

# History and release notes for the Rohde&Schwarz Signal Generator R&S® SMA100A

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## SMA100A driver history

Revision	Date	Note
2.04	02/2008	Driver update for SMA100A Firmware 2.04.299  Fixed range of CSYN frequency Added functions: <ul style="list-style-type: none"> <li>rssma_SetLSLOCMDDMCoupling</li> <li>rssma_GetLSLOCMDDMCoupling</li> <li>rssma_SetLSGSMDDMCoupling</li> <li>rssma_GetLSGSMDDMCoupling</li> </ul> Removed functions: <ul style="list-style-type: none"> <li>rssma_SetCSYNPowerOutputMode</li> <li>rssma_GetCSYNPowerOutputMode</li> </ul>
2.02.2	12/2007	Driver update for SMA100A Firmware 2.02  Modifications Added range checking switching <ul style="list-style-type: none"> <li>rssma_rangeCheckState</li> </ul>
2.02.1	09/2007	Driver update for SMA100A Firmware 2.02  Modifications Modified K24 option checking in functions: <ul style="list-style-type: none"> <li>rssma_SetAMInternalSource</li> <li>rssma_configAM</li> <li>rssma_SetFMInternalDeviation</li> <li>rssma_GetFMInternalDeviation</li> <li>rssma_confFMInternal</li> <li>rssma_SetLFGenSource</li> <li>rssma_SetPMInternalDeviation</li> <li>rssma_GetPMInternalDeviation</li> <li>rssma_confPMInternal</li> </ul>
2.02.00	04/2007	Driver update for SMA100A Firmware 2.02  Modifications New Functions: <ul style="list-style-type: none"> <li>rssma_SetLFSweepSource</li> <li>rssma_GetLFSweepSource</li> <li>rssma_ConfigureVORModulation</li> <li>rssma_ConfigureVORMCOMID</li> <li>rssma_SetVORMState</li> <li>rssma_GetVORMState</li> <li>rssma_SetVORMMode</li> <li>rssma_GetVORMMode</li> <li>rssma_SetVORMBearingAngle</li> <li>rssma_GetVORMBearingAngle</li> <li>rssma_SetVORMDirection</li> <li>rssma_GetVORMDirection</li> <li>rssma_SetVORMVARREFFrequency</li> <li>rssma_GetVORMVARREFFrequency</li> <li>rssma_SetVORMVARDepth</li> <li>rssma_GetVORMVARDepth</li> <li>rssma_SetVORMSubcarrierFrequency</li> <li>rssma_GetVORMSubcarrierFrequency</li> <li>rssma_SetVORMSubcarrierDepth</li> <li>rssma_GetVORMSubcarrierDepth</li> <li>rssma_SetVORMREFDeviation</li> <li>rssma_GetVORMREFDeviation</li> <li>rssma_SetVORMToDefault</li> </ul>

## SMA100A driver history

Revision	Date	Note
		rssma_SetVORMCOMIDState rssma_GetVORMCOMIDState rssma_SetVORMCOMIDCode rssma_GetVORMCOMIDCode rssma_SetVORMCOMIDFrequency rssma_GetVORMCOMIDFrequency rssma_SetVORMCOMIDDepth rssma_GetVORMCOMIDDepth rssma_SetVORMEXTAM rssma_GetVORMEXTAM rssma_ConfigureILSGSModulation rssma_SetLSGSMState rssma_GetLSGSMState rssma_SetLSGSMMode rssma_GetLSGSMMode rssma_SetLSGSMDDMDepth rssma_GetLSGSMDDMDepth rssma_SetLSGSMDDMCurrent rssma_GetLSGSMDDMCurrent rssma_SetLSGSMDDMLogarithmic rssma_GetLSGSMDDMLogarithmic rssma_SetLSGSMFly rssma_GetLSGSMFly rssma_SetLSGSMSumOfDepth rssma_GetLSGSMSumOfDepth rssma_SetLSGSMUpFrequency rssma_GetLSGSMUpFrequency rssma_SetLSGSMDownFrequency rssma_GetLSGSMDownFrequency rssma_SetLSGSMUpDownPhase rssma_GetLSGSMUpDownPhase rssma_SetLSGSMTToDefault rssma_SetLSGSMEXTAM rssma_GetLSGSMEXTAM rssma_ConfigureLSLOCModulation rssma_ConfigureLSLOCMCOMID rssma_SetLSLOCState rssma_GetLSLOCState rssma_SetLSLOCMode rssma_GetLSLOCMode rssma_SetLSLOCDDMDepth rssma_GetLSLOCDDMDepth rssma_SetLSLOCDDMCurrent rssma_GetLSLOCDDMCurrent rssma_SetLSLOCDDMLogarithmic rssma_GetLSLOCDDMLogarithmic rssma_SetLSLOCMFly rssma_GetLSLOCMFly rssma_SetLSLOCMSumOfDepth rssma_GetLSLOCMSumOfDepth rssma_SetLSLOCMLeftFrequency rssma_GetLSLOCMLeftFrequency rssma_SetLSLOCMLRightFrequency rssma_GetLSLOCMLRightFrequency rssma_SetLSLOCMLLeftRightPhase rssma_GetLSLOCMLLeftRightPhase rssma_SetLSLOCMTToDefault rssma_SetLSLOCMCOMIDState rssma_GetLSLOCMCOMIDState

