

# Iris Amp series

## User Manual

for software version 1.10.0

Updated on 03/07/2026



# Contents

|                                            |    |
|--------------------------------------------|----|
| 1. Getting started                         | 5  |
| 1.1 Introduction.....                      | 5  |
| 1.2 Important safety instructions.....     | 5  |
| 2. Installation                            | 7  |
| 2.1 Unpacking your device.....             | 7  |
| 2.2 Device appearance and connections..... | 8  |
| 2.3 Connecting the Iris.....               | 12 |
| 2.4 General installation notes.....        | 13 |
| 2.5 Interfacing to the AMP-device.....     | 14 |
| 3. Building your own wireless loudspeaker  | 16 |
| 4. Configuration                           | 17 |
| 4.1 How to ensure CE compliance.....       | 17 |
| 4.2 Setting up an audio network.....       | 17 |
| 4.3 Relay control functionality.....       | 20 |
| 5. LED status information                  | 21 |
| 6. The Iris Configurator                   | 22 |
| 7. The Iris Service Tool                   | 24 |
| 8. Updating your Iris devices              | 25 |
| 8.1 Updating the main controller.....      | 26 |
| 8.2 Updating the secondary controller..... | 28 |
| 9. Technical specifications                | 32 |
| 10. Protective measures                    | 35 |
| 11. DSP configuration                      | 36 |
| 12. Troubleshooting                        | 41 |
| 12.1 Audio disruptions.....                | 41 |
| 12.2 Finding the advertising name.....     | 41 |

12.3 Find the login password..... 41

12.4 Password reset..... 42

12.5 Factory reset..... 42

13. Release notes 43

14. More information 47

15. Support 48

## EU Declaration of Conformity



This product carries the CE-Mark in accordance with the related European Directives. CE marking is the responsibility of Streamit B.V. The Netherlands.

## Disclaimer

This manual has been validated and reviewed for accuracy. The instructions and descriptions it contains are accurate for the Streamit Iris devices at the time of this manual's production. However, later Iris devices and manuals are subject to change without notice. Streamit assumes no liability for damages incurred directly or indirectly from errors, omissions or discrepancies between Iris device and the manual.

## Understanding of Instructions



**WARNING:** These are instructions which can cause harm to people or damage to the device if not followed properly. It is important to read and follow these instructions carefully.



**IMPORTANT:** These instructions are important in order to understand the correct behavior of the device.

## Notices about trademarks

- The Iris family of devices is a registered trademark of Streamit
- Streamit is a registered trademark
- All other trade names that are used in this manual are owned by their respective owners

# 1 Getting started

This is the consolidated user manual for the Iris Brick and the Iris DSP Amplifier Module running software version 1.10.0.

We strongly recommend reading the manual thoroughly before you start installing and using the device for the first time.

## 1.1 Introduction

Iris devices connect high-quality audio systems wirelessly. Employing DECT technology and a highly versatile audio codec you can move full-band audio unfailingly and securely with minimal latency. Connect media players and audio mixers with your active or passive speakers reliably when wired connections are expensive or impractical.

The broadcasts high quality audio to the receiver devices that have joined its network through the pairing mechanism.

Any receiver device (RX-device), including the Iris wireless amplifiers, are compatible with and interoperable with all available transmitter variants.

With the built-in relay control functionality, digital input pin changes on the transmitter get broadcasted to the digital output pins of all connected receivers, to control speakers and amplifiers and save energy.

Based on the application requirements, many Iris devices can be paired (wirelessly connected) to form wireless audio networks using the [Iris Configurator](#) app. Iris Configurator is the official companion app for the Iris series of wireless audio devices, to configure, manage, and monitor your networks quickly and effortlessly.

For more information on Streamit products and technologies, we invite you to visit our website (<https://www.streamit.eu>).

## 1.2 Important safety instructions

Use the following safety guidelines to help ensure your own personal safety and to help protect your equipment and working environment from potential damage.

