

D9040PCIC PCI Express Compliance Test Application Software

Keysight D9040PCIC Software Version 04.31.0004

Release Date:	12 th December 2019
System Requirements (e.g., operating system):	Microsoft Windows 7 and Windows 10
Required Equipment (e.g., instrument software version):	6.50.00906 (90000 Series, 90000 X-Series, 90000 Q-Series, Z-Series), or 10.12.05115 (UXR-Series) Oscilloscope
File Name:	SetupInfPCIExpress04310004.exe

Additions / New Features

- Added SigTest version 4.0.51 and default version for the entire 16 GT/s tests

Modification / Changes

- Updated SigTest version 3.2.0.3 as default version for 8 GT/s CEM End Point tests
- Updated non-transition eye limit for SigTest version 4.0.46 & 4.0.51 template file

Issues Fixed

- Fixed Reference Clock RMS Jitter test report false failed issue

Keysight D9040PCIC Software Version 04.31.0003

Release Date:	11 th November 2019
System Requirements (e.g., operating system):	Microsoft Windows 7 and Windows 10
Required Equipment (e.g., instrument software version):	6.40.01201 (90000 Series, 90000 X-Series, 90000 Q-Series, Z-Series), or 10.11.05004 (UXR-Series) Oscilloscope
File Name:	SetupInfPCIExpress04310003.exe

Additions / New Features

- Report selected Preset on each test run
- Reported additional Jitter measurement result output by SigTest executables

Modification / Changes

- Removed “Non-transition failures” & “Transition failures” result field in Template Tests
- Updated Bandwidth, Number of UI and Sampling Rates option
- Fixed SigTest executables generated text file result to Project folder
- Handle SigTest executables version 3.2.0.3 that output "**Composit Eye Height**"

Issues Fixed

- Fixed wrong labelling in eye diagram
- Fixed upload result to repository error due to long test name
- Fixed Template Test reported false failed result
- Fixed SSC tests that are not working due to missing reference assembly
- Fixed switch matrix error when user chooses Keysight U3020A S26
- Fixed Low Power Template Test not reporting eye diagram issue
- Fixed no proper channel setup issue when running test using multiple lane

Known Issues

- Unable to run Equalization Preset Tests with “Collective Data Acquisition” features together with Signal Quality Tests at the same time.

Keysight D9040PCIC Software Version 04.31.0001

Released Date:	26 th July 2019
System Requirements (e.g., operating system):	Microsoft Windows 7 and Windows 10
Required Equipment (e.g., instrument software version):	6.40.00801 (90000 Series, 90000 X-Series, 90000 Q-Series, Z-Series), or 10.10.04601 (UXR-Series)
File Name:	SetupInfPCIExpress04310000.exe

Additions / New Features

- Added informative Pseudo Package Loss test for Non-Root Package Device that does not support captive channel

Modification / Changes

- Removed Switch Matrix license checking as it is no longer needed

Issues Fixed

- Fixed 2.5GT/s Average Clock Period test result screenshot in full windows
- Fixed 2.5GT/s Rise/Fall Time test invalid test limit
- Fixed 2.5GT/s Template Test not showing transition eyes diagram
- Fixed 5GT/s informative Template Test show as Fail in test report
- Fixed DUT Automation did not re-toggle to correct signal for 5GT/s crosstalk and without crosstalk tests

Keysight D9040PCIC Software Version 04.31.0000

Released Date:	26 th July 2019
System Requirements (e.g., operating system):	Microsoft Windows 7 and Windows 10
Required Equipment (e.g., instrument software version):	6.40.00801 (90000 Series, 90000 X-Series, 90000 Q-Series, Z-Series), or 10.10.04601 (UXR-Series)
File Name:	SetupInfPCIExpress04310000.exe

Additions / New Features

- Supports PPKS license
- Added CEM – End Point PWJ tests which required “Preset 10 + extra 2 toggles” signal
- Replaced Pseudo package loss test with 2 separate tests as listed below:
 - Pseudo package loss, Non-root device
 - Pseudo package loss, Root device

