

# Agilent U7231B DDR3 Compliance Test Application Software Release Notes

Agilent U7231B Software Version 02.21

Released Date: 06 May 2014

Minimum Infiniium Oscilloscope Baseline Version: 5.71.00 (80000 series),

3.11 (90000 series, 9000 series), 4.60.0012 (DDR Debug Tool feature)

File Name: SetupInfDDR30221.exe

### Note:

 This will be the last version to support Infiniium 80000 Series and Infiniium Oscilloscope Baseline Version 4.20.

### Bug Fixes:

Solved issue of eye mask get offset.

### Modifications:

- Replaced tIS/tIH tests with tIS/tIHCA, tIS/tIHCS and tIS/tIHCKE.
- Updated LPDDR3 specification to the JESD209-3B standard.
- Updated JEDEC Standard No. 79-3-1A.01.

### Additions:

- Added new speed grade: LPDDR3-1866 and LPDDR3-2133.
- Added new mask file for LPDDR3 1866 and 2133.
- Added HDF5 (\*.h5) file format support for compliance app, offline mode and debug tool.

Agilent U7231B Software Version 02.20

Released Date: 16 January 2014

Minimum Infiniium Oscilloscope Baseline Version: 5.71.00 (80000 series),

3.11 (90000 series, 9000 series) File Name: SetupInfDDR30220.exe

### Bug Fixes:

- Solved issue of displaying connection diagram in the middle of clock test.
- Solved tVAC(CS,CA) test reporting error on the result tab.
- Solved Eye Diagram tests issue happen on 80000 Series Oscilloscope.



### Modifications:

- Correction of the default value of Voh(ac) and Vol(ac) on the configuration tab.
- For derating related test which perform in custom mode, application will automatically select from the derating table that belong to the next closest speed grade to custom speed grade enter by user.

### Additions:

- Enable Run Forever feature on the Run Tests tab.
- Support Read Write Separation with On the Fly using Digital Channel on MSO-X Series Oscilloscope.
- Addition of new DDR Debug Tool feature.
- Addition of new Offline feature.
- Addition of new mask files for LPDDR3.

Agilent U7231B Software Version 02.02

Released Date: 13 Februari 2013

Minimum Infiniium Oscilloscope Baseline Version: 5.71.00 (80000 series),

3.11 (90000 series, 9000 series) File Name: SetupInfDDR30202.exe

### **Bug Fixes:**

- Fix VIXCA test issue due to error message "Cannot find TestTag:PrepareElecDiffVIXCAChannelSettings in file:scope\utils.xml";
- Fix Eye Diagram tests issue where in the end of these test, Application will clear the accumulated signal on the oscilloscope screen.
- Correction on tJIT(CC) test limit of LPDDR3-1333 and LPDDR3-1600.
- Correction on tJIT(CC) test description on report page.
- Fix loading issue of Supporting Pin Source configuration under Differential AC Input Levels for Strobe tests group.

### Modifications:

- Add option 3T and 4T in Clocking Method configuration in Configure Tab under Command and Address Timing ONLY branch.
- Implement dynamic tests limit which depend on VrefDQ, VrefCA, VTT, VDD, VDDQ, VDDCA, VIH.CA, VIL.CA, VIH.DQ and VIL.DQ value. These tests limit value is now depend on the current value of VrefDQ, VrefCA, VTT, VDD, VDDQ, VDDCA, VIH.CA, VIL.CA, VIH.DQ and VIL.DQ on the Configure Tab.
- Update DDR3 test limit based on JEDEC Standard No. 79-3F.
- Centralize the Rank Separation configuration on Configure Tab.



- Support Read Latency and Write Latency up to 100.
- Modification on VIXCA test to perform on all clock cross point on the signal instead of just ten occurrence previously.

### Additions:

- Implement Rank Separation for Electrical Tests.
- Add feature of Save Project (Setting-Only) As.
- Add new mask file for DDR3-1866 and DDR3-2133.
- Add tVAC,tDVAC and tIPW tests for DDR3 and DDR3L.
- Add tIPWCA and tIPWCS tests for LPDDR3.
- Add tCH(abs) and tCL(abs) tests DDR3, DDR3L and LPDDR3.
- Add tDQSCKDS and tDQSCKDM tests.

