

Revision history for M8190A/M8192A

December, 10th 2014

Changes from V4.0.0.0 to V5.0.14.0

- New functionality: Sequencing functionality including action, frequency and amplitude tables accessible from the M8190A SFP.
- New functionality: Support USB 2.0 connection between controller PC and M8190A or M8192A.
- New functionality: Improved error and warning handling by a separate scrollable window in M8190A and M8192A SFP.
- Cosmetic Rebranding of M8190A and M8192A LabVIEW Driver.
- Resolved defect: If the loop count in the last segment of a sequence is greater one, the sequencer aborts signal generation.
- Resolved defect: Improve stability during waveform transfer from M8190A SFP.
- Resolved defect: Issue in fast waveform transfer in up-conversion mode using the IVI Driver.

Known Issues:

- Same as in V3.2.0.0

Changes from V3.2.0.0 to V4.0.0.0

- Cosmetic Rebranding: changed from “Agilent Technologies” to “Keysight Technologies”. (e.g. Icons, Texts, Start Menu, ...).

Known Issues:

- Same as in V3.2.0.0

Changes from V3.1.0.0 to V3.2.0.0

- New functionality: Windows 8 and Windows 8.1 support
- Resolved defect (known issue from V3.0.35.1): Compatibility problem with IOLS 16.3 Update 2
- Resolved defect: “Signal Studio Encrypted” file import fails
- Resolved defect: Improved robustness of file import
- Resolved defect: Waveform download from SFP stops signal generation in dynamic mode
- Resolved defect: Writing waveform samples to memory in chunks fails, if signal generation is active in dynamic mode

Known Issues:

- With the Agilent M950xA AXIe Chassis Driver 1.2.1.6 on non-English Windows versions, a Blue Screen occurs when the firmware is started.

Workaround: Either uninstall the driver or disable a part of it by renaming AgAXIeSMDu_M950x.dll to e.g. AgAXIeSMDu_M950x.dll.HIDE. This DLL is located in ...

- 64 bit system: C:\Program Files (x86)\Common Files\Agilent\PXI\Drivers\
○ 32 bit system: C:\Program Files\Common Files\Agilent\PXI\Drivers\

Changes from V3.0.35.1 to V3.1.0.0

- New functionality: Multitone waveform generation (equally and arbitrary spaced tones) including notches and user-defined amplitude and phase corrections
- New functionality: Complex modulated waveform generation (ASK, PSK, QAM, MSK, APSK, STAR, VSB, FSK and user-defined modulation schemes) including user-defined amplitude and phase corrections
- Resolved defect: Dynamic sequencing errors with some waveform lengths
- Resolved defect: Internal trigger generation not working reliably when Fast Switching Option not installed
- Resolved defect: Loading of configuration file fails when all channels use external sample clock
- Resolved defect: Startup error for multi-module configurations when addresses (inst, hislip) are not explicitly set on the command line

Known Issues:

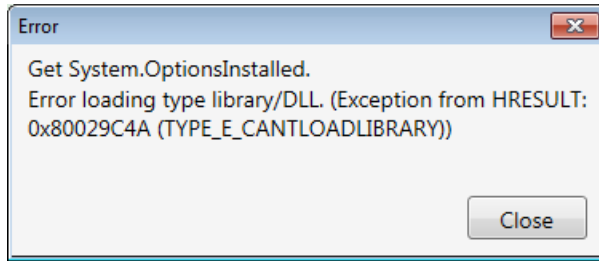
- Same as in V3.0.35.1

Changes from V3.0.0.0 to V3.0.35.1

- New functionality: M8192A IVI-COM, IVI-C, MATLAB and LabVIEW driver
- New functionality: Example C++ program showing the usage of the streaming feature
- New functionality: Internal trigger generator as advancement event source for sequencing
- Resolved defect: M8190A SFP hang when firmware is closed
- Resolved defect: DC offset when importing waveform from file
- Resolved defect: AXIe chassis information not displayed correctly for multiple M8190A modules in a chassis
- Resolved defect: Sporadic deadlock in M8190A/M8192A communication
- Resolved defect: 1-channel version of M8190A uses wrong clock signal, when configured as slave in a multi-module group

Known Issues:

- With Agilent IO Libraries Suite 16.3 Update 2 (16.3.17914), the M8190 Soft Front Panel can't connect to the M8190 Firmware and displays this error message box:



This is not caused by M8190A/M8192A but by the IO Libraries Suite Installer.

Workaround: Add following entries to the system environment variable PATH:

- 64 bit system: ;%VXIPNPPATH%VisaCom;%VXIPNPPATH64%VisaCom
- 32 bit system: ;%VXIPNPPATH%VisaCom
- With the Agilent M950xA AXIe Chassis Driver 1.2.1.6 on non-English Windows versions, a Blue Screen occurs when the firmware is started.

Workaround: Either uninstall the driver or disable a part of it by renaming

AgAXIeSMDu_M950x.dll to e.g. AgAXIeSMDu_M950x.dll.HIDE. This DLL is located in ...

