Streamit IRIS devices

Firmware update instructions

Version: 1.1
Published: 31-3-2025

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Revision history

Version	Author	Description	Distribution
1.0	AC	Initial release	December 7, 2023
1.1	AC	Added hardware variants and firmware dependencies, added firmware release notes, made small changes	March 31, 2025

1 Updating your Iris devices

The complete software functionality of the Iris technology is implemented over two embedded controllers. The main controller implements all audio (and networking) functionality and drives the device's UI elements, which is all that some products need. Some Iris products feature a secondary controller responsible for additional processing and the remote-control connectivity, enabling the user to manage and monitor audio networks.

Depending on the hardware updating might be required for either one or both controllers, as shown in the table below:

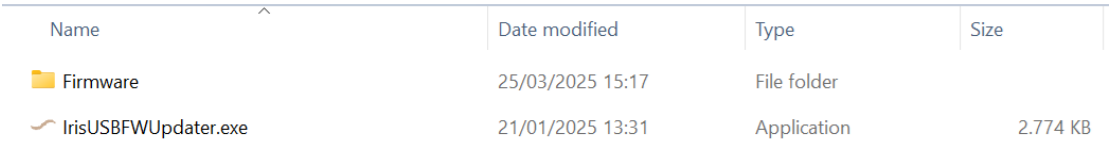
	TX-1	RX-1	PTX-1	PRX-1	IBA-250	DAM-250
Primary controller	√	√	√	√	√	√
Secondary controller	√	√	√			

While more combinations of firmware versions might work well, we highly recommend using the matching secondary controller firmware. The dependency information can be found in the release notes, and is also summarized in the table below:

	Primary controller	Secondary controller
Release: March 2025	v1.6	V1.4
Beta: March 2025 (build 20250317)	v1.5.13	v1.3.14
Beta: January 2025 (build 20250121)	v1.5.13	v1.3.14
Beta: February 2024 (build 20240229)	v1.5	v1.3
Release: September 2023	v1.4	v1.2
Release: February 2023	v1.0	v1.0

1.1 Updating the main controller

Download the distribution from the Streamit website (https://www.streamit.eu/downloads/iris-main-controller-update) and extract the content on your Windows PC. Check and make sure that the executable file and the 'firmware' folder are present.



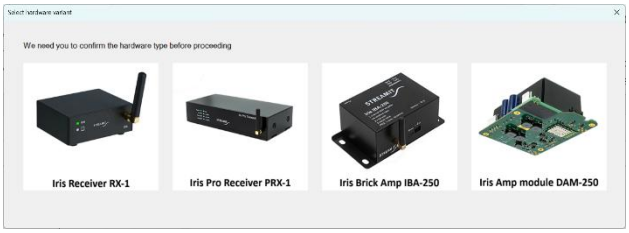
The firmware folder contains all files required for the different hardware types, organized in a specific structure. Please do not modify the given structure or rename any files/folders.

Start the executable 'IrisUSBFWUpdater.exe' and connect the Iris device to the PC using a USB cable.

The device will be automatically detected and the text on the upper right corner will communicate the Iris device is ‘connected’.

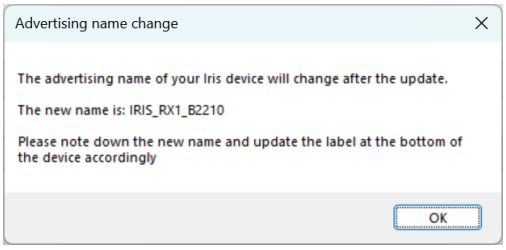
Press ‘Start update’ and wait for the update to be completed.

Due to a change in the device identification, when updating older Iris devices (running firmware older than ‘build 20250121’) you will be asked to select the correct hardware variant.