Agilent U7231B Software Version 02.01

Released Date: 27 July 2012

Minimum Infiniium Oscilloscope Baseline Version: 5.71.00 (80000 series),

3.11 (90000 series, 9000 series) File Name: SetupInfDDR30201.exe

### **Bug Fixes:**

- Application not able to load project file which have result that contain table.
- AUTOMATION tab issue which not successfully perform command of SetConfig TestMode 'Custom'.
- Reporting issue where application report LPDDR3-1333 as speed grade on HTML Report tab after run a test for DDR3-800.
- Reporting issue of Voh(ac), Voh(dc), Vol(ac), Vol(dc), Vih/Vil for Command/Address, VihDiff/VilDiff For Clock while loading wrong waveform for reporting image.
- Both reporting marker channels are function 1 for tAC, tDQSCK and tQHS tests.

### Modifications:

- Implement the TopBase Ratio Threshold for Eye Diagram Tests.
- Update tIS and tIH definition due to LPDDR3 specification which mention should refer to rising or falling for PUT is Command Address.
- Report bogus value whether +99E36 or -99E36 which one could give fail status on the test in case of unable to perform measurement.
- Due to the application model re-structuring, the entire legacy saved project will be loaded as READ-ONLY for viewing purposes. User will not be able to append new test results to the legacy saved projects as the number of reported items for each of the tests may have changed.



### Additions:

- Prompt user if the custom derating table file isn't exist while loading project file.
- Implement Digitize with Timeout for better response of Cancel button during triggering.

Agilent U7231B Software Version 02.00

Released Date: 13 March 2012

Minimum Infiniium Oscilloscope Baseline Version: 5.71.00 (80000 series),

3.11 (90000 series, 9000 series) File Name: SetupInfDDR30200.exe

### **Bug Fixes:**

- Resolved the issue where there used to be a long time taken during end of a test trial.
- Fix burst processing issue during Rank Separation mode where app disregards the valid Read Burst.
- Fix tDIPW issue of loading incorrect waveform file for test screen shot result.
- Fix tDS issue where "object not set as instance" exception is being thrown when running the test.

### Additions:

- Added LPDDR3 test mode. The LPDDR3 license is only available on Infiniium Baseline version 3.22.0004 and above.
- Added additional reporting of "Number Of Measurement" item for all tests.

Agilent U7231A Software Version 01.72

Released Date: 20 November 2011

Minimum Infiniium Oscilloscope Baseline Version: 5.71.00 (80000 series),

3.11 (90000 series, 9000 series) File Name: SetupInfDDR30172.exe

### Bug Fixes:

- Resolved the issue of the Vix test where an exception is thrown due to error in loading some internal waveform files.
- Resolved the issue of the tLZDQ test where previously the algorithm for this test cannot handle data burst with the transition of the DQ signal going from Hi-Impedance to a logic High state.



- Resolved the issue not able to correctly identify valid data burst from a selected rank when the "Write Preamble Pattern" configuration option is set to "DDR2". This issue affected all the WRITE test as previously the application will use one additional clock period more than the entered WRITE latency value when trying to identify the required rank data burst under the mentioned settings.
- Resolved the issue where all the Eye Diagram Tests does now work with baseline version 3.20 and above.
- Resolved the issue regarding Eye Diagram Tests where an error exception regarding number of waveforms acquired is thrown when the data burst signal is triggering at more than 2 seconds apart.

Released Date: 20 October 2011

Minimum Infiniium Oscilloscope Baseline Version: 5.71.00 (80000 series),

3.11 (90000 series, 9000 series) File Name: SetupInfDDR30171.exe

### Additions:

- New tests added under Timing Tests group: tQSH and tQSL.
- Added new configuration option, "Write Preamble Pattern" where user can select the expected Write Preamble pattern.
- Added 1866 and 2133 Mt/s selection in the custom mode speed grade drop down list.
- Added support for using the Precision Probe feature where this option is accessible via the Tools menu of the application.
- Added support for Windows 7 operating system.
- Added new "Acquisition Setup ..." menu under the Tools menu of the application where user can enable or disable the acquisition bandwidth limiting feature. This option is only available under the application Debug mode that can be set under the "Configure" tab of the application.

