



## 1 connect



## Introduction

# From basic board turn-on to signal integrity validation

Agilent Technologies' 16700 Series logic analysis systems help design teams overcome time-to-market obstacles and meet tough engineering challenges—from basic circuit board turn-on to validating signal integrity.

With their wide variety of measurement capabilities, the 16700B and 16702B highperformance modular systems enable you to rapidly consolidate data into meaningful insight while giving you the most complete view of your system's behavior. And since accurate acquisition starts with probing, we also offer reliable, unobtrusive probes that make it easy to connect your Agilent logic analyzer to your system under test. As the innovator of logic analysis, Agilent (formerly Hewlett-Packard) continues to provide leading-edge solutions that evolve with your changing needs. The modular form factor of the 16700 Series is the key to their long-term value. You purchase only the capability you need now, then expand as your needs evolve.

Configuring these modular systems is as easy as 1, 2, 3. Select your choice of products that will (1) Connect, (2) Acquire, and (3) View/Analyze the data from your system under test. For example, you can choose the timing/state logic analyzer modules, oscilloscope and pattern generator modules and data post-processing and protocol tools that meet your specific needs.



Figure 2. The Agilent Technologies' 16700 Series logic analysis systems help design teams meet tough engineering challenges—from basic circuit board turn-on to validating signal integrity.



Figure 1. The 16700B and 16702B high-performance modular systems enable you to rapidly consolidate data into meaningful insight.

## **Modular Systems**

1 connect

# The power and flexibility to provide the most complete view of system behavior

3 view & analyze

• Configure a basic or multi-frame system suited to your needs

2 acquire

- Protect your investment with a system that adapts to multiple, current and future projects
- View cross-domain measurements, correlated in time
- Easily master powerful logic analysis capabilities with the 16702B's touch-screen interface

Agilent Technologies' modular logic analysis systems provide the ultimate power and flexibility to match your digital system debug needs. Configure a logic analysis system that provides a complete view of your system's behavior. Select the measurement modules, probing and analysis options suited for your specific application that results in efficient debug and validation.

### Agilent Modular 16700 Series Logic Analysis System Mainframes

Model No.	16702B Modular System	16700B Modular System	16701B Expansion Frame
Interface Control	Touch screen, knobs, and dedicated hot keys (mouse, keyboard also provided)	Mouse, keyboard	N/A
Number of Slots	5	5	5
Measurement capability	Timing and s	state analysis, pattern generation, oscillosco	pe
Display Type(s) and Resolution	Internal: 12.1 inch color touch screen, 800 x 600 External: Supports resolutions up to 1600 x 1200 with option 003.	Requires external display. Supports up to 1280 x 1024 standard, 1600 x 1200 requires option 003.	N/A
Data Viewing Types	Standard: Waveform, listing Module specific Optional software tool sets: s serial analysis, system pe	N/A	
Connectivity	Time-correlate logic analyzer trace to ext Automated de-skew an Offline analysis, e-mail on trigger, indi Remote programmability via Microsoft socket based ASCII co Remote access of the analyzer fro File transfer and storage via ma (Windows@	N/A	
16700B and 16702B Options	Option 001 – Add 17-inch 1280 x 102 Option 003 – 256 MB system RAM, 4 Option 008 – 18 GB external data driv Option 009 – external removable hard Option 012 – multiframe module	4 monitor MB video RAM /e I drive	

## **Logic Analyzer Probing Solutions**

# Flexibility and choice in creating quality connections to your target system

- Easily connect with reliable, electrically and mechanically unobtrusive probing solutions
- Achieve low loading (< 0.7 pF), an easy connection and a small footprint with soft touch connectorless probes
- Gain access to individual, widely dispersed signals with Agilent's

new differential and singleended general-purpose lead sets.

Accurate measurements start with reliable probing. Agilent Technologies offers a wide variety of probing accessories that support general-purpose and application-specific measurement needs. Figure 3. Agilent's soft touch probes combine high-density, low loading and differential capability into a reliable, space-saving package.



## Agilent Logic Analyzer Probing Solutions

Probing Method (Application)	Signal Type	Max. Data Rate	Min. Signal Amplitude	Model Number	Channels	Logic Analyzer Compatibility	Equivalent Load Capacitance
Connectorless Probing Quick connection to many signals in a small footprint without requiring	Differential or single-ended clock, Single-ended data		250 mV p-p	E5390A (Soft touch)	34	90-pin cable connector	< 0.7 pF
	Differential or single-ended clock, Differential or single-ended data	> 2.5 Gb/s	Vmax– Vmin 200 mV	E5387A (Soft touch)	17		< 0.7 pF
a header designed into the target	Single-ended clock, Single-ended data		500 mVp-p	E5394A (Soft touch)	34	40-pin cable connector	
	Differential or single-ended clock, Single-ended data		250 mV p-p	E5378A (100-pin Samtec)	34		
Connector Probing Quick connection to many signals	Differential or single-ended clock, Differential or single-ended data	1.5 Gb/s	Vmax–Vmin 200 mV	E5379A (100-pin Samtec)	17	90-pin cable connector	1.5 pF
in a small footprint,	Single-ended clock, Single-ended data	600 Mb/s	300 mV p-p	E5380A (38-pin Mictor)	34	40-pin cable connector	3 pF
connector is designed into		[1]	500 mV p-p	E5385A (100-pin Samtec)	34		1.5 pF
larger			500 mV p-p	E5346A (38-pin Mictor)	34		3.0 pF
			250 mV p-p	E5339A (38-pin Mictor)	34		
			500 mV p-p	E5351A <sup>[2]</sup> (38-pin Mictor)	34		
General-Purpose	Differential or single-ended clock, Single-ended data	15 Gb/s	250 mV p-p	E5382A	17	90-pin cable connector	1.3 pF
Flying-Lead Set Flexible	Differential or single-ended clock, Differential data	1.0 UU/S	Vmax–Vmin 200 mV	E5381A	17		0.9 pF
individual signals	Single-ended clock, Single-ended data	[1]	600 mV p-p	E5383A	17	40-pin cable connector	1.5 pF

[1] Equivalent to the data rate of the logic analyzer the probe is attached to.

[2] Requires isolation networks installed on the target.

## **Measurement Modules**

2 acquire

# Configure custom measurement solutions for demanding applications

- Choose from a wide variety of measurement modules
- Acquire differential and singleended signals with state analysis up to 1.5 Gb/s, 4-GHz timing zoom and memory depths up to 128 M samples
- Quickly validate signal integrity with hundreds of simultaneous eye diagrams

A wide variety of timing and state analysis modules provide the speed and memory depth to isolate and analyze your debug problems. Create a custom solution or expand your existing analysis system by selecting the timing/state analyzer, pattern generator, or oscilloscope modules that meet your debug and validation needs.



Figure 4. Modularity provides configuration flexibility to meet your measurement needs, now and in the future.

#### Module Ordering Information for Agilent state and timing modules

Model No.	16760A <sup>[4]</sup>	16753A/54A/55A/56A <sup>[4]</sup> cable connector ————————————————————————————————————	16750B/51B/52B ◀─── 40-pin cab	16740A/41A/42A le connector ———
Channels/Module (Max. Channels on Single Time Base and Trigger)	34 (170)	68 (340)	68 (340)	68 (340)
High-Speed Timing Zoom <sup>[3]</sup>	N/A	4 GHz (250 ps) with 64 K depth	2 GHz (500 ps) with 16 K depth	2 GHz (500 ps) with 16 K depth
Max. Timing Sampling Rate (Half/Full Channels)	800 MHz (1.25 ns)	1.2 GHz (833 ps) / 600 MHz (1.67 ns)	800 MHz (1.25 ns) / 400 MHz (2.5 ns)	800 MHz (1.25 ns) / 400 MHz (2.5 ns)
Max. Transitional Timing Rate	400 MHz	600 MHz	400 MHz	400 MHz
Max. State Clock	1.5 Gb/s	600 MHz	400 MHz	200 MHz
Max. Memory Depth (Half/Full Channels) <sup>[1]</sup>	128M/64M[ <b>2</b> ]	16753A: 2M/1M 16754A: 8M/4M 16755A: 32M/16M 16756A: 128M/64M	16750B: 8M/4M 16751B: 32M/16M 16752B: 64M/32M	16740A: 2M/1M 16741A: 8M/4M 16742A: 32M/16M
Supported Signal Types	Single-ended, Differential	Single-ended, Differential	Single-ended	Single-ended
Eye Scan	Yes	Yes	N/A	N/A
Setup/Hold Window (With Eye Finder), Adjustment Resolution	500 ps, 10 ps	1 ns (600 ps typical), 80 ps typical	1.25 ns, 100 ps	1.25 ns, 100 ps Limited Time Offer! See page 15

