

RF Explorer[®] SERIES

Spectrum Analyzer PLUS and PLUS SLIM

Firmware Version 3.25

Cumulative Release Notes

RF Explorer is an affordable Handheld Spectrum Analyzer with a growing list of features.

*This little powerful unit is the tool you need
to reduce the implementation time and cost
of your next wireless project.*

This Release Notes document is complementary to the RF Explorer User Manual, [available online](#).



Please consider the environment before printing this document.

Firmware Upgrade Instructions

This firmware is compatible with RF Explorer PLUS and PLUS SLIM models, including RF Explorer WSUB1G PLUS and ISM COMBO PLUS.

To upload this firmware, you must use the Uploader tool included in this software package. Firmware upgrade is a safe, simple process that can be repeated many times if something goes wrong.

You can update firmware using Windows, Linux or MacOS X operating systems.

For more details on how to upload firmware into your device, please visit online guide:

www.rf-explorer.com/upgrade

License and registration

This firmware upgrade tool requires registration and internet connection.

You must provide a valid registration email to receive an activation code for your computer. If you do not receive a valid email, check your spam folder.

Privacy policy is available online at www.rf-explorer.com/privacy

Backup your presets

If your device has stored Presets please use the Preset Tool to save them to a computer, and restore them after the upgrade in case any preset is lost.

For more details visit: <http://www.rf-explorer.com/preset>

Firmware upgrade troubleshooting:

Note: If the unit completes upgrade and remains on screen with "S/N Init..." message, please wait a few seconds to complete the upgrade.

Check in the CONFIG MENU of the RF Explorer device it is configured for 500Kbps or 2400bps same as you select in Firmware Update tool.

If fails after a couple of attempts, then please contact us at contact@rf-explorer.com and provide us with:

- File RFExplorer_Uploader.log available in the <My Documents> folder of your computer.
- Operating System version and confirmation, you are connecting directly to USB port on your computer, not an intermediate USB hub.

If the problem persists, you can overcome this step by pressing ENTER when a small message shows up with <Press ENTER to Stop> next to "S/N Init..." on screen.

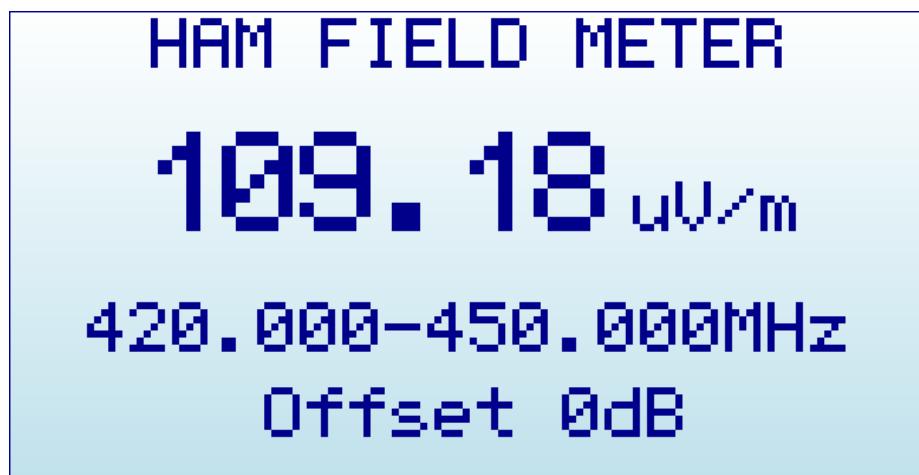
Version 3.25

Release date: CEST April 4, 2021

Important: due to configuration data format, after upgrading you must not downgrade to an earlier version than v3.16.

New Feature:

- RF Explorer PLUS models can now work as a Field Meter for HAM bands, see more details at www.rf-explorer.com/ham



Version 3.24

Release date: CEST March 4, 2021

Important: due to configuration data format, after upgrading you must not downgrade to an earlier version than v3.16.

Fixes:

- A specific sporadic case where device Serial Number may not be correctly recognized has been fixed. Before this fix, in some conditions the device may start and get stuck in "Invalid S/N" screen message.
- As part of the fix, the unit will automatically recognize the condition and will use an internal reconfiguration process to fix the S/N check, and therefore the unit may automatically restart once if this condition is found. There is no manual action required from the user.

Version 3.20

Release date: CEST Feb 01, 2021

Important: due to configuration data format, after upgrading you must not downgrade to an earlier version than v3.16.

Bug fixing:

- Several fixes when High Resolution mode is selected and RF module is switched
- Fixed some problems in 5GHz WiFi mode channel selection
- An updated battery calibration code to increase accuracy on low battery conditions

Version 3.18

Release date: CEST Oct 30, 2020

Important: due to configuration data format, after upgrading you must not downgrade to an earlier version than v3.16.

New Feature:

- RF Explorer PLUS models can now record and replay sweeps. With this feature is easy to capture events and signals to be reviewed later.
- The sweeps captured can be also downloaded to a computer as data files for later replay.
- The record/play feature is an advanced functionality enabled by license. For more details visit page www.rf-e.in/rec

Version 3.17

Release date: CEST Sept 4, 2020

Important: due to configuration data format, after upgrading to v3.17 you must not downgrade to an earlier version than minimum 3.16.

