

History and release notes for I/Q Modulation Generator R&S AFQ100A

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AFQ100A driver history		
Revision	Date	Note
2.04	04/2007	<p>Driver update for AFQ100A Firmware 2.04</p> <p>Modifications:</p> <p>Added</p> <p>support for transfer of huge files to AFQ:</p> <p>rsafq_writeHugeFileStart</p> <p>rsafq_contHugeFile</p> <p>New functions:</p> <p>rsafq_SetNextWaveformSegmentMode</p> <p>rsafq_GetNextWaveformSegmentMode</p> <p>rsafq_SetROSCSynchronizationMode</p> <p>rsafq_GetROSCSynchronizationMode</p> <p>rsafq_DIAGnosticModules</p> <p>rsafq_optionCheckState</p> <p>Modified functions:</p> <p>rsafq_writeFromFile</p> <p>rsafq_ConfigureSegmentTrigger</p> <p>rsafq_defaultInstrSetup</p> <p>rsafq_ConfigureAnalogOutput</p> <p>rsafq_SetAnalogOutputUnbalancedAmplitude</p> <p>rsafq_GetAnalogOutputUnbalancedAmplitude</p> <p>rsafq_SetAnalogOutputBalancedAmplitude</p> <p>rsafq_GetAnalogOutputBalancedAmplitude</p> <p>rsafq_ConfigureDigitalOutput</p> <p>rsafq_SetARBState</p> <p>rsafq_GetARBState</p> <p>rsafq_SetMultiSegmentTriggerMode</p> <p>rsafq_GetMultiSegmentTriggerMode</p> <p>Not supported functions (returns Function not supported)</p> <p>rsafq_SetDigitalOutputClockRate</p> <p>rsafq_GetDigitalOutputClockRate</p> <p>rsafq_SetDigitalOutputClockSource</p> <p>rsafq_GetDigitalOutputClockSource</p> <p>rsafq_SetAnalogOutputImpedance</p> <p>rsafq_GetAnalogOutputImpedance</p> <p>rsafq_DEVICEPreset</p> <p>Removed functions:</p> <p>rsafq_SetSYSTEMdate</p> <p>rsafq_GetSYSTEMdate</p> <p>rsafq_SetSYSTEMTime</p> <p>rsafq_GetSYSTEMTime</p>
1.0.0	09/2006	Driver created

LabWindows/CVI

Additional Help

The LabWindows/CVI instrument driver consists of a ZIP archive containing the driver sources. In addition, the instrument driver documentation is also included in compressed HTML format (Windows CHM help file) and stored together with the driver sources.

VXIplug&play Instrument Driver for VEE, C++, C#, Visual Basic, Visual Basic .NET etc.

C#

A wrapper is necessary to enable a direct access to the driver DLL.

The rsafq.cs wrapper for C# is automatically installed in the ~VXIPlnP\WinNt\include directory.

See the c# example

Visual Basic .NET

A wrapper is necessary to enable a direct access to the driver DLL.

The rsafq.vb wrapper for .NET is automatically installed in the ~VXIlnp\WinNt\include directory.

Additional Help

In addition, the instrument driver documentation is also included in compressed HTML format (Windows CHM help file) and stored together with the driver sources in the ~VXIlnp\WinNT\rsafq directory.

Additional Information

For more information regarding the VXIPnP instrument drivers, please read the readme.txt file that comes with each driver.

LabVIEW

Getting Started

In order to use this driver as a standard LabVIEW driver, please copy the contents of ~\VXIpn\GWinNt\rsafq directory into your LabVIEW directory (~\LabVIEW\instr.lib\rsafq\). The driver will then be directly accessible from the LabVIEW Instrument Driver function palette menu.

Additional Help for LabVIEW drivers

In addition, the instrument driver documentation is included in compressed HTML format (Windows CHM help file) stored together with the LabVIEW driver sources.

Each VI's help is linked to the section in the "CHM" file that describes all the features of the VI.

- **LabVIEW 6.1 and higher** an additional help topic can be accessed directly by pressing "[Click here for more help](#)" in the Context Help

LabVIEW 7.1 driver

Please use the LabVIEW 7 driver.

LabVIEW 8.2 driver

Please use the LabVIEW 8 driver.

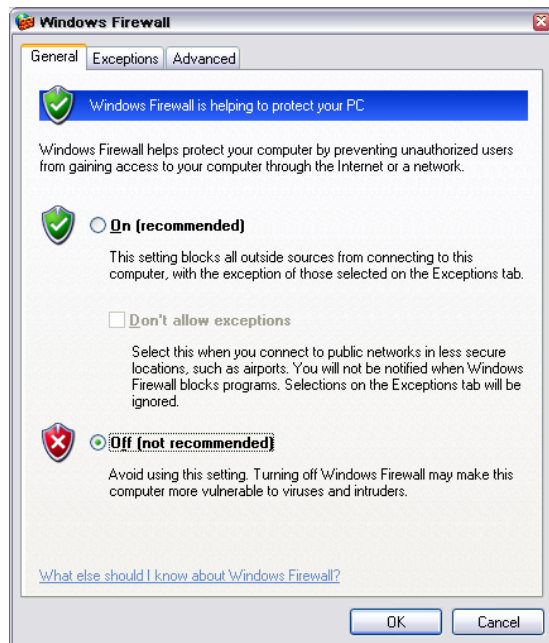
Remote control via LAN

Firewall settings for Remote Control

Important: Remote control via LAN is only possible if the firewall is **completely switched off**.

Connect a keyboard to the AFQ.

Start => Control Panel => Switch to Classic View => Windows Firewall – => Off (not recommended)



Instrument Name and IP Address

In order to connect the instrument using VXI-11 use the instrument name or the IP address.

Default Name of the Instrument

The R&S AFQ is preconfigured for networks using DHCP (dynamic host configuration protocol). In these networks, an available IP address is automatically assigned to the R&S AFQ. In this case the generator is identified via an unambiguous computer name in the network.

As **default** the name is composed of:

RSAFQ100A Serial number (on the rear panel of the instrument)

Example: RSAFQ100A100062

To find the instrument name and IP address with a keyboard connected to the instrument

Instrument name: Start => Settings =>Control Panel => System => Computer Name

IP Address: Start => Settings =>Network Connections => Local Area Connection => Support

Remote control via USB 2.0



The USB 2.0 (universal serial bus) interface of type B, hence the instrument is assigned as device, not as host. This connector may be used for remote controlling the instrument.

If VISA is installed on the computer, the driver will be automatically installed connecting the AFQ100A.

The USB keyword is used for USB interface, where
USB::<vendor Id>::<product Id>::<serial number>

<vendor Id> is 0x0AAD for Rohde&Schwarz

<product Id> is 0x004B for AFQ100A

<serial number> is Serial number (on the rear panel of the instrument). For example 100001.

Use in the init function as Resource Name USB::0x0AAD::0x004b::<serial number>::INSTR

Example:

"USB::0x0AAD::0x004B::100001::INSTR"