- 64 bit system: C:\Program Files (x86)\Common Files\Agilent\PXI\Drivers\
○ 32 bit system: C:\Program Files\Common Files\Agilent\PXI\Drivers\

Changes from V2.4.3.1 to V3.0.0.0

- New functionality: Support for synchronization of multiple M8190A modules. Includes support of M8192A synchronization module
- New functionality: Support for streaming
- New functionality: Support for N7617B Signal Studio for MultiTone
- New functionality: Added reduced noise floor mode
- Resolved defect: File import

Changes from V2.4.0.0 to V2.4.3.1

- Support for new main board revision
- Resolved defect: Switching between coupled and uncoupled mode

Changes from V2.3.6.2 to V2.4.0.0

- Enhancement: Waveform import supports additional file formats including header information.
- Enhancement: Imported waveforms can be re-sampled and scaled from the Soft Front Panel (SFP). Fractional and integer re-sampling is supported.
- Enhancement: Standard waveform generation and download for sine, square, triangle, sinc and noise in direct mode and interpolated mode has been added to the Soft Front Panel (SFP)
- Enhancement: File import and licensing support for N7617B Signal Studio for WLAN
- Enhancement: Support for N5990A-151 HDMI Sink Tests with M8190A

- Enhancement: Support for N5990A-153 MHL Receiver Tests with M8190A
- Enhancement: Improve synthesizer frequency locking behavior.
- Enhancement: Allow changes in the action table while signal generation is active.
- Enhancement: Add support for new main board revision 0x2. This includes support for internal reference clock.
- Resolved defect: Performance issue when starting a sequence with many entries.
- Resolved defect: Almost 100% CPU load during waveform download.
- Resolved defect: SFP cannot connect if firmware is in clock-loss state.
- Resolved defect: Amplitude actions could potentially result in an undesired phase change of carrier.
- Resolved defect: When sample format is changed the action table could potentially contain outdated entries.
- Changed base port for socket and telnet connections from 49152 to 60000.

Changes from V2.3.1.0 to V2.3.6.2

- Resolved defect: Waveform file import problem.

Changes from V2.2.2.0 to V2.3.1.0

- Enhancement: Added Digital Up-Conversion (Option –DUC) capability.
- Enhancement: Added additional waveform file import formats
- Enhancement: Added software enable / disable for Trigger, Event and Dynamic Control Input
- Enhancement: LabVIEW driver is part of the installation package
- Enhancement: Programming examples have been updated
- Enhancement: Added updated version of IQ tools
- Include the fourth edition of the User's Guide as well as the fourth edition of the Getting Started Guide
- Resolved defect: Sporadically erroneous waveform download

Changes from V2.2.0.0 to V2.2.2.0

- Resolved defect: Waveform import using the SFP

Changes from V2.1.6.0 to V2.2.0.0

- Enhancement: IVI-COM, IVI-C, MATLAB and LabVIEW driver supporting the entire M8190A functionality

- Enhancement: Additional functionality of the M8190A can be controlled using the Soft Front Panel (SFP)
- Enhancement: Added licensing support for N7620B Signal Studio for Pulse Building
- Change termination voltage range for DC amplifier path from [-1.6V, 3.6V] to [-1.5V, 3.5V]
- Include third edition of the User's Guide as well as third edition of the Getting Started Guide
- Resolved defect: Range error for loop counts in segments, sequences and scenarios
- Resolved defect: SFP startup error of 1-channel instrument
- Resolved defect: Using sequences consisting of only one segment
- Resolved defect: Firmware startup error occurring on some M8190A revision 1 modules

Changes from V2.0.14.2 to V2.1.6.0

- Enhancement: One M8190A as well as two M8190A instruments are supported in a M9505A 5-slot AXIe chassis
- Enhancement: M8190A Revision 1 instruments as well as M8190A Revision 2 instruments are supported.
- Enhancement: The delay range between channel 1 and channel 2 has been extended to 10 ns
- Enhancement: The doublet mode has been enabled
- Enhancement: Additional functionality of the M8190A can be controlled using the Soft Front Panel (SFP)
- Include second edition of the User's Guide as well as second edition of the Getting Started Guide
- Note: IOLS 16.2 is required for V2.1.1.0

Changes from V2.0.9.1 to V2.0.14.2

- Resolved defect: Operational under Win XP
- Resolved defect: Crash with Win XP when connected via remote desktop
- Resolved defect: Reference clock loss sometimes not recognized
- Resolved defect: Waveform download from Soft Front Panel (SFP)
- Resolved defect with installer: HPP needs .NET Framework 3.5 SP1 - added check and shows error message if not found
- Resolved defect with installer: Use correct registry key to determine if VC++ 2010 redistributable (x86) must be installed
- Resolved defect: Workaround for connection issue from Bench Link to M8190A. Use command line option `"/NoHardwareRevisionInIdnString"` to start the M8190A firmware.

Changes from V2.0.5.0 to V2.0.9.1

- User's Guide 1st Edition added to the installation
- Optimized PLL lock algorithm for reference clock input
- Resolved defect: Interoperability with Agilent M9703A (12-Bit High Speed Digitizer)

V2.0.5.0

The M8190A is available in two different hardware revisions. Refer to the data sheet or User's Guide of the M8190A for the differences between Revision 1 and Revision 2

- V2.0.5.0 is the initial software version for Revision 2 instruments