R&S®SMA100B
Release Notes

Firmware Version 5.30.132.68

ROHDE&SCHWARZ

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Contents

1 Information on the current version and history

> **NOTICE**
>
> Specified level setting times are increased by 0.2 ms with firmware version 5.30.132.xx
>
> See the data sheet, version 08.10 on the R&S®SMA100B product page:
> www.rohde-schwarz.com/brochure-datasheet/sma100b

> **NOTICE**
>
> Specified frequency setting times are increased by 0.2 ms with firmware version 5.10.121.26 and higher for instruments without high power option (R&S®SMAB-B35, R&S®SMAB-B37, R&S®SMAB-B39).
>
> Instruments with option ultra low phase noise (R&S®SMAB-B711) are increased by 0.5 ms.
>
> See the data sheet, version 07.03 on the R&S®SMA100B product page:
> www.rohde-schwarz.com/brochure-datasheet/sma100b

> **NOTICE**
>
> Specified frequency setting times for instruments with firmware version 5.00.122.23 and higher are increased by 0.2 ms. Devices with option R&S®SMAB-B711 are not affected.

1.1 Special hints for particular instruments

From serial number 102000 onwards the following options are fully supported:

R&S®SMAB-K724   High dynamic uninterrupted level sweep

R&S®SMAB-B28   Ramp sweep

R&S®SMAB-B709   Low phase noise

R&S®SMAB-K721   Scan AM

1.2   Version 5.30.132.68

Released: July 2024

New Options

None

New Functionality	
Closed loop power control (power sensor is needed in addition)	935927

Modified Functionality	
The SMA100B hard keyboard supports now only digits per default. The behavior in the dialog display/keyboard can be changed back to digits and letters	1242644

Improvements / Fixed Issues	
The SCPI command SOURce1:CORRection:CSET:DATA:FREQuency… now runs up to the maximum frequency of the SMA100B	1179560
Improved behavior E8257 emulation after *RST	1189993
Improved behavior of R&S®SMAB -K980 HUMS (Health and utilization monitoring system)	1072134
Improved support of the R&S®SZM frequency multiplier family	1217364
All options of the of R&S®SZM frequency multiplier can be read out via the R&S®SMA100B with the command :SORce1:EFRontend:OPT?	1233566
Add "USBTMC Sensor" with power sensor name is now possible	1215183
The R&S®SZM is automatically updated by the first apply und connect of this front device to microcontroller firmware version 00.04.00. This takes some seconds.	1286727

1.3   Version 5.10.121.32

Released: February 2024

New Options	
R&S®SMAB-K554 MULTIPLIER CONTROL. The R&S®SZM can be easily controlled by the R&S®SMA100B microwave signal generator via USB link. To enable control of the R&S®SZM frequency multiplier via USB, the R&S®SMAB-K554 option must be installed on the R&S®SMA100B signal generator.	900885

New Functionality	
Support of the new R&S®SZM frequency multiplier family	643983
Chirp modulation: The number of chirps is now adjustable in the "Single" and "Ext Single" trigger modes. The new parameter where this can be set is called "Number of Pulses per Trigger Event".	1218001

Improvements / Fixed Issues	
Selftest now also supports the OPU70_AF TAZ: 08.00	1217987
The error during booting when connected to a customer network (config the router's WAN in static IP address) is now solved	1228961
Chirp modulation: In trigger mode single the trigger now works in manual operation and via remote control	1179577

1.4 Version 5.10.121.26

Released: July 2023

New Options	
R&S®SMAB -K980 HUMS (Health and utilization monitoring system)	905697

New Functionality	
None	

Improvements / Fixed Issues	
R&S®SMAB-K28 Power analysis: the trace is shown before the trigger point.	981334
R&S®SMAB-K28 Power analysis: enabled for power sensors other than NRP-Z8x.	936822

