

R&S®SMA100B

Service Pack Release Notes

Firmware Version 4.70.205.117 SP1

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1419.8607.00 | Version 01 | R&S®SMA100B |

The software makes use of several valuable open source software packages. For information, see the "Open Source Acknowledgment" provided with the product.

The following abbreviations are used throughout this document: R&S®SMA100B is abbreviated as R&SSMA100B



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1 Information on the current version and history

1.1 Version 4.70.205.117 SP1

Released September 2021

Firmware package contents

Contents

R&S® SMA100B Firmware Service Pack

New functionality

Functions

None

1.2 Improvements

The following tables list the improvements and indicate since which version the issue could be observed:

Improvements of 4.70.205.117 service pack 1:

Function

Single sideband phase noise improvements of the clock synthesizer R&S® SMAB-B29 of a R&S® SMA100B or a R&S® SMA100B equipped with SMAB-B1H.

This does not apply for instruments equipped with R&S® SMAB-B709, R&S® SMAB-B710(N) or R&S® SMAB-B711(N).

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If you execute adjust all, with option R&S® SMAB-B36S Super Ultra High Power, please terminate the RF output with 50 Ohm termination resistor (2watt/33dBm)

Without a termination adjust all will be automatically aborted

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1.3 Known issues

The following tables list the known issues and indicate since which version the issue could be observed:

Known issues of firmware 4.70.205.117 service pack 1:

Function

None

2 Modifications to the documentation

The current documentation is up-to-date.

3 Firmware update

3.1 Validity information

Device	Order Number
R&S® SMA100B RF and Microwave Signal Generator	1419.8888K02

3.2 Downgrade

Generally it is not recommended to use an earlier version than the latest version available. In some cases the older versions do not support the hardware used in your instrument. Before installing this firmware, check if this could happen:

- ▶ Start System Config / Setup / Instrument Assembly / Version/Options
- ▶ In the tab "Firmware", you find the

Downgrade Info:	
Package	Version
Factory Version	SMAB_4.15.
Min. Version	4.15.080.54

- ▶ If the version to be installed is greater or equal than the "Min.Version", the hardware will be supported after downgrading. (However, this cannot be guaranteed for all software options)
- ▶ If the version to be installed is lesser than the "Min.Version", not all of the modules will be supported. **Your instrument will not work after downgrading!**
- ▶ Downgrading may fail using standard rsu-Files (eg. due to changes in the instrument configuration file). In this case, press PRESET-Button during power-on or install ISO image available from service department.

3.3 Update information

The update procedure requires that the instrument is operational. There is no need to uninstall the current firmware. Instrument settings are preserved during the update, including user data and network settings.

NOTICE

To perform this procedure, USB Storage must be enabled in security settings. Press the SETUP key, select Security and check USB Storage setting

3.4 Updating the firmware

Required equipment

- Software:** Firmware update file SMAB_<version-number>.rsu
- Hardware:** USB memory stick with enough free space to save the update file (about 500 MByte).

The memory stick does not need to be bootable and previous data on the stick is not affected. Several update files may reside on the stick in parallel. During update procedure the stick is not modified by the instrument.

Prepare Memory Stick


- Download update file to a PC
- Connect USB stick to PC and copy the update file to the root directory
- Wait until copy procedure has finished and remove USB stick


Install new firmware on R&S®SMA100B:

- Connect USB stick to instrument
- Switch on instrument, if instrument is powered off
- Wait a few seconds until "Process Software Update?" message box appears. Confirm by touching the YES Button or pressing the rotary knob.
- Select firmware version using the arrow keys and press knob to start update
- Wait until "Software update successful" message box appears. This may take several minutes
- Remove USB stick and touch the Reboot button
- The instrument now reboots.

Execute internal adjustments (only if indicated)

Internal adjustments can be initiated manually (e.g. after warming up) by performing the followings steps:

- Press  on the instrument front panel.

- Press , select “Internal Adjustments...” and execute “Adjust All”. This procedure updates all internal instrument adjustments and will take several minutes.

NOTICE**Risk of DUT damage**

During internal adjustments, the instrument temporarily applies high power at the RF output. High power at the RF output may destroy a connected DUT (device under test).

Do not start internal adjustments if DUT is connected. Disconnect the DUT and replace it by a terminating resistor with adequate power rating. It is recommended to use a 50 Ω, 2W or larger terminating resistor.

Adjustments requiring external measurement equipment are not affected by the firmware update and need not to be performed

3.5 Firmware update over LAN

Instrument settings are preserved during the update, including user data and network settings.

- Get access to the file system of the instrument using ftp (other methods like samba share is also supported, see application note 1GP72 for details).
Enter `ftp://<ip address or host name>` the file manager
- Copy **SMAB_<version-number>.rsu** to directory update
- The update procedure starts immediately
- Execute internal adjustments, if indicated

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:



Bild 4-1: QR code to the Rohde & Schwarz support page