1. Read these instructions.
2. Keep these instructions.
3. Follow all instructions.
4. Keep your equipment away from extremely hot or cold temperatures to ensure that it is used within the specified operating range:

Operating temperature: -20°C to 50°C

Humidity: 30% to 90%, RHL non-condensing

5. Install in accordance with the manufacturer's instructions.
6. Only use accessories specified by the manufacturer.

7. Refer all servicing to qualified service personnel. Servicing is required when the product has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the product, the product has been exposed to rain or moisture, does not operate normally, or has been dropped.
8. The power supply and power cord for this product is intended for indoor use only.
9. Use only the supplied power adapter (if applicable).

## 2 Installation

This section of the manual covers the installation of your Iris audio networking devices, and includes some general installation notes.

### 2.1 Unpacking your device

Carefully unpack the device and the supplied materials. Make sure that all components listed in the table below are included:

| Product name                            | Iris Brick Amplifier | Iris DSP Amplifier Module | Iris DSP Amplifier Module Starterkit |
|-----------------------------------------|----------------------|---------------------------|--------------------------------------|
| Article number                          | IBA-250              | DAM-250                   | DAX-250                              |
| USB-A to USB-C cable 2m                 | 1x                   | 1x                        | 1x                                   |
| C7 mains cable with EU plug 2m          | 1x                   |                           |                                      |
| Iris Brick Amplifier IBA-250            | 1x                   |                           |                                      |
| Iris DSP Amplifier Module DAM-250       |                      | 1x                        | 1x                                   |
| External antenna                        | 1x                   | 1x                        | 1x                                   |
| Mounting accessoires                    |                      | 1x                        | 1x                                   |
| Mains cable with a PowerCON connector   |                      |                           | 1x                                   |
| Antenna mounting cable                  |                      | 1x                        | 1x                                   |
| DAM I/O demo board                      |                      |                           | 1x                                   |
| Speaker cable with 2 SpeakON connectors |                      |                           | 1x                                   |

## 2.2 Device appearance and connections

### The Iris Brick

The Iris Brick also referred to as the AMP-device, is connected at the playout location to one or more passive loudspeakers.

Looking at the hardware, on the front side we find:

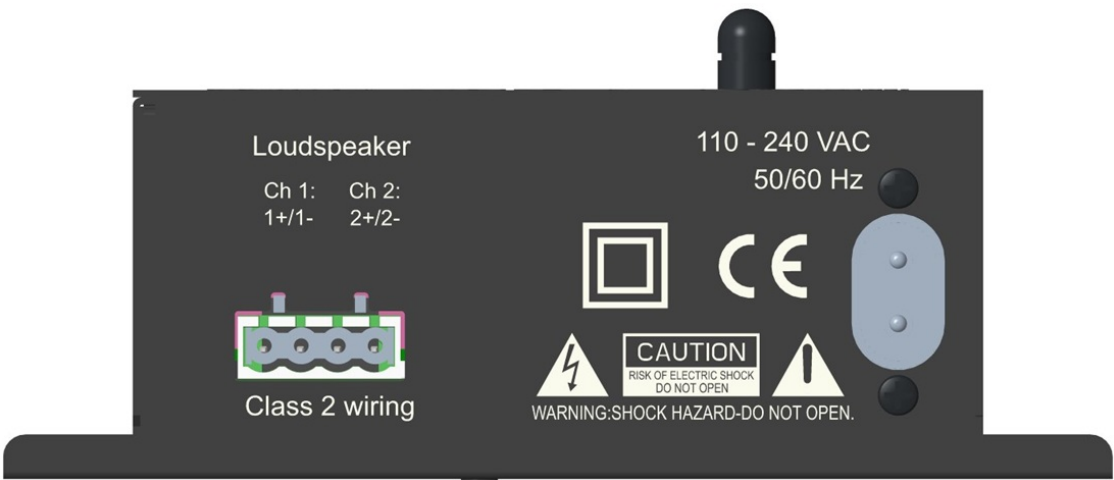
- The external antenna connector
- 2 LEDs used to communicate [status information](#)
- The USB-C connector used for configuration and firmware updates.
- The Phoenix Contact plug for the output relay control and factory reset.



On the back side we find:

- The Phoenix Contact plug for connecting the output to the loudspeakers.
- The mains power connector.

