

R&S®ZN-Z86 / Z86X

Release Notes

Firmware Version 4.49

© 2023 Rohde & Schwarz GmbH & Co. KG
Muehldorfstr. 15, 81671 Munich, Germany
Phone: +49 89 41 29 - 0
E-mail: info@rohde-schwarz.com
Internet: <http://www.rohde-schwarz.com>

Subject to change – Data without tolerance limits is not binding.
R&S® is a registered trademark of Rohde & Schwarz GmbH & Co. KG.
Trade names are trademarks of the owners.

1351.3935.00 | Version 01.20 | R&S®ZN-Z86 / Z86X | **COMPANY RESTRICTED**

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®ZN-Z86 / Z86X is abbreviated as R&SZN-Z86 / Z86X.



Contents

1	Information on the current version and history	3
1.1	Version 4.49.....	3
1.2	Version 4.45.....	4
1.3	Version 4.40.....	5
2	Modifications to the documentation	7
3	Firmware update	8
3.1	Validity information	8
3.2	Update information	8
3.2.1	Updating the FPGA.....	8
3.2.2	Updating the Firmware	10
4	Customer support.....	12

1 Information on the current version and history

1.1 Version 4.49

Annotation: the given reference numbers refer to the appropriate change management system

Firmware package contents

Version	Contents	Reference
4.49	Firmware for ZN-Z86 / Z86X	
1.20	FPGA Application for ZN-Z86 / Z86X	

NOTICE

FPGA V1.20 and Firmware V4.49 work only together

New functionality

Version	Contents	Reference
-	-	

Modified functionality

Version	Contents	Reference
-	-	

Improvements

Version	Contents	Reference
4.49	Trigger issues for VNA 2 port matrix on routes A7...A12 and A19...A24 solved.	
4.49	Remote Control speed improvement for route switching.	

Known issues

Version	Contents	Reference
-	-	

1.2 Version 4.45

Annotation: the given reference numbers refer to the appropriate change management system

Firmware package contents

Version	Contents	Reference
4.45	Firmware for ZN-Z86 / Z86X	
1.20	FPGA Application for ZN-Z86 / Z86X	

NOTICE

FPGA V1.20 and Firmware V4.45 work only together

New functionality

Version	Contents	Reference
-	-	

Modified functionality

Version	Contents	Reference
-	-	

Improvements

Version	Contents	Reference
4.45	Routes and Subroutes with path 0 do show up now in the SCPI commands "show:routes?" and "show:subroutes?"	

4.45	If the trigger source is set to BNC, trigger reset via SCPI is possible now	
4.45	Switching between 2-port and 4-port mode on a ZN-Z86X temporarily sets no temporary path now	

Known issues

Version	Contents	Reference
-	-	-

1.3 Version 4.40

Annotation: the given reference numbers refer to the appropriate change management system

Firmware package contents

Version	Contents	Reference
4.40	Firmware for ZN-Z86 / Z86X	
1.20	FPGA Application for ZN-Z86 / Z86X	

NOTICE

FPGA V1.20 and Firmware V4.40 work only together

New functionality

Version	Contents	Reference
4.40	First release of ZN-Z86 and ZN-Z8X firmware	
1.20	First version of FPGA Application for ZN-Z86 and ZN-Z86X	

Modified functionality

Version	Contents	Reference
-	-	-

Improvements

Version	Contents	Reference
-	-	-

Known issues

Version	Contents	Reference
4.40	Routes and Subroutes with path 0 do not show up in the SCPI commands "show:routes?" and "show:subroutes?"	
4.40	If the trigger source is set to BNC, trigger reset via SCPI is not possible	
4.40	Switching between 2-port and 4-port mode on a ZN-Z86X temporarily sets the path P0106101	

2 Modifications to the documentation

The current documentation is up-to-date.

