

# LOGIC ANALYZERS

## Digitizing Oscilloscope-on-a-Card

Model 16530A, 16531A

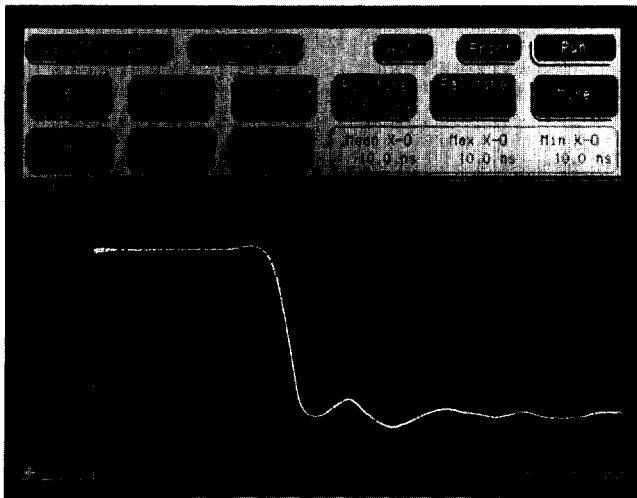
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- 400 Megasamples/s single-shot analysis
- Better than 1 ns time interval accuracy (single-shot)
- Up to 8 simultaneous oscilloscope channels

### HP 16530A/16531A Digitizing Oscilloscope . . . Capture and Time Correlate Single-shot Events

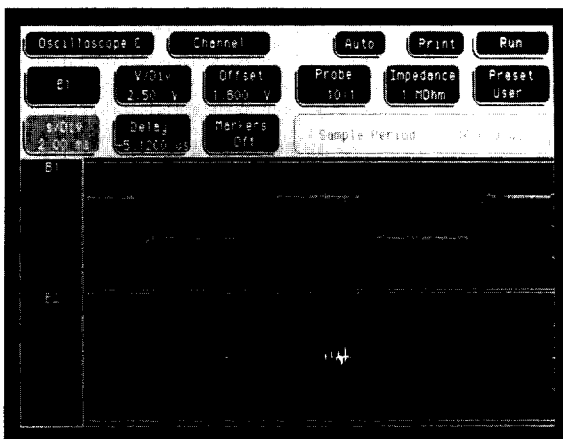
#### Precision Time Interval Measurements

Make time interval measurements with markers at better than 1 ns accuracy single-shot (after deskewing). Accuracy at the probe tip is assured by a calibration routine that reduces channel-to-channel skew.



#### Single-shot Analysis

The HP 16531A 2 channel, 400 megasamples/s digitizing oscilloscope captures 100 MHz bandwidth signals single-shot. Multiple channels can be captured simultaneously so that you can determine relationships between infrequent events. A high-resolution color display and post-capture scroll and zoom allow you to examine waveforms in detail.



#### Capture Many Waveforms Simultaneously

Run up to four HP 16531A oscilloscope cards with a single HP 16530A timebase card for simultaneous acquisition. Your HP 16530A/16531A oscilloscope module can be configured to acquire from two to eight signals simultaneously. Save time when debugging and characterizing systems by observing multiple test points during each test.

- 4 ksamples memory depth/channel for pre-trigger debugging
- Oscilloscope triggered by logic analyzer
- Automatic measurement and setup aids

#### Measure Slow and Fast Events Simultaneously

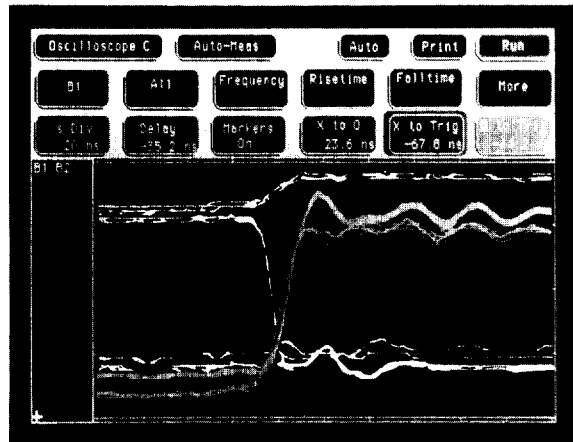
Use the 4K memory depth to measure periods and time intervals; then zoom in for risetime measurements. Add a second oscilloscope module to create a dual timebase digitizing oscilloscope.

#### Find the Causes of Errors

Each channel has 4K memory depth for capturing events before or after the trigger event. View events up to 10 us before the trigger event with greater than 1 ns accuracy.

#### View Analog and Digital Waveshapes . . . and More

Capture random signal variations with Accumulate mode. Filter out noise with Average mode. Show true single-shot events with Single mode. Scan many periods of the waveform easily with Connect-the-dots. View analog-like waveshapes with 6 bit vertical resolution. Analyze differential waveshapes with the A-B mode.



#### Automatic Measurements

Automatic pulse parameters allow fast analysis without having to count gratitudes. Parameters such as frequency, period, pulse width, peak-to-peak voltage, maximum voltage, minimum voltage, risetime, falltime, preshoot, and overshoot are just one keystroke away. Also measure voltage and timing relationships by placing the markers and reading the answer on the display. Display the time between markers, acquire until capturing specified time between markers, perform statistical analysis on the time between markers. Setup is easy with automatic waveform scaling, TTL & ECL presets aid scaling, and automatic marker placement on specified edges.