

Release Notes

Revision: 10

R&S[®]RTM Digital Oscilloscope

Firmware Release 4.502

These Release Notes describe the following models and options of the R&S[®]Digital Oscilloscope:

- R&S[®]RTM 1052 Digital Oscilloscope, order no. 1305.0008.52
- R&S[®]RTM 1054 Digital Oscilloscope, order no. 1305.0008.54

New Features of V4.502:

- R&S[®]RTM-K3: CAN/LIN triggering and decoding option
- R&S[®]RTM-K1: MOSI and MISO signals for SPI/SSPI, label list for I²C and bus decoding table available
- R&S[®]RTM-K2: RX and TX signals for UART and bus decoding table available
- Language support for user interface, available languages:
German/French/Russian/simplified and traditional Chinese/Japanese
- New cursor type "Voltage & Time"
- Label for the channels
- Gate for search function

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1 Revision History

Date	Rel. Note rev.	Changes
08.07.2010	1.0	First version for RTM firmware V3.026
06.08.2010	2.0	Version for RTM firmware V3.031
08.10.2010	3.0	Version for RTM firmware V3.107
13.12.2010	4.0	Version for RTM firmware V3.201
17.02.2011	5.0	Version for RTM firmware V3.300
11.03.2011	6.0	Service Pack 1 for Firmware V3.300
19.05.2011	7.0	Version for RTM firmware V3.402
15.09.2011	8.0	Version for RTM firmware V3.700, version for USB and LAN interface firmware V3.005, version for GPIB interface firmware (RTM-B10) V3.003
22.12.2011	9.0	Version for RTM firmware V3.800, version for USB and LAN interface firmware V3.102, version for GPIB interface firmware (RTM-B10) V3.004
29.03.2012	10.0	Version for RTM firmware V4.501, version for USB and LAN interface firmware V3.104, version for GPIB interface firmware (RTM-B10) V3.004

2 Installation Information

2.1 Firmware Update

The firmware update file for the R&S RTM is one file with the name `RTM_Firmware_V4.502.zip` from the Rohde & Schwarz web page.

2.1.1 Preparing the Installation

The ZIP archive contains the following files:

RTM1052.FWU	Firmware image R&S® RTM 1052
RTM1052.HMG	Online help R&S® RTM 1052
RTM1054.FWU	Firmware image R&S® RTM 1054
RTM1054.HMG	Online help R&S® RTM 1054
USB_LAN.FWU	Interface firmware for USB and LAN
GPIB_B10.FWU	Interface firmware for GPIB (for RTM-B10 option)
RTM_Release_Notes_V4.502.pdf	This document

Extract these files from the archive to a memory stick.

2.1.2 Performing the Firmware Update on the Instrument

The firmware update process is performed by the following steps:

1. Insert the memory stick into the USB port of the oscilloscope and push the key **Setup**.
2. Press the soft key **More 1|3**.
3. Press the soft key **Update**.
4. Press the soft key **Firmware**.
5. Press the soft key **Execute** if the new firmware loaded and checked.
6. Wait until the device reboot automatically.



The oscilloscope will update the firmware and reboot itself. Please make sure, that there is no interrupt at the main power during the update process. Otherwise this can be make the instrument unusable.

2.1.3 Performing the Firmware Update on the Interface Board with USB and LAN

The firmware update process for the interface board is performed by the following steps (steps 1 to 3 could be skipped since interface board is already installed):

1. Turn off the instrument.
2. Install the interface board with the USB and LAN interface in the instrument (rear side of the instrument).
3. Turn on the instrument.
4. Insert the memory stick into the USB port of the oscilloscope and push the key **Setup**.
5. Press the soft key **More 1|3**.
6. Press the soft key **Update**.
7. Press the soft key **Interface**.
8. Press the soft key **Execute** if the new firmware loaded and checked.
9. Wait until the update process is finished.



Please make sure, that there is no interrupt at the main power during the update process. Otherwise this can make the instrument unusable.

2.1.4 Performing the Firmware Update on the Interface Board with GPIB (RTM-B10 option)

The following steps are only necessary, if a RTM-B10 option is available.

The firmware update process for the interface board is performed by the following steps (steps 1 to 3 could be skipped since interface board is already installed):

1. Turn off the instrument.
2. Install the interface board with the GPIB interface in the instrument (rear side of the instrument).
3. Turn on the instrument.
4. Insert the memory stick into the USB port of the oscilloscope and push the key **Setup**.
5. Press the soft key **More 1|3**.
6. Press the soft key **Update**.
7. Press the soft key **Interface**.
8. Press the soft key **Execute** if the new firmware loaded and checked.
9. Wait until the update process is finished.



Please make sure, that there is no interrupt at the main power during the update process. Otherwise this can make the instrument unusable.

2.1.5 Performing the Language Update on the Instrument

The help and user interface language update process is performed by the following steps:

1. Insert the memory stick into the USB port of the oscilloscope and push the key **Setup**.
2. Press the soft key **More 1|3**.
3. Press the soft key **Update**.
4. Press the soft key **Language**.
5. Select the language with soft key **Language**.
6. Press the soft key **Add** or **Update** if the new online help loaded and checked.
7. Wait until the update finished.

3 New Functions

The following table lists the new functions and indicates the version in which the new function was introduced:

Version	Function
V4.502	R&S®RTM-K3: CAN/LIN triggering and decoding option
V4.502	R&S®RTM-K1: MOSI and MISO signals for SPI/SSPI, label list for I ² C and bus decoding table with export function available
V4.502	R&S®RTM-K2: RX and TX signals for UART and bus decoding table with export function available
V4.502	Language support for user interface, available languages: German/French/Russian/Simplified and traditional Chinese/Japanese
V4.502	New cursor type "Voltage & Time"
V4.502	Label for the channels
V4.502	Gate for search function
V4.502	Deskew time improved to ± 100 ns

4 Modified Functions

The following table lists the modified functions and indicates the version in which the modification was carried out:

Version	Function
V4.502	Screenshots without soft key menu (selectable) but date and time
V4.502	Soft key for automatic threshold level search in channel and protocol configuration menu
V4.502	Level cursor display for search type "Pattern"
V4.502	Progress bar for search in stop modus

5 Eliminated Issues

The following table lists the eliminated issues and indicates the version in which the issue was eliminated:

Version	Function
V4.502	With some thumb drives a screenshot fails due to not empty write cache
V4.502	Update of online help on some instruments is slow
V4.502	The value for "Time Reference" is not stored in the device setting file
V4.502	Sometimes the progress information (e. g. "Save: 0%") is visible on the screenshot

6 Known Issues

The following table lists the known issues and indicates the version in which the issue was observed for the first time:

Version	Function
V3.031	RTM-K1 : Wrong trigger/decode on I2C: Combined 10 bit reading after previous access to same slave (see I2C specification Rev. 3.0).
V4.502	The search function "Data2Clk" doesn't work properly in stop modus
V4.502	Device setting files are incompatible after firmware update

7 Modifications to the Documentation

The new and modified functions mentioned in these release notes are already documented. Except the below mentioned last minute changes you can find the description in the online help or in the manual. The manual can be downloaded from the internet under: <http://www.rohde-schwarz.com>. Select "DOWNLOAD" and search for R&S RTM within the category MANUAL.

Currently no last minute changes to the operating manual exist.

Appendix: Contacting our Hotline

Any questions or ideas concerning the instrument are welcome by our hotline:

USA & Canada

Monday to Friday (except US public holidays)

8:00 AM – 8:00 PM Eastern Standard Time (EST)

Tel. from USA 888-test-rsa (888-837-8772) (opt 2)

From outside USA +1 410 910 7800 (opt 2)

Fax +1 410 910 7801

E-Mail Customer.Support@rsa.rohde-schwarz.com

East Asia

Monday to Friday (except Singaporean public holidays)

8:30 AM – 6:00 PM Singapore Time (SGT)

Tel. +65 6 513 0488

Fax +65 6 846 1090

E-Mail Customersupport.asia@rohde-schwarz.com

Rest of the World

Monday to Friday (except German public holidays)

08:00 – 17:00 Central European Time (CET)

Tel. +49 89 4129 12345

Fax +49 89 4129 63778

E-mail CustomerSupport@rohde-schwarz.com