Keysight D9021HDMC HDMI Compliance Test Application Release Notes

Keysight D9021HDMC HDMI Test Software Version 2.38.0005

Released Date:	22 April 2020
Requirements category:	
Operating System	Microsoft Windows 7 or higher
Requirements category (e.g., minimum instrument software version):	10.25.01202 (UXR-Series)
	06.60.00109 (Infiniium Z-Series, Infiniium V-Series)
File Name:	SetupInfHDMIHEAC02380005.exe

Changes

- (BETA) Added support for Wilder controller

- (BETA) Added support for MX0023A probe

- Added support for 'mkedid' command with Allion controllers

Bug fixes

- Fix for error generated while performing TMDS tests with SkipEyeTests set to true

- Fix for TMDS cable test with N7010 probe

- Fix for HF1-7/HF1-8 not displaying only the highest data rate result

- Updated incorrect test description for FRL eye mask tests

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Keysight D9021HDMC HDMI Test Software Version 2.37.0009

Released Date:	22 April 2020
Requirements category:	
Operating System	Microsoft Windows 7 or higher
Requirements category (e.g., minimum instrument software version):	10.25.01202 (UXR-Series)
	06.60.00109 (Infiniium Z-Series, Infiniium V-Series)
File Name:	SetupInfHDMIHEAC02370009.exe

NOTE: This release is for ARC/eARC testing only

Changes

- Added support for E2678A/B, N5449A probes

Bug fixes

- Fixes for HEAC/ARC issues

- Fix for missing V scaling when measurement waveform is off screen

Keysight D9021HDMC HDMI Test Software Version 2.36.002

Released Date:	8 October 2020
Requirements category:	
Operating System	Microsoft Windows 7 or higher
Requirements category (e.g., minimum instrument software version):	10.25.00902 (UXR-Series)
	06.55.00902 (Infiniium Z-Series, Infiniium V-Series)
File Name:	SetupInfHDMIHEAC0236.exe

Changes

- Added support for MX0105A probe.

- Updated HFR1-9 monotonicity tests to be PASS/FAIL results rather than informational only.

- Added 24 new tests for HFR1-9 FFE monotonicity FFE deltas.

- Added new configuration option to allow for selection between FRL Tx and Cable thresholds for inter-pair skew tests.

- Updated HFR tests to comply with GCTS 2.1c bit-rate selection requirements.

- Prevented unsupported scope models from running the software

Bug fixes

- Fixed probe type selection not sticking when exiting Device Configuration menu.

- Fixed invalid histogram generation with Infiniium version 6.50.01104.

- Fixed flipped waveforms in D0/D1 inter-skew measurements.

Keysight D9021HDMC HDMI Test Software Version 2.35

Released Date:	25 March 2020
Requirements category:	
Operating System	Microsoft Windows 7 or higher
Requirements category (e.g., minimum instrument software version):	10.12.05302 (UXR-Series)
	06.50.01104 (Infiniium Z-Series, Infiniium V-Series)
File Name:	SetupInfHDMIHEAC0235.exe

Changes

– Upgraded to framework version FW0610 and support layer version SL0610 to address license issue in which HDMI licenses are not recognized by baseline.

– Added following new config variables to allow user to delay FFE change states with DUT automation:

   o Wait time to change FFE Level

   o Wait time to change FFE Type

– Added following FRL test fixtures to support AOC test:

   o Wilder HDMI2.1 TPA-R

   o BIT-1010-0400-0 HDMI 2.1 TPA-R

   o Luxshare TPA-R

Keysight D9021HDMC HDMI Test Software Version 2.34

Released Date:	20 December 2019
Requirements category:	
Operating System	Microsoft Windows 7 or higher
Requirements category (e.g., minimum instrument software version):	10.11.05004 (UXR-Series)
	06.50.00818 (Infiniium Z-Series, Infiniium V-Series)
File Name:	SetupInfHDMIHEAC0234.exe

