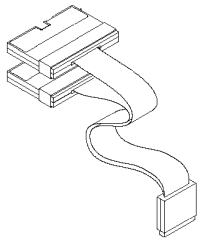
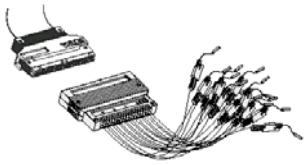
Agilent Logic Analyzer Probe Selection Guide

Accurate measurements start with reliable probing. Agilent provides reliable, electrically and mechanically unobtrusive probes that make it easy to connect your Agilent logic analyzer to your system under test.

Logic Analyzer Compatibility	**Modules: 16910/11A, 16750/51/52 (A/B), 16740 Series, 16715/16/17/18/19A, 16710/11/12A, All 165XX Portables: 16800 Series, 1680 Series, 1670 Series, 1660 Series, 1650 Series PC-hosted logic analyzers: 1690 Series, E9340A Logic Wave (Logic analyzers with 40-pin cable connectors)**				
Probe Type	**Soft Touch Connectorless Probes (Classic and Pro Series)** High-density probe with isolation network located at probe tip		**Samtec Probe** High-density probe for 100-pin Samtec connectors with isolation network located at probe tip	**Mictor Probe** High-density probe for 38-pin Mictor connectors with isolation network located at probe tip	**General Purpose Flying Lead Set** Isolation network located at probe tip
Photo or Graphic					
Probe Model #	**E5396A**	**E5404A (Pro Series) E5394A (Classic)**	**E5385A**	**E5346A**	**E5383A**
Application	Quick connection to many channels in a small footprint without a header designed into the target		Quick connection to many channels in a small footprint		Flexible connection to individual signals
Number of Channels	17 16 data, 1 clock	34 32 data, 2 clock	34 32 data, 2 clock		17 16 Data, 1 Clock
Supported Signal Types	Single-ended clock Single-ended data				
Maximum Data Rate	> 2.5 Gb/s		1.5 Gb/s	Equivalent to the logic analyzer data rate the probe is attached to.	
Minimum Signal Amplitude	500 mV p-p		500 mV p-p	500 mV p-p	600 mV p-p
Connection to Target System	Requires appropriate pro series soft touch or original soft touch footprint designed into target system		Requires 100-pin Samtec connector designed into target system.	Requires 38-pin Mictor connector designed into target system.	Connect to individual signals
Equivalent Load Capacitance	<0.7 pF		1.5 pF	3.0 pF	1.5 pF
Price	$2,200	$2,881 (E5404A) $2,305 (E5394A)	$1,257	$1,039	$681

Last Update: March 1, 2008

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Logic Analyzer Compatibility	**16960A, 16951B, 16950B, 16950A, 16760A, 16753A, 16754A, 16755A and 16756A (Logic analyzers with 90-pin cable connector)**							
Probe Type	**Soft Touch Connectorless Probes (Classic, Pro Series and Low Profile (Rt. Angle))** High-density probe with isolation network located at probe tip			**Samtec Probes** High-density probe for 100-pin Samtec connectors with isolation network located at probe tip		**Mictor Probe** High-density probe for 38-pin Mictor connectors with isolation network located at probe tip	**General purpose Flying Lead Set** Isolation network located at probe tip	
Photo or Graphic								
Probe Model #	**E5398A**	**E5406A (Pro Series) E5402A (Low Profile) E5390A (Classic)**	**E5405A (Pro Series) E5387A**	**E5378A**	**E5379A**	**E5380A**	**E5382A**	**E5381A**
Application	Quick connection to many channels in a small footprint without a header designed into the target			Quick connection to many channels in a small footprint		Quick connection to many channels in a small footprint	Flexible connection to individual signals	
Number of Channels	17 16 data, 1 clock	34 32 data, 2 clock	17 16 data, 1 clock	34 32 data, 2 clock	17 16 data, 1 clock	34 32 data, 2 clock	17 16 data, 1 clock	17 16 data, 1 clock
Supported Signal Types	Differential or Single-ended clock, Single-ended data		Differential or Single-ended clock, Differential or Single-ended data	Differential or Single-ended clock, Single-ended data	Differential or Single-ended clock, Differential or Single-ended data	Single-ended clock Single-ended data	Differential or Single-ended clock, Single-ended data	Differential or Single-ended clock, Differential or Single-ended data
Max Data Rate	> 2.5 Gb/s			1.5 Gb/s		600 Mb/s	1.5 Gb/s	
Min Signal Amplitude	250 mV p-p		$V_{max} - V_{min}$ 200 mV	250 mV p-p	$V_{max} - V_{min}$ 200 mV	300 mV p-p	250 mV p-p	$V_{max} - V_{min}$ 200 mV
Connection to Target System	Requires appropriate pro series soft touch or original soft touch footprint designed into target system			Requires 100-pin Samtec footprint and connector designed into target system		Requires 38-pin Mictor connector designed into target system	Compatible with a wide assortment of accessories to connect to individual leads	
Equivalent Load Capacitance	< 0.7 pF			1.5 pF	1.5 pF	3.0 pF	1.3 pF	0.9 pF
Price	$2,200	$3,039 (E5406A) $3,039 (E5402A) $3,039(E5390A)	$3,039 (E5405A) $2,881 (E5387A)	$1,257	$1,257	$1,039	$2,305	$2,881

NOTE: E5386A Half-channel Transition Adapter provides transition between probes and 16760A logic analyzer cables. Use to reduce number of probes & connectors required to run in half channel mode. Adapter maps even channels to all pins of an E5378A, E5379A, E5387A, E5390A, E5402A, E5405A or E5406A. Supports differential or single-ended clock, differential or single-ended data.

Last Update: March 1, 2008