



Soft Touch Connectorless Logic Analyzer Probes

Agilent models Half-size Soft Touch: E5396A, E5398A
 Soft Touch: E5387A, E5390A, E5394A
 Pro Series: E5402A, E5404A, E5405A, E5406A

Maximize Reliability, Minimize Intrusion with Connectorless Logic Analyzer Probes

Accurate, easy logic analyzer measurements start at the probe tips. The Agilent E5300A Series and E5400A Pro Series soft touch probes meet the demand for accuracy and reliability while providing a connectorless attachment to your device. Quick, easy and repeatable signal access is achieved without designing in a connector. From basic state and timing analysis to resolving signal integrity problems in high-speed, low-amplitude signals, these low-intrusive probes help digital design engineers tackle their debug challenges.

Make Reliable Connections

The probe's micro spring-pin technology provides reliable contact to signal pads, even when probing uneven printed circuit boards or contaminated surfaces. Soft touch probes eliminate the need for gold plating or special board processes, stiffeners, handling and cleaning.

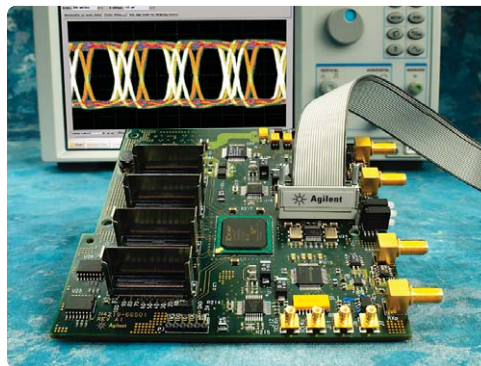


Figure 1. Soft touch connectorless technology is available for Agilent's entire line of logic analyzers.

Features	Benefits
Top mount retention module	Improves reliability and accommodates varying circuit board thicknesses
Pliable micro spring-pin design	Easily attach; get reliable contact even for contaminated or uneven board surfaces
High density signal access in a small footprint	Easily integrate into compact designs with 17-channel or 34-channel models. A low profile (right angle) version is also available.
Easy routing layout	Streamline design flow and eliminate stubs; ensure constant differential mode impedance
< 0.7 pF capacitive loading, > 2.5 Gbits/s rate	Acquire high-speed signals without impacting performance of your circuit
Supports differential or single-ended signals	Obtain differential capability; overcome signal integrity problems at high speeds

Table 1. Breakthrough soft touch connectorless probes features and benefits

Save Circuit Board Space

The Agilent E5400 Pro Series supports the new industry-standard interface for smaller connectorless probing. Their

footprint is 30% smaller than our original soft touch probes. They also do not require any keepout area on the back side of the board, resulting in even greater space saving.

www.agilent.com/find/softtouch

Simplify Signal Routing

The soft touch probe footprint allows flow-through routing of differential pair transmission lines as seen in Figure 2. This maintains constant separation between the two traces in each pair, thus ensuring constant differential-mode impedance. Also, flow-through routing eliminates stubs.

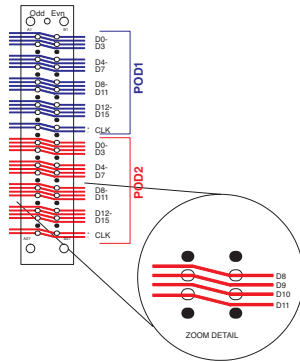


Figure 2. E5394A 34-bit routing

Minimize Signal Disturbance

< 0.7 pF capacitive loading ensures that your high-speed target system continues to maintain its tight timing margins with the soft touch probe attached.

Logic Analyzer Compatibility

Agilent E5402A, E5405A, E5406A, E5387A and E5390A are compatible with logic analyzers with 90-pin cable connectors

- 16950A, 16950B, 16951B
- 16760A

Agilent E5404A, E5394A are compatible with logic analyzers with 40-pin cable connectors

- 16910A/16911A
- 16800 Series
- 1680 Series
- 1690 Series

Agilent Email Updates

www.agilent.com/find/emailupdates
Get the latest information on the products and applications you select.

Agilent Direct

www.agilent.com/find/quick
Quickly choose and use your test equipment solutions with confidence.

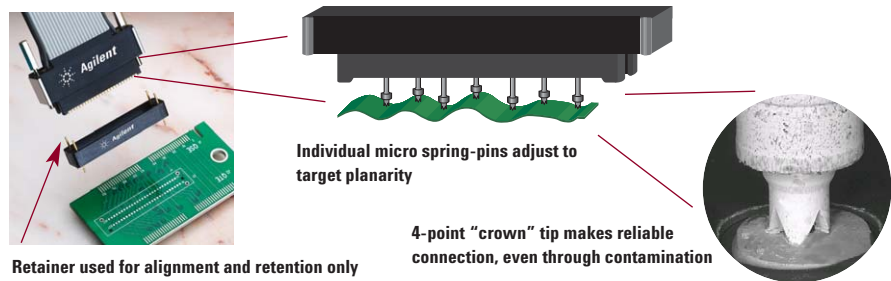


Figure 4. The probe's micro spring-pin technology provides reliable contact to signal pads, even when probing uneven printed circuit boards or contaminated surfaces.

www.agilent.com

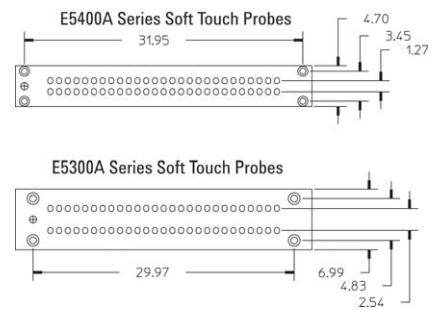


Figure 3. 34-channel soft touch connectorless footprint comparison

Related Literature

Publication Title	Publication Type	Publication Number
<i>Probing Solutions for Logic Analysis Systems</i>	Product Overview	5968-4632E
<i>Agilent Technologies 16900 Series Logic Analysis Systems</i>	Color Brochure	5989-0420EN, ENUS
<i>Agilent 16800 Series Logic Analyzers</i>	Color Brochure	5989-5062EN
<i>Soft Touch Connectorless Probes</i>	User's Guide	E5387-97005
<i>Pro Series Connectorless Probes</i>	User's Guide	E5404-97004

Agilent Open

www.agilent.com/find/open
Agilent Open simplifies the process of connecting and programming test systems to help engineers design, validate and manufacture electronic products. Agilent offers open connectivity for a broad range of system-ready instruments, open industry software, PC-standard I/O and global support, which are combined to more easily integrate test system development.

For more information on Agilent Technologies' products, applications or services, please contact your local Agilent office. The complete list is available at:

www.agilent.com/find/contactus

Product specifications and descriptions in this document subject to change without notice.

© Agilent Technologies, Inc. 2006
Printed in USA, November 1, 2006
5988-8128EN

www.agilent.com/find/softtouch