3 Firmware update

Further information

- R&S® ZN-Z86 / Z86X Switch Matrix User Manual 1179.6095.02

3.1 Validity information

If necessary, list here the material and model numbers the firmware is referring to

Device	Order Number
R&S® ZN-Z86	1351.2216K02
R&S® ZN-Z86X	1351.2222K02

3.2 Update information

To update FPGA and firmware on a single R&S ZN-Z8x switch box (e.g. R&S ZN-Z86) the R&S ZN-Z8x Toolbox is used. For information about the latest version of R&S ZN-Z8x Toolbox, please visit:

<https://www.rohde-schwarz.com/software/znz8xswitchmatrix/>

For information about the latest FPGA and firmware, please visit:

<https://www.rohde-schwarz.com/firmware/znz8xswitchmatrix/>

NOTICE

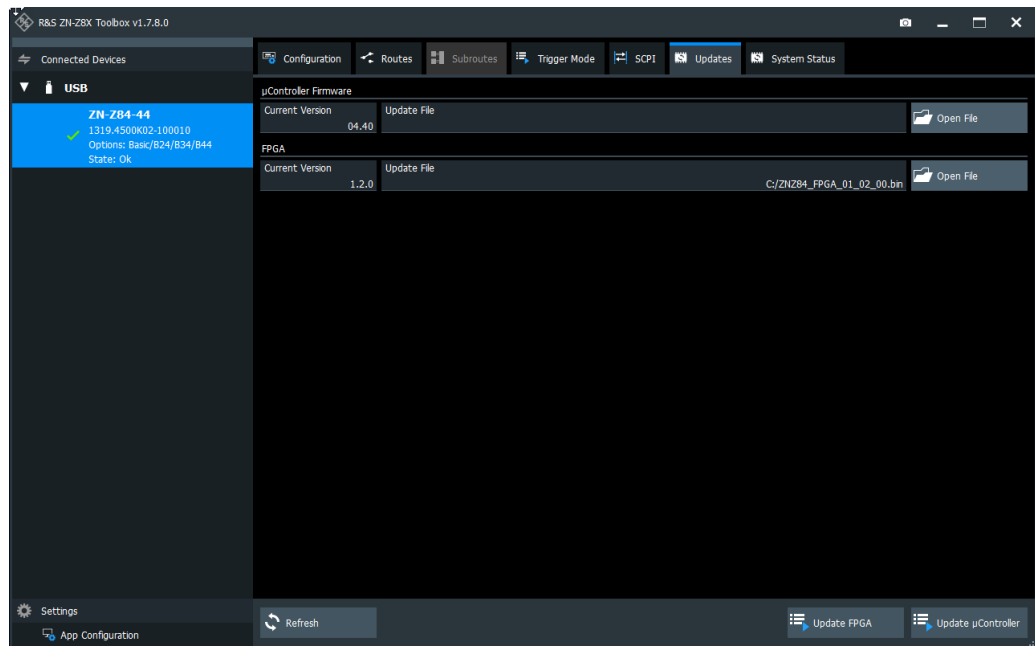
- FPGA and firmware update is only possible when the device is connected via USB with the PC.
- The FPGA needs to be updated before updating the μ Controller Firmware. After a successful FPGA update a restart of the device is necessary and needs to be done manually.
- FPGA and Firmware work only together as a package

