

# Software Release Notes

Keysight

M9381A PXIe Vector Signal  
Generator and M9380A PXIe  
CW Source



Notice: This document contains references to Agilent. Please note that Agilent's Test and Measurement business has become Keysight Technologies. For more information, go to [www.keysight.com](http://www.keysight.com).

## Keysight M938x Version 1.4.400.0, July 2014

- Enhancements
  - Added SCPI interface with support for commonly used commands
  - Added support for Signal Studio 802.154g Wi-SUN
  - Improved speed performance
  - M9300A FPGA 1.0.1.0 available – Optional, not currently required for any new software features
- Critical Fixes:
  - Fix allowing Modules.Reference.ProgrammableOutputTrigger properties to take effect.
  - Fix to eliminate undesired Apply() performed within List.End() which previously could result in unintended signal output.

## Keysight M938x Version 1.3.300.0, October 2013

- Enhancements:
  - Added support for Signal Studio envelop tracking waveforms, N7624B-KFP(-KTP) and N7625B-KFP(-KTP)
  - Expanded Synchronization Output Trigger functions to include the use of backplane triggers 0-7
  - M9311A Modulator FPGA was updated to improve trigger jitter (FPGA version 1.0.0.4)
  - Added external triggering delay capability (see Modulation2.BasebandDelay and Triggers2.ExternalTrigger2.Delay)
- Critical Fixes:
  - Fix to improve Power Search accuracy
  - Fixes to improve Fixture Loss performance
  - Fixes IVI Config Store to remember options and “simulate” mode
  - Fix BackPlaneReferenceEnabled value to be unaffected by Reset

## Keysight M938x Version 1.2.525.1, May 2013

- Fix to prevent problems caused by simultaneous creation/initialization of the M9300 Reference when it is shared by  $\geq$  two multi-module instruments.
- Fix to prevent the RF power from being turned on unexpectedly during the learn phase of a List.
- Fix to shorten application startup time by preventing Windows signature verification on application startup.

## Keysight M938x Version 1.2.500.0, April 2013

- **Keysight IO Libraries Suite** version 16.3.16603.3 or later is required for the M9381A, M9380A and M9300A products.

- Phase Lock Loop (PLL) Mode enhancement: The “Normal” option (default) should be adequate for most measurements. The “Best Wide Offset” option sets the M9301A Synthesizer's PLL for narrow bandwidth, which can yield better ORFS and EVM measurements for wide modulation. Note, however, that this option increases the M9301A Synthesizer's settling time by approximately 10%. Driver impact: Modules.Synthesizer.PLLMode property (IVI), Get/Set AttributeViInt32\_Modules VIs (LabVIEW).
- Reference sharing enhancement: Reference Sharing is now enabled by default. The M9300A Reference module can be shared by more than one instance of the AgM938x driver. If you connect to a hardware configuration that includes a currently connected M9300A (either independently or as part of another hardware configuration) the latest instance of the AgM938x driver will take control of the M9300A. You will see no warning or error message. If you would prefer to be keep the reference control with the first instance of the AgM938x driver so that a subsequent instance will not take control of the reference module unintentionally, set the *OptionString* parameter to `ShareReferenceVisaSession=0`. Driver impact Initialize property (IVI), Initialize With Options VI (LabVIEW). Added enum (STATUS\_EVENT\_REFERENCE\_STATE\_CHANGED) to the Event parameter in AgM938x and AgM9300 drivers to track when sharing the Reference module across processes or sessions and the state of the module configuration was changed by another controlling entity.
- Garbage collection enhancement: Driver impact Added System.GcTimingOptimizationEnabled property (IVI), added GC\_TIMING\_OPTIMIZATION\_ENABLED attribute (LabVIEW). Indicates whether the hardware driver should change the .NET garbage collector state to optimize hardware settling times. Default = TRUE. For details, see the respective driver documentation.
- IQ Arb information management enhancement: New functionality was added to get or edit parameter information in an ARB that has been uploaded into an M9381A instrument. Driver impact: Added Modulation.IQ.ArbInformation and Modulation.IQ.EditArbInformation methods (IVI), added IQ Arb Information and IQ Edit Arb Information VIs (LabVIEW).
- List management enhancement: Driver impact Added List.Exists method (IVI), added List Exists VI (LabVIEW). Allows you to check to see if a specific list exists.
- M9381A SFP enhancement: Added the Sync Output Trigger control to the M9381A SFP (Arb tab). This trigger is generated in synch with ARB playback. Options are:
  - None (default). No trigger is generated
  - Per Arb. The synchronization trigger is generated at the beginning of the ARB on each repetition of playing the ARB.
  - Marker n. If you would like to generate the trigger based on the marker attached to the ARB, choose Marker 1, 2, 3, or 4.

## Keysight M938x Version 1.1.199.3, December 12, 2012

- Fixed implementation of Driver.Modules.Item.Nonvolatile.\* to avoid corrupting nonvolatile memory contents.
- Changed the defaults of the Synchronization Output Trigger to be Enabled = true and Pulse Width = 1.0e-5 (10 μs).

## Keysight M938x Version 1.1.196.2, November 1, 2012

- Added self-test checks for more robust instrument error checking
- Miscellaneous cosmetic improvements to the Soft Front Panels for enhanced usability.

## Keysight M938x Version 1.1.186.1, September 26, 2012

Minor licensing update.

## Keysight M938x Version 1.1.184.0, August 27, 2012

Initial public software release.