

# N109212CA OIF-CEI VSR/MR/LR Automated Test Application Software

Keysight N109212CA Software Version 1.21.2.0

|                                                               |                                                   |
|---------------------------------------------------------------|---------------------------------------------------|
| Release Date:                                                 | November 30, 2023                                 |
| Requirements Category<br>(e.g., operating system):            | Microsoft Windows 10,<br>Microsoft Windows 7      |
| Requirements Category<br>(e.g., instrument software version): | A.07.41.27 (FlexDCA N1000-Series System Software) |
| File Name:                                                    | SetupN109212CA_CEI_112G_1.21.2.0.exe              |
| License:                                                      | Please see the product data sheet on Keysight.com |

**Note:** This is the last version that supports the Microsoft Windows 7.

## New Features

- Support the F-JSA license.

## Bug Fixes

- Fixed the issue where the Single-Ended Output Voltage test would not run with Remove s4p InfiniiSim.
- Fixed the issue where the Steady-State Voltage Vf test would not run with Remove s4p InfiniiSim.

## Keysight N109212CA Software Version 1.21.0.0

|                                                               |                                                    |
|---------------------------------------------------------------|----------------------------------------------------|
| Release Date:                                                 | June 16, 2023                                      |
| Requirements Category<br>(e.g., operating system):            | Microsoft Windows 10,<br>Microsoft Windows 7       |
| Requirements Category<br>(e.g., instrument software version): | A.07.40.319 (FlexDCA N1000-Series System Software) |
| File Name:                                                    | SetupN109212CA_CEI_112G_1.21.0.0.exe               |
| License:                                                      | Please see the product data sheet on Keysight.com  |

### New Features

- Enabled the clock support in N1000A + N1060A setup.
- Enabled the external attenuator support.
- Connection diagram updates in VSR TP1a and TP4.
- Support equalizers in transition time test in VSR TP1a and TP4.
- The **number of acquisition** and **Samples per UI selection** settings in Configure Tab are available for transition time test. Keysight N109212CA Software Version 1.20.1.0

|                                                               |                                                    |
|---------------------------------------------------------------|----------------------------------------------------|
| Release Date:                                                 | April 8, 2023                                      |
| Requirements Category<br>(e.g., operating system):            | Microsoft Windows 10,<br>Microsoft Windows 7       |
| Requirements Category<br>(e.g., instrument software version): | A.07.00.763 (FlexDCA N1000-Series System Software) |
| File Name:                                                    | SetupN109212CA_CEI_112G_1.20.1.0.exe               |
| License:                                                      | Please see the product data sheet on Keysight.com  |

### Modification

- Update Keysight License Manager 5

## Keysight N109212CA Software Version 1.20.0.0

|                                                               |                                                    |
|---------------------------------------------------------------|----------------------------------------------------|
| Release Date:                                                 | February 28, 2023                                  |
| Requirements Category<br>(e.g., operating system):            | Microsoft Windows 10,<br>Microsoft Windows 7       |
| Requirements Category<br>(e.g., instrument software version): | A.07.00.763 (FlexDCA N1000-Series System Software) |
| File Name:                                                    | SetupN109212CA_CEI_112G_1.20.0.0.exe               |
| License:                                                      | Please see the product data sheet on Keysight.com  |

### New Features

- Supports OIF-CEI 5.0 and CEI-112G-VSR-PAM4 VSR (oif2017.346.22) specifications.
- The samples per UI (M value) setting can be adjusted to 64 or 128 in the Configure Tab.
- The CDR Equalization Level setting is available in the Configure Tab.
- The RN Compensation State setting is available in the Configure Tab to remove scope noise for Eye and Jitter tests.
- Enabled the COM computation support in Auto-tune tests.
- Enabled the N1077B Optical/Electrical Clock Recovery support.
- Enabled the remote interface support to add skew commands to set channel de-skew values.
- Enabled the remote interface support to set the ERL and Fixture Ref files.
- Enabled the 'Auto' separation method in Jitter Mode.
- Enabled the JSA on/off setting in the Configure tab.

### Bug Fixes

- Fixed the EH and EW values to be correctly reported in the Results tab and report in the Auto-tune test.
- Fixed the ERL test to support Tfx Delay.
- Fixed the Loop Bandwidth remains untuned when Tune on Relock is requested.
- Fixed the probability value to be correctly applied in Jitter Sampling Level.
- Fixed the Auto-tune tests unable to complete due to the closed eye.
- Fixed the optimized CTLE values to be correctly reported in the Auto-tune tests.
- Updated the correct connection diagram (N1055A and PNA) for the Return Loss Test.

## Keysight N109212CA Software Version 1.11.0.0

|                                                               |                                                   |
|---------------------------------------------------------------|---------------------------------------------------|
| Release Date:                                                 | August 26, 2022                                   |
| Requirements Category<br>(e.g., operating system):            | Microsoft Windows 10,<br>Microsoft Windows 7      |
| Requirements Category<br>(e.g., instrument software version): | A.06.92.28 (FlexDCA N1000-Series System Software) |
| File Name:                                                    | SetupInfCEI112GDCA01110000.exe                    |
| License:                                                      | Please see the product data sheet on Keysight.com |

### New Features

- Support Subscription Bundle License “SW00DCAO” – For more information, see the Data Sheet.