Bug fixing:

- Fixed issue using Tracking SNA with 6G PLUS and 4G PLUS COMBO models. Before this fix, some configurations may fail to correctly start Normalization step.
- To correctly perform Tracking SNA use this firmware 3.17 with RF Explorer for Windows version 2.2.2009 or later.

Version 3.16

Release date: CEST July 2, 2020

Important: due to configuration data format, after upgrading to v3.16 you must not downgrade to an earlier version as otherwise calibration data may be lost in your unit.

This firmware version is required in order to recognize RFEM4G PLUS and RFEM6G PLUS expansion boards.

Enhancements:

- Updated internal data storage, with additional compression features for additional capabilities.
- Added support in WiFi Analyzer mode for all 28 international 5GHz WIFI channels and 13 channels at 2.4GHz
- Added support for RFEM4G PLUS and RFEM6G PLUS boards
- Added support for 4G Combo PLUS and 6G Combo PLUS models
- Added support for selective 12dB gain LNA in RFEM2.4G PLUS board, including ISM Combo PLUS assembled models. The ISM Combo PLUS model now starts in **Direct** mode, to avoid potential damage when strong signals are being received. For additional sensitivity, select **Input:LNA 12dB** in the ATTENUATOR MENU.
Note: in previous versions of the firmware, the 2.4GHz module was starting with LNA enabled, so any difference in noise floor with previous version is corrected by manually enabling the internal LNA in the new firmware version.
- Improved scan speed in high resolution mode.

Version 3.12

Release date: CEST Sept 20, 2019

Enhancements:

- Improved High Resolution mode for sweep scans of higher than 112pts, as supported in latest releases of RF Explorer for Windows and RF Explorer Touch. The analyzer is now able to scan up to 4096 points with higher efficiency and stability.

Fixes:

- Resolved problem when ISM Combo PLUS unit switches RF modules using PC software control. Prior to this fix, the device sometimes may not redraw LCD screen correctly or misrepresent data on screen.

Version 3.11

Release date: CEST May 20, 2019

Fixes:

- Automatic LCD contrast adjust. Before this fixes, some customers may get an incorrect LCD contrast after upgrading to v3.10 from earlier versions. The workaround was to manually update contrast in the CONFIG MENU, but version 3.11 adjust this automatically after upgrade; manual adjustment should not be required.

Version 3.10

Release date: CEST April 08, 2019

Enhancements:

- Compatible with RFVenue Vantage v2.0
- Improved High Resolution mode scan speed.
- Added flexible command mode support to improve response in High Resolution mode.
- Tracking SNA speed improved, in most scenarios the tracking is now 300% faster than in previous version. The faster speed is a great improvement to get a closer to real-time tracking SNA response.
- Improved battery level charge and calibration algorithm
- Added support for RFEM2.4G PLUS expansion board
- Added RF Generator support for RFEM2.4G standard and RFEM2.4G PLUS expansion boards
- Added Wifi Analyzer support for RFEM2.4G standard and RFEM2.4G PLUS expansion boards
- Internal USB communication buffer is now reset when using RETURN button in the Spectrum Analyzer screen. If the unit becomes unresponsive when connected to a computer, you can try using the RETURN button rather than disconnect/reconnect step.

Version 3.06

Release date: CEST May 18, 2018

Enhancements:

- Added full support for **RF Explorer Preset Manager**, check www.rf-explorer.com/preset for more details.



- **Preset screen now includes Frequency range:** when an active preset with data stored is selected, the last line of the screen shows the Start/Stop frequency range of the preset, to help on determining the specific preset configuration before loading it. This line will be blank if an empty preset is selected.
- **Support for RFEMWSUB3G and RFEM24G expansion boards:** The RF Explorer Plus model can now work with standard expansion boards. Connectors are different but compatible, please make sure to follow instructions as documented in www.rf-explorer.com/expansion before assembling an expansion board.

Version 3.05

Release date: CET Mar 13, 2018

Enhancements:

- Added features to import/export Preset definitions from a connected computer. This feature is required by a RF Explorer for Windows and special multi-platform Preset tool being released in 2018.

Fixes:

- Fixed internal ADC battery calibration problem. Original firmware released from factory may include adjustment problems incorrectly reported the battery level to be 65% where it should be 100%.

Version 3.03

Release date: CET Oct 10, 2017

Fixes:

- Fixed numerical limits in ATTENUATOR MENU. Before this fix, some large OffsetDB values may produce unexpected results on menu values for Top and Bottom dBm.

Disclaimer

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For more info on RF Explorer, please visit www.rf-explorer.com

For instructions to upload this new firmware in your RF Explorer unit, please visit online documentation at www.rf-explorer.com/upgrade .

Some of these new features documented below may not be available in the user manual until a final release is published. For questions, please go to RF Explorer forum at www.rf-explorer.com/forum .

Some of these notes may refer to beta versions. They have been thoroughly tested, but they may not pass all formal review and regression test of a final version. You should not install a beta firmware if you are not comfortable with occasional bugs or risk of losing data.

Final release versions pass a full set of test cases and formal review process to minimize the risk of any issue.

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