Changes

- – FRL waveform capture tests have been broken down to individual lanes as follows:

o Save Lane D3 Waveform (TP1) (LTP8)

o Save Lane D3 Waveform (TP1) (LTP8) (All lanes transmit)

o Save Lane D3 Waveform (TP1) (LTP8) (All lanes transmit)

o Save Lane D3 Waveform (TP1) (LTP4)

o Save Lane D0 Waveform (TP1) (LTP5)

o Save Lane D0 Waveform (TP1) (LTP5) (All lanes transmit)

o Save Lane D0 Waveform (TP1) (LTP3)

o Save Lane D0 Waveform (TP1) (LTP4)

o Save Lane D1 Waveform (TP1) (LTP6)

o Save Lane D1 Waveform (TP1) (LTP6) (All lanes transmit)

o Save Lane D1 Waveform (TP1) (LTP3)

o Save Lane D1 Waveform (TP1) (LTP4)

o Save Lane D2 Waveform (TP1) (LTP7)

o Save Lane D2 Waveform (TP1) (LTP7) (All lanes transmit)

o Save Lane D2 Waveform (TP1) (LTP3)

o Save Lane D2 Waveform (TP1) (LTP4)

o   Save Lane D3 Normal FFE0 Waveforms (TP1) (LTP4)

o   Save Lane D0 Normal FFE0 Waveforms (TP1) (LTP4)

o   Save Lane D3 De-emphasis FFE0 Waveforms (TP1) (LTP4)

o   Save Lane D0 De-emphasis FFE0 Waveforms (TP1) (LTP4)

o   Save Lane D3 Pre-shoot FFE0 Waveforms (TP1) (LTP4)

o   Save Lane D0 Pre-shoot FFE0 Waveforms (TP1) (LTP4)

o   Save Lane D1 normal FFE0 Waveforms (TP1) (LTP4)

o   Save Lane D2 normal FFE0 Waveforms (TP1) (LTP4)

o   Save Lane D1 De-emphasis FFE0 Waveforms (TP1) (LTP4)

o   Save Lane D2 De-emphasis FFE0 Waveforms (TP1) (LTP4)

o   Save Lane D1 Pre-shoot FFE0 Waveforms (TP1) (LTP4)

o   Save Lane D2 Pre-shoot FFE0 Waveforms (TP1) (LTP4)

o   Save Lane D3 Normal FFE1 Waveforms (TP1) (LTP4)

o   Save Lane D0 Normal FFE1 Waveforms (TP1) (LTP4)

o   Save Lane D3 De-emphasis FFE1 Waveforms (TP1) (LTP4)

o   Save Lane D0 De-emphasis FFE1 Waveforms (TP1) (LTP4)

o   Save Lane D3 Pre-shoot FFE1 Waveforms (TP1) (LTP4)

o   Save Lane D0 Pre-shoot FFE1 Waveforms (TP1) (LTP4)

o   Save Lane D1 De-emphasis FFE1 Waveforms (TP1) (LTP4)

o   Save Lane D2 De-emphasis FFE1 Waveforms (TP1) (LTP4)

o   Save Lane D1 Pre-shoot FFE1 Waveforms (TP1) (LTP4)

o   Save Lane D2 Pre-shoot FFE1 Waveforms (TP1) (LTP4)

o   Save Lane D3 Normal FFE2 Waveforms (TP1) (LTP4)

o   Save Lane D0 Normal FFE2 Waveforms (TP1) (LTP4)

o   Save Lane D3 De-emphasis FFE2 Waveforms (TP1) (LTP4)

o   Save Lane D0 De-emphasis FFE2 Waveforms (TP1) (LTP4)

o   Save Lane D3 Pre-shoot FFE2 Waveforms (TP1) (LTP4)

o   Save Lane D0 Pre-shoot FFE2 Waveforms (TP1) (LTP4)

o   Save Lane D1 normal FFE2 Waveforms (TP1) (LTP4)

o   Save Lane D2 normal FFE2 Waveforms (TP1) (LTP4)

o   Save Lane D1 De-emphasis FFE2 Waveforms (TP1) (LTP4)

o   Save Lane D2 De-emphasis FFE2 Waveforms (TP1) (LTP4)

o   Save Lane D1 Pre-shoot FFE2 Waveforms (TP1) (LTP4)

o   Save Lane D2 Pre-shoot FFE2 Waveforms (TP1) (LTP4)

- o   Save Lane D3 Normal FFE3 Waveforms (TP1) (LTP4)

- o   Save Lane D0 Normal FFE3 Waveforms (TP1) (LTP4)

- o   Save Lane D3 De-emphasis FFE3 Waveforms (TP1) (LTP4)