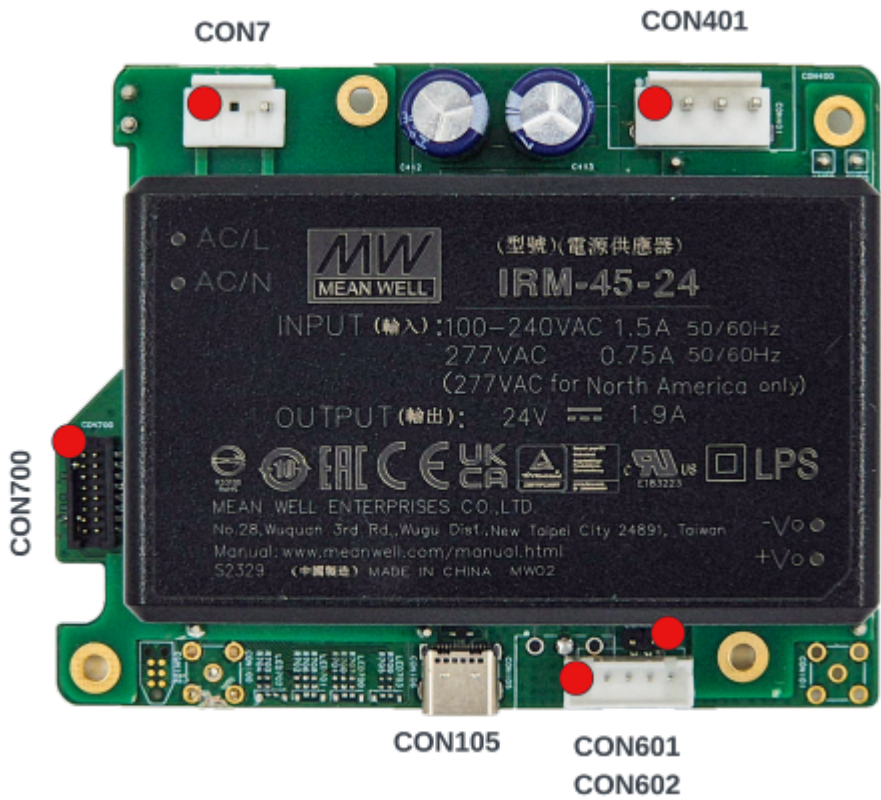




**The Iris DSP Amplifier Module**

The Iris DSP Amplifier Module also referred to as the AMP-device is usually mounted on metal in a passive loudspeaker.

Looking at the hardware, on the top side we find:



- CON7** Mains power connector. The pcb-side is a JST B2P3-VH connector.
- CON105** USB connector for configuration & firmware updates.
- CON401** The Loudspeakers connector, with pin configuration detailed in the table below

| CON401 - Loudspeakers connector (JST B4P-VH) | Description |
|----------------------------------------------|-------------|
|----------------------------------------------|-------------|

| Name  | Pin # | I/O |                                          |
|-------|-------|-----|------------------------------------------|
| CH 2- | 1     | O   | The GND signal of the channel 2 speaker. |
| CH 2+ | 2     | O   | Amplified speaker signal of channel 2.   |
| CH 1- | 3     | O   | The GND signal of the channel 1 speaker. |
| CH 1+ | 4     | O   | Amplified speaker signal of channel 1.   |

**!** Bridging the speakers is not allowed as it can cause damage to the amplifier.

**CON601** The battery charging jumper

**!** Please remove the jumper when using the battery charger pcb (in development). This jumper connects PVDD with +24V.

**CON602** The battery connector, with pin configuration detailed in the table below

| CON602 - Battery connector; JST B5B-XH | Description |
|----------------------------------------|-------------|
|----------------------------------------|-------------|

| Name            | Pin # | I/O |                                                                                                               |
|-----------------|-------|-----|---------------------------------------------------------------------------------------------------------------|
| CHARGER_EN      | 1     | I   | This pin enables the battery charger.                                                                         |
| BAT_LOW_CHARGER | 2     | O   | This is the digital battery low indicator.                                                                    |
| PVDD            | 3     | O   | This is the supply voltage of the audio amplifier. The absolute maximum voltage is 26.0V; recommended is 24V. |
| +24V            | 4     | I   | This is the output of the power supply module.                                                                |
| GND             | 5     | O   | Power GND.                                                                                                    |

