

LabVIEW driver history for the R&S® CMX / CMP Radio Communication Testers

R&S®CMX



R&S®CMP200



R&S®CMP180



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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
CMX500	See the individual subsystems	
CMP200	See the individual subsystems	
CMP180	See the individual subsystems	

2 Revision history

2.1 RsCmpBase

Base FWA (Firmware application) with all the instrument generic functions.

2.1.1 Version 4.0.140 / 10 – 2023

* Supported CMx FW 4.0.140

* New core 7.7

* New:

- Add SIM Profile.vi
- Delete SIM Profile.vi
- Query SIM Profile Catalog.vi
- Duplicate SIM Profile.vi
- Define USIM SUCI Key Pair.vi
- Query USIM SUCI Private Key.vi
- Delete USIM SUCI Key Pair.vi
- Set USIM XOR Res Length.vi
- Query USIM XOR Res Length.vi
- Query USIM SUCI Catalog.vi
- Query Correction Table Catalog.vi
- Add Correction Table.vi
- Delete Correction Table.vi
- Delete All Correction Tables.vi
- Add Correction Table Entries.vi
- Modify Correction Table Entries.vi
- Remove Correction Table Entries.vi
- Query Correction Table Entries.vi
- Assign Correction Table To RX.vi
- Add Correction Table To RX.vi
- Remove Correction Table From RX.vi
- Query Correction Table RX.vi
- Assign Correction Table To TX.vi
- Add Correction Table To TX.vi
- Remove Correction Table From TX.vi
- Query Correction Table TX.vi
- Query DUT Catalog.vi
- Add DUT.vi
- Duplicate DUT.vi
- Delete DUT.vi
- Add DUT Connector.vi
- Delete DUT Connector.vi
- Query DUT Connector Catalog.vi
- Add DUT Connector Band.vi
- Delete DUT Connector Band.vi
- Query DUT Connector Band Catalog.vi
- Add DUT SIM Slot.vi
- Delete DUT SIM Slot.vi
- Query DUT SIM Slot Catalog.vi
- Assign DUT SIM Slot Profile.vi
- Query DUT SIM Slot Profile.vi
- Set DUT SIM Slot IMS Supported.vi

- Query DUT SIM Slot IMS Supported.vi
- Add RF Connection.vi
- Delete RF Connection.vi
- Query RF Connection Catalog.vi
- Query RF Connection Information.vi
- Set RF Connection Direction.vi
- Query RF Connection Direction.vi
- Query DUT Active.vi
- Activate DUT.vi
- Configure Active DUT Band Restrictions Enabled.vi
- Query Active DUT Band Restrictions Catalog.vi
- Set Active DUT Band Restrictions.vi
- Query Active DUT Band Restrictions.vi
- Configure Active DUT IMS Support Enabled.vi
- Query Active DUT IMS.vi
- Query Active DUT IMEI.vi
- Add Active DUT SIM Slot.vi
- Delete Active DUT SIM Slot.vi
- Query Active DUT SIM Slot Catalog.vi
- Configure Active DUT SIM Slot Profile.vi
- Add Active DUT Connector.vi
- Delete Active DUT Connector.vi
- Query Active DUT Connector Catalog.vi
- Add Active DUT Connector Band.vi
- Delete Active DUT Connector Band.vi
- Query Active DUT Connector Band Catalog.vi
- Delete Active DUT Band.vi
- Configure Active DUT Control Mode.vi
- Configure Active DUT Control IP Endpoint.vi
- Configure Active DUT Control User Prompt Timeout.vi
- Configure Active DUT Control Automation Framework.vi
- Configure Active DUT Airplane Mode Enabled.vi
- Abort Active DUT Airplane Mode Switching.vi
- Query Active DUT Airplane Mode Actions State.vi
- Start Active DUT Power Cycle.vi
- Abort Active DUT Power Cycle.vi
- Query Active DUT Power Cycle State.vi
- Perform Active DUT Audio Call Action.vi
- Abort Active DUT Audio Call Action.vi
- Query Active DUT Audio Call Action State.vi
- Abort Active DUT Video Call Action.vi
- Query Active DUT Video Call Action State.vi
- Perform Active DUT Video Call Action.vi
- Abort Active DUT SMS.vi
- Send Active DUT SMS.vi
- Query Active DUT SMS State.vi
- Activate Remote Trace.vi
- Clear Remote Trace.vi
- Configure Remote Trace Autoscroll Enabled.vi
- Configure Remote Trace Destination.vi
- Activate Remote Trace Connection List.vi
- Query Remote Trace Connection Count.vi
- Query Remote Trace Connection List Section.vi
- Configure Remote Trace Header Filter Section.vi
- Configure Remote Trace Events.vi
- Query Remote Trace Log Contents.vi
- Query Trigger Connector Catalog.vi
- Query Trigger Connector Catalog With Format.vi
- Generate Trigger Signal.vi

