate	250 Mb/s (standard), 500 Mb/s (optional)
State Memory Depth Options	1 M (standard), 4 M, 16 M, 32 M, 64 M (optional)
Number of State Clocks	4
State Clock Qualifiers	Yes, available on each clock
Minimum State Pulse Width	1.25 ns (option dependent)
Setup/Hold Time Window	1.0 ns (standard)
Setup/Hold Window Range Adjustment	Adjustable in 10 ps steps
Demultiplexing Modes	Supports demultiplexing of channels

Timing Analysis

Maximum Timing Sample Rate (Full-Channel)	500 MHz
Maximum Timing Sample Rate (Half-Channel)	1.0 GHz
Maximum Conventional Timing Memory Depth	1 M (standard), up to 64 M (option dependent)
Transitional Timing Sample Rate	500 MHz (half-channel), 250 MHz (full-channel)
Timing Zoom Sample Rate	4.0 GHz
Timing Zoom Resolution	250 ps
Timing Zoom Sample Depth	64K samples
Minimum Detectable Pulse/Glitch Width	1.0 ns
Timing Memory Depth Options	1 M (standard), 4 M, 16 M, 32 M, 64 M (optional)

Channel Configuration and Probing

Number of Channels	204 logic channels
Compatible Probe Types	Keysight 90-pin logic analyzer probes
Equivalent Input Capacitance	0.9 pF (probe model dependent)
Equivalent Input Resistance	20k Ohm (probe model dependent)
Threshold Selection Range	-5.0 V to +5.0 V (10 mV increments)
Threshold Accuracy	±(30 mV + 1% of setting)

Triggering and Sequencing

Trigger Sequence Levels	16
Max Trigger Sequencer Speed	450 MHz
Word Recognizers	16
Range Recognizers	4
Edge/Transition Recognizers	15
Pattern Recognizers	16
Glitch/Violation Recognizers	Yes (on timing channels)
Counter/Timer Terms	Two counters/timers (48-bit, 250 MHz)
Trigger Action Options	Store, Trigger, Go to level, Occurrence, Delay, Arm external

TECHNOLOGY

Logic Analyzer

APPLICATIONS

Digital system debugging, validation, and protocol analysis

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