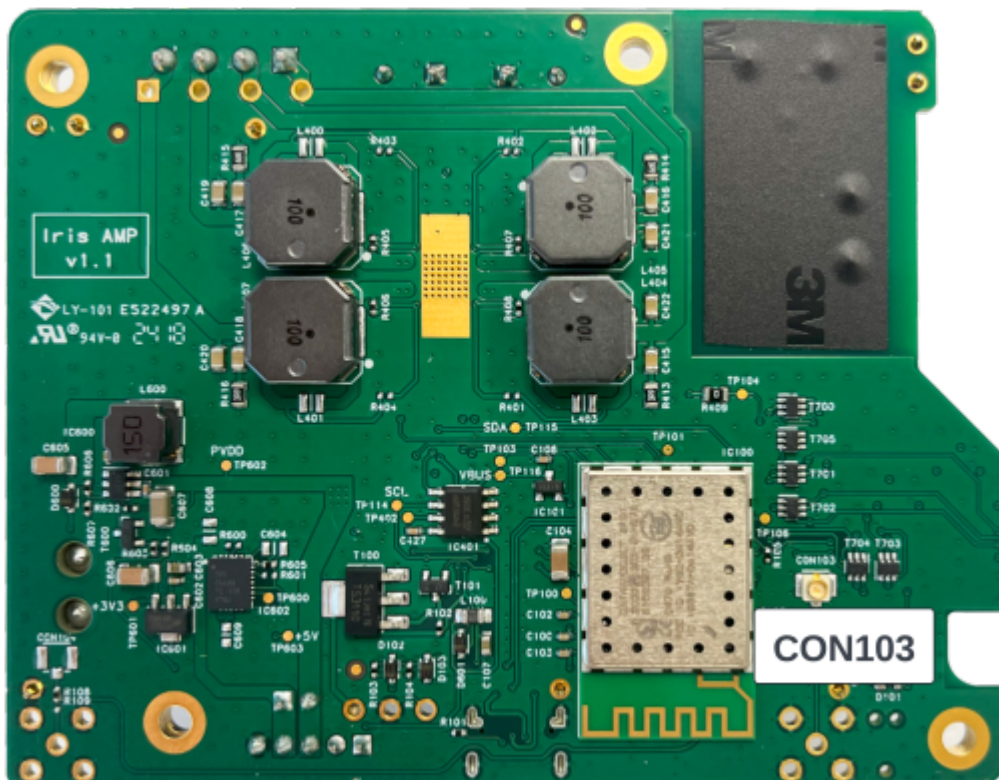
**CON700** The I/O connector, with pin configuration detailed in the table below

| CON700 - I/O connector;<br>16-pin 1.27 pitch |       | Description |                                                                                |
|----------------------------------------------|-------|-------------|--------------------------------------------------------------------------------|
| Name                                         | Pin # | I/O         |                                                                                |
| +3.3V                                        | 1     | O           | This pin is used to power the LEDs                                             |
| RELAY_IO_OUT                                 | 2     | O           | An open-collector output. Max voltage on this pin is 42V. Max current is 1.4A. |
| LED-VU40                                     | 3     | O           | LED output                                                                     |
| RELAY_IO_IN                                  | 4     | I           | A digital input with internal pull-up. Maximum input voltage is 3.3V.          |
| LED-VU20                                     | 5     | O           | LED output                                                                     |
| BAT_LOW_CHARGER                              | 6     | I           | Can be connected to RELAY_IO_IN, in case battery charger module is used.       |
| LED-VU10                                     | 7     | O           | LED output                                                                     |
| LEDG                                         | 8     | O           | LED output                                                                     |
| LED-VU_CLIP                                  | 9     | O           | LED output                                                                     |
| LEDB                                         | 10    | O           | LED output                                                                     |
| LED0A                                        | 11    | O           | LED output                                                                     |
| LEDR                                         | 12    | O           | LED output                                                                     |
| LED0B                                        | 13    | O           | LED output                                                                     |
| LED1B                                        | 14    | O           | LED output                                                                     |
| LED1A                                        | 15    | O           | LED output                                                                     |

| CON700 - I/O connector;<br>16-pin 1.27 pitch |    |   | Description                                               |
|----------------------------------------------|----|---|-----------------------------------------------------------|
| GND                                          | 16 | O | This pin is used for the GND of the Digital Input/Output. |

On the bottom side we find:

**CON103** U.FL antenna connector.



## 2.3 Connecting the Iris

### Connecting the power

Plug the power cord in the the mains outlet. In the process we ask that you play careful attention to the following instructions:

 Always ensure your hands are dry before plugging in or unplugging the power cord from the mains.

 Do not cut or damage the power cord and do not place heavy objects on the cord. This can cause short-circuit, resulting in electrical shocks or even fire.

 Pulling on the power cord can damage the wire or insulation, potentially causing electrical shocks or fire.

 Using power or cords other than the one recommended for your Iris can result in overheating and damage to your device. This can cause fire, electrical shocks and other hazards. Always use the supplied power cord.

 Exposing your Iris to rapidly changing temperatures can result in condensation (small amount of water) on the inner and outer surface of your device. To ensure a long lifespan for your device, this should be avoided. If condensation occurs, wait until your device is completely dry before using it again.

## Connecting the audio input on the TX-device

The analogue audio source is connected to the audio input of the TX-device. The required cable has an RCA connector (2x tulp male) for the Iris side, while the other end depends on the type of connector on the source device. Please note that audio cables are not included.

 In case a mono audio mode is used, make sure that the input from the mono source is connected on the LEFT (Ch1) connector.

## Connecting the speakers to the AMP-device

Make sure the used speakers are specified to handle the full output of the AMP device. Connect the speakers wire to the AMP-device, following the pin configuration instructions in [Device appearance and connections](#) for the Iris DSP Amplifier Module.

## 2.4 General installation notes

For optimal performance of the audio network, proper placement of the devices is essential.

Attention needs to be paid to the following:

- Always try to have the TX-device placed in the “middle” of the installation.
- Make sure to fasten the external antenna tightly for improved range and stability.
- Try to place the products as high as possible and prevent moving obstacles between the devices.
- Use the [Iris Configurator](#) to monitor the received signal strength of your RX-device, and calibrate the antenna orientation for best reception.

Thanks to the stability of the solution, it is possible to install hundreds of devices at a single site. For such large installations, the following is important:

- There can be a maximum of 50 RX-devices in one audio network.
- There can be a maximum of 10 audio networks at one site.

## 2.5 Interfacing to the AMP-device

The following paragraphs will provide guidelines to the electrical interfacing and application of the AMP-device

### Powering the AMP-device

The AMP-device is a Class-II and is mains powered. So no earth connection is required.

The mains voltage should be between 85 and 265 VAC / 50-60 Hz.

Optionally in the Iris DSP Amplifier Module, the mains power supply can be replaced by a rechargeable battery. Please note this option is not available yet from Streamit.

In this case a battery interface pcb needs to be connected to CON602 and the jumper on CON601 needs to be removed.

In this setup, the battery can be charged through the internal power supply.

Please note that the maximum battery voltage should be below 26V.

Above 26V a PVDD over-voltage error will be generated.

The device will be damaged once the voltage comes above 28V.

### Loudspeaker outputs

The AMP-device has 2 BTL loudspeaker outputs which cannot be bridged.

The impedance of the loudspeakers should be between 4 and 8 ohms.

The maximum output power is 2x 50 W.

The outputs are fully EMI protected, so it is not necessary to add extra filter components.

The loudspeaker outputs can be configured in several ways through the DSP:

1. Stereo
2. Dual mono (in case the wireless interface is set to mono, the input audio signal can be routed to both outputs).
3. X-over (so each output is fully controlled by the DSP, which is ideally for 2-way speakers).

### LED outputs

The Iris Brick has two integrated LEDs, but the Iris DSP Amplifier Module potentially has much more options. See [LED status information](#) for more information.

### Relay output

A great feature is the digital output for switching an external power source through a relay. This option is available through a Phoenix connector on the Iris Brick and the I/O connector on the Iris Brick.