- o   Save Lane D0 De-emphasis FFE3 Waveforms (TP1) (LTP4)

- o   Save Lane D3 Pre-shoot FFE3 Waveforms (TP1) (LTP4)

- o   Save Lane D0 Pre-shoot FFE3 Waveforms (TP1) (LTP4)

- o   Save Lane D1 normal FFE3 Waveforms (TP1) (LTP4)

- o   Save Lane D2 normal FFE3 Waveforms (TP1) (LTP4)

- o   Save Lane D1 De-emphasis FFE3 Waveforms (TP1) (LTP4)

- o   Save Lane D2 De-emphasis FFE3 Waveforms (TP1) (LTP4)

- o   Save Lane D1 Pre-shoot FFE3 Waveforms (TP1) (LTP4)

- o   Save Lane D2 Pre-shoot FFE3 Waveforms (TP1) (LTP4)

- –   FRL rise/fall time measurements are now replaced with rise/fall slew rate measurements.

- –   FRL eye mask will be expanded vertically using measured RJ value.

Keysight D9021HDMC HDMI Test Software Version 2.33

Released Date:	7 June 2019
Requirements category:	
Operating System	Microsoft Windows 7 or higher

Requirements category (e.g., minimum instrument software version):	10.10.04512 (UXR-Series)
	06.40.00714 (Infiniium Z-Series, Infiniium V-Series)
File Name:	SetupInfHDMIHEAC0233.exe

Changes

- Compliance application has been renamed from N5399E/F HDMI Test to D9021HDMC HDMI Test.

- Added support for PPKS license scheme.

- Added support for Allion EDID Controller Timing Control Automation for FRL Physical Layer test type.

- Added Save Lane D3 and D0 Waveform (TP1) (LTP8/5) (All lanes transmit) for FRL Physical Layer test type.

- Added Save Lane D1 and D2 Waveform (TP1) (LTP6/7) (All lanes transmit) for FRL Physical Layer test type.

Bug fixes

- When using switch matrix, variables was incorrectly reset. Fixed the issue. Tests now works find with switch matrix.

Known Issues

- For FRL Physical Layer test, user will need to select only 1 data rate at a time when capturing waveform. The application will not be able to handle multiple data rates selection for now.

- HDMI Test Compliance Application Online Help installed is not the latest version. Please download the latest version from Keysight website.

Keysight N5399E/N5399F HDMI Test Software Version 2.32

Released Date:	30 November 2018
Requirements category:	
Operating System	Microsoft Windows 7 or higher

Requirements category (e.g., minimum instrument software version):	10.00.03708 (UXR-Series) 06.XX.XXXX (Infiniium Z-Series, Infiniium V-Series)
File Name:	SetupInfHDMIHEAC0232.exe

Changes

-   Removed HDMI_Compliance_Testing.pdf method of implementation document.

Bug fixes

-   Handle offset errors for single-ended measurements when using N700XA probe amplifiers.

-   Handle mask offset error when using N700XA probe amplifier in differential (A-B) mode.

Keysight N5399E/N5399F HDMI Test Software Version 2.31

Released Date:	10 October 2018
Requirements category:	
Operating System	Microsoft Windows 7 or higher
Requirements category (e.g., minimum instrument software version):	10.00.03708 (UXR-Series) 06.XX.XXXX (Infiniium Z-Series, Infiniium V-Series)
File Name:	SetupInfHDMIHEAC0231.exe

New Features

-   Supports Infiniium Oscilloscope Software version 10.00 for UXR-Series oscilloscope.

Enhancements

-   Added back Timing Control Automation support via QD980.

-   Added Timing Control Automation support for Allion SCDC controller.

Known Issue

- User will experience the increase in the test time when running the TP2 measurements in UXR-Series oscilloscope.

Keysight N5399E/N5399F HDMI Test Software Version 2.30

Released Date:	3 August 2018
Requirements category:	
Operating System	Microsoft Windows 7 or higher
Infiniium software version	6.20.00902 (90000 Series, 90000 X-Series, 90000 Q-Series, Z-Series, V-Series)
File Name:	SetupInfHDMIHEAC0230.exe

Enhancements

- Migrated to Framework version 5.90.

- Added Fixed Linked Rate tests. Selectable under HDMI Test Type as "FRL Physical Layer".

- Added eARC tests (accessible only through BitiFeye's ValiFrame software or in Offline mode to postprocess acquired waveforms).

- Added port B probe offset calibration when detected N700xA probes.

- Removed Timing Control Automation support via PC LAN and QD980.

Modifications

- HDMI 1.4b/2.0 test selections is renamed to TMDS Physical Layer Test under HDMI Test Type.

Keysight N5399C/N5399D HDMI Test Software Version 2.21

Released Date:	29 August 2017
Requirements category:	
Operating System	Microsoft Windows 7

Infiniium software version	6.00.00623 (90000 Series, 90000 X-Series, 90000 Q-Series, Z-Series, V-Series)
File Name:	SetupInfHDMIHEAC0221.exe

Enhancements

- Added support for N700X probes.

- Intra-pair skew measurements (7-7 and HF1-4) will use the mean instead of mode value of the histogram for pass/fail comparison.

Keysight N5399C/N5399D HDMI Test Software Version 2.20

Released Date:	29 March 2017
Requirements category:	
Operating System	Microsoft Windows 7
Infiniium software version	6.00.00537 (90000 Series, 90000 X-Series, 90000 Q-Series, Z-Series, V-Series)
File Name:	SetupInfHDMIHEAC0220.exe

Enhancements

- Added a few new test modes:

  - Capture mode: Acquire and store waveforms only

  - Analyze mode: Analyze captured waveforms

  - Capture and analyze stored waveforms

- Add support for Infiniium Oscilloscope Software version 6.0.

- Improved HDMI probe offset calibration to store offset values by channel/model/serial number instead of just by channel. This way calibrating new probes will not overwrite existing values of other probes.

- All MATLAB scripts are now compiled with MATLAB R2016B. MATLAB runtime version 9.1 will be required and will be checked during installation.

Keysight N5399C/N5399D HDMI Test Software Version 2.14

Released Date:	18 October 2016
Requirements category:	
Operating System	Microsoft Windows 7

Infiniium software version	5.70.00713 (90000 Series, 90000 X-Series, 90000 Q-Series, Z-Series, V-Series)
File Name:	SetupInfHDMIHEAC0214.exe

Enhancements

- Added support for GBit Serial Trigger mode for HF1-3: Inter-Pair Skew tests. This only applies to DSOV 90000 series scope that has N2119AU hardware serial trigger accessory card installed.

- Added 4 probes/1 lane configuration support for cable and receiver tests.

- Added 2 more fixture selection under Channel embed/de-embedding setup GUI to support the new s-parameters for 6-inch and 12-inch Wilder HDMI2 TPA-P fixtures.

- Improved algorithm to determine accurate calibration offset to use based on measured channel offset.

Bug Fixes

- Fixed data eye test issue where the when there is an eye violation the mask movement will be very slow on second trial onwards.

Keysight N5399C/N5399D HDMI Test Software Version 2.13

Released Date:	
Requirements category:	
Operating System	Microsoft Windows 7
Infiniium software version	4.60 (90000 Series, 90000 X-Series, 90000 Q-Series, Z-Series)
File Name:	SetupInfHDMIHEAC0213.exe

Enhancements

- This version runs on 64-bit Windows 7 only therefore will no longer support oscilloscopes with Windows XP OS.

- Added support for Infiniium Oscilloscope Software version 5.60.

- Removed 2 probes/ lane option and 4 probes/3 lanes configuration for HF1-8: DX Mask Test (TP2_EQ with Worst Case Positive/Negative Skew) to comply with CTS requirement. User will need to use 4 probes/1 lane configuration to run this tests.

Keysight N5399C/N5399D HDMI Test Software Version 2.12.0001

Released Date:	
Requirements category:	
Operating System	Microsoft Windows 7
Infiniium software version	4.60 (90000 Series, 90000 X-Series, 90000 Q-Series, Z-Series)
File Name:	SetupInfHDMIHEAC02120001.exe

Enhancements

- Improved time out performance.

- Added time out config in Configure tab so that users may set appropriate time out to use.

Keysight N5399C/N5399D HDMI Test Software Version 2.12

Released Date:	
Requirements category:	
Operating System	Microsoft Windows 7
Infiniium software version	4.60 (90000 Series, 90000 X-Series, 90000 Q-Series, Z-Series)
File Name:	SetupInfHDMIHEAC0212.exe

Enhancements

- Added support for N7010A probe.

