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Agilent N5393C PCI Express Electrical Performance and Compliance Software Release Notes

Agilent N5393C Software Version 03.35
Released Date: 1 June 2014
Minimum Infiniium Oscilloscope Baseline Version: 03.60.0000 (90000 series)
File Name: SetupInfPCIExpress0335.exe

Modifications
- Fixed bug that unable to turn on Switch Matrix

Note
- This will be the last version to support Infiniium Oscilloscope Baseline Version 4.20.

Agilent N5393C Software Version 03.34
Released Date: 19 May 2014
Minimum Infiniium Oscilloscope Baseline Version: 03.60.0000 (90000 series)
File Name: SetupInfPCIExpress0334.exe

Modifications
- Improved algorithm and updated the limit for SSC deviation test in PCIE 2 and PCIE 3
- Improved algorithm for Peak Differential Output Voltage (Transition and Non-Transition) in PCIE 1, PCIE 2 and PCIE 3.
- Fixed the following test issue
    - Absolute Crossing Point Voltage test in PCIE 1.1
    - Receiver calibration setup in PCIE 3
    - De-emphasis ratio test in PCIE 1 and PCIE 2
    - Common clock filter in PCIE 2

Note
- This will be the last version to support Infiniium Oscilloscope Baseline Version 4.20.

Agilent N5393C Software Version 03.33
Released Date: 13 Dec 2013
Minimum Infiniium Oscilloscope Baseline Version: 03.60.0000 (90000 series)
File Name: SetupInfPCIExpress0333.exe

Modifications
- Separate the Peak Differential Output Voltage to Peak Differential Output Voltage Transition and Peak Differential Output Voltage Non Transition
- Changed the Template test limit format

- Improve algorithm for PCIE 1 Template test

Agilent N5393C Software Version 03.32
Released Date: 16 July 2013
Minimum Infiniium Oscilloscope Baseline Version: 03.60.0000 (90000 series)
File Name: SetupInfPCIExpress0332.exe

Modifications
- Support MSOX90000 Series Oscilloscopes
- Added Interpolation configuration for PCIE1 and PCIE2.

Agilent N5393C Software Version 03.31
Released Date: 7 June 2013
Minimum Infiniium Oscilloscope Baseline Version: 03.60.0000 (90000 series)
File Name: SetupInfPCIExpress0331.exe

Modifications
- Fixed bug that caused the application to crash when no switch matrix license is installed.

Agilent N5393C Software Version 03.30
Released Date: 20 May 2013
Minimum Infiniium Oscilloscope Baseline Version: 03.60.0000 (90000 series)
File Name: SetupInfPCIExpress0330.exe

Modifications
- Enabled switch matrix capability.
- Enabled precision probe capability.

Agilent N5393C Software Version 03.21
Released Date: 26 Feb 2013
Minimum Infiniium Oscilloscope Baseline Version: 03.60.0000 (90000 series)
File Name: SetupInfPCIExpress0321.exe

Modifications
- Set default sampling rate to 40Gsa/s during startup so that bandwidth limit is at 16GHz instead of 8GHz.
- Implement correct limits for Peak Differential Output Voltage for PCIE 3.0 Add-in Card.

Agilent N5393C Software Version 03.20
Released Date: 22 Nov 2012
Minimum Infiniium Oscilloscope Baseline Version: 03.50.0000 (90000 series)
File Name: SetupInfPCIExpress0320.exe

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Additions
- PCIE 3.0 Receiver Calibration.
- PCIE 3.0 Receiver Test Setup.

Modifications
- Changed de-emphasis ratio measurement to use eye-diagram and histogram
- Implement correct mask limits for eye measurement for signals with 3.5dB and 6.5dB ratios.
- Improved rise/fall time measurements for variable transition time threshold to get better accuracy.

Agilent N5393C Software Version 03.10
Released Date: 19 April 2012
Minimum Infiniium Oscilloscope Baseline Version: 03.22.0004 (90000 series)
File Name: SetupInfPCIExpress0310.exe
Additions
- PCIE 3.0 Add-in Card tests.
- PCIE 3.0 System Board tests.

Modifications
- Fixed bug that caused Template test to hang.
- Fixed bug that caused Reference Clock test to crash.

Agilent N5393C Software Version 03.02
Released Date: 5 July 2011
Minimum Infiniium Oscilloscope Baseline Version: 03.00.900 (90000 series)
File Name: SetupInfPCIExpress0302.exe

Modifications
- Fixed bug that caused Template test to crash for PCIE 2.0.
- Fixed bug that caused connection diagrams to be blank.
- Improved algorithm for PCIE 2.0 Reference clock tests.

Agilent N5393C Software Version 03.00
Released Date: 24 Dec 2010
Minimum Infiniium Oscilloscope Baseline Version: 03.00.900 (90000 series)
File Name: SetupInfPCIExpress0300.exe

Additions
- PCIE 3.0 Transmitter tests.
- PCIE 3.0 Reference clock tests.

- PCIE 2.0 Reference clock tests.

