LabVIEW driver history for the R&S® RF and Microwave Analog Signal Generator

R&S®SMA100B

R&S®SMB100B

ROHDE&SCHWARZ

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Table of Contents

1 Supported Instruments

2 Revision history

Version 5.30.0 / 08 – 2024

Version 5.0.0 / 12 – 2022

Version 4.70.1 / 07 – 2021

Version 4.70.0 / 05 – 2021

Version 1.2.0 / 06 – 2019

Version 1.1.0 / 05 – 2018

Version 1.0.0 / 11 – 2017

3 Installation of the LabVIEW driver

Installation on a Windows machine

Installation on a non-Windows machine

4 Customer support

1 Supported Instruments

In the following table, the supported R&S instruments and firmware versions are listed:

Which instruments are supported?		
Instrument	**Supported Firmware**	**Remarks**
SMA100B	5.30	
SMB100B	5.30	

2 Revision history

Version 5.30.0 / 08 – 2024

* Updated for firmware 5.30
* New core 7.10.0

* New:
- Power Level Control (Class)
- System Configuration External RF (Class)
- RF Frontend (Class)
- General Settings (Class)
- Cable Correction (Class)
- Security (Class)
- HUMS (Class)
- Configure RF User Correction Reference Level.vi
- Configure Chirp Modulation Pulse Number.vi
- Configure Power Level Control State.vi
- Configure Power Level Control Sensor Select.vi
- Configure Power Level Control Peak Power.vi
- Configure Power Level Control Settings.vi
- Power Level Control Take Measurement As Target Level.vi
- Power Level Control Execute Single.vi
- Query Power SPC Warning.vi
- Configure Power Analysis Frequency Marker.vi
- Configure Power Analysis Power Marker.vi
- Configure Power Analysis Time Marker.vi
- Calibration Data Export.vi
- Configure Delayed Adjustment.vi
- Query Calibration Adjust All Delayed.vi
- Configure Calibration Logging.vi
- Configure Front Panel Numeric Keypad Layout.vi
- Configure System Time Protocol.vi
- MMEMory Remove Directory Recursive.vi
- Configure External RF Settings.vi
- External RF Connect All.vi
- External RF Connect.vi
- External RF Disconnect All.vi
- External RF Disconnect.vi
- External RF Clean All.vi
- Query External RF External Instrument List.vi

- Configure External RF Symbolic Name.vi
- Query External RF Direction.vi
- Query External RF Instrument Name.vi
- Query External RF Instrument Info.vi
- Query External RF Remote Connection Status.vi
- External RF Selected Connector Trigger Connection.vi
- Configure External RF Selected Connector Select Instrument.vi
- Query Frontend External Instrument Version And Options.vi
- Query Frontend Intermediate Frequency.vi
- Configure Frontend Cable Correction Enabled.vi
- Query Frontend Cable Correction File Catalog.vi
- Configure Frontend Cable Correction File Name.vi
- Query Frontend Recommended Frequency Range.vi
- Configure Security Sanitize.vi
- Configure Volatile Mode.vi
- Configure Security Network LAN Enabled.vi
- Configure Security LAN Services.vi
- Configure HUMS General Settings.vi
- Delete HUMS All Data.vi
- Delete HUMS History.vi
- Save HUMS Data From Instrument To File.vi
- Save HUMS History.vi
- Query HUMS Tag Catalog.vi
- Add HUMS Tag.vi
- Delete HUMS Tag.vi
- Delete All HUMS Tags.vi
- Query HUMS Tag By ID.vi
- Configure HUMS SNMP Version.vi
- Configure HUMS REST.vi
- Query HUMS REST State.vi
- Configure HUMS SNMP Admin Information.vi
- Configure HUMS SNMP Community.vi
- Add HUMS SNMP User.vi
- Delete HUMS SNMP User.vi
- Delete All HUMS SNMP Users.vi
- Query HUMS SNMP User List.vi

Version 5.0.0 / 12 – 2022

* Updated for firmware 5.00
* New core 7.4.0

* New:
- Configure RF Frequency Phase Continuity.vi
- Query RF Frequency Phase Continuity Max Min.vi
- Configure ALC External Detector.vi
- Query RF Frequency Sweep Blank Points.vi
- Configure Power Analysis Math Axis.vi
- Configure Power Analysis Source.vi

* Modified:
- Configure Clock Synthesis Output Signal.vi - range fixed at Level parameter

Version 4.70.1 / 07 – 2021

* Fixed Palettes bug
* Fixed RsSmx_rngClockSynthesisPower range to -24..+30
* New Core 7.3.0

Version 4.70.0 / 05 – 2021

* Update for firmware 4.70
* Aligned version of the driver with the version of the instrument firmware
* New Core 7.1.0

