

# Keysight UXR Oscilloscopes Software

This software is designed to run on the Keysight Infiniium UXR-Series oscilloscopes and supports the following model numbers, UXR0134A, UXR0164A, UXR204A, UXR0254A, UXR0334A, UXR0402A, UXR0404A, UXR0502A, UXR0504A, UXR0592A, UXR0594A, UXR0702A, UXR0704A, UXR0252AP, UXR0254AP, UXR0402AP, UXR0404AP, UXR0592AP, UXR0594AP, UXR0702AP, UXR0704AP, UXR0802A, UXR0804A, UXR1002A, UXR1004A, UXR1102A, and UXR1104A.

Version 10.12.05208

Released Date:	12 Dec 2019
Operating System:	Windows 10

## Enhancements

- Adds support for Hardware Accelerated Digital Down Conversion.
  - The standard software without a license provides 40MHz bandwidth.
  - The standalone license, UXR0000-601, and upgrade option, N2163A-601, provides 40 MHz to 160 MHz bandwidth.
  - The standalone license, UXR0000-602, and upgrade option, N2163A-602, provides 40 MHz to 2 GHz bandwidth.
- Add support for the mmWave Wideband Analysis Acceleration and Extension Package, UXR0000-MWA. This package includes
  - UXR0000-02G (2 Gpt memory option)
  - UXR0000-610 (10 GHz mmWave Extension option)
  - UXR0000-602 (2 GHz bandwidth DDC option).

## Bug Fixes

- Fixes issues with the differential channel auto de-skew control. It now works properly when the oscilloscope is stopped and it works properly for input signals with DC offset.
- Fixes an issue where the oscilloscope app was crashing on startup after installing the Equalization license.

## Notes

- The 10.12.05208 version is not compatible with all compliance test applications. Please upgrade to 10.20.0xxxx when it becomes available or downgrade to 10.11.05004 if running one of the following test applications:
  - D9010ETHC Ethernet 10M/100M/1G
  - D9010EBZC 10GBASE-T Ethernet
  - D9030SATC SATA6G
  - D9010USBC USB 2.0
  - D9010CPHC MIPI C-PHY

## Version 10.11.05004 (Patch Release)

<b>Released Date:</b>	<b>14 Oct 2019</b>
<b>Operating System:</b>	<b>Windows 10</b>

## Enhancements

- Improves the usability of the optional timebase calibration to (1) set the default to “not run”, (2) make it clearer that an external 10MHz frequency reference is required, and (3) allow the user to skip the timebase calibration, which occurs at the end of the calibration, without impacting the rest of the calibration.

## Bug Fixes

- Fixes some issues with adjusting and applying channel-channel skew.
- Fixes the bandwidth upgrade license for up upgrade on a UXR AP model from 59GHz to 70GHz.
- Fixes a licensing issue where the license could disappear while running the oscilloscope and then reappear after restarting the oscilloscope.
- Fixes an issue where the real time eye was resetting when doing operations such as turning on/off the histogram or adding/deleting a measurement.

- Fixes an issue where the oscilloscope application was crashing when disconnecting the N7010A probe from a channel input.
- Fixes a CDR loss-of-lock issue when running the Display Port compliance application for 2MHz and lower SJ frequencies.
- Fixes a DFE equalization issue where the taps were only having half of the intended effect.
- Fixes an equalization issue where DFE was not being applied if CTLE or FFE equalization was also enabled.
- Fixes an issue where running the self test was leaving the oscilloscope in a bad state causing additional baseline noise and spurs in the FFT.

## Version 10.11.04711

<b>Released Date:</b>	<b>22 Jul 2019</b>
<b>Operating System:</b>	<b>Windows 10</b>

### Notes

- This software version updates FPGA firmware, which takes several minutes, and requires unplugging the power cord to complete the update.

### Enhancements

- Modifies the channel-channel skew calibration to correct for more vertical ranges.
- Hardware accelerates explicit-clock clock recovery.
- Adds a simple phase noise demo file.
- Removes the internal temperature report from the Help->About dialog.
- Sets the default to “OFF” for the “Display Infiniisim Graphs” control to enable hardware acceleration of Infiniisim by default.
- Adds the PAM3 demo.
- Adds the USB 3.2 demos.
- Adds an “Auto Power On” user preference to automatically restart the oscilloscope after input power has been removed and then reapplied.
- For install packages that update the power monitor/control FPGA, such as 10.11, this software adds a new message at the end of the software install process requesting the user to physically disconnect and then reconnect the power cord.

### Bug Fixes

- Fixes some issues with adjusting and applying channel-channel skew.
- Fixes a phase shift in the trigger position caused by enabling a differential channel (CSG-14828).

- Fixes an issue preventing the “Precision Cable” feature from being enabled.
- Fixes defects blocking the following compliance apps, D-PHY, DDR2 and USB3.
- Reduces the input sensitivity to voltage overload for UXR models with 1.85mm and 1mm inputs.
- Fixes an invalid VISA address reported by IO Libs when connecting with USB.
- Fixes an issue preventing the tracking of life cycle information for number of power cycles and power-on time.
- Fixes a hardware plotting issue that occurs intermittently for deep records when a Real Time Eye is also being displayed and most of the data is on screen. When this issue occurs, the data plotted is corrupted and/or the plotter locks up.
- Fixes a filter delay issue causing a bad data result when running hardware accelerated FFE/CTLE equalization on a differential channel.