It is applicable to PCIe Gen 3 and PCIe Gen 4, according to specification

- Added InfiniiSim license checking at the beginning of test. Notify user and abort test if license is not available.
- Prompt user with extra information of signal required to run test

Modification / Changes

- Updated default bandwidth limit and sampling rates value according to data rates
- Removed “SigTest Embedding” button which is no longer applicable
- 5GT/s Template test in Base Transmitter Tests is using fixed template file. No deemphasis level template file being used anymore
- Equalization Preset tests are no longer able to run with different Test Point at one time, while using saved waveform (offline mode) to run test
- Replaced Gen 4 2.5 GT/s RMS Jitter (Common Clk) test with Peak to Peak Jitter (Common Clk) test according to specification
- Corrected the required signal information
- Workshop Mode no longer saves signal in WFM format

- Improved Workshop Mode & Equalization Preset test time by removing saving of signal in BIN format redundantly
- Removed checking for signal trigger during signal pattern checking

Issues Fixed

- Fixed Root Complex test error and missing connection diagram issue if user changed the channel configuration to use Channel 2 and 4
- Fixed missing required signal change notification to user
- Fixed test did not re-acquire waveform with correct Preset
- Fixed Jitter measurement trend timeout issue in SSC test
- Fixed inaccurate test filtering & test list availability issue
- Fixed inaccurate test result issue
- Fixed SigTest reported result string changed issue in newer version
- Fixed invalid GUI option available for user
- Fixed DUT Automation AUX out issue
- Fixed general license checking issue

Known Issues

- Refer Version 04.30 “Known Issue” section for details

SigTest version configuration overview

- PCIE Gen 1.0a & SigTest

Gen	Data Speed (GT/s)	Test Point	SigTest Configuration
1.0a	2.5	Base	4.0.46
		CEM – End Point	3.2.0.3
		CEM – Root Complex	3.2.0.3

- PCIE Gen 2.0 & SigTest

Gen	Data Speed (GT/s)	Test Point	SigTest Configuration
1.1	2.5	Base	4.0.46
		CEM – End Point	3.2.0.3
		CEM – Root Complex	3.2.0.3
		Reference Clock	3.2.0 (Not configurable)

- PCIE Gen 2.0 & SigTest

Gen	Data Speed (GT/s)	Test Point	SigTest Configuration
2.0	2.5	Base	4.0.46

		CEM – End Point	3.2.0.3
		CEM – Root Complex	3.2.0.3
		Reference Clock	3.2.0 (Not configurable)
	5	Base	4.0.46
		CEM – End Point	3.2.0.3
		CEM – Root Complex	3.2.0.3
		Reference Clock	3.2.0 (Not configurable)

- PCIE Gen 3.0 & SigTest

Gen	Data Speed (GT/s)	Test Point	SigTest Configuration
3.0	2.5	Base	4.0.46
		CEM – End Point	3.2.0.3
		CEM – Root Complex	3.2.0.3
		U.2 – End Point	3.2.0.3
		U.2 – Root Complex	3.2.0.3
		Reference Clock	3.2.0 (Not configurable)
	5	Base	4.0.46
		CEM – End Point	3.2.0.3
		CEM – Root Complex	3.2.0.3
		U.2 – End Point	3.2.0.3
		U.2 – Root Complex	3.2.0.3
		Reference Clock	3.2.0 (Not configurable)
	8	Base	4.0.46
		CEM – End Point	3.2.0.3
		CEM – Root Complex	3.2.0.3
		U.2 – End Point	3.2.0.3
		U.2 – Root Complex	3.2.0.3
		Reference Clock	3.2.0 (Not configurable)
		Preset	4.0.46 (Not configurable)

- PCIE Gen 4.0 & SigTest

Gen	Data Speed (GT/s)	Test Point	SigTest Configuration
4.0	2.5	Base	4.0.46
		CEM – End Point	3.2.0.3
		CEM – Root Complex	3.2.0.3
		Reference Clock	3.2.0 (Not configurable)
	5	Base	4.0.46
		CEM – End Point	3.2.0.3
		CEM – Root Complex	3.2.0.3
		Reference Clock	3.2.0 (Not configurable)

