Software
Release Notes

# Keysight M9391A PXIe Vector Signal Analyzer

KEYSIGHT TECHNOLOGIES

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# M9391 Release Notes


- Version 2.1
- Version 2.0
- Version 1.2
- Version 1.1


## Version 2.1

### Version 2.1.257.3

Release Date: December 2019

#### Enhancements

- Added Win10 Installer Support
- Updates to support down converter HW modifications
    - Supports M9350A's with Manufacturing Number >1E5909XXXX

### Version 2.1.250.3

Release Date: June 2018

#### Enhancements

- New M9214A FPGA bits with fix for ADC dither support in C03 rev boards.
- Updates to prevent Apogee hang when doing 32 bit packing acquisitions.
- Update M9214A FPGA.
- Added input extension for setting digitizer sample size. Previously was fixed at 64 bits. User now able to select 32 bits.

### Version 2.1.240.2

Release Date: March 2017

#### Enhancements

- New FPGA bits for M9300A, M9301A and M9350A with improved stability and support for new memory module.

#### Critical Fixes

- "Drive BP 10MHz Reference" checkbox is added to M9391 SFP. This is equivalent of IVI-COM's Modules.Reference.BackPlaneReferenceEnabled property.

## Version 2.1.230.1

Release Date: December 2015

### Critical Fixes

- Fixed interaction between applications using shared Reference or shared Synthesizer that may result in self test failures.
- Fixed triggered multi-channel record mode with 89600 VSA Software.

## Version 2.1.221.0

Release Date: July 2015

### Enhancements

- Added support for eight PXI VSAs in two chassis sharing a single controller. The following configurations are supported:
  - Time-synchronous multi-channel operations using independent Local Oscillators (LOs).
  - Time-synchronous and phase coherent multi-channel operations using output from a single LO routed through a V2802A LO Distribution Network to split the signal to the eight channels.
- Improved multi-channel timing synchronization performance.

### Critical Fixes

- Several calibration and alignment fixes to correct timing and phase errors in multi-channel operations.

# Version 2.0

## Version 2.0.279.0

Release Date: May 2015

### Enhancements

- Updated help file, added IVI-2014 Compliance, rebranded as Keysight Technologies.
- Added support for a maximum of 4 PXI VSAs in a single chassis sharing a single controller.
- Improved multichannel timing synchronization performance.
- Added phase synchronous operation via M9301A Synthesizer sharing capability, along with new IVI method and properties:
  - Calibration2.LOLevelAlignment.AlignLoLevel
  - Modulation3.BasebandPhase adjustment
  - Modules.Synthesizer3.SharedRole

- Modules.Synthesizer.OutputPort
- Added Reference3.AlignExternalReferenceAnd10MHzOut method to align phase of the 10 MHz Output with the External Reference input.

### Critical Fixes

- Fix to enable using Modules.Reference.ProgrammableOutputTrigger properties when sharing M9300A Reference between multiple instruments.

# Version 1.2

## Version 1.2.403.0

Release Date: August 2014

### Enhancements

- Added support for 89600 VSA Software stepped spectrum measurement (Option 89601B-SSA).
- Added MultiChannelSync IVI interface and MultiChannel C# example to enable direct utilization of multi-channel capability. Previous 1.1.300.0 release offered multi-channel support via 89600 VSA software only.
- Improved speed performance.
- Eliminated AgModularVSA IVI interface. All functionality is now accessed directly via the AgM9391 interface.

- M9214A FPGA 1.0.2.3 available – Optional, not currently required for any new software features.
- M9300A FPGA 1.0.1.0 available – Optional, not currently required for any new software features.

### Critical Fixes

- Fix enabling Modules.Reference.ProgrammableOutputTrigger properites to take effect.
- Fixed issue causing a ReadIQData() exception after running an IF Flatness alignment.

NOTE This release is not binary compatible with prior releases of the IVI-C driver. Programs using the C/C++ IVI-C driver must be recompiled for this version of the driver. Similarly, programs compiled with this version of the driver will not be compatible with older versions of the IVI-C driver. This incompatibility is due to renumbering of attribute constants defined in the AgM9391.h include file.

NOTE M9300A-related documentation is available only after installing the M938x software, available at www.keysight.com/find/M9381A-driver. (When you run the M938x installer, you may install only the M9300A related files if you wish.)

### Version 1.2.417.1

Release Date: January 2014

#### Enhancements

Features added for 89600 VSA Software power spectrum measurements (Option 89601B-SSA):

- Zero span measurements (power vs time)
- Sweep trigger
- IF Magnitude trigger (for gating and sweep trigger)
- Equivalent sweep time
- Enable higher Span/RBW ratios when using a 64 bit process
- Support M9000 resource manager sharing with multi-channel configurations

#### Critical Fixes

- Fixture Loss table is disabled but tables are no longer cleared by ResetDefaultProperties() or Reset().
- Fix to enable IF Filter alignment even when M9300A Reference module is not located in the system timing slot.

## Version 1.1

### Version 1.1.300.0

Release Date: October 2013

#### Enhancements

- Added multi-channel support via 89600 VSA software
- Added FFT Acquisition Mode for faster power measurements

#### Critical Fixes

- Fixes to improve Fixture Loss performance
- Fixes IVI Config Store to remember options and "simulate" mode – Improved IF flatness calibration

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