KEYSIGHT TECHNOLOGIES (AGILENT HP)

16760A

The Keysight Technologies (formerly Agilent) 16760A is a high-performance 34-channel state and timing logic analyzer module designed for the 16700 series logic analysis systems. Engineered for high-speed digital buses, it offers differential input support (compatible with LVDS, HSTL, and SSTL), state analysis data rates up to 1.5 Gb/s, and a massive standard acquisition memory of 64 M samples (scalable to 128 M samples in 1.5 Gb/s mode). A standout feature of the 16760A is its innovative Eye Scan technology, which allows simultaneous eye diagram rendering across all channels without moving probes, complemented by an automatic Eye Finder timing adjustment with 10 ps resolution.

SPECIFICATIONS

General

Interfaces	Agilent/HP 16700 series backplane interface
Display	None (uses mainframe display)

Physical

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

Acquisition and Channels

Number of Channels	34 channels per module
Maximum Data Rate	1.5 Gb/s
Maximum State Clock Speed	800 MHz
Eye Finder Resolution	10 ps

Memory and Record Length

Standard Memory Depth	1 M samples
Maximum Memory Depth (1.5 Gb/s Mode)	128 M samples

Input Signal Characteristics

Input Configurations	Differential and single-ended
Supported Signal Formats	LVDS, HSTL, SSTL, and other high-speed differential/single-ended signals

Features

Eye Scan Feature	Simultaneous eye diagram analysis across hundreds of channels without probe movement

Mainframe Compatibility and Electrical Power

Compatible Mainframes	Agilent/Keysight 16700 series (including 16700A, 16700B, 16702A, 16702B)
Backplane Slot Width Requirements	1 slot (single-slot module)

Electrical Inputs

Minimum Input Voltage Swing (Single-Ended)	200 mV p-p
Minimum Input Voltage Swing (Differential)	100 mV p-p
Input Threshold Range	-3.0 V to +5.0 V
Input Threshold Resolution	10 mV

Performance

Setup and Hold Window	330 ps

Triggering

Number of Trigger Levels	12
Trigger Pattern Terms	8
Trigger Range Terms	2
Trigger Edge Terms	2
Trigger Timer Terms	2

TECHNOLOGY

Logic Analysis

APPLICATIONS

High-speed digital bus analysis, timing and state validation, and eye diagram signal integrity testing