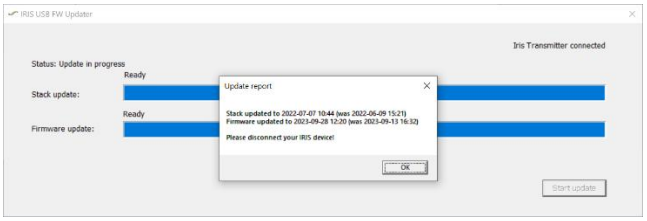
Please make sure to select the correct type, as this determines which functionality gets supported and well as the device identification.

The old format device id and advertising name (printed on the label of the device and displayed on the mobile app) will no longer be used. The updater will inform you about the change and will also communicate the new name.



The update will take a few seconds, up to over one minute depending on what exactly needs to be updated.

During the update process the device might restart, which will result in the connection state to shortly display that no Iris device is connected. Please, do not disconnect the USB cable until the update has been completed.



On completion, a summary of the update will be reported. Due to the nature of the firmware, no version numbers will be shown in the report. Instead, the date and time when the firmware was compiled will be displayed.

Your device is now (partially) updated and may be disconnected. For hardware that features a secondary controller, please follow below instruction to update the secondary controller firmware.

1.2 Updating the secondary controller

Updating the secondary requires using a Bluetooth-enabled mobile device and a third-party mobile application.

The ‘nRF Connect for Mobile’ needs to be used. The app is available for download from the Google Play store and well as the Apple App Store.

Android: https://play.google.com/store/apps/details?id=no.nordicsemi.android.mcp&hl=en&gl=US

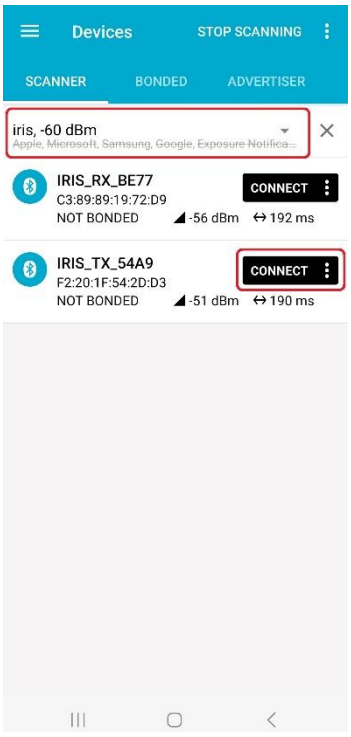
iOS: https://apps.apple.com/gb/app/nrf-connect-for-mobile/id1054362403

Once you have installed the ‘nRF Connect’ app on your mobile device, you can download the firmware from the Streamit website (https://www.streamit.eu/downloads/iris-secondary-controller-update).

Extract the contents of the archive on your mobile device, and you should have two archives (ZIP files), respectively for the receiver and the transmitter devices. These archives must not be extracted further. Moving these files to a dedicated folder might be useful when updating many devices.

Now, start the ‘nRF Connect’ app to proceed with the update.

❗ Please allow the app location permission when asked for, normally on the first start.



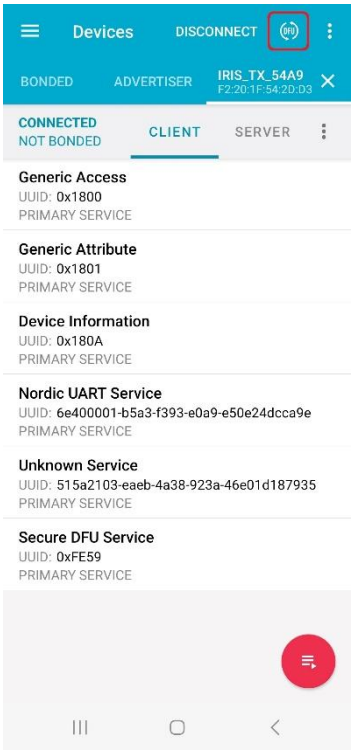
After starting the ‘nRF Connect’ app, scanning for devices will start automatically.

Many BLE-enabled devices in proximity to your mobile device will be displayed, and not only Iris devices.

You could restrict the scan result to only Iris devices by entering ‘iris’ in the filter field “Filter by name or address”, and additional filters are also possible.

