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Data Sheet
August 14, 2026

AGILENT / KEYSIGHT

Agilent/Keysight 1663AS

Agilent Keysight 1663AS Logic Analyzer 34 Channel The HP 1663AS is a 1660-series standalone logic analyzer with 34 state/timing channels. OEM 1660-series technical data list 100 MHz state, 500 MHz half-channel timing, 4K/8K memory, and 2 state clocks/qualifiers plusabuilt-in 2-channel oscilloscope. Digital hardware debug, microprocessor bus trace, and timing/glitch analysis with simultaneous analog capture on the built-in scope. 100 MHz state / 500 MHz half-channel timing The HP 1663AS is a 1660-series standalone logic analyzer with 34 state/timing channels. OEM 1660-series technical data list 100 MHz state, 500 MHz half-channel timing, 4K/8K memory, and 2 state clocks/qualifiers plusabuilt-in 2-channel oscilloscope. Digital hardware debug, microprocessor bus trace, and timing/glitch analysis with simultaneous analog capture on the built-in scope. 100 MHz state / 500 MHz half-channel timing Graphical trigger macros and inverse assemblers

MODEL **Agilent / Keysight 1663AS**	CALIBRATION **Available on request**
CONDITION **Used**	STATUS **In stock**
RFQ / SKU **1663AS**	LISTING **https://aumictechlabs.com/products/1663as-2/**

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NAICS 423690 · 811210 · 541380

This unit

The Agilent/Keysight 1663AS is a benchtop logic analyzer with integrated 2-channel oscilloscope capabilities, delivering simultaneous state and timing analysis for complex digital system validation. This dual-function instrument captures non-repeating events across 34 logic channels and 2 scope channels, supporting embedded systems, ASIC debugging, and processor-level analysis with time-correlated mixed-domain measurements on a single display.Technical

Specifications Logic Analysis 34 channels total State analysis: 100 MHz (all channels) Timing analysis: 250 MHz (all 34 channels), 500 MHz (half channels in conventional mode) Transitional mode: 125 MHz (all channels), 250 MHz (half channels) Glitch mode: 125 MHz (half channels) Memory depth: 4k samples per channel (all channels), 8k samples per channel (half channels) Minimum detectable glitch width: 3.5 ns Setup/hold time adjustment: 3.5/0 ns to 0/3.5 ns Input impedance: 100 kOhm Input capacitance: 8 pF Oscilloscope 2 channels, DC to 250 MHz bandwidth 1 GSa/s maximum sample rate per channel 8k sample record length per channel Triggering & Pattern Recognition 12-level trigger sequencing at 125 MHz maximum 10 pattern recognizers, 2 range recognizers, 2 counter timers Time Measurement Accuracy Better than 150 ps for time interval measurementsKey Features Mixed time-correlated state, timing, and scope displays Support for 160+ microprocessor and bus interface solutions with inverse assemblers Fully programmable via HP-IB, RS-232, and optional Ethernet LAN Gray-scale CRT or flat-panel display with front-panel keypad and mouse control Flexible data storage: 3.5-inch high-density floppy disk (LIF/DOS), optional 2 GB or 540 MB hard driveTypical Applications Embedded system debugging, ASIC validation, processor interface analysis, and hardware-software integration verification requiring synchronized digital and analog measurement capture.Compatibility & Integration Fully programmable instrument with processor-specific mnemonic support. Interfaces include HP-IB, RS-232, Centronics printer port, and optional Ethernet connectivity for laboratory and remote operation.

1663AS Characteristics / Specifications

PARAMETER	VALUE
Model	1663AS
Instrument Type	Standalone logic analyzer
Series Family	HP 1660 A/C/E series
State And Timing Channels	34
Channel Count Full Half	34/17
State Speed	100 MHz, all channels
State Speed Alternate Listing	50 MHz also listed on the 1660-series characteristics table
Conventional Timing All Channels	250 MHz
Conventional Timing Half Channels	500 MHz
Transitional Timing All Channels	125 MHz
Transitional Timing Half Channels	250 MHz
Glitch Timing	125 MHz half channels
State Clocks Qualifiers	2
Memory Depth Full Channel	4K samples per channel
Memory Depth Half Channel	8K samples per channel
State Sequence Levels	12 sequence levels with two-way branching
State Pattern Terms	10 pattern resource terms, 2 range terms, 2 timers
Timing Sequence Levels	10 sequence levels with two-way branching
Remote Interface	HP-IB and RS-232C standard
Disk	3.5 inch high-density floppy, LIF and DOS
Weight Family	26 lb (11.8 kg) on 1660A-class outline; 28.6 lb (13 kg) on 1660E technical data
Width	17.3 in (440 mm) family outline
Height	8.1 in (205 mm) family outline
Depth	14.5 in (367 mm) family outline
Display	gray-scale CRT

PARAMETER	VALUE
Power	115 Vac or 230 Vac, minus 22 percent to +10 percent, 48-66 Hz, 320 VA max on 1660E technical data
Oscilloscope Channels	2
Oscilloscope Sample Rate Cs	1 GSa/s per channel on 1660CS technical data 5963-2172
Oscilloscope Bandwidth Cs	dc to 250 MHz (dc coupled) on 1660CS technical data
Oscilloscope Sample Rate Es	2 GSa/s per channel on 1660ES technical data
Oscilloscope Bandwidth Es	dc to 500 MHz on 1660ES technical data
Oscilloscope Rise Time Es	700 ps on 1660ES technical data
Oscilloscope Vertical Resolution	8 bits
Oscilloscope Memory Es	32k samples per channel on 1660ES technical data
Bandwidth	Cs: dc to 250 MHz (dc coupled) on 1660CS technical data
Rise Time	Es: 700 ps on 1660ES technical data

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.

technical data list 100 MHz state, 500 MHz half-channel timing, 4K/8K memory, and 2 state clocks/qualifiers plusabuilt-in 2-channel oscilloscope.

Applications
Digital hardware debug, microprocessor bus trace, and timing/glitch analysis with simultaneous analog capture on the built-in scope.

Key Features
34 state/timing channels
100 MHz state / 500 MHz half-channel timing
4K memory (8K half-channel)
Graphical trigger macros and inverse assemblers
HP-IB and RS-232 programmability

Technical Specifications

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Oscilloscope Bandwidth Es	dc to 500 MHz on 1660ES technical data
Oscilloscope Rise Time Es	700 ps on 1660ES technical data
Oscilloscope Vertical Resolution	8 bits
Oscilloscope Memory Es	32k samples per channel on 1660ES technical data

Notes
Channel, timing, state, memory, clock, and (where listed) oscilloscope rows from HP 1660-Series Technical Data 5963-2172, HP 1660CS-series user's guide channel table, and HP 1660E/ES technical data 1660E-series sheet. CS/ES add color display andabuilt-in scope; ES scope is 2 GSa/s / 500 MHz on the 1660E-series sheet while CS technical data lists 1 GSa/s / 250 MHz.

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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