8	Base	4.0.46
	CEM – End Point	3.2.0.3
	CEM – Root Complex	3.2.0.3
	Reference Clock	3.2.0 (Not configurable)
	Preset	4.0.46 (Not configurable)
16	Base	4.0.46
	CEM – End Point	4.0.46
	CEM – Root Complex	4.0.46
	Reference Clock	3.2.0 (Not configurable)
	Preset	4.0.46 (Not configurable)

N5393F/N5393G PCIE Compliance Test Application Software

Keysight N5393F/N5393G Software Version 04.30.0001

Released Date:	30 th October 2018
Requirements category (e.g., operating system):	Microsoft Windows 7
Requirements category (e.g., instrument software version):	6.30.00609 (90000 Series, 90000 X-Series, 90000 Q-Series, Z-Series), 10.00.03708 (UXR-Series)
File Name:	SetupInfPCIExpress04300001.exe

Modification

*Fixed 16GT/s Equalization Preset Tests SigTest error when Collective Data Acquisition option enabled

*Improve signal scaling to handle inconsistent Idle state for Absolute delta of DC common mode voltage during LO and Idle tests

Known Issues

*Refer Version 04.30 “Known Issue” section for details

SigTest version configuration overview

*PCIE Gen 1.0a & SigTest

Gen	Data Speed (GT/s)	Test Point	SigTest Configuration
1.0a	2.5	Base	4.0.39
		CEM – End Point	4.0.39
		CEM – Root Complex	3.2.0.1

*PCIE Gen 2.0 & SigTest

Gen	Data Speed (GT/s)	Test Point	SigTest Configuration
1.1	2.5	Base	3.2.0 (Not configurable)
		CEM – End Point	4.0.39
		CEM – Root Complex	3.2.0.1
		Reference Clock	3.2.0 (Not configurable)

*PCIE Gen 2.0 & SigTest

Gen	Data Speed (GT/s)	Test Point	SigTest Configuration
2.0	2.5	Base	3.2.0 (Not configurable)
		CEM – End Point	4.0.39
		CEM – Root Complex	3.2.0.1
		Reference Clock	3.2.0 (Not configurable)
	5	Base	3.2.0 (Not configurable)
		CEM – End Point	4.0.37
		CEM – Root Complex	3.2.0.1
		Reference Clock	3.2.0 (Not configurable)

*PCIE Gen 3.0 & SigTest

Gen	Data Speed (GT/s)	Test Point	SigTest Configuration
3.0	2.5	Base	3.2.0 (Not configurable)
		CEM – End Point	4.0.39
		CEM – Root Complex	3.2.0.1
		U.2 – End Point	4.0.39
		U.2 – Root Complex	3.2.0.1
		Reference Clock	3.2.0 (Not configurable)
	5	Base	3.2.0 (Not configurable)
		CEM – End Point	4.0.37
		CEM – Root Complex	3.2.0.1
		U.2 – End Point	4.0.37
		U.2 – Root Complex	3.2.0.1
	8	Reference Clock	3.2.0 (Not configurable)
		Base	3.2.0 (Not configurable)
		CEM – End Point	4.0.39
		CEM – End Point	4.0.39

		CEM – Root Complex	3.2.0.1
		U.2 – End Point	4.0.39
		U.2 – Root Complex	3.2.0 (Not configurable)
		Reference Clock	3.2.0 (Not configurable)
		Preset	4.0.37 (Not configurable)