Agilent N5393B Software Version 02.12
Released Date: 27 March 2009
Minimum Infiniium Oscilloscope Baseline Version: 05.60.00 (80000 series),
1.40.04 (90000 series)
File Name: SetupInfPCIExpress0212.exe

Additions
- Added support for PCIE half swing power tests.

Modifications:
- Fixed issue in PCIE clock recovery method.

- Fixed bug where certain tests pass with infinity value.

Agilent N5393B Software Version 02.10
Released Date: 03 March 2008
Minimum Infiniium Oscilloscope Baseline Version: 05.40.00 (80000 series),
1.00 (90000 series)
File Name: SetupInfPCIExpress0210.exe

Additions
- Added support for DSO90000 Series Oscilloscopes.

Agilent N5393B Software Version 02.00
Released Date: 17 January 2008
Minimum Infiniium Oscilloscope Baseline Version: 05.40.00
File Name: SetupInfPCIExpress0200.exe

Additions
- Added tests for PCIE 2.0.

Modifications:
- Modified the Unit Interval test to calculate and report the mean unit interval value for the entire sample waveform.

- Updated the System board tests for PCIE 2.0 to support the new 2-port testing as specified in the PCIE CEM specification document version 2.0.

Agilent N5393A Software Version 01.12
Released Date: 28 September 2007
Miniimum Infiniium Oscilloscope Baseline Version: 05.20.00
File Name: SetupInfPCIExpress0112.exe

Bugfixed:
- Fixed bug in Peak Differential Output Voltage test which caused occasional wrong results.

- Fixed bug in DC Common Mode Line Delta test which caused Line Delta to be computed incorrectly and displayed "$V_{TX\text{-}CM\text{-}DC\text{-}D+}$" or "$V_{TX\text{-}CM\text{-}DC\text{-}D\text{-}}$" as signed values instead of absolute values.

- Fixed incorrect specification limit from 25V to 25mV in the 2.0 version of DC Common Mode Line Delta test.

Agilent N5393A Software Version 01.11
Released Date: 22 May 2007
Miniimum Infiniium Oscilloscope Baseline Version: 05.20.00
File Name: SetupInfPCIExpress01110000.exe

Modifications:
- Changed default sample rate to 40GSa/s for PCIE 2.0 and 20GSa/s for PCIE 1.0a, 1.1, & Express Card.

Bugfixed:
- Fixed Set Up page selection of Express Card test where previously the Module tests and Host tests were swapped in the test tree display.

- Fixed defect that caused an error dialog "Error Setting Sample Rate Valid Range" to appear on scopes that did not have the EBW option.

Agilent N5393A Software Version 01.10
Released Date: 09 February 2007

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Minimum Infiniium Oscilloscope Baseline Version: 05.20.00
File Name: SetupInfPCIExpress0110.exe

<u>Additions</u>
- Added tests for PCIE 1.1.

- Added some preliminary "teaser" tests for PCIE 2.0.

Agilent N5393A Software Version 01.03
Released Date: N/A
Minimum Infiniium Oscilloscope Baseline Version: A.03.90
File Name: N/A

<u>Modifications:</u>
- Improved signal detection routines to handle signals with large common mode voltage.

<u>Bugfixed:</u>
- Fixed an issue introduced in 1.02 that broke the Tx DC Common Mode Measurements by producing very large common mode voltage values.

- Fixed the issue that was causing AVG DC common mode voltage to measure infinity value when the common mode voltage was larger than 400mV.

Agilent N5393A Software Version 01.02
Released Date: 30 January 2006
Minimum Infiniium Oscilloscope Baseline Version: A.03.90
File Name: SetupInfPCIExpress0102.exe

<u>Additions</u>

- Added user control to disable signal checks.

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Modifications:
- Enhanced dynamic range for some tests to accommodate marginal signals.

- Modified Peak Voltage Test method in order to correctly compute Vpeak over the entire waveform (instead of just mid-ui).

Bugfixed:
- Corrected typo in SSC UI limits (minor precision error).

Agilent N5393A Software Version 01.01
Released Date: 17 February 2005
Miniimum Infiniium Oscilloscope Baseline Version: A.03.90
File Name: SetupInfPCIExpress0101.exe

Additions
- Added support for Spread Spectrum Clocking (SSC).

- Added support for DS080000 Series Oscilloscopes.

- Added support for changing the sample rate option.

- Added the Enhanced Bandwidth option for DSO80000 series scopes (used for Noise Reduction at 6GHz).

Modifications:
- Modified the Unit Interval algorithm to improve performance on low amplitude signals.

Bugfixed:
- Fixed the issue in html output report where clicking the hyperlinks at the top of the report would not navigate to the details for that test.

- Provided a workaround for a known bug in WindowsXP Compressed folders to allow the viewer to see image files.

Agilent N5393A Software Version 01.00
Released Date: 14 June 2004
Minimum Infiniium Oscilloscope Baseline Version: A.03.50
File Name: SetupInfPCIExpress0100.exe

Initial release.