### **Antenna input/output**

The mono or stereo audio signal is received through the wireless interface. In the [Configuration](#) chapter is described how you configure the antennas.

We recommend to use the external antenna for a loudspeaker, to guarantee maximum reception. Please note in the Iris Brick only the external antenna can be used because of the metal casing.

### 3 Building your own wireless loudspeaker

The Iris Brick and Iris DSP Amplifier Module (AMP-devices), but also the Iris Receiver can all be integrated with your loudspeakers.

- The Iris Receiver is ideal for loudspeakers with an integrated amplifier.
- The AMP-devices are ideal for loudspeakers without integrated amplifiers.

The AMP-device features a two-channel amplifier with integrated DSP, allowing you to create the crossover electronically for significantly improved audio performance.

More details on building your own wireless loudspeaker are found in the Technical Manual.



## 4 Configuration

The configuration of your Iris audio networks is done using the [Iris Configurator](#), the companion mobile app for Android and iOS.

Programming of DSP presets in your AMP-devices requires the use of the PC tool [Iris Service Tool](#). On site, when presets were already saved on the device, the Iris Configurator can be used for configuring the active preset.

All receiver device types, including the Iris wireless amplifiers, the Pro and standard receivers are compatible with and interoperable with all available transmitter variants (standard and Pro).

### 4.1 How to ensure CE compliance

The final product containing the AMP-device must comply with the relevant standards of the products category.

Note that it is the customer's responsibility to verify that the end-product complies with the required standards of the market for which the product will be commercialized in.

All AMP-devices have CE and WEEE approval.

They meet the requirements of the Radio Equipment Directive (RED): 2014/53/EU.

They also meet the RoHS standards according to the requirements of 2011/65/EU & (EU) 2015/863.

These requirements are covered in the followings standards:

|                           |                                                             |
|---------------------------|-------------------------------------------------------------|
| Safety                    | EN 62368-1                                                  |
| CE-RED with notified body | EN IEC 62311<br>EN 50665<br>EN 301406<br>EN 301489-1/-6/-17 |
| CE-EMC                    | EN 55032; EN 55035                                          |
| CE-RoHS                   | IEC 62321                                                   |

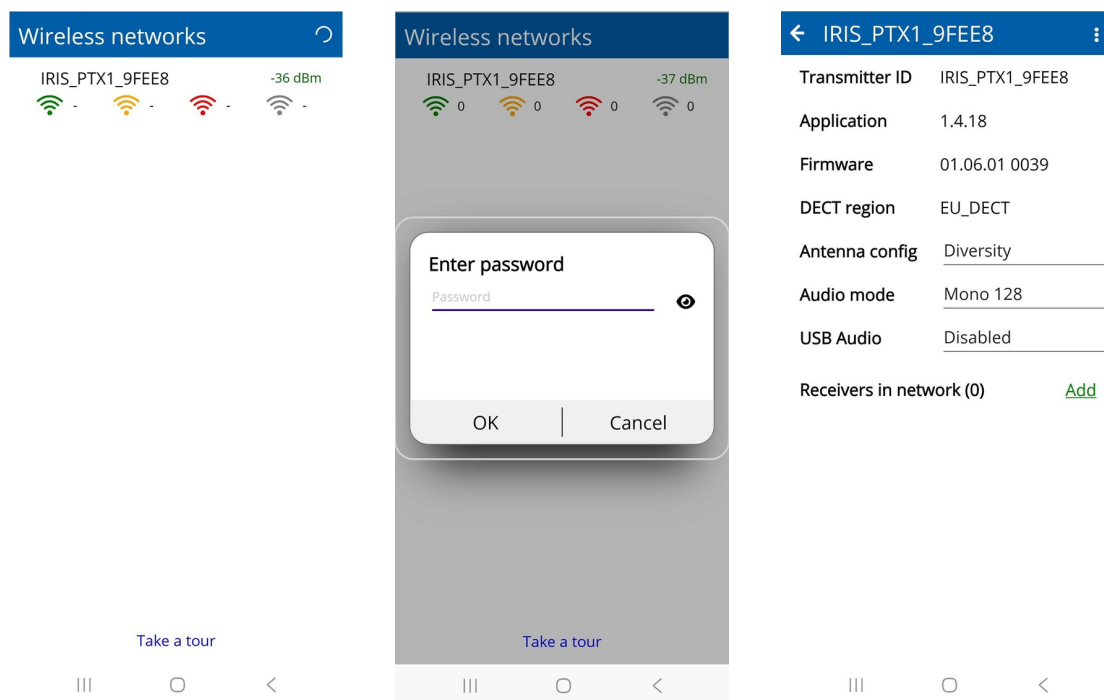
The certificates and reports can be supplied upon request.