[1] Increased memory depth in half-channel timing mode only

[2] 128 M in half-channel 1.25 Gb/s and .5 Gb/s modes only

[3] All channels, all the time, simultaneous state and timing through same probe

[4] Probes ordered separately

NOTE: Probes are ordered separately. Please specify probes when ordering to ensure the correct connection between your logic analyzer and the device under test.

## **Scopes, Pattern Generator**

## Agilent Pattern generator module for 16700 Series

16720A	Half channels	Full channels		
Maximum clock speed	300 MHz	180 MHz		
Memory depth	16 M vectors	8 M vectors		
Channels per module	24	48		
Maximum number of channels per time base	120	240		
Stimulus commands	Initialize, block, repeat, and break macros			
Logic levels supported	5 V TTL, 3 state TTL, 3 state CMOS, 3 state 3.3V, ECL, 5 V PECL, 3.3 V LVPECL, 3 state 2.5 V, 3 state 1.8 V, LVDS			
Ordering information	Order at least one clock pod for each module used as a master and at least one data pod for every 8 output channels			

#### Pod options for 16720A

Option 011 TTL clock pod & lead set Option 013 3 state TTL/CMOS data pod & lead set Option 014 TTL data pod & lead set Option 015 2.5 V clock pod & lead set Option 016 2.5 V 3 state data pod & lead set Option 017 3.3 V clock pod & lead set Option 018 3.3 V 3 state data pod & lead set Option 021 ECL clock pod & lead set Option 022 ECL (terminated) data pod & lead set Option 023 ECL (unterminated) data pod & lead set Option 031 5 V PECL clock pod & lead set Option 032 5 V PECL data pod & lead set Option 033 3.3 V LVPECL clock pod & lead set Option 034 3.3 V LVPECL data pod & lead set Option 041 1.8 V clock pod & lead set Option 042 1.8 V 3 state data pod & lead set Option 051 LVDS clock pod & lead set Option 052 LVDS data pod & lead set

### Agilent oscilloscopes for 16700 Series

Model No.	16534A Oscilloscope Module	Infiniium 54800 Series with E5850A Time Correlation Fixture
Oscilloscope Type	Internal Module	External
Maximum Bandwidth	500 MHz	6 GHz
Maximum Sampling Rate	2 GSa/s	20 GSa/s
Maximum Memory Depth	32 K	32 M
Channels Per Oscilloscope	2	2 and 4
Maximum Number of Channels on a Single Time Base and Trigger	8	4



Figure 5. Unleash the synergistic power of a high-performance logic analysis system and oscilloscope with the E5850A time correlation fixture.





Label (All Labels) 🛓 🔺 🕨 Channel (All 16 channels) 



**Figure 7. Validate** correct hardware operation by viewing timing relationships between multiple buses and signals. Individually color and size the signals/buses to highlight and differentiate areas of interest.

Figure 8. Identify problem signals quickly by using eye scan to make eye diagram measurements on up to hundreds of signals simultaneously.

PC	MPC821/8	50 Inverse Assembler	ADDR
Symbols	10=hex,	10.=decimal, %10=binary	Hex
proc_specific+03F4	addi	r1 r1 0020	FFF044C0
proc_specific+03F8	blr		FFF044C4
q.e:ecs2:main+0048		q.elf:ecs2:main+0018	FFF031AC
q.e:ecs2:main+0018	lis	r12 0000	FFF0317C
q.e:ecs2:main+001C	lwz	r3 41B0(r12)	FFF03180
n/g.elf:num_checks_		read 00xxxxxx	000041B0
q.:num_checks+0001			000041B1
q.:num_checks+0002			000041B2
q.:num_checks+0003			000041B3
q.e:ecs2:main+0020	bl	update:update_system	FFF03184
upda:update_system	mfspr	r0 lr	FFF034D8
update_system+0004		r11 r1	FFF034DC
update_system+0008	stwu	r1 FFE8(r1)	FFF034E0
update_system+000C	bl	ion/q.elf:.text+4AOC	FFF034E4
n/q.elf:.text+4A0C	stw	r29 FFF4(r11)	FFF06AAC
n/q.elf:.text+4A10	stw	r30 FFF8(r11)	FFF0
n/q.elf:.text+4A14	stw	r31 FFFC(r11)	FFF0 Fi
n/q.elf:.text+4A18	stw	r0 0004(r11)	FFF0
n/g.elf:.text+4A1C	blr		FFF0

- MPC860 Trace

Figure 9. View data patterns and sequences of events from the listing display which presents data in the same order it was captured and placed into memory. The captured binary data can be inverse assembled into processor mnemonics or displayed in multiple formats-binary, hex, decimal, octal, twos complement, ASCII or symbols.

Source Files for MPC860 Trace	T
File Window Options Trace He.	lβ
Step Source   Goto In Listing   Browse Source   Text Search	k
To Captured Source Line	
Previous Next	
Displayed File: /hplogic/demo/Demo_Center/source/860_demo_board/	ec
<pre>145 proc_spec_init();</pre>	F
146	1
147 for (;;)	1
148 (	1
149 update_system(num_checks):	1
150 num_checks++;	1
151 update_display(num_checks);	1
152 proc_specific();	1
153 )	1
154 )	J.
155	1
	1
157 * FUNCTION: update_display	1
150 * FHRMS: Counter Toop counter passed in from main	1
159 * DESCRIPTION:	1
161 * of operating data (accided data)	
162 * of operating data (ascii_oid_data),	1
	1
100	K
	í.

Figure 10. Correlate your logic analyzer trace to the high-level source code that produced it. Easily set up your next logic analyzer trigger by simply pointing and clicking on a line of source code.





12.1-inch (307.34 mm) LCD display with 16702B touch screen makes it easy to view a large number of waveforms or states.

Select a modifiable variable by touching it, then turn the knob to quickly step through values for the variable.

Dedicated hot keys give instant access to the most frequently used menus, displays, and online help.

Dedicated knobs for horizontal and vertical scaling and scrolling. Adjust the display to get just the information you need to solve your problem.

"Touch Off" button disables the touch screen and allows you to point out anomalies to a colleague without altering the display settings.

Dedicated knobs for global markers help track down tough problems. A symptom can be seen in one domain (e.g., timing) tied to its cause in another domain (e.g., analog).

## **Post-processing Tool Sets**

# Quickly extract valuable information from your trace data

- Rapidly consolidate large amounts of data into displays that provide insight into your system's behavior
- Correlate a logic analyzer trace with the high-level source code that produced it
- Profile your target system's performance to identify system bottlenecks and isolate areas needing optimization

Logic analyzers with deep memory can generate large amounts of acquired data. Analysis of all this data is a challenge without applicationspecific analysis tools. Agilent Technologies post-processing tool sets provide powerful dataanalysis capabilities that will help you gain insight from your acquired logic-analysis data more quickly and efficiently. These tools expand the power of your Agilent 16700 Series logic analysis system by moving beyond the traditional analysis of timing waveforms and state listings.



Figure 11. Profile your target system's performance to identify system bottlenecks and areas needing optimization.

	System Performance Analysis	Serial Analysis	Tool Development Kit	Source Correlation		
Model No.	B4600B	B4601B	B4605B	B4620B		
Application	Optimizing your target system's performance	Solving your serial communication problems	Customizing the display of your acquired data for greater insight	Correlates the logic analyzer trace with the high-level source code that produced it		
Capabilities	Generates statistical bar chart and histograms of captured data Shows the amount of time spent in each of the targeted functions or data locations	Converts serial bit streams to parallel format for easy viewing and analysis Supports serial data and protocols that use bit stuffing to maintain clock synchronization	Creates custom tools to analyze your data using C programming language	Provides ability to define the capture event by simply clicking on a line of source code		

#### Agilent post-processing tool sets

## Protocol Tools

# Faster triggering and viewing of protocol data in a standardized form

3 view & analyze

- Display logic-analyzer trace information at the protocol level
- Easily trigger on standard or custom packet header fields with powerful trigger macros
- Customize the protocol analysis to your specific proprietary protocol using a protocol description language

Agilent Technologies protocol tool sets for the 16700 Series provide customized triggering capabilities and packet decode. This enables rapid analysis and debug of industry-standard and proprietary protocols. You'll gain quick insight into the difficult problems caused by the use of serialized and narrow source synchronous buses in high-speed chip-to-chip and backplane interconnects.

# Agilent protocol analysis tool sets for interconnect standards



	PCI Express V1.0, updated as spec evolves	Serial ATA and ATAPI, OOB signaling (real time) up to 1.5 GHz	<b>RapidlO</b> (8 and 16 bit parallel)	POS PHY L4 (SPI-4.2) (PPP, ATM, Ethernet, etc.)	<b>Gigabit</b> Ethernet TBI	Utopia L1-3 (ATM), POS-PHY L1-3 (PPP), MII/GMII (Ethernet), FlexBus	InfiniBand 1x, 4x, 12x	InfiniBand 1x, 4x, 12x	MPEG-2
Model No.	N4220A	N4219A	N4215A	N4214A	N4212A	B4640B	N4233A	N4206A	B4645B
Packet Trigger	Yes	Yes	Yes	No	No	Yes	Yes	No	Yes
Additional Capabilities	Real time 8b/10b, disparity error, data descrambling	CRC/Disparity checking, data descrambling, 10b capture mode	CRC/ Control word checking, real-time idle filter	Real-time idle filter	Packet CRC check, 8b/10b disparity check		VCRC/ICRC, 8b/ 10b, disparity error, compliance testing.	VCRC, ICRC, 8b/ 10b, disparity error, compliance testing.	Packet length check, packet CRC check

## **Processor, Bus, and FPGA Support**

# Save time analyzing your unique design with a turnkey logic analyzer setup

- Save time making bus- and processor-specific measurements with applicationspecific analysis probes that quickly and reliably connect to your device under test
- Support available for comprehensive list of industrystandard processors and buses
- Display processor mnemonics or bus cycle decode

Agilent Technologies and our partners provide an extensive range of quality tools that offer non-intrusive, full-speed, realtime analysis and processor execution control to accelerate your debugging process.

File Window Edit Ontion

Goto Time 4 0 s

Data K/D Tim

Trigger Beginning End 61 62

Goto Markers Search Comments Analysis Mixed Signal

4 Goto

#### Agilent and Third-Party Processor Support

- Actel
- Altera
- AMD
- Analog Devices
- ARM®7/9TDMI
- GTE
- IBM PPC
- IDT
- Intel® Pentium®, P4, Xeon Pentium Pro, II, III, & Celeron<sup>™</sup>
- Motorola
- National
- NEC
- NKK
- PACE
- QED
- Rockwell
- Siemens
- Texas Instruments

Data0 Data1 Data

- Xilinx
- Zilog

#### Agilent and Third-Party Bus, Protocol or FPGA Support

- AGP2X, AGP4X, AGP8X
- CAN
- CSIX
- PC 100, PC 133, DDR, DDR 200,
- DDR 266, DDR 333, DDR I-400, DDR II,
- Fibre Channel
- FireWire (IEEE 1394)
- Gigabit Ethernet (TBI)
- GMII
- HyperTransport
- I<sup>2</sup>C
- InfiniBand 1X, 4X, 12X
- ISA • JTAG (IEEE 1149.1, 1149.5)
- MPEG-2
- PC 100/ 133 DIMM
- PCI CardBus
- PCI-EIO
- PCI Express
- PCI Mezzanine
- PCI/EXT-32/64
- PCI-X 1.0, 2.0
- POS-PHY L1 L3
- Rambus®
- RapidIO
- RS-232, RS-449
- SCSI, Ultra SCSI, SCSI LVD
- Serial ATA
- SIMM, DIMM
- SPI-4.2
- USB 1.1, USB 2.0
- Utopia
- VME 64 • VXI
- VXI
- Xilinx: Virtex, Virtex E, Virtex II,
  - Virtex II Pro, Spartan–II, Spartan–II E

Figure 13. Focus on PCI Express packets instead of format details.





Figure 14. Correlate your logic analyzer trace to the high-level source code that produced it. Easily set up your next logic analyzer trace by simply pointing and clicking on a line of source code.

## **Trace Port Analyzers and Emulation**

Figure 15. The Agilent E5904B trace port analyzer.

# Add processor execution (run) control and real-time trace capture to best-in-class debuggers

3 view & analyze

- Control your processor with break, run, reset and single step capabilities
- Download code and modify register/memory values
- Trace analysis up to 200 MHz, integrated with industry-standard debuggers
- Xilinx ChipScope Pro with deep external trace and advanced triggering tools

Agilent Technologies emulation probes utilize a processor's debug port to provide a convenient way to download code, modify memory and registers, and control program execution. Trace port analyzers provide real-time trace information, in addition to the standard emulation functionality. When integrated with a 16700 Series logic analysis

system, both the emulation probes and trace port analyzers can support coordinated system analysis of hardware/software interaction for a wide range of industry-standard embedded processors.

#### **Agilent Trace Port Analyzers and Emulation Probes**

<b>Emulation Probes</b> Link to the processor's debug port for a convenient way to download code, modify memory and registers, and control program execution.	Model Number
ARM® ARM7TDMI, ARM7DI, ARM710T, ARM720T, ARM740T, ARM9TDMI, ARM920T, ARM922T, ARM925T, ARM940T, ARM946ES, ARM966ES	E5900B #300
IBM PPC4XX 401 (all), 403 (all), 405 (all), NPe405H, NPe405L, 440A4, 440GP, 440GX	E5900B #060
IBM PPC6XX 603, 603e - rev 3, 4, 5, 603ev – rev 2, 12, 603e2, 603P, 603ec, 603R	E5900B #060
<b>IBM PPC7XX</b> 740, 740L, 740P, 750, 750L, 750P, 750CX, 750CXe, 750FX	E5900B #070
MIPS MIPS32-4Kc, MIPS32-4Km, MIPS32-4Kp, MIPS64-5Kc	E5900B #200
<b>Motorola MPC6XX</b> 603, 603e - rev 3, 4, 5, 603ei, 603ev – rev 2, 12, 603e2, 603P, 603ec, 603R	E5900B #060
Motorola MPC7XX 740, 740L, 740P, 745, 750, 750L, 750P, 750M, 755	E5900B #070
Motorola MPC74XX 7400, 7410, 7440, 7441, 7445, 7450, 7451, 7455	E5900B #110
Motorola MPC8XX 801, 821, 823, 850, 852, 855, 857, 859, 860, 862, 866 families	E5900B #080
Motorola MPC82XX 8240, 8241, 8245, 8250, 8250A, 8255, 8255A, 8260, 8260A, 8264A, 8265A, 8266A	E5900B #100
Motorola M-Core M2107	E5900B #090
<b>Trace Port Analyzers</b> Provides emulation and real-time trace execution information, can be integrated with the 16700 Series for coordinated system analysis.	Model Number
ARM ARM7/9-ETM	E5904B #300
IBM PPC4XX 401 (all), 403 (all), 405 (all), NPe405H, NPe405L, 440A4, 440GP, 440GX	E5904B #060
Xilinx Virtex II, Virtex II Pro, Spartan-II, Spartan-IIE, Spartan-III, Virtex, and Virtex-E	E5904B #500

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3 view & analyze

# Agilent 16700 Series In Summary

Validation of digital systems continues to be a vital piece of product development. Technologies are increasing in speed and complexity, while R & D budgets, resources and market windows are shrinking. These issues make meeting your time-to-market goals more difficult.

Overcome your time-to-market obstacles with the Agilent 16700 Series logic analysis systems.