Check the device name on the label at the bottom of your Iris device, then press the ‘CONNECT’ button next to it.

Should your device not be listed, make sure that your filters are not too strict and swipe down to start a new scan.

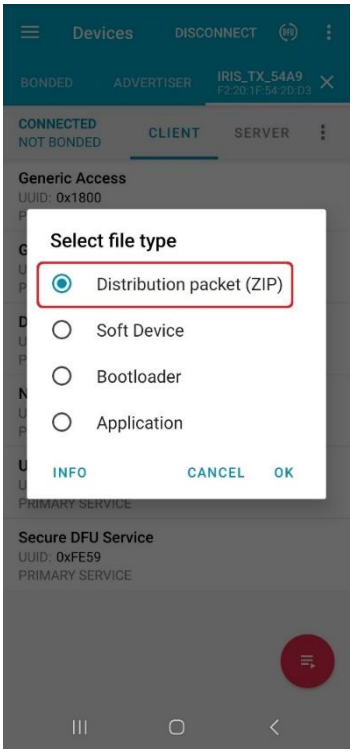


When you connect to your Iris device, the capabilities of the device will be discovered, and some information will be displayed. The specifics of this information are out of scope for this document.

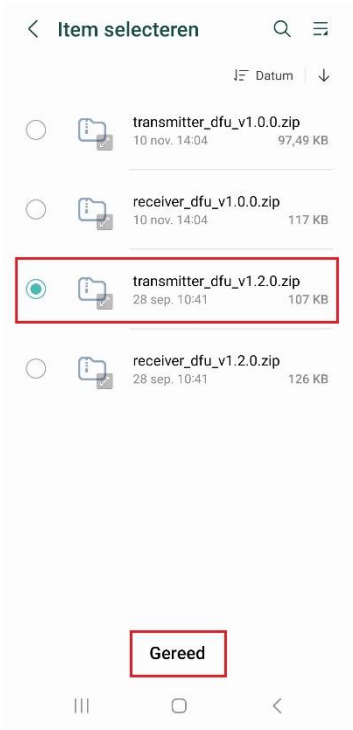
When the Iris device supports the firmware update functionality, an icon (DFU) will be shown at the upper right corner.

Except for a few initial samples and starter kits, all Iris devices support firmware update functionality.

When you have already downloaded the BLE firmware on your mobile device, press DFU to proceed.



Select the file type “Distribution packet (ZIP)”, and press ‘OK’ button to proceed.



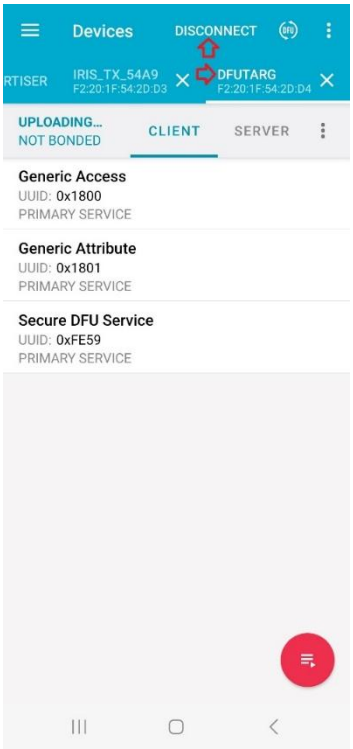
Navigate to the folder where the firmware was downloaded or moved to.

Make sure to select the correct firmware archive, paying special attention to whether you are dealing with a transmitter device or a receiver device.

❗ Loading transmitter firmware in a receiver device, or the other way around will result in the device no longer functioning properly.

Should you accidentally flash the wrong firmware, you can re-program the correct one by simply following the same steps again and selecting the correct firmware.

Press ‘Ready’ or similar (OS/language dependent, ‘Gereed’ in this screenshot) to start flashing the firmware.

