Agilent Technologies

N4010A Wireless Connectivity Test Set WLAN Test Suite Software Revision History

June 4, 2013

Revision 6.57 – May 29th 2013 – Maintenance Release

WLAN – Options 102/103/108: The following Wireless LAN changes are implemented with this release through the N4010A WLAN Test Suite Software (API):

Defects Fixed:
- Updated the spectral mask measurement now complies to IEEE802.11-2012 standard.
- Compatible with Microsoft Windows 7 operating system

Compatibility information:
- This version of the WLAN driver & VFP works with both N8300A and N4010A/N4011A.
- Requires N4010A Test Set firmware A.05.03.12 or later.
- Requires N8300A firmware A.06.51 or later.

Revision 6.53 – Feb 10th 2012 – Maintenance Release

WLAN – Options 102/103/108: The following Wireless LAN changes are implemented with this release through the N4010A WLAN Test Suite Software (API):

Defects Fixed:
- Updated the "802.11b 1000 Chip Peak EVM" result according to IEEE 802.11-2007 standard. The previous "802.11b 1000 Chip Peak EVM" result was according to IEEE 802.11-1999.

Compatibility information:
- This version of the WLAN driver & VFP works with both N8300A and N4010A/N4011A.
- Requires N4010A Test Set firmware A.05.03.12 or later.
- Requires N8300A firmware A.06.51 or later.

Revision 6.51 – June 26th 2009 – Maintenance Release

WLAN – Options 102/103/108: The following Wireless LAN changes are implemented with this release through the N4010A WLAN Test Suite Software (API):

Defects Fixed:
- Fixed an 802.11a Spectral Flatness defect that caused good units to fail.
- Added VISA session locking. This was accidentally removed from the previous release.
- Fixed a frequency change defect that occurred when the mode was switched from WLAN to Bluetooth, then back to WLAN again.

Compatibility information:
- This version of the WLAN driver & VFP works with both N8300A and N4010A/N4011A.
- Requires N4010A Test Set firmware A.05.03.12 or later.
- Requires N8300A firmware A.06.51 or later.

Revision 6.38 – April 10th 2009 – Feature Release

WLAN – Options 102/103/108: The following Wireless LAN changes are implemented with this release through the N4010A WLAN Test Suite Software (API):

New Features:
- Speed improvements to spectral mask.
- Speed improvements to ARB operation.
- The IQ Measurement can now be re-sampled down to 47.5 MHz.

Compatibility information:
- This is the first version of the WLAN driver and VFP that works with both N8300A and N4010A/N4011A.
- Requires N4010A Test Set firmware A.05.03.12 or later.
- Requires N8300A firmware A.06.38 or later.

Revision 5.5.2 – September 29th 2008 – Feature Release

WLAN – Options 102/103/108: The following Wireless LAN changes are implemented with this release through the N4010A WLAN Test Suite Software (API):

New Features:
- Added three new properties into the driver that allow the minimum idle period to be set for auto-ranging.
- Added a text box into the main screen of the Virtual Front Panel, allowing the user to change the minimum idle period for auto-ranging.

Defects fixed:
- Fixed a defect that prevented the driver from connecting if N4010A option 108 was not present.
- Fixed a defect that caused Vector Signal Analyzer problems if the driver connected and then immediately disconnected.

Compatibility information:
- Requires N4010A Test Set firmware A.05.03.12 or later.

Revision 5.4.5 – March 26th 2008 – Maintenance Release

WLAN – Options 102/103/108: The following Wireless LAN changes are implemented with this release through the N4010A WLAN Test Suite Software (API):

Defects fixed:
- Fixed a defect in the publisher policy files.

Compatibility information:
- Requires N4010A Test Set firmware A.05.03.05 or later.

Revision 5.4.4 – January 25th 2008 – Maintenance Release

WLAN – Options 102/103/108: The following Wireless LAN changes are implemented with this release through the N4010A WLAN Test Suite Software (API):

Changes in behaviour:
- Extended the upper limit of the 5 GHz band to 5827 MHz.

Compatibility information:
- Requires N4010A Test Set firmware A.05.03.04 or later.

Revision 5.4.1 – September 28th 2007 – Feature Release

WLAN – Options 102/103/108: The following Wireless LAN changes are implemented with this release through the N4010A WLAN Test Suite Software (API):

New Features:
- New "Fast Mask" mode for spectral mask measurements added

Compatibility information:
- Requires N4010A Test Set firmware A.05.02.03 or later.

Revision 5.3.6 – August 27th 2007 – Feature Release

WLAN – Options 102/103/108: The following Wireless LAN changes are implemented with this release through the N4010A WLAN Test Suite Software (API):

New Features:
- Power vs. Time measurement added
- Peak Power measurement added
- 802.11n 3 and 4 channel measurement capability added
- Flexible port switching in N4011A for 802.11n measurements added
- IQ Quadrature error and IQ Gain imbalance measurements results to existing 802.11a demodulation measurements added.
- Restriction of changing ports while playing out AWG files removed
- Ability to load comma separated lists (csv) recorded from 89600 as AWG files to both waveform memory and Non-volatile storage added.