### 4.2 Setting up an audio network

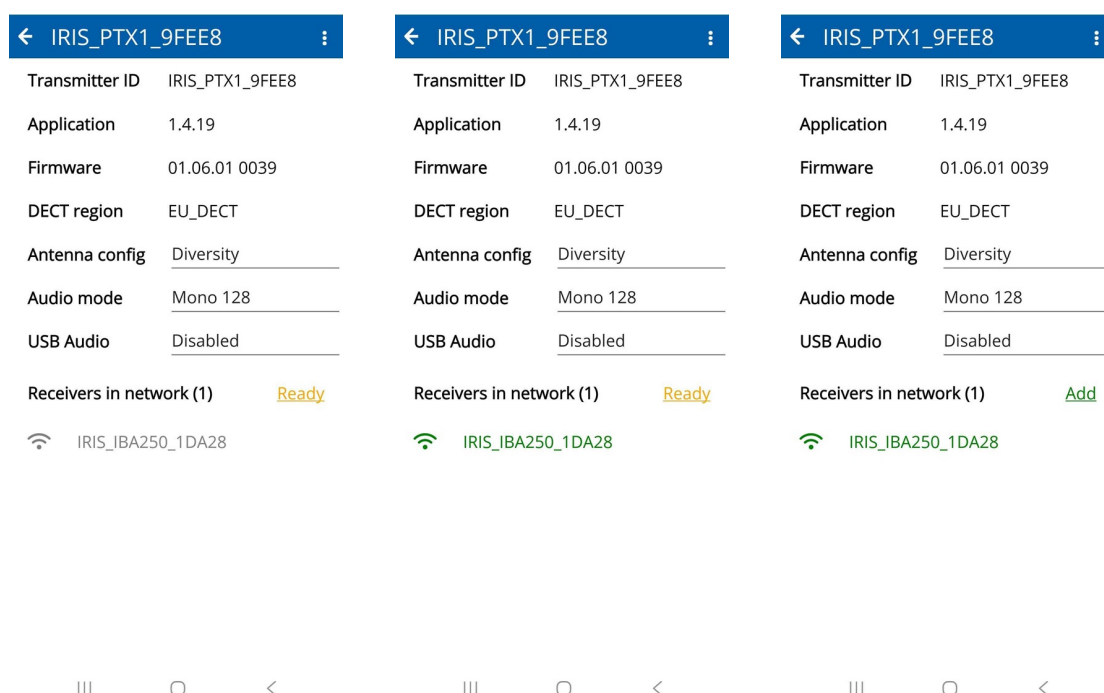
Setting up an audio network has become even easier. All receiver devices that are not already part of an audio network will automatically join a network that enters pairing mode.