- Added select/unselect all timing function buttons in Device Definition GUI

- Create new parameter "Find Vertical Margin Only" for eye tests

- Added GUI "Edit EDID Details" under Custom Timing GUI to control more parameters for FlexEDID fixture.

Bug Fixes

- Added code to catch missing waveform in middle of eye test

- Improved algorithm to adjust time scale for clock jitter measurement

- Fixed bug on signal scaling for HEAC ARC test to work with baseline 5.xx.

- Improved mask centering algorithm for eye test.

Keysight N5399C/N5399D HDMI Test Software Version 2.11

Released Date:	17 April 2015
Requirements category:	
Operating System	Microsoft Windows 7
Infiniium software version	4.60 (90000 Series, 90000 X-Series, 90000 Q-Series, Z-Series
File Name:	SetupInfHDMIHEAC0211.exe

New Features

- Added QD980 automation support.

Enhancements

- Added support for Infiniium Oscilloscope Software version 5.50.

- Added support for 6xSPT switching module for BIT2100.

- Upgraded FW to use Keysight framework version 4.35.

- Added support for VPrime Flex EDID firmware version 1.4, board rev C.

- Added support for deep color.

Bug Fixes

- Fixed test limits bug for 7-2VL tests.

- Separate out Voff tests as a separate group and improved connection diagram to prompt user to turn off power.

- Improved algorithm to store raw bits for HDMI 2.0 inter-pair skew test. Improved data rate measurement for inter-pair and intra-pair skew tests.

- Added delay time for screenshots when running on baseline 5.xx.

- Other minor bugs and timeouts fixes.

Keysight N5399C/N5399D HDMI Test Software Version 2.10

Released Date:	7 June 2014
Requirements category:	
Operating System	Microsoft Windows 7

Infiniium software version	4.60 (90000 Series, 90000 X-Series, 90000 Q-Series, Z-Series)
File Name:	SetupInfHDMIHEAC0210.exe

Enhancements

- Added support for Infiniium Oscilloscope Software version 5.00.

Keysight N5399C HDMI Test Software Version 2.00

Released Date:	10 April 2014
Requirements category:	
Operating System	Microsoft Windows 7 Microsoft Windows XP
Infiniium software version	4.60 (90000 Series, 90000 X-Series) 4.20.005 (9000, 90000, X90000 series
File Name:	SetupInfHDMIHEAC0200.exe

Enhancements

- New and improved algorithm for HDMI 2.0 inter-pair skew

- Fixed bug to check for largest available oscilloscope bandwidth before setting bandwidth

- Fixed bug to recognize HDMI 2.0 license.

Note: This will be the last version to support baseline 4.20.005.

Keysight N5399C HDMI Test Software Version 1.40

Released Date:	10 Dec 2013
Requirements category:	
Operating System	Microsoft Windows 7 Microsoft Windows XP
Infiniium software version	4.50 (90000 Series, 90000 X-Series,) 4.20.005 (9000, 90000, X90000 series
File Name:	SetupInfHDMIHEAC0140.exe

Enhancements

- Added test plan capability to run multiple data rates. Data rates are defined by loading a CDF/ user defined templates / manual entry.

- Added DUT automation capability using VPrime's Flex EDID board and/or LAN for PC DUT

Keysight N5399B HDMI Test Software Version 1.10

Released Date:	17 May 2013
Requirements category:	
Operating System	Microsoft Windows 7 Microsoft Windows XP
Infiniium software version	4.50 (90000 Series, 90000 X-Series, 90000) 4.20.005 (9000, 90000, X90000 series
File Name:	SetupInfHDMIHEAC0110.exe

Enhancements

- Added Switch Matrix capability.

Bug Fixes

- Fixed HEAC Triggering issue.

- Fixed Auto-scaling issue

Keysight N5399B HDMI Test Software Version 1.04

Released Date:	20 September 2011
Requirements category:	
Operating System	Microsoft Windows XP
Infiniium software version	5.71 (80000 Series), 2.10 (90000 Series and 9000 series) 3.00 (X90000 series)
File Name:	SetupInfHDMIHEAC0104.exe

Enhancements

- Added support for baseline running on Windows 7.

