


Aumictech

Test & measurement • bought, sold, repaired, calibrated

Data Sheet

August 15, 2026

AGILENT / KEYSIGHT

Agilent/Keysight 16517

State Clocks: 1 (periodic 20 MHz to 1 GHz, edge selectable) Threshold: TTL, ECL, user definable plus or minus 5 V in 10 mV increments Interfaces Via Mainframe: HP-IB, RS-232-C, Ethernet LAN From Agilent 16517A/18A 4 GSa/s Timing and 1 GSa/s Synchronous State Logic Analyzer service guide and Agilent State and Timing Modules data (5966-3367E). Queue model 16517 maps to this master card. Threshold: TTL, ECL, user definable plus or minus 5 V in 10 mV increments Interfaces Via Mainframe: HP-IB, RS-232-C, Ethernet LAN From Agilent 16517A/18A 4 GSa/s Timing and 1 GSa/s Synchronous State Logic Analyzer service guide and Agilent State and Timing Modules data (5966-3367E). Queue model 16517 maps to this master card.



MODEL

**Agilent / Keysight
16517**

CALIBRATION

**Available on
request**

CONDITION

Used

STATUS

In stock

RFQ / SKU

16517

LISTING

<https://aumictechlabs.com/products/16517-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 • 811210 • 541380

This unit

The Agilent/Keysight 16517A is a high-speed synchronous timing analyzer module for the Agilent 16500 and 16700/16700B series logic analysis systems. It delivers advanced timing and state acquisition across digital systems with dual-mode operation: timing analysis up to 4 GHz sampling rate in half-channel mode, and state analysis with synchronous external clocking to 1 GHz. The module provides 17 channels standard (expandable to 80 with four 16518A expansion cards) and memory depth of 64 Kbytes, doubling in half-channel timing mode. Technical Specifications Timing Analysis: Full-channel mode samples at up to 2 GHz; half-channel mode at up to 4 GHz

State Analysis: Synchronous external clock from 20 MHz to 1 GHz, selectable edge polarity
Trigger Sequencer: Maximum speed 500 MHz; data validity minimum 2.25 ns required for speeds above 500 MHz Setup/Hold Times: 750/750 ps across pods without adjustment; 350/350 ps with manual adjustment. Single-clock, multi-edge adds 0.5 ns; multi-clock, multi-edge adds 1.0 ns
Memory: 64 Kbytes standard; doubles in half-channel timing mode Oversampling: Up to 2 GHz sample rate Trigger Resources: One timer/counter and one occurrence counter per sequence level
Key Features Dual-pod architecture: Pod 1 includes 8 data channels plus 1 external clock channel; Pod 2 provides 8 data channels Scalable channel count via optional 16518A expansion cards Setup/hold analysis optimized for processor speed margin assessment and bus characterization Selectable clock edge (positive or negative) Shielded 6-foot cables with eighteen 50-Ω transmission lines
Typical Applications Digital timing analysis and characterization Processor speed margin validation Bus protocol analysis and troubleshooting Setup/hold margin measurement Multi-clock edge acquisition
Compatibility & Integration Compatible with Agilent 16500 mainframes and the 16501A Expansion Frame. Supports standard general-purpose probing, User-Definable Interface (E2445A optional), and microprocessor/bus-specific interfaces. Accessory ecosystem includes SMD IC clip kits, ground extender kits, SMT kits, and pin-probe kits.

16517 Characteristics / Specifications

PARAMETER	VALUE
Model	16517A
Queue Model Token	16517
Instrument Type	logic analyzer master module
Host Mainframes	16500A/B and 16501A expansion frame
Channels On Master	16 (8 in half-channel timing)
Maximum Channels With Expanders	80 (40 in half-channel) with four 16518A cards
Full Channel Timing Sample Rate	2 GHz
Half Channel Timing Sample Rate	4 GHz
Timing Resolution	250 ps
Synchronous State Clock	1 GHz
Memory Full Channel	64 Kbits per channel
Memory Half Channel	128 Kbits per channel
Setup Hold Window	700 ps adjustable from 350/350 ps in 50 ps increments
Trigger Sequencer Speed Maximum	500 MHz
Trigger Sequence Levels State	4
Trigger Sequence Levels Timing	4
Trigger Patterns	4
Edge And Glitch Resources	2
State Clocks	1 (periodic 20 MHz to 1 GHz, edge selectable)
Threshold	TTL, ECL, user definable plus or minus 5 V in 10 mV increments
Probe Impedance Class	500 ohm at 1 GHz
Clock Inputs On Master	1
Manufacturer	HP Agilent Keysight
Form Factor	16500-series plug-in module
Interfaces Via Mainframe	HP-IB, RS-232-C, Ethernet LAN

16517 Specifications

PARAMETER	VALUE
Applications	High-speed digital debug on 16500 systems: 4 GHz timing, 1 GHz state, and multi-card expansion with 16518A.
Key Features	Master card for up to four 16518A expanders (80 channels)
Technical Specifications	Model: 16517A

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	
Specifications	
PARAMETER	VALUE
Model	16517A
Queue Model Token	16517
Instrument Type	logic analyzer master module
Host Mainframes	16500A/B and 16501A expansion frame
Channels On Master	16 (8 in half-channel timing)
Maximum Channels With Expanders	80 (40 in half-channel) with four 16518A cards
Full Channel Timing Sample Rate	2 GHz
Half Channel Timing Sample Rate	4 GHz
Timing Resolution	250 ps
Synchronous State Clock	1 GHz
Memory Full Channel	64 Kbits per channel
Memory Half Channel	128 Kbits per channel
Setup Hold Window	700 ps adjustable from 350/350 ps in 50 ps increments
Trigger Sequencer Speed Maximum	500 MHz
Trigger Sequence Levels State	4
Trigger Sequence Levels Timing	4
Trigger Patterns	4
Edge And Glitch Resources	2
State Clocks	1 (periodic 20 MHz to 1 GHz, edge selectable)
Threshold	TTL, ECL, user definable plus or minus 5 V in 10 mV increments
Probe Impedance Class	500 ohm at 1 GHz
Clock Inputs On Master	1
Manufacturer	HP Agilent Keysight
Form Factor	16500-series plug-in module
Interfaces Via Mainframe	HP-IB, RS-232-C, Ethernet LAN

Notes

From Agilent 16517A/18A 4 GSa/s Timing and 1 GSa/s Synchronous State Logic Analyzer service guide and Agilent State and Timing Modules data (5966-3367E). Queue model 16517 maps to this master card.

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

788 S 500 E, Pleasant Grove, UT 84062
sales@aumictech.com · +1 (484) 841-9341
<https://aumictechlabs.com>

NIST-traceable calibration · SAM registered ·
30-day returns
NAICS 423690 · 811210 · 541380
Generated August 15, 2026

Technical content from manufacturer specifications. Unit photo/stock from Aumictech listing when available. Specifications subject to OEM documentation and unit condition.