

LOGIC ANALYZERS

Logic Analyzer With Scope

Model 1631A/D

411



- Built-in two-channel digitizing oscilloscope—50 MHz bandwidth and 200 megasample/second digitizing rate
- Up to 43 state channels and 16 timing channels



The new HP 1631A/D is a full-featured logic analyzer with a built-in digitizing oscilloscope, enabling the digital hardware designer to make the cross-domain measurements needed to troubleshoot and characterize systems.

HP 1631A/D Logic Analyzer . . .

The One With The Scope

The HP 1631A/D provides a digitizing oscilloscope and a logic analyzer in one low-cost instrument. It offers analog, timing, state, and system performance analysis capabilities function separately or interactively to serve the needs of digital design and test engineers.

The A and D models differ only in state/timing channel width. The HP 1631A provides up to 35 state channels, eight timing channels, and two analog channels. The HP 1631D provides up to 43 state channels, 16 timing channels, and two analog channels.

The One Tool For Every Phase Of

Digital Design And Test

A 50 MHz digitizing oscilloscope

- 200 megasample/second digitizing rate for capturing single-shot waveforms
- Two simultaneous channels

- Single-shot time intervals to ± 1.5 ns

A complete logic analyzer

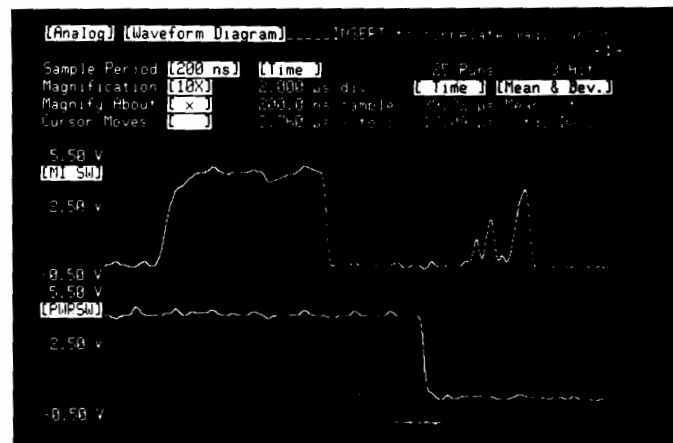
- 100 MHz timing analyzer
- Time-interval accuracy to ± 1.5 ns
- 25 MHz state analyzer

- Performance analysis for a global view of the system

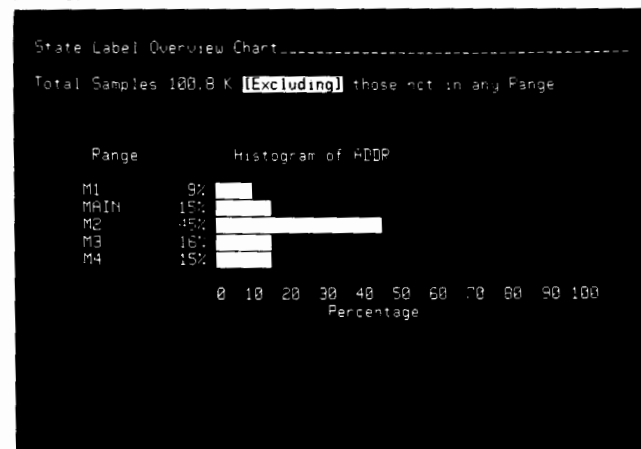
Interactive measurements

- Arming and triggering with timing correlation
- Sophisticated triggering features
- Automatic time-interval measurements

- System performance analysis for global view of system activity
- Interactive measurements
- Automatic time-interval measurements



With a built-in oscilloscope, the HP 1631A/D provides two channels of analog analysis plus automatic time-interval measurements.



The HP 1631A/D's system performance analysis mode helps engineers locate problems in program flow, hardware execution, and system activity.

Analog Waveform Analysis

Analog waveform analysis provides simultaneous display of up to two channels. User-definable labels, wide magnification range, and direct readout of time and voltage between cursors are available.

State Analysis

State listings and waveforms provide displays and windowing of address, data, status, and control line activity. Selectable display modes include binary, octal, decimal, hexadecimal, ASCII, relocation, user-defined mnemonics, and microprocessor-specific mnemonics. You can assign labels, and display and/or trigger on code in terms of relocatable or absolute addresses, or mnemonics.

Timing Analysis

Timing waveform diagrams provide simultaneous display of up to 16 channels, with user-definable labels. Wide magnification range, glitch display, and direct readout of time between cursors are available.

System Performance Analysis

Time interval and event histograms let you view system hardware/software activity or specific modules for performance evaluation. Out-of-spec conditions or bottlenecks in program flow or hardware execution stand out. In addition, the display shows measurement data, including the minimum, maximum, average value, and total measurement time.