### **Bug Fixes:**

- Resolved the issue of reporting the wrong Speed Grade selection in Html report.
- Corrected the report display item for all relevant Timing Tests where the
  report label "Sample Length (UI)" is replaced by "Sampling Points (Pts)".
  Due to this change, when loading supported legacy saved project files
  (version 1.70), all the saved test results that has the "Sample Length (UI)"
  report item will need to be removed before performing any new test trial to
  prevent test report item conflict error to occur.



### Agilent Technologies

- Resolved the issue of VOLdiff(AC) where the test was performing VOHdiff(AC) instead of the VOLdiff(AC) measurement.
- Resolved the issue of SRQdiffF where the test was performing SRQdiffR instead of the SRQdiffF measurement.
- Resolved the issue of finding the incorrect worst case value for all the timing test results that are reported in terms of tCK or tCK(avg) unit.
- Resolved the issue of having a time-out exception thrown when the application is trying to query an InfiniiSim command (eg. ":CHANnelx:ISIM:STATe?") from a scope that does not support this feature.
- Resolved the issue of not retaining the saved "Derate Table File" info that
  is configurable under the "Custom" test mode when loading a saved
  project file. This fix will ensure that the app will use the saved "Derate
  Table File" info according to the saved project file.
- Resolved the issue of VILdiff.CK(AC) and VILdiff.DQS(AC) using incorrect dynamic test limits.

### Modifications:

• Removed the InfiniiSim button from the Setup tab of the app as this feature is now accessible via the Tools menu of the application.

Agilent U7231A Software Version 01.70

Released Date: 20 June 2011

Minimum Infiniium Oscilloscope Baseline Version: 5.71.00 (80000 series),

2.10 (90000 series, 9000 series) File Name: SetupInfDDR30170.exe

### Additions:

- Added support for DDR3-1866 and DDR3-2133 under the compliance tests mode.
- Added support for DDR3L under the SDRAM Type option.
- The reference document for DDR3 and DDR3L tests are JESD79-3E and JESD79-3-1 respectively.
- New tests added under Electrical Tests group:

VSEH & VSEL for Clock and DQS,

VIHdiff & VILdiff for Clock and DQS,

VOHdiff & VOLdiff,

SRQdiffR, SRQdiffF,

tDIPW.

 Added new configuration option, "Min Data Amplitude" where user can set the minimum amplitude of Data burst (DQ/DM) during Read/Write burst separation in order to differentiate between valid data and noise.



## **Agilent Technologies**

- Added new "Threshold Setting" configuration wizard in the Setup tab of the application.
- Added new configuration options as follow for burst trigger threshold purposes.
  - 1. BurstTriggerTopRatio\_Chan1
  - 2. BurstTriggerBaseRatio\_Chan1
  - 3. BurstTriggerTopRatio\_Chan2
  - 4. BurstTriggerBaseRatio\_Chan2
  - 5. BurstTriggerTopRatio Chan3
  - 6. BurstTriggerBaseRatio\_Chan3
  - 7. BurstTriggerTopRatio\_Chan4
  - 8. BurstTriggerBaseRatio\_Chan4
- Added new configuration option, "VTT" as reference voltage for all the output tests.

### Bug Fixes:

- Resolved the issue of Eye Diagram reporting error message when different PUT or supporting pin is selected without deleting the previous trial result.
- Resolved the missing image issue found from loading an exported MHT file on a PC system other than the scope.
- Resolved the issue of tQH test reporting error message "Index out of range" by ignoring the first DQS edge of a burst.
- Resolved the issue of tDQSS test reporting error message "Index out of range" due to incorrect internal threshold values.

### Modifications:

- In order to support multi-AC levels as specified in the JESD79-3E and JESD79-3-1 documents, the following tests have been updated to use dynamic limit feature instead of the previous fixed limit value.
  - 1. All VIH/VIL tests.
  - 2. tDS/tDH tests (with/without derating feature support).
  - 3. tIS/tIH tests (with/without derating feature support).
- Changed the label of "ThresSetMode" configuration option from "Trigger Threshold Setting" with "Auto or Manual" options to "Threshold Mode" with "TopBaseRatio or Custom Threshold" options.
- User configuration options for AC/DC levels option are updated to support different AC options available under the JESD79-3E and JESD79-3-1 documents. Affected configuration options are listed as follow.