3.2.1 Updating the FPGA

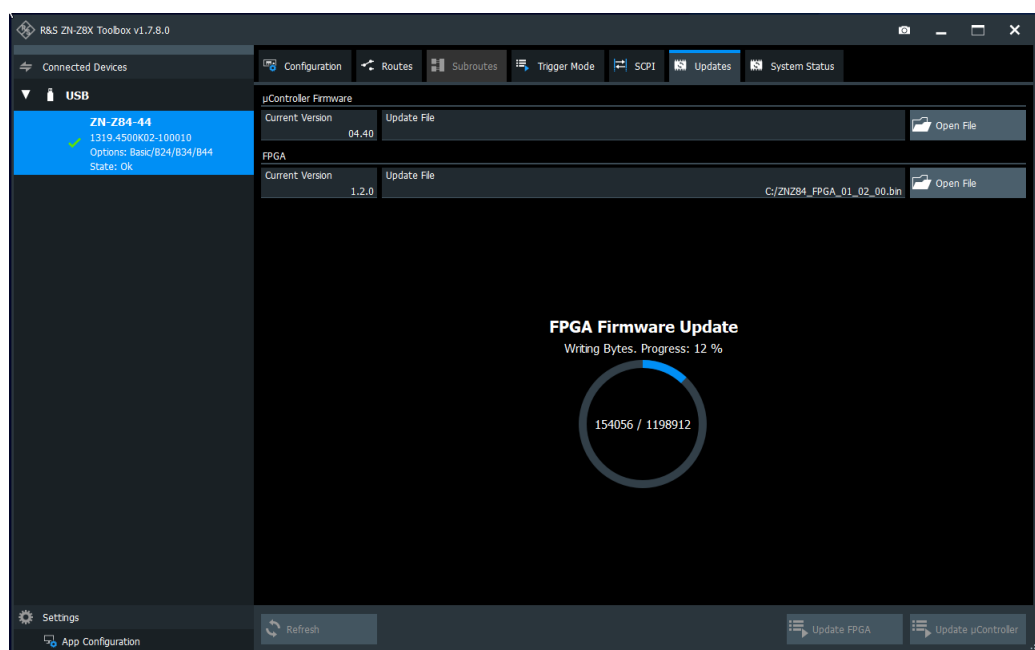
1. Download the latest FPGA ("ZNZ86_FPGA_xx_xx_xx.**bin**" for ZN-Z86 and ("ZNZ86X_FPGA_xx_xx_xx.**bin**" for ZN-Z86X, where xx_xx_xx is the version) and firmware ("ZNZ86_Firmware_xx_xx.**bin**" for ZN-Z86 and ("ZNZ86X_Firmware_xx_xx.**bin**" for ZN-Z86X, where xx_xx is the version) from <https://www.rohde-schwarz.com/firmware/znz8xswitchmatrix/> to your PC. File "ZNZ86_FPGA_xx_xx_xx.**bin**" and "ZNZ86X_FPGA_xx_xx_xx.**bin**" is used for

updating the FPGA and file "ZNZ86_Firmware_xx_xx.bin" and "ZNZ86X_Firmware_xx_xx.bin" is used for updating the firmware.

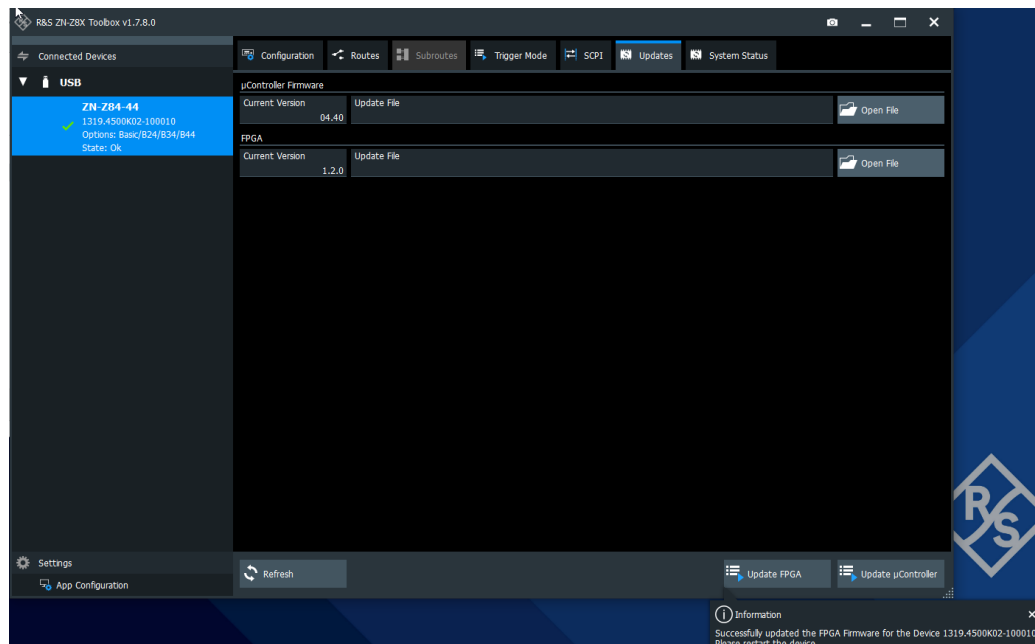
2. Connect the e.g. R&S ZN-Z86 device to the PC via USB and open the R&S ZN-Z8x Toolbox. In the "Connected Devices" section select the ZN-Z86 device. Go to the tab "Updates".
3. In line FPGA click on "Open File" and select the FPGA binary file "ZNZ86_FPGA_xx_xx_xx.bin" e.g. "ZNZ86_FPGA_01_02_00.bin".