Defects Fixed:
- Zero EVM returned when spike present on power ramp fixed.
- Null Reference Exception followed by hang on Dispose()

Compatibility information:
- Requires N4010A Test Set firmware A.05.02.03 or later

Revision 5.1.9 – Feb 14th 2006 – Maintenance Release

WLAN – Options 102/103/108: The following Wireless LAN changes are implemented with this release through the N4010A WLAN Test Suite Software (API):

Defects Fixed:
- Loss Compensation function calls previously missing from the COM interface now visible.

Compatibility information:
- Requires N4010A Test Set firmware A.05.01.01 or later

Revision 5.1.6 – December 21st 2006 – Feature Release

WLAN – Options 108: Support for 802.11n MIMO measurements (Option 108) implemented with this release through the N4010A WLAN Test Suite Software (API):

Compatibility information:
- Requires N4010A Test Set firmware A.05.01.00 or later

Revision 4.0.2 – August 31st 2006 – Feature Release

WLAN – Options 102/103: The following Wireless LAN changes are implemented with this release through the N4010A WLAN Test Suite Software (API):

New Features:
- 802.11b Spectral Mask
  - Increased dynamic range switch added
  - Occupied Bandwidth result added
  - Occupied Bandwidth High Frequency Limit result added
  - Occupied Bandwidth Low Frequency Limit result added

- 802.11b Power Ramp Up measurement added
- 802.11b Power Ramp Down measurement added

- 802.11b Demod Measurement changes
  - 802.11b Chip Clock Frequency Measurement added
  - Variable bT value
  - Variable alpha value

- 802.11a Spectral Mask
  - Occupied Bandwidth result added
  - Occupied Bandwidth High Frequency Limit result added
  - Occupied Bandwidth Low Frequency Limit result added

- 802.11a Demod Measurement changes
  - 802.11b Chip Clock Frequency Measurement added
  - Track Timing control added
  - Expected Signal Bandwidth control added
- Multi Step Power Measurement added

Compatibility information:
- Requires N4010A Test Set firmware A.04.03.04 or later

Revision 3.1.6a – May 17th 2006 – Maintenance Release

WLAN – Options 102/103: The following Wireless LAN changes are implemented with this release through the N4010A WLAN Test Suite Software (API):

Defects Fixed:
- Arbitrary Waveform Generator not changing frequency as requested during transmit – analyze – transmit testing steps resolved.
- Not being able to install Agilent 89601VSA following installation of N4010A WLAN Test Suite resolved.

Compatibility information:
- Requires N4010A Test Set firmware A.04.01.02 or later

Revision 3.1.3a – November 21st 2005 – Maintenance Release

WLAN – Options 102/103: The following Wireless LAN changes are implemented with this release through the N4010A WLAN Test Suite Software (API):

Changes in behaviour:
- Gaussian reference filter added to DSSS Demodulation
- MeaureGatedPower in the OFDM demod measurement no longer affected by MaxSymbolsUsed or Trigger delay.
- Trigger Slope is set to positive on Reset.
- TrackTiming control added to OFDM Demod.

Compatibility information:
- Requires N4010A Test Set firmware A.03.01.02 or later

Revision 3.0.5 – October 28th 2005 - New Features Added

WLAN – Options 102/103: The following Wireless LAN changes and features are implemented with this release through the N4010A WLAN Test Suite Software (API):

Changes in behaviour:
- Three averaging modes have been removed from the GatedSpectrum measurement – Time, Time Exponential and Min Hold
- Variable number of data points from Spectrum Mask measurement
- MeaureGatedPower is only available in the OFDM demod measurement with the following configuration:
  - MaxSymbolsUsed is set sufficiently high to capture the entire burst
  - Trigger delay of -2μs or greater is set
- Changes to code required if using both N4010A WLAN Test Suite and 89607/89601 concurrently
- Standard waveform files provided to instrument. This involves a considerable delay when creating the instrument for the first time with the new test suite. However the delay is not be repeated on subsequent creations of the driver object. (For further information refer to the WLAN Help)

Test Harness:
- Autorange now added to test harness (Note: auto range was introduced in V2.0.1, but not included in the test harness)
- Demo page added

Compatibility information:
- Requires N4010A Test Set firmware A.03.01.01 or later
- There is no longer any compatibility issue with 89607/89601. The system works regardless of what version, if any, of these products is installed.

Revision 2.0.1 – April 7th 2005 - New Features Added

WLAN – Options 102/103: The following WLAN features are added with this release through the N4010A WLAN Test Suite Software (API):

- Optional external 10 MHz Reference source
- CW Frequency Offset Measurement
- Test time improvements
- Sample Program – Test Harness

Compatibility information:

- Agilent N4010A Instrument firmware version A.02.00.11.
- Agilent 89601/89607 VSA software revision 5.30.194 is required (included on the installation disk).

Revision 1.0.05 – November 16th 2004 - First release

This is the WLAN Test Driver software revision shipping with the Options 102/103/104 at launch. The Option 102/103 WLAN Measurements must be installed on a PC with a Microsoft Windows 2000 or XP operating system to support this release.

WLAN measurement capability is provided in the following licensed options:

- Option 102 - 802.11b and 802.11g 2.4GHz WLAN tests
- Option 103 - 802.11b, 802.11g (2.4GHz), and 802.11a (5GHz) WLAN tests
- Option 104 – Fully Flexible Arbitrary Waveform File Download

Compatibility information:

- Shipped with instrument firmware version A.01.14.11.
- Agilent 89600/89607 VSA software revision 5.21 is required.