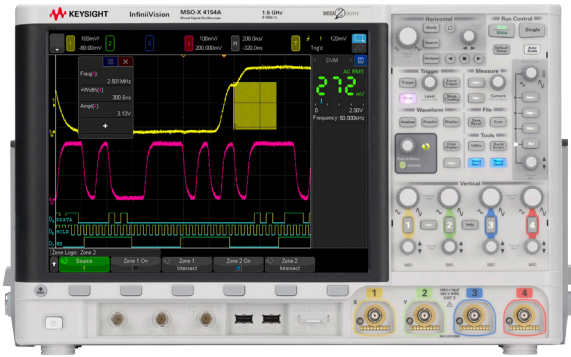


# Keysight InfiniiVision 4000 X-Series Oscilloscopes

The oscilloscope experience redefined



## Key specifications

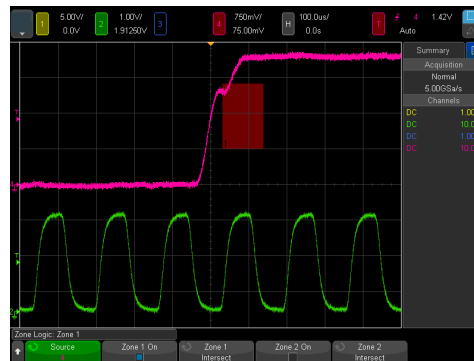
|              |  |
|--------------|--|
| Bandwidth    | 200 MHz, 350 MHz, 500 MHz, 1 GHz, 1.5 GHz  |
| Channels     | 2 or 4 analog channels (DSO)<br>+ 16 digital channels (MSO)  |
| Sample rate  | 5 GSa/s  |
| Memory       | Standard 4 Mpts, Standard segmented memory   |
| Display      | 12.1-inch 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

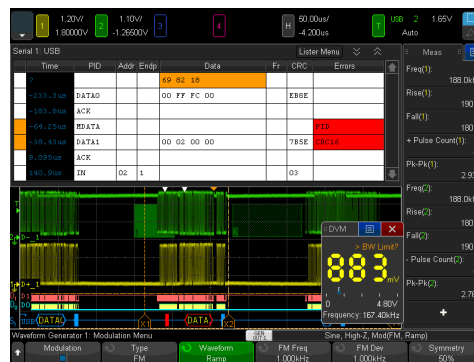
- 1,000,000 waveforms/sec update rate
- Uncompromised MegaZoom IV smart memory
- Standard segmented memory



## Experience the usability

Quickly debug your design with an oscilloscope designed for touch

- Industry's largest 12.1-inch display
- Only capacitive touch screen
- Exclusive InfiniiScan Zone touch triggering



## Experience the integration

Get the power of 5 instruments in 1, fully upgradable

- Best-in-class oscilloscope
- Integrated 16 digital channels on MSO models
- Serial protocol analyzer (optional)
- Industry-exclusive WaveGen built-in, dual-channel function/ arbitrary waveform generator (optional)
- Integrated 3-digit voltmeter (optional)

| Industry-exclusive features <sup>1</sup> | 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   |

[www.keysight.com/find/4000X-Series](http://www.keysight.com/find/4000X-Series)

## Bandwidth and MSO 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   |
| DSOXPERFMSO  | DSO to MSO upgrade  |

## 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 | GPIB 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 |

## Measurements options

| Model         | Description   |
|---------------|---|
| DSOX4AERO     | MIL-STD 1553 & ARINC 429 serial triggering and analysis           |
| DSOX4AUDIO    | Audio serial triggering and analysis (I <sup>2</sup> S)           |
| DSOX4AUTO     | Automotive serial triggering and analysis (CAN/LIN)               |
| DSOX4COMP     | Computer serial triggering and analysis (RS232/UART)              |
| DSOX4EMBD     | Embedded serial triggering and analysis (I <sup>2</sup> C, SPI)   |
| DSOX4FLEX     | FlexRay serial triggering and analysis                            |
| DSOX4USBFL    | USB 2.0 full/low speed serial decode and triggering               |
| DSOX4USBH     | USB 2.0 hi-speed serial decode and triggering                     |
| DSOX4USBSQ    | USB 2.0 signal quality test                                       |
| DSOX4UPD      | USB power delivery serial decode and triggering                   |
| DSOX4CXPI     | CXPI serial decode and triggering                                 |
| DSOX4NRZ      | User-definable Manchester/NRZ serial decode and triggering        |
| DSOX4NFC      | NFC trigger and automated test software                           |
| DSOX4MASK     | Mask limit testing  |
| DSOX4PWR      | Power analysis application  |
| DSOX4VID      | Enhanced video/TV application package                             |
| DSOX4WAVEGEN2 | Dual-channel 20 MHz WaveGen function/arbitrary waveform generator |
| N8900A        | InfiniiView oscilloscope analysis software                        |
| N5467B/C      | User-defined Application (UDA) PC-based test automation software  |
| 64997A        | Keysight spectrum visualizer (ASV)                                |
| 89601B        | Vector signal analyzer software (Ver.16 and higher only)          |
| BV0004B       | BenchVue oscilloscope control and automation                      |

For probing information, see the Keysight Oscilloscope Probes and Accessories Selection Guide, publication number 5989-6162EN.



### Keysight Assurance Plans

[www.keysight.com/find/AssurancePlans](http://www.keysight.com/find/AssurancePlans)

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.