4. Click on "Update FPGA". The update of FPGA will last about 5 minutes.

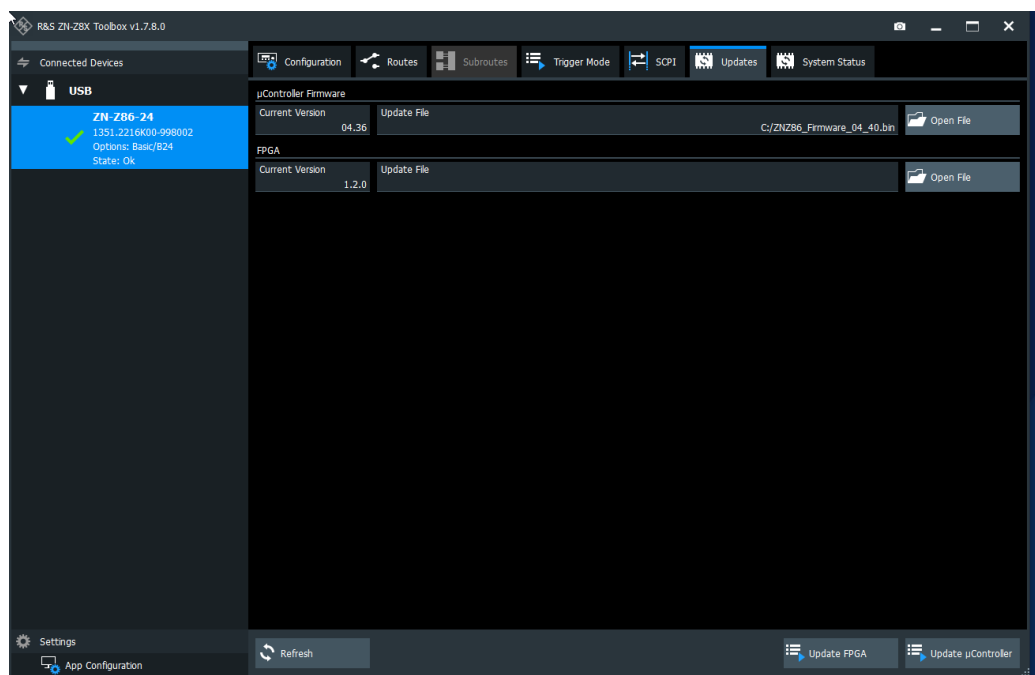


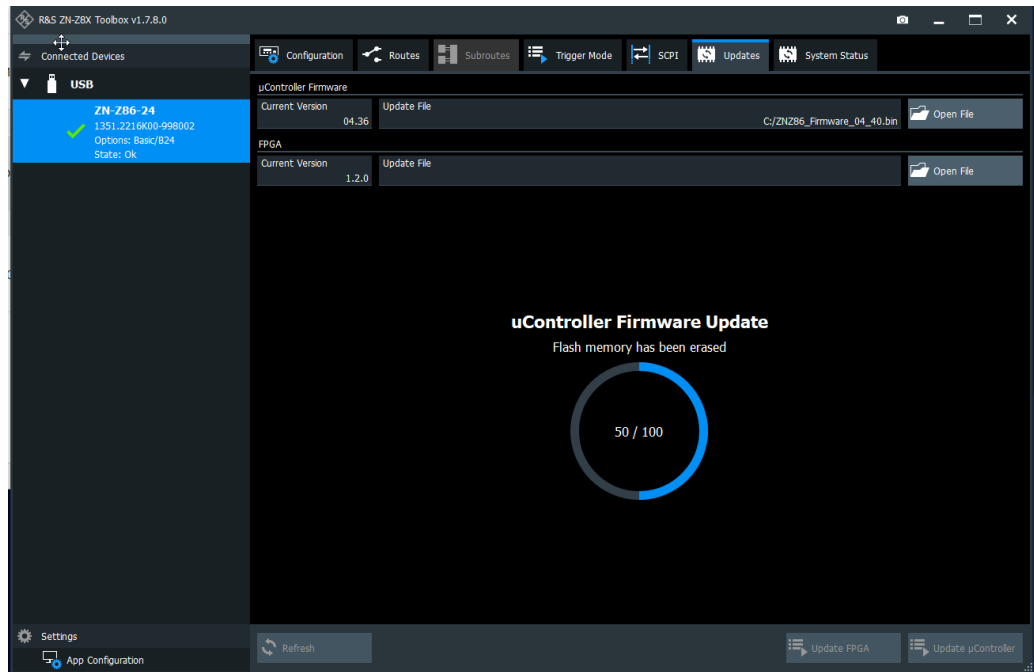
5. After successful update of the FPGA, restart the R&S ZN-Z86 device manually.



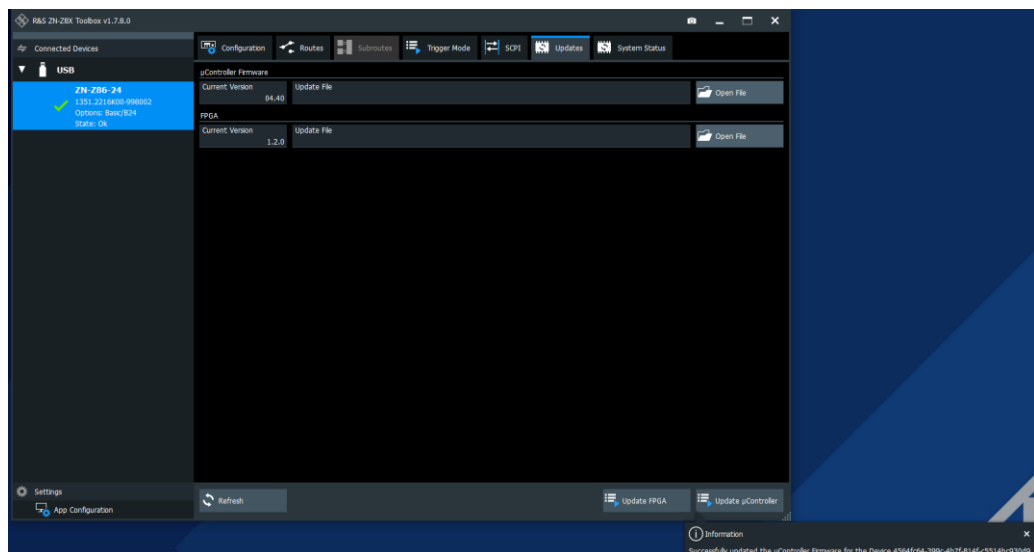
3.2.2 Updating the Firmware

6. In line "µController Firmware" click on "Open File" and select the firmware binary file "ZNZ86_Firmware_xx_xx.bin" e.g. "ZNZ86_Firmware_04_40.bin".



7. Click on "Update μ Controller "

8. After successful update of the firmware the device will restart itself.



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:



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