Keysight N5399B HDMI Test Software Version 1.03

Released Date:	4 March 2011
Requirements category:	
Operating System	Microsoft Windows XP
Infiniium software version	5.71 (80000 Series), 2.10 (90000 Series and 9000 series) 3.00 (X90000 series)
File Name:	SetupInfHDMIHEAC0103.exe

Bug Fixes

- Fixed the histogram incompatibility issue which caused failure in Clock Single-Ended Tests in Baseline 3.00 and above.

Keysight N5399B HDMI Test Software Version 1.02

Released Date:	1 October 2010
Requirements category:	
Operating System	Microsoft Windows XP
Infiniium software version	5.71 (80000 Series), 2.10 (90000 Series and 9000 series) 3.00 (X90000 series)
File Name:	SetupInfHDMIHEAC0102.exe

Bug Fixes

- Fixed the issue of test name is too long and causes error when report is generated with file path that is too long.

- Changed Clock and Data Intra Pair Skew test so that intra-pair skew is now measured referenced on the interval between VMid(Lane+) and VMid(Lane-).

- Changed clock recovery method to semi-automatic when locating the serial pattern for single-ended VL test. The change is to improve consistency when searching for serial pattern.

- Fixed the issue of histogram left and top limits must be greater and right and bottom limits following the changes of baseline version 3.00.

Keysight N5399B HDMI Test Software Version 1.01

Released Date:	16 April 2009
Requirements category:	
Operating System	Microsoft Windows XP
Infiniium software version	5.71 (80000 Series), 2.10 (90000 Series and 9000 series)
File Name:	SetupInfHDMIHEAC0101.exe

Bug Fixes

- Addressed the issue of actual test lane mismatches with lane configuration when running cable tests with 4 channels connection.

- Addressed the issue of connection diagram does not prompt when changing lane configuration.

Keysight N5399B HDMI Test Software Version 1.00

Released Date:	15 January 2009
Requirements category:	
Operating System	Microsoft Windows XP
Infiniium software version	5.71 (80000 Series), 2.10 (90000 Series and 9000 series)
File Name:	SetupInfHDMIHEAC0100.exe

Enhancements

- Supports Infiniium 9000-Series Oscilloscopes, with minimum baseline version of 2.10.

- Added HEAC test suites.

- Added equalizer for automotive cable tests.

- Added 4 lane capability for cable tests.

Bug Fixes

- Addressed issue of test aborts when signal voltage level is out of specification.

- Improved connection diagram and configuration.

Note: This will be the last version to support the 80000-series Oscilloscopes. Following releases will only support 90000-series Oscilloscopes.

Keysight N5399A HDMI Test Software Version 02.52

Released Date:	5 December 2008
Requirements category:	
Operating System	Microsoft Windows XP
Infiniium software version	5.40 (80000 Series), 1.21 (90000 Series)
File Name:	SetupInfHDMI0252.exe

Enhancements

- Supports the Infiniium 90000 Series High Performance Oscilloscope, with minimum baseline version of 1.21.

- Options to enable the custom data rate for clock recovery in Debug Mode.

Bug Fixes

- Addressed the issue of application hangs when the connection page which pops up while running tests is clicked too fast.

- Addressed the issue of application hangs while exporting result as csv file.

- Addressed the issue of select equalizer file dialog pops up when the Receiver Test Equalizer Mode configuration is set to manual-select model.

- Addressed the issue of invalid characters appear in the description of the Transition Time Converter Mode configuration.

- Corrected the diagram in the Probe Offset Calibration wizard and configuration.

Known Issues

- Running the Transmitter Inter-Pair Skew test on past projects which already have this test may result in error while viewing the test results.

- Setting the Raw Clock Frequency configuration other than "Self Measure by Application" for the Cable tests disables the application from measuring the actual value.

Keysight N5399A HDMI Test Software Version 02.50

Released Date:	11 Jan 2008
Requirements category:	
Operating System	Microsoft Windows XP
Infiniium software version	5.40 (80000 Series), 1.00 (90000 Series)
File Name:	SetupInfHDMI0250.exe

Enhancements

- Supports the Infiniium 90000-Series High Performance Oscilloscope.

- Supports both HDMI 1.3b and HDMI 1.2 Compliance Specification; users can select the HDMI specification on the Setup page of the N5399A Application.

- Allow users to enter the Device ID to comply with ISO requirement.

- Included the N5399A Application version on the report page to comply with ISO requirement and ease of maintenances.

