

# Agilent U7238C/U7238D MIPI D-PHY Conformance Test Application Software Release Notes

Agilent U7238C/U7238D Software Version 03.00 Released Date: 30 May 2014 Minimum Infiniium Oscilloscope Baseline Version: 4.60 (9000 series & 90000 series) File Name: SetupInfMIPI\_D-PHY03000000.exe

Modifications:

• Supports for Infiniium Oscilloscope Software version 5.00.



Agilent U7238B Software Version 02.44 Released Date: 19 May 2014 Minimum Infiniium Oscilloscope Baseline Version: 3.21 (9000 series & 90000 series) File Name: SetupInfMIPI\_D-PHY02440000.exe

## Additions:

- Added HS Clock Instantaneous (UInst)(Min) test.
- Added ULPS Clock Mode test.
- Added Informative test group.
- Added Clock Lane HS Clock Delta UI (UI variation) test.
- Added LP\_TX Pulse Width of Exclusive-OR Clock [Initial] and LP\_TX Pulse Width of Exclusive-OR Clock [Last] tests.

Modifications:

- Improved test measurement for LP slew rate test by added 400Mhz low pass filter.
- Improved test measurement for LP Escape Rise Time test by added 400Mhz low pass filter.
- Fixed connection diagram issue.
- Updated the "THSPREPARE+ZERO" portion in identifying the start of SYNC pattern to handle glitch in the test signal.

Known issues:

• In loading projects created in MIPI version 02.44, users cannot append the existing results.

Miscellaneous Notes:

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



Agilent U7238A Software Version 02.43 Released Date: 15 May 2013 Minimum Infiniium Oscilloscope Baseline Version: 3.21 (9000 series & 90000 series) File Name: SetupInfMIPI\_D-PHY02430000.exe

Additions:

• Added Switch Matrix feature support.

Modifications:

• Fixed the issue of Vcmtx tests where the worst case value reported is incorrect.

Miscellaneous Notes:



## Agilent U7238A Software Version 02.42 Released Date: 15 October 2012 Minimum Infiniium Oscilloscope Baseline Version: 3.21 (9000 series & 90000 series) File Name: SetupInfMIPI\_D-PHY02420000.exe

# Additions:

- Added new "Continuous Data" test mode.
- Added new "Window" triggering option under the Configure tab. This option is now set as the default triggering option instead of the previous "Pattern/State with InfiniiScan" triggering option. Related configuration variables:
  - a. WindowTriggerHighThreshold
  - b. WindowTriggerLowThreshold
  - c. TriggerMethod
- Added the CTS Test ID info to all the corresponding tests in the application.
- Added a debug configuration option that can set the threshold used in determining the THS-Prepare start location. This is used in a non-compliance testing mode to enable testing of data signals that are not terminated properly.

Related configuration variables:

- a. THSprepareStartThreshold
- Added configurable options to set the trigger timeout in the Configure tab of the application.

Related configuration variables:

- a. TriggerCheck
- b. TriggerTimeout

Modifications:

- Updated the GUI layout on Setup tab.
- The "InfiniiSim" button on the Setup tab has been removed. This same feature is now accessible via the "Tools" window menu of the application.
- Support User Defined Limit (UDL) feature.
- Fixed the issue of TSkew test where the worst case value reported is incorrect.
- Fixed the issue of incorrect VOD tests measurements when the "Scope Sampling Rate" option is set to "20G Sa/s" and the "Signal Scaling Mode" option is set to "AUTO".
- Fixed the issue of tCLK-POST test where sometimes the test will report incorrect values in terms of "fs" range.
- Removed the need for InfiniiScan license option in order to run the application.





Agilent U7238A Software Version 02.41 Released Date: 15 January 2012 Minimum Infiniium Oscilloscope Baseline Version: 3.21 (9000 series & 90000 series) File Name: SetupInfMIPI\_D-PHY02410000.exe

Additions:

• N/A

Modifications:

- Optimize software to work with baseline 3.21 and above.
- Improve support for Win7 OS.

Miscellaneous Notes:



Agilent U7238A Software Version 02.40 Released Date: 31 August 2011 Minimum Infiniium Oscilloscope Baseline Version: 3.11 (9000 series & 90000 series) File Name: SetupInfMIPI\_D-PHY02400000.exe

Additions:

• N/A

Modifications:

- Optimize software to work with baseline 3.10.0005 and above.
- Added support for Win7 OS.

Miscellaneous Notes:



Agilent U7238A Software Version 02.30 Released Date: 19 April 2011 Minimum Infiniium Oscilloscope Baseline Version: 3.00 (9000 series & 90000 series) File Name: SetupInfMIPI\_D-PHY02300000.exe

Additions:

• N/A

## Modifications:

- Improve HS Clock VOHHS test measurement.
- Improve test result reporting for Ulinst test and Data 1st edge to clock alignment test.

