

N5393D/N5393E PCIe Compliance Test Application Software

Keysight N5393D/N5393E Software Version 03.45

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| Released Date: | 13 January 2017 |
| Requirements category (e.g., operating system): | Microsoft Windows 7 |
| Requirements category (e.g., instrument software version): | 5.70.00802 (90000 Series, 90000 X-Series, 90000 Q-Series, Z-Series), 5.00 (9000 Series) |
| File Name: | SetupInfPCIExpress0345.exe |

Modifications

- Fixed the following test issues
 - o ExpressCard eye mask test folding issue.
 - o Equalization Preset test units.
 - o Missing test when offline feature is turn on.

Keysight N5393D/N5393E Software Version 03.44

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| Released Date: | 8 April 2016 |
| Requirements category (e.g., operating system): | Microsoft Windows 7 |
| Requirements category (e.g., instrument software version): | 5.00 (90000 Series, 90000 X-Series, 90000 Q-Series, Z-Series), 5.00 (9000 Series) |
| File Name: | SetupInfPCIExpress0344.exe |

Additions

- Added differential probe support for PCIe Gen2 Receiver Common Clk tests.

Modifications

- Fixed the following test issues
 - o Updated P10 limit.
 - o Updated minimum Eye Height in PCIe Gen 2 System Board, Peak Differential Output Voltage test.
 - o Added connection type in PCIe Gen 2 Transmitter test.
 - o Updated the acquisition depth for PCIe Gen 1 Reference Clock, Average Clock Period test to 10Mpts.

Keysight N5393D/N5393E Software Version 03.43

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| Released Date: | 17 August 2015 |
| Requirements category (e.g., operating system): | Microsoft Windows 7 |
| Requirements category (e.g., instrument software version): | 4.60 (90000 Series, 90000 X-Series, 90000 Q-Series, Z-Series), 4.60 (9000 Series) |
| File Name: | SetupInfPCIExpress0343.exe |

Additions

- Added new test for PCIe 2.0 (5.0 G/Ts).
 - o Tmin-Pulse
 - o AC Peak Common Mode Output Voltage
 - o Absolute delta of DC common mode voltage during L0 and Idle

Modifications

- Fixed the following test issues
 - o Add-in Card and System Board RMS RJ pass fail limit
 - o PCIe Gen 1 Unit Interval test report actual value using worst case value.
 - o Uninstall others Valiframe application issue.
 - o Does not allow offset signal for AVG Common Mode Output Voltage test.

Agilent N5393D/N5393E Software Version 03.42

| | |
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| Released Date: | 24 November 2014 |
| Requirements category (e.g., operating system): | Microsoft Windows 7 |
| Requirements category (e.g., instrument software version): | 4.60 (90000 Series, 90000 X-Series, 90000 Q-Series, Z-Series), 4.60 (9000 Series) |
| File Name: | SetupInfPCIExpress0342.exe |

Additions

- Enabled PCIe Gen 1 supports for S-Series scope.
- Added additional info report for Template Test.
- (Max Voltage, Min Voltage, Eye Top Margin, Eye Bottom Margin, Eye Height, Eye Height Margin)

Modifications

- Fixed the following test issues
 - o Add-in Card and System Board RMS RJ pass fail limit
 - o Wrong Transmitter PCIe2.0 (5GT/s) Eye-width value reported
 - o SigTestWrapper crash when input not compliance signal
 - o System Board 5GT/s template test limit

Agilent N5393D/N5393E Software Version 03.41

| | |
|--|--|
| Released Date: | 8 August 2014 |
| Requirements category (e.g., operating system): | Microsoft Windows 7 |
| Requirements category (e.g., instrument software version): | 4.60 (90000 Series, 90000 X-Series, 90000 Q-Series, Z-Series), 4.60 (9000 Series) |
| File Name: | SetupInfPCIExpress0341.exe |

Additions

- Supports HDF5 format.

Modifications

- Fixed the following test issues
 - o Exception throw from Switch matrix
 - o Reference Clock Number of UI processed cycles
 - o De embed fixture is System Board
 - o Unclean eye diagram

Agilent N5393D/N5393E Software Version 03.40

| | |
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| Released Date: | 2 June 2014 |
| Requirements category (e.g., operating system): | Microsoft Windows 7 |
| Requirements category (e.g., instrument software version): | 4.60 (90000 Series, 90000 X-Series, 90000 Q-Series, Z-Series), 4.60 (9000 Series) |
| File Name: | SetupInfPCIExpress0340.exe |

Modifications

- Supports for Infiniium Oscilloscope Software version 5.00.

