

# Keysight InfiniiVision 3000A X-Series

Oscilloscopes redefined: Breakthrough technology delivers more scope for the same budget



## Key specifications

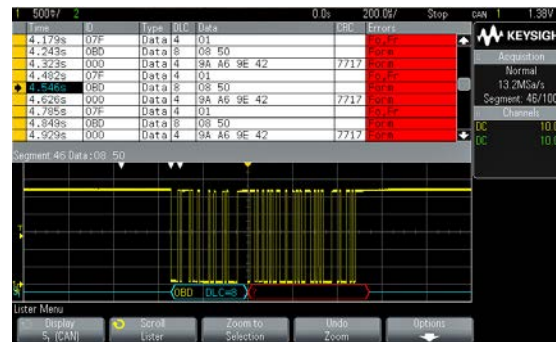
|                      |  |
|----------------------|--|
| Bandwidth            | 100 MHz, 200 MHz, 350 MHz, 500 MHz, 1 GHz  |
| Channels             | 2 or 4 analog channels (DSO)<br>+16 digital channels (MSO)                         |
| Sample rate          | Up to 5 GSa/s  |
| Memory               | Up to 4 Mpts (2 Mpts standard)   |
| Display              | 8.5-inch WVGA (800 x 480)  |
| Update rate          | 1,000,000 wfms/s   |
| Upgradable           | Bandwidth, MSO, measurement applications, integrated digital voltmeter and WaveGen |
| Calibration interval | 2 year   |
| Connectivity         | USB host (one front, one back), USB device, LAN (optional), GPIB (optional)        |
| Secure environment   | Provides compliance with NISPOM chapter 8 requirements (standard)                  |



## See more

of your signal more of the time

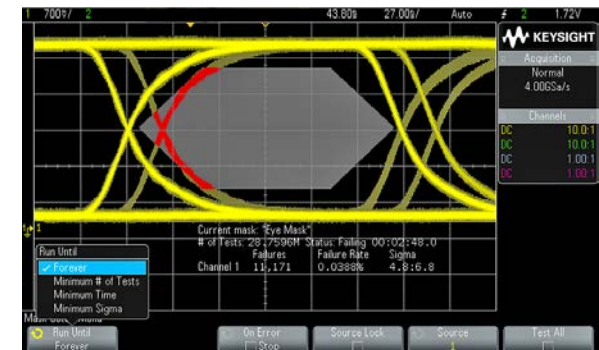
- High resolution 8.5-inch display
- Up to 1,000,000 wfms/s update rate
- Fast, responsive **MegaZoom** IV deep memory, up to 4 M



## Do more

with the power of 5 instruments in 1

- Best-in-class oscilloscope
- Integrated 16 digital channel mixed signal oscilloscope (MSO) (optional)
- Serial protocol analyzer (optional)
- Industry-exclusive WaveGen built-in 20 MHz Function/Arbitrary WaveForm Generator (optional)
- Integrated digital voltmeter (optional)



## Get more

investment protection with the industry's only fully upgradable scope

- Upgradable bandwidth
- Upgradable to MSO
- Upgradable to WaveGen 20 MHz Function/Arbitrary Waveform Generator
- Upgradeable integrated digital voltmeter
- Upgradeable measurement applications
- 2-year recommended calibration interval

## Oscilloscope models

| Model     | Bandwidth | Maximum sample rate | Maximum memory | Analog channels | Digital channels |
|-----------|-----------|---------------------|----------------|-----------------|------------------|
| DSOX3012A | 100 MHz   | 4 GSa/s             | 4 M            | 2               | –                |
| MSOX3012A | 100 MHz   | 4 GSa/s             | 4 M            | 2               | 16               |
| DSOX3014A | 100 MHz   | 4 GSa/s             | 4 M            | 4               | –                |
| MSOX3014A | 100 MHz   | 4 GSa/s             | 4 M            | 4               | 16               |
| DSOX3024A | 200 MHz   | 4 GSa/s             | 4 M            | 4               | –                |
| MSOX3024A | 200 MHz   | 4 GSa/s             | 4 M            | 4               | 16               |
| DSOX3032A | 350 MHz   | 4 GSa/s             | 4 M            | 2               | –                |
| MSOX3032A | 350 MHz   | 4 GSa/s             | 4 M            | 2               | 16               |
| DSOX3034A | 350 MHz   | 4 GSa/s             | 4 M            | 4               | –                |
| MSOX3034A | 350 MHz   | 4 GSa/s             | 4 M            | 4               | 16               |
| DSOX3052A | 500 MHz   | 4 GSa/s             | 4 M            | 2               | –                |
| MSOX3052A | 500 MHz   | 4 GSa/s             | 4 M            | 2               | 16               |
| DSOX3054A | 500 MHz   | 4 GSa/s             | 4 M            | 4               | –                |
| MSOX3054A | 500 MHz   | 4 GSa/s             | 4 M            | 4               | 16               |
| DSOX3102A | 1 GHz     | 5 GSa/s             | 4 M            | 2               | –                |
| MSOX3102A | 1 GHz     | 5 GSa/s             | 4 M            | 2               | 16               |
| DSOX3104A | 1 GHz     | 5 GSa/s             | 4 M            | 4               | –                |
| MSOX3104A | 1 GHz     | 5 GSa/s             | 4 M            | 4               | 16               |

## Accessories included

|  |   |  |
|--|---|--|
| Standard SEC mode (Secure Environment), Certificate of Calibration, Documentation CD   |   |  |
| Standard probe   | N2862A passive probe 150 MHz 10:1 attenuation | 1 per channel included 100 MHz models                            |
|  | N2863A passive probe 300 MHz 10:1 attenuation | 1 per channel included 200 MHz models                            |
|  | N2890A passive probe 500 MHz 10:1 attenuation | 1 per channel included 350/500 MHz models                        |
|  | N6450-60001 16 digital channel MSO cable      | 1 per scope included on all MSO models, DSOX3MSO and DSOXPERFMSO |
| Built-in help language support for English, Japanese, simplified Chinese, traditional Chinese, Korean, German, French, Spanish, Russian, Portuguese and Italian    |   |  |
| Interface language support GUI menus: English, Japanese, simplified Chinese, traditional Chinese, Korean, German, French, Spanish, Russian, Portuguese and Italian |   |  |
| Localized power cord   |   |  |

## Measurement options

| Model                  | Description   |
|------------------------|---|
| DSOX3MemUp             | Memory upgrade - 4 M  |
| DSOX3MSO               | MSO upgrade, 16 channel for 500 MHz models and below            |
| DSOXPERFMSO            | MSO upgrade, 16 channels for 1 GHz models                       |
| DSOX3WAVEGEN           | Function/Arbitrary Waveform Generator upgrade                   |
| DSOXDVM                | Integrated Digital Voltmeter                                    |
| DSOX3MASK              | Mask limit testing  |
| DSOX3ADVMATH           | Advanced waveform math functions                                |
| DSOX3VID               | HDTV video triggering and measurement analysis                  |
| DSOX3PWR               | Power measurement and analysis (Embedded in the scope)          |
| DSOX3AERO              | Aerospace triggering and analysis (MIL-STD 1553, ARINC 429)     |
| DSOX3SGM               | Segmented memory  |
| DSOX3EMBD              | Embedded serial triggering and analysis (I <sup>2</sup> C, SPI) |
| DSOX3COMP              | Computer serial triggering and analysis (RS232/422/485/UART)    |
| DSOX3AUTO              | Automotive serial triggering and analysis (CAN, LIN)            |
| DSOX3FLEX              | FlexRay triggering and analysis                                 |
| DSOX3AUDIO             | Audio serial triggering and analysis (I <sup>2</sup> S)         |
| 33503A                 | Benchlink Waveform Builder Pro and Basic                        |
| DSOXEDK                | Educator's oscilloscope training kit                            |
| N8900A                 | Infiniium offline oscilloscope analysis software                |
| 64997A                 | Keysight spectrum visualizer (ASV)                              |
| DSOX3BW24              | Bandwidth upgrade from 100 MHz to 200 MHz on 4 channel models   |
| DSOX3BW32 <sup>1</sup> | Bandwidth upgrade from 100 MHz to 350 MHz on 2 channel models   |
| DSOX3BW34 <sup>1</sup> | Bandwidth upgrade from 200 MHz to 350 MHz on 4 channel models   |
| DSOX3BW52              | Bandwidth upgrade from 350 MHz to 500 MHz on 2 channel models   |
| DSOX3BW54              | Bandwidth upgrade from 350 MHz to 500 MHz on 4 channel models   |
| DSOX3BW12 <sup>1</sup> | Bandwidth upgrade from 500 MHz to 1 GHz on 2 channel models     |
| DSOX3BW14 <sup>1</sup> | Bandwidth upgrade from 500 MHz to 1 GHz on 4 channel models     |
| N5467B/C               | User-defined Application (UDA) software                         |
| Opt SEC                | Secure Environment Mode (comes standard)                        |

1. Requires return to Keysight Service Center. All other products are licensed and customer installable.

[www.keysight.com/find/3000X-Series](http://www.keysight.com/find/3000X-Series)

## Probing options

For complete list of compatible probes, see Keysight document 5968-8153EN.

| Model       | Description   |
|-------------|---|
| N2862B      | Passive probe 150 MHz 10:1 attenuation (1 per channel included 100 MHz models)                    |
| N2863B      | Passive probe 300 MHz, 10:1 attenuation (1 per channel included 200 MHz models)                   |
| N2890A      | Passive probe 500 MHz, 10:1 attenuation (1 per channel included 350/500 MHz and 1 GHz models)     |
| N6450-60001 | 16 digital channel MSO cable (1 per scope included MSO models, DSOX3MSO and DSOXPERFMSO upgrades) |
| N2889A      | Passive probe 350 MHz 10:1/1:1 switchable attenuation   |
| 10076C      | Passive probe 250 MHz 100:1 attenuation   |
| N2790A      | Differential active probe 100 MHz ± 1.4 kV with AutoProbe interface                               |
| N2791A      | Differential active probe 25 MHz ± 700 V  |
| N2792A      | Differential active probe 200 MHz ± 20 V  |
| N2793A      | Differential active probe 800 MHz ± 15 V  |
| 1146B       | AC/DC current probe 100 kHz 100 A   |
| 1147B       | AC/DC current probe 50 MHz 15 A with AutoProbe interface  |
| N2795A      | Single-ended active probe 1 GHz ± 8 V with AutoProbe interface (limit 2)                          |
| N2796A      | Single-ended 2 GHz active probe with the AutoProbe interface                                      |
| N2893A      | AC/DC current probe 100 MHz 15 A with AutoProbe interface   |
| N2744A      | T2A (Tektronix TekProbe interface to Keysight AutoProbe) probe interface adapter                  |
| N7040A      | AC current probe 23 MHz, 3 kA   |
| N7041A      | AC current probe 30 MHz, 600 A  |
| N7042A      | AC current probe 30 MHz, 300 A  |

## Accessories

| Model    | Description                        |
|----------|------------------------------------|
| DSOXLAN  | Module - LAN and VGA               |
| DSOXGPIB | Module - GPIB                      |
| N6456A   | Rack mount kit                     |
| N6457A   | Soft carrying case and front cover |
| N6458A   | Hard copy manual                   |
| N2747A   | Front panel cover only             |



### 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.