## Keysight N109212CA Software Version 1.10.0.0

|                                                               |                                                   |
|---------------------------------------------------------------|---------------------------------------------------|
| Release Date:                                                 | February, 2022                                    |
| Requirements Category<br>(e.g., operating system):            | Microsoft Windows 10,<br>Microsoft Windows 7      |
| Requirements Category<br>(e.g., instrument software version): | 6.81                                              |
| File Name:                                                    | SetupInfCEI112GDCA01100000.exe                    |
| License:                                                      | Please see the product data sheet on Keysight.com |

### New Features

- Updates according to VSR (.16), MR (.15) and LR (.12) specifications.

### Enhancements/Changes

- Initialization process (CDR lock, pattern lock, turn on SIRC, set SIRC bandwidth etc.) will now be applied to auto Set Channel Skew.
- Process Spectrum is now the default setting for Aliased Noise Processing in SIRC setup.
- Uncorrelated Noise (UN) is used, and Spectral Density Noise State setting is available in Configure Tab to remove scope noise (default is on).
- The default selected External Instrument Setup is now N1055A (previously it was PNA).
- Enabled remote interface support to add skew commands to set channel de-skew values.

### Bug Fixes

- Updated the correct connection diagram (N1055A and PNA) for Return Loss Test.
- Included the missing Interpolation feature for Coefficient Tests (available in Configure Tab).
- Fixed the issue of being unable to run with InfiniiSim in AC/DC Common Mode Test.
- Fixed Transition Time test to be able to process the signal that swings above 0 volt.
- Fixed the EH and EW values to be correctly reported in Result tab and report in auto-tune test.

## Keysight N109212CA Software Version 1.0.7.0

|                                                            |                                                   |
|------------------------------------------------------------|---------------------------------------------------|
| Release Date:                                              | July, 2021                                        |
| Requirements category (e.g., operating system):            | Microsoft Windows 10,<br>Microsoft Windows 7      |
| Requirements category (e.g., instrument software version): | 6.71                                              |
| File Name:                                                 | SetupInfCEI112GDCA0100007.exe                     |
| License:                                                   | Please see the product data sheet on Keysight.com |

### Bug Fixes

- Documentation updates based on the changes in version 1.0.6.0.

## Keysight N109212CA Software Version 1.0.6.0

|                                                            |                                                   |
|------------------------------------------------------------|---------------------------------------------------|
| Release Date:                                              | July, 2021                                        |
| Requirements category (e.g., operating system):            | Microsoft Windows 10,<br>Microsoft Windows 7      |
| Requirements category (e.g., instrument software version): | 6.71                                              |
| File Name:                                                 | SetupInfCEI112GDCA0100006.exe                     |
| License:                                                   | Please see the product data sheet on Keysight.com |

### Bug Fixes

- Fix the error thrown in Transition Time test during continuous run with Output Voltage Measurements Eye test group.
- Fix incorrect spec limit line constructed for Return Loss tests.

## Keysight N109212CA Software Version 1.0.5.0

|                                                            |                                                   |
|------------------------------------------------------------|---------------------------------------------------|
| Release Date:                                              | June, 2021                                        |
| Requirements category (e.g., operating system):            | Microsoft Windows 10,<br>Microsoft Windows 7      |
| Requirements category (e.g., instrument software version): | 6.61                                              |
| File Name:                                                 | SetupInfCEI112GDCA0100005.exe                     |
| License:                                                   | Please see the product data sheet on Keysight.com |

### Bug Fixes

- Update the correct CTLE equalization parameter for eye measurement tests.

## Keysight N109212CA Software Version 1.0.4.0

|                                                            |                                                   |
|------------------------------------------------------------|---------------------------------------------------|
| Release Date:                                              | April, 2021                                       |
| Requirements category (e.g., operating system):            | Microsoft Windows 10,<br>Microsoft Windows 7      |
| Requirements category (e.g., instrument software version): | 6.61                                              |
| File Name:                                                 | SetupInfCEI112GDCA0100004.exe                     |
| License:                                                   | Please see the product data sheet on Keysight.com |

### Bug Fixes

- Fixes the test abort issue in Coefficient test.

## Keysight N109212CA Software Version 1.0.3.0

|                                                            |                                                                                          |
|------------------------------------------------------------|------------------------------------------------------------------------------------------|
| Release Date:                                              | February, 2021                                                                           |
| Requirements category (e.g., operating system):            | Microsoft Windows 10,<br>Microsoft Windows 7                                             |
| Requirements category (e.g., instrument software version): | 6.61                                                                                     |
| File Name:                                                 | SetupInfCEI112GDCA0100003.exe                                                            |
| License:                                                   | Please see the product data sheet on <a href="https://www.keysight.com">Keysight.com</a> |

### Initial Release

### New Feature

- Supports VSR, MR and LR specifications.