Agilent Technologies Oscilloscopes

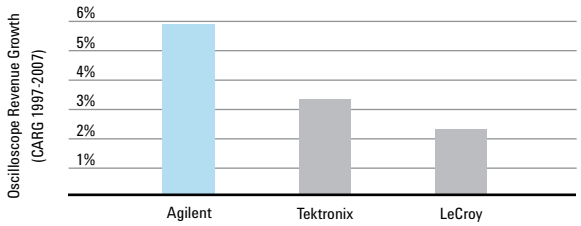
www.agilent.com/find/scopefamily

Agilent Technologies

Agilent Technologies: *We engineer our scopes for you*

When you tell us about the test and debug challenges you face, we listen.

We need your input to design scopes that help you master your challenges. We don't build "me-too" products and we don't develop technical solutions in search of a problem to solve. Instead we bring you products with imaginative capabilities that meet your toughest demands.



*Prime Data: Sept. 2008 T&M report

With our comprehensive portfolio, you'll find a scope that fits your needs perfectly.

Whether your main consideration is price point or performance level, we offer a variety of models that will work for you. Our platforms range from USB-modular units to high-performance real-time and sampling scopes, with bandwidths from 20 MHz to more than 90 GHz. When your requirements change, so can your scope, thanks to extensive hardware and software upgrades.

Each of our scopes incorporates the innovative technology you expect from Agilent.

As the world's largest test and measurement company, Agilent commands a breadth of engineering knowledge that enables us to deliver unique technology. Our custom MegaZoom III ASIC powers InfiniiVision's unmatched waveform update rate. The Infiniium multi-chip module supports the industry's lowest noise floor at every bandwidth. And the InfiniiMax probing system provides the flattest frequency response on the market.

Our scopes give you the answers you need, not just measurements.

Technology alone isn't enough – you want fast, accurate answers to your questions. That's why we offer the largest range of application-specific software available anywhere, plus an outstanding selection of probes and accessories. With flexible solutions like these, you can easily customize your instrument as your design environment changes.

It's no surprise that Agilent is the fastest-growing vendor in the scope market.*

In the past three years, we've completely refreshed our scope lineup, with new entries from InfiniiVision portables to Infiniium powerhouses. We've received numerous industry awards for our breakthroughs. But more importantly, our scopes contribute to your success – and ultimately help you build the products that improve our world.

Here are just a few awards earned by Agilent scopes:

Elektra 08 WINNER
Infiniium 90000 Series

EDN INNOVATION WINNER 2008
Infiniium 90000 Series

Best of Test 09
InfiniiVision 7000 Series

DesignVision Award WINNER
Infiniium 80000 Series and InfiniiMax probing system

ACE 2006 FINALIST AWARDS
InfiniiVision 6000 Series

2008 design News Golden Mousetrap Finalist
Infiniium 90000 Series

Best of Test 08
InfiniiVision 5000 Series

Electronic Products Magazine Editor's Choice Award
InfiniiVision 6000L Series

Infiniium multi-chip module isolates EMI.
To enable our scopes to operate at high frequencies with minimal electromagnetic interference (EMI), we relied on our expertise in radio frequency (RF) technology. Instead of implementing each component of a digital circuit in a separate circuit block, we created a multi-chip module that uses a Faraday cage to isolate EMI. The result? High-bandwidth scopes with the lowest noise floor in the industry.

InfiniiVision ASIC chip enables Mega*Zoom*.
InfiniiVision scopes incorporate acquisition memory, waveform processing, and display memory in an advanced .13m ASIC. This patented 3rd generation technology, known as MegaZoom III, delivers up to 100,000 waveforms (acquisitions) per second with responsive deep memory always available.

U1600A Handheld &
U2700 USB Modular Oscilloscopes

1000 Series Oscilloscopes

5000 Series Oscilloscopes

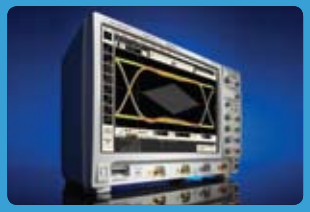
6000 Series Oscilloscopes

6000L Series Oscilloscopes

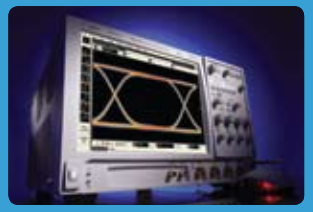
Model comparison chart

	U1600	U2700	1000	5000	6000	7000	9000	90000A	86100C
Channels	*2*	*2*	*2, 4*	*2, 4*	*2, 2+16, 4, 4+16*	*2, 2+16, 4, 4+16*	*4 , 4+16*	*4*	*4*
Bandwidth	*20 MHz to 40 MHz*	*100 MHz to 200 MHz*	*60 MHz to 200 MHz*	*100 MHz to 500 MHz*	*100 MHz to 1 GHz*	*100 MHz to 1 GHz*	*1 GHz to 4 GHz*	*2.5 GHz to 13 GHz*	*Module dependent to 65 GHz optical, 90 GHz electrical*
Sample rate	*100 MSa/s*	*1 GSa/s*	*2 GSa/s*	*4 GSa/s*	*4 GSa/s*	*4 GSa/s*	*10 GSa/s*	*20 or 40 GSa/s on all 4 channels*	*40 kSa/s*
Memory depth	*10,000 pts.*	*32 MB, std*	*20 kpts, std.*	*1 Mpts, std. Up to 8 Mpts, opt.*	*8 Mpts, std.*	*8 Mpts, std.*	*10 Mpts, std.*	*10 Mpts, std. Up to 1 Gpts, opt.*	*Configurable*
Connectivity & storage	*USB device: std. USB host: opt.*	*USB device: std.*	*USB device: std.*	*USB (device and host), GPIB, LAN, XGA-out: std.*	*USB (device and host), GPIB, LAN, XGA-out: std.*	*USB (device and host), LAN, XGA-out: std.*	*USB 2.0, LAN, I/O ports, RS-232, parallel, PS/2, dual-monitor video, auxiliary output*	*USB 2.0 host and device, Gigabit Ethernet: std., GPIB: opt.*	*USB, GPIB, LAN, RS-232, VGA-out, Centronics: std.*
Waveform math & analysis	*Waveform math and FFT. Complimentary PC link software, USB cable can be used to quickly transfer data to a PC for further post-processing and analysis.*	*Waveform math and FFT. Data can easily be transferred to an external PC for further post-processing and analysis.*	*Waveform math and FFT. Data can easily be transferred to an external PC for further post-processing and analysis.*	*Waveform math and FFT. Data can easily be transferred to an external PC for further post-processing and analysis.*	*Waveform math and FFT. Data can easily be transferred to an external PC for further post-processing and analysis.*	*Waveform math and FFT. Data can easily be transferred to an external PC for further post-processing and analysis.*	*Waveform math, FFT, jitter clock, QuickMeas, statistics, eye pattern.*	*Waveform math, FFT, jitter, eye pattern, protocol decode, standard bus compliance, user-definable function via MATLAB (opt), Windows XP based-system.*	*TDR, S-Parameters, eye diagram analyzer, advanced jitter and amplitude analysis, phase noise analysis application, MATLAB: opt.*
Market	*Hand-held scope for installation and maintenance in the industrial automation, automotive and A/D industries.*	*Portable scope ideal for electronics troubleshooting and functional test as well as educational teaching and research labs. Also suitable for road warriors.*	*Portable economy scope ideal for low-speed design and debug as well as educational teaching and research labs.*	*General-purpose portable scope ideal for embedded designs. Perfect for signal viewing and ideal for capturing intermittent glitches and signal transients.*	*High-performance portable scope ideal for mixed-signal and embedded designs; also strong in automotive applications. Ideal for signal viewing and for capturing intermittent glitches and signal transients.*	*High-performance portable scope ideal for mixed-signal and embedded designs. Large high-resolution display makes it the best scope for signal viewing and capturing intermittent glitches and signal transients. Comprehensive software suite provides insight into application-specific problems.*	*General-purpose lab oscilloscope designed for engineers working on low-speed serial designs or doing oscilloscope-centric testing with logic and protocol analysis.*	*High-performance real-time oscilloscope provides superior signal integrity. Addressing the needs for high-speed digital and RF applications. More than 29 applications for compliance, debugging, and analysis.*	*High-performance, high bandwidth multi-function sampling scope for serial bus applications, optical, TDR/TDT and any signal requiring advanced jitter analysis.*

7000 Series Oscilloscopes



9000 Series Oscilloscopes



90000A Series Oscilloscopes

86100C DCA-J Series Oscilloscopes

Probes and Applications

CONTENTS

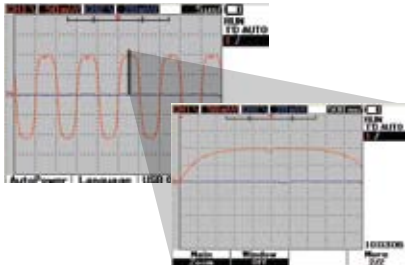
U1600 Series Oscilloscopes

20 MHz to 40 MHz handheld scopes

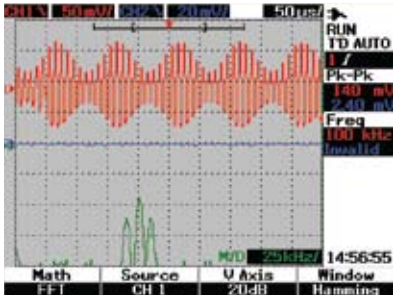
Engineered for performance in rugged and portable applications

- See more clearly and differentiate simultaneous signals from both channels more easily with 4.5" LCD color display
- Up to 4 hours battery life and robust package – makes an ideal companion for I&M personnel and those on the go
- Application software and communication cable included at no extra cost
- Up to 100 MSa/s per channel real time sampling rate and 10,000 pts. recording length ensure you get high performance, even on a handheld!
- Three-in-one solution: Dual-channel scope, true RMS DMM and real time data logger
- USB host option (001) for quick and convenient saving of data into a USB flash drive

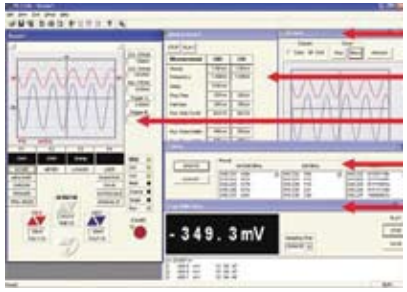
Handheld high performance. In-plant or off-site, take advantage of a fully featured scope with 22 automatic measurement functions, advanced triggering, high sampling rate and deep memory.



High-precision zoom-in capability. Deep memory and a high sampling rate let you capture long time spans and non-repeating signals, then zoom in to the segment of interest to scrutinize subtle details.



Advanced waveform analysis. Use dual waveform math (DWM) for signal addition and subtraction, and fast Fourier transform (FFT) functions to view the waveform in a frequency domain using four windowing techniques (U1604A only).



Easy connections. PC Link software handles your data collection, storage and documentation needs – or lets you control the unit remotely – using a USB 2.0 full-speed connection.

Models and specifications

	U1602A	U1604A
Bandwidth	*DC to 20 MHz*	*DC to 40 MHz*
Sample rate	*100 MSa/s each channel, max.*	
Channels	*2*	
Display	*4.5″ color CSTN LCD (320x240)*	
Memory	*10,000 pts.*	
Vertical resolution	*8 bits*	
Vertical sensitivity	*5 mV/div to 100 V/div*	
Maximum input	*CAT III 300 Vrms (up to 400 Hz) from terminal to ground*	
Input impedance	*1 MΩ II < 20 pF*	
Timebase range	*50 ns to 50 s/div*	*10 ns to 50 s/div*
Triggering	*Edge, pattern, pulse width, video*	
Dimensions	*24.1 cm high x 13.8 cm wide x 6.6 cm deep*	
Weight	*1.5 kg*	

Scope additions and enhancements

Probes – Improve your measurement reliability with our comprehensive selection of probes:

- All models come with the U1560A 1:1, 45 MHz passive probe and U1561A 10:1, 45 MHz passive probe
- See our complete list of compatible probes on page 31

Accessories – Don't forget options that make measurements faster and more convenient, such as the Ni-MH battery pack, AC current clamp, temperature adapter, soft carrying case and USB host capability.

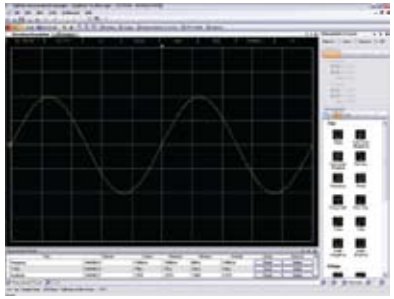
U2700 Series Oscilloscopes

100 MHz and 200 MHz USB modular scopes

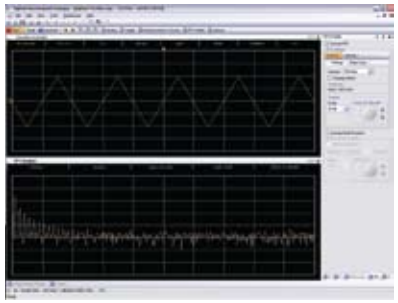
Engineered for versatility and portability without compromising performance

- Provides up to 1 GSa/s (interleaved) sampling and 32 Mpts of memory to help you gain better insight into signal details.
- Advanced analysis capabilities built into the AMM (Agilent Measurement Manager) scope software include waveform math and FFT with windowing.
- Normal, averaging and peak-detect acquisition modes
- Advanced triggering including edge, pulse width and line-selectable video
- Manual, auto and tracking cursors with ΔT, ΔV and frequency measurements.
- Over 25 measurement and math functions
- 1,250-point FFT, Hamming, Blackman-Harris and rectangular windowing.
- Dual-screen display with FFT function and keyboard shortcut keys (with AMM software)
- Provides flexibility of standalone or chassis-based operation for dual-play capability

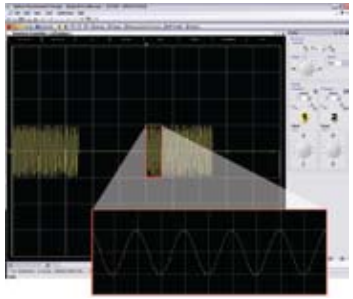
Dual-play capability. Carry powerful test equipment in your bag along with your laptop PC, or use it with other instruments in a chassis.



Simplify waveform analysis with automatic measurements such as rise time and duty cycle, and the measurement results panel.



Explore frequency domain characteristics of measured waveforms using FFT analysis (with four windowing functions) and search for peak values of the FFT.



Capture signal details effectively with deep memory.

Models and specifications

	U2701A	U2702A
Bandwidth	*100 MHz*	*200 MHz*
Sample rate	*1 GSa/s, 500 MSa/s each channel, max*	
Channels	*2*	
Memory	*Up to 32 Mpts*	
Vertical resolution	*8 bits*	
Vertical sensitivity	*2 mV/div to 5V/div*	
Maximum input	*CAT 1 30 Vrms, 42 Vpk*	
Input Impedance	*1 MΩ: ≈16 pF*	
Timebase range	*1 ns/div to 50s/div*	
Triggering	*Edge, pulse width, TV*	
Dimensions	*117.00 mm x 180.00 mm x 41.00 mm (with rubber bumper)* *105.00 mm x 175.00 mm x 25.00 mm (without rubber bumper)*	
Weight	*534 g (with rubber bumper)* *482 g (without rubber bumper)*	

Scope additions and enhancements

Probes – Improve your measurement reliability with our complete selection of probes:

- U2701A comes with the N2862A 10:1, 150 MHz passive probe; U2702A comes with the N2863A 10:1, 300 MHz passive probe
- See the complete list of compatible probes on page 31

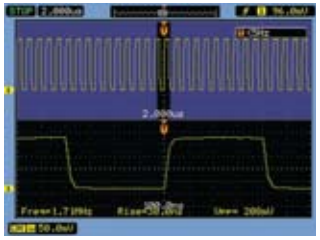
Accessories – Don't forget options that make measurements faster and more convenient, such as the six-slot USB MI chassis, BNC cable and USB secure cable.

1000 Series Oscilloscopes

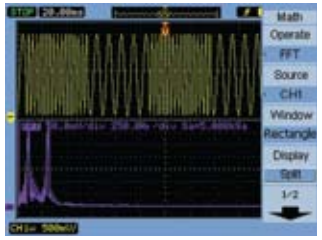
60 MHz to 200 MHz economy scopes

Engineered to give you more scope than you thought you could afford

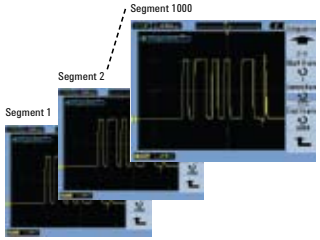
- 20 kpts memory per channel, up to 8 times more than competitive scopes, means you can see more time and more detail on your signal
- 23 automatic measurements give you quick access to powerful functions
- Sequence mode allows easy debug with waveform recording, playback and storage
- Go/no-go mask testing automatically detects waveforms that deviate from the standard you set
- 5.7" high-resolution color display with a wide viewing angle gives you a brighter and crisper waveform display from all angles
- 3-year return-to-Agilent warranty to protect your investment



More signal viewing. With True Zoom mode you can view a long record and the details of a zoom window simultaneously.

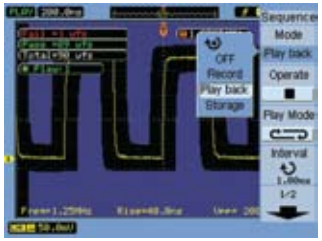


More capabilities. Built in FFT enables easy spectral analysis on the time-domain signal and 23 automatic measurements give quick answers.



Unique features. Use sequence mode to record up to 1000 triggers and review in playback mode for anomalies.

More productivity. Choose from 11 different languages for oscilloscope interface and help.



Quick go/no-go testing. Mask testing provides a quick pass/fail comparison of an incoming signal to a test envelope you define.

Models and specifications

	DSO1002A	DSO1004A	DSO1012A	DSO1014A	DSO1022A	DSO1024A
Bandwidth	*60 MHz*	*60 MHz*	*100 MHz*	*100 MHz*	*200 MHz*	*200 MHz*
Sample rate	*2 GSa/s, 1 GSa/s each channel*					
Channels	*2*	*4*	*2*	*4*	*2*	*4*
Memory	*Up to 20 kpts*					
Vertical resolution	*8 bits*					
Vertical sensitivity	*2 mV/div to 10 V/div*					
Maximum input	*CAT 1 300 Vrms, 400 Vpk*					
Input Impedance	*1 MΩ ± 1% in parallel with 18 pF ± 3 pF*					
Timebase range	*1 ns/div to 50 s/div*		*2 ns/div to 50 s/div*		*5 ns/div to 50 s/div*	
Time scale accuracy	*50 ppm*					
Triggering	*Edge, force, video, pulse width, alternate*					
Dimensions	*32.46 cm W x15.78 cm H x 12.92 cm D*					
Weight	*3.03 kgs*					

Scope additions and enhancements

Probes – Improve your measurement reliability with our comprehensive selection of probes:

- DSO1002A, 1004A, 1012A and 1012A come with the N2862A 10:1, 150 MHz passive probe; DSO1022A and 1024A come with the N2863A 10:1, 300 MHz passive probe
- See our complete list of compatible probes on page 31

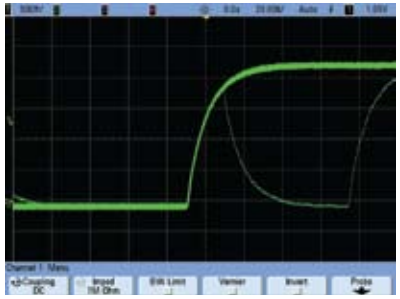
Accessories – Don't forget options that make measurements faster and more convenient, such as the rackmount kit, the education training kit and the soft carrying case.

InfiniiVision 5000 Series Oscilloscopes

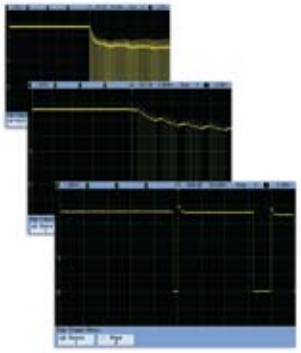
100, 300 and 500 MHz portable scopes

Engineered for the best signal visibility

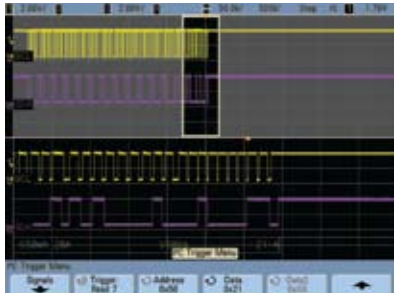
- 100,000 waveforms per second update rate to minimize dead time and help you catch more glitches
- 1 Mpts deep memory (100X more than competitive scopes) to see more details over more time
- 6.3" color XGA high-definition display (1024 x 768, 256 intensity levels) to see critical signal details
- Full suite of connectivity standards, including front- and back-panel USB ports, GPIB, LAN and XGA-out
- 3-year return-to-Agilent warranty to protect your investment



Fastest waveform update rate. Reduce dead time between acquisitions with a 100,000 wfms/s update rate, giving you a higher probability of capturing intermittent events.



MegaZoom III deep memory. See more detail over a longer period of time, then quickly zoom in on small events to see the smallest detail in each cycle.



Serial triggering and decode. Get greater capabilities with the only scopes in this class that offer triggering for I^2C, SPI and USB standard, and optional hardware-accelerated decode for I^2C, SPI, CAN, LIN and RS-232/UART.

Compact form factor. Enjoy true portability in a lunchbox-sized instrument that weighs just 9 pounds.

Models and specifications

	DSO5012A	DSO5014A	DSO5032A	DSO5034A	DSO5052A	DSO5054A
Bandwidth	*100 MHz*		*300 MHz*		*500 MHz*	
Sample rate	*2 GSa/s each channel*				*2 GSa/s each ch; 4 GSa/s max*	
Channels	*2*	*4*	*2*	*4*	*2*	*4*
Display	*6.3" color XGA LCD (1024 x 768) with 256 intensity levels*					
Display update rate	*Up to 100,000 waveforms/sec*					
Memory	*8 Mpts max.*					
Vertical resolution	*8 bits, up to 12 in high-resolution or averaging mode*					
Vertical sensitivity	*2 mV/div to 5 V/div*					
Bandwidth limit	*25 MHz selectable*					
Maximum input voltage	*CAT I 300 Vrms, 400 Vpk; transient overvoltage 1.6 kVpk ; CAT II 100 Vrms, 400 Vpk*					
Input impedance	*1 MΩ ± 1% || 12 pF or 50 Ω ± 1.5% selectable*					
Timebase range	*5 ns/div to 50 s/div*	*2ns/div to 50 s/div*			*1 ns/div to 50/div*	
Time scale accuracy	*25 ppm*					
Triggering	*Edge, pulse width, pattern, TV (composite and HDTV/EDTV), duration, sequence, serial bus*					
Dimensions	*38.5 cm wide x 18.8 cm high x 17.4 cm deep (with handle)*					
Weight	*4.1 kg*					

Scope additions and enhancements

Probes – Improve your measurement reliability with our comprehensive selection of probes:

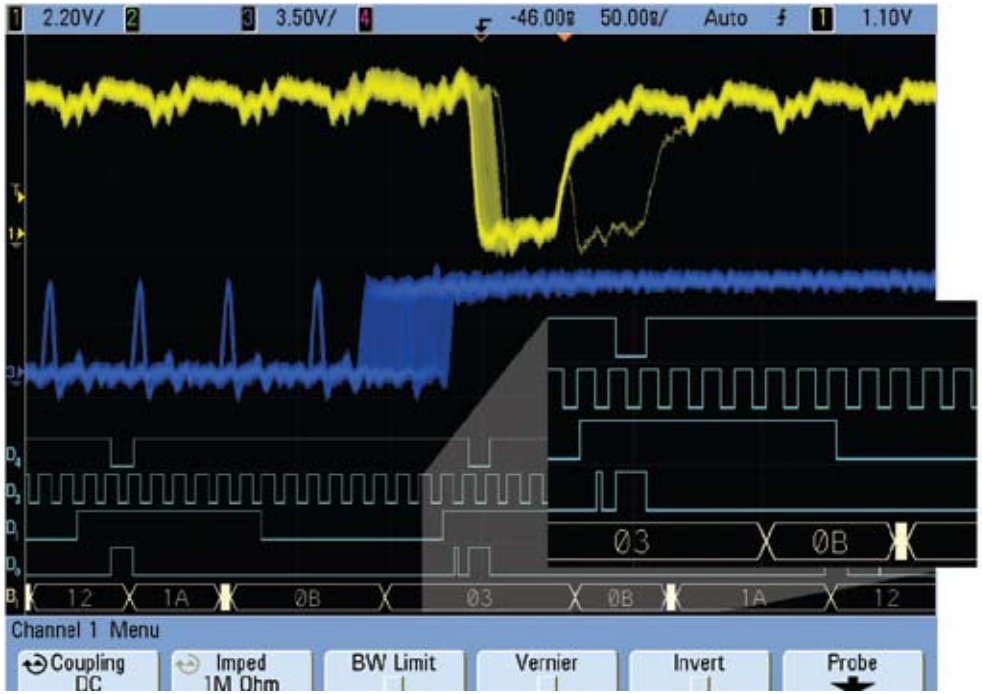
- DSO505xA comes with the 10073C 10:1, 500 MHz passive probe; DSO501xA and 503xA come with the N2863A 10:1, 300 MHz passive probe
- See our complete list of compatible probes on page 31

Accessories – Don't forget options that make measurements faster and more convenient, such as the hard or soft transit case and rackmount kit.

Applications - Expand your scope's capabilities with our powerful lineup of applications:

- Options include I^2C, SPI, CAN/LIN, RS-232/UART, mask testing and segmented memory
- See our complete list of applications on page 26

Mixed Signal Oscilloscopes: *Capture analog, digital and serial signals with a single acquisition in one instrument*



MSOs capture analog, digital and serial signals in a single measurement to identify critical interactions.

Should you consider a mixed signal oscilloscope for your next purchase?

Your design likely has a mix of analog, digital and serial signals. A mixed signal oscilloscope shows them to you all at once.

Do you need to see more than 4 channels at once? For example, if you're incorporating serial buses like I^2C or SPI or using microcontrollers or FPGAs, you might benefit from additional viewing capability.

Do you need to trigger on digital patterns? An MSO will allow you to do that and preserve your analog channels to observe behavior in other parts of your design.

A mixed signal oscilloscope integrates traditional analog channels with 16 digital channels.

Combining the familiar controls of an oscilloscope with the additional digital data collection and pattern recognition of a logic analyzer, Agilent MSOs seamlessly integrate the two capabilities in one instrument. Trigger across any combination of analog and digital channels. Integrate serial bus triggering and decode. You can even see inside your FPGA designs.

In 1996 Agilent pioneered the mixed signal oscilloscope.

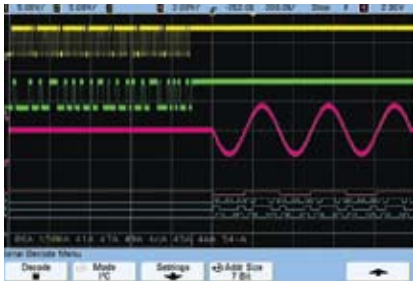
Innovative IC technology we called Mega*Zoom* delivered highly responsive deep memory so designers could see both cause and effect in digitally controlled analog phenomena. This first MSO was named *Test & Measurement World* Test Product of the Year in 1997.

Agilent continues to lead the way with MSOs.

While other vendors are just entering the MSO market, Agilent's third generation Mega*Zoom* III technology continues to set the benchmark. You get uncompromised waveform update rates as you add digital, serial or deep memory capabilities to your scope.

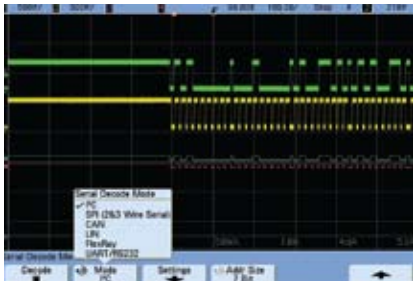
Agilent's MSOs are engineered for the best signal visibility.

- See analog, digital and serial signals all at once with the industry's largest screen
- Get unmatched signal detail and catch infrequent events with the industry's fastest waveform update rates
- Speed your serial debug with the industry's only hardware-accelerated decode for I^2C , SPI, CAN, LIN, FlexRay, and RS-232/UART
- Simplify common debug tasks with insightful applications software like FPGA dynamic probe, segmented memory, and offline viewing and analysis
- Work without line power with our exclusive battery powered options (6000 Series)
- Upgrade previously purchased DSOs to MSOs



Use MSO digital channels to debug control signals and data buses.

Debug and validate your FPGA designs faster and more effectively with an MSO.



Hardware-accelerated serial decode and other application packages speed common debug tasks.

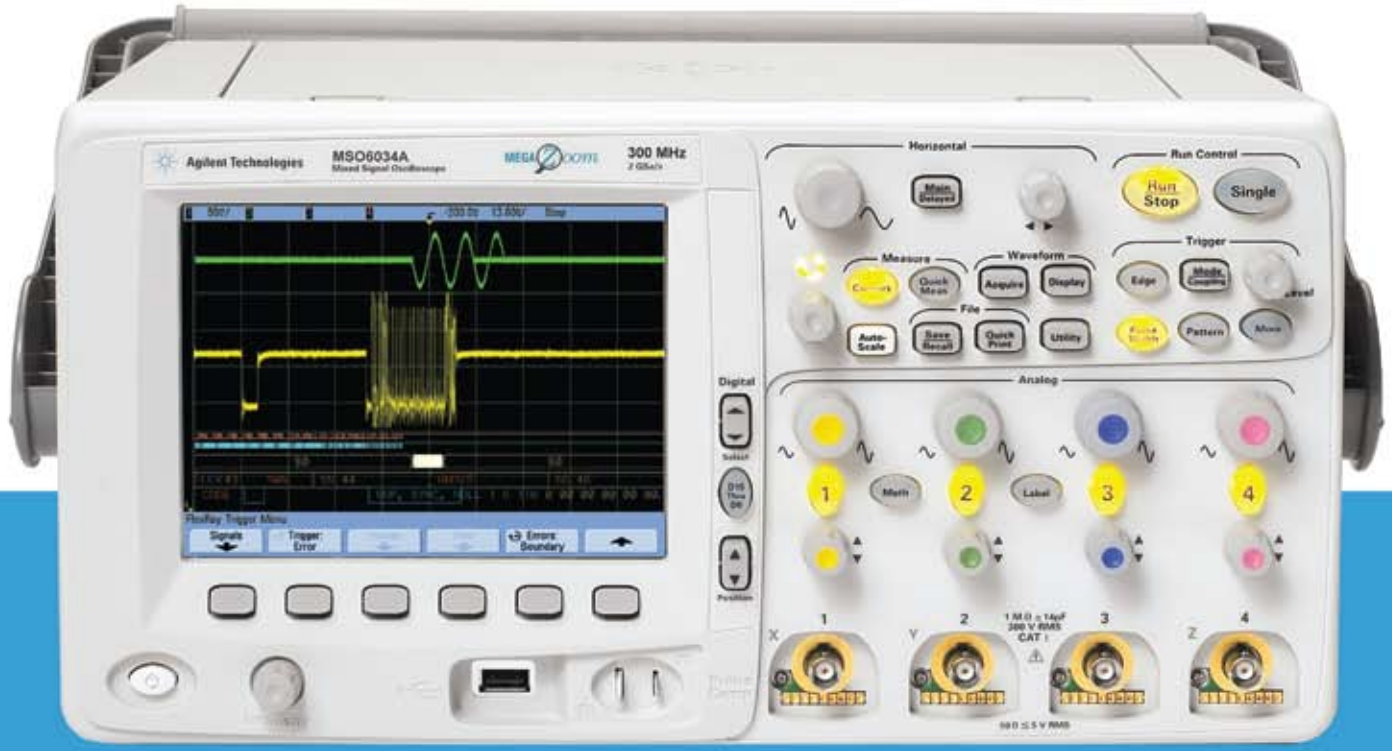
Agilent's two newest MSO oscilloscopes, the 7000 and 9000 Series, offer the industry's largest screens to help you see both analog and digital signals.

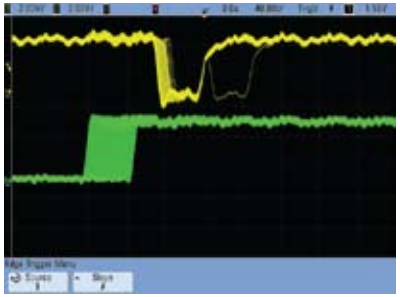
InfiniiVision 6000 Series Oscilloscopes

100 MHz to 1 GHz digital storage and mixed signal scopes

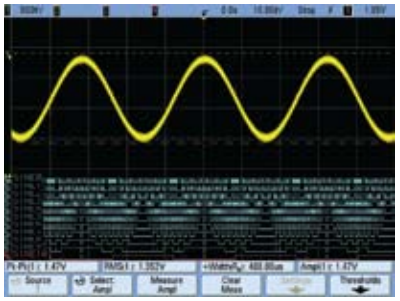
Engineered for the best signal visibility

- Captures analog, digital and serial signals in real time
- 100,000 waveforms per second real-time update rate helps you catch the most elusive glitches
- Only high-performance scope with battery-power option – enabling 2+ hours without line power
- DSO models upgradeable to MSO whenever you need greater capabilities
- Serial bus trigger/decode options including I^2C, SPI, CAN, LIN, RS-232/UART and FlexRay
- 3-year return-to-Agilent warranty to protect your investment

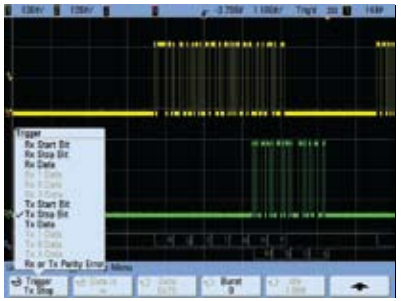




Revolutionary high-definition display. See a precise representation of your signals with the color XGA display and 256 levels of intensity grading. With the industry's fastest waveform update rate, you'll see subtle details most scopes miss.



Mixed signal capture and viewing. With 2 or 4 scope channels plus 16 logic channels, MSOs uniquely combine the detailed signal analysis of a scope with the multichannel timing measurements of a logic analyzer. 8 Mpts of memory captures long time periods and supports high sample rates, allowing you to quickly zoom in on areas of interest.



Serial bus triggering and decoding (optional). Trigger on the industry's most popular standards, including I²C, SPI, CAN, LIN, RS-232/UART and Flexray. Your decoding options display responsive on-screen decode of serial bus.

Battery-power option. Make measurements where line power isn't available with an optional, internal, rechargeable lithium ion battery.

Models and specifications

	DSO/MSO601xA	DSO/MSO603xA	DSO/MSO605xA	DSO/MSO610xA
Bandwidth	*100 MHz*	*300 MHz*	*500 MHz*	*1 GHz*
Sample rate	*2 GSa/s each channel*		*4 GSa/s max, 2 GSa/s each channel*	
Channels	*2 or 4 scope channels on DSOs, 2 or 4 scope channels + 16 logic channels on MSOs*			
Display	*6.3" color XGA LCD (1024 x 768) with 256 intensity levels*			
Display update rate	*Up to 100,000 waveforms/sec in real-time mode*			
Memory	*Standard 8 Mpts*			
Vertical resolution	*8 bits, up to 12 bits in high-resolution or averaging modes*			
Vertical sensitivity	*1 mV/div to 5 V/div*	*2 mV/div to 5 V/div*		
Bandwidth limit	*20 MHz*	*25 MHz*		
Maximum input voltage	*CAT I 300 Vrms, 400 Vpk; CAT II 100 Vrms, 400 Vpk (1 Mohm) 5 Vrms CAT I (50 ohm)*			
Input impedance	*1 MΩ ± 1% || 11pF*	*1 MΩ ± 1% || 14 pF or 50 Ω ± 1.5% selectable*		
Timebase range	*5 ns/div to 50 s/div*	*2 ns/div to 50 s/div*	*1 ns/div to 50 s/div*	*500 ps/div to 50 s/div*
Time scale accuracy	*15 ppm ≤ ± (15+2*(instrument age in years)) ppm*			
Triggering	*Edge, pulse width, pattern, TV, duration, sequence, serial bus (I²C, SPI, RS-232/UART CAN, LIN and USB)*			
Dimensions	*39.9 cm wide x 18.8 cm high x 28.2 cm deep (with handle)*			
Weight	*4.9 kg*			

Scope additions and enhancements

Probes – Improve your measurement reliability with our comprehensive selection of probes:

- DSO/MSO603xA, 605xA and 610xA come with the 10073C 10:1, 500 MHz passive probe; DSO/MSO601xA comes with the 10074C 10:1, 150 MHz passive probe
- See our complete list of compatible probes on page 31

Accessories – Don't forget options that make measurements faster and more convenient, such as the hard transit case, scope cart, evaluation kit and rackmount kit.

Portable power – Consider the battery option for measurements on the go.

DSO-to-MSO upgrades – Protect your investment with the flexibility to upgrade to MSO after purchase.

Applications – Expand your scope's capabilities with our powerful lineup of applications:

- Options include I²C, SPI, CAN/LIN, RS-232, FPGA, FlexRay, power, offline analysis, vector signal analysis, mask testing and segmented memory
- See our complete list of applications on page 26

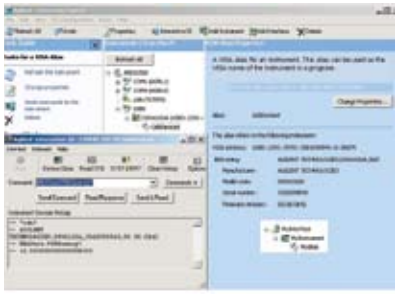
InfiniiVision 6000L Series Oscilloscopes

100 MHz to 1 GHz space-saving rack-mountable scopes

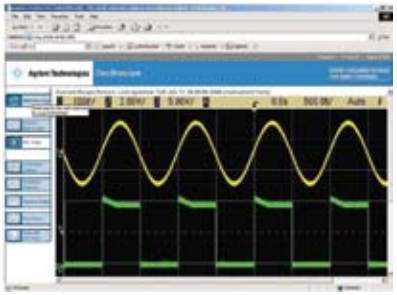
Engineered for the best signal visibility

- 1U-high, 19" wide package to save valuable rack space
- Serial bus trigger/decode options including I^2C, SPI, CAN, LIN and RS-232/UART
- Optimized for automated and manufacturing test
- LXI class C compliant for efficient, cost-effective creation and reconfiguration of test systems
- DSO models upgradeable to MSO whenever you need greater capabilities
- Built-in web browser control for remote operation

Compact, rack-mountable design. Side and rear air vents (no top or bottom air vents) let you mount other instruments directly above or below. Rack mount brackets and rack rails are standard with every unit.



Easy test system integration and configuration. Simplify system development with a standard IVI-COM driver, easy-to-use SCPI commands, and the standard Agilent IO Libraries.



Remote access and control. The built-in Web server allows you to communicate with the scope to set up measurements, monitor waveforms, capture screen images and operate the instrument remotely.

Seamless transition between InfiniiVision scopes. Use any InfiniiVision series portable scope in R&D, then move seamlessly to the manufacturing environment thanks to LXI class C compliance and 100%-compatible software.

Models and specifications

	DSO6014L	DSO6054L	DSO6104L
Bandwidth	*100 MHz*	*500 MHz*	*1 GHz*
Sample rate	*2 GSa/s each channel*	*2 GSa/s each channel, 4 GSa/s max.*	
Channels	*2 or 4 scope channels on DSOs (+ 16 logic channels on MSO upgraded units)*		
Display	*External XGA Monitor (provided by customer)*		
Display update rate	*100,000 waveforms per second*		
Memory	*8 Mpts*		
Vertical resolution	*8 bits, up to 12 in high-resolution or averaging modes*		
Vertical sensitivity	*2 mV/div to 5 V/div*		
Bandwidth limit	*20 MHz*	*25 MHz selectable*	
Maximum input voltage	*±40 V peak CAT I*		
Input impedance	*1 MΩ ± 1% || 11pF*	*1 MΩ ± 1% || 14pF or 50Ω ± 1.5%, selectable*	
Timebase range	*5 nsec/div to 50 sec/div*	*1 nsec/div to 50 sec/div*	*500 psec/div to 50 sec/div*
Time scale accuracy	*15ppm ≤ ± (15+2*(instrument age in years)) ppm*		
Triggering	*Edge, pulse width, pattern, TV, duration, sequence, Nth edge burst, serial bus (I^2C, SPI, CAN, LIN, USB, RS-232/UART)*		
Dimensions	*43.5 cm wide x 4.2 cm high x 27 cm deep*		
Weight	*2.45 kg (5.4 lbs)*		

Scope additions and enhancements

Probes – Improve your measurement reliability with our comprehensive selection of probes:

- DSO6054L and 6104L come with the 10073C 10:1, 500 MHz passive probe; DSO6014L comes with the 10074C 10:1, 150 MHz passive probe
- See our complete list of compatible probes on page 31

DSO-to-MSO upgrades – Protect your investment with the flexibility to upgrade to MSO after purchase.

Applications – Expand your scope's capabilities with our powerful lineup of applications:

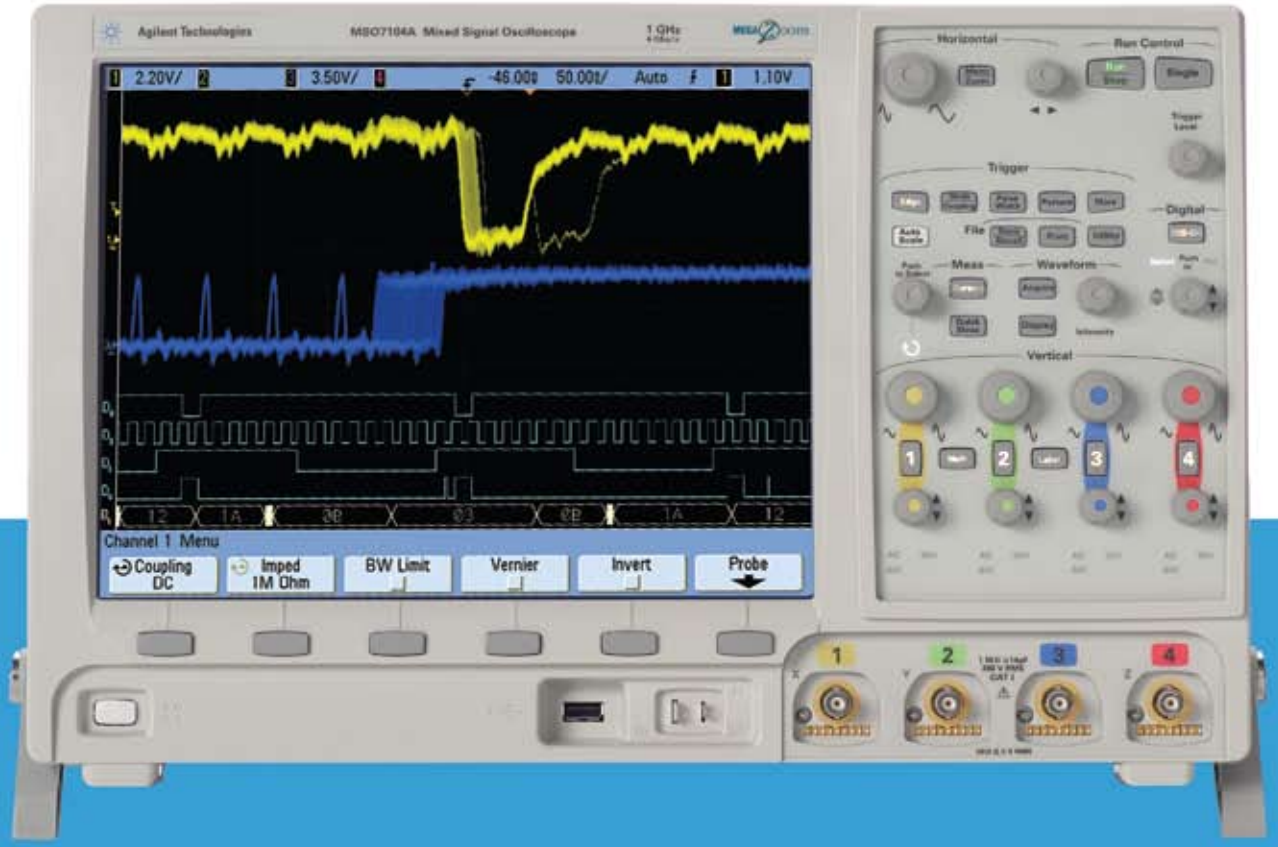
- Options include I^2C, SPI, CAN/LIN, RS-232, power, offline analysis, vector signal analysis and segmented memory
- See our complete list of applications on page 26

InfiniiVision 7000 Series Oscilloscopes

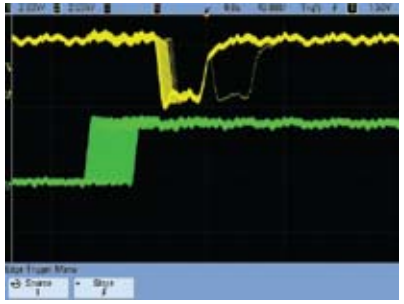
100 MHz to 1 GHz digital storage and mixed signal scopes

Engineered for the best signal visibility

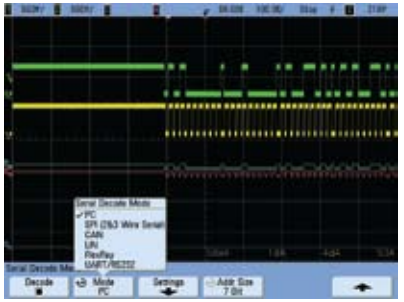
- Captures and compares analog, digital and serial signals
- High-resolution 12.1" display – nearly 40% larger than any others in this class
- Serial bus trigger/decode options including I^2C, SPI, CAN, LIN, RS-232/UART and FlexRay
- 100,000 waveforms/sec real-time update rate to capture infrequent events and elusive glitches
- DSO models upgradeable to MSO whenever you need greater capabilities
- 3-year return-to-Agilent warranty to protect your investment



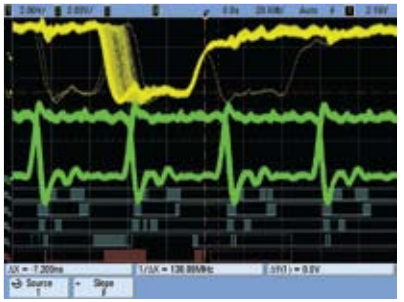
Attractive. The revolutionary large (12.1"), high-definition (1024 x 768) color display with 256 levels of intensity grading gives you a precise representation of the signals you're testing and easily accommodates up to 20 channels. Conserve bench space with the 6.5" depth.



Fast. MegaZoom III technology delivers up to 100,000 waveform acquisitions per second so the scope responds instantly and you won't miss infrequent events and critical signal detail.



Smart. Customize your scope with a wide range of application packages that provide meaningful insight into application-specific problems.



Best signal visibility. See critical signal detail and infrequent events like you never have before. Try our InfiniiVision 7000 Series scopes side-by-side with your current scope and experience the difference.

Models and specifications

	DSO/MSO7012A DSO/MSO7014A	DSO/MSO7032A DSO/MSO7034A	DSO/MSO7052A DSO/MSO7054A	DSO/MSO7104A
Bandwidth	*100 MHz*	*350 MHz*	*500 MHz*	*1 GHz*
Sample rate	*2 GSa/s*	*4 GSa/s max, 2 GSa/s each channel*		
Channels	*2 or 4 scope channels on DSOs, 2 or 4 scope channels + 16 logic channels on MSOs*			
Display	*12.1" color XGA LCD (1024 x 768) with 256 intensity levels*			
Display update rate	*100,000 waveforms per second*			
Memory	*Standard 8 Mpts*			
Vertical resolution	*8 bits, up to 12 bits in high-resolution or averaging modes*			
Vertical sensitivity	*2 mV/div to 5 V/div*			
Bandwidth limit	*20 MHz selectable*		*25 MHz selectable*	
Maximum input voltage	*CAT I 300 Vrms, 400 Vpk; CAT II 100 Vrms, 400 Vpk*			
Input impedance	*1 MΩ ± 1% || 14 pF or 50 Ω ± 1.5% selectable*			
Timebase range	*2 ns/div to 50 s/div*		*1 ns/div to 50 s/div*	*500 ps/div to 50 s/div*
Time scale accuracy	*15 ppm*			
Triggering	*Edge, pulse width, pattern, TV, duration, sequence, serial bus (I^2C, SPI, RS-232/UART, CAN, LIN and USB)*			
Dimensions	*45.4 cm wide x 29.8 cm high x 22 cm deep*			
Weight	*5.9 kg*			

Scope additions and enhancements

Probes – Improve your measurement reliability with our comprehensive selection of probes:

- All models come with the 10073C 10:1, 500 MHz passive probe
- See our complete list of compatible probes on page 31

Accessories – Don't forget options that make measurements faster and more convenient, such as a soft carrying case or rackmount kit.

DSO-to-MSO upgrades – Protect your investment with the flexibility to upgrade to an MSO after purchase.

Applications – Expand your scope's capabilities with our powerful lineup of applications:

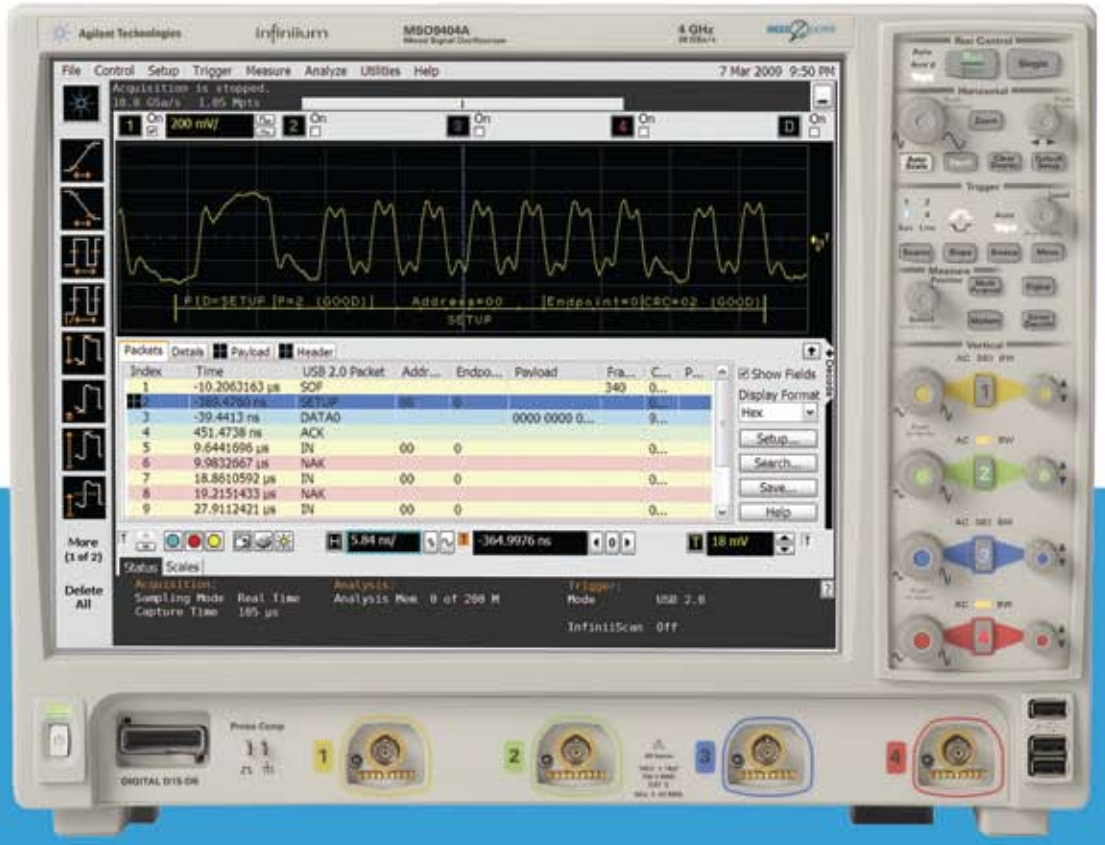
- Options include I^2C, SPI, CAN/LIN, RS-232, FPGA, FlexRay, mask testing, power, offline analysis, vector signal analysis and segmented memory
- See our complete list of applications on page 26

Infiniium 9000 Series Oscilloscopes

1 GHz to 4 GHz digital storage and mixed signal scopes

Engineered for the broadest measurement capability

- The combination of powerful Infiniium scope features, the world's fastest integrated MSO and the first multi-tab protocol viewer allows you to quickly debug and test a wide variety of designs, making it the best 3-in-1 instrument
- The industry's largest display, thinnest depth and lightest weight makes using, sharing or moving the scope easy
- Get fast and accurate answers to technology-specific problems with the widest range of applications
- Provides bandwidth, memory, triggering and signal fidelity triggering for debugging, characterizing and analyzing a wide variety of analog, serial, digital, and RF signals
- 15" XGA display, the largest in the industry, makes it easier to view analog, digital and serial signals



Powerful Infiniium scope. Fast sample and update rates let you see a precise representation of your signal. Use responsive deep memory to see longer periods of time.

Integrated mixed signal oscilloscope. With sample rates of 2 GSa/s, you can see critical timing relationships or use the 16 digital channels to see data values. Or, use the digital channels for protocol analysis. Trigger across the industry's largest range of time-correlated analog and digital channel combinations.

Protocol analysis capability. Extend your scope capability with protocol analysis. Trigger and view packets at the protocol level and drill up or down between the physical and protocol layers. The tracking marker/bar shows precise time alignment between protocol viewer and analog waveforms.

Sized to fit your environment. The Infiniium 9000 offers the largest display in the industry, with a smaller depth and lighter weight than any other scope in its class. It's an engineering feat with a 20 layer board, 27 ASICs and three workhorse FPGAs designed to deliver maximum performance.

Models and specifications

	DS09104A	MSO9104A	DSO9254A	MSO9254A	DSO9404A	MSO9404A
Bandwidth	*1 GHz*		*2.5 GHz*		*4 GHz*	
Sample rate	*10 GSa/s, 20 GSa/s on 2 channels*					
Channels	*4*	*4+16 logic*	*4*	*4+16 logic*	*4*	*4+16 logic*
Memory	*10 Mpts std. Optional up to 1 Gpts*					
Vertical resolution	*8 bits ≥12 bits with averaging*					
Vertical sensitivity	*1 MΩ: 1 mV/div to 5 V/div, 50 Ω: 1 mV/div to 1 V/div*					
Maximum input	*1 MΩ:150V RMS or DC, CAT I ± 250 V (DC + AC) in AC coupling 50MΩ: 5 Vrms, CAT I*					
Input Impedance	*50 MΩ ± 2.5%, 1 MΩ ± 1% (13pF typical)*					
Timebase range	*5 ps/div to 20 s/div*					
Timebase accuracy	*± (0.4 + 0.5 * YearsSinceCal) ppm pk*					
Triggering	*Edge, glitch, runt, timeout, pattern/pulse range, state, pulse width, line, window, setup and hold, video, serial*					
Dimensions	*42.4 cm W x31.8 cm H x 22.6 cm D*					
Weight	*13.9 kg*					

Scope additions and enhancements

Probes – Improve your measurement reliability with our comprehensive selection of probes:

- All models come with four N2873A 10:1 passive probes
- MSO models include flying leads
- See our complete list of compatible probes on page 31

Accessories – Don't forget options that make measurements faster an more consistent, such as the removable hard drive and rackmount kit.

Memory – Increase memory depth to 500 Mpts at any time.

Applications – Expand your scope's capabilities with our powerful lineup of applications:

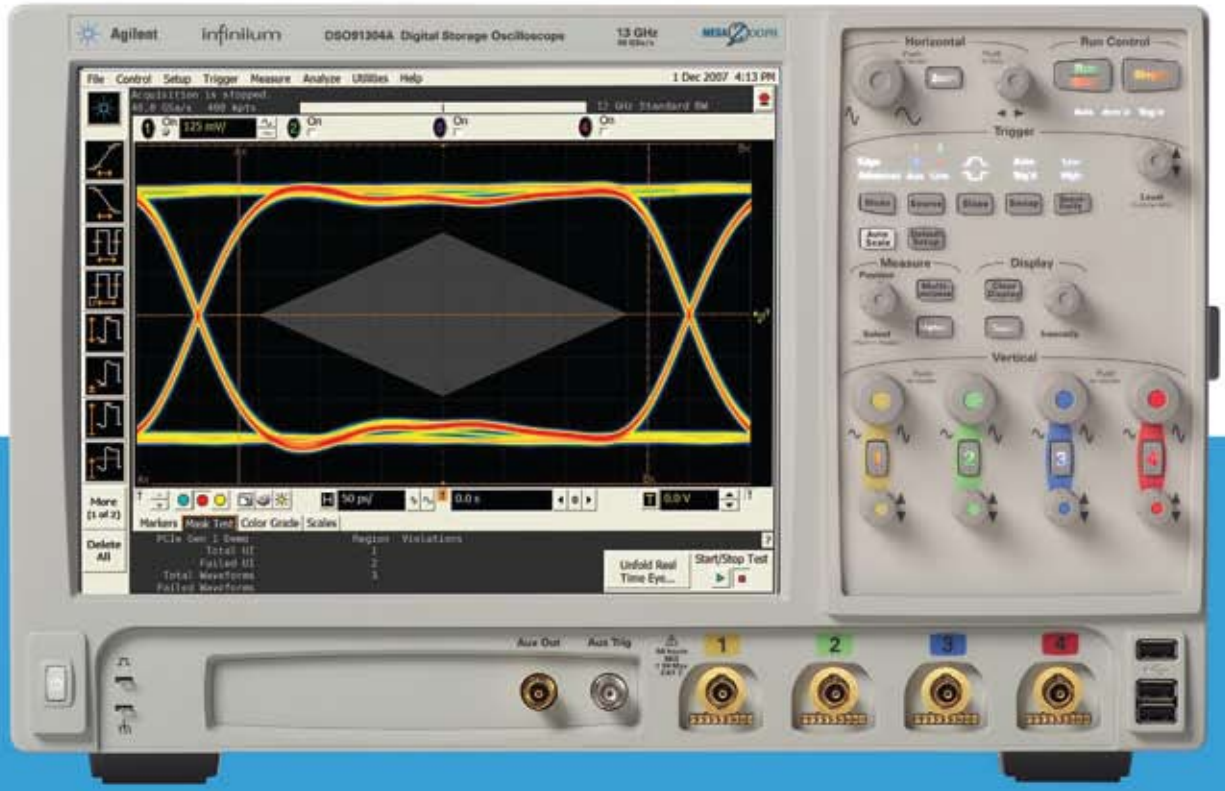
- Compliance testing: USB 2.0, Ethernet, DDR 1/2/3
- Protocol analysis: I²C, SPI, CAN, RS-232/UART, USB, PCI Express
- Other: Jitter, InfiniiScan, FPGA debug, VSA, power, comm. mask testing
- See our complete list of applications on page 26

Infiniium 90000A Series Oscilloscopes

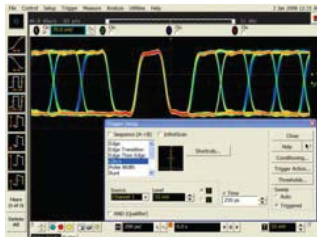
2.5 GHz to 13 GHz high-performance real-time lab scopes

Engineered for superior signal integrity and measurement confidence

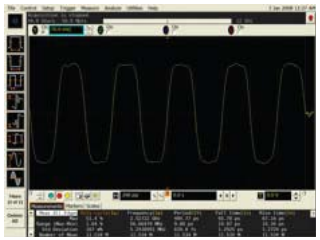
- 122,000 measurements per second give you amazing measurement update throughput
- Bandwidth upgradeable from 2.5 GHz to 13 GHz
- Industry's only server-based oscilloscope application software license solution
- Industry's largest selection of application software packages, including: USB 2.0, PCI Express®, SATA, Wireless USB, DDR, HDMI, and more
- Industry's lowest noise floor for both oscilloscopes and probes
- Industry leading Mega*Zoom* ultra deep memory – 1 Gpts at 40 GSa/s on all four channels
- Industry's only three level sequence triggering with InfiniiScan Plus trigger system
- Up to 13 GHz bandwidth and up to 40 GSa/s sample rate on four channels



Powerful signal capture. Acquire 25 ms of PCI Express Gen2 data at 40 GSa/s using 1 Gpts of memory to capture your signal of interest.

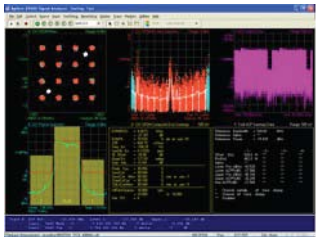


Leading glitch trigger. Consistently trigger on 200 ps single bit (one UI) of PCI EXPRESS Gen2 using industry – leading <250 ps glitch trigger.



"Measure all edges" mode. Make more than 5 million measurements in less than 1 minute using the "measure all edges" mode and long memory to increase your confidence in the measurement statistics.

Industry's deepest memory (1 Gpts). Reveal low frequency jitter components with deep memory.



Certified compliance testing. Use VSA (vector signal analysis software) and DSA91204A for Certified Wireless USB compliance testing.

Models and specifications

DSO and DSA	DSO/DSA90254A	DSO/DSA90404A	DSO/DSA90604A	DSO/DSA90804A	DSO/DSA91204A	DSO/DSA91304A
Bandwidth	*2.5 GHz*	*4 GHz*	*6 GHz*	*8 GHz*	*12 GHz*	*13 GHz*
Sample rate	*20 GSa/s*			*40 GSa/s*		
Channels	*4 channels*					
Display	*12.1" XGA touch screen*					
Display update rate	*400,000 waveforms per second (in segmented memory mode)*					
Memory	*10 Mpts standard, optional up to 1 Gpts (20 Mpts std. on DSA)*					
Vertical resolution	*8 bits, ≥ 12 bits with averaging*					
Vertical sensitivity	*1 mV/div to 1 V/div*					
Bandwidth limit	*500 MHz (using E2697A 1 MΩ adaptor)*					
Max input voltage	*± 5 V*					
Input impedance	*50 Ω, ±3%*					
Timebase range	*5 ps/div to 20 s/div real-time*					
Time scale accuracy	*± (0.4 + 0.5 * YrsSinceCal) ppm pk*					
Triggering	*3-level sequence hardware (2 levels) and InfiniiScan software trigger: edge, edge transition, edge then edge, glitch, line, pulse width, runt, timeout, pattern/pulse range, state, setup/hold, window, HDTV, non-monotonic, measurement, and zone qualify*					
Typical noise floor	*147 µVrms*	*186 µVrms*	*234 µVrms*	*283 µVrms*	*365 µVrms*	*389 µVrms*
Max data transfer rate	*22 MSa/s*					
Dimensions	*43.2 cm wide x 28.3 cm high x 50.6cm deep*					
Weight	*20 kg*					
Power	*800 watts, max.*					

Scope additions and enhancements

Probes – Improve your measurement reliability with our comprehensive selection of probes, including the award-winning InfiniiMax probing system and the industry's only environmental chamber probing solution, the InfiniiMax extreme temperature extension cable. See our complete list of compatible probes on page 31.

Accessories – Don't forget options that make measurements faster and more convenient, such as the rackmount kit, transit case and testmobile.

Memory – Increase memory depth at any time.

Bandwidth – Protect your investment with bandwidth upgrades after purchase.

Applications – Expand your scope's capabilities with our powerful lineup of applications:

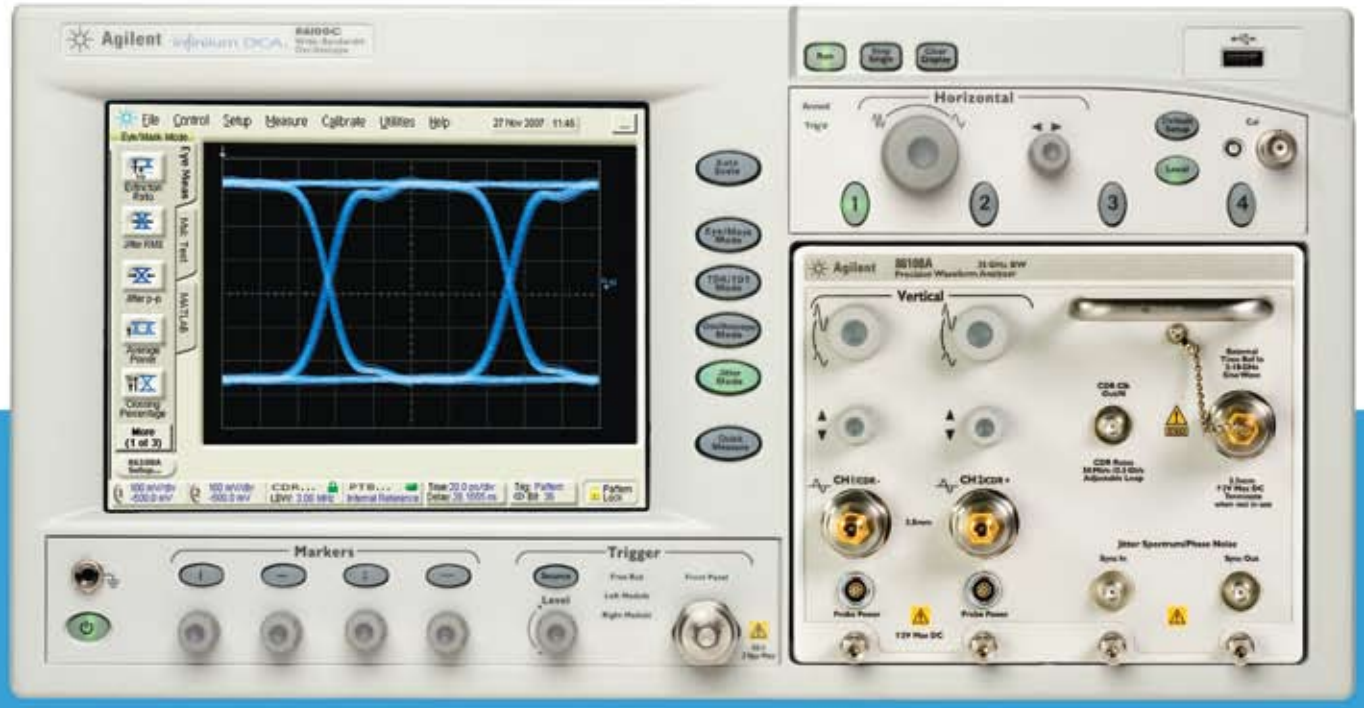
- Analysis and utility options include jitter analysis, eye pattern analysis, user defined function (MATLAB link), and more
- Compliance options include DDR1, 2, and 3, PCI Express, HDMI, DisplayPort, SATA, SAS, XAUI, USB and more
- Transport your scope application license from one Infiniium to another with the application server license
- See our complete list of applications on page 26

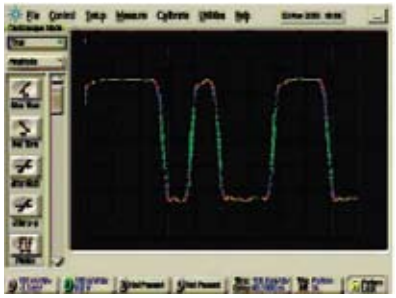
Infiniium 86100C Series Oscilloscopes

DC to > 90 GHz wideband sampling scope

Engineered for precise, accurate high-speed electrical and optical analysis

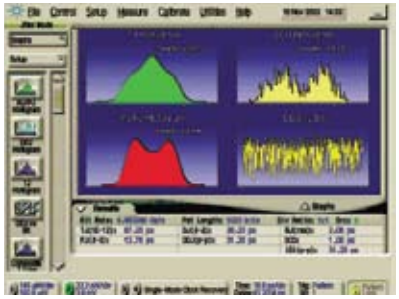
- Four powerful instruments in one unit: High-bandwidth scope, digital communications analyzer, time domain reflectometer and jitter analyzer
- Wide bandwidth with the lowest residual jitter and noise for the highest precision waveforms
- The industry standard for analysis of optical communication signals
- Calibrated reference receivers for optical transceiver compliance test
- Modular platform allows optical, electrical, TDR/TDT, and S-parameter measurements
- Advanced jitter and amplitude analysis at the push of a button
- Jitter spectrum, phase noise, and jitter transfer measurements on both electrical and optical signals
- Precision analysis of electrical high-speed serial bus signals



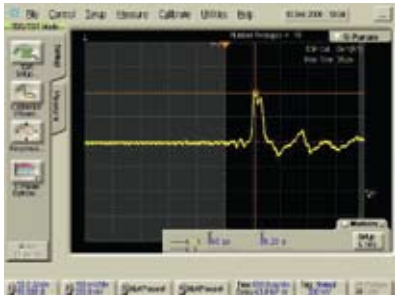


Full-function oscilloscope. Bandwidth of 65 GHz optical and > 90 GHz electrical ensures the most accurate waveform measurements.

Eye diagram analysis. Take advantage of the easiest and most intuitive method for viewing high-speed digital communications waveforms.



Advanced jitter analysis. Jitter mode decomposes jitter into its constituent components – a critical need as data rates increase – and presents jitter data in various insightful displays.



Time domain reflectometer. Measure both impedance and S-parameters and verify transmission quality for components and channels.

Models matching your applications

86100C Infiniium DCA-J mainframe

Electrical 1 to 14.2 Gb/s	*Highest precision view of serial bus waveforms*
86112A	*Dual channel electrical > 20 GHz*
83496B	*Electrical clock recovery (and PLL analysis)*
86108A	*Dual 35 GHz channels, jitter <60 fs, internal clock recovery*
Electrical 10 to 43 Gb/s	*Electrical signals for 40/100G Ethernet, SONET/SDH*
86118A	*Dual remote heads 70 GHz*
86107A	*Precision timebase (jitter < 200 fs)*
86117A	*Dual channel electrical > 50 GHz*
Optical 1 to 14.2 Gb/s	*Fibre Channel, Ethernet, SONET/SDH, PON*
86105C	*9 GHz optical channel, 20 GHz electrical channel*
83496B	*Optical clock recovery (single-mode and multimode)*
86105B	*15 GHz optical channel, 20 GHz electrical channel*
86105D	*20 GHz optical channel, 35 GHz electrical channel*
Optical 10 to 43 Gb/s	*40/100G Ethernet, SONET/SDH*
86116C	*65 GHz optical channel, 90 GHz electrical channel*
86107A	*Precision timebase (jitter < 200 fs)*
TDR	*Serial bus standards – PCIe, SATA, SAS, S-parameters*
54754A	*Differential TDR, dual 18 GHz channels*

Scope additions and enhancements

Probes – Improve your measurement reliability with our comprehensive selection of probes. See our complete list of compatible probes on page 31.

Options – Consider a range of possibilities to make measurements faster and more convenient, including enhanced trigger capabilities, advanced waveform analysis software and a removable hard drive.

Modules – Choose from an extensive list of optical, electrical, TDR/TDT, dual electric channel, trigger and clock recovery modules.

Applications: *Engineered to turn measurements into answers*

You need more than data from your scope – you want fast, accurate answers to your questions.

Many scopes can churn out reams of data. But when you're looking for meaningful insight into designs under development, Agilent offers the broadest selection of oscilloscope solutions in the industry.

We deliver more than 50 powerful applications packages for debug, analysis, compliance and characterization.

Whether you're debugging low-speed serial bus operation or FPGA functionality, you're focused on signal integrity, or you're ensuring compliance to industry standards, Agilent has solutions to help you get to accurate answers more quickly.

Speed debug as you deploy FPGAs or debug serial bus designs with our innovative solutions.

Our integrated mixed-signal oscilloscope technology allows us to offer unique solutions like our FPGA dynamic probe to let you see inside your FPGA for faster debug. And our protocol level triggers and displays help you resolve the physical layer root cause of issues you discover at the protocol level.

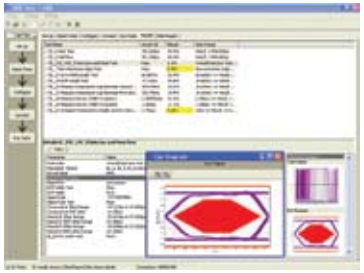
Take advantage of the expertise Agilent gains by participating in key industry standards bodies.

Our engineers sit on the board of directors of many standards groups, including the JEDEC Solid State Technology Association, the Video Electronics Standards Association (VESA) and the Peripheral Component Interconnect Special Interest Group (PCI-SIG). We help define the test standards so we can give you consistent measurement results and support you as you deploy these emerging technologies for your success.

Make your job simpler with automated setups and one-button compliance testing for more than 25 applications.

We make using our solutions easy so busy engineers can offload tedious characterization and still get accurate results. A test setup wizard guides you through selection, configuration, connection, execution and results reporting. And the results reports include configuration, measurements made, pass/fail status, margin analysis and waveforms.

The PCI Express® electrical performance validation and compliance software lets you test devices to ensure compliance with the PCIe 1.1 and PCIe 2.0 electrical specs for add-in cards and motherboards.

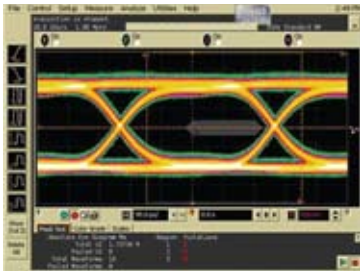


The USB 2.0 compliance test software makes USB signal integrity testing as simple as capturing the signals with your scope, eliminating the need to transfer waveforms to your PC.

Oscilloscope Compliance and Characterization Solutions

	Industry	Model number	Oscilloscope	Standards organization
10 Gb attachment unit interface (XAUI)	*Wireline*	*N5431A*	*90000 Series*	*www.ieee802.org/3/ and www.ethernetalliance.org*
10 Gb BaseT ethernet	*Wireline*	*U7236A*	*90000 Series*	*www.ethernetalliance.org*
Certified Wireless USB	*Consumer electronics*	*89601A Option BHB*	*90000 Series*	*www.usb.org*
DDR1	*Computing and memory*	*U7233A*	*9000, 90000 Series*	*www.jedec.org*
DDR2	*Computing and memory*	*N5413A*	*9000, 90000 Series*	*www.jedec.org*
DDR3	*Computing and memory*	*U7231A*	*9000, 90000 Series*	*www.jedec.org*
DisplayPort	*Media*	*U7232A*	*90000 Series*	*www.displayport.org*
DVI	*Media*	*N5394A*	*90000 Series*	*www.ddwg.org*
Ethernet 1000/100/10BASE-T	*Wireline*	*N5392A*	*9000, 90000 Series*	*www.ieee802.org/3/ and www.ethernetalliance.org*
Fibre Channel	*Storage*	*N5410A*	*90000 Series*	*www.fibrechannel.org*
Fully buffered DIMM	*Computing and memory*	*N5409A*	*90000 Series*	*www.jedec.org*
HDMI 1.3	*Media*	*N5399A*	*90000 Series*	*www.hdmi.org*
IEEE1394a/b	*Consumer electronics*	*QP-SIA or QP-SIA-DA**	*90000 Series*	*www.1394ta.org*
MIPI D-PHY	*Consumer electronics*	*U7238A*	*90000 Series*	*www.mipi.org*
PCI EXPRESS gen 1/2	*Computing and memory*	*N5393A/B*	*90000 Series*	*www.pcisig.org*
QPI	*Computing and memory*	*U7241A*	*90000 Series*	
Serial ATA I/II/III	*Storage*	*N5411A*	*90000 Series*	*www.sata-io.org*
Serial attached SCSI (SAS)	*Storage*	*N5412A*	*90000 Series*	*www.scsita.org*
USB 2.0 high speed	*Consumer electronics*	*N5416A*	*9000, 90000 Series*	*www.usb.org*
USB 2.0 low and full speed	*Consumer electronics*	*N5416A*	*9000, 90000 Series*	*www.usb.org*
USB 3.0	*Consumer electronics*	*U7243A*	*90000 Series*	*www.usb.org*
WiMedia and wireless USB	*Consumer electronics*	*U7239A*	*90000 Series*	*www.wimedia.org*

**Quantum Parametrics: www.quantumparametrics.com*

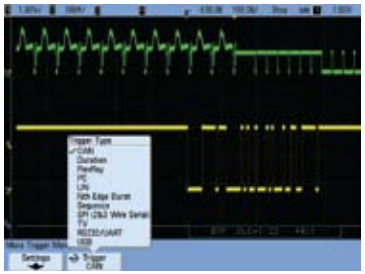


HDMI validation and compliance software gives you a fast way to verify and debug designs for set-top boxes, digital video recorders, DVD players, entertainment systems and motherboards.

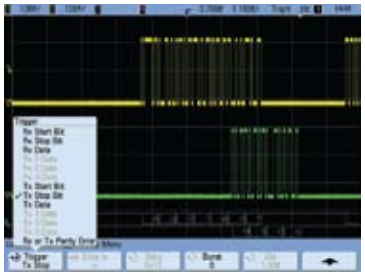
The DDR2 compliance test application provides a fast and easy way to test, debug and characterize your DDR2 designs and includes crucial measurements, such as eye-diagram, mask testing and ringing.

Design and Analysis Software

	Model number	Oscilloscope solutions
Automotive serial data analysis	*N5402A*	*9000, 90000 Series*
CAN/LIN trigger and decode	*N5424A and N8803A*	*5000, 6000, 7000, 9000 Series*
Communication mask test kit	*E2625A*	*9000, 90000 Series*
EZJIT and EZJIT Plus jitter analysis	*E2681A and N5400A*	*9000, 90000 Series*
FlexRay	*N5432A*	*6000, 7000 Series*
FPGA dynamic probe - Altera	*N5434A and N5433A*	*6000, 7000, 9000 Series*
FPGA dynamic probe - Xilinx	*N5406A and N5397A*	*6000, 7000, 9000 Series*
High-speed serial data analysis and clock recovery	*E2688A and N5384A*	*9000, 90000 Series*
I²C/SPI serial decode	*N5423A and N5391B*	*5000, 6000, 7000, 9000, 90000 Series*
InfiniiScan event identification	*N5414A and N5415A*	*9000, 90000 Series*
InfiniiSim waveform transformation	*N5465A*	*9000, 90000 Series*
Infiniium user-defined function	*N5430A*	*9000, 90000 Series*
Low-speed serial data analysis for I²C and SPI	*N5391A*	*9000, 90000 Series*



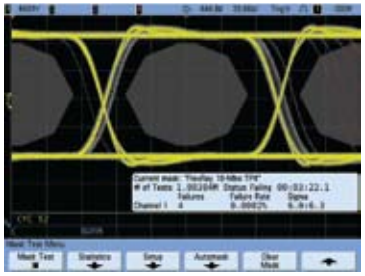
CAN/LIN triggering and hardware-accelerated decode helps you quickly find and debug errors and signal integrity problems on CAN and LIN serial buses.



RS-232/UART serial decode and trigger eliminates the need to manually decode bus traffic. Using data captured on the scope or logic channels, the application lets you easily view the information sent over a RS-232 or other UART serial bus.

Design and Analysis Software

	Model number	Oscilloscope solutions
Mask/waveform limit testing	*N5455A*	*5000, 6000, 7000 Series*
MATLAB data analysis	*Option-061 or -062*	*5000, 6000, 7000, 9000, 90000 Series*
Offline PC-based analysis of acquired data	*B4610A*	*5000, 6000, 7000 Series*
Oscilloscope tools	*E2690B*	*5000, 6000, 7000, 9000, 90000A Series*
PCI Express triggering and decode	*N5463B*	*9000 Series*
Power measurement and analysis	*U1881A and U1882A*	*6000, 7000, 9000 Series*
RS-232/UART	*N5457A and N5462B*	*5000, 6000, 7000 Series*
Segmented memory	*N5454A*	*5000, 6000, 7000 Series*
Serial data analysis	*E2688A*	*90000 Series*
Serial data equalization	*N5461A*	*9000, 90000 Series*
USB triggering and decode	*N5464B*	*9000 Series*
User-definable application	*N5467A*	*9000, 90000 Series*
User-definable function	*N5430A*	*9000, 90000 Series*
Vector signal analysis	*89601A*	*6000, 7000, 9000, 90000A Series*



Mask/waveform limit testing provides a fast and easy way to test your signals to specified standards, and uncover unexpected signal anomalies, such as glitches.

USB serial trigger and decode provides powerful time-correlated views of waveforms and symbols to the bit level, making it easy to isolate communication faults to logic or analog sources.

Probes & Accessories: *Engineered for signal access and measurement accuracy*

To get top performance from your scope, you need the right probe for your application.

Selecting the best probe for the job ensures you can access your signals and make reliable measurements. To complement the scopes we sell, Agilent offers a broad family of probes and accessories. Solutions range from simple, inexpensive passive probes to state-of-the-art high-frequency interposers that meet your toughest probing challenges.

Passive probes

When you need to measure high voltages, these are the most durable and economical probes and the most widely used.

Active probes

These single-ended or differential probes handle larger bandwidths with lower loading. Single-ended active probes provide the best overall combination of resistive and capacitive loading. With low loading, single-ended probes can be used on high-impedance, high-frequency circuits that would be overloaded with passive probes. Differential active probes are used to look at signals referenced to each other and also at small signals in the presence of large DC offsets or other common-mode signals, such as power line noise.

InfiniiMax Series

These specialized active probes complement the Infiniium Series scopes. The InfiniiMax Series gives you the industry's flattest frequency response and widest selection of probe heads and accessories. With capabilities such as 13 GHz bandwidth for differential measurements and support for heat and cold chamber extension, the award-winning InfiniiMax probe system combines maximum performance with excellent usability.

Current probes

These probes sense the current flowing through a conductor and convert it to a voltage that can be viewed and measured on your scope.

Innovative probe accessories make connections a snap.

Connecting to components like fine-pitch devices, surface-mount integrated circuits and DDR ball-grid arrays can be challenging. We take the challenge away with accessories that let you connect easily – even hands-free.

InfiniiMax, the world's best high-speed probing system, offers you the highest performance available for measuring differential and single-ended signals, with flexible connectivity solutions for today's high-density ICs and circuit boards.

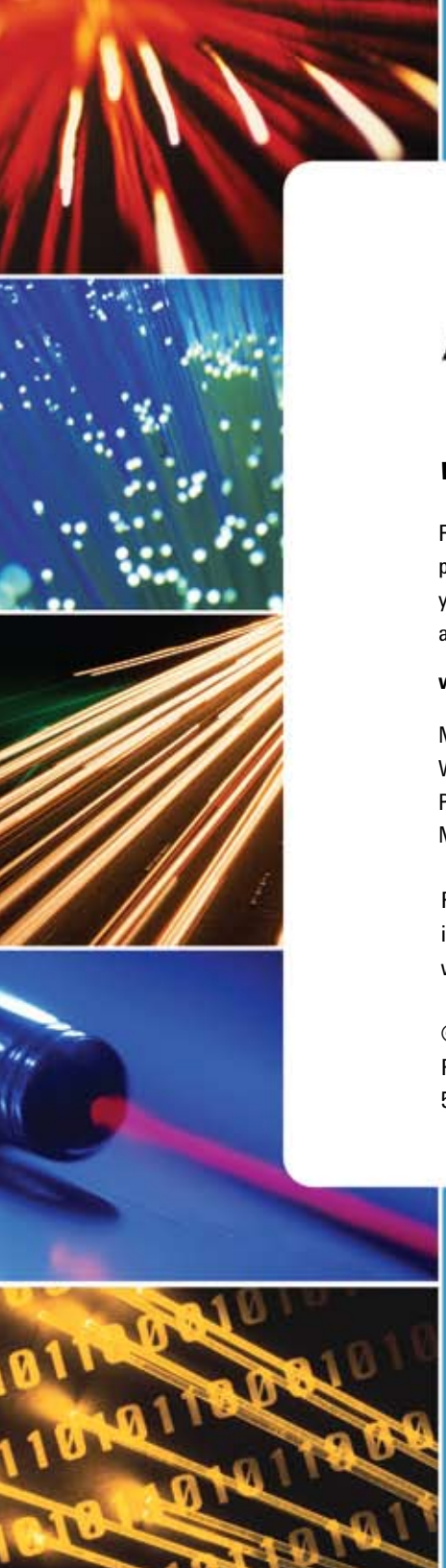
Compact 2.5-mm diameter probe heads with low input capacitance and various fine-pitch probe tip accessories make the N2870A Series passive probes ideal for probing densely populated IC components or surface-mount devices.

Recommended probes and accessories for Agilent oscilloscopes

	U1600 Series	U2700 Series		1000 Series		5000 Series		6000/7000 Series		9000 Series	90000A Series
Scope bandwidth	*20-40 MHz*	*100 MHz*	*200 MHz*	*60-150 MHz*	*200 MHz*	*100-300 MHz*	*500 MHz*	*100 MHz*	*300 MHz-1 GHz*	*1 GHz - 4 GHz*	*2.5 GHz - 13 GHz*
Probe interface	*BNC*	*BNC*		*BNC*		*AutoProbe Lite*		*BNC*	*AutoProbe Lite*	*AutoProbe*	*AutoProbe*
Passive probe 1:1	*U1560A*	*10070C*								*N2870A or 1162A*	*10070C or 1162A with E2697A[4]*
Passive probe 10:1	*U1561A*	*N2862A*	*N2863A*	*N2862A*	*N2863A*	*N2863A*	*10073C 1165A, 1171A*	*10074C*	*10073C, 1165A, 1171A*	*N2873A (500 MHz), N2874A (1.5 GHz)*	*54006A (6GHz), 10073C (500MHz), 1165A (600MHz), or 1171A with E2697A[4]*
High-voltage passive probe 100:1	*U1562A*			*10076A*						*N2876A*	*10076A with E2697A*
High-voltage passive probe 1000:1				*N2771A*							*N2771A with E2697A*
Low Z				*1163A*							
Active single-ended probe						*1144A[1]*	*1156A, 1145A[1], 1144A[1]*	*1144A[1]*	*1156A, 1144A[1] or 1130A**	*1156A, 1155A, 1130A**	*1157/8A, 1131/2/4[5] or 1168/69A[6]**
Active differential probe (high speed)				*1141A[1]*		*1141A[1]*	*1130A[4]* or 1141A[1]*	*1130A[5] or 1141A[1]*		*1130A[5] or 1153A*	*1131/2/4[5] or 1168/69A[6] with differential probe accessory*
Active differential probe (high voltage)				*N2772A[2]*		*N2790A, N2772A[2]*		*N2772A[2]*	*N2790A*	*N2790A, N2772A[2]*	*N2772A[2] with E2697A[4]*
Current probe	*U1583A*			*1146A, N2780A/81A/82A/83A[3]*		*1146A, 1147A, N2780A/81A/82A/83A[3]*		*1146A, N2780A/81A /82A/83A[3]*	*1146A, 1147A, N2780A/81A/82A/83A[3]*		*1146A, N2780A/81A/82A/83A[3] with E2697A[4]*
Rackmount kit				*N2739A*		*N2916B*		*N2916B*	*N2732A*	*N2902A*	*N5470A*
Carrying case				*N2738A*		*N2917B (hard) or N2760A (soft)*		*N2917B (hard) or N2733A (soft)*			*N5475A*

Notes:
* Includes SE probe accessory
1. Requires 1142A power supply
2. Requires N2773A power supply or 9V battery
3. Requires N2779A power supply
4. Includes one 10073C passive probe
5. Order one or more InfiniiMax I probe heads or connectivity kits per amplifier. a. E2669A InfiniiMax connectivity kit for differential/single-ended measurements, b. E2668A InfiniiMax connectivity kit for single-ended measurements, c. E2675A InfiniiMax differential browser probe head and accessories, d. E2676A InfiniiMax single-ended browser probe head and accessories, e. E2677A InfiniiMax differential solder-in probe head and accessories, f. E2678A InfiniiMax single-ended/differential socketed probe head and accessories, g. E2679A InfiniiMax single-ended solder-in probe head and accessories, h. E2695A Differential SMA probe head
6. Order one or more InfiniiMax II probe heads or connectivity kits per amplifier. a. N5380A InfiniiMax II 12 GHz differential SMA adapter, b. N5381A InfiniiMax II differential solder-in probe head and accessories, c. N5382A InfiniiMax II 12 GHz differential browser, d. N5425A InfiniiMax I and II 12 GHz differential solder-in ZIF probe head. Requires N5426A or N5451Ae. N5426A InfiniiMax I and II 12 GHz ZIF tip, f. N5451A InfiniiMax I and II 9 GHz/5 GHz Long wire ZIF tip.

To see our entire portfolio of award-winning probes, see the probe catalog at www.agilent.com/find/Agilentprobes.



Agilent Technologies Oscilloscopes

www.agilent.com/find/scopefamily

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