R&S®TSMAx Autonomous Mobile Network Scanner Release Notes



4900800502 Version 17



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Version 04.05.00.08

1 Information on the current version and history



Variants: R&S TSMA6, R&S TSMA6B

All described procedures in these release notes are valid for these variants. In this case, the general term "TSMAx" is used. For different procedures, the specific variant is mentioned explicitly.

1.1 Version 04.05.00.11

New features

n.a

Improvement

n.a

Solved problems

Version	Contents
04.05.00.11	R&S TSMAx SmartONE setup incomplete due to missing .NET 4.8 installation
04.05.00.11	Timeout for R&S SmartONE mode switches increased
TSMAx-EDGE-Setup	
04.02.02.02	Missing EDGE browser desktop icon

Known issues

n.a

1.2 Version 04.05.00.08

Version	Contents
04.05.00.08	Sleep mode for remote management access in power down mode
04.05.00.08	Extended R&S TSMA6B web-GUI features to archive and restore a Debian installation

Version 04.04.00.04

Improvement

Version	Contents
04.05.00.08	Blocked firmware setup on R&S TSMA devices
04.05.00.08	Revised watchdog disable feature in the web-GUI
04.05.00.08	Updated online help
04.05.00.08	Status registers of batteries are outputted in the firmware log file via new command in the web-GUI
04.05.00.08	Extended firmware log file entries
04.05.00.08	Firmware log file is accessible from the web-GUI
04.05.00.08	Removal of the obsolete R&S License Key Manager tool

Solved problems

Version	Contents
04.05.00.08	Repower with connected battery pack unit sometimes not possible after batteries were set to shipping mode due to low charge
04.05.00.08	Firmware service crashes with latest Windows updates
04.05.00.08	Wrong registry key in "SmartMonitor" mode
04.05.00.08	Corrupted file system when recovering master images with a Debian installation
04.05.00.08	WLAN access point select box in the web-GUI sometimes with no entries for a client connection

Known issues

n.a

1.3 Version 04.04.00.04

Version	Contents
04.04.00.04	Support of R&S TSPC-U2L2 USB2LAN adapter
04.04.00.04	Enable/disable hardware watchdog via web-GUI
04.04.00.04	List CPU board type in the web-GUI "Overview" page
04.04.00.04	Switch batteries into shipping mode when reaching critical charge (< 3 %)
04.04.00.04	Firmware must no longer be installed on the R&S TSMA (product reached end of firmware support)

Version 04.03.00.12

Improvement

Version	Contents
04.04.00.04	Update .NET to v6.0
04.04.00.04	Update License Server Manager to v2.5.01660
04.04.00.04	Update R&S TSME Tools to v1.8.0.1
04.04.00.04	Update scanner interface DLLs to v49.40
04.04.00.04	Add "Windows Update" select box in the web-GUI
04.04.00.04	Increase number of firmware log files (20 log files)

Solved problems

Version	Contents
04.04.00.04	Start R&S NESTOR monitoring workspace via web-GUI not possible
04.04.00.04	IPv4 protocol sometimes unselected in network adapter settings
04.04.00.04	Windows cold start via "Power On" button does not work as expected
04.04.00.04	Keep charging LEDs on when device is powered down and battery pack is connected to external DC
04.04.00.04	Unpower DC AUX output on battery pack unit when R&S TSMA6x is switched off (Ticket 407745)
04.04.00.04	Restart via SCPI command freezes display

Known issues

Version	Contents
04.04.00.04	Restore of an R&S TSMA6B user backup fails if the captured image contains a Debian installation
04.04.00.04	Restore of a captured R&S TSMA6B image fails with R&S TSMAB image stick v1.00 if it contains a Debian installation

1.4 Version 04.03.00.12

Version	Contents
04.03.00.12	web-GUI: WLAN settings configurable (band, mode)
04.03.00.12	web-GUI: shows installed TSMx Windows driver update

Version 04.02.02.02

Version	Contents
04.03.00.12	Utilities: Windows driver update (includes driver for GNSS receiver LS2303x-UDG) and security package for R&S TSMA6 and R&S TSMA6B https://www.rohde-schwarz.com/firmware/tsma6/ https://www.rohde-schwarz.com/firmware/tsma6b/
04.03.00.12	Utilities: TSMA6B Image Stick v01.00 (https://www.rohde-schwarz.com/software/tsma6b/)

Improvements

Version	Contents
04.03.00.12	Selected "Mode of operation" (SmartONE Standard/Expert/QualiPoc) will be reselected after R&S SmartONE setup is finished
04.03.00.12	Execution of the R&S TSMAx-SmartONE-Setup from version 22.0 is limited to R&S TSMA6 and R&S TSMA6B platforms
04.03.00.12	web-GUI: NESTOR mode with selectable "Autostart"
04.03.00.12	Extended entries in firmware log file (C:\ProgramData\Rohde-Schwarz\TSMA*.log)
04.03.00.12	Updated online help (v10 with R&S TSMA6B, v03 with R&S TSMA6B)

Solved problems

Version	Contents
04.03.00.12	R&S NESTOR probe mode does not work via TSMA WLAN AP (RTC 917243)
04.03.00.12	Power off in scanner mode
04.03.00.12	Memory leak in firmware service
04.03.00.12	R&S TSMA6x device state indication via "Mode" LED
04.03.00.12	The R&S TSMA6x battery pack LEDs are sometimes on after power down

Known issues

n.a

1.5 Version 04.02.02.02

New features

n.a

Version 04.01.00.04

Improvements

Version	Contents	
04.02.02.02	Update online help TSMA6, TSMA6B	
04.02.02.02	User/factory restore with the option to delete the data partition D: /	
04.02.02.02	Password confirmation required when changing WLAN key and Windows user password	
04.02.02.02	TSMAx EDGE browser version is displayed in the web-GUI	
04.02.02.02	SmartONE setup runs independent of PC Mode	
TSMAx-EDGE	TSMAx-EDGE-Setup	
04.02.02.01	Installs EDGE browser as default	
04.02.02.01	EDGE version 93.01.961.38	

Solved problems

Version	Contents
04.02.02.02	Limitation of displayed license keys in the web-GUI
04.02.02.02	Restart of "SmartONE" mode in the web-GUI via "Submit" button after application was closed
04.02.02.02	Rear panel LED indication aligned with firmware update status
04.02.02.02	Updated driver signature for PSoC MCU driver
04.02.02.02	Restart after HW watchdog assert
04.02.02.02	Commanding SmartONE Expert mode "IP-Controlled" in the web-GUI

Known issues

n.a

1.6 Version 04.01.00.04

Version	Contents
04.01.00.04	New measurement mode "Smart Monitor"
TSMAx-EDGE-Setup	
04.01.00.05	Dedicated TSMA6/B setup for Microsoft EDGE browser

Version 04.00.14.05

Improvements

Version	Contents
04.01.00.04	Improved synchronization between "SmartBenchmarker" / "ROMES" launcher and measurement mode selection in the TSMAx web-GUI
04.01.00.04	"Flow Control" for TSMA6B scanner LAN ports disabled to achieve maximum data throughput
04.01.00.04	OSA document update to v03
04.01.00.04	Show paired Bluetooth devices in the web-GUI

Solved problems

Version	Contents
04.01.00.04	Web-GUI upload / download folder mix-up
04.01.00.04	Missing RemoteViCom.apk in download folder
04.01.00.04	Sporadic IP address mix-up of internal and external scanner port
04.01.00.04	Interface-DLL does not report controller and RF board temperature

Known issues

n.a

1.7 Version 04.00.14.05

New features

Version	Contents
04.00.14.05	TSMA6B support

Improvements

Version	Contents
04.00.14.05	Microcontroller flash with device restart
04.00.14.05	More detailed error log file
04.00.14.05	TSMA6 online help updated to v08
04.00.14.05	Disclaimer added

Solved problems

Version	Contents
04.00.14.05	Bugfix HW watchdog/freezing (Defect 800077)
04.00.14.05	Bugfix TSMA recovery (Defect 822641)
04.00.14.05	Bugfix IP address conflict (Defect 836789)
04.00.14.05	Bugfix Hang-up with locked scanner access (Defect 768170)
04.00.14.05	Bugfix Power management topics (Defect 783225)
04.00.14.05	Bugfix LAN adapter settings (Defect 783230)
04.00.14.05	Scanner database update (available options TSMA6-K50, TSMA6-K51 were not displayed) (Defect 797434, CTS Ticket 797028)

Known issues

n.a

1.8 Version 04.00.09.04

New features

Version	Contents
04.00.09.04	Web-GUI & firmware integration of "Smart Benchmarker" / "ROMES Expert" mode (679652)
04.00.09.04	TSMAx firmware migration as a 64-bit process (652378)

Improvements

Version	Contents
04.00.09.04	Update R&S SmartCard Service to v1.3.7.0 (710446)
04.00.09.04	Update R&S LicenseServer to v1.19.2 (763346)
04.00.09.04	Glitch detection for remote shut-down command (735495)
04.00.09.04	TSMA6 Online Help updated to v07 (689654)
04.00.09.04	R&S TSME Device Manager utility removed from firmware setup – a dedicated setup is available from R&S internet (https://www.rohde-schwarz.com/software/tsma/) (699751)
04.00.09.04	Firmware data log file (783261)
04.00.09.04	Improved scanner access method and application launch during start-up (783238)
04.00.09.04	Virtual Memory enabled per default (660418)

Version 03.07.03.02

Solved problems

Version	Contents
04.00.09.04	User-specific WLAN client IP address settings are set to default after restart (677841)
04.00.09.04	Boot problems with connected WiBu USB dongle (767411)
04.00.09.04	LAN adapter settings sometimes mixed or have wrong IP address after power-up - especially for the external UsbToLAN adapters TSPC-U2L / TSPC-U2L2 (783230)

Known issues

n.a

1.9 Version 03.07.03.02

New features

Version	Contents
03.07.03.02	Change password feature added to web-GUI (647173)

Improvements

Version	Contents
03.07.03.02	Restart via web-GUI triggers a power cycle on the output ports AUX 1/2 of the Battery Pack Unit (632077)
03.07.03.02	Low battery power off is triggered with at least one battery falling below 5 % charge. (650756)
03.07.03.02	File upload size increased to 2 GB via web-GUI (667793)
03.07.03.02	Update Online Help v6 (663713)
03.07.03.02	Update .NET Framework v4.8 (644116)

Solved problems

Version	Contents
03.07.03.02	NESTOR license keys not detected after device startup (651490)
03.07.03.02	Blocked Remote Desktop access in ROMES / NESTOR mode (652421)
03.07.03.02	WLAN access point blocked when mobile phone OnePlus 7 is connected (653070)
03.07.03.02	Stability / USB enumeration issues of Mainboard controller (PSoC) (672447)

Version 03.05.01.05

Known issues

n.a

1.10 Version 03.06.02.01

New features

n.a

Improvements

Version	Contents
03.06.02.01	TSMA – LAN port driver update (394933)

Solved problems

Version	Contents
03.06.02.01	Firmware flash procedure for micro-controller is sometimes started (577735)
03.06.02.01	TSMA6-BP (battery pack unit) - auxiliary power out is not switched off after power down (626415)
03.06.02.01	TSMA6 - sporadically powers on when battery pack unit is connected with DC power (649082)
03.06.02.01	WLAN off/on cycle via rear panel slider does not start access point again (613383)
03.06.02.01	TSMA - reduced fan speed due to wrong temperature read out (638228)

Known issues

n.a

1.11 Version 03.05.01.05

Version	Contents
03.05.01.05	web-GUI: added TSME30DC info tab (522546)
03.05.01.05	web-GUI: NESTOR licenses are displayed and can be installed (489866)

Version 03.04.01.04

Improvements

Version	Contents
03.05.01.05	Updated TSME Tools v1.6.0.2
03.05.01.05	Updated TSMA6 Online Help v04

Solved problems

Version	Contents
03.05.01.05	web-GUI: file transfer / set default file path does not work (590601)
03.05.01.05	web-GUI: LAN port IP address configuration was sometimes not stored in LAN adapter settings (589168)
03.05.01.05	TSMA - missing shutdown indication via "Mode" LED (596839)
03.05.01.05	TSMA - scanner only mode not possible (596839)

Known issues

n.a

1.12 Version 03.04.01.04

New features

Version	Contents
03.04.01.04	Support of connected R&S TSME6 in Auto-IP mode when SCAN port is configured to receive IP address automatically (576003)
03.04.01.04	Battery info of the Freerider 3 / 4 environment in the web-GUI and Windows tray icon (511743)
03.04.01.04	Support for NESTOR license key management (installation & query) in the web-GUI for R&S TSMA6 (SD Card) (489866)

Improvements

Version	Contents
03.04.01.04	Extended Device Footprint info including installed Windows patches / C:\ProgramData\Rohde-Schwarz\TSMA\SoftwareData.xml (514184)
03.04.01.04	Default power setting – "Auto Power On" (575793)

Version 03.03.01.03

Solved problems

Version	Contents
03.04.01.04	Wrong IP address for the WLAN access point in the web-GUI (571706)
03.04.01.04	Scanner access error during power-on / selftest is not indicated via "Mode" LED (535474)
03.04.01.04	Web-GUI displays invalid IP addresses when LAN cable is removed (580280)
03.04.01.04	LAN port IP settings in the web-GUI are sometimes not displayed correctly when configuration was changed (573505)

Known issues

n.a

1.13 Version 03.03.01.03

New features

n.a.

Improvements

Version	Contents
03.03.01.03	Generate Software Device Footprint (514184)
03.03.01.03	Enables 802.11n/ac mode (530267)
03.03.01.03	Update TSMA6 Online Help v03 (561965)

Solved problems

Version	Contents
03.03.01.03	Sporadic auto-power on when switched off and powered from TSMAx-BP (543921)
03.03.01.03	Power On / Selftest 'Mode' LED indication (532166)
03.03.01.03	User IP settings of LAN adapters are kept after firmware setup (571744)
03.03.01.03	Local installation fails on TSMA (583467)
03.03.01.03	Web-GUI shows ghost LAN adapter USB LAN 3 on TSMA (547615)
03.03.01.03	Wrong LAN adapter names on web-GUI overview page (554227)

Known issues

n.a

Version 03.00.11.00

1.14 Version 03.01.01.04

New features

Version	Contents
03.01.01.04	WLAN switch disables WLAN & Bluetooth module (519103)
03.01.01.04	Extended selftest and selftest result file (542753)

Improvements

Version	Contents
03.01.01.04	Extended LAN configuration features in the web-GUI – "SCAN" port set to receive IP address automatically (295872)
03.01.01.04	Updated Online Help (560374)
03.01.01.04	Updated TsmeTools v1.6.0.0 (560374)

Solved problems

Version	Contents
03.01.01.04	Auto Power Off / delay time overwritten (538845)
03.01.01.04	Power on fails when battery pack is reconnected after previous power off (542695)
03.01.01.04	Wrong registry key for ROMES remote control (556449)

Known issues

Version	Contents
03.01.01.04	Sporadic power on cycles when switched off and "Auto Power On" is enabled in power settings (557375)

1.15 Version 03.00.11.00

Version	Contents
03.00.11.00	R&S TSMA supported / one common firmware R&S TSMA / R&S TSMA6 (431129)
03.00.11.00	ROMES support (from v18.3)
03.00.11.00	QualipocProbe support (from v18.3)

Version 03.00.11.00

Improvements

Ve	rsion	Contents
03.	.00.11.00	OSA document update, OSA V2.0 (491523)

Solved problems

Version	Contents
03.00.11.00	WLAN AP not ended if activated for remote firmware installation via WLAN (528763)
03.00.11.00	Failed microcontroller flash – hang up in boot loader mode – missing PSoC device in Windows Device Manager – TSMAx could not be switched off via "Pwr" button (477236)
03.00.11.00	Restore indication via LED now with correct color (491624)
03.00.11.00	Failed selftest / scanner interface blocked when WLAN switch is in "Off" position (519096)
03.00.11.00	Blocked scanner interface is detected (494456)
03.00.11.00	HW watchdog assert triggers restart and not a shut-down (499006)
03.00.11.00	Remote ViCom server could not start due to missing VS17 redist / solved with Remote ViCom setup v16.25(47662)

Known issues

Version	Contents
03.00.11.00	NESTOR licenses could not be installed and verified in the web-GUI (489866)
03.00.11.00	rViCom ≤ v16.25 / rViCom server could not be accessed via WLAN connection (476632)
03.00.11.00	R&S TSMA6: A firmware upgrade from version 02.22.00.03 is not possible via WLAN. Choose a different way for upgrade (local, USB stick, reps. remote installation via LAN) (528763)
03.00.11.00	TSMA6 cannot be switched on (autopower on enabled) when a battery pack unit is connected, which has previously been shut down (542695)

Version 03.00.10.02

1.16 Version 03.00.10.02

New features

Version	Contents
03.00.10.02	R&S TSMA supported / one common firmware R&S TSMA / R&S TSMA6 (431129)
03.00.10.02	ROMES support (from v18.3)
03.00.10.02	QualipocProbe support (from v18.3)

Improvements

Version	Contents
03.00.10.02	OSA document update, OSA V2.0 (491523)

Solved problems

Version	Contents
03.00.10.02	WLAN AP not ended if activated for remote firmware installation via WLAN (528763)
03.00.10.02	Restore indication via LED now with correct color (491624)
03.00.10.02	Failed selftest / scanner interface blocked when WLAN switch is in "Off" position (519096)
03.00.10.02	Blocked scanner interface is detected (494456)
03.00.10.02	HW watchdog assert triggers restart and not a shut-down (499006)
03.00.10.02	Remote ViCom server could not start due to missing VS17 redist / solved with Remote ViCom setup v16.25(47662)

Known issues

Version	Contents
03.00.10.02	NESTOR licenses could not be installed and verified in the web-GUI (489866)
03.00.10.02	rViCom ≤ v16.25 / rViCom server could not be accessed via WLAN connection (476632)
03.00.10.02	R&S TSMA6: A firmware upgrade from version 02.22.00.03 is not possible via WLAN. Choose a different way for upgrade (local, USB stick, reps. remote installation via LAN)

Preparing installation

1.17 **Version 02.22.03.00 (initial version)**

New features

Version	Contents
02.22.03.00	Initial R&S TSMA6 release
02.22.03.00	Support of R&S NESTOR starting from version v2.7.0
02.22.03.00	Support of R&S ViCom starting from version v16.20
02.22.03.00	User-specific configuration of WLAN SSID & key via web-GUI
02.22.03.00	Revised R&S TSMA Web-GUI

Improvements

n.a.

Solved problems

n.a.

Known issues

Version	Contents
02.22.03.00	Firmware set up not applicable for R&S TSMA
02.22.03.00	rViCom Server – WLAN connection not supported yet
02.22.03.00	R&S NESTOR options cannot be installed and read-out via the web-GUI
02.22.03.00	The restore procedure is indicated by green blinking MODE LED (not blue).

2 Firmware update

After a firmware update, the following tools may still need to be updated.

- TSME tools
- Microsoft EDGE browser

2.1 Preparing installation

Firmware update packages for the R&S TSMAx can be downloaded from the Rohde & Schwarz web page https://www.rohde-schwarz.com/us/firmware/tsmx/.

Executing setup

The firmware setup file can be found under the title R&S®TSMAx Firmware ww.xx.yy.zz.

There are several ways how to upgrade R&S TSMAx firmware / software. Select the preferred way.



ONLY FOR R&S TSMA: Connection between scanner unit and internal PC unit



- 1 = SCAN Link connector (CPU port)
- 2 = SCAN Link connector (Scanner Port)
- 3 = SCAN Link interconnection cable

Connect the SCAN ports of scanner and PC unit of the R&S TSMA. Use only the LAN interconnection cable (R&S No. 5016.1890.00) for connecting the SCAN ports.

2.2 Executing setup

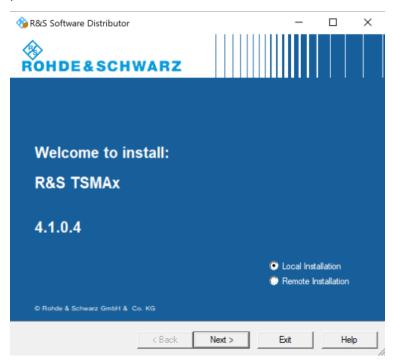
2.2.1 Local execution of the setup file

The local setup is executed from a remote PC and useful, if you have the device at your own workplace. Mouse, monitor and keyboard must be connected to the device directly. A LAN or WLAN connection must be established between the R&S TSMAx and the remote PC.

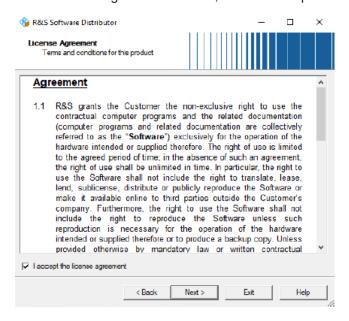
- 1. Connect mouse and keyboard to USB ports and a monitor to the HDMI port. The setup file must be available on the R&S TSMAx or on a USB stick.
- 2. Switch on the R&S TSMAx via the power button.
- 3. Copy the setup file for firmware/software/EDGE/TsmeTools (.zip or .exe) into a temporary directory on the R&S TSMAx.
- 4. Check that the R&S TSMAx is in "PC Mode", see Chapter 2.4, "Checking mode of operation", on page 34.

Executing setup

- 5. Open the Windows Explorer and execute the setup file TSMAx-Setup-<Version>.exe.
- 6. The "R&S Software Distributor" window comes up. Select "Local Installation" and press "Next".



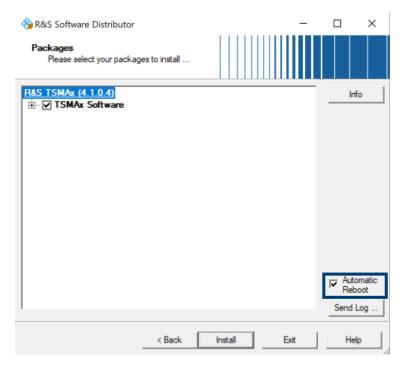
7. In the License Agreement window, check "I accept the license agreement".



- 8. Click "Next>".
- The package dialog lists all the available packages in the setup. Normally, this dialog can be skipped without any changes.

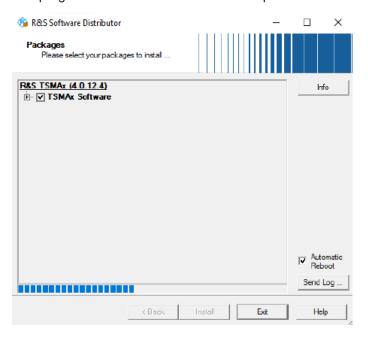
Executing setup

Select "Automatic Reboot".



10. Press "Install>" to start setup.

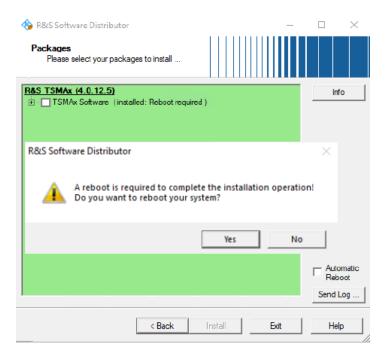
The progress bar indicates the installation process.



Note: Do not switch off or unplug from power while running firmware/software update.

11. The device will automatically reboot after the installation is complete. If the automatic reboot is not activated, reboot the device manually.

Executing setup



- 12. If the firmware package contains a new mainboard firmware, a separate flash routine is started in a post process, see Chapter 2.2.4, "Firmware updated mainboard flash", on page 32.
- 13. Reload the web GUI and verify the displayed firmware/software version in the "Overview" menu. The installed version needs to be indicated
- 14. The firmware update is completed successfully and the device is ready for operation when:
 - TSMA6/TSMA6B: Mode LED = green resp. blue (depends on the state of the WLAN access point)
 - TSMA: WLAN On = amber, WLAN Off = green
- 15. To configure the required measurement mode, see Chapter 2.4, "Checking mode of operation", on page 34.

2.2.2 Remote execution of the setup file

The remote setup is the preferred way, if the device is not accessible on site or if multiple TSMAx devices are to be updated simultaneously.

- 1. Copy the setup file (firmware TSMAx-Setup-<Version>.exe or software) into a temporary directory on the remote PC.
- Establish a LAN respectively WLAN connection between the remote PC and the R&S TSMAx. Make sure the R&S TSMAx is switched on and the "Mode of Operation" is "PC Mode", see Chapter 2.4, "Checking mode of operation", on page 34.

Executing setup

a) Using LAN connection

• Connect the LAN port (R&S TSMAx) with the host PC LAN port.

TSMA: The LAN port is marked with "LAN".

TSMA6/TSMA6B: The LAN port is marked with the LAN symbol.



The default IP setting of this port is "DHCP client". For details on how to configure the remote PC, contact your network administrator.

b) Using WLAN connection

- For R&S TSMA6/TSMA6B, the WLAN/Bluetooth switch must be "On".
- On the remote PC, search for the TSMAx WLAN and connect to the network. You find the parameters for the TSMAx WLAN access on a label at the bottom of the device.

WLAN SSID:

– TSMA

TSMA-<xxxxxx> with xxxxxx as individual serial number

– TSMA6

TSMA6-<xxxxxx> with xxxxxx as individual serial number

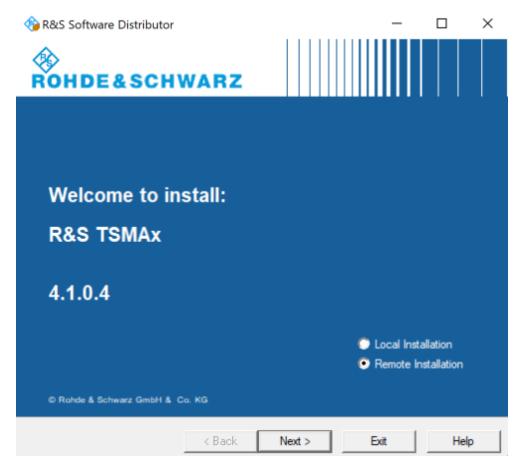
TSMA6B

TSMA6B-<xxxxxx> with xxxxxx as individual serial number

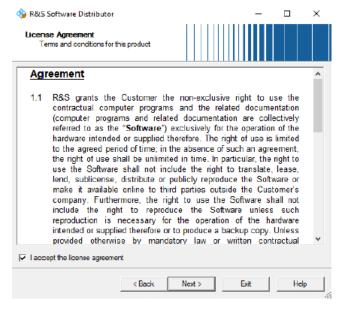
WLAN key: instrument (default)

3. Execute the firmware/software setup file on the connected remote PC. The "R&S Software Distributor" dialog box is coming up

Executing setup



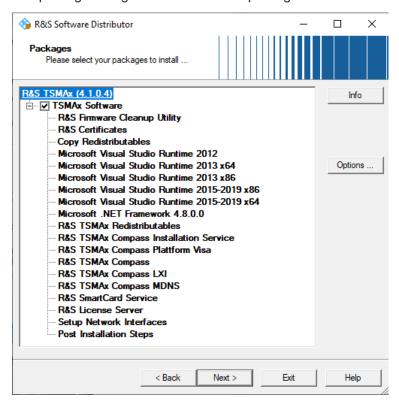
- 4. Select "Remote Installation" and click "Next>".
- 5. In the License Agreement window, check "I accept the license agreement".



6. Select "Next>".

Executing setup

7. The package dialog list all the available packages to install.

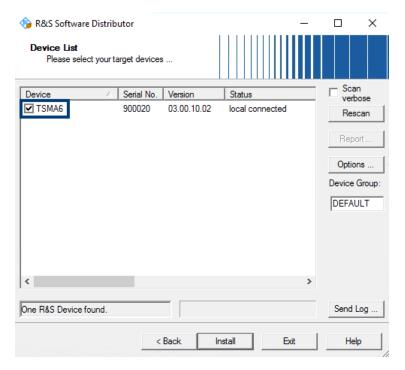


All packages, which you need to install are already pre-selected.

- 8. Click "Next>".
- 9. After a while, all R&S TSMAx devices in the network are listed in the "Device List" dialog.

Devices are only listed, if the device is in "PC Mode" (see Chapter 2.4, "Checking mode of operation", on page 34). Tick one or more devices to update. If the column "Serial No." is not filled, move the mouse pointer over the listed items to get related device information.

Executing setup



10. Click "Install".

Note: Do not switch off or unplug from power while running firmware/software update.

11. The state of the installation process is displayed in the "Status" column. The process is finished when the status indicates "Ready, see report for details!".

Note: If you are connected via WLAN, a reconnect to the TSMAx WLAN access point may be necessary as the TSMAx reboots after the firmware/software update.

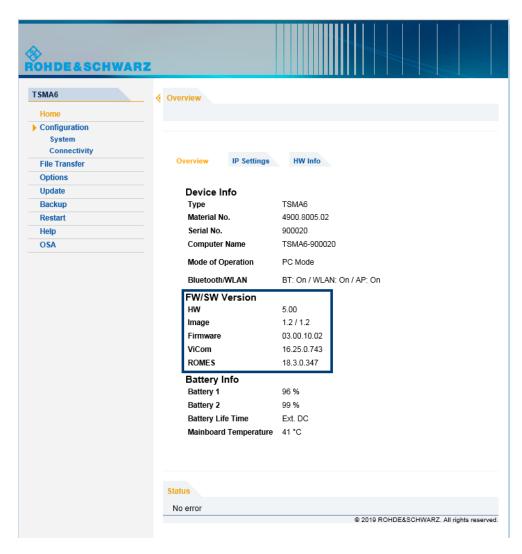
- 12. Press "Exit" to end the setup program on the remote PC.
- 13. Only for firmware update.

If the firmware package contains a new mainboard firmware, a separate flash routine is started in a post process, see Chapter 2.2.4, "Firmware updated - mainboard flash", on page 32.

Note: If you are connected via WLAN, a reconnect to the TSMAx WLAN access point may be necessary as the TSMAx reboots after the mainboard flash.

14. Reload the R&S TSMAx web GUI (see Chapter 2.3, "Calling R&S TSMAx web-GUI", on page 33) and verify the installed firmware /software version in the "Over-view".

Executing setup



- 15. The firmware/software update is completed successfully and the device is ready for operation when the firmware / software is listed correctly in the "Overview" page of the TSMAx web-GUI.
- 16. To configure the required measurement mode, see Chapter 2.4, "Checking mode of operation", on page 34.

2.2.3 Installation using a USB stick

The setup is initiated via the web GUI of the R&S TSMAx. In this case, the setup file must be available in the root directory of a USB stick, which is connected to the R&S TSMAx. To initiate the setup, usually a tablet or handheld device is used, which is connected via LAN or WLAN with the R&S TSMAx

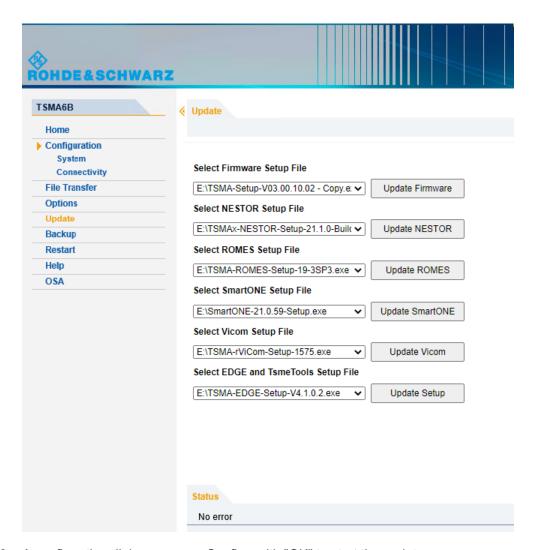
- 1. Connect mouse, keyboard to the USB ports and a monitor.
- 2. Switch on the R&S TSMAx via power button.

Executing setup

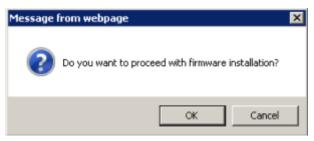
- 3. Copy the setup file onto the root directory of a USB memory stick.
 - a) For firmware installation: Copy the firmware setup file TSMAx-Setup-<Version>.exe.
 - b) For software installation: Copy the corresponding software setup file.
- 4. Open the R&S TSMAx web GUI (see Chapter 2.3, "Calling R&S TSMAx web-GUI", on page 33).
- Make sure, that the "Mode of Operation" is "PC Mode". Otherwise switch the device to "PC Mode" (see Chapter 2.4, "Checking mode of operation", on page 34).
- 6. In the R&S TSMAx web GUI, navigate to the menu "Update".
- 7. Select the appropriate setup file from one of the combo boxes.
 - Firmware: "Select Firmware Setup File"
 - Software/Tools: Select the corresponding software box.
- 8. Press "Update Firmware/Software" next to the select box.

 The "Update" buttons are only active, if a valid setup file is available on the USB stick and the device is in "PC Mode".

Executing setup



9. A confirmation dialog appears. Confirm with "OK" to start the update.



10. The firmware/software installation starts. The status text in the web GUI displays "Installation in progress...".



TSMA: The STATE LED starts blinking blue.

TSMA6/TSMA6B: The Mode LED starts blinking blue.

Executing setup

Note: Do not switch off or unplug from power while running firmware/software update.

11. When the installation of all firmware/software packages has finished, the R&S TSMAx reboots.

The Mode LED changes to blinking green (selftest).

Note: If you are connected via WLAN, a reconnect to the TSMAx WLAN access point may be necessary.

12. Open the web GUI. After a while, the status text in the web GUI changes to No error.

The reboot is finished when the Mode LED changes into steady blue (WLAN AP On) or green (WLAN AP Off) color.

13. **Only** for firmware installation.

If the firmware package contains a new mainboard firmware, a separate flash routine is started in a post process, see Chapter 2.2.4, "Firmware updated - mainboard flash", on page 32.

Note: If you are connected via WLAN, a reconnect to the TSMAx WLAN access point may be necessary as the TSMAx reboots after the mainboard flash.

14. Reload the R&S TSMAx web GUI (see Chapter 2.3, "Calling R&S TSMAx web-GUI", on page 33) and verify the installed firmware /software version in the "Over-view".

Executing setup



15. The device is ready for operation when the firmware/software is listed correctly and the TSMAx is in the "Ready" state.

TSMA6/TSMA6B: Mode LED = green resp. blue (depends on the state of the WLAN access point)

TSMA: STATE LED = amber resp. green (depends on the state of the WLAN access point)

16. To configure the required measurement mode, see Chapter 2.4, "Checking mode of operation", on page 34.

2.2.4 Firmware updated - mainboard flash

The following steps are only performed, if the firmware package contains a newer mainboard firmware.

1. About one minute after the operating system is up again, the flash of the mainboard firmware starts.

Calling R&S TSMAx web-GUI

The following dialog appears on the R&S TSMAx device:

NOTE: The dialog is only visible for local installation procedure.

```
■ "Bootloader_GULexe" /file TSMAMainBoardCtr.cyacd / name TSMA /ini flashtool.ini — □ X

Application for flashing PSoC devices

Bootload Device TSMA.

Flash firmwarefile TSMAMainBoardCtr.cyacd.

Please note that this can take a few minutes!

Started Flashing device at 08:23:51...

....Flashing device TSMA was successful.
```

The mainboard flash is indicated via rear panel LEDs like following:

- TSMA6/TSMA6B
 - Meas LED = green / red
 - Mode LED = green / blue
- TSMA
 - PWR LED = blue
 - STATE LED = white

The internal fans are switched to full speed.

- 2. After the flash of the mainboard firmware, the device reboots.
- Proceed with the selected firmware/software update procedure as described in the chapters Chapter 2.2.1, "Local execution of the setup file", on page 20, Chapter 2.2.2, "Remote execution of the setup file", on page 23 and Chapter 2.2.3, "Installation using a USB stick", on page 28.

2.3 Calling R&S TSMAx web-GUI

The R&S TSMAx web-GUI has to be loaded prior to executing firmware / software setup.

- Remote from a WLAN connected device
 Start the web browser and enter the following URL:
 - TSMA: http://192.168.1.10
 - TSMA6/TSMA6B: http://192.168.137.1
- Remote from a LAN connected device

Enter the URL http://TSMAx-xxxxxx.local into the browser.

TSMAx-xxxxxx = R&S TSMAx host name

This information can be found on a label at the bottom.

Local

Open the web browser (Microsoft EDGE or Internet Explorer). The web GUI starts automatically. If not, enter the URL http://localhost into the browser.

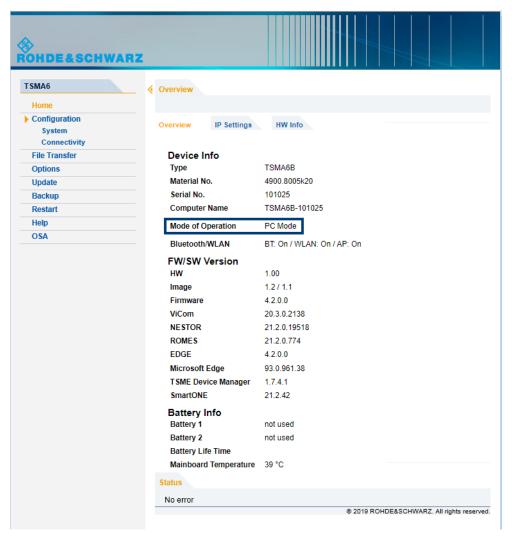
Checking mode of operation

2.4 Checking mode of operation

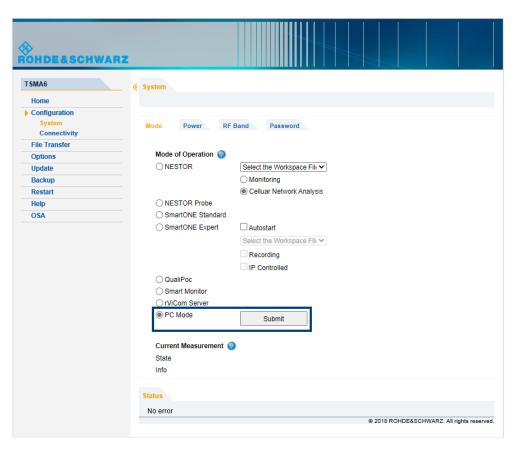


To execute the setup on the R&S TSMAx, make sure that the mode of operation is **not** in one of the following modes.

- "rVicom server"
- "NESTOR"
- 1. The mode of operation is displayed in the "Overview" page. If the mode is already "PC Mode", you can skip this section.



2. If "rVicom server" or "NESTOR" mode is activated, navigate to "Configuration" > "System" > "Mode", select the "PC Mode" and press the "Submit" button.



Reload the web GUI after changing the mode, and ensure that the "Mode of Operation" is "PC Mode".

3 R&S TSME Tools installation

The R&S TSME Tools are used for diagnostics and maintenance purposes of the TSMAx devices. It is recommended to always install the latest version on the devices.



For the R&S TSME Tools installation on the TSMAx devices, use only the R&S Distributor version TSMAx-TsmeTools-<version>.exe.

Example: TSMAx-TsmeTools-v1.7.4.1.exe (current version).

3.1 Preparation

- 1. Download the R&S TSME Tools setup file TSMAx-TsmeTools-<version>.exe from the following source.
 - TSMA: https://www.rohde-schwarz.com/software/tsma/

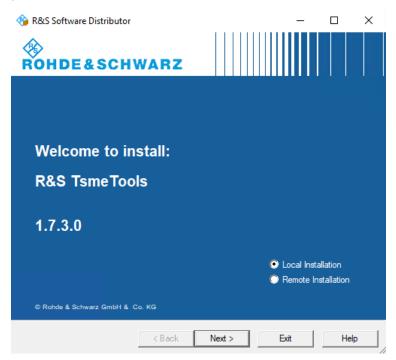
R&S TSME Tools local installation

- TSMA6/TSMA6B: https://www.rohde-schwarz.com/software/tsma6/
- 2. Choose the way of installation and follow the instructions how to update the R&S TSME Tools.

3.2 R&S TSME Tools local installation

Follow the general instructions in Chapter 2.2.1, "Local execution of the setup file", on page 20, step 1 to step 4.

- 1. Open the Windows Explorer and execute the setup file TSMAx-TsmeTools-<version>.exe.
- 2. The "R&S Software Distributor" window comes up. Select "Local Installation" and press "Next".



3. All subsequent steps are similar to local firmware installation, see Chapter 2.2.1, "Local execution of the setup file", on page 20, step 7 and following.



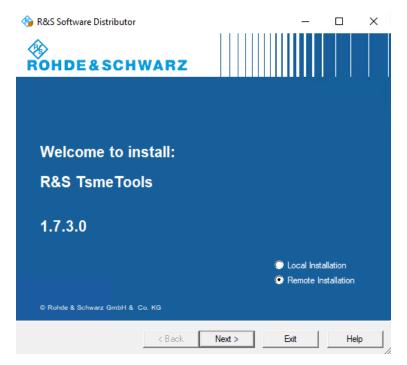
Do not switch off or unplug from power while running firmware/software update.

R&S TSME Tools installation using a USB stick

3.3 R&S TSME Tools remote installation

Follow the general instructions in Chapter 2.2.2, "Remote execution of the setup file", on page 23, step 1 to step 2.

- 1. Execute the setup file TSMAx-TsmeTools-<version>.exe on the remote PC.
- 2. The "R&S Software Distributor" comes up. Select "Remote Installation" and press "Next >".

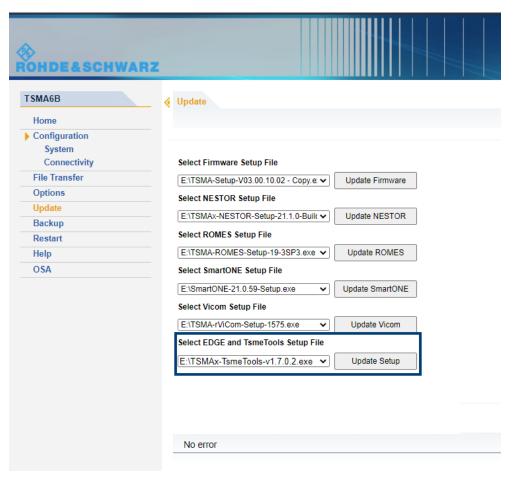


3. All subsequent steps are similar to remote firmware installation, see Chapter 2.2.2, "Remote execution of the setup file", on page 23, step 4 and following.

3.4 R&S TSME Tools installation using a USB stick

Follow the general instructions in Chapter 2.2.3, "Installation using a USB stick", on page 28, step 1 to step 6.

1. Select the appropriate R&S TSME Tools setup file TSMAx-TsmeTools-<version>.exe and press the button next to the select box.



2. The following steps are similar to the installation using a USB stick, see Chapter 2.2.3, "Installation using a USB stick", on page 28, step 9 and following.

4 Microsoft EDGE browser installation



Starting with firmware version 4.1.0.4 there is also a Microsoft EDGE browser installation available only for R&S TSMA6/TSMA6B. (Not suitable for R&S TSMA.)

Starting with firmware version 4.1.0.4 there is also a Microsoft EDGE browser installation available for R&S TSMA6/TSMA6B (**not** usable for R&S TSMA).

The Microsoft EDGE browser replaces the former used Internet Explorer for the TSMAx web-GUI as the Internet Explorer is no longer supported by Microsoft. It also brings a better compatibility with the web-based tools R&S SmartBenchmarker and R&S SmartAnalytics as the Internet Explorer is incompatible with these products.

Microsoft EDGE browser local installation



For the Microsoft EDGE browser installation on the R&S TSMA6/TSMA6B use the dedicated TSMAx EDGE setup. TSMAx-EDGE-Setup-<version>.zip.

Example: TSMAx-EDGE-Setup-V4.1.0.5.zip (current version).

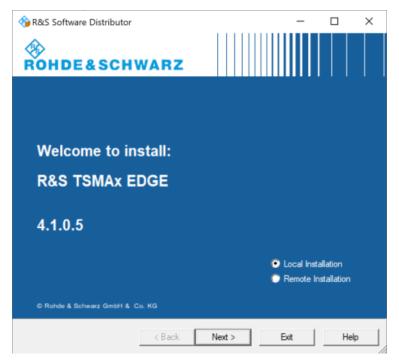
4.1 Preparation

- Download the Microsoft EDGE browser setup file
 TSMAx-EDGE-Setup-<version>.zip from https://www.rohde-schwarz.com/
 software/tsma6b/.
- 2. Choose the way of installation and follow the instructions how to update the browser.

4.2 Microsoft EDGE browser local installation

Follow the general instructions in Chapter 2.2.1, "Local execution of the setup file", on page 20, step 1 to step 4.

- 1. Open the Windows Explorer and execute the setup file TSMAx-EDGE-Setup-<version>.exe.
- The "R&S Software Distributor" window comes up. Select "Local Installation" and press "Next".



Microsoft EDGE browser installation using a USB stick

3. All subsequent steps are similar to local firmware installation, see Chapter 2.2.1, "Local execution of the setup file", on page 20, step 7 and following.

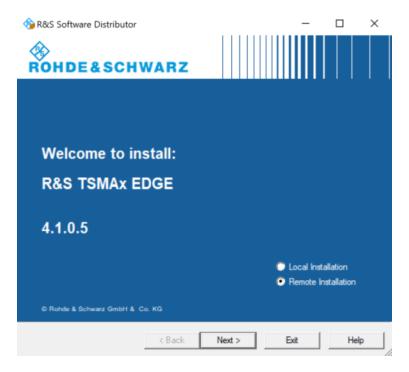


Do not switch off or unplug from power while running firmware/software update.

4.3 Microsoft EDGE browser remote installation

Follow the general instructions in Chapter 2.2.2, "Remote execution of the setup file", on page 23, step 1 to step 2.

- 1. Execute the setup file TSMAx-EDGE-Setup-<version>.exe on the remote PC.
- The "R&S Software Distributor" comes up. Select "Remote Installation" and press "Next >".

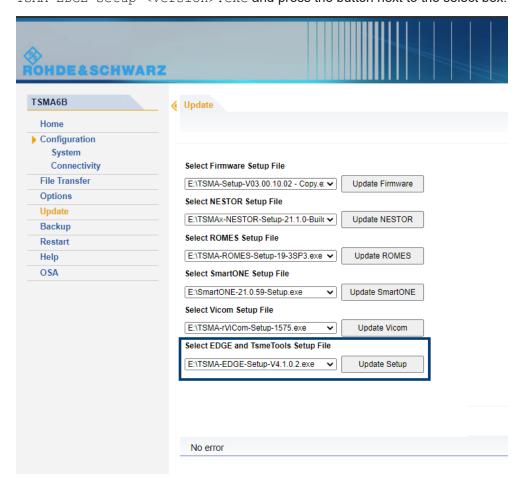


3. All subsequent steps are similar to remote firmware installation, see Chapter 2.2.2, "Remote execution of the setup file", on page 23, step 4 and following.

4.4 Microsoft EDGE browser installation using a USB stick

Follow the general instructions in Chapter 2.2.3, "Installation using a USB stick", on page 28, step 1 to step 6.

1. Select the appropriate Microsoft EDGE setup file TSMA-EDGE-Setup-<Version>.exe and press the button next to the select box.



2. The following steps are similar to the installation using a USB stick, see Chapter 2.2.3, "Installation using a USB stick", on page 28, step 9 and following.

5 Software installation



Make sure, that the latest firmware is installed on the device before you start with the installation of software packages.



For software installations (NESTOR, SmartOne, ViCom), use only the TSMAx-specific setup files (TSMAx-<AppName>-|<version>-setup.exe).

Remote ViCom server software

5.1 Remote ViCom server software

The Remote ViCom server (rViCom) is an additional software package for the R&S TSMAx.



An upgrade of the Remote ViCom package is only recommended when operating the R&S TSMAx in "rViCom Server" mode.

The update of the Remote ViCom package installation could be neglected for other modes of operation (NESTOR, ROMES, QualiPoc).



The installed version of the Remote ViCom server on the R&S TSMAx needs to match with the applied version of rViCom client API on the remote Android device.

In cases of a client / server mismatch, there are the following possibilities:

- Downgrade the rViCom server version on the R&S TSMAx to match with the applied rViCom client version on the Android device.
- Upgrade the rViCom client version on the connected tablet / smartphone to comply with the installed rViCom server version on the R&S TSMAx.

5.1.1 Preparation

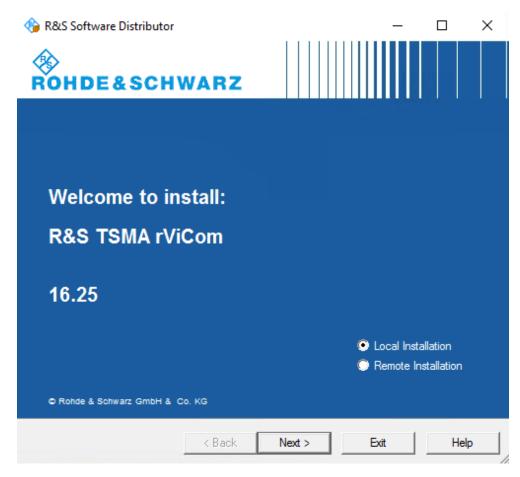
- 1. To get the setup file TSMAx-rViCom-Setup-<Version>.exe, contact the R&S customer support.
- 2. Choose the way of installation and follow the instructions how to prepare.

5.1.2 ViCom server local installation

Follow the general instructions in Chapter 2.2.1, "Local execution of the setup file", on page 20, step 1 to step 4.

- 1. Open the Windows Explorer and execute the setup file TSMAx-rViCom-Setup-<Version>.exe.
- 2. The "R&S Software Distributor" window comes up. Select "Local Installation" and press "Next".

Remote ViCom server software



3. All subsequent steps are similar to local firmware installation, see Chapter 2.2.1, "Local execution of the setup file", on page 20, step 7 and following.



Do not switch off or unplug from power while running firmware/software update.

5.1.3 ViCom server remote installation

Follow the general instructions in Chapter 2.2.2, "Remote execution of the setup file", on page 23, step 1 to step 2.

- 1. Execute the setup file TSMAx-rViCom-Setup-<Version>.exe on the remote PC.
- 2. The "R&S Software Distributor" comes up. Select "Remote Installation" and press "Next >".

Remote ViCom server software



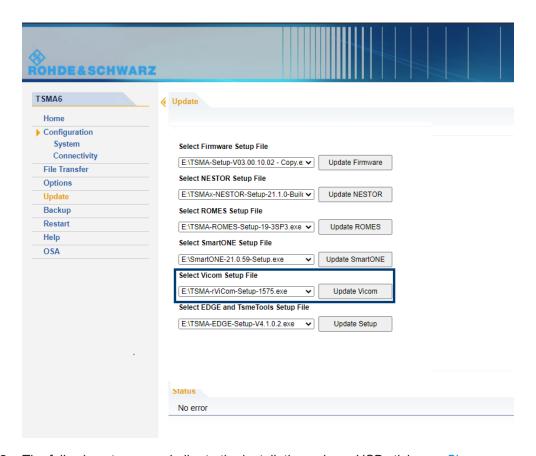
3. All subsequent steps are similar to remote firmware installation, see Chapter 2.2.2, "Remote execution of the setup file", on page 23, step 4 and following.

5.1.4 ViCom server installation using a USB stick

Follow the general instructions in Chapter 2.2.3, "Installation using a USB stick", on page 28, step 1 to step 6.

- 1. Select the appropriate setup file TSMAx-rViCom-Setup-<Version>.exe and press the button next to the select box.
 - Firmware version 01.xx.yy.zz: "Execute Setup"
 - Firmware version from 02.xx.yy.zz: "Update Vicom"

R&S NESTOR software



The following steps are similar to the installation using a USB stick, see Chapter 2.2.3, "Installation using a USB stick", on page 28, step 8 to step 11.

5.2 R&S NESTOR software



Only execute the dedicated NESTOR setup for R&S TSMAx. The setup file is named TSMAx NESTOR Setup-<Version>.exe.

5.2.1 Preparation

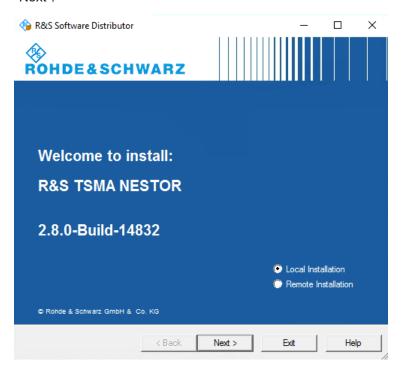
- 1. Download the software setup file TSMAx_NESTOR_Setup-<Version>.exe from the Rohde & Schwarz FTP server respectively NESTOR CD-ROM.
- 2. Choose the way of installation and follow the instructions how to prepare.

R&S NESTOR software

5.2.2 NESTOR local installation

Follow the general instructions in Chapter 2.2.1, "Local execution of the setup file", on page 20, step 1 to step 4.

- 1. Open the Windows Explorer and execute the NESTOR setup file TSMAx NESTOR Setup-<Version>.exe.
- The "R&S Software Distributor" comes up. Select "Local Installation" and press "Next".



3. All subsequent steps are similar to local firmware installation, see Chapter 2.2.1, "Local execution of the setup file", on page 20, step 7 and following.



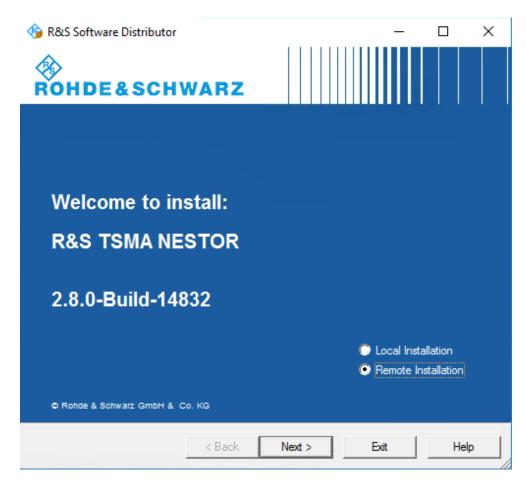
Do not switch off or unplug from power while running firmware/software update.

5.2.3 **NESTOR** remote installation

Follow the general instructions in Chapter 2.2.2, "Remote execution of the setup file", on page 23, step 1 to step 2.

- 1. Execute the setup file TSMAx_NESTOR_Setup-<Version>.exe on the remote PC.
- 2. The "R&S Software Distributor" comes up. Select "Remote Installation" and press "Next >".

R&S NESTOR software



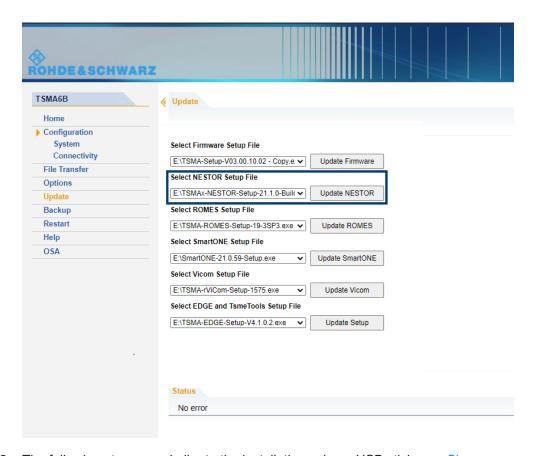
3. All subsequent steps are similar to remote firmware installation, see Chapter 2.2.2, "Remote execution of the setup file", on page 23, step 4 and following.

5.2.4 NESTOR installation using a USB stick

Follow the general instructions in Chapter 2.2.3, "Installation using a USB stick", on page 28, step 1 to step 6.

Select the appropriate NESTOR setup file
 TSMAx_NESTOR_Setup-<Version>.exe and press the button next to the select
 box.

R&S SmartONE setup (SmartBenchmarker, ROMES, QualiPoc)



The following steps are similar to the installation using a USB stick, see Chapter 2.2.3, "Installation using a USB stick", on page 28, step 8 to step 11.

5.3 R&S SmartONE setup (SmartBenchmarker, ROMES, QualiPoc)



It is recommended to install and use the Microsoft EDGE™ browser with R&S SmartONE.



The setup file is named TSMAx-SmartONE_x.y.z.exe (example: TSMAx-SmartONE_20.3.35.exe).

The R&S SmartONE installation contains the following applications.

- R&S SmartBenchmarker
- R&S ROMES
- R&S QualiPoc
- R&S SmartMonitor

R&S SmartONE setup (SmartBenchmarker, ROMES, QualiPoc)

5.3.1 Preparation

- 1. Download the SmartONE setup file TSMAx-SmartONE_x.y.z.exe from the Rohde & Schwarz FTP server respectively SmartONE CD-ROM.
- 2. Choose the way of installation and follow the instructions how to prepare.

5.3.2 SmartONE local installation

Follow the general instructions in Chapter 2.2.1, "Local execution of the setup file", on page 20, step 1 to step 4.

- 1. Open the Windows Explorer and execute the SmartONE setup file TSMAx-SmartONE x.y.z.exe.
- 2. The "R&S Software Distributor" comes up. Select "Local Installation" and press "Next".



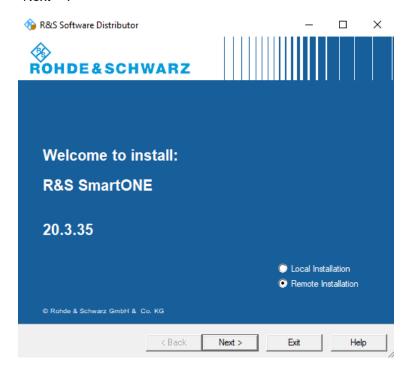
3. All subsequent steps are similar to local firmware installation, see Chapter 2.2.1, "Local execution of the setup file", on page 20, step 7 and following.

5.3.3 SmartONE remote installation

Follow the general instructions in Chapter 2.2.2, "Remote execution of the setup file", on page 23, step 1 to step 2.

R&S SmartONE setup (SmartBenchmarker, ROMES, QualiPoc)

- 1. Execute the SmartONE setup file TSMAx-SmartONE_x.y.z.exe on the remote PC.
- 2. The "R&S Software Distributor" comes up. Select "Remote Installation" and press "Next >".



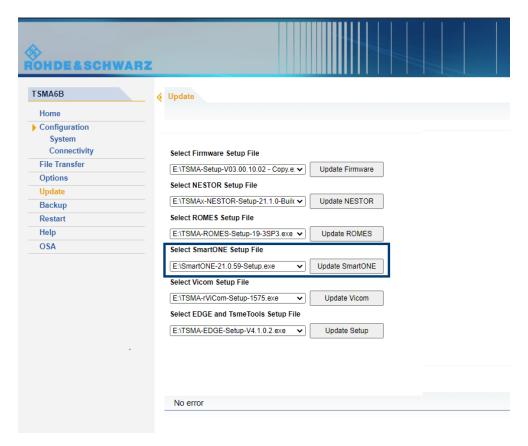
3. All subsequent steps are similar to remote firmware installation, see Chapter 2.2.2, "Remote execution of the setup file", on page 23, step 4 and following.

5.3.4 SmartONE installation using a USB stick

Follow the general instructions in Chapter 2.2.3, "Installation using a USB stick", on page 28, step 1 to step 6.

- 1. Select the appropriate SmartONE setup file TSMAx-SmartONE_x.y.z.exe and press the button next to the select box.
 - Firmware version 01.xx.yy.zz: "Execute Setup"
 - Firmware version from 02.xx.yy.zz: "Update SmartONE"

R&S SmartONE setup (SmartBenchmarker, ROMES, QualiPoc)



2. The following steps are similar to the installation using a USB stick, see Chapter 2.2.3, "Installation using a USB stick", on page 28, step 8 to step 11.

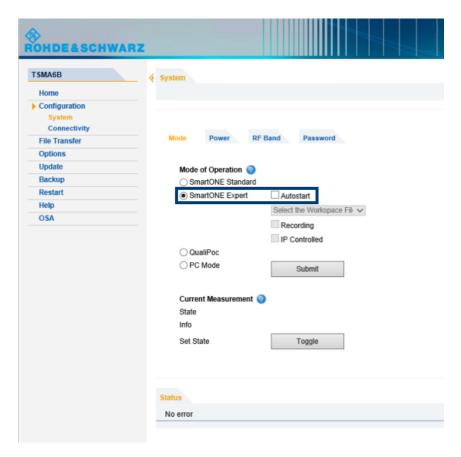
5.3.5 Initial software start / measurement mode selection

After the successful installation of R&S SmartONE, the device is always in the mode "QualiPoc".

Initial starting of SmartONE Expert (R&S ROMES)

- 1. Install the option key.
- 2. If used, connect the hardlock to a USB port.
- 3. Start the web GUI.
- 4. Navigate to "Configuration" > "System" > "Mode".
- As "Mode of Operation", select "SmartONE Expert".
 Make sure, that "Autostart" is deselected and no workspace is selected.

R&S SmartONE setup (SmartBenchmarker, ROMES, QualiPoc)

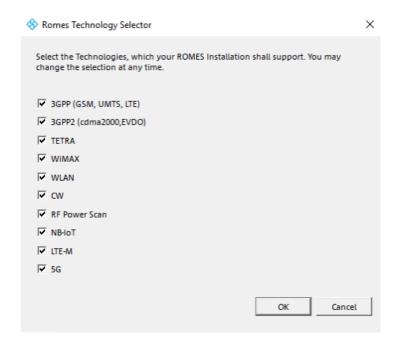


6. Press "Submit".

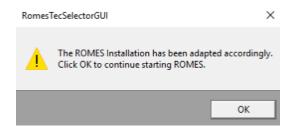
After starting R&S ROMES, configure the following settings.

1. In the "Romes Technology Selector", select the technologies to be supported by your ROMES installation.

R&S SmartONE setup (SmartBenchmarker, ROMES, QualiPoc)



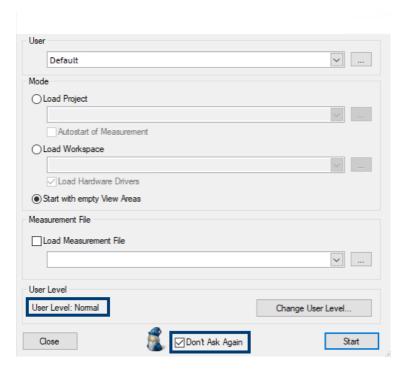
- 2. Press "OK".
- 3. In the "ROMESTecSelectorGUI" window, press "OK".



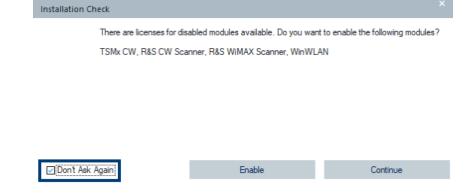
The current installation is adapted according to your selection and the ROMES start process continues.

- 4. In the "User" window, check that the "User Level" is "Normal".
- 5. Select "Don't Ask again".

R&S SmartONE setup (SmartBenchmarker, ROMES, QualiPoc)



6. In the "Installation Check", select "Don't Ask again" and press "Continue".



Initial starting of SmartONE Standard (R&S SmartBenchmarker)

- 1. Start the web GUI.
- 2. Navigate to "Configuration" > "System" > "Mode".
- 3. As "Mode of Operation", select "SmartONE Standard".

For further details about using R&S SmartBenchmarker, refer to *SmartBenchmarker - Manual*.

6 Contacting 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:



Figure 6-1: QR code to the Rohde & Schwarz support page