- Query Trigger A Source Catalog.vi
- Configure Trigger A Source.vi
- Configure Trigger A Direction.vi
- Configure Trigger A Slope.vi
- Query Trigger B Source Catalog.vi
- Configure Trigger B Source.vi
- Configure Trigger B Direction.vi
- Configure Trigger B Slope.vi
- Query Trigger C Source Catalog.vi
- Configure Trigger C Source.vi
- Configure Trigger C Slope.vi
- Query Trigger D Source Catalog.vi
- Configure Trigger D Source.vi
- Configure Trigger D Slope.vi
- Query Trigger E Source Catalog.vi
- Configure Trigger E Source.vi
- Configure Trigger E Slope.vi
- Query Event Log All Entries.vi
- Query Event Log Last Entry.vi
- Query Event Log Last Entries.vi
- Query Event Log Selected Entries.vi
- Configure System Date.vi
- Query System Date.vi
- Configure System Time.vi
- Query System Time.vi
- System Data Format.vi
- Query Ambient Temperature.vi
- Export Device Footprint.vi

2.1.2 Version 1.0.0 / 08 – 2020

- * Supported CMx FW 4.0.6
- * Initial release

2.2 RsCmXPgprf

Global Purpose RF FWA – generator and analyzer RF features.

2.2.1 Version 4.0.140 / 10 – 2023

* Supported CMx FW 4.0.140

* New core 7.7

* New:

- Query Available Signal Paths.vi
- Configure Generator Trigger.vi
- Query Generator Trigger Source Catalog.vi
- Configure Sequence Repetition Count.vi
- Query Sequence Completed Repetitions.vi
- Query Sequence Connection Available Signal Paths.vi
- Configure Sequence ARB TDD Mode.vi
- Query Sequence Status.vi
- Configure IQ Recorder Measurement Trigger Phase Change.vi
- Configure Power Measurement List TX Increment Mode.vi

* Updated:

- Configure Power Measurement Filter.vi - Bandwidth help updated
- Query Power Measurement Status.vi - Added query parameters
- Configure IQ vs Slot Measurement Filter.vi - Filter Type values updated
- Query IQ vs Slot Measurement Status.vi - Added query parameters
- Configure IQ Recorder Measurement Filter.vi - Bandwidth help updated
- Query IQ Recorder Measurement Status.vi - Added query parameters
- Query Power Sensor Status.vi - Added query parameters
- Query Capture Analyzer Measurement Status.vi - Added query parameters
- Query NRPM Measurement Status.vi - Added query parameters

* Deleted:

- Configure Sequencer Restart Marker Delay.vi
- Configure Sequencer Waveform Marker Delay.vi
- Configure Power Measurement Trigger TX Increment Timing.vi

2.2.2 Version 1.0.0 / 08 – 2020

* Supported CMx FW 4.0.6

* Initial release

2.3 RsCmpUwb

Ultra-wideband Measurement FWA for CMP200

2.3.1 Version 4.0.140 / 10 – 2023

* Supported CMx FW 4.0.140

* New core 7.7

* New:

- Configure Measurement Limit -10 dB Bandwidth.vi
- Configure Measurement PPDU Number Of PPDUs.vi
- Configure Measurement PPDU Selected Record.vi
- Query Measurement PPDU Pulse Repetition Frequency Mode.vi
- Query Measurement PPDU PSDU Bit Rate.vi
- Query Measurement PPDU STS Gap Chip.vi
- Query Measurement PPDU PHR Bit Rate.vi
- Query Measurement PPDU Mean Pulse Repetition Frequency.vi
- Read TX Modulation PPDU IQ Offset Average.vi
- Fetch TX Modulation PPDU IQ Offset Average.vi
- Read TX Modulation PPDU PHR Symbols.vi
- Fetch TX Modulation PPDU PHR Symbols.vi
- Read TX Modulation PPDU PHR Data Rate.vi
- Fetch TX Modulation PPDU PHR Data Rate.vi
- Read TX Modulation PPDU SFD.vi
- Fetch TX Modulation PPDU SFD.vi
- Read TX Modulation PPDU SFD Length.vi
- Fetch TX Modulation PPDU SFD Length.vi
- Read TX Modulation PPDU STS Content Length.vi
- Fetch TX Modulation PPDU STS Content Length.vi
- Read TX Modulation PPDU STS Content.vi
- Fetch TX Modulation PPDU STS Content.vi
- Read Transmit Spectrum -10 dB Bandwidth Frequency Results.vi
- Fetch Transmit Spectrum -10 dB Bandwidth Frequency Results.vi
- Read Transmit Spectrum -10 dB Bandwidth Spectral Power Frequency.vi
- Fetch Transmit Spectrum -10 dB Bandwidth Spectral Power Frequency.vi
- Read Trace 50MHz Spectrum Traces Y Results.vi
- Fetch Trace 50MHz Spectrum Traces Y Results.vi
- Read Trace 1MHz Spectrum Traces Y Results.vi
- Fetch Trace 1MHz Spectrum Traces Y Results.vi

2.3.2 Version 1.0.0 / 08 – 2020

* Supported CMx FW 4.0.6

* Initial release

2.4 RsCmpLRWm

Low-Rate Wireless Personal Area Network Measurement FWA.

2.4.1 Version 4.0.140 / 11 - 2023

- * Supported CMP FW 4.0.140
- * Initial release

2.5 RsCmwxpNrFr1m

New Radio Frequency Range 1 Measurement FWA.

2.5.1 4.0.140 / 12 – 2023

- * Supported CMx FW 4.0.140
- * New Core 7.9
- * Added SRS Measurement Subsystem
- * See the **rsCmwxpNrFr1m.chm** *What's new* for detailed description.

2.5.2 Version 1.0.0 / 11 - 2020

- * Initial release

2.6 RsCmwxpNrFr2m

New Radio Frequency Range 2 Measurement FWA.

2.6.1 4.0.140 / 12 – 2023

- * Supported CMx FW 4.0.140
- * New Core 7.9
- * Added PRACH Measurement Subsystem
- * See the **rsCmwxpNrFr2m.chm** *What's new* for detailed description.

2.6.2 Version 1.0.0 / 08 - 2020

- * Initial release

2.7 RsCmxpLtem

LTE Measurement FWA.

2.7.1 Version 4.0.140

- * Supported CMx FW 4.0.140
- * New core 7.8
- * See the **rsCmxpLtem.chm** *What's new* for detailed description.

2.7.2 Version 1.0.0 / 10 - 2020

- * Initial release

2.8 RsCmpBTm

Bluetooth Measurement FWA.

2.8.1 Version 4.0.185 / 01 - 2024

- * Supported CMP FW 4.0.185
- * Initial release

2.9 RsCmpINm

Narrowband IoT Measurement FWA

2.9.1 Version 4.0.185 / 01 - 2024

- * Supported CMP FW 4.0.185
- * Initial release

2.10 RsCmpWm

WCDMA Measurement FWA

2.10.1 Version 4.0.185 / 01 - 2024

- * Supported CMP FW 4.0.185
- * Initial release

2.11 RsCmpC2m

CDMA2000 Measurement FWA

* Supported CMP FW 4.0.185

* Initial release

2.12 RsCmpGm

GSM Measurement FWA

2.12.1 Version 4.0.185 / 04 - 2024

- * Supported CMP FW 4.0.185
- * Initial release

2.13 RsCmpWlm

W-LAN Measurement FWA

2.13.1 Version 4.0.185 / 04 - 2024

- * Supported CMP FW 4.0.185
- * Initial release

Installation of LabVIEW driver

Before you start the installer, close your LabVIEW application.

2.14 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, e.g. `C:\temp\rscmxbase-1v2015-4.0.140`
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.

2.15 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 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:

