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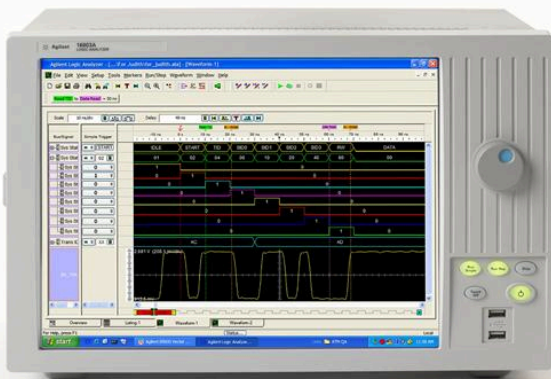
Data Sheet

August 14, 2026

AGILENT / KEYSIGHT

Agilent/Keysight 16822A

Agilent Keysight 16822A Portable Logic Analyzer 68 Channel with Pattern Generator The Agilent 16822A is the 68-channel 16800-series portable logic analyzer with a 48-channel pattern generator. OEM 16800 Series data sheet lists 68 LA channels, 48 PG channels, 4 GHz timing zoom, 1.0 GHz / 500 MHz conventional timing, 250/500 Mb/s state options, 1M-32M memory, and 16 M vector PG depth. Portable digital debug with built-in stimulus for FPGA, memory, and board bring-up at 68 channels. 68 LA channels plus 48-channel pattern generator The Agilent 16822A is the 68-channel 16800-series portable logic analyzer with a 48-channel pattern generator. OEM 16800 Series data sheet lists 68 LA channels, 48 PG channels, 4 GHz timing zoom, 1.0 GHz / 500 MHz conventional timing, 250/500 Mb/s state options, 1M-32M memory, and 16 M vector PG depth. Portable digital debug with built-in stimulus for FPGA, memory, and board bring-up at 68 channels. 68 LA channels plus 48-channel pattern generator Instrument Type: Portable logic analyzer with pattern generator



MODEL

**Agilent / Keysight
16822A**

CALIBRATION

**Available on
request**

CONDITION

Used

STATUS

In stock

RFQ / SKU

16822A

LISTING

<https://aumictechlabs.com/products/16822a-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 • 811210 • 541380

This unit

The Keysight/Agilent 16822A is a portable logic analyzer that integrates 68-channel signal capture with 48-channel pattern generation in a single instrument. Built around a 15-inch color touchscreen display, it delivers both state and timing analysis for digital system validation across complex designs. The analyzer captures signals at up to 450 MHz synchronous sampling and 4

GHz asynchronous timing zoom, with acquisition memory selectable from 1 M to 32 M depths. Its pattern generator operates at 300 MVector/s with 16 M vector depth, enabling device substitution, circuit initialization, and full-speed functional testing without external hardware. Signal integrity analysis runs simultaneously across all channels via eye diagrams, accelerating fault identification on high-speed buses. Threshold adjustment spans -5 V to 5 V in 10 mV increments with automated setup for single-ended measurements. The instrument connects via 10/100 Base-T LAN, six USB 2.0 ports, and standard 40-pin logic analyzer probes, with one PCI and one PCI Express x1 expansion slot for future instrumentation integration. Windows XP or Windows 7 compatibility supports Keysight's native logic analyzer software stack.

Technical Specifications

Acquisition and Analysis	68 logic analyzer channels	48-channel pattern generator
Maximum acquisition depth:	32 M selectable (1 M, 4 M, 16 M, 32 M)	State analysis up to 450 MHz with 500 Mb/s data rates
Timing zoom:	4 GHz (250 ps resolution) with 64 K memory	Conventional timing: 1.0 GHz half-channel / 500 MHz full-channel
Transitional timing:	500 MHz	Pattern generator: 300 MVector/s, 16 M vector depth
Signal Measurement Threshold adjustment:	-5 V to 5 V in 10 mV increments	Simultaneous eye diagrams on all channels
Automated threshold and sample position setup	Display and Interface	15-inch color touchscreen
10/100 Base-T LAN port	Six USB 2.0 ports (two front, four rear)	One PCI expansion slot, one PCI Express x1 slot
40-pin logic analyzer probe compatible	PS/2 mouse and keyboard support	Key Features
Deep memory up to 32 M with post-purchase upgrade capability	Pattern generator substitutes missing boards, ICs, or buses	Portable form factor for field deployment
Windows XP and Windows 7 compatibility	Typical Applications	Complex digital system debugging and validation
High-speed bus signal integrity analysis	Circuit initialization and functional testing at full speed	Hardware-in-the-loop simulation and device substitution
Compatibility & Integration	Standard 40-pin probe interface supports legacy and current logic analyzer probe sets.	Dual expansion architecture (PCI and PCI Express x1) enables modular instrument configuration.
Multi-port connectivity	LAN, USB, and serial peripheral support	- integrates into bench automation and remote test environments.

16822A Characteristics / Specifications

PARAMETER	VALUE
Model	16822A
Instrument Type	Portable logic analyzer with pattern generator
Series Family	Agilent 16800 Series
Logic Analyzer Channels	68
Pattern Generator Channels	48
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
Pattern Generator Clock Half Full	300 MHz half channel / 180 MHz full channel
Pattern Generator Data Channels Half Full	24 / 48
Pattern Generator Depth	16 M vectors half-channel / 8 M full-channel
Logic Levels Supported	5 V TTL, 3-state TTL/CMOS, 1.8/2.5/3.3 V, ECL, LVPECL, LVDS class
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
Ac Power	115/230 V, 48 to 66 Hz, 775 W max
Sibling Models	16821A 34 ch, 16823A 102 ch with pattern generator
Data Rate	Option 250: 250 Mb/s

16822A Specifications

PARAMETER	VALUE
Applications	Portable digital debug with built-in stimulus for FPGA, memory, and board bring-up at 68 channels.
Key Features	68 LA channels plus 48-channel pattern generator
Up to 32M state/timing memory	250 or 500 Mb/s state data rate options
Technical Specifications	Model: 16822A

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	16822A
Instrument Type	Portable logic analyzer with pattern generator
Series Family	Agilent 16800 Series
Logic Analyzer Channels	68
Pattern Generator Channels	48
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
Pattern Generator Clock Half Full	300 MHz half channel / 180 MHz full channel
Pattern Generator Data Channels Half Full	24 / 48
Pattern Generator Depth	16 M vectors half-channel / 8 M full-channel
Logic Levels Supported	5 V TTL, 3-state TTL/CMOS, 1.8/2.5/3.3 V, ECL, LVPECL, LVDS class
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Sample Adjustment Resolution Typical	80 ps typical
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Notes	
Numeric rows from Agilent 16800 Series Portable Logic Analyzers data sheet 5989-5063 (16822A column: 68 LA / 48 PG, timing zoom, state options, memory options, PG clock/depth table).	

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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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.