

KEYSIGHT TECHNOLOGIES (AGILENT HP)

16717A

The Keysight Technologies (Agilent HP) 16717A is a high-performance 333 MHz state and 2 GHz timing logic analyzer module designed for debugging high-speed digital systems. Compatible with the 16700-series mainframes, it features Agilent's breakthrough VisiTrigger technology and supports simultaneous state and timing zoom analysis, ensuring accurate signal capture and analysis across up to 68 channels per module.

SPECIFICATIONS

Physical

Power Supply	Powered by mainframe backplane
Operating Temperature	0 °C to +50 °C °C

Acquisition and Channels

Number of Channels	68 channels
Maximum State Clock Speed	333 MHz
Maximum Conventional Timing Sample Rate (Full Channel)	333 MHz
Maximum Conventional Timing Sample Rate (Half Channel)	667 MHz
High-Resolution Timing (Zoom) Sample Rate	2 GHz
Timing Zoom Sample Rate Range	2 GHz (fixed)
Maximum State Data Rate	333 Mb/s
Simultaneous State and Timing Zoom	Yes (across all channels through a single connection)
Multi-Module Expansion	Up to 5 modules connected together
Maximum Cascaded Channels	340 channels (5 modules)

Memory and Record Length

Standard Memory Depth (Full Channel)	2 Msample per channel
Maximum Memory Depth (Half Channel)	4 Msample per channel
High-Resolution Timing (Zoom) Memory Depth	64 Ksample

Triggering and Sequencing

Trigger Sequence Levels	12
Pattern Recognizers	8
Range Recognizers	2
Timer Resources	2
Counter Resources	2

Mainframe Compatibility and Electrical Power

Compatible Mainframes	Keysight/Agilent 16700-series (e.g., 16700A, 16702A, 16700B, 16702B)
Required Slot Width	1 slot

Input Characteristics

Threshold Range	-3.0 V to +5.0 V (in 10 mV increments)
Threshold Accuracy	±(100 mV + 3% of threshold setting)

State Analysis

State Clocks	4 clocks
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Probing

Probe Connector Type	90-pin cable connectors
Compatible Probes	Agilent/Keysight E5378A, E5379A, E5380A, E5381A, E5382A, E5383A

Timing Accuracy

Time Interval Accuracy	±(sample period + channel-to-channel skew + 0.01% of reading)
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Power Requirements

+5 V Current Drain	2.1 A
-5.2 V Current Drain	5.7 A
-2 V Current Drain	1.62 A

TECHNOLOGY

Logic Analysis

APPLICATIONS

Digital hardware debugging, microprocessor system analysis, bus state analysis

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