InputThreshold\_Vih\_dc
 InputThreshold\_Vih\_ac
 InputThreshold\_Vil\_dc
 InputThreshold\_Vil\_ac
 InputThreshold\_Vil\_ac



# **Agilent Technologies**

5.	InputRefV_Vref	[OLD] - Removed
6.	InputThreshold_Vih_dc_DQ	[NEW]
7.	InputThreshold_Vih_ac_DQ	[NEW]
8.	InputThreshold_Vil_dc_DQ	[NEW]
9.	InputThreshold_Vil_ac_DQ	[NEW]
10.	InputThreshold_Vih_dc_CA	[NEW]
11.	InputThreshold_Vih_ac_CA	[NEW]
12.	InputThreshold_Vil_dc_CA	[NEW]
13.	InputThreshold_Vil_ac_CA	[NEW]
14.	InputRefV_VrefCA	[NEW]
15.	InputRefV_VrefDQ	[NEW]
16.	InputRefV_VTT	[NEW]
17.	VIHdiff_ac_CK	[NEW]
18.	VILdiff_ac_CK	[NEW]
19.	VIHdiff_ac_DQS	[NEW]
20.	VILdiff_ac_DQS	[NEW]
21.	VOHdiff_ac	[NEW]
22.	VOLdiff_ac	[NEW]

- Clock and DQS pins are removed from VIH&VIL tests due to the tests addition of VSEH & VSEL.
- Separated the measurement and triggering thresholds settings to "Signal Measurement Threshold Settings" and "Burst Trigger Threshold Settings" respectively.
- Increased test execution speed especially for multi-bursts testing.
- Sampling points setting affects all the tests rather than Timing tests only.
- Due to the major code re-structuring, the entire legacy saved project will be loaded as READ-ONLY for viewing purposes. User will not be able to append new test results to the legacy saved projects as the number of reported items for each of the tests may have changed.

**Agilent U7231A Software Version 01.60** 

Released Date: 16 March 2011

Minimum Infiniium Oscilloscope Baseline Version: 5.71.00 (80000 series),

2.10 (90000 series, 9000 series) File Name: SetupInfDDR30160.exe

### Additions:

- Added support for the InfiniiSim "4 Port 1 Channel" option.
- Added derating feature support. 4 new tests that support this feature are added; tDS-Diff(derate), tDH-Diff(derate), tlS(derate) and tlH(derate).



- Added multi-burst support feature with statistic reporting.
- Added "2T timing" support feature for tIS/tIS(derate) tests.
- Added new configuration option for all the Command and Address Timing tests where user can specify what type of edges (rising only, falling only, both) to process when running tIS/tIH tests.

### **Bug Fixes:**

 Resolved the issue of InfiniiSim settings being cleared during a scope reset when running the Timing tests.

### Modifications:

- Labeled all signals in the screenshot for all Electrical tests.
- Updated the tDQSCK test to process the rising DQS edge only instead of both rising and falling DQS edges.
- Due to the major code re-structuring done on the Electrical Test group, all the legacy saved project will be loaded as READ-ONLY for viewing purposes. User will not be able to append new test results to the legacy saved projects as the number of reported items for each of the tests may have changed.

Agilent U7231A Software Version 01.52

Released Date: 04 October 2010

Minimum Infiniium Oscilloscope Baseline Version: 5.71.00 (80000 series),

2.10 (90000 series, 9000 series)
File Name: SetupInfDDR30152.exe

### Additions:

- Supports the Infiniium DSO-X 90000 Series High Performance Oscilloscope.
- The application will now require Microsoft's .net framework 3.5 to be installed on the scope in order to run.



Released Date: 30 July 2010

Minimum Infiniium Oscilloscope Baseline Version: 5.71.00 (80000 series),

2.10 (90000 series, 9000 series) File Name: SetupInfDDR30151.exe

### Additions:

 Added new "Burst Length Limit" features when performing the READ/WRITE eye diagram tests.

### Modifications:

 Updated the tDH measurement to only process the closest DQS edge that are located prior to a DQ edge in order to be consistent with the data hold time definition.