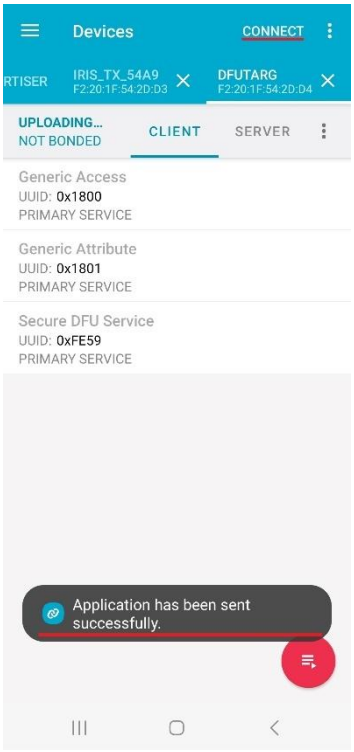


Once the update starts, a new tab called DFUTARG will be added; to the left of the DFU icon you will still read DISCONNECT.

The update should be complete within the minute, but the progress will not be clearly displayed in the app.

Depending on the OS, you might be shown the progress in the status bar/notification panel.

For as long as you read ‘DISCONNECT’, the update will be ongoing, and you simply wait.



When you keep focus on the 'nRF Connect' app, on completion, a notification will be shown informing 'Application has been sent successfully'.

Depending on the OS, a notification might also be shown in the status bar/notification panel, but this is not essential.

The DFU will no longer be shown, and the text on the upper right corner will read CONNECT.

At this point, you may conclude that the update is complete.

Close the 'nRF Connect' app and perform a power cycle of the Iris device.

2 Release notes for Iris wireless products (Iris / Iris Pro / Iris Amp)

Version: 1.6.0
Release date: 2025-03-25

New Features:

- Added support for the Iris Pro hardware and most of the hardware-specific functionality.
- Added support for the Iris Amp hardware and most of the hardware-specific functionality.
- Added support for configuration via the Iris Service Tool.
- Added stereo support and audio mode configuration for the following options: mono 128kbps, stereo 128kbps, stereo 256kbps.
- Added OTA data exchange mechanism for configuring and monitoring receivers through the transmitter.
- Added audio mode configuration of receivers through the TX-device.
- Added support for (SPDIF) digital audio input on the Pro transmitter.

Improvements:

- Changed the product identification and name format to make use the unique ID of the main controller.
- Changed the BLE advertisement name to match the new product name format.
- Changed the 'App' (Config) status LED to solid green when the device is discoverable (no active BLE connections).
- Changed the default antenna setting to enable diversity.
- Changed the BLE communication speed to 1Mbps (LE 1M PHY).
- The factory default for the DECT region is now configurable.
- Receiver devices automatically enter pairing mode when not already paired.
- It is now possible to factory reset an RX-device using the relay control input pin.
- Extended and adapted the production tests to accommodate the Pro and Amp products.

Bug Fixes:

- Fixed: Antenna diversity functionality was not working reliably.
- Fixed: The TX volume was set to -5dB instead of maximum when executing a factory reset.

Dependencies:

- Compiled with DECT stack v0036_STREAMIT.
- Compatible with v1.4 firmware for the secondary controller.

Known issues:

- The output signal on the receiver will be 1dB higher than the input (maximum gain configuration on RX).

Version: 1.4.0
Release date: 2023-09-28

New Features:

- Significantly reduced the latency to just 16.5ms (was 23.5ms).

Improvements:

- Decreased the minimum BLE connection interval to allow sending data as fast as possible.
- Increased the size of the message queue for safe communication between sub-systems.
- Extended the tests for validating the status LEDs hardware.

Bug Fixes:

- Fixed: Issue with incorrect response to host when setting the volume on a TX-device.

Dependencies:

- Compiled with DECT stack v0034.
- Compatible with v1.2 firmware for the secondary controller.

Version: 1.0.0
Release date: 2023-02-16

First firmware version released for production.

Dependencies:

- Compiled with DECT stack v0034.
- Compatible with v1.0 firmware for the secondary controller.