* New:
- Query RF Level Uninterrupted Range.vi
- Query RF Level Range.vi
- Query ALC Mode.vi
- Configure Chirp Modulation Enabled.vi
- Configure Chirp Modulation Settings.vi
- Query Chirp Modulation Compression Ratio.vi
- Execute Chirp Modulation Single Trigger.vi
- Configure RF Combined Sweep State.vi
- Configure RF Combined Sweep Mode.vi
- Configure RF Combined Sweep Trigger Source.vi
- Configure RF Combined Sweep Retrace.vi
- Execute RF Combined Single Sweep.vi
- Configure RF Combined Sweep Shape.vi
- Configure RF Combined Sweep Dwell Time.vi
- Configure RF Combined Sweep Frequency Start Stop.vi
- Configure RF Combined Sweep Level Start Stop.vi
- Configure RF Combined Sweep Step Count.vi
- Add Power Sensor Mapping USB Sensor.vi
- Add Power Sensor Mapping LAN Sensor.vi
- Remove Power Sensor Mapping LAN Sensors.vi
- Remove Power Sensor Mapping USB Sensors.vi
- Remove All Power Sensor Mapping Sensors.vi

* Modified:
- Configure RF Frequency Mode.vi - Parameter added
- Configure Clock Synthesis Output Signal.vi - range checking removed at Frequency parameter

Version 1.2.0 / 06 – 2019

* Update for firmware 4.60

* Added support for Avionic Standards, Power Analysis subsystems.
* New:
- Configure AM Settings.vi
- Configure AM Deviation Mode.vi
- Configure AM Depth Total.vi
- Configure FM Deviation Mode.vi
- Configure FM Deviation Total.vi
- Configure PM Deviation Mode.vi
- Configure PM Deviation Total.vi
- Trigger Pulse Generator.vi
- Configure Sweep Type.vi
- Configure RF Frequency Sweep Time.vi

- Trigger LF Frequency Sweep Auto.vi
- Query Reference Oscillator Nominal Synchronization Bandwidth.vi
- Query Reference Oscillator Minimum Locking Range.vi
- Recall Immediate.vi
- Save Immediate.vi

* Modified:

- Configure RF Level.vi - New setting characteristics

Version 1.1.0 / 05 – 2018

Modified:
- Configure ALC Enabled.vi - "Off" value added (for backward compatibility)

New attribute:

- RSSMX_ATTR_PGEN_MODE_DOUBLE (for backward compatibility)

Version 1.0.0 / 11 – 2017

Initial Release

3 Installation of the LabVIEW driver

Before you start the installer, close your LabVIEW application.

Installation on a Windows machine

The driver is distributed as WinZip self-extracting executable file. Installer supported operation systems: Win7, Win8, Win10.

Preconditions:
- LabVIEW 2015 or newer installed
- Any VISA installed – R&S VISA 5.12.3 or newer / NI VISA 18.0 or newer

When you start the driver WinZip installer, it performs the following steps:

1. Unpacking of the driver's **instr.lib** and **user.lib** directories content as well as the **Installer.vi** into a temporary folder: **`C:\temp\rssmx-lv2015-5.30.0`**
   The driver is compiled in LabVIEW 2015 64-bit. From there you can copy it to another location or run the **Installer.vi** manually later. The content of the temporary folder is not deleted after the installation is finished. Starting the same installation again will overwrite all the data in that temporary folder.

2. After unpacking, the **Installer.vi** automatically starts in the **last opened version of LabVIEW**. In case you have more than one version of LabVIEW installed on your machine, make sure that the last opened LabVIEW version is the one in which you want to install the driver. If that is not the case, cancel the installation, open and close your desired LabVIEW version and run the installer again. You can have the driver installed parallel for more LabVIEW versions by repeating the installation process for each desired version.

3. On the installer options page you can change the location of the **instr.lib** part of the driver. **user.lib** part must be placed in the default location, otherwise the Express VI configuration will not properly function.
   Hitting **Next** button will first delete the old driver (if it existed), copy the new driver and mass-compile it.

4. If you have an older rsidr_toolbox, the installer updates it to the last version.
5. The LabVIEW is closed and after starting it again, the driver is ready for use.

Installation on a non-Windows machine

In case you would like to install the driver on a non-Windows machine, use a Windows machine to start the driver's WinZip self-extracting executable file. **This machine does not need to have LabVIEW installed.**
After the **Step 1** (see the chapter 2.1), copy the content of the temporary folder to your target machine and start the **Installer.vi** manually.
From that point onwards, the installation process is the same as described in Steps 2, 3, 4 and 5.

To be able to use the driver in Linux or macOS, you need VISA. Check out R&S VISA for Linux or macOS.

4 Customer support

Technical support – where and when you need it
For quick, expert help with any Rohde & Schwarz product, contact our customer support center. A team of highly qualified engineers provides support and works with you to find a solution to your query on any aspect of the operation, programming or applications of Rohde & Schwarz products.

Contact information
Contact our customer support center at www.rohde-schwarz.com/support
or follow this QR code: