Agilent
M9381A PXIe Vector
Signal Generator and
M9380A PXIe CW Source

Software Release Notes

Version 1.2.500.0, April 2013

Part Number: M9300-90008

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Agilent M938x Version 1.2.500.0, April 2013

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

- **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 <u>and</u> 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.

- **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).

(Continued on next page)

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- **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.

Agilent 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)`.

Agilent 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.

Agilent M938x Version 1.1.186.1, September 26, 2012

Minor licensing update.

Agilent M938x Version 1.1.184.0, August 27, 2012

Initial public software release.

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