Agilent N5393C Software Version 03.35

| | |
|--|---|
| Released Date: | 1 June 2014 |
| Requirements category (e.g., operating system): | Microsoft Windows XP, Microsoft Windows 7 |
| Requirements category (e.g., instrument software version): | 3.60 (90000 Series, 90000 X-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 |
| Requirements category (e.g., operating system): | Microsoft Windows XP, Microsoft Windows 7 |
| Requirements category (e.g., instrument software version): | 3.60 (90000 Series, 90000 X-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
 - o Absolute Crossing Point Voltage test in PCIE 1.1
 - o Receiver calibration setup in PCIE 3
 - o De-emphasis ratio test in PCIE 1 and PCIE 2
 - o 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 December 2013 |
| Requirements category (e.g., operating system): | Microsoft Windows XP, Microsoft Windows 7 |
| Requirements category (e.g., instrument software version): | 3.60 (90000 Series, 90000 X-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 |
| Requirements category (e.g., operating system): | Microsoft Windows XP, Microsoft Windows 7 |
| Requirements category (e.g., instrument software version): | 3.60 (90000 Series, 90000 X-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 |
| Requirements category (e.g., operating system): | Microsoft Windows XP, Microsoft Windows 7 |
| Requirements category (e.g., instrument software version): | 3.60 (90000 Series, 90000 X-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 |
| Requirements category (e.g., operating system): | Microsoft Windows XP, Microsoft Windows 7 |
| Requirements category (e.g., instrument software version): | 3.60 (90000 Series, 90000 X-Series) |
| File Name: | SetupInfPCIExpress0330.exe |

Modifications

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

Agilent N5393C Software Version 03.21

| | |
|--|---|
| Released Date: | 26 February 2013 |
| Requirements category (e.g., operating system): | Microsoft Windows XP, Microsoft Windows 7 |
| Requirements category (e.g., instrument software version): | 3.60 (90000 Series, 90000 X-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 November 2012 |
| Requirements category (e.g., operating system): | Microsoft Windows XP, Microsoft Windows 7 |
| Requirements category (e.g., instrument software version): | 3.50 (90000 Series) |
| File Name: | SetupInfPCIExpress0320.exe |

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 |
| Requirements category (e.g., operating system): | Microsoft Windows XP, Microsoft Windows 7 |
| Requirements category (e.g., instrument software version): | 3.22.0004 (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 |
| Requirements category (e.g., operating system): | Microsoft Windows XP, Microsoft Windows 7 |
| Requirements category (e.g., instrument software version): | 3.00.900 (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 December 2010 |
| Requirements category (e.g., operating system): | Microsoft Windows XP, Microsoft Windows 7 |
| Requirements category (e.g., instrument software version): | 3.00.900 (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 |
| Requirements category (e.g., operating system): | Microsoft Windows XP |
| Requirements category (e.g., instrument software version): | 1.40.04 (90000 Series) 5.60.00 (80000 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 |
| Requirements category (e.g., operating system): | Microsoft Windows XP |
| Requirements category (e.g., instrument software version): | 1.00.00 (90000 Series) 5.40.00 (80000 Series) |
| File Name: | SetupInfPCIExpress0210.exe |

Additions

- Added support for DSO90000 Series Oscilloscopes.

Agilent N5393B Software Version 02.00

| | |
|--|----------------------------|
| Released Date: | 17 January 2009 |
| Requirements category (e.g., operating system): | Microsoft Windows XP |
| Requirements category (e.g., instrument software version): | 5.40.00 (80000 Series) |
| 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 |
| Requirements category (e.g., operating system): | Microsoft Windows XP |
| Requirements category (e.g., instrument software version): | 5.20.00 (80000 Series) |
| File Name: | SetupInfPCIExpress0112.exe |

Bug fixed:

- 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 "VTX-CM-DC-D+" or "VTX-CM-DC-D-" 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 |
| Requirements category (e.g., operating system): | Microsoft Windows XP |
| Requirements category (e.g., instrument software version): | 5.20.00 (80000 Series) |
| File Name: | SetupInfPCIExpress0111.exe |

Modifications:

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

Bug fixed:

- 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: | 9 February 2007 |
| Requirements category (e.g., operating system): | Microsoft Windows XP |
| Requirements category (e.g., instrument software version): | 5.20.00 (80000 Series) |
| File Name: | SetupInfPCIExpress0110.exe |

Additions

- 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 |
| Requirements category (e.g., operating system): | Microsoft Windows XP |
| Requirements category (e.g., instrument software version): | A.03.90 |
| File Name: | N/A |

Modifications:

- Improved signal detection routines to handle signals with large common mode voltage.

Bug fixed:

- 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 |
| Requirements category (e.g., operating system): | Microsoft Windows XP |
| Requirements category (e.g., instrument software version): | A.03.90 |
| File Name: | SetupInfPCIExpress0102.exe |

Additions

- Added user control to disable signal checks.

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).

Bug fixed:

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

Agilent N5393A Software Version 01.01

| | |
|--|----------------------------|
| Released Date: | 17 February 2006 |
| Requirements category (e.g., operating system): | Microsoft Windows XP |
| Requirements category (e.g., instrument software 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 DS080000 series scopes (used for Noise Reduction at 6GHz).

Modifications:

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

Bug fixed:

- 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 2006 |
| Requirements category (e.g., operating system): | Microsoft Windows XP |
| Requirements category (e.g., instrument software version): | A.03.50 |
| File Name: | SetupInfPCIExpress0100.exe |

Initial Release

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