- Power up your TX-device and all the RX-devices you want to add to the network

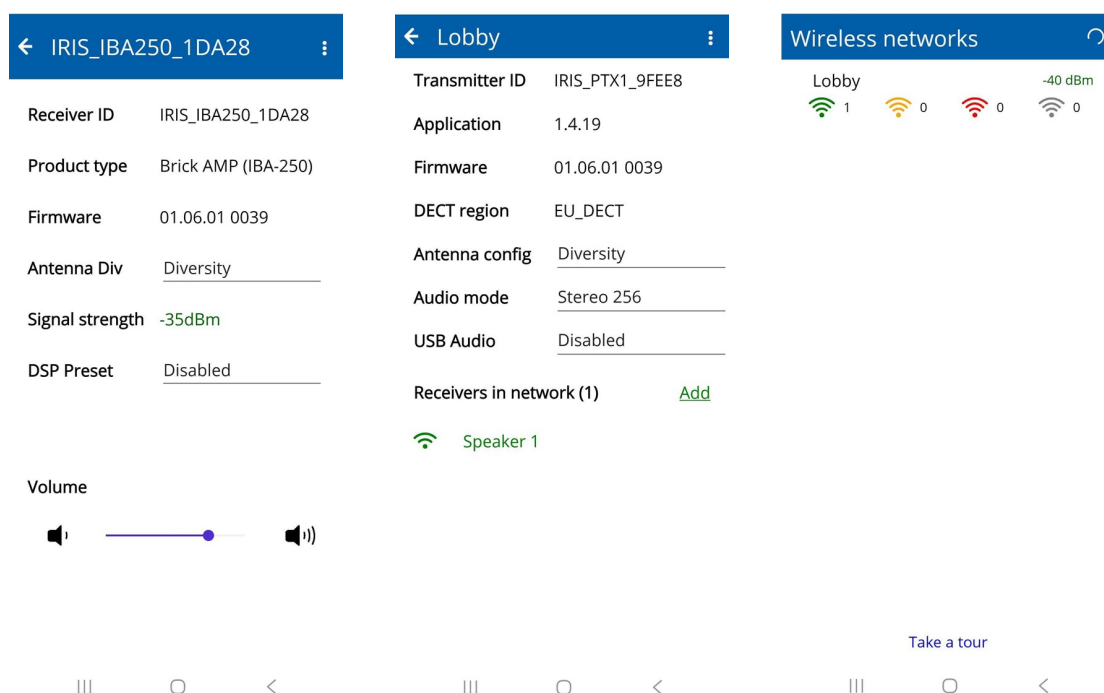
- Start Iris Configurator on your mobile device
- Make sure you are in BLE proximity of the TX-device, otherwise walk towards it until the device shows on the networks overview page. Swipe down to start a new scan, required.



- Identify your TX-device and select it to connect (see [advertising name](#)).
- When asked, enter the password to access the network. See [find the login password](#) for the default password.
- On a successful login, the network's settings page will be shown. For a new network the list of receivers will be empty
- Tap the 'Add' link to set the transmitter in pairing mode and build your wireless network.



- Within a few seconds, all your receiver devices in DECT range (and not already belonging to a network) will join the network. The receiver's audio configuration will be done automatically and audio will come out of the speaker installation (when connected).
- Once all receivers have joined, tap the 'Ready' link to stop the pairing mode.
- Additional options are available from the menu accessible through the vertical ellipsis.



- Modify the configuration to your needs, eventually assigning more user-friendly names to the network and receivers and you are good to go.

### 4.3 Relay control functionality

The Iris has been designed to facilitate switching of equipment such as amplifiers or active speakers whenever audio is not required.

With the relay control functionality, digital input pin changes on the transmitter are transparently communicated to the digital output pins of all receivers in the audio network. This is default behavior and requires no configuration.

To close a circuit connected on the receiver side to the Output and Ground and power on your equipment, you short the Input pin to Ground on the TX-device. Releasing the Input on the transmitter will break the circuit on the receiver side and the connected equipment will turn off.

The relay circuit is out of scope for this manual. Please check the electrical details in [§ Technical specifications](#).

## 5 LED status information

The Iris Brick amplifier features two status LEDs.

A LED can be switched **off** or light up: **solid**, **slow blink** () , **fast blink** () .

### LED: Status



Paired to a TX-device and listening to the broadcast (audio channel is active)



Contains pairing information, but TX-device is not reachable (not listening to broadcast)



Locked to a TX-device, but audio channel inactive (should not happen)



Not paired to a TX-device - transitional state



Pairing mode is active



There is an issue with the DECT hardware or interface

### LED: Signal (Not yet implemented)



Not listening to a broadcast



Listening to broadcast and not muted -> RSSI above -65dBm



Listening to broadcast and not muted -> RSSI between -65dBm and -85dBm



Listening to broadcast -> RSSI below -85dBm



Amplifier chip initialization/communication error



Clipping

## 6 The Iris Configurator

