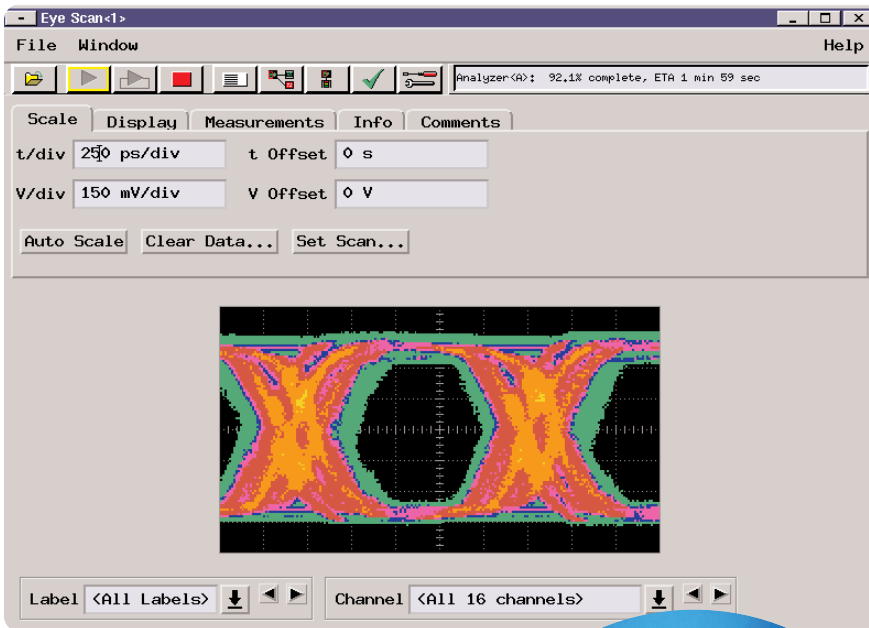


Agilent Technologies 16760A Logic Analyzer Module



Save time while increasing your confidence in the reliability of high-speed bus design.

- New eye scan feature saves you time validating signal integrity by measuring eye diagrams on hundreds of channels simultaneously, without having to move connectors.
- Eye finder feature automatically adjusts setup and hold with 10 ps resolution.
- Low capacitive probe loading minimizes disturbance of your high-speed bus.
- Differential inputs are compatible with LVDS, HSTL, and other high-speed differential signals.
- 64 Msamples acquisition memory (128 M in 1.5 Gb/s mode) helps you solve problems in complex systems.
- Visitrigger enables you to easily customize a trigger for your specific task.
- Transitional timing saves memory by storing only transitions.



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Agilent Technologies

Logic Analysis and Eye Diagram Measurements up to 1.5 Gbits/second

The 16760A logic analysis module provides eye diagram measurements as well as conventional state and timing measurements on differential signals up to 1.5 Gbits/second. Low-capacitance, high-density probes provide minimum loading of your high-speed bus.

Signal Integrity Validation

With eye scan, you can make eye diagram measurements on hundreds of nodes simultaneously. You can now bolster your confidence in the signal integrity of your design without stretching the schedule.

Differential Signals

Many high-speed designs use differential signaling to minimize simultaneous switching noise and to provide immunity to crosstalk and noise. The differential inputs of the Agilent 16760A allow you to acquire differential signals with complete confidence. Single-ended probes are also available.

Small-Amplitude Signals

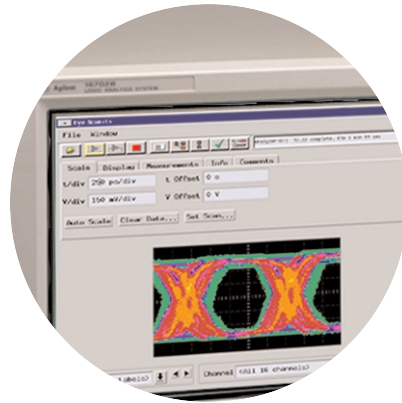
Many high-speed designs use small signal amplitudes to limit slew rates and reduce power. The 16760A can make reliable measurements on differential signals as small as 200 mV p-p.

Probes to complete the connection to your target must be ordered separately.

Three probes are available for the 16760A. Each of these probes requires a mating connector on the target system PC board. Refer to "Probing Solutions for Agilent Technologies Logic Analysis Systems" 5968-4632E, for more details.

Agilent Model Number	Description	Maximum State Clock	Minimum Input Amplitude	Capacitance Including Connector
E5378A	34-channel single-ended probe	1.5 Gbits/s	250 mV p-p	1.5 pF
E5379A	17-channel differential probe	1.5 Gbits/s	200 mV p-p	1.5 pF
E5380A	34-channel Mictor-compatible probe	600 Mbits/s	300 mV p-p	3 pF

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Setup and Hold

As state speeds increase, the data valid window shrinks. To make reliable measurements, a logic analyzer's combined setup and hold window must be smaller than the data valid window of the signals it is acquiring. The Agilent 16760A has a combined setup and hold time of 500 ps after running eye finder, matching the data valid window of very high-speed buses.

Agilent's eye finder technology automatically adjusts the setup and hold on each channel with 10 ps resolution, eliminating the need for manual adjustment and ensuring the highest confidence in accurate state measurements at speeds up to 1.5 Gbits/second.

Probing

The Agilent 16760A uses an innovative probing system with only 1.5 pF of probe tip capacitance, including the connector.

Ground pins located between every pair of signal pins provide excellent channel-to-channel isolation at high speeds.

Applications

- Multi-channel signal integrity validation
- High-speed bus analysis
- Deep trace capture with timing or state analysis
- High-speed computer and communications system debug

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