#### **Related Agilent Literature**

16700 Series Logic Analysis System, product overview, 5968-9661E

*Probing Solutions for Logic Analysis Systems,* product overview, 5968-4632E

*Processor and Bus Support for Agilent Technologies Logic Analyzers,* configuration guide, 5966-4365E

Agilent E5850A Logic Analyzer/Oscilloscope Time Correlation Fixture, photo card, 5988-1684EN

Infiniium 54850 Series Oscilloscopes, Infiniimax 1130 Series Probes, data sheet, 5988-7976EN

Infiniium 54800 Series Oscilloscopes, color brochure, 5988-3788EN

Deep Storage with Xilinx ChipScope Pro and Agilent Technologies FPGA Trace Port Analyzer, product overview, 5988-7352EN

PCI Express Tools, color brochure, 5988-7780EN

Signal Integrity Solutions, color brochure, 5988-5405EN

Test Tools for InfiniBand, color brochure, 5988-2424EN



Figure 16. The Agilent 16700 Series logic analysis systems help you meet your time-to-market demands.

## **Limited Time Offer**

2 acquire

# Get up to 60% discount on new 16740A Series logic analyzer modules

3 view & analyze

If you think that a highperformance, modular logic analysis system is out of your budget's reach, take another look: From now until December 31, 2003, when you buy a new 16700B or 16702B mainframe, you get up to 60% off popular 16740 Series logic analyzer modules. That means you get a high-performance logic analysis system for the price of a standalone/benchtop analyzer. The 16740 Series modules are compatible with the new Agilent E5394A soft touch, connectorless probe. (See pages 4 and 5).

# For details, visit www.agilent.com/find/logic-offer

Customers buying a logic analyzer are often also using oscilloscopes. If you also need an oscilloscope, Agilent is also offering a limited time discount to move up to an Agilent Infiniium 54830D Series MSO (mixed-signal oscilloscope).

# For details, visit www.agilent.com/find/scope-offer

#### Selected logic analyzer modules and related discounts

	16740A	16741A	16742A
<b>Discount</b> (1 module/2 modules)	60%/42%	46%/32%	33%/23%
Timing Zoom	2 GHz	2 GHz	2 GHz
Maximum state clock rate	200 MHz	200 MHz	200 MHz
Maximum timing sampling rate (half/full channels)	800/400 MHz	800/400 MHz	800/400 MHz
<b>Memory depth</b> (half/full channels)	2 M/1 M	8 M/4 M	32 M/16 M
Channels per module	68	68	68

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## **Agilent Technologies' Test and Measurement Support, Services,** and Assistance

Agilent Technologies aims to maximize the value you receive, while minimizing your risk and problems. We strive to ensure that you get the test and measurement capabilities you paid for and obtain the support you need. Our extensive support resources and services can help you choose the right Agilent products for your applications and apply them successfully. Every instrument and system we sell has a global warranty. Support is available for at least five years beyond the production life of the product. Two concepts underlie Agilent's overall support policy: "Our Promise" and "Your Advantage."

### **Our Promise**

Our Promise means your Agilent test and measurement equipment will meet its advertised performance and functionality. When you are choosing new equipment, we will help you with product information, including realistic performance specifications and practical recommendations from experienced test engineers. When you use Agilent equipment, we can verify that it works properly, help with product operation, and provide basic measurement assistance for the use of specified capabilities, at no extra cost upon request. Many self-help tools are available.

# Agilent Email Updates

#### www.agilent.com/find/emailupdates

Get the latest information on the products and applications you select.

### Your Advantage

Your Advantage means that Agilent offers a wide range of additional expert test and measurement services, which you can purchase according to your unique technical and business needs. Solve problems efficiently and gain a competitive edge by contracting with us for calibration, extra-cost upgrades, out-of-warranty repairs, and onsite education and training, as well as design, system integration, project management, and other professional engineering services. Experienced Agilent engineers and technicians worldwide can help you maximize your productivity, optimize the return on investment of your Agilent instruments and systems, and obtain dependable measurement accuracy for the life of those products.

### Agilent T&M Software and Connectivity

Agilent's Test and Measurement software and connectivity products, solutions and developer network allows you to take time out of connecting your instruments to your computer with tools based on PC standards, so you can focus on your tasks, not on your connections. Visit www.agilent.com/find/connectivity for more information.

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