*PCIE Gen 4.0 & SigTest

Gen	Data Speed (GT/s)	Test Point	SigTest Configuration
4.0	2.5	Base	3.2.0 (Not configurable)
		CEM – End Point	4.0.39
		CEM – Root Complex	3.2.0.1
		Reference Clock	3.2.0 (Not configurable)
	5	Base	4.0.37
		CEM – End Point	4.0.37
		CEM – Root Complex	3.2.0.1
		Reference Clock	3.2.0 (Not configurable)
	8	Base	4.0.39
		CEM – End Point	4.0.39
		CEM – Root Complex	3.2.0.1
		Reference Clock	3.2.0 (Not configurable)
		Preset	4.0.37 (Not configurable)
	16	Base	4.0.39
		CEM – End Point	4.0.39
		CEM – Root Complex	3.2.0.1
Reference Clock		3.2.0 (Not configurable)	
Preset		4.0.37 (Not configurable)	

Keysight N5393F/N5393G Software Version 04.30

Released Date:	10 th October 2018
Requirements category (e.g., operating system):	Microsoft Windows 7
Requirements category (e.g., instrument software version):	6.30.00609 (90000 Series, 90000 X-Series, 90000 Q-Series, Z-Series), 10.00.03708 (UXR-Series)
File Name:	SetupInfPCIExpress0430.exe

Addition

*Support UXR-Series

*Added AC-CM voltage tests for 16GT/s Base Transmitter Tests in Common Mode Voltage tests

*Integrated SigTest version 4.0.39 ** refer to Notes 1 & 2*

*SigTest version selection (Debug Mode) in each Data Speed

*Re-categories tests as Near End and Far End

Modification

*De-emphasis option for 5GT/s test no longer available in Workshop Compliance Mode. Both -3.5dB and -6.0dB de-emphasis tests will appear in test list together

*Fixed de-embedded package file issue for CEM End Point and Root Complex tests

*Fixed incorrect Non-Transition Eye image and label in 16GT/s test reports

*Fixed test limit for 5GT/s Non-Transition voltage measurement

*Fixed tests missing issue in Use saved waveform and Debug mode

*Fixed missing lower limit issue when Half Power option being chosen

*Prompt user for bandwidth changed due to sampling rates requirements

*Fixed test report missing Preset Type issue

*Fixed and improved general GUI issue

*Fixed general issue for Use saved waveform mode

*Fixed general test sequence, measurement and SigTest template files issue

Known Issues

*SigTest version 4.0.39 did not work for 5GT/s tests. Version 4.0.37 will be used for 5GT/s tests

*SigTest version 3.2.0.1 did not work for Base Transmitter and End Point Template Test

*Temporary hide Uncorrelated Total Pulse Width Jitter and Uncorrelated Deterministic Pulse Width Jitter tests due to no workable SigTest version available

*This application only able to process differential waveform when it is Saved Waveform mode of Equalization Preset Test. The differential waveform file directory / path MUST NOT contain any empty space because it will cause SigTest crashed.

** Notes 1 – 5GT/s tests still using SigTest version 4.0.37. Root Complex tests still using SigTest version 3.2.0.1*

** Notes 2 – PCIe 3.0 and PCIe 4.0 Equalization Preset Tests using SigTest version 4.0.37*

Keysight N5393F/N5393G Software Version 04.20

Released Date:	6 July 2018
Requirements category (e.g., operating system):	Microsoft Windows 7
Requirements category (e.g., instrument software version):	6.20.00701 (90000 Series, 90000 X-Series, 90000 Q-Series, Z-Series), 6.00.00625 (S-Series)
File Name:	SetupInfPCIExpress0420.exe

Addition

*Added Gen4 CEM EndPoint Tests

*Added CEM Rootcomplex Tests

Modification

*Fixed Preset test for Gen3.

*Fixed Gen3 8GT/s RefClk RMS Jitter test in offline test

*Revised 81150A setup.

*Added Setup for 81150A using remote command.

*Fixed Tx, Full swing Tx voltage with no TxEQ (16.0 GT/s) not running due to no waveform loaded

*For Gen3 add in card and system board, added additional check on template path because it can be change from setup tab and configure tab

*Fixed the conflict setting on CEM-End point and CEM system on Gen 3 (S-parameter path)

*Default lane0 as checked

*Added back offline capability for preset test.

*When run Preset test in offline, allow to browse to the dedicate file directory instead of file selection.