- Supports the vertical mask movement in the Eye Diagram Test for better margin presentation.

- Supports the Inter-pair skew's histogram offset setting under the debug mode to enhance the debugging capabilities.

- Support the automatic switching between 10 bits and 20 bits trigger for the Inter-Pair skew.

Bug Fixes

- Addressed the issue of application hangs when the connection page which pops up while running tests is clicked too fast.

- Addressed the issue of application hangs while exporting result as csv file.

- Addressed the issue of select equalizer file dialog pops up when the Receiver Test Equalizer Mode configuration is set to manual-select model.

- Addressed the issue of invalid characters appear in the description of the Transition Time Converter Mode configuration.

- Corrected the diagram in the Probe Offset Calibration wizard and configuration.

- Addressed the Channel's Offset issue that caused misplace of triggering level.

- Modified the rise time and fall time measurement threshold for better presentation.

- Addressed the Single-ended tests' pattern trigger hang issue.

Keysight N5399A HDMI Test Software Version 02.30

Released Date:	13 June 2007
Requirements category:	
Operating System	Microsoft Windows XP
Infiniium software version	5.20.00 Infiniium Baseline
File Name:	SetupInfHDMITest0230.exe

Enhancements

- Supports the HDMI 1.3b Compliance Specification.

- Supports the Probe Offset Calibration; Allows user to calibrate the N5380A SMA Probe head with 3.3V offset voltage.

- Supports the Hide Informative test option; Informative test list can be hidden (optionally) to ease testing operation.

- Supports the Multi-Trial environment test. Allows user to run a specific or all the tests multiple times to obtain results statistically.

- Auto Detect Invalid Signal on Clock and Data Channel to prevent invalid result to the user.

- Ability to detect the older version of HDMI project files and allows these files to be opened as READ-ONLY project.

- Includes the Connection Diagrams for Receiver and Cable test.

Bug Fixes

- Addressed the Rise Time/Fall Time test's edge acquisition issue.

- Addressed the Receiver test's timeout issue.

- Addressed the Issue regarding Eye Diagram offset that causes Mask test failure.

Keysight N5399A HDMI Test Software Version 02.10

Released Date:	26 Dec 2006
Requirements category:	
Operating System	Microsoft Windows XP
Infiniium software version	5.20.00 Infiniium Baseline
File Name:	SetupInfHDMITest0210.exe

Enhancements

- Supports the HDMI 1.3a Compliance Specification.

- Supports the Remote Access, allowing remote client software to control and run test remotely.

- Supports the Mask test for both HDMI 1.2 and HDMI 1.3 Specification, selection for mask revision is available under the Debug Mode.

- Test structure has changed for the Cable/Receiver test. Cable/Receiver test is further divided into Receive Eye and Cable Eye test.

- Supports the Software Time Transition Converter feature for the Cable test. Allows cable test to run without the need to have the hardware time transition converter for the cable calibration process.

- Supports both TP1 and TP2 mask selection for the Cable test. Selection of the Mask Type is available under the Debug Mode.

- Test Structure has changed for the Single Ended test. Single Ended test is changed to allow the test of Clk+/Clk- and Dx+/Dx- to run together to reduce connection in the middle of the test.

- Test Structure has changed for the Single Ended VL test. Changes allow different test Limit for different Pixel Rate for the HDMI 1.3 on different test ID. VL test is divided into VL High Rate test (for pixel rate > 165 MHz) and VL Low Rate (for Pixel rate <= 165 MHz).

- Supports the Auto Mask Movement for the Transmitter Eye Diagram test to automatically search for passing condition whenever the Mask test fails.

- Ability to detect the same Channel Settings on the Compliance Application and alert the user at the Connection Page.

- Ability to detect the Fixture Type for the running test and alert the user whenever user tries to run a test without specifying Fixture Type.

- Ability to allow user to confirm when exiting the software.

- Ability to detect the older version of HDMI project files and allows these files to be opened as READ-ONLY project.

Bug Fixes

- The Fixture Type Name is changed from N5405B to N5405.

- The Over/Undershoot tests are renamed as Informative-Only as these tests were removed from the Compliance Specification 1.3a.

- The Inter-Pair Skew test for Clock Lane is renamed as Informative-Only as this test was removed from the Compliance Specification 1.3a.

- Fixed issues with the Single-Ended Test's Connection Diagram.