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Data Sheet

August 13, 2026

KEYSIGHT / AGILENT / HP

Keysight / Agilent / HP 16550A 102-Channel State/Timing Analyzer Module

HP 16550A 102 Channel 100 MHz State / 500 MHz Timing Analyzer Module The HP 16550A is a 102-channel (96 data plus 6 clock/data) state/timing module for 16500B/C mainframes. State 100 MHz with master/slave/demultiplex clocks and state or time tags. Timing 250 MHz full / 500 MHz half-channel conventional; transitional 125/250 MHz; glitch 125 MHz. Memory 4 k full / 8 k half-channel. Two cards expand to 204 channels. State trigger 12 levels, 10 patterns, 2 ranges, 2 timers. Timing trigger 10 levels plus 2 edge/glitch terms. Setup/hold 3.5/0 ns to 0/3.5 ns in 500 ps. Minimum glitch 3.5 ns. Probe 100 kohm, about 8 pF. 126 labels, 1000 symbols. The HP 16550A is a 102-channel (96 data plus 6 clock/data) state/timing module for 16500B/C mainframes. State 100 MHz with master/slave/demultiplex clocks and state or time tags. Timing 250 MHz full / 500 MHz half-channel conventional; transitional 125/250 MHz; glitch 125 MHz. Memory 4 k full / 8 k half-channel. Two cards expand to 204 channels. State trigger 12 levels, 10 patterns, 2 ranges, 2 timers. Timing trigger 10 levels plus 2 edge/glitch terms. Setup/hold 3.5/0 ns to 0/3.5 ns in 500 ps. Minimum glitch 3.5 ns. Probe 100 kohm, about 8 pF. 126 labels, 1000 symbols. Simultaneous state on some channels and timing on others



MODEL

**Keysight / Agilent /
HP 16550A**

CALIBRATION

**Available on
request**

CONDITION

Used

STATUS

In stock

RFQ / SKU

16550A

LISTING

**[https://aumictechlabs.c
om/products/16550a-2/](https://aumictechlabs.com/products/16550a-2/)**

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 • 811210 • 541380

This unit

The Keysight/Agilent/HP 16550A is a 102-channel state and timing analyzer module engineered for the HP/Agilent 16500 Logic Analysis System. This dual-function module captures both state and timing data across digital circuits without requiring probe repositioning, delivering acquisition rates up to 100 MHz for state analysis and 250 MHz for conventional timing (500 MHz in half-channel mode). Advanced triggering with up to 12 sequence levels at 125 MHz maximum rate enables detection of intermittent faults using trigger macros, range recognizers, and counter timers. Technical Specifications Channels: 102 (expandable to 204 with dual-card configuration) State Analysis Rate: 100 MHz maximum Timing Analysis Rate: 250 MHz conventional; 500 MHz half-channel mode Acquisition Memory: 4K samples/channel standard; 8K samples/channel half-channel mode Trigger Sequencing: 12 levels maximum at 125 MHz Input Impedance: 100 kOhm Input Capacitance: 8 pF Minimum Glitch Width: 3.5 ns Setup/Hold Time: 3.5 ns Logic Threshold: 500 mV minimum swing at probe tip Range Recognizers: 2 Counter Timers: 2 Key Features Transitional timing mode preserves memory by capturing only state changes State and timing measurements displayed time-correlated on single screen Supports multiple clocking modes: master, slave, and demultiplexed Interchangeable probes across all channels for state or timing operation Display modes include state listing, waveforms, timing listings, and comparative analysis Supports binary, octal, decimal, hexadecimal, ASCII, two's complement, and user-defined symbol bases Symbol library: up to 1,000 symbols downloadable via RS-232 or HP-IB Compatibility & Integration Designed exclusively for the HP/Agilent 16500 Logic Analysis System. Modules mount using proprietary interface. Two 16550A cards can be combined to expand channel capacity to 204. Probing scheme enables straightforward interchange of interconnections across the platform. Physical: 12 × 12 × 12 inches (approximate), 10 lbs

16550A Characteristics / Specifications

PARAMETER	VALUE
Model	16550A
Manufacturer	Hewlett Packard / Agilent / Keysight
Instrument Type	State and timing analyzer module
Series	16500 modules
Alias	16550A; HP 16550A
Data Channels	96
Clock Data Channels	6
Total Channels	102
Two Card Channels	204
State Rate	100 MHz
Timing Conventional	250 / 500 MHz full/half
Timing Transitional	125 / 250 MHz
Timing Glitch	125 MHz
Memory Full	4 k per channel
Memory Half	8 k
State Sequence Levels	12
Timing Sequence Levels	10
Patterns	10
Ranges	2
Timers	2
Edge Glitch Terms	2 (timing)
Setup Hold	3.5/0 ns to 0/3.5 ns in 500 ps
Min Glitch	3.5 ns
Probe R	100 kohm
Probe C	about 8 pF

PARAMETER	VALUE
Labels	126
Symbols	1000
Clock Modes	master, slave, demultiplex
Tags	state or time
Host	16500B / 16500C
Form	16500 plugin
Status	HP 16550A
Duty	continuous in 16500 Notes Specs from HP 16550A user reference and 16500 module table (102/204 ch, 100 MHz state, 250/500 MHz timing, 4k/8k). Confirm single versus two-card configuration.

16550A Specifications

PARAMETER	VALUE
Applications	100 MHz state / 500 MHz timing in 16500C
Simultaneous state on some channels and timing on others	Two-card 204-channel systems
Key Features	102 channels; 204 with second card
Technical Specifications	Model: 16550A

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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Specifications

PARAMETER	VALUE
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Timing Sequence Levels	10
Patterns	10

Specifications

PARAMETER	VALUE
Ranges	2
Timers	2
Edge Glitch Terms	2 (timing)

Specifications

PARAMETER	VALUE
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Min Glitch	3.5 ns
Probe R	100 kohm

Specifications

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Probe C	about 8 pF
Labels	126
Symbols	1000

Specifications

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Clock Modes	master, slave, demultiplex
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Specifications

PARAMETER	VALUE
Form	16500 plugin
Status	HP 16550A
Duty	continuous in 16500

Notes

Specs from HP 16550A user reference and 16500 module table (102/204 ch, 100 MHz state, 250/500 MHz timing, 4k/8k). Confirm single versus two-card configuration.

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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NIST-traceable calibration · SAM registered ·
30-day returns
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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.