*Changed 5G test Non transition test to Informative Only. (Both Full Power and half power)

*Fixed error (input string not in correct format) in Median to Max Jitter (2.5 GT/s).

*Extend the timeout for waveform saving process as the default timeout will not enough for large waveform file.

*Increase the looping number (Dut toggle) due to additional preset pattern in Gen4 DUT.

*Fixed U2.endpoint test for 5G not being hide when uncheck the 5G checkbox

- *Revised the result reporting format for eye width test.
- *Exposed SRIS option if Gen4 being selected, it should be visible on all speed.
- *EndPoint Eye Width test (-6dB) reported with an actual limit instead of Pass/Fail
- *Fixed connection Diagram not being display on PCIe1 root complex test
- *Removed rise/Fall time measurement on Gen3 and Gen4.

Keysight N5393F/N5393G Software Version 04.11

Released Date:	20 April 2018
Requirements category (e.g., operating system):	Microsoft Windows 7
Requirements category (e.g., instrument software version):	6.00.00625 (90000 Series, 90000 X-Series, 90000 Q-Series, Z-Series), 6.00.00625 (S-Series)
File Name:	SetupInfPCIExpress0411.exe

Additions

- Added different limits for reference clock tests with SSC and without SSC.
- Added configuration to allow SigTest to run in silent mode.
- Added AC Common Mode Voltage – 30kHz to 500MHz (5.0GT/s) as per PCIE 3 Base Specification.
- Enabled DUT automation for U.2 tests.
- Reported Preset# for 8GT/s and 16GT/s signal quality tests respectively in HTML report.
- Added instruction for user to use DC Blocks when toggling DUT test mode using 81150A/60A.

Modifications

- Renamed AC Common Mode Voltage (5.0GT/s) to AC Common Mode Voltage – 2.5GHz LPF (5.0GT/s). New limit applied.
- Changed Tx Full Swing with no TxEQ test to use only Preset#4.
- Waveform (*.bin) files will be saved in PlugfestWfm folder.
- Updated label for 8.0GT/s and 16GT/s ref clock tests result table.

- Changed all PCIE 2.0 and PCIE 1.1 EndPoint and RootComplex end point tests to use same connection diagram as PCIE 3.0.
- Changed clock recovery to 2nd Order PLL when measuring rise fall time in Gen 2 5GT/s.
- Deployed SigTest 4.0.37.

Keysight N5393F/N5393G Software Version 04.10

Released Date:	29 Mar 2017
Requirements category (e.g., operating system):	Microsoft Windows 7
Requirements category (e.g., instrument software version):	6.00.00625 (90000 Series, 90000 X-Series, 90000 Q-Series, Z-Series), 6.00.00625 (S-Series)
File Name:	SetupInfPCIExpress0410.exe

Additions

- Add support for Infiniium Oscilloscope Software version 6.0.
- Cut in updated template and s-parameter files for U2 tests.
- Added new test limit for Peak Differential Output Voltage (Transition and Non Transition) Root End Point for PCIE 3.0.

Keysight N5393F/N5393G Software Version 04.00

Released Date:	10 Mar 2017
Requirements category (e.g., operating system):	Microsoft Windows 7
Requirements category (e.g., instrument software version):	5.75.00402 (90000 Series, 90000 X-Series, 90000 Q-Series, Z-Series), 5.75.00402 (S-Series)
File Name:	SetupInfPCIExpress0400.exe

Additions

- Added Transmitter tests for PCIE G4 Base Specification 0.7.
 - o Speed supported: 16GT/s, 8.0GT/s, 5.0GT/s and 2.5GT/s
- Added Reference Clock tests for PCIE G4 Base Specification 0.7.
- Added PCIE G3 U.2 Connector Transmitter tests
 - o Speed supported: 8.0GT/s, 5.0GT/s and 2.5GT/s
- Added DUT Automation.
- Added Workshop Compliance Mode.

Keysight N5393D/N5393E Software Version 03.45

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

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

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

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

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 DSO80000 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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