Agilent U7231A Software Version 01.50

Released Date: 23 June 2010

Minimum Infiniium Oscilloscope Baseline Version: 5.71.00 (80000 series),

2.10 (90000 series, 9000 series) File Name: SetupInfDDR30150.exe

### Modifications:

- Renamed the "Verify Selected Rank Only" configuration option for the Data Strobe Timing and Data Timing test group to "Rank Separation". New "latency" configuration options are created to support this feature.
- Increased test execution speed for Data Strobe Timing and Data Mask Timing by testing all parameters on the same data burst. The tests are also updated to support and handle any valid back-to-back data burst found when the "Rank Separation" option is enabled.
- Labeled all signals in the screenshot for Data Strobe Timing, Data Mask Timing and Command Address Timing tests.
- Due to the major code re-structuring done on the Timing Test group, all
  the legacy saved project will be loaded as READ-ONLY for viewing
  purposes. User will not be able to append new test results to the legacy
  saved projects as the number of reported items for each of the tests may
  have changed.



Released Date: 21 April 2010

Minimum Infiniium Oscilloscope Baseline Version: 5.71.00 (80000 series),

2.10 (90000 series, 9000 series) File Name: SetupInfDDR30143.exe

### Additions:

 Added new sets of test limits: DDR3L-800/1066/1333/1600 Spec Addendum (Proposed Version).

Agilent U7231A Software Version 01.42

Released Date: 31 March 2010

Minimum Infiniium Oscilloscope Baseline Version: 5.71.00 (80000 series),

2.10 (90000 series, 9000 series) File Name: SetupInfDDR30142.exe

### Modification:

- Updated the Vih(ac) and Vil(ac) tests to indicate that when the PUT is the DQ or DM signal, the voltage level of the test signal at tDS (DM and DQ input setup time in JEDEC specification) should be taken with reference to the DQS signal as the test results.
- Updated the Vih(dc) and Vil(dc) tests to indicate that when the PUT is the DQ or DM signal, the histogram maximum and minimum value of the test signal should be taken respectively within the sampling window (from test signal tDS to tDH with reference to DQS signal) as the test result.
- Updated the Overshoot test to compare the maximum voltage of all acquired waveforms at 10,000UI length with VDD/VDDQ.
- Updated the Undershoot test to compare the minimum voltage of all acquired waveforms at 10,000UI length with VSS/VSSQ.



Agilent U7231A Software Version 01.41 Released Date: 25 February 2010

Minimum Infiniium Oscilloscope Baseline Version: 5.71.00 (80000 series),

2.10 (90000 series, 9000 series) File Name: SetupInfDDR30141.exe

### Additions:

Added new pins for selection, DQS8 and DQ64 - DQ71.

### Modification:

- User was unable to select input pin for Input Slew Rate tests. This issue was resolved by adding configuration selections for Input Slew Rate tests.
- Resolved the issue where configurations of Electrical tests were not updated properly after a project loaded.

Agilent U7231A Software Version 01.40

Released Date: 18 December 2009

Minimum Infiniium Oscilloscope Baseline Version: 5.71.00 (80000 series),

2.10 (90000 series, 9000 series) File Name: SetupInfDDR30140.exe

### Additions:

- Enabled the Signal De-embedding feature where the user can utilize the InfiniiSim function when running the DDR3 tests. However, this feature is not supported for the 80000 series scope.
- Added the new "Rank separation" feature when performing the READ/WRITE eye diagram tests. New "latency" configuration options are created to support this feature.

### Modification:

- Removed the (Optional)Eye Diagram Test For Write Cycle(Bubble Filter Mode).
- The application is updated to always use the maximum sampling rate available for a scope when performing all the DDR3 test measurements.
- Resolved the issue where an exception is occasionally thrown on long test runs causing the application to terminate unexpectedly.



 Resolved the tDS/tDH test issue where the wrong READ data cycle is processed instead of a WRITE data cycle when the "Verify Selected Rank Only" option is enabled.

Agilent U7231A Software Version 01.30

Released Date: 26 June 2009

Minimum Infiniium Oscilloscope Baseline Version: 5.70.00 (80000 series),

1.41 (90000 series), 2.00 (9000 series) File Name: SetupInfDDR30130.exe

### Additions:

 Enabled the User Defined Limit (UDL) feature where the user can customize the test limits during the DDR3 tests.

- Supports the Infiniium 9000 Series High Performance Oscilloscope.
- Added the "Skip Connection Diagram Prompt" configuration option to disable the connection change prompt during execution of selected tests.
- Added the "Sample Size(UI)" configuration option under the "Data Strobe Timing and Data Timing" test group.