R&S®SMAB-K28 Power analysis: frequency sweep starts only in RF state on.	1001093
R&S®SMAB-K28 Power analysis: title "NRP-Z Power Analysis" changed to "NRP Power Analysis" to extend scope to additional power sensor types.	949720
SENS:POW:FREQ? MIN / MAX now returns the correct value after sensor mapping has been changed.	745428
R&S®SMAB-B28 Ramp Sweep: improved stability during a long sweep time in small frequency ranges.	979987
R&S®SMAB-K703 100 MHz, 1GHz reference input and output: The reference output mode loop through can be activated.	995908
Complete support of new CPU (IPM20), including selftest.	999412
Support of selftest OPU3_AF.	1080823
Correct overload message depending on Ext1 and Ext2 input.	849401
Correct size of inserted SD card is displayed.	910717
Internal adjustments (delayed) can be configured to start automatically after warm up period and switch off the instrument after execution. Using this function, you can execute adjustments without being on-site and start measurements directly when back.	1042855
Improved internal adjustments with option super ultra high output power (R&S®SMAB-B36S).	1052488
Improved internal adjustments in the frequency range from 20 GHz to 40 GHz with option ultra high output power (R&S®SMAB-K36 or R&S®SMAB-K38 or R&S®SMAB-K40).	1086095
Emulation: N5181B: ·SOUR:ROSC:SOUR:AUTO ON is handled as SOUR:ROSC:SOUR:EXTernal. ·SOUR:ROSC:SOUR:AUTO OFF is handled as SOUR:ROSC:SOUR:INTernal.	1039392
Emulation: AF2041 unintended modifications of avionic modes.	956380

1.5   Version 5.00.122.24

Released: June 2022

Improvements / Fixed Issues	
Elimination of an occasionally incorrect working "internal adjustments" of the frequency options R&S® SMAB-B112, R&S® SMAB-B131 and R&S® SMAB-B150(N) comparer the former version 5.00.122.23	976363

1.6 Version 5.00.122.23

Released: June 2022

New Functionality	
Phase-Continuous Mode: When the phase continuous mode is activated the R&S SMAB100B output cw signal is phase continuous when changing the frequency. For specification details please refer to the corresponding chapter in the data sheet.	391711

Improvements / Fixed Issues	
RF: List Mode: first frequency step is sometimes not executed	734216
Better firmware stability during the execution of Preset	892689
SCPI: *ESR? and *STB? can not be accessed asynchronously during sensor nulling	843068
Extended SCPI command list of the AF2041 emulation	771183
Analog modulation: Overview tab can not be addressed by rotary knob	808545
Reset of Combined Sweep via SCPI command does not work	855985
Depending on the sweep range during a frequency sweep in ramp mode, it can happen that the YIG (part of option SMAB-B711) has not yet completely finalized the retrace to the start frequency. This issue has been solved.	923515
The adjustment date is only updated when the adjustment completed	870566
If RF is OFF the VSWR is constant while changing level values	889761
R&S® SMAB-B29: Differential clock synthesizer	889871

Small frequency and level changes should have no effect on the phase output of the clock synthesizer.	
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.	870009

1.7 Version 4.70.205.117

Released: August 2021

New Options

R&S® SMAB-B36S Super Ultra High Power

New Functionality

In the menu Pulse Generator the Pulse Repetition Frequency is displayed now	643983

Modified Functionality

R&S® SMAB -B28 (Ramp Sweep):

If the RF up-sweep is blank free the retrace is also blank free. The "Signal Valid" connector shows for the retrace the corresponding "not valid" signal.	867465

Improvements / Fixed Issues

Without option R&S® SMAB-K720 and when the rotary knob is operated under Modulation -> … -> "Overview" the GUI (graphical user interface) is frozen.	734216
Devices with option R&S® SMAB-B140N, R&S® SMAB-B150N and R&S® SMAB -B167N: The external pulse duration is correct now. Known issue from software version 4.70.205.75	809206
Correct output power for levels below -70 dBm and for frequencies below 100 kHz. Devices with the following options were affected:	820558

R&S® SMAB-B150(N) without R&S® SMAB-B37 (High Power)

R&S® SMAB-B167(N) without R&S® SMAB-B39 (High Power)

Improve internal level adjustment to avoid ALC unlocked	821981

Improve internal level adjustment of option R&S® SMAB-B29 (differential clock synthesizer)	866940

Known-Issues	
When the option R&S® SMAB-B36S Super Ultra High Power is installed the parameter "Step Attenuator below 20 GHz" in the RF level menu does not show an effect. The default "preset" is active.	813340
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)	

1.8 Version 4.70.205.75

Released: February 2021

New Options

R&S® SMAB-K725   New analog modulation chirp

New Functionality

R&S® SMAB-B28   Ramp Sweep is now available for all R&S® SMAB frequency options

Further instrument emulations are available. For details please refer to: https://www.rohde-schwarz.com and search for: Replacing obsolete instruments - R&S®Legacy Pro

New combined sweep mode. In addition to the frequency or level sweep a combined frequency and level sweep is now available. The number of steps determines the step size depending on the star and stop value of the frequency and level sweep settings.

