

Keysight Technologies Oscilloscopes

www.keysight.com/find/scopefamily



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Keysight Technologies: We engineer our scopes for you

Keysight engineers have been creating reliable, insightful products for more than 75 years. We are continually looking for new ways to help you shape the future with innovative products and test solutions. From high performance to extreme value, and bandwidths ranging from 20 MHz to more than 90 GHz, we have the oscilloscope solutions to meet your evolving needs.

Just like you, we're working on what's next.

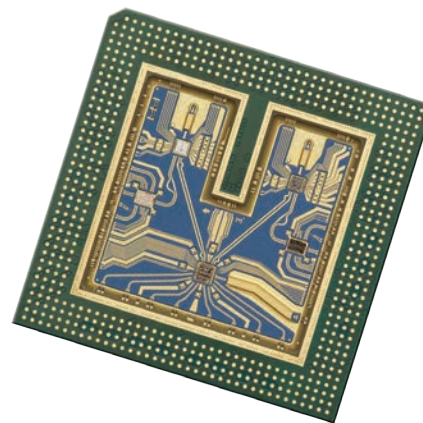
Keysight is a leader in oscilloscope innovation, and we are proud to hold a host of industry firsts including the first Mixed Signal Oscilloscope (MSO). Our Infiniium oscilloscopes offer the industry's deepest memory and lowest noise floor. Our capacitive touch-screen oscilloscopes, combined with InfiniiScan Zone touch trigger, are the only scopes that let you trigger on areas of interest with a swipe of the finger. This innovation leadership carries over to our probes and accessories with breakthroughs such as the industry's highest sensitivity, highest dynamic range AC/DC current probes that can measure currents as low as 50 μ a.

Keysight oscilloscopes can give you the answers you need.

But great hardware is just the first step. We also offer more application-specific software than any other oscilloscope vendor. Keysight wants to help you get fast, accurate answers to your measurement questions whether you're working with low-speed serial protocols; analyzing specialized high-speed protocols; or doing compliance testing.

Keysight experts help shape emerging test standards.

Our engineers sit on governing boards to help define test standards long before the products that use them are even available. This means we design our oscilloscopes to meet these future standards, so you can get to market faster. Keysight experts participate in the major standards bodies, including USB-IF, MIPI™ Alliance, HDMI Forum, JEDEC, PCI-SIG®, and more so you can get the latest information first. Choosing a Keysight scope means you not only have access to cutting-edge technology but also to the experts who help create them.



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 MegaZoom.

InfiniiVision scopes incorporate acquisition memory, waveform processing, and display memory in an advanced .13m ASIC. This patented 4th generation technology, known as MegaZoom IV, delivers up to 1,000,000 waveforms (acquisitions) per second with responsive deep memory always available.

Here are just a few of the awards earned by Keysight oscilloscopes:



Model Comparison Chart

	U1600 Series	U2700 Series	1000 Series	2000 X-Series	3000 X-Series	4000 X-Series
						
Bandwidth	20 MHz to 200 MHz	100 MHz to 200 MHz	50 MHz to 200 MHz	70 MHz to 200 MHz	100 MHz to 1 GHz	200 MHz to 1.5 GHz
Channels	2	2	2, 4	2, 2+8, 4, 4+8	2, 2+16, 4, 4+16	2, 2+16, 4, 4+16
Sample rate	Up to 2 GSa/s	Up to 1 GSa/s	Up to 2 GSa/s	Up to 2 GSa/s	Up to 5 GSa/s	Up to 5 GSa/s
Memory depth	Up to 2 Mpts	32 Mpts, std.	Up to 10 kpts	100 kpts, std. Up to 1 Mpts, opt.	2 Mpts, std. Up to 4 Mpts, opt.	4 Mpts, std.
Connectivity and storage	<ul style="list-style-type: none"> - USB 2.0 device port, std. - USB 2.0 host port, opt. on U1602B & U1604B 	<ul style="list-style-type: none"> - USB device, std. 	<ul style="list-style-type: none"> - USB 2.0 host (one front, one back) and device 	<ul style="list-style-type: none"> - USB (device and host), std. - LAN, VGA-out, GPIB, opt. 	<ul style="list-style-type: none"> - USB (device and host), std. - LAN, VGA-out, GPIB, opt. 	<ul style="list-style-type: none"> - USB 2.0 (device and host), LAN, VGA-out, std. - GPIB, opt.
Analysis	<ul style="list-style-type: none"> - Waveform - FFT - PC link software - USB cable 	<ul style="list-style-type: none"> - Waveform - FFT 	<ul style="list-style-type: none"> - Waveform - FFT - PC-based Infiniium Offline analysis 	<ul style="list-style-type: none"> - Waveform - FFT - PC-based Infiniium Offline analysis 	<ul style="list-style-type: none"> - Waveform - FFT - PC-based Infiniium Offline analysis 	<ul style="list-style-type: none"> - InfiniScan Zone trigger - Advanced math - FFT - Serial trigger and decode - Function/arb generation - Power analysis - PC-based Infiniium Offline analysis
Market	<ul style="list-style-type: none"> - High-performance handheld - Installation and maintenance - Automotive and A/D industries - Floating voltage measurement for industrial customers 	<ul style="list-style-type: none"> - Portable - Electronics troubleshooting - Functional testing - Educational teaching and research labs 	<ul style="list-style-type: none"> - Portable - Affordable - Low-speed design and debug - Educational teaching and research labs 	<ul style="list-style-type: none"> - Portable - Affordable - Low-speed design and debug - Manufacturing test - Educational teaching and research labs - Five instrument integration maximizes capabilities 	<ul style="list-style-type: none"> - Portable - Affordable - Low-speed design, debug and analysis - Ideal for debugging and troubleshooting - Manufacturing test - Educational teaching and research labs - Five instrument integration maximizes capabilities 	<ul style="list-style-type: none"> - High performance - Portable - Ideal for debugging - Ideal for signal viewing and analysis of infrequent events - Integrated capabilities of five instruments in one - Comprehensive list of applications

6000/7000B Series



6000 X-Series



S-Series



90000A Series



90000 X-Series / Z-Series



86100D DCA-X Series



100 MHz to 1 GHz	1 GHz to 6 GHz	500 MHz to 8 GHz	2.5 GHz to 13 GHz	13 GHz to 63 GHz	Module dependent: 65 GHz optical, 90 GHz electrical
2, 2+16, 4, 4+16	2, 2+16, 4, 4+16	4, 4+16	4	4	Up to 16
Up to 4 GSa/s	Up to 20 GSa/s	Up to 20 GSa/s	20 or 40 GSa/s on all 4 channels	Up to 80 GSa/s on 4 channels and 160 GSa/s on 2 channels	40 kSa/s
8 Mpts, std.	4 Mpts, std.	50 Mpts, std. Up to 800 Mpts, opt.	20 Mpts, std. Up to 1 Gpts, opt.	20 Mpts on 90000 X-Series and 50 Mpts on Z-Series, std. Up to 2 Gpts, opt.	Limited by hard drive
<ul style="list-style-type: none"> - USB 2.0 (device and host), LAN, VGA-out, std. - GPIB, opt. on 7000B 	<ul style="list-style-type: none"> - USB 2.0 (device and host), LAN, VGA-out, std. - GPIB, opt. 	<ul style="list-style-type: none"> - USB 2.0/3.0 (device and host), LAN, monitor VGA, HDMI and DVI, std. - GPIB, opt. 	<ul style="list-style-type: none"> - USB 2.0 (device and host) Gigabit Ethernet, std. - GPIB, opt. 	<ul style="list-style-type: none"> - USB 2.0 (device and host) Gigabit Ethernet, std. - USB 3.0, opt. on Z-Series - GPIB, opt. 	<ul style="list-style-type: none"> - USB 2.0/3.0 (device and host), LAN, monitor VGA and Display-Port, std. - GPIB, opt.
<ul style="list-style-type: none"> - Waveform - FFT - PC-based Infiniium Offline analysis 	<ul style="list-style-type: none"> - InfiniScan Zone trigger - Advanced math - Up to four independent/cascaded math functions - Enhanced FFT, eye and jitter - Serial trigger and decode - Function/arb generation - Power analysis - PC-based Infiniium Offline analysis 	<ul style="list-style-type: none"> - Up to sixteen independent/cascaded math functions - FFT, eye, jitter, standards compliance, serial trigger and decode - Infiniium Offline analysis - MATLAB, opt. - Windows 7 based-system 	<ul style="list-style-type: none"> - Up to sixteen independent/cascaded math functions - FFT, eye, jitter, standards compliance - Infiniium Offline analysis - MATLAB, opt. - Windows 7 based-system 	<ul style="list-style-type: none"> - Up to sixteen independent/cascaded math functions - FFT, eye, jitter, standards compliance - Infiniium Offline analysis - MATLAB, opt. - Windows 7 based-system 	<ul style="list-style-type: none"> - TDR - S-Parameters - Eye diagram analyzer - Advanced jitter and amplitude analysis - De-embed, embed - FFT - Phase noise analysis application - MATLAB, opt.
<ul style="list-style-type: none"> - High performance - Portable - Ideal for mixed-signal and embedded designs - Comprehensive software suite for application-specific problems - Battery-powered option - 1U-high model for rack mounting 	<ul style="list-style-type: none"> - High performance - Portable - Ideal for debugging applications - Ideal for signal viewing and analysis of infrequent events - Voice control - Integrated capabilities of six instruments in one - Comprehensive list of applications 	<ul style="list-style-type: none"> - High performance - Real-time - Superior signal integrity - Ideal for advanced debugging - Addresses the needs for high-speed digital and RF applications - More than 50 applications for compliance, debugging, and analysis 	<ul style="list-style-type: none"> - High performance - Real-time - Addresses the needs for high-speed digital and RF applications - More than 38 applications for compliance, debug, and analysis 	<ul style="list-style-type: none"> - High performance - Real-time - Industry's highest real-time scope measurement accuracy - Supports high-speed digital and RF applications and emerging technologies - More than 46 applications for compliance, debug, and analysis 	<ul style="list-style-type: none"> - High performance - High bandwidth - Multi-function sampling scope - For serial bus applications, optical, TDR/TDT and any signal requiring precision waveform analysis

U1600 Series Oscilloscopes

20 MHz to 200 MHz handheld scopes

Engineered for performance in rugged and portable applications

- See more clearly and differentiate simultaneous signals from both channels more easily with a 5.7-inch VGA TFT LCD display or 4.5-inch 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
- Scopes isolated channels enable floating measurements capability on the U1610A/20A
- Up to 1 GSa/s per channel real-time sampling rate and 1 Mpts recording length ensure you get high performance, even on a handheld
- 3-in-1 solution: Dual-channel scope, true RMS DMM and real-time data logger
- High-speed USB port for a quick and convenient way to save data into USB flash drive and/or to remote access using the scope**



*5.7-inch VGA TFT LCD display for U1610A/ 20A and 4.5-inch LCD color display for U1602B/04B

**USB host- Opt.001 is optional for U1602B/U1604B only

Scope Additions and Enhancements

Probes

Improve your measurement reliability with our comprehensive selection of probes:

- All models come with the U1561A CAT III 600 V probe
- See our complete list of compatible probes on pages 34-35

Accessories

Don't forget options such as the CAT III 600 V 100:1 probe, desktop charger and Li-Ion battery pack, AC current clamp, temperature adapter, carrying case and USB host capability.

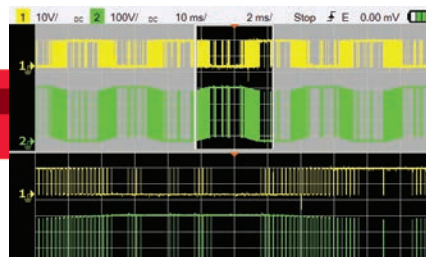
Models and Specifications

	U1602B	U1604B	U1610A	U1620A
Bandwidth	20 MHz	40 MHz	100 MHz	200 MHz
Sample rate	Up to 200 MSa/s*		Up to 1 GSa/s*	Up to 2 GSa/s*
Record length	Up to 125 Kpts		Up to 120 Kpts	Up to 2 Mpts
Channels	2			
Display	4.5" color CSTN LCD (320x240)		5.7" VGA TFT LCD	
Channel isolation	N/A		Yes	
Vertical resolution	8 bits			
Vertical sensitivity	5 mV/div to 100 V/div		2 mV/div to 50 V/div	
Maximum input	CAT III 300 Vrms (up to 400 Hz) from terminal to ground		CAT III 600 V (with 10:1 probe), CAT III 300 V (direct)	
Input impedance	1 MΩ < 20 pF		1 MΩ ± 1% ≈ 22 pF ± 3 pF	
Timebase range	50 ns to 50 s/div	10 ns to 50 s/div	5 ns/div to 50 s/div	2 ns/div to 50 s/div
Triggering	Edge, pattern, pulse width, video		Edge, glitch, TV, Nth edge	
Dimensions	24.1 cm high x 13.8 cm wide x 6.6 cm deep		27 cm high x 18.3 cm wide x 6.5 cm deep	
Weight	1.5 kg		< 2.5 kg	
Battery life	Up to 4 hours		Up to 3 hours	

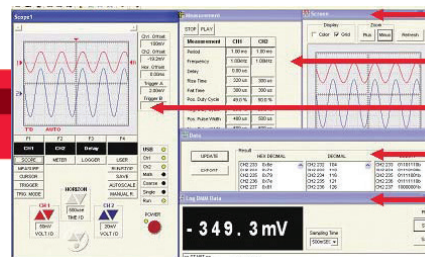
*Single-channel operation



Handheld high performance. In-plant or off-site, take advantage of a full-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.



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.

U2700 Series Oscilloscopes

100 MHz to 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 bundled KMM (Keysight 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
- More than 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 KMM software)
- Provides flexibility of standalone or chassis-based operation for dual-play capability



Scope Additions and Enhancements

Probes

Improve your measurement reliability with our complete selection of probes:

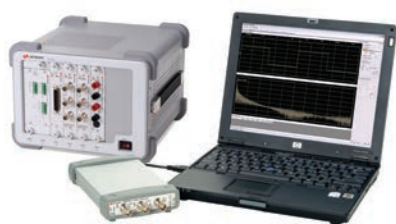
- U2701A comes with the N2862B 10:1, 150 MHz passive probe; U2702A comes with the N2863B 10:1, 300 MHz passive probe
- See the complete list of compatible probes on pages 34-35

Accessories

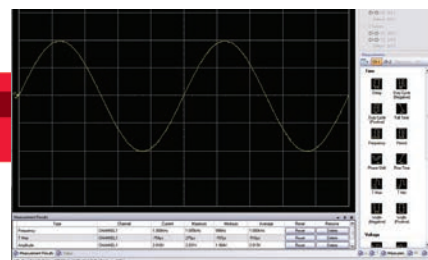
Don't forget options such as the six-slot USB MI chassis, BNC cable and USB secure cable.

Models and Specifications

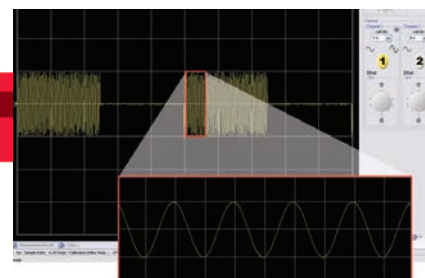
	U2701A	U2702A
Bandwidth	100 MHz	200 MHz
Sample rate	1 GSa/s, 500 MSa/s each channel	
Channels	2	
Memory	32 Mpts, std.	
Vertical resolution	8 bits	
Vertical sensitivity	2 mV/div to 5 V/div	
Maximum input	CAT 1 30 Vrms, 42 Vpk	
Input impedance	1 M Ω : \approx 16 pF	
Timebase range	1 ns/div to 50 s/div	
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)	



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, duty cycle and the measurement results panel.



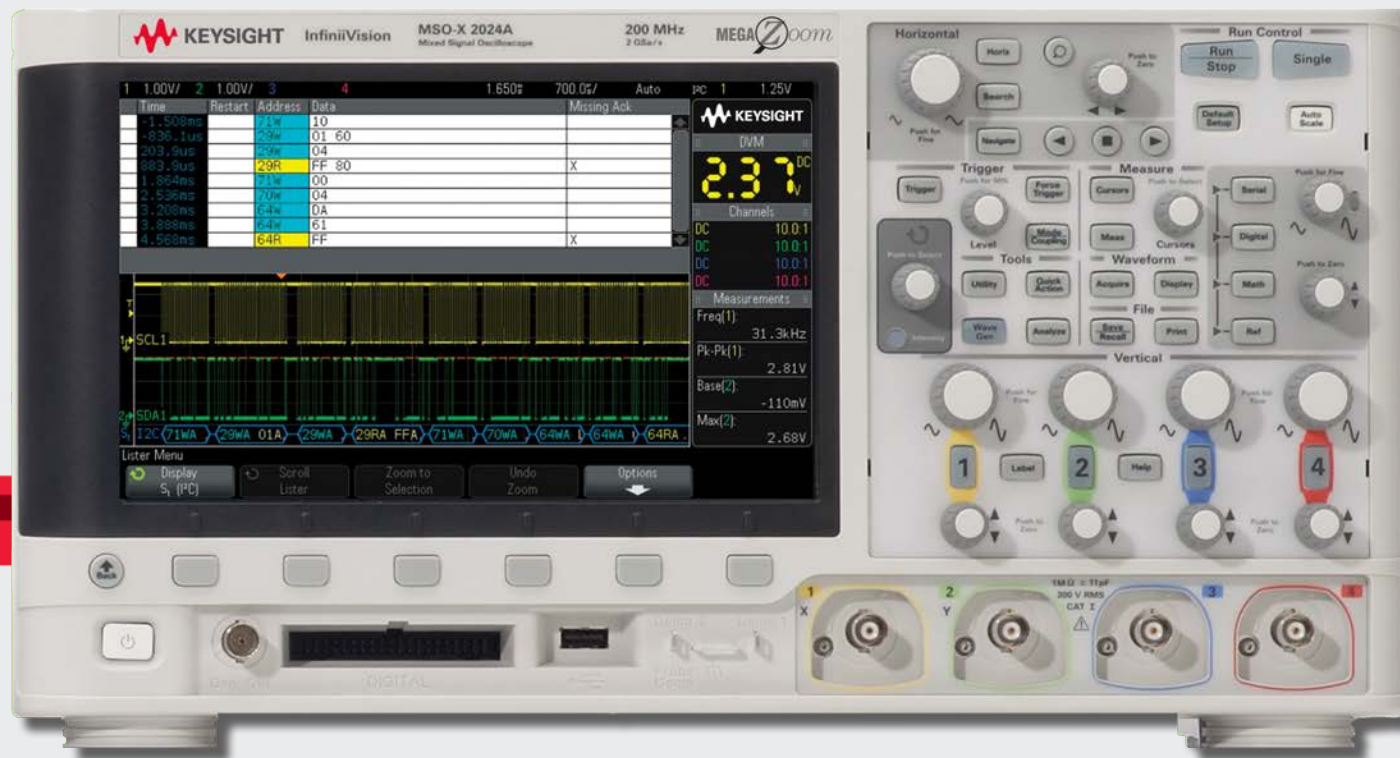
Explore frequency domain characteristics of measured waveforms using FFT analysis (with four windowing functions) and search for peak values of the FFT.

InfiniiVision 2000 X-Series Oscilloscopes

70 MHz to 200 MHz economy scopes

Breakthrough technology delivers more scope for the same budget

- 8.5-inch WVGA display is the largest in this class with 50% more signal viewing than other scopes
- 50,000 waveforms per second update rate lets you see more of your signal detail and infrequent anomalies more of the time
- 5 instruments in 1: oscilloscope, mixed-signal oscilloscope, WaveGen function generator, serial protocol analyzer and integrated digital voltmeter
- First fully upgradable oscilloscope: bandwidth, memory, MSO, WaveGen and measurement applications
- Supports Infiniium Offline analysis software and Oscilloscope Spectrum Visualizer for vector signal analysis



Models and Specifications

		2002A	2004A	2012A	2014A	2022A	2024A
Bandwidth		70 MHz		100 MHz		200 MHz	
Sample rate		2 GSa/s half channel, 1 GSa/s full channel					
Channels	DSOX	2	4	2	4	2	4
	MSOX	2+8	4+8	2+8	4+8	2+8	4+8
Memory		100 kpts, std. 1 Mpts and segmented memory, opt.					
Display		8.5-inch high definition wide display					
Waveform update rate		> 50,000 waveforms per second					
Vertical resolution		8 bits					
Vertical sensitivity		1 mV/div ~ 5 V/div					
Integrated instruments		Optional MSO, function generator, protocol analyzer, DVM					
Bandwidth limit		Approximately 20 MHz					
Maximum input voltage		CAT I 300 Vrms, 400 Vpk, CAT II 300 Vrms, 400 Vpk					
Input impedance		1 M Ω \pm 2% (11 pF)					
Timebase range		5 ns/div to 50 s/div				2 ns/div to 50 s/div	
Time scale accuracy		25 ppm \pm 5 ppm per year					
Triggering		Edge, pulse width, pattern, video, I ² C*, SPI*, CAN*, LIN*, UART/RS-232/422/485*					
Connectivity		USB Device x2, USB host x 1, std. LAN, VGA, GPIB, opt.					
Dimensions		381 mm wide x 204 mm high x 141 mm deep					
Weight		3.85 kg (8.5 lbs)					

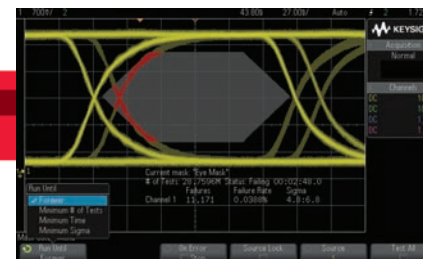
*Optional



See more of your signal more of the time with the largest screen in its class, the deepest memory and the fastest waveform update rates.



Do more with the power of 5 instruments in 1: oscilloscope, logic timing analyzer (opt.), integrated WaveGen arbitrary-function generator (opt.), serial protocol analyzer (opt.), and integrated digital voltmeter (opt.).



Get more investment protection with this fully-upgradable scope, including bandwidth and memory.

Scope Additions and Enhancements

Probes

Improve your measurement reliability with our comprehensive selection of probes:

- DSO/MSOX2002A, 2004A, 2012A and 2014A come with the N2862B 150 MHz passive probe, 10:1 attenuation
- DSO/MSOX2022A and 2024A come with the N2863B 300 MHz passive probe, 10:1 attenuation
- See our complete list of compatible probes on pages 34-35

Accessories

Don't forget options such as the VGA/LAN or GPIB modules, soft carrying case, and rackmount kit.

Memory, Bandwidth, and DSO-to-MSO Upgrades

Protect your investment with the flexibility to upgrade your memory, bandwidth, and add MSO channels at any time.

Applications

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

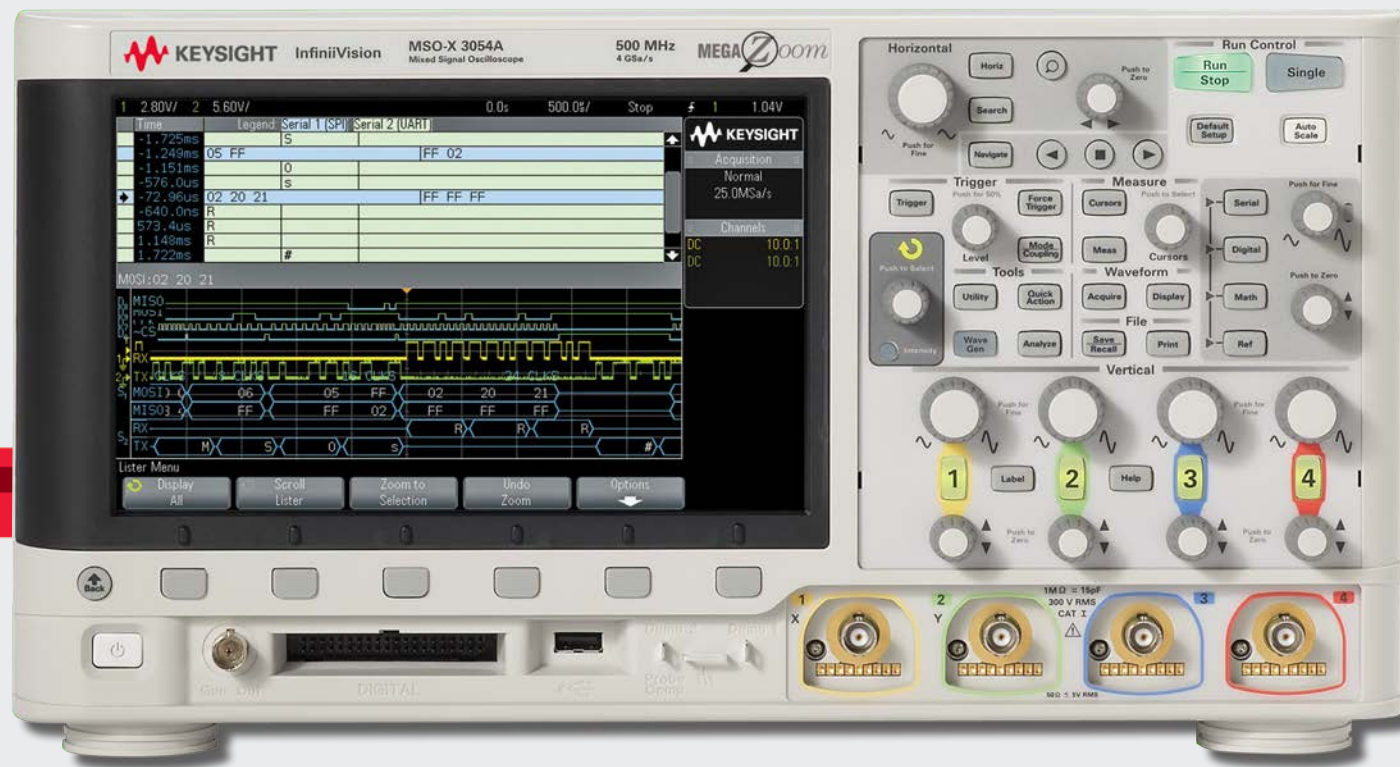
- Integrated feature options: WaveGen function generator, 3-digit voltmeter, mask testing, education training kit, and segmented memory
- General and serial protocol applications: I²C, SPI, CAN, LIN, UART/RS-232/422/485 (Serial is only available on analog channels with the 2000 X-Series.)
- See our list of applications on pages 31-33

InfiniiVision 3000 X-Series Oscilloscopes

100 MHz to 1 GHz economy scopes

Breakthrough technology delivers more scope for the same budget

- 8.5-inch WVGA display, with 50% more signal viewing than most other scopes in this class
- 1,000,000 waveforms per second update rate lets you see more of your signal detail and infrequent anomalies more of the time
- Up to 4 Mpts memory means you can capture long, non-repeating signals while maintaining a high sample rate
- 5 instruments in 1: oscilloscope, mixed-signal oscilloscope, WaveGen function generator, serial protocol analyzer and integrated digital voltmeter
- First fully-upgradable oscilloscope: bandwidth, MSO, WaveGen, DVM, and measurement applications



Models and Specifications

		3012A	3014A	3024A	3032A	3034A	3052A	3054A	3102A	3104A
Bandwidth		100 MHz		200 MHz	350 MHz		500 MHz		1 GHz	
Sample rate		4 GSa/s half channel, 2 GSa/s full channel							5 GSa/s (half), 2.5 GSa/s (full)	
Channels	DSOX	2	4	4	2	4	2	4	2	4
	MSOX	2+16	4+16	4+16	2+16	4+16	2+16	4+16	2+16	4+16
Memory		2 Mpts, std. 4 Mpts and segmented memory, opt.								
Display		8.5-inch high definition wide display								
Waveform update rate		> 1,000,000 waveforms per second								
Vertical resolution		8 bits								
Vertical sensitivity		1 mV/div ~ 5 V/div								
Integrated instruments		Optional MSO, waveform/function generator, protocol analyzer, DVM								
Bandwidth limit		Approximately 20 MHz								
Maximum input voltage		CAT I 300 Vrms, 400 Vpk, CAT II 300 Vrms, 400 Vpk								
Input impedance		Selectable 1 M Ω \pm 1% (14 pF), 50 Ω \pm 1.5%								
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		25 ppm \pm 5 ppm per year								
Triggering		Edge, edge then edge (B trigger), pulse width, pattern, OR, rise/fall time, Nth edge burst, runt, setup & hold, video, enhanced video (HDTV)*, USB* ARINC429*, CAN*, FlexRay*, I ² C*, I ² S*, LIN*, MIL-STD 1553*, SPI*, UART/RS-232/422/485*								
Connectivity		USB device x1, USB host x2, std. LAN, VGA, GPIB, opt.								
Dimensions		38.1 cm wide x 20.4 cm high x 14.1 cm deep								
Weight		3.85 kg (8.5 lbs)								

*Optional



See more of your signal more of the time with the largest screen in its class, the deepest memory and the fastest waveform update rates.



Do more with the power of 5 instruments in 1: oscilloscope, logic timing analyzer (opt.), integrated WaveGen arbitrary-function generator (opt.), serial protocol analyzer (opt.) and integrated digital voltmeter (opt.).



Serial bus triggering and hardware-based protocol decoding means you can efficiently debug your embedded designs that include serial bus communication.

Scope Additions and Enhancements

Probes

Improve your measurement reliability with our comprehensive selection of probes:

- DSO/MSOX3012A and 3014A come with the N2862B 150 MHz passive probe, 10:1 attenuation
- DSO/MSOX3024A comes with the N2863B 300 MHz passive probe, 10:1 attenuation
- DSO/MSOX3032A, 3034A, 3052A, 3054A, 3102A and 3104A come with the N2890A 500 MHz passive probe, 10:1 attenuation
- See our complete list of compatible probes on pages 34-35

Accessories

Don't forget options such as the VGA/LAN or GPIB modules, soft carrying case and rackmount kit.

Memory, Bandwidth and DSO-to-MSO Upgrades

Protect your investment with the flexibility to upgrade your memory, bandwidth and add MSO channels at any time.

Applications

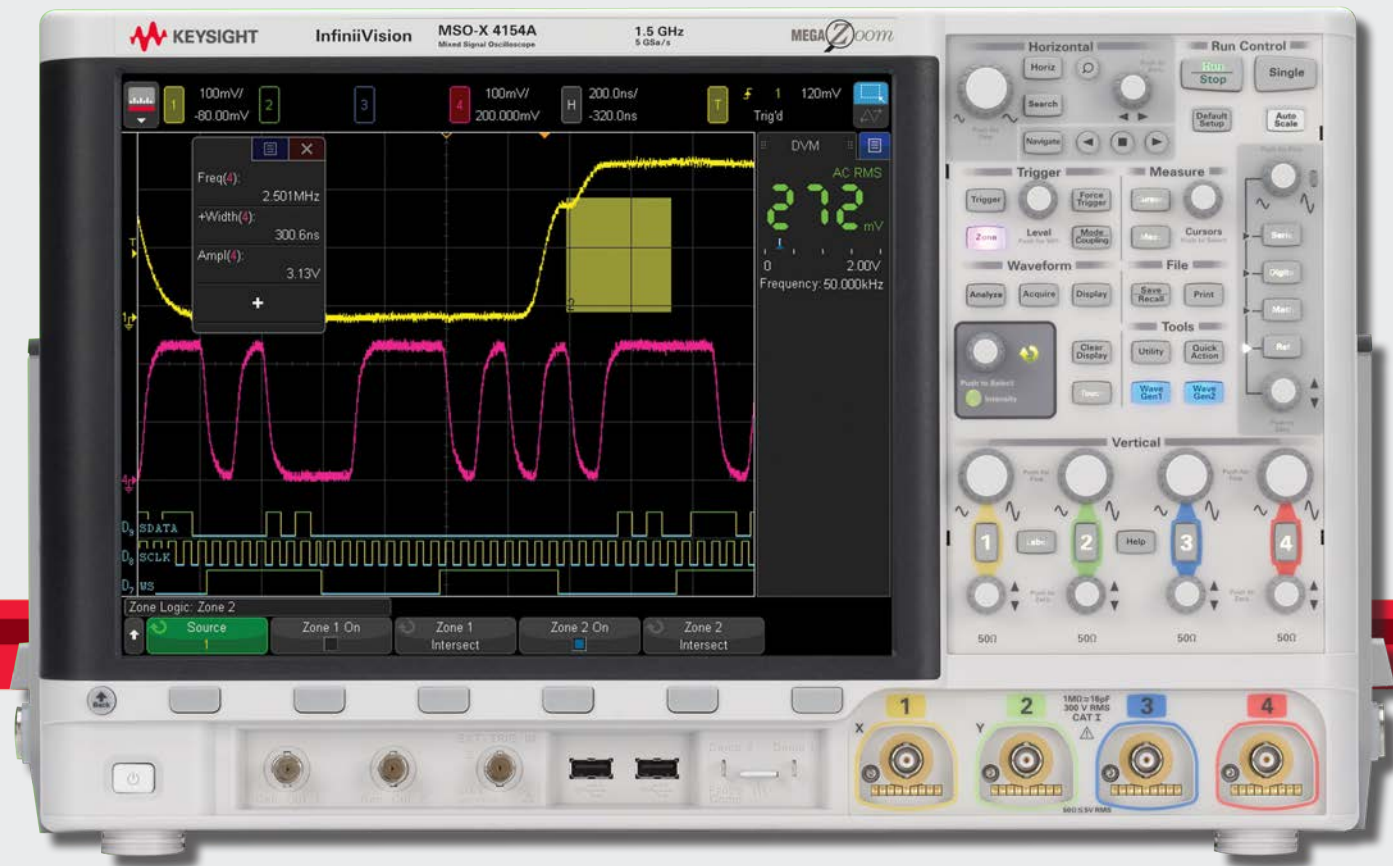
Expand your scope's capabilities with our powerful lineup of applications:

- Integrated feature options: WaveGen function generator, 3-digit voltmeter, mask testing, education training kit and segmented memory
- General and serial protocol applications: I²C, SPI, CAN, LIN, UART/RS-232/422/485, HDTV, FlexRay, ARINC429, MIL-STD 1553 and I²S
- See our list of applications on pages 31-33

InfiniiVision 4000 X-Series Oscilloscopes

200 MHz to 1.5 GHz digital storage and mixed signal scopes
Oscilloscope experience redefined

- Industry-exclusive 12.1-inch capacitive touch display is the largest display in this class of oscilloscopes
- 1,000,000 waveforms per second update rate means you can see more of your signal more of the time
- Exclusive InfiniiScan Zone touch triggering simplifies complex triggering to a touch of the screen
- Get 5 instruments in 1: oscilloscope, mixed-signal oscilloscope, serial protocol analyzer, WaveGen dual-channel function/arbitrary generator and 3-digit voltmeter
- Fully upgradable: bandwidth, MSO WaveGen, DVM and measurement applications



Models and Specifications

		4022A	4024A	4032A	4034A	4052A	4054A	4104A	4154A
Bandwidth		200 MHz		350 MHz		500 MHz		1 GHz	1.5 GHz
Sample rate		5 GSa/s half channel, 2.5 GSa/s full channel							
Channels	DSOX	2	4	2	4	2	4	4	4
	MSOX	2+16	4+16	2+16	4+16	2+16	4+16	4+16	4+16
Memory		4 Mpts and segmented memory, std.							
Display		12.1-inch high-definition capacitive touch display							
Waveform update rate		1,000,000 waveforms per second							
Vertical resolution		8 bits (up to 12 bits with averaging or high-resolution mode)							
Vertical sensitivity		1 mV/div to 5 V/div (1 M Ω and 50 Ω)						1 mV/div to 5 V/div (1 M Ω), 1 mV/div to 1 V/div (50 Ω)	
Integrated instruments		MSO, dual-channel waveform/function generator, protocol analyzer, DVM							
Bandwidth limit		Approximately 20 MHz							
Maximum input voltage		CAT I 300 Vrms, 400 Vpk, CAT II 300 Vrms, 400 Vpk							
Input impedance		Selectable 1 M Ω \pm 1% (16 pF), 50 Ω \pm 1.5%							
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		\pm 10 ppm							
Triggering		InfiniiScan Zone touch trigger, edge, edge then edge (B trigger), pulse width, pattern, OR, rise/fall time, Nth edge burst, runt, setup & hold, video, enhanced video (HDTV)*, USB 2.0*, ARINC429*, CAN*, FlexRay*, I ² C*, I ² S*, LIN*, MIL-STD 1553*, SPI*, UART/RS-232/422/485*							
Connectivity		LAN, VGA, USB device x1, USB host x3, std. GPIB, opt.							
Dimensions		45.4 cm wide x 29.8 cm high x 15.6 cm deep							
Weight		6.3 kg (13.9 lbs)							

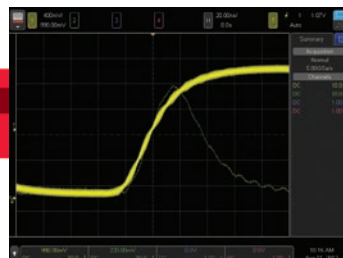
*Optional



Experience the capacitive 12-inch touch screen. Drag measurements, cursors and sidebar panels for quick oscilloscope setup. Use the alpha-numeric touch pad for dramatically faster annotation.



Experience InfiniiScan Zone touch trigger. Triggering has never been this easy before; simply draw a box around your signal of interest for instantaneous triggering.



Experience the speed. Industry's fastest waveform update rate uncovers infrequent anomalies other scopes may miss.



Experience the integration. Save your bench space and improve your measurement efficiencies with built-in optional protocol analyzer, MSO, dual-channel WaveGen and DVM.

Scope Additions and Enhancements

Probes

Improve your measurement reliability with our comprehensive selection of probes.

- All 4000 X-Series models come with one standard N2894A 700-MHz passive probe (10:1 attenuation) per channel
- See complete list of compatible probes on pages 34-35

Accessories

Don't forget options such as the rackmount kit and soft carrying case.

Bandwidth and DSO-to-MSO Upgrades

Protect your investment with the flexibility to upgrade your bandwidth and add MSO channels at any time.

Applications

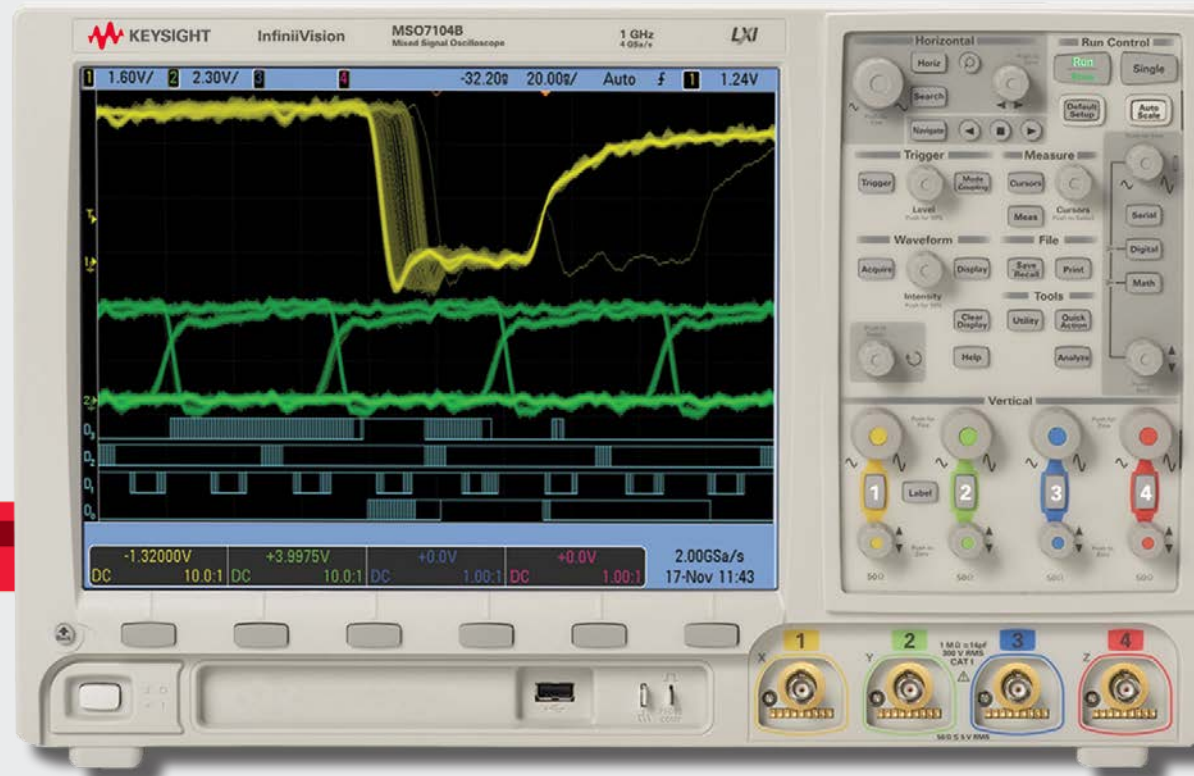
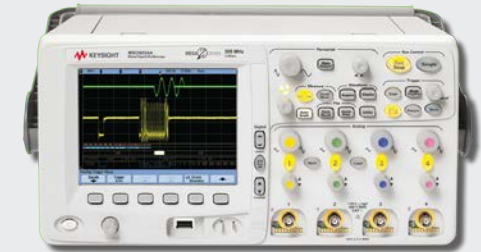
Expand your scope's capabilities with our powerful lineup of applications:

- Integrated feature options: Dual-channel WaveGen, 3-digit voltmeter, mask/limit testing and education training kit
- General and serial protocol applications: MIL-STD 1553, ARINC 429, USB 2.0 (low-, full-, and hi-speed), audio serial (I²S), CAN, LIN, FlexRay, UART/RS-232/232/244/485, I²C, SPI, Xilinx FPGA dynamic probe, power analysis, USB 2.0 signal quality and HDTV
- See our list of applications on pages 31-33

InfiniiVision 6000 & 7000B Series Oscilloscopes

100 MHz to 1 GHz digital storage and mixed signal scopes
Engineered for signal visibility

- Captures and compares analog, digital and serial signals
- 100,000 waveforms per second update rate helps you catch elusive glitches
- Only high-performance scope with battery-power option - enabling 2+ hours without line power (6000A Series)
- Only high-performance 1U-high rack-mountable scope (6000L Series)
- Serial bus trigger/decode options including I²C, SPI, CAN, LIN, I²S, RS-232/UART, MIL-STD 1553 and FlexRay
- DSO models upgradable to MSO whenever you need greater capabilities



Models and Specifications

6000A/L Series		6012A	6014A/L	6032A	6034A	6052A	6054A/L	6102A	6104A/L
7000B Series		7012B	7014B	7032B	7034B	7052B	7054B	7104B	
Bandwidth		100 MHz		Up to 350 MHz		500 MHz		1 GHz	
Sample rate		2 GSa/s				4 GSa/s half channel, 2 GSa/s full channel			
Channels	DSO	2	4	2	4	2	4	2	4
	MSO	2+16	4+16	2+16	4+16	2+16	4+16	2+16	4+16
Memory		8 Mpts, std. Segmented memory, opt.							
Display		XGA display (6000A: 6.3-inch, 7000B: 12-1-inch)							
Waveform update rate		100,000 waveforms per second							
Vertical resolution		8 bits							
Vertical sensitivity		2 mV/div ~ 5 V/div (except 601xA: 1 mV/div ~ 5 mV/div)							
Bandwidth limit		Approximately 20 MHz							
Maximum input voltage		CAT I 300 Vrms, 400 Vpk, CAT II 300 Vrms, 400 Vpk							
Input impedance		Selectable 1 M Ω \pm 1% (14 pF), 50 Ω \pm 1.5% (except 601xA: 1 M Ω \pm 1% (11pF) only)							
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		$\leq \pm (15+2^* (\text{instrument age in years})) \text{ ppm}$							
Triggering		Edge, pulse width, pattern, TV, duration, sequence, CAN, LIN, USB, I ² C, I ² S, SPI, RS-232, Nth edge burst, MIL-STD 1553, FlexRay							
Connectivity		USB host x2, USB device x1, LAN, XGA output, std. GPIB (opt. 7000B)							
Battery operation		BAT (6000A Series only), opt.							
Dimensions		6000A: 354 mm wide x 188 mm high x 282 mm deep, 6000L: 435 mm wide x 42 mm high x 270 mm deep, 7000B: 454 mm wide x 277 mm high x 173 mm deep							
Weight		6000A: 4.9 kg (10.8 lbs), 6000L: 2.45 kg (5.4 lbs), 7000B: 5.9 kg (13 lbs)							

Scope Additions and Enhancements

Probes

Improve your measurement reliability with our comprehensive selection of probes:

- 603xA, 605xA, 610xA, 703xB, 705xB and 710xB come with the 10073D 10:1, 500 MHz passive probe
- 601xA and 701xB come with the 10074D 10:1, 150 MHz passive probe
- See our complete list of compatible probes on pages 34-35

Accessories

Don't forget options such as the hard transit case, evaluation kit and rackmount kit.

Portable Power

Consider the battery in the 6000A Series for measurements on the go.

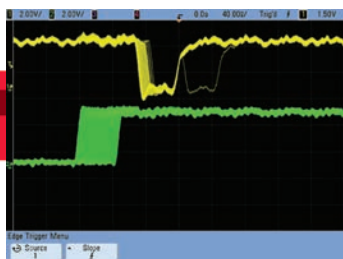
DSO-to-MSO Upgrades

Protect your investment with the flexibility to upgrade to MSO after purchase.

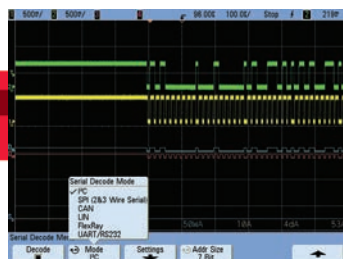
Applications

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

- Options include I²C, SPI, CAN/LIN, RS-232, FPGA, FlexRay, I²S, MIL-STD 1553, power, offline analysis, vector signal analysis, mask testing and segmented memory
- See our complete list of applications on page 31-33



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.



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



Available in a compact, rack-mount design. The 6000L is 1U high and 19" wide to save valuable rack space. Side and rear air vents allow you to mount other instruments directly above or below. Rackmount brackets and rack rails come standard with every unit.

InfiniiVision 6000 X-Series Oscilloscopes

1 GHz to 6 GHz digital storage and mixed signal scopes

The new standard in price performance

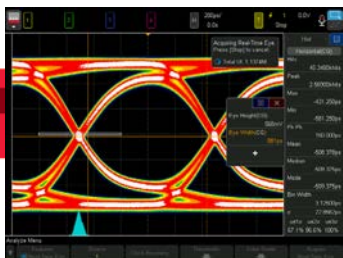
- Industry-exclusive 12.1-inch capacitive multi-touch display with multi-language voice control
- Standard histogram and color grade features add depth to your signal analysis
- Jitter and real-time eye diagram analysis give you confidence in the signal integrity of your design
- Exclusive InfiniiScan Zone simplifies complex triggering to a touch of the scope's screen
- 450,000 waveforms per second update rate gives you a high probability of capturing random and infrequent events
- Get 6 instruments in 1: oscilloscope, mixed-signal oscilloscope, serial protocol analyzer, WaveGen dual-channel function/ arbitrary generator, 10-digit counter with totalizer and 3-digit voltmeter
- Fully upgradable: bandwidth, MSO, WaveGen, DVM and measurement applications



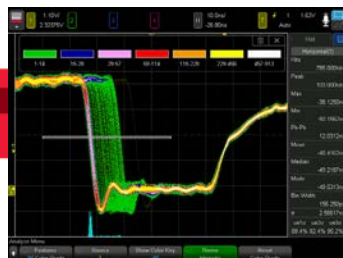
Models and Specifications

	6002A	6004A	6B10T252BW	6B10T254BW	6B10T402BW	6B10T404BW	6B10T602BW	6B10T604BW	
Bandwidth	1 GHz		2.5 GHz		4 GHz		6 GHz		
Sample rate	20 GSa/s half channel, 10 GSa/s all channel								
Channels	DSOX	2	4	2	4	2	4	2	4
	MSOX	2+16	4+16	2+16	4+16	2+16	4+16	2+16	4+16
Memory	≤ 2 GSa/s: 4 Mpts half, 2 Mpts all channels, > 2 GSa/s: 1 Mpts half, 500 kpts all channels; Standard segmented memory								
Display	12.1-inch capacitive multi-touch display								
Waveform update rate	Up to 450,000 waveforms per second								
Vertical resolution	8 bits (up to 12 bits with averaging or high-resolution mode)								
Vertical sensitivity	1 mV/div to 5 V/div (1 MΩ); 1mV/div ~ 1V/div (50 Ω)								
Bandwidth limit	Selectable per channel: 20 MHz, 200 MHz (1 MΩ); 20 MHz, 200 MHz, 1.5 GHz, 3 GHz (50 Ω)								
Maximum input voltage	300 Vrms, 400 Vpk; transient overvoltage 1.6 kVpk								
Input impedance	Selectable: 1 MΩ ± 1% (14 pF), 50 Ω ± 3%								
Timebase range	500 ps/div to 50 s/div	200 ps/div to 50 s/div			100 ps/div to 50 s/div				
Time scale accuracy	± 1.6 ppm + aging factor								
Triggering	InfiniScan Zone touch trigger, edge, edge then edge (B trigger), pulse width, pattern, OR, rise/fall time, Nth edge burst, runt, setup & hold, video, enhanced video (HDTV)*, USB 2.0*, ARINC429*, CAN*, FlexRay*, I ² C*, I ² S*, LIN*, MIL-STD 1553*, SPI*, UART/RS-232/422/485*								
Connectivity	LAN, VGA, USB device x1, USB host x 3, std. GPIB, opt.								
Dimensions	438 mm wide x 292 mm high x 155 mm deep								
Weight	6.8 kg (15 lbs)								

*Optional



New performance standard. Get both portability and performance with surprisingly low starting prices and standard hardware bandwidth limit control, achieving a noise floor of 210 uVrms at 1 mV/div (6 GHz) and 115 uVrms at 1 mV/div (1 GHz).



New visualization standard. Quickly troubleshoot your design by visualizing your challenges. Color grade reveals how often a particular event of interest occurs. Quickly isolate problematic waveforms with InfiniScan Zone triggering after seeing the problem with a waveform update rate of up to 450,000 waveforms/sec.



New integration standard. Takes multiple-instrument integration to the next level by integrating six instruments in one. Use enhanced color FFT functions and multi-language voice control for hands-free oscilloscope operation.



Visualize signal integrity. Features jitter analysis with clock recovery. Use serial and clock TIE measurements, and view jitter in various plots including jitter: histograms, trend, spectrum and statistics. Application also includes color-graded real-time eye analysis.

Scope Additions and Enhancements

Probes

Improve your measurement reliability with our comprehensive selection of probes:

- All 6000 X-Series models come standard with one N2894A 700-MHz passive probe (10:1 attenuation) per channel
- See complete list of compatible probes on pages 34-35

Accessories

Don't forget options such as the rackmount kit and soft carrying case.

Bandwidth and DSO-to-MSO Upgrades

Protect your investment with the flexibility to upgrade your bandwidth and MSO channels at any time.

Applications

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

- Integrated feature options: dual-channel WaveGen, DVM, 10-digit counter (with totalizer), jitter analysis, mask/limit testing and education training kit
- General and serial protocol applications: MIL-STD 1553, ARINC 429, USB 2.0 (low-, full-, and hi-speed), I²S, CAN, LIN, FlexRay, RS-232, UART, I²C, SPI, Xilinx FPGA dynamic probe, power analysis, USB 2.0 signal quality and HDTV
- See our list of applications on pages 31-33

Infiniium S-Series Oscilloscopes

500 MHz to 8 GHz digital storage and mixed signal scopes

The new standard in superior measurements

- The Industry's fastest 10-bit ADC and low-noise front-end technology work together to provide the industry's best signal integrity
- The advanced frame with a solid state drive (SSD) speeds boot-up time
- Provides bandwidth, memory, triggering and signal fidelity for debugging, characterizing and analyzing a wide variety of analog, serial, digital and RF signals
- The large 15-inch capacitive touch screen provides easy multi-touch usability



Scope Additions and Enhancements

Probes

Improve your measurement reliability with our comprehensive selection of probes:

- All models come with four N2873A 10:1, 500 MHz miniature passive probes, and MSO models include a flying lead MSO cable set
- See our complete list of compatible probes on pages 34-35

Accessories

Don't forget options such as the removable SSD and rackmount kit.

Bandwidth, Memory and DSO-to-MSO Upgrades

Protect your investment with the flexibility to upgrade your bandwidth, memory (up to 800 Mpts) and MSO channels 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, MIPI D-PHY and more
- Protocol analysis: I²C, SPI, CAN, RS-232/UART, USB, PCI Express, JTAG, 8B/10B, MIPI D-PHY, SVID, DigRF and others
- Other: Jitter, InfiniiScan, FPGA debug, VSA and power
- See our complete list of applications on pages 31-33

Models and Specifications

	054A	104A	204A	254A	404A	604A	804A
Bandwidth	500 MHz	1 GHz	2 GHz	2.5 GHz	4 GHz	6 GHz	8 GHz
Sample rate	Up to 20 GSa/s						
Channels	DSOS	4	4	4	4	4	4
	MSOS	4 + 16	4 + 16	4 + 16	4 + 16	4 + 16	4 + 16
Memory (4-ch)	50 Mpts, std						
Vertical resolution	10 bits (Up to 12 bits with high-resolution mode)						
Vertical sensitivity	50 Ω: 1 mV/div to 1 V/div, 1 MΩ: 1 mV/div to 5 V/div						
Bandwidth limit	20 MHz, 200 MHz and increments of 500 MHz, up to max bandwidth						
Maximum input	50 Ω: 5 Vpp, 1 MΩ: 300 Vrms						
Input impedance	50 Ω: ±3.5%, 1 MΩ: ±1% (14 pF typical)						
Timebase range	5 ps/div to 20 s/div						
Time scale accuracy	± (100 + 75 * YearsSinceCal) ppb						
Triggering	Edge, edge transition, edge then edge, glitch, line, pulse width, runt, timeout, patter/pulse range, state, setup/hold, window, protocol, zone-qualified						
Connectivity	LAN, VGA DisplayPort, USB device x6, USB host x1						
Dimensions	43 cm wide x 33 cm high x 23 cm deep						
Weight	12 kg (26.5 lbs)						

*Optional



Industry's best signal integrity. A low-noise front end and correction filters ensure flat frequency response.



Most advanced platform. A next-generation user-interface and powerful motherboard provide fast computations even with advanced math and deep memory enabled.



Broadest range of capability. Features 16 MSO channels, more than 50 automated measurements, 16 math functions, gating and spectral viewer.

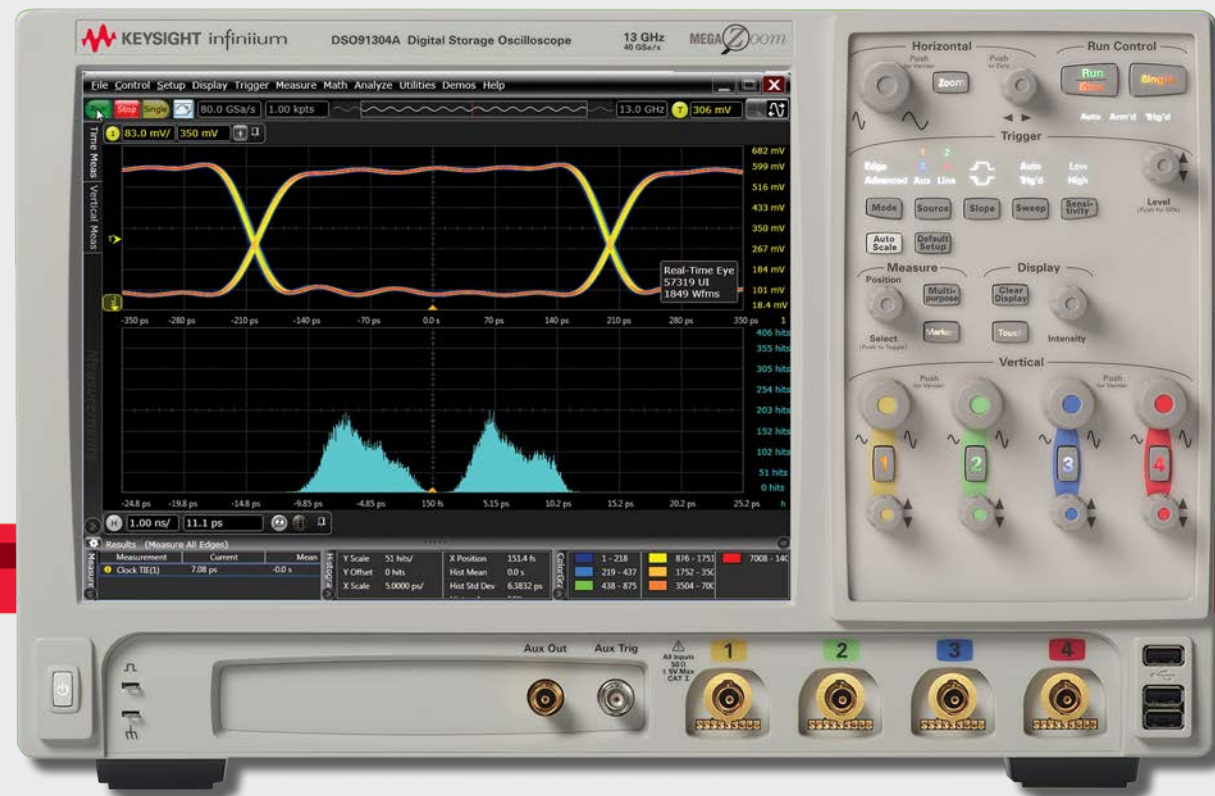


9000 Series. The 9000 Series offers the capabilities of three instruments in one for debugging or verifying complex, cross-domain systems with bandwidths up to 4 GHz, a sample rate up to 20 GSa/s on 2-channel operation and 20 Mpts standard memory depth.

Infiniium 9000A Series Oscilloscopes

2.5 GHz to 13 GHz high-performance real-time lab scopes
Engineered for superior signal integrity and measurement confidence

- Up to 13 GHz bandwidth and up to 40 GSa/s sample rate on four channels
- Bandwidth upgradable from 2.5 GHz to 13 GHz
- Industry's largest selection of application software packages including: USB, PCI Express®, SATA, DDR, HDMI and more
- Industry's only user interface that provides multiple waveform areas, allowing multiple displays of the data
- Industry's most comprehensive compliance software packages with flexible, next-generation user interface
- Low-noise from the front of the oscilloscope through the tip of the probe
- Industry-leading MegaZoom ultra deep memory – 1 Gpts at 40 GSa/s on all four channels
- Three-level sequence triggering with InfiniiScan Plus trigger system



Models and Specifications

	90254A	90404A	90604A	90804A	91204A	91304A
Bandwidth	2.5 GHz	4 GHz	6 GHz	8 GHz	12 GHz	13 GHz
Sample rate	20 GSa/s			40 GSa/s		
Channels	4					
Display	12.1" XGA touch screen					
Display update rate	400,000 waveforms per second (in segmented memory mode)					
Memory	20 Mpts, std. Up to 1 Gpts, opt. (50 Mpts std. on DSA)					
Vertical resolution	8 bits (\geq 12 bits with averaging)					
Vertical sensitivity	1 mV/div to 1 V/div					
Maximum input voltage	\pm 5 V					
Input impedance	50 Ω , \pm 3%					
Timebase range	5 ps/div to 20 s/div real-time					
Time scale accuracy	\pm (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 μ Vrms	186 μ Vrms	234 μ Vrms	283 μ Vrms	365 μ Vrms	389 μ Vrms
Maximum data transfer rate	22 MSa/s					
Dimensions	43.2 cm wide x 28.3 cm high x 50.6 cm deep					
Weight	20 kg (44 lbs)					
Power	800 watts, max.					



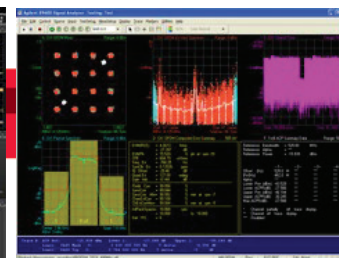
Powerful signal capture. Acquire 25 ms of PCI Express Gen2 data at 40 GSa/s using 1 Gpts of memory to capture your signal of interest.



"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.



Deep memory. 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.

Scope Additions and Enhancements

Probes

Improve your measurement reliability with our comprehensive selection of probes:

- Award-winning InfiniiMax probing system, N2750A Series InfiniiMode probes and the N2795A/N2796A/1157A/1158A single-ended active probes
- See our complete list of compatible probes on pages 34-35

Accessories

Don't forget options such as the rack-mount 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 options include jitter and eye analysis, user defined function, MATLAB and many more
- Compliance options include DDR1/2/3, 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 pages 31-33

Infiniium 90000 X-Series Oscilloscopes

13 GHz to 33 GHz high-performance real-time lab scopes

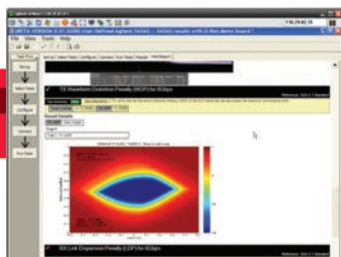
Engineered for 33 GHz true analog bandwidth that delivers

- True analog bandwidth at 33 GHz
- Lowest oscilloscope noise floor of 2.10 mV at 50 mV/div and 33 GHz
- Lowest jitter measurement floor at 100 fs
- The industry's first 30 GHz oscilloscope probing system
- Industry's most comprehensive application-specific measurement software
- Industry's fastest mixed signal oscilloscope with 16 channels of logic analysis capability



Models and Specifications

DSO and DSA Models	X91304A	X91604A	X92004A	X92504A	X92804A	X93204A
Bandwidth	13 GHz	16 GHz	20 GHz	25 GHz	28 GHz	33 GHz
Sample rate	80 GSa/s on half channels, 40 GSa/s on full channels					
Channels	4					
Display	12.1" XGA touch screen					
Display update rate	>400,000 waveforms per second (in segmented memory mode)					
Memory	20 Mpts, std. Up to 2 Gpts, opt. (50 Mpts std. on DSA)					
Vertical resolution	8 bits (≥ 12 bits with averaging)					
Vertical sensitivity	1 mV/div to 1 V/div					
Sample clock jitter	100 fs					
Maximum input voltage	± 5 V					
Input impedance	50 Ω, ±3%					
Timebase range	2 ps/div to 20 s/div real-time					
Time scale accuracy	± 0.1 ppm (immediately after calibration), ± 0.1 ppm/year (aging)					
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	1.34	1.53	1.76	1.862	2.03	
Maximum data transfer rate	22 MSa/s					
Dimensions	10.5" x 16.75" x 18.7" (27cm x 43cm x 48cm)					
Weight	20.5 kg (45.1 lbs)					
Power	100 - 240 VAC at 50/60 Hz; maximum input power 800 Watts					



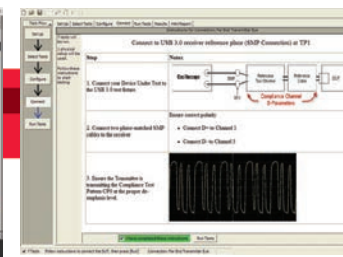
User-defined application software allows automated compliance testing on proprietary buses. Quickly program and automate any set of measurements with an interface similar to Keysight compliance test software while emerging test standards solidify. User-defined applications are available today for: LVDS, JESD204B, MIPI M-PHY, CPRI, InfiniBand and Fiber Channel 16/32G.



Lowest real-time scope jitter measurement floor. Your signal rise times are more accurately depicted.



Quickly characterize and compensate the frequency response. PrecisionProbe uses its 200 GHz indium phosphide process to create a fast edge for characterization.



Certified compliance testing. Use one of the many available compliance application software packages (to test standards such as USB 3.0).

Scope Additions and Enhancements

Probes

Improve your measurement reliability with our comprehensive selection of probes:

- Industry's first 30 GHz InfiniiMax III probing system
- See our complete list of compatible probes on pages 34-35

Accessories

Don't forget options such as the rack-mount kit and transit case.

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 options include jitter and eye analysis, user defined function, MATLAB and many more
- Compliance options include DDR 1/2/3, PCI Express, HDMI, DisplayPort, SATA, SAS, MIPI D-PHY and USB 3.0
- Transport your scope application license from one Infiniium to another with the application server license
- See our complete list of applications on page 31-33

Infiniium Z-Series Oscilloscopes

20 GHz to 63 GHz high-performance real-time lab scopes
Achieve new extremes with 63 GHz on 2 channels and 33 GHz on 4 channels

- The industry's highest 4-channel bandwidth with 33 GHz in a single frame
- Join multiple Z-Series oscilloscopes together to form a system of 40 channels or more
- The industry's lowest noise and jitter measurement floor
- The industry's deepest memory
- Capacitive touch screen and touch-screen-friendly controls improve your user experience
- USB 3.0 offload capability enables more than 200 MB/s offload speed

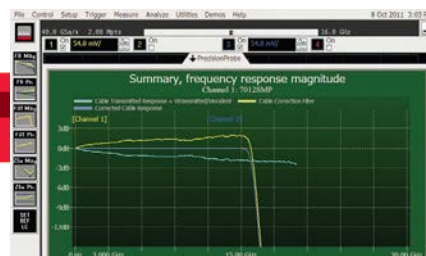


Models and Specifications

	Z204A	Z254A	Z334A	Z504A	Z634A
Bandwidth	20 GHz	25 GHz	33 GHz	50 GHz	63 GHz
Sample rate	160 GSa/s on half channels, 80 GSa/s on full channels				
Channels	4				
Display	15.4" color XGA TFT-LCD with multi-touch capacitive touch screen				
Display update rate	>400,000 waveforms per second (in segmented memory mode)				
Memory	50 Mpts, std. Up to 2 Gpts, opt. (100 Mpts std. on DSA)				
Vertical resolution	8 bits (\geq 12 bits with averaging)				
Vertical sensitivity	1 mV/div to 1 V/div				
Maximum input voltage	\pm 5 V				
Input impedance	50 Ω , \pm 3%				
Timebase range	2 ps/div to 20 s/div real-time				
Time scale accuracy	\pm [0.1 ppm (immediately after calibration) \pm 0.1 ppm/year (aging)]				
Triggering	3-level sequence hardware (2 levels) and InfiniiScan software trigger: edge, edge transition, edge then edge, glitch, pulse width, runt, timeout, pattern/pulse range, state, window, video, generic serial, non-monotonic, measurement and zone qualify				
Typical noise floor (% of noise on screen)	0.39%	0.45%	0.54%	0.75%	0.83%
Sample clock jitter	75 fs				
Dimensions	20 in wide x 13.3 in high x 19.4 in deep				
Weight	32.20 kg (71 lbs)				
Power	100 - 240 VAC at 50/60 Hz; maximum input power 1350 Watts				



Fast Fourier Transform (FFT) includes powerful tools for extreme frequency domain (spectrum) analysis. Use the FFT to compute both magnitude and phase, and use multiple FFT windows, peak search and navigation, amplitude modulation, FFT mask triggers and gated FFT measurements to analyze waveforms.



Use PrecisionProbe advanced to get full S21 characterization of cables up to 65 GHz, in addition to spectrum and complex modulation measurements. The simple network analysis saves you time and improves measurement accuracy by automatically compensating for both magnitude and phase loss caused by cables.



Get deep insight into your digital designs. EZJIT Plus features two methods to properly separate the jitter into random and deterministic components. If you have bounded uncorrelated jitter, simply use Keysight's new tail-fit algorithm; otherwise Keysight's spectral method and 75 fs of sample clock jitter ensure the most accurate measurement.

Scope Additions and Enhancements

Probes

Improve your measurement reliability with our comprehensive selection of probes:

- Industry's first 30 GHz InfiniiMax III probing system
- See our complete list of compatible probes on page 34-35

Accessories

Don't forget options such as the rack-mount kit and transit case.

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:

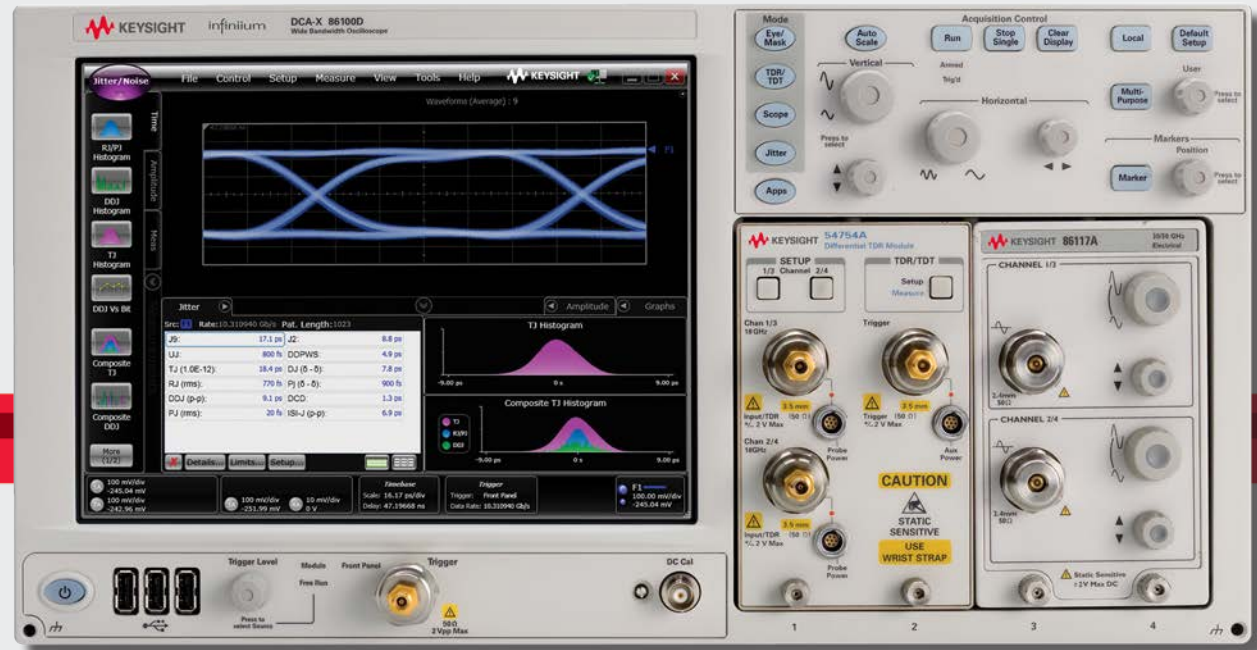
- Analysis options include jitter and eye analysis, user-defined function, MATLAB and many more
- Compliance options include DDR1/2/3, PCI Express, HDMI, DisplayPort, SATA, SAS, MIPI D-PHY and USB 3.0
- Transport your scope application license from one Infiniium to another with Keysight's transportable licenses
- See our list of applications on page 31-33

Infiniium 86100D DCA-X Series Oscilloscopes

DC to >90 GHz wideband sampling scopes

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

- Four powerful instruments in one:
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 enables 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
- Integrated de-embedding, embedding and equalization capability
- Up to 16 electrical, 16 TDR or 8 optical channels per mainframe
- Ultra-low timebase jitter (random jitter < 100 fs rms typical) on up to 16 channels



Models Matching Your Applications

86100D Infiniium DCA-X 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)
86108B	Dual 35/50 GHz channels, jitter < 45 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 < 100 fs)
86108B	Dual 35/50 GHz channels, jitter < 45 fs, internal CR to 32 Gb/s
86117A	Dual channel electrical > 50 GHz
N1045A	Dual/quad 60 GHz channels, remote heads
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)
86105D	20/34 GHz optical channel, 35/50 GHz electrical channel
86115D	20/35 GHz optical, multi-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 < 100 fs)
TDR	Serial bus standards - PCIe, SATA, SAS, USB, S-parameters
54754A	Differential TDR, dual 18 GHz channels
N1055A	Differential TDR, 35/50 GHz bandwidth, 2/4 channel, remote heads

Scope Additions and Enhancements

Probes

Improve your measurement reliability with our comprehensive selection of probes.

Options

Mainframe options include an enhanced trigger, precision timebase, GPIB interface, removable hard drive and signal processing capabilities such as equalization, de-embedding and embedding of waveforms.

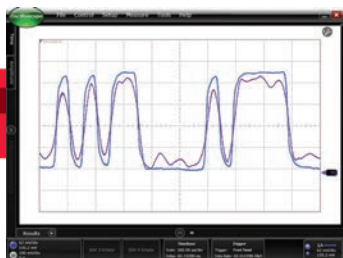
Modules

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

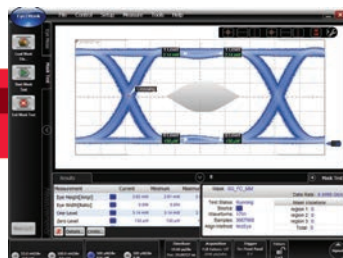
Applications

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

- Analysis options include jitter and eye analysis, user-defined function, jitter transfer function (JTF), S-parameters, MATLAB and many more
- Compliance and debug options include OIF-CEI 3.1 covering 6G/11G/25G and 28G VSR/MR, SFF-8431 (SFP+) and IEEE 802.3 10G/40G/100G Ethernet



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



Eye diagram analysis. Fast and accurate transmitter characterization using eye diagram analysis and automated mask margin measurements.



Advanced jitter and amplitude analysis. Accurate decomposition of impairments provides compliant total jitter (TJ) results and insight into root cause of eye closure.



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

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, Keysight offers the broadest selection of oscilloscope solutions in the industry.

We deliver more than 150 powerful application packages for debug, analysis, compliance and characterization.

Whether you're debugging low-speed serial bus operation or FPGA functionality; focused on signal integrity; or ensuring compliance to industry standards, Keysight 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. Also, our protocol level triggers and displays help you resolve the physical layer root cause of issues you discover at the protocol level.

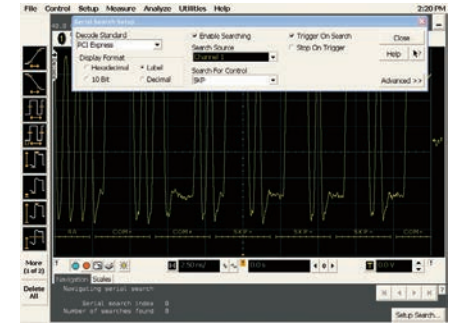
Take advantage of the expertise Keysight gains by participating in key industry standards bodies.

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.

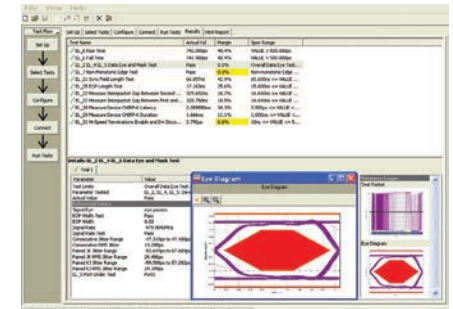
Make your job simpler with automated setups and one-button compliance testing for more than 30 applications.

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. The results reports include configuration, measurements made, pass/fail status, margin analysis and waveforms.

We also offer user-definable application software that allows automated measurements for compliance testing on proprietary buses or while emerging test standards solidify.



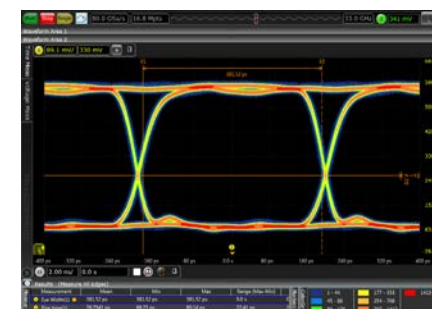
The PCI Express® electrical performance validation and compliance software lets you test devices to ensure compliance with the PCIe 1.1 and PCIe 2.0 electrical specs for add-in cards and motherboards.



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
10G attachment unit interface (XAUI)	Wireline	N5431A/B	9000, S-Series, 90000, Z-Series	www.ieee802.org/3/ and www.ethernetalliance.org
10/40GBASE-KR/KR4	Wireline	N8814B, N1081A	90000, Z-Series, 86100D	www.ieee802.org/3/
100GBASE-CR4	Wireline	N8830A, N1084A	90000, Z-Series, 86100D	www.ieee802.org/3/
100GBASE-KR4	Wireline	N8829A, N1084A	90000, Z-Series, 86100D	www.ieee802.org/3/
40/100 GBASE-CR 4/10	Wireline	N8828A, N1082A	90000, Z-Series, 86100D	www.ieee802.org/3/
BroadR-Reach	Automotive	N6467A/B	9000, S-Series, 90000, Z-Series	www.opensig.org
DDR1 and LPDDR1	Computing and memory	U7233A/B	9000, S-Series, 90000, Z-Series	www.jedec.org
DDR2 and LPDDR2	Computing and memory	N5413B/C	9000, S-Series, 90000, Z-Series	www.jedec.org
DDR3 and LPDDR3	Computing and memory	U7231B/C	9000, S-Series, 90000, Z-Series	www.jedec.org
DDR4	Computing and memory	N6462A/B	9000, S-Series, 90000, Z-Series	www.jedec.org
DisplayPort	Display	U7232C	90000, Z-Series	www.displayport.org
eMMC	Computing and memory	N6465A/B	9000, S-Series, 90000, Z-Series	www.jedec.org
Ethernet 10GBase-T	Wireline	U7236A/B	9000, S-Series, 90000, Z-Series	www.ethernetalliance.org
Ethernet/EEE 10/100/1000Base-T	Wireline	N5392B/C	9000, S-Series, 90000, Z-Series	www.ieee802.org/3/ and www.ethernetalliance.org
Ethernet XLAUI/CAUI/nPPI	Wireline	N1083A	86100D	www.ieee802.org/3/
GDDR5	Computing and memory	U7245A	9000, S-Series, 90000, Z-Series	www.jedec.org
HDMI 2.0	Media	N5399C/D	9000, S-Series, 90000, Z-Series	www.hdmi.org
HSIC	Consumer electronics	U7248A/B	9000, S-Series, 90000, Z-Series	www.usb.org
MHL 3.0	Consumer electronics	N6460B	90000, Z-Series	www.mhlconsortium.org
MIPI D-PHY	Consumer electronics	U7238C/D	9000, S-Series, 90000, Z-Series	www.mipi.org
MIPI M-PHY	Consumer electronics	U7249C/D	9000, S-Series, 90000, Z-Series	www.mipi.org
MOST	Automotive	N6466A/B	9000, S-Series, 90000, Z-Series	www.mostcooperation.com
OIF-CEI 3.1 with 28G-VSR/MR	Wireline	N1012A	86100D	www.oiforum.com
PCI Express Gen 3	Computing and memory	N5393D/E	S-Series, 90000, Z-Series	www.pcisig.org
SD UHS-I	Storage	U7246A/B	9000, S-Series, 90000, Z-Series	www.sdcard.org
SD UHS-II	Storage	N6461A/B	9000, S-Series, 90000, Z-Series	www.sdcard.org
Serial ATA Gen 3	Storage	N5411B	90000, Z-Series	www.sata-io.org
Serial attached SCSI (SAS-3)	Storage	N5412D	90000, Z-Series	www.scsita.org and www.t10.org
SFP+	Wireline	N6468A, N1014A	90000, Z-Series, 86100D	www.ieee802.org/3/
Thunderbolt	Consumer electronics	N6463B	90000, Z-Series	www.thunderbolttechnology.net
USB 2.0	Consumer electronics	N5416A/B	9000, S-Series, 90000, Z-Series	www.usb.org
USB 3.1	Consumer electronics	U7243B	90000, Z-Series	www.usb.org



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.

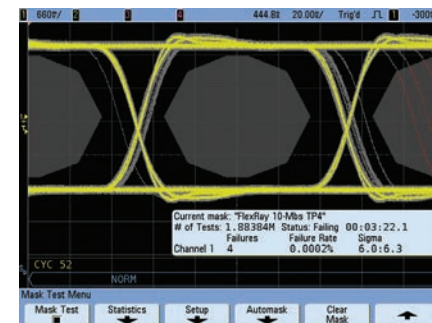
Oscilloscope Software Applications

	Model number	Oscilloscope solutions
64b/66B 10GBase-KR Ethernet decode	N8815A	90000, Z-Series
Advanced EYE analysis (jitter on PRBS31)	86100DU-401	86100D Series
Advanced math measurement	DSOX3ADVMATH	3000X Series
BenchLink waveform builder pro and basic	33503A	2000X, 3000X, 4000X Series
Built-in function and arbitrary waveform generator	DSOX2WAVEGEN, DSOX3WAVEGEN, DSOX4WAVEGEN2, DSOX6WAVEGEN2	2000X, 3000X, 4000X (dual channel), 6000X (dual channel) Series
Calibration pulse generator	N2806A	9000, S-Series, 90000, Z-Series
CAN/LIN trigger and decode	DSOX2AUTO, DSOX3AUTO, DSOX4AUTO, DSOX6AUTO, N5424A, N8803A, and N8803B	2000X, 3000X, 4000X, 6000X, 6000, 7000, 9000, S-Series, 90000, Z-Series
Communication mask test kit	E2625A	9000, S-Series, 90000, Z-Series
Educators Training Kit	DSOXEDK	2000X, 3000X, 4000X, 6000X Series
EZJIT, EZJIT Plus and EZJIT Complete jitter analysis	N8823A, E2681A, and N5400A	9000, S-Series, 90000, Z-Series
FlexDCA	N1010A	86100 Series
FlexRay	N5432A, N8803A/B	6000, 7000, 9000, S-Series, 90000, Z-Series
FlexRay triggering and decode	DSOX3FLEX, DSOX4FLEX, DSOX6FLEX, and N5432C	3000X, 4000X, 6000X, 6000, 7000 Series
FPGA dynamic probe - Xilinx	DSOX4FPGAX, DSOX6FPGAX, N5406A, and N5397A	4000X, 6000X, 6000, 7000, 9000, S-Series, 90000X Series
Frequency Domain Analysis	N8832A	2000X, 3000X, 4000X, 6000X, 7000, 9000, S-Series, 90000, Z-Series
High-speed serial data analysis and clock recovery	E2688A and N5384A	9000, S-Series, 90000, Z-Series
HSIC triggering and decode	N5464B and N5464A	9000, S-Series, 90000, Z-Series
I ² C/SPI serial decode	DSOX2EMBD, DSOX3EMBD, DSOX4EMBD, DSOX6EMBD, N5423A, N5391A, N5391B	2000X, 3000X, 4000X, 6000X, 6000, 7000, 9000, S-Series, 90000, Z-Series
I ² S triggering and decode	DSOX3AUDIO, DSOX4AUDIO, DSOX6AUDIO, and N5468A	3000X, 4000X, 6000X, 6000, 7000 Series
InfiniiScan	N5414B and N5415B	9000, S-Series, 90000, Z-Series (zone trigger is standard on 4000X and 6000X Series)
InfiniiSim waveform transformation	N5465A, 86100D-SIM, and N1010A-SIM	9000, S-Series, 90000, Z-Series, 86100 Series
Infiniium user-defined function	N8806A and N5430A/B	9000, S, 90000, Z-Series
Infiniium Offline and bundles	N8900A	2000X, 3000X, 4000X, 6000X, 5000, 6000, 7000, 9000, S-Series, 90000, Z-Series
Integrated digital voltmeter (and 10-digit counter (6000X))	DSOXDVM, DSOXDVMCTR	2000X, 3000X, 4000X, 6000X Series
Jitter and real-time eye analysis	DSOX6JITTER	6000X Series
Jitter and amplitude analysis	86100D-200/300	86100 Series
JTAG triggering and decode	N8817A/B	9000, S-Series, 90000, Z-Series
Mask/waveform limit testing	DSOX2MASK, DSOX3MASK, DSOX4MASK, DSOX6MASK, and N5455A	2000X, 3000X, 4000X, 6000X, 6000, 7000 Series (standard on Infiniium Series)
MATLAB data analysis	Option-061 or -062, N8806A, N6174A, N6175A, N8831A	6000, 7000, 9000, S-Series, 90000, Z-Series, 86100 Series

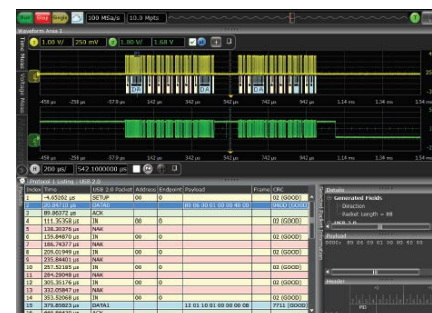


Oscilloscope Software Applications

	Model number	Oscilloscope solutions
MIL-STD 1553 serial triggering and analysis	DSOX3AERO, DSOX4AERO, DSOX6AERO, and N5469A	3000X, 4000X, 6000X, 6000, 7000 Series
MIPI DigRF v4 (M-PHY) triggering and decode	N8807A/B	9000, S-Series, 90000, Z-Series
MIPI D-PHY triggering and decode	N8802A/B	9000, S-Series, 90000, Z-Series
MIPI LLI (M-PHY) triggering and decode	N8809A/B	9000, S-Series, 90000, Z-Series
MIPI UniPro (M-PHY) triggering and decode	N8808A/B	9000, S-Series, 90000, Z-Series
MIPI UFS (M-PHY) triggering and decode	N8818A/B	9000, S-Series, 90000, Z-Series
MIPI SSIC (M-PHY) triggering and decode	N8819A/B	9000, S-Series, 90000, Z-Series
MIPI CSI-3 (M-PHY) triggering and decode	N8820A/B	9000, S-Series, 90000, Z-Series
MIPI RFFE triggering and decode	N8824A/B	9000, S-Series, 90000, Z-Series
Offline PC-based analysis of acquired data	B4610A	2000X, 3000X, 6000, 7000 Series
PCI Express Gen 3 protocol viewer	N8816A	90000, Z-Series
PCI Express Gen 1 and 2 triggering and decode	N5463A/B	9000, S-Series, 90000, Z-Series
Phase locked loop and jitter spectrum measurement software	86100DU-400	86100D Series
Power measurement and analysis	DSOX3PWR, DSOX4PWR, DSOX6PWR, U1881A, and U1882A	3000X, 4000X, 6000X, 6000, 7000, 9000, S-Series, 90000, Z-Series
PrecisionProbe	N2808A, N2809A	9000, S-Series, 90000, Z-Series
RS-232/UART triggering and decode	DSOX2COMP, DSOX3COMP, DSOX4COMP, DSOX6COMP, N5457A, N5464A, and N5462B	2000X, 3000X, 4000X, 6000X, 6000, 7000, 9000, S-Series, 90000, Z-Series
SATA triggering and decode	N8801A/B	9000, S-Series, 90000, Z-Series
Segmented memory	DSOX2SGM, DSOX3SGM, and N5454A	2000X, 3000X, 6000, 7000 Series (std. on Infiniium and InfiniVision 4000X/6000X Series)
Serial data equalization	N5461A/B	9000, S-Series, 90000, Z-Series
Signal analyzer	W2650A	9000, S-Series, 90000, Z-Series
S-parameter measurements	86100D-202	86100D Series
Spectrum visualizer	64997A, 64996A	2000X, 3000X, 4000X, 9000, S-Series, 90000, Z-Series
SVID triggering and decode	N8812A/B	9000, S-Series, 90000, Z-Series
TDR/TDT measurements	86100D, 54754A, and N1055A	86100 Series
USB 2.0 full/low speed serial decode and triggering	DSOX4USBFL and DSOX6USBFL	4000X, 6000X Series
USB 2.0 high-speed serial decode and triggering	DSOX4USBH and DSOX6USBH	4000X, 6000X Series
USB 2.0 signal quality	DSOX4USBSQ and DSOX6USBSQ	4000X, 6000X Series
USB 2.0 triggering and decode	N5464A/B	9000, S-Series, 90000, Z-Series
USB 3.0 triggering and decode	N8805A/B	9000, S-Series, 90000, Z-Series
User-defined application	N1019A and N5467B/C	86100D, 9000, S-Series, 90000, Z-Series
Vector signal analysis	89601A and 89601B	3000X, 4000X, 6000X, 6000, 7000, 9000, S-Series, 90000, Z-Series
Video triggering and analysis	DSOX3VID, DSOX4VID, and DSOX6VID	3000X, 4000X, 6000X 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 our scopes, Keysight offers a broad family of probes and accessories. Solutions range from simple, inexpensive passive probes to state-of-the-art high-frequency active probes that meet your toughest probing challenges.

Passive probes

These are the most durable, economical and widely-used probes for doing general-purpose probing with an oscilloscope.

Active probes

Single-ended or differential active probes handle higher bandwidths with lower signal loading. Single-ended active probes are typically used for measuring ground referenced, high-speed signals with low probe loading. With low loading, single-ended probes can be used on high-impedance, high-frequency circuits that would be over-loaded with passive probes. Differential probes use a differential amplifier to subtract two input signals resulting in one differential signal for measurement by one channel of the oscilloscope. This allows you to use a standard ground referenced oscilloscope to measure signals that are not referenced to ground.

InfiniiMax Series

These specialized differential active probes complement the Infiniium Series scopes. The InfiniiMax III Series is the first 30 GHz probing system and gives you the industry's flattest frequency response and widest selection of probe heads and accessories. InfiniiMax probing systems span from 1.5 to 30 GHz bandwidth to measure high-speed signals with flexible connectivity solutions. InfiniiMax III+ probes offer InfiniiMode technology, which greatly expands the measurement capability and usability of the probe, letting it measure all the components of a differential signal.

Current probes

Keysight offers a broad range of AC/DC current probes spanning 50 uA to 500 A input ranges. A new series of low-noise probes specifically designed to allow engineers to view and analyze small-current signals helps reduce measurement noise. The N2820A/21A AC/DC current probes offer the industry's highest sensitivity, going all the way down to 50 uA, with a maximum current range of 5 A.

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 remove this challenge by providing accessories that let you connect easily – even hands-free.

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

	U1600 Series	U2700 Series		1000 Series	2000 X-Series
Scope bandwidth	20 - 200 MHz	100 MHz	200 MHz	60 - 200 MHz	70 - 200 MHz
Probe interface	BNC	BNC		BNC	BNC
Passive 1:1	U1560A			N2870A 10070D	
Passive 10:1	U1561A	10074D N2871A N2872A		N2862B N2863B	N2862B N2863B
High-voltage passive 100:1	U1562A			10076B	
High-voltage passive 1000:1				N2771B	
Low Z					
Active single-ended					
Active differential (high speed)					
Active differential (high voltage)		N2791A N2891A		N2791A N2891A	N2791A N2891A
Current	U1583B	1146B N2893A N2780B/81B/82B/83B ³		1146B N2780B/81B/82B/83B ³	1146B N2780B/81B/82B/83B ³
High-sensitivity current					
Rackmount kit				N2739A	N6456A
Carrying case	U1591A			N2738A	N6457A

	3000 X-Series	4000 X-Series	6000 X-Series	6000/7000 Series		S-Series	90000A Series	90000 X-Series	Z-Series
Scope bandwidth	100 MHz - 1 GHz	200 MHz - 1.5 GHz	1 - 6 GHz	100 MHz (6000)	100 MHz (7000), 300 MHz - 1 GHz	500 MHz - 8 GHz	2.5 GHz - 13 GHz	13 GHz - 33 GHz	20 GHz - 63 GHz
Probe interface	AutoProbe lite	AutoProbe	AutoProbe	BNC	AutoProbe Lite	AutoProbe	AutoProbe	AutoProbe II	AutoProbe II
Passive 1:1	N2870A 10070D					N2870A	N2870A with E2697A ⁷	N2870A with N5449A	
Passive 10:1	N2862B N2863B N2890A	N2894A	N2894A	10074D N2871A	10073D N2873A	N2873A	N2873A (500MHz) with E2697A ⁷	N2873A with N5449A	
High-voltage passive 100:1	10076B					10076B	10076B with E2697A	10076B with N5449A	
High-voltage passive 1000:1	N2771B						N2771B iwth E2697A	N2771B with N5449A	
Low Z	N2874A (10:1) N2876A (100:1) 54006A (10:1, 20:1)						N2874A N2876A 54006A with N5442A		
Active single-ended	N2795A/96A/97A	N2795A/96A/97A 1130A ²	N2795A/96A/97A, 1130A/31A/32A/34A ²	1144A ¹	N2795A/96A or 1130A*	N2795A/96A/97A 1130A/31A/32A/34A*	N2795A/96A 1131/2/4 ⁴	N2795A/96A/97A with N5442A	
Active differential (high speed)	N2750A 1130A ⁵	N2750A 1130A ⁴	N2750A/51A/52A, 1130A/31A/32A/34A ⁴		1130A ⁴ or 1141A ¹	N2750A/51A/52A 1130A/31A/32A/34A ⁴ N2830A/31A/32A ⁶	N2751A/52A N2830A/31A/32A ⁶ 1131/2/4 ⁴ or 1168/69A ⁵ with differential probe accessory	N2800A/01A/02A/03A ⁶ N2832A ⁶ with N5442A	
Active differential (high voltage)	N2790A/91A/92A/93A N2891A N2818A/19A	N2790A/91A/92A/93A N2891A N2818A/19A	N2790A/81A/92A/93A N2891A N2818A/19A	N2791A N2891A	N2790A/91A/ 92A/93A N2891A	N2790A/91A N2891A N2818A/19A	N2791A N2790A with E2697A ⁷	N2790A/91A/891A with N5449A or N2792A/93A with N5442A	
Current	1146B 1147B N2893A N2780B/81B/82B/83B ³	1146B 1147B N2893A N2780B/81B/82B/83B ³	1146B 1147B N2893A N2780B/81B/82B/83B ³	1146B N2780B/81B/ 82B/83B ³	1146B 1147B N2893A N2780B/81B/82B/83B ³	1146B 1147B N2893A N2780B/81B/82B/83B ³	1146B N2780B/81B/82B/83B ³ with E2697A ⁷	1147B N2893A with N5449A	
High-sensitivity current	N2820A/21A	N2820A/21A	N2820A/21A			N2820A/21A			
Rackmount kit	N6456A	N2763A	N2111A	N2916B	N2732A	N2902B	N5470A	N5470A	N2759A
Carrying case	N6457A	N2733B	N2733B	N2733B		N5475A			N2748A

Foot Notes:

* Needs SE probe accessory

1. Requires 1142A power supply

2. Needs InfiniiMax I single-ended probe heads

3. Requires N2779A power supply

4. 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.

5. 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 N5451A.

6. Order one or more InfiniiMax III probe heads – N2848A QuickTip head with N2849A QuickTip tips, N5445A browser, N5439A, N5444A or N5441A

7. Includes one 10073D passive probe

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