### Bug Fixes:

 Resolved the issue of not being able to perform signal triggering on signals that have small signal amplitude (< 600mV).</li>

### Modification:

- Removed the High/Low state ringing tests.
- Removed the Vid and Vox tests from the Electrical Tests group.
- Removed all the "OPTIONAL" tests except for the (Optional)Eye Diagram Test For Write Cycle(Bubble Filter Mode).
- The "Advanced Debug" test mode is renamed to "Custom" test mode.
- The test IDs are updated due to the implementation of the User Defined Limit (UDL) feature in the application.



- The input slew rate tests is updated to be available in the Custom test mode only as there is no test reference found in the JESD79-3C specification.
- Restructure the Vih/Vil tests based on the JESD79-3C specification.
- Renamed Voh/Vol tests based on the JESD79-3C specification.
- Restructured the Overshoot/Undershoot tests based on the JESD79-3C specification.
- The tDQSCK test is moved from the "Clock Timing" test group to the "Data Strobe Timing" test group based on the JESD79-3C specification.
- The tDQSQ, tQH, tHZ(DQ) and tLZ(DQ) tests are moved from the "Data Strobe Timing" test group to the "Data Timing" test group based on the JESD79-3C specification.
- All the tests under the "Clock Tests" test group is moved to the "Clock Timing" test group based on the JESD79-3C specification.
- Removed the speed verification feature from all the Electrical tests.

Released Date: 16 May 2008

Minimum Infiniium Oscilloscope Baseline Version: 5.30.00 (80000 series),

1.00 (90000 series)

File Name: SetupInfDDR30120.exe

### Bug Fixes:

 Fixed bug which caused application to fail to proceed during signal calibration while running on 90000 series oscilloscope with baseline version 1.20.



Released Date: 07 March 2008

Minimum Infiniium Oscilloscope Baseline Version: 5.30.00 (80000 series),

1.00 (90000 series)

File Name: SetupInfDDR30111.exe

### Additions:

 Added Individual threshold setting for manual "threshold setting mode" specially designed for most embedded user.

- Added InfiniiScan Min/Max setting in the configuration page.
- Added optional Infinite Persistence test for tDQSQ(Read-cycle test) and tDS/tDH(Write-cycle) tests. Infinite Persistence will measure setup and hold time of the respective signals and measure using the histogram mode.
- Added configuration options for Single-Ended Signals (eg. DQS0,Gnd, /DQS0,Gnd) to provide more connection choices for the users.
- Enhanced Eye-diagram analysis. Added configuration option under Advance Debug Mode category – Read/Write Eye-diagram tests. The parameter name is "Total Unit Interval" with defaulted value to 10 Uls. Users are allowed to edit the parameter to any value > 0. \*It is advisable to start with higher UI number and only reduce the UI if the signals unable to obtain a nice Eye-Diagram due to the specific signal behavior.
- Added tangent slew rate for the tDQSQ, tDS, tDH tests. Tangent slew rate and Nominal slew rate will be reported in the test results.
- Added derating table measurement for tDS and tDH tests based on tangent and nominal slew rate. Unmatched slew rate will returned "N/A" in the result table.
- Added total measurement measured for the Timing Tests. This information will be available at test result's report.



Released Date: 11 January 2008

Minimum Infiniium Oscilloscope Baseline Version: 5.30.00 (80000 series),

1.00 (90000 series)

File Name: SetupInfDDR30110.exe

### Additions:

- Supports the Infiniium 90000 Series High Performance Oscilloscope.
- Supports the Remote Programming Interface capability.
- Performance enhancement on all the Electrical and Timing tests.
- Added memory depth selection (in bits) for better eye-diagram tests.
- Enable running of all test without any connection prompt during the run in order to let the system run nightly.

Agilent U7231A Software Version 01.01

Released Date: 02 Oct 2007

Minimum Infiniium Oscilloscope Baseline Version: 05.30.00

File Name: SetupInfDDR30100.exe

### Modification:

• Changes made to address the critical bugs which caused "Query Unterminated" while running the clock jitter test. It totally disabled this group of tests to run. This issue is fixed and currently all clock jitter tests are able to complete the run.

Agilent U7231A Software Version 01.00

Released Date: 23 Aug 2007

Minimum Infiniium Oscilloscope Baseline Version: 05.30.00

File Name: SetupInfDDR30100.exe

Initial release.