

# LabVIEW driver history for the R&S® SMA100B RF and Microwave Analog Signal Generator

## Products:

| R&S®SMA100B



| R&S®SMB100B



Driver history for LabVIEW

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# 1 Supported Instruments

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

SMA100B	4.70	
SMB100B	4.70	

## 2 Installation of the LabVIEW driver

**Before you start the installer, please close your LabVIEW application.**

### 2.1 Installation on a Windows machine

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

Preconditions:

- LabVIEW 2010 or newer installed
- Any VISA installed – R&S VISA 5.5.4 or newer / NI VISA 10.0 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-lv-4.70.0**  
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.

## 2.2 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.

## 3 LabVIEW driver history

rssmx Instrument Driver		
Driver history for LabVIEW		
Revision	Date	Note
4.70.0	05/2021	<ul style="list-style-type: none"> <li>* Update for firmware 4.70</li> <li>* Aligned version of the driver with the version of the instrument firmware</li> <li>* New Core 7.1.0</li>   <li>* New:               <ul style="list-style-type: none"> <li>- Query RF Level Uninterrupted Range.vi</li> <li>- Query RF Level Range.vi</li> <li>- Query ALC Mode.vi</li> <li>- Configure Chirp Modulation Enabled.vi</li> <li>- Configure Chirp Modulation Settings.vi</li> <li>- Query Chirp Modulation Compression Ratio.vi</li> <li>- Execute Chirp Modulation Single Trigger.vi</li> <li>- Configure RF Combined Sweep State.vi</li> <li>- Configure RF Combined Sweep Mode.vi</li> <li>- Configure RF Combined Sweep Trigger Source.vi</li> <li>- Configure RF Combined Sweep Retrace.vi</li> <li>- Execute RF Combined Single Sweep.vi</li> <li>- Configure RF Combined Sweep Shape.vi</li> <li>- Configure RF Combined Sweep Dwell Time.vi</li> <li>- Configure RF Combined Sweep Frequency Start Stop.vi</li> <li>- Configure RF Combined Sweep Level Start Stop.vi</li> <li>- Configure RF Combined Sweep Step Count.vi</li> <li>- Add Power Sensor Mapping USB Sensor.vi</li> <li>- Add Power Sensor Mapping LAN Sensor.vi</li> <li>- Remove Power Sensor Mapping LAN Sensors.vi</li> <li>- Remove Power Sensor Mapping USB Sensors.vi</li> <li>- Remove All Power Sensor Mapping Sensors.vi</li> </ul> </li>   <li>* Modified:               <ul style="list-style-type: none"> <li>- Configure RF Frequency Mode.vi - Parameter added</li> <li>- Configure Clock Synthesis Output Signal.vi - range checking removed at Frequency parameter</li> </ul> </li> </ul>
1.2.0	06/2019	<ul style="list-style-type: none"> <li>* Update for firmware 4.60</li> <li>* Added support for Avionic Standards, Power Analysis subsystems.</li> <li>* New:               <ul style="list-style-type: none"> <li>- Configure AM Settings.vi</li> <li>- Configure AM Deviation Mode.vi</li> <li>- Configure AM Depth Total.vi</li> <li>- Configure FM Deviation Mode.vi</li> </ul> </li> </ul>

rssmx Instrument Driver		
Driver history for LabVIEW		
Revision	Date	Note
		<ul style="list-style-type: none"><li>- Configure FM Deviation Total.vi</li><li>- Configure PM Deviation Mode.vi</li><li>- Configure PM Deviation Total.vi</li><li>- Trigger Pulse Generator.vi</li><li>- Configure Sweep Type.vi</li><li>- Configure RF Frequency Sweep Time.vi</li><li>- Trigger LF Frequency Sweep Auto.vi</li><li>- Query Reference Oscillator Nominal Synchronization Bandwidth.vi</li><li>- Query Reference Oscillator Minimum Locking Range.vi</li><li>- Recall Immediate.vi</li><li>- Save Immediate.vi</li></ul> <p>* Modified:</p> <ul style="list-style-type: none"><li>- Configure RF Level.vi - New setting characteristics</li></ul>
1.1.0	05/2018	<p>Modified:</p> <ul style="list-style-type: none"><li>- Configure ALC Enabled.vi - "Off" value added (for backward compatibility)</li></ul> <p>New attribute:</p> <ul style="list-style-type: none"><li>- RSSMX_ATTR_PGEN_MODE_DOUBLE (for backward compatibility)</li></ul>
1.0.0	11/2017	Initial release

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