## SMA100A driver history

Revision	Date	Note
		rssma_SetLSLOCMCOMIDCode rssma_GetLSLOCMCOMIDCode rssma_SetLSLOCMCOMIDFrequency rssma_GetLSLOCMCOMIDFrequency rssma_SetLSLOCMCOMIDDepth rssma_GetLSLOCMCOMIDDepth rssma_SetLSLOCMEXTAM rssma_GetLSLOCMEXTAM rssma_ConfigureMBModulation rssma_ConfigureMBMCOMID rssma_SetMBMState rssma_GetMBMState rssma_SetMBMMarkerFrequency rssma_GetMBMMarkerFrequency rssma_SetMBMMarkerDepth rssma_GetMBMMarkerDepth rssma_SetMBMPulsedMarker rssma_GetMBMPulsedMarker rssma_SetMBMCOMIDState rssma_GetMBMCOMIDState rssma_SetMBMCOMIDCode rssma_GetMBMCOMIDCode rssma_SetMBMCOMIDFrequency rssma_GetMBMCOMIDFrequency rssma_SetMBMCOMIDDepth rssma_GetMBMCOMIDDepth rssma_SetMBMToDefault rssma_ConfigureADFMCOMID rssma_SetADFMState rssma_GetADFMState rssma_SetADFMCOMIDState rssma_GetADFMCOMIDState rssma_SetADFMCOMIDCode rssma_GetADFMCOMIDCode rssma_SetADFMCOMIDFrequency rssma_GetADFMCOMIDFrequency rssma_SetADFMCOMIDDepth rssma_GetADFMCOMIDDepth rssma_ConfigurePower rssma_PowerSensorDevice rssma_PowerSensorType rssma_PowerReadPower rssma_SetPowerUnit rssma_GetPowerUnit rssma_PowerZero rssma_SetPowerSource rssma_GetPowerSource rssma_SetPowerFrequency rssma_GetPowerFrequency rssma_PowerSensorSerialNumber rssma_SetPowerFilterLength rssma_GetPowerFilterLength rssma_SetPowerFilterMode rssma_GetPowerFilterMode rssma_GetPowerFilterLengthAuto rssma_PowerFilterSearchOnce rssma_SetLISTImportExportListMode rssma_GetLISTImportExportListMode rssma_SetLISTImportExportListFile

## SMA100A driver history

Revision	Date	Note
		rssma_GetLISTImportExportListFile rssma_ImportExportExecute rssma_SetLISTImportExportASCIIFile rssma_GetLISTImportExportASCIIFile rssma_SetLISTImportExportASCIIExtension rssma_GetLISTImportExportASCIIExtension rssma_SetLISTImportExportASCIIColumnSeparator rssma_GetLISTImportExportASCIIColumnSeparator rssma_SetLISTImportExportASCIIColumnDecimalSeparator rssma_GetLISTImportExportASCIIColumnDecimalSeparator rssma_LISTImportExportCatalog rssma_SetKeyboardLayout rssma_GetKeyboardLayout rssma_SetKeyboardLanguage rssma_GetKeyboardLanguage rssma_SetDisplayPowerSaveState rssma_GetDisplayPowerSaveState rssma_SetDisplayPowerSaveHoldoff rssma_GetDisplayPowerSaveHoldoff rssma_SetDisplayBlankMode rssma_GetDisplayBlankMode rssma_SetDisplayProportionalScale rssma_GetDisplayProportionalScale rssma_SYSTEMUSBResource rssma_GetSYSTEMBIOSVersion rssma_SetSYSTEMIdentification rssma_GetSYSTEMIdentification rssma_SetSYSTEMNetworkIPAddress rssma_GetSYSTEMNetworkIPAddress rssma_SetSYSTEMNetworkIPAddressSubnetMask rssma_GetSYSTEMNetworkIPAddressSubnetMask rssma_SetSYSTEMNetworkIPAddressGateway rssma_GetSYSTEMNetworkIPAddressGateway rssma_SetSYSTEMNetworkIPAddressMode rssma_GetSYSTEMNetworkIPAddressMode rssma_SYSTEMNetworkIPAddressExecute rssma_SetSYSTEMNetworkCommonWorkgroup rssma_GetSYSTEMNetworkCommonWorkgroup rssma_SetSYSTEMNetworkCommonDomain rssma_GetSYSTEMNetworkCommonDomain rssma_SetSYSTEMNetworkCommonHostname rssma_GetSYSTEMNetworkCommonHostname rssma_SYSTEMNetworkCommonExecute rssma_SetSYSTEMNetworkDNSAutoState rssma_GetSYSTEMNetworkDNSAutoState rssma_SetSYSTEMNetworkPreferredDNS rssma_GetSYSTEMNetworkPreferredDNS rssma_SetSYSTEMNetworkAlternateDNS rssma_GetSYSTEMNetworkAlternateDNS rssma_SetSYSTEMNetworkDNSMode rssma_GetSYSTEMNetworkDNSMode rssma_SYSTEMNetworkDNSExecute rssma_SetSYSTEMNetworkDomain rssma_GetSYSTEMNetworkDomain rssma_SetSYSTEMNetworkGateway rssma_GetSYSTEMNetworkGateway rssma_GetSYSTEMNetworkResource rssma_SetSYSTEMNetworkSubnetMask rssma_GetSYSTEMNetworkSubnetMask

## SMA100A driver history

Revision	Date	Note
		<code>rssma_SetSYSTEMNetworkWorkgroup</code> <code>rssma_GetSYSTEMNetworkWorkgroup</code> <code>rssma_SetSYSTEMNetworkPTOP</code> <code>rssma_GetSYSTEMNetworkPTOP</code> <code>rssma_GetSYSTEMNetworkMACAddress</code> <code>rssma_GetSYSTEMNetwork</code> <code>rssma_optionCheckState</code> Modified functions: <code>rssma_SetSYSTEMProtect</code> <code>rssma_defaultInstrSetup</code>
1.0	05/2006	Driver created

## LabWindows/CVI

### CVI Version

Use National Instruments LabWindows/CVI 5.5 or later.

### 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.

### VEE Version

Use VEE 6 or later.

### C#

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

The rssma.cs wrapper for C# is automatically installed in the ~\VXIIPnP\WinNT\include directory.

### Visual Basic .NET

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

The rssma.vb wrapper for .NET is automatically installed in the ~\VXIIPnP\WinNT\include directory.

See the Visual Basic .NET examples.

### 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 ~\VXIIPnP\WinNT\rssma directory.

### Additional Information

For more information regarding the VXIIPnP 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 ~\X\pnp\GWinNtr\ssma directory into your LabVIEW directory (~\LabVIEW\instr.lib\ssma\). 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 and LabVIEW 8.5 drivers

Please use the LabVIEW 8 driver.

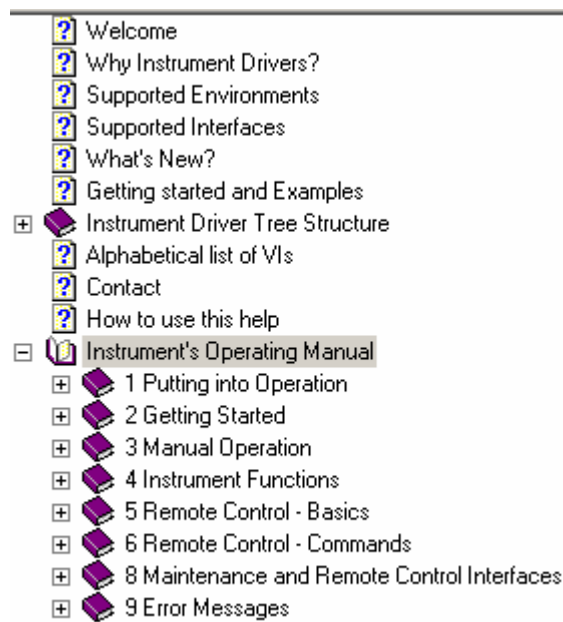


# Driver Manual and Instrument Operation Manual

The R&S SMA driver and instrument operation manual comprises a comprehensive **info** and **help system**. To merge the context-sensitive helps it is necessary to copy the "Compressed Online Help for R&S SMA100A" (rssmahelp.chm) to the folder of the driver manual (rssma.chm).

Download the Compressed Online Help for R&S SMA100A (rssmahelp.chm) from:  
[http://www.rohde-schwarz.com/product/sma100a/downloads\\_manuals.html](http://www.rohde-schwarz.com/product/sma100a/downloads_manuals.html)

After copying the driver manual contains the instrument operating manual.



## Remote control via LAN

### Instrument Name, IP Address and Resource Name

Connect the instrument via VXI-11 build the resource name using the instrument name or the IP address.

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

For more Information please see the "Compressed Online Help for R&S SMA100A" (rssmahelp.chm). Download it from:

[http://www.rohde-schwarz.com/product/sma100a/downloads\\_manuals.html](http://www.rohde-schwarz.com/product/sma100a/downloads_manuals.html)

### Using the Instrument Name as Resource Name

By **default** the instrument name is composed of: RSSMA100A <Serial number> (on the rear panel of the instrument)

Example:      Serial Number = 123456  
                 Instrument Name = RSSMA100A12345  
                 Resource Name = TCPIP::RSSMA100A123456::INSTR

### Using the IP Address as Resource Name

Example      IP Address = 192.168.1.33  
                 Resource Name = TCPIP::192.168.1.33:: INSTR