Modified Functionality	

The internal adjustments does not change the latest status of the external reference outputs. Exception: in loop through mode, the latest status might change	619393

Improvements / Fixed Issues

The pulse delay works as intended	734216
Pulse train works now with large tables	643130
Fixed spike via the pulse video connector at the beginning of the pulse train in external trigger mode	514945
Improved pulse overshoot behavior between 40 GHz and maximum frequency	638342
Fixed: the displayed information "Reference locking in progress" sometimes does not disappear until rebooting the device	311646
After touching the display the mouse operation might be interfered and remote control via VNC might not work.	489231
FW long term stability issue fixed. With a R&S® SMAB-B29 clock synthesizer installed it can happen after long operation times (several weeks) that the SMA100B is somehow blocked	561470
User menus now can be saved and recalled, allowing to copy the configuration to other signal generators.	562761
The preset works now also for the delta phase	598229
Fixed: If the RF level sweep is not operated in settings characteristic "Auto", changing the level setting parameters during the sweep can lead to incorrect output levels.	533395
R&S® SMAB-K721 (SCAN AM) is now working for f > 52 MHz	610027
R&S® SMAB-K724 (High dynamic uninterrupted level sweep) is now working for f > 52 MHz	610027
The polarity of the signal valid connector can be selected. (-> System -> RF Connectors)	617463
Improve internal adjustments for SMAB-K721 and SMAB-K724 (Scan AM & High dynamic uninterrupted Level Sweep)	597717
Mechanical attenuator: correct handling of *OPC? and switching interval during RF ON / OFF	626539
Improvements of User Correction (UCOR) above 40 GHz	634396
Fixed: SMAB-K25 (ILS): [:SOURce]:MBEacon[:MARKer]:FREQuency fails in SMA100A emulation mode	636163
Harmonic Filter ON Mode works below 3.7 GHz	635432
Listmode table entries are now considering the multiplier and offset	621656
Avionic Modulation: Ext AM works now in ILS Glide Slope and ILS Localizer mode	634396
If power sensor is connected to channel 2, the Power Viewer on the signal generator is running and the power sensor is also used to fill a UCOR list with "fill with sensor" a dead lock is fixed.	729160

Known-Issues

Devices with option SMAB-B140N, SMAB-B150N, SMAB-B167N: If an external pulse generator signal is applied, the pulse duration is extended by approx. 3-5 ns

1.9 Version 4.60.112.29

Released: May 2019

New Functionality

New shape "Square" is available for LF Generator LF1 and LF2.

The square on/off ratio is always 50%.

The repetition interval can be set in the frequency dialog (below the shape menu)

Further instrument emulations are available. For details please refer to: https://www.rohde-schwarz.com and search for: Replacing obsolete instruments - R&S®Legacy Pro

Modified Functionality

LF Generator: the corresponding SCPI command for the shape "PULSE" is:	
:SOURce1:LFOutput1:SHAPe PULS	
of the previous one in former software versions was:	551638
:SOURce1:LFOutput1:SHAPe SQU	

Improvements / Fixed Issues

Avionics LOC/GS: Deviation has been corrected for single component (90Hz or 150Hz)	571505
Avionics: MOD On/Off key and led works as expected	571509
Mode Low Noise in FM Modulation works reliable	543294
FM/Phim: New settings-conflict: "frequency vs. deviation vs. modulation-mode"	231379
Stable communication between the power sensor and the signal generator. In former versions a long term communication caused a reboot of the SMA100B.	522499
Improved detection of a connected USB power sensor during a restart of the SMA100B	513538 368316
Power Analysis - Timing mode 'High Precision' is removed	547616
Sweep and List-Mode will be switched off in case of considerable overrun conditions.	456033
LF Output: A new value "Load Impedance" in certain emulations.	542234

Fixed issue: NRP18S-20 connected to SMA100B shows wrong read out	544249
The stability of the software has been increased	528345
Quick changes of a numeric parameter may cause the SMA100B to reboot	528236
Fixed issue: Switching bandwidth of the main synthesizer (Main PLL Bandwidth) works as expected	537152

Known-Issues

If RF-Sweep is running and the RF Level Setting Characteristics isn't set to 'Auto', changes on RF level parameters may lead to wrong output power. It is recommended to make first all level settings before the level sweep is started	512700

1.10 Version 4.50.090.24

Released: December 2018

New Options

R&S® SMAB-K25	Signal Generation for VOR and ILS
R&S® SMAB-K724	High dynamic uninterrupted level sweep
R&S® SMAB-K28	Power Analysis

New Functionality

More instrument emulations are available. Please have a look at: https://www.rohde-schwarz.com and search for: Replacing obsolete instruments - R&S®Legacy Pro

Modified Functionality

Execution of internal adjustments only in case a 50 Ohm resistor is connected to the RF output.	471984

Improvements / Fixed Issues

Short dwell times can now be set, even in case a power sensor is connected.	441643
Unify the dwell times in sweep and listmode (1ms to 100s)	455790
Last Full Adjustment dialog is only updated when the complete adjustment has passed successfully	481890
Switching the external keyboard language does not affect the front panel buttons anymore	488651
RF Frequency: Setting range of frequency multipliers allows now negative values.	507979
Fixed file manager can crash during create new directory	508530

Improve the resolution of FM deviation	415794
Pulse modulation related issues of the Aeroflex 2032 emulation fixed	469010

Known-Issues	
"Mod On" is missing on the home screen when an avionic standard together with pulse modulation is activated	512700

1.11 Version 4.30.040.33

Released: July 2018

New Options	
R&S® SMAB-B28	Ramp Sweep
R&S® SMAB-B709	Low Phase Noise
R&S® SMAB-K721	Scan AM

New Functionality
More instrument emulations are available. Please have a look at: https://www.rohde-schwarz.com and search for: Replacing obsolete instruments - R&S®Legacy Pro
New Trigger Mode "Single" in the pulse generator menu

Modified Functionality	
LF Output supports the combination of two paths (LFGen1 + LFGen2)	366247

Improvements / Fixed Issues	
AM Modulation Depth of channel 2 was not taken into account.	321925
Improved SMA100A Emulation regarding LFGen and FM behavior	329215 / 413094
In some cases, ALC unlocked was briefly displayed when the frequency setting changed.	397376
In Attenuator Mode Fixed, RF On/Off works as designed	435332

Selftest (*TST?) did not work with active remote emulation	356882
Under seldom circumstances, legacy commands for pre-SCPI R&S generators might fail.	316728
Pulse Train handles properly zero pulses at the end of the train	302264
Now toggle Pulse Output State has no side effect on pulse modulation	313943
Noise Generator works as designed	333601
Improved file manager and the function help export	343476
Correct harmonic filter setting over 3.7 GHz	388458
Improved FM modulations between 8 MHz und 350 MHz	401563
Save / Recall with Listmode state On works now	423465
SYSTem:HELP:SYNTax:ALL? take effect	358389
Fixed issue "Device Key missing" during stared up of the device	409387
Clk Syn Output can't be switched off if mode SquareDiff is selected	449038

Known-Issues	
Info "Reference locking in progress" sometimes does not disappear till reboot of device	311646
The option SMAB-B28 comes with the BNC connectors: V/GHZ X-Axis; Z-Axis; Stop; Marker User1 These connectors work only in Rampsweep mode.	450286

1.12 Version 4.15.080.54

Released: December 2017

Attention

If you install firmware 4.15.080.54, it is recommended to update the PCI device COM-FPGA under [Setup/Maintenance/FPGA µC Update].

► You must execute this update, because the SMA100B **will not work without upgrading!**

► After upgrade the PCI device COM-FPGA, **the downgrade to an earlier firmware version is no more possible!**

New Functionality

More Remote emulations are available (AF2042(ADF)). Please have a look at: https://www.rohde-schwarz.com and search for: Replacing obsolete instruments - R&S®Legacy Pro

New Trigger Mode "Single" in the pulse generator menu

Modified Functionality

None

Improvements / Fixed Issues

Power sensor: correct setting of average filter depending on sensor type	312938
LAN power sensor: improve behavior of rescans	321178
LAN power sensor: reducing start up time of SMA100B, in case a mapped LAN sensor is not available	336109
FM Modulation deviations: 12.5 MHz, 25 MHz, 50 MHz, 100 MHz	323129
Display correct attenuator level range	327497
Correct behavior of attenuator mode "Fixed"	337497
Zeroing of NRP-Zxx power sensors	334454
The paste button in the file manager is active, so it is possible to copy-paste files to a USB stick.	343476
Pulse generator at mode "Ext Single": now the "Pulse Delay" take affect	356189
Pulse generator at mode "Ext Triggered": now the "Pulse Delay" worked as expected	356189
RF Level Blanking is avoided for level settings characteristics Uninterrupted	327520
Reduced blanking for small frequency changes	374451
User Correction "Fill With Sensor" can be executed	375567/334 452
Selftest is now also available, if an instrument emulation is active	345897

Known-Issues

Info "Reference locking in progress" sometimes does not disappear till reboot of device	311646

| Harmonic Filter mode "Auto" in RF Level Settings without effect | 388458 |

1.13   Version 4.15.010.12

Released: May 2017

New Options

| R&S® SMAB-B112 | Frequency Range: 8 kHz to 12,75 GHz |
| R&S® SMAB-B120 | Frequency Range: 8 kHz to 20 GHz |

New Functionality

Support of new power sensors (R&S®NRPxxS/SN, R&S®NRP18S-xx, R&S®NRPxxT/TN, R&S®NRPxxA/AN,)

User Correction

Sanitizing of user data and instrument settings

Emulation of SMA100A / SMF100A (SCPI compatibility)

Modified Functionality

None

Improvements / Fixed Issues

Improved FM LowNoise-Modulation for devices without R&S® SMAB-B711, R&S® SMAB-B711N

No RF signal after power on	319849, 314078
Accurate dwell time during sweep	309641

Known-Issues

| LAN power sensor: Restart of SMA100B necessary after multiple rescans | 321178 |

Info "Reference locking in progress" sometimes does not disappear till reboot of device	311646

1.14 Version 4.00.050.12

Released: April 2017

Firmware package contents

Contents
R&S® SMA100B Firmware

New Functionality

Functions
Initial firmware version for R&S® SMA100B
R&S® SMAB-B1H: OCXO with high performance
R&S® SMAB-B29: Differential clock synthesizer
R&S® SMAB-B32: Ultra high output power 3 / 6 GHz
R&S® SMAB-B85: Removable mass memory
R&S® SMAB-B86: Remote control GPIB / USB
R&S® SMAB-B92: Height unit 2 HU
R&S® SMAB-B93: Height unit 3 HU
R&S® SMAB-B103: Frequency Range: 8 kHz to 3 GHz
R&S® SMAB-B106: Frequency Range: 8 kHz to 6 GHz
R&S® SMAB-B710(N): Improved close in phase noise
R&S® SMAB-B711(N): Ultra low phase noise
R&S® SMAB-K22: Pulse modulator
R&S® SMAB-K23: Pulse generator
R&S® SMAB-K24: Multi function generator
R&S® SMAB-K27: Pulse train
R&S® SMAB-K31: High output power 3 / 6 GHz
R&S® SMAB-K703: 100 MHz, 1 GHz reference input / output
R&S® SMAB-K704: Flexible reference input from 1 MHz to 100 MHz
R&S® SMAB-K720: AM / FM / PhiM
R&S® SMAB-K722: Differential clock synthesizer extension up to 6 GHz

Modified Functionality

Functions

None

Improvements

Improvements

None

Known Issues

Known-Issues

User Correction does not work.

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 200 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 **PRESET** on the instrument front panel.
- Press **SETUP**, 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, 10W or larger terminating resistor.

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

3.5 Alternative update procedures

The USB firmware update is recommended for most situations. However, alternative methods for updating the firmware are available:

3.5.1 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> he file manager
● Copy **SMAB_<version-number>.rsu** to directory update
● The update procedure starts immediately
● Execute internal adjustments, if indicated

3.5.2 Firmware update using ISO image

> **NOTICE**
>
> ## Potential loss of data!
>
> User data and user specific instrument settings will be lost during this procedure. Instrument serial number, software license keys and all adjustments requiring external measuring equipment are not affected.

Required equipment

Software:

- ISO image for firmware update **SMAB_<version-number>.iso**
  Please contact the service department to get this file!

Hardware:

- **External** USB CD or DVD ROM burner with USB cable.
- 1 CD Recordable.
- PC with burn program that can burn ISO images onto CD.

About ISO image

This is a standardized file format for creating CD images. A CD image is a single file encapsulating the whole data of a CD including directories and files. Unpacking the image to a CD restores the original data. Almost any CD burning program is able to write CDs based on ISO images.

Update procedure

Burn ISO image onto a CD

On most computers, burning an ISO image can be initiated by simply double clicking the ISO image file. If this is not the case, the manual procedure is similar to the following instructions. Nero Burning ROM (StartSmart) is used in this example.

- Connect the external USB CD/DVD drive to the PC
- Insert a recordable CD
- Start Nero StartSmart
- Select medium „CD"
- Select „Create Data CD"
- From the **Files menu**, open file **SMAB_<version-number>.iso**
- Click "Burn"

● When finished, close Nero and disconnect external USB CD/DVD drive

Install new firmware on R&S®SMA100B

● Instrument must be switched off
● Connect the external USB CD/DVD drive to the R&S®SMA100B
● Switch on Instrument
● The instrument boots from external drive
● Follow the instructions on screen
● Disconnect the external USB device
● Reboot instrument
● Execute internal adjustments, if indicated

NOTICE

If the CD refuses to boot please ensure that you have burned the ISO-image as an "image" and not as a single file. Check the CD regarding presence of several files.

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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