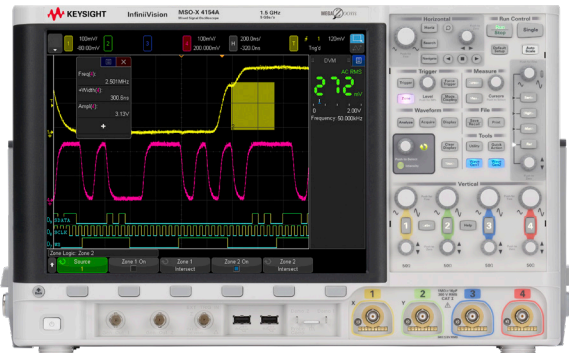


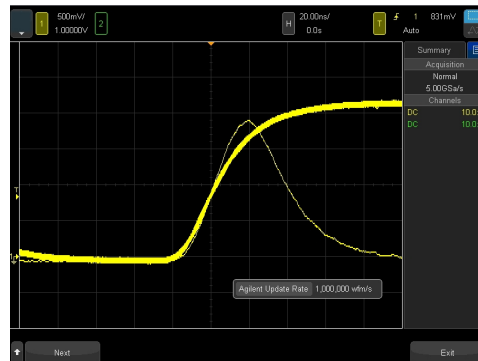
InfiniiVision 4000 X-Series Oscilloscopes

The oscilloscope experience redefined



Key specifications

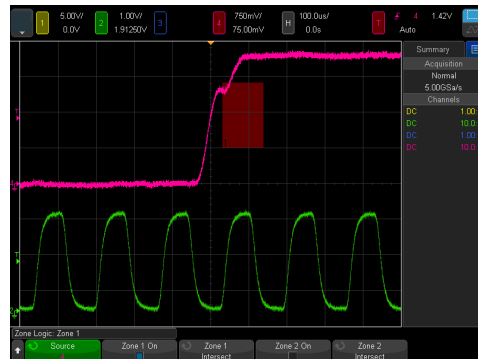
Bandwidth	200 MHz, 350 MHz, 500 MHz, 1 GHz, 1.5 GHz
Channels	2 or 4 analog channels (DSO) + 16 digital channels (MSO)
Sample rate	5 GSa/s
Memory	Standard 4 Mpts, Standard segmented memory
Display	12.1-inch capacitive touch display
Update rate	1,000,000 waveforms per second
Trigger	InfiniiScan Zone touch trigger 21 standard trigger modes
Upgradable	Bandwidth, MSO, integrated digital voltmeter, integrated dual-channel WaveGen, serial analysis, and other measurement applications
Warranty	3 year
Calibration	2-year interval
Connectivity	USB 2.0 (host x3, device x1), LAN, VGA out, GPIB (option)



Experience the speed

Find even more of your most intermittent signal anomalies

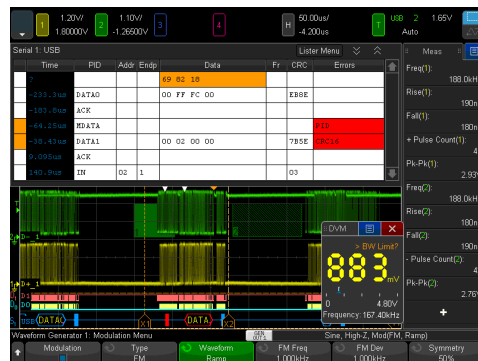
- 1,000,000 waveforms/sec update rate
- Uncompromised MegaZoom IV smart memory
- Standard segmented memory



Experience the usability

Quickly debug your design with an oscilloscope designed for touch

- Large 12.1-inch display
- Only capacitive touch screen
- Exclusive InfiniiScan Zone touch triggering



Experience the integration

Get the power of 7 instruments in 1, fully upgradable

- High-performance oscilloscope
- Integrated 16 digital channels on MSO models
- Serial protocol analyzer (optional)
- WaveGen built-in, dual-channel function/arbitrary waveform generator (optional)
- Integrated 3-digit voltmeter (optional)
- Integrated 5-digit frequency or period counter (8 digits with external 10 MHz clock reference)
- Frequency response analyzer, Bode plots (optional)

Features ¹	Mean tangible advantages for you
1 million waveforms/sec update rate	You are able to see more signal detail and infrequent anomalies than with any other scope
Capacitive touch screen	Unprecedented usability speeds setup and debugging
InfiniiScan Zone touch triggering	Simply touch the display to trigger on anything you see
Standard segmented memory	Turns your scope into an efficient ultra-deep memory scope that captures only the events you care about
Complete oscilloscope upgradability	Protect your investment with the ability to add bandwidth, MSO, WaveGen, serial bus debugging applications at any time after purchase

1. Embedded OS oscilloscope market.

Oscilloscope models

Model	Bandwidth	Max sample rate	Memory	Channels
DSOX4022A	200 MHz	5 GSa/s	4 Mpts	2
MSOX4022A	200 MHz	5 GSa/s	4 Mpts	2 + 16
DSOX4024A	200 MHz	5 GSa/s	4 Mpts	4
MSOX4024A	200 MHz	5 GSa/s	4 Mpts	4 + 16
DSOX4032A	350 MHz	5 GSa/s	4 Mpts	2
MSOX4032A	350 MHz	5 GSa/s	4 Mpts	2 + 16
DSOX4034A	350 MHz	5 GSa/s	4 Mpts	4
MSOX4034A	350 MHz	5 GSa/s	4 Mpts	4 + 16
DSOX4052A	500 MHz	5 GSa/s	4 Mpts	2
MSOX4052A	500 MHz	5 GSa/s	4 Mpts	2 + 16
DSOX4054A	500 MHz	5 GSa/s	4 Mpts	4
MSOX4054A	500 MHz	5 GSa/s	4 Mpts	4 + 16
DSOX4104A	1 GHz	5 GSa/s	4 Mpts	4
MSOX4104A	1 GHz	5 GSa/s	4 Mpts	4 + 16
DSOX4154A	1.5 GHz	5 GSa/s	4 Mpts	4
MSOX4154A	1.5 GHz	5 GSa/s	4 Mpts	4 + 16

Hardware upgrade options

Hardware upgrade options	
DSOXPERFMSO	DSO to MSO upgrade
DSOX4WAVEGEN2	WaveGen: 2-channel 20 MHz function generator/AWG
Software upgrade options	
D4000GENA	Embedded software package: I2C, SPI, UART (RS232/422/485), I2S, and USB PD serial trigger & decode, plus Mask Limit Testing, Frequency Response Analysis (Bode plots), and Enhanced Video Analysis
D4000AUTA	Automotive software package: CAN (symbolic with .dbc file), CAN FD (symbolic with .dbc file), LIN (symbolic with .ldf file), FlexRay, SENT, CXPI, PS15 (user-definable Manchester), and User-definable NRZ serial trigger & decode, plus Mask Limit Testing (CAN/CAN FD mask files available to download) and Frequency Response Analysis (Bode plots)

Software upgrade options

D4000AERA	Aero software package: MIL-STD 1553 and ARINC 429 serial trigger & decode, plus Mask Limit Testing (standard mask files available to download), Frequency Response Analysis (Bode plots), and Enhanced Video Analysis
D4000USBA	USB software package: USB 2.0 Low-, Full-, & Hi-speed, USB PD trigger & decode, plus USB 2.0 Signal Quality Test, Mask Limit Testing, and Frequency Response Analysis (Bode plots)
D4000PWRA	Power measurements & analysis software package: Power quality, current harmonics, switching loss, transient response, turn-on/off time, output ripple, efficiency, loop response, PSRR, etc., plus Mask Limit Testing and Frequency Response Analysis (Bode plots), and USB PD serial trigger & decode
D4000NFCA	NFC software package: NFC trigger and PC-based automated NFC test software
D4000BDLA	Ultimate bundle software package: Includes all serial protocols and measurements contained in D4000GENA, D4000AUTA, D4000AERA, D4000USBA, D4000PWRA, and D4000NFCA

Productivity tools

D9010BSEO	Infiniium offline analysis software
D9010UDAA	User-definable application (UDA) PC-based test automation software
BV0004B	BenchVue oscilloscope control and automation software (standard)

Bandwidth upgrade options

Model	Description
DSOX4B2T32U	Service center bandwidth upgrade from 200 to 350 MHz, 2 ch models
DSOX4B2T34U	Service center bandwidth upgrade from 200 to 350 MHz, 4 ch models
DSOX4B3T52U	Licensed bandwidth upgrade from 350 to 500 MHz, 2 ch models
DSOX4B3T54U	Licensed bandwidth upgrade from 350 to 500 MHz, 4 ch models
DSOX4B5T104U	Service center bandwidth upgrade from 500 MHz to 1 GHz, 4 ch models
DSOX4B1T154U	Service center bandwidth upgrade from 1 GHz to 1.5 GHz, 4 ch models
DSOX4B2T52U	Service center bandwidth upgrade from 200 to 500 MHz, 2 ch models
DSOX4B2T54U	Service center bandwidth upgrade from 200 to 500 MHz, 4 ch models
DSOX4B2T104U	Service center bandwidth upgrade from 200 to 1 GHz, 4 ch models
DSOX4B2T154U	Service center bandwidth upgrade from 200 to 1.5 GHz, 4 ch models
DSOX4B3T104U	Service center bandwidth upgrade from 350 to 1 GHz, 4 ch models
DSOX4B3T154U	Service center bandwidth upgrade from 350 to 1.5 GHz, 4 ch models
DSOX4B5T154U	Service center bandwidth upgrade from 500 to 1.5 GHz, 4 ch models

Accessories

Model	Description
N2750A	1.5 GHz InfiniiMode differential active probe
N2795A	1 GHz active single-ended probe (recommended)
N2763A	Rackmount kit
N2733A	Soft carrying case
N2894A	700 MHz 10:1 passive probe (1 per ch included standard)
N2821A	1-channel high-sensitivity current probe
N2820A	2-channel high-sensitivity current probe
N4865A	GPIO connection module
N6455A	Hard copy manual
N7040A	AC current probe 23 MHz, 3 kA
N7041A	AC current probe 30 MHz, 600 A
N7042A	AC current probe 30 MHz, 300 A
N7026A	AC/DC high-sensitivity current probe, 150 MHz, 40 Apk with AutoProbe

For probing information, see the Keysight Oscilloscope Probes and Accessories Selection Guide, publication number 5968-8153EN.

www.keysight.com/find/4000X-Series



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Up to ten years of protection and no budgetary surprises to ensure your instruments are operating to specification, so you can rely on accurate measurements.