Miscellaneous Notes:



Agilent U7238A Software Version 02.20 Released Date: 3 Jan 2011 Minimum Infiniium Oscilloscope Baseline Version: 3.00 (9000 series & 90000 series) File Name: SetupInfMIPI\_D-PHY02200000.exe

Additions:

• N/A

## Modifications:

- Improve Data 1st edge to clock alignment test behavior.
- Improve Vod, dVod & VOHHS tests. These tests will now show error message when the test patterns are not found.

Miscellaneous Notes:



Agilent U7238A Software Version 02.10 Released Date: 30 Sept 2010 Minimum Infiniium Oscilloscope Baseline Version: 3.00 (9000 series & 90000 series) File Name: SetupInfMIPI\_D-PHY02100000.exe

#### Additions:

- Added TCLK-POST test.
- Added support for DSOX90000 series.

## Modifications:

 Updated test methodology as per MIPI CTS 1.00. (VOHHS, VOD and LP Slew Rate)

Miscellaneous Notes:



Agilent U7238A Software Version 02.00 Released Date: 15 Mar 2010 Minimum Infiniium Oscilloscope Baseline Version: 05.71.00 (80000 series), 2.10 (9000 series & 90000 series) File Name: SetupInfMIPI\_D-PHY02000000.exe

#### Additions:

- Added support for long DSI stream.
- Added filtering to handle continuous clock signals.
- Added InfiniiSim support. (Only for 9000 & 90000 series oscilloscope.)

## Modifications:

• N/A

## Miscellaneous Notes:

- Added a trouble shooting guide in the CHM help file to assist users.
- This will be the last version to support the 80000 series oscilloscope. Following releases will only support 9000 & 90000 series oscilloscope.



Agilent U7238A Software Version 01.20 Released Date: 30 Oct 2009 Minimum Infiniium Oscilloscope Baseline Version: 05.71.00 (80000 series), 2.01 (9000 series & 90000 series) File Name: SetupInfMIPI\_D-PHY01200000.exe

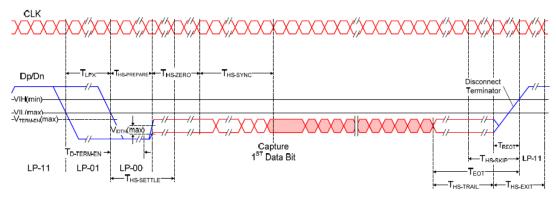
Additions:

- Added the LP Clock TX Electrical tests.
- Added support for using auto load switch board as fixture.

Modifications:

 Filter for common mode variances tests changed to 8<sup>th</sup> order butterworth IIR filter.

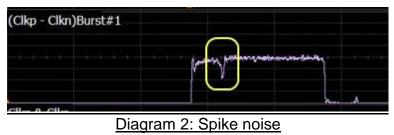
## Miscellaneous Notes:



# Diagram 1: A Single Analysis Window

- 1. Data Processing Requirements:
  - At least 2 Analysis Window above should be present for the software to process.
    - The total time length of the 2 Analysis Window should be lesser than the theoretical 200 microseconds (10GSa/s@2Mpts).
  - The HS Burst in the Analysis Window should contain valid SYNC sequence
  - The HS Burst Payload bits should be random and ideally should not have long 1's and 0's





2. All noise effects (for example diagram 2) in Timing Test Group are treated as part of the waveform acquisition data for measurement processing.



Agilent U7238A Software Version 01.10 Released Date: 13 April 2009 Minimum Infiniium Oscilloscope Baseline Version: 05.60.00 (80000 series), 1.40 (90000 series) File Name: SetupInfMIPI\_D-PHY01100000.exe

#### Additions:

- Added the HS Clock TX Electrical tests.
- Added the Global Operation tests.
- Added the HS Data-Clock Timing tests.
- Added support for four probes.
- Added capability to export waveform data, generated from the signal of the Device Under Test.
- Added support for Device Under Test that does not send LP escape mode repetitively.

Modifications:

- Renamed the HS TX Electrical tests to HS Data TX Electrical tests.
- Addressed the issue of HS TX Electrical tests running slow.
- Addressed the issue of unable to find the HS burst in some Device Under Test variances.

Known issues:

 In loading projects created in MIPI version 01.00, users cannot append the existing results.

Agilent U7238A Software Version 01.00 Released Date: 1 August 2008 Minimum Infiniium Oscilloscope Baseline Version: 05.50.00 (80000 series), 1.20 (90000 series) File Name: SetupInfMIPI\_D-PHY01000000.exe

Initial release.