## Version 10.10.04601 (Patch Release)

Released Date:	11 Jun 2019
Operating System:	Windows 10

### Bug Fixes

- Fixes a waveform data corruption issue that occurs for differential channels and 4-port InfiniiSim. This issue is most noticeable with signal input frequencies that are 1/8, 1/16, 1/32, ..., 1/2<sup>N</sup> of the sampling rate.
- Reduces the input sensitivity to voltage overload for UXR models with 1.85mm and 1mm inputs.

## Version 10.10.04514

Released Date:	20 May 2019
Operating System:	Windows 10

### Enhancements

- Supports all UXR models.
- Adds licenses and upgrades for the following new UXR models.
  - o UXR0252AP, UXR0254AP, UXR0402AP, UXR0404AP, UXR0702AP, UXR0704AP
- Adds support for the N2852A AP3->AP2 probe adaptor.
- Adds licenses and upgrades for the “mmWave Configurable Bandwidth Window” feature.
  - o UXR0000-605 “5 GHz mmWave Configurable Bandwidth Window”
  - o UXR0000-610 “10 GHz mmWave Configurable Bandwidth Window”

- Adds precision probe and precision cable support for the UXR models with 1.85mm and 1.00mm inputs.
- Adds hardware acceleration for the following features:
  - o Differential channels
  - o 4-port Infiniisim
  - o FFE and CTLE equalization

## Version 10.05.04305

<b>Released Date:</b>	<b>8 Mar 2019</b>
<b>Operating System:</b>	<b>Windows 10</b>

### Enhancements

- Adds support for UXR-Series oscilloscopes with 40 GHz of bandwidth or greater.

## Version 10.00.04201 (Patch Release)

<b>Released Date:</b>	<b>26 Feb 2019</b>
<b>Operating System:</b>	<b>Windows 10</b>

### Bug Fixes

- Fixes an issue in the Help-About dialog which was showing an incorrect model number.

## Version 10.00.04104 (Patch Release)

<b>Released Date:</b>	<b>31 Jan 2019</b>
<b>Operating System:</b>	<b>Windows 10</b>

### Enhancements

- Adds support to read the calibration data from the N2127A calibration module and utilize this data to improve the magnitude and phase response calibration.
- Supports the free license which enables hardware acceleration for clock data recovery and real time eye plotting.
- Provides support for Rev. 7 oscillator boards.
- Provides 100MHz as an available calibration output signal.

## Bug Fixes

- Fixes a touch screen focus issue which can render the touch screen inoperative until the scope app is iconified and restored.
- Fixes an intermittent issue that can cause the power supply to shut down due to an erroneous overheating indicator.
- Fixes “Quick Jitter” available from the Analyze pulldown menu.
- Fixes auto set thresholds in the Crosstalk wizard.
- Fixes an issue where no signal is acquired when running a mask with 1 waveform.
- Fixes an issue where saving on “osc” file type resets the number of real-time eye waveforms to one.
- Speeds up the acquisition and downloading of short waveform data records.
- Fixes an FFT error that occurs at low frequency with averaging enabled.
- Fixes a “Data Out of Range” error occurring at oscilloscope startup.
- Fixes the Pattern Average math function.
- Fixes auto-zero inconsistent results with the N7026A probe.
- Fixes issues causing failures in the following compliance applications:
  - o N5412 SAS
  - o N6472A IEEE 802.3 bs/cd
  - o N5411 SATA
  - o DDR5 TX Validation
  - o U7232 DisplayPort
  - o N6469 eDP1.4

## Version 10.00.03902 (Patch Release)

<b>Released Date:</b>	<b>21 Nov 2018</b>
<b>Operating System:</b>	<b>Windows 10</b>

## Bug Fixes

- Fixes an issue that was reducing the maximum memory depth to less than 100Mpts.
- Fixes an input overload issue that was occurring during probe calibration.
- Fixes issues impacting the Display Port, Embedded Display Port, Ethernet, DDR4, and PAM4 compliance applications.
- Fixes a defect leaving the touch screen disabled after the scope application is exited.
- Provides software support for the N7024A probe.
- Fixes the DC Gain/Offset calibration for the N7000A, N70001A, N70002A, N70003A, N2830A, N2831A and N2832A probes.
- Adds an update for the Keysight license manager, 6.0.2, to fix dongle-based licenses.

## Version 10.00.03801 (Patch Release)

Released Date:	03 Oct 2018
Operating System:	Windows 10

### Bug Fixes

- Fixes external probe scaling.
- Fixes an issue causing the DDR4 compliance application to fail.
- Fixes an issue causing the SAS4 compliance application to fail.
- Fixes an issue with probe correction filters not being removed when the probe is removed.
- Fixes vertical autoscale of a differential channel waveform.
- Fixes an issue where the Infiniium app remains active after exiting.
- Fixes a precision probe calibration issue.
- Fixes a touch screen focus issue where touch loses focus with the oscilloscope application.

## Version 10.00.03709 (Patch Release)

Released Date:	14 Sep 2018
Operating System:	Windows 10

### Bug Fixes

- Fixes an install issue found at AMC with the setup.exe file.
- Fixes two BW limit filter issues (WIT 557903 and WIT 557921)

## Version 10.00.03708 (Initial Release)

Released Date:	13 Sep 2018
Operating System:	Windows 10