Keysight Technologies
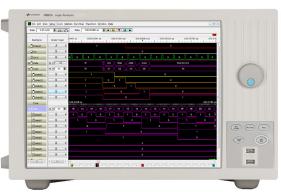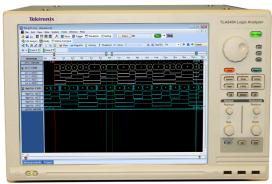
16850 Series Portable Logic Analyzers versus Tektronix TLA 6400 Series

What if you could find a portable logic analyzer that doesn't compromise when it comes to seeing important signals with precision — when and where you need it? The Keysight Technologies, Inc. 16850 Series logic analyzers, engineered with 2.5 GHz timing capture and up to 128 M samples memory across all channels, quickly find elusive problems. Even far from the trigger point, fine resolution capture makes the difference. Combined with industry leading 1.4 GHz trigger sequencer speed for both state and timing measurements and a wide range of single-ended and differential probing options, the 16850 Series gives you the versatility to address a wide range of digital applications.
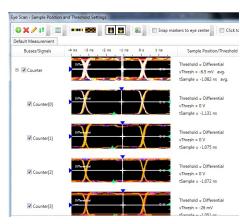

16850 Series

The industry's fastest timing capture with deep memory for fast digital system debug

- 2.5 GHz timing capture with up to 128 M samples
- Up to 1.4 GHz trigger sequencer for state and timing capture
- Wide range of single-ended and differential probe options
- 15 inch touch screen standard
- Simple, user-friendly interface for bus/signal definition, triggering, and looking through deep capture

(Full channel)	Keysight 16850 Series		Tektronix TLA 6400 Series	
Timing speed with deep memory	2.5 GHz with up to 128 M samples	√	1.6 GHz with up to 64 M sample	X
Channels	34, 68, 102 and 136	√	34, 68, 102, and 136	√
Conventional memory depth	2 M up to 128 M samples	√	2 M up to 64 M samples	X
Trigger sequencer speed	Up to 1.4 GHz	√	Up to 800 MHz	X
Probing technology	Single-ended and differential	√	Single-ended only	X
Max. state data rate (base/option)	700 MHz/1.4 GHz	√	666 MHz/1.333 GHz	X
High speed timing	12.5 GHz (256 k samples)	X	25 GHz (128 k samples)	√
Touch screen	Standard	√	Option	√
Bus-level signal integrity insight	Eye Scan (standard) provides eye diagram view of probed signals without using a scope	√	Option (iCapture) — provides MUX routing of probed signals to 4 BNC connectors for RT scope input	√
Setup/hold violation and glitch trigger and flag	Not available	X	Standard	√

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Keysight Eye Scan and Tektronix iCapture

Keysight Eye Scan provides eye diagrams for each probed point for a signal integrity view — (not real time trace capture).

Yellow trace from Tektronix DMAX probing and iCapture output to 4 GHz BW Keysight DSO9404A scope (100 ps input edges). Other traces from coaxial "thru" measurement to scope BNC input. Source: Keysight 8133A pulse generator driving test fixture with common footprint and connection to "thru" signal. Provides a real-time trace capture.

Differential probing capability in Keysight's 16850 Series lowers the cost of test

Keysight:
Differential flying lead, Samtec, Soft Touch and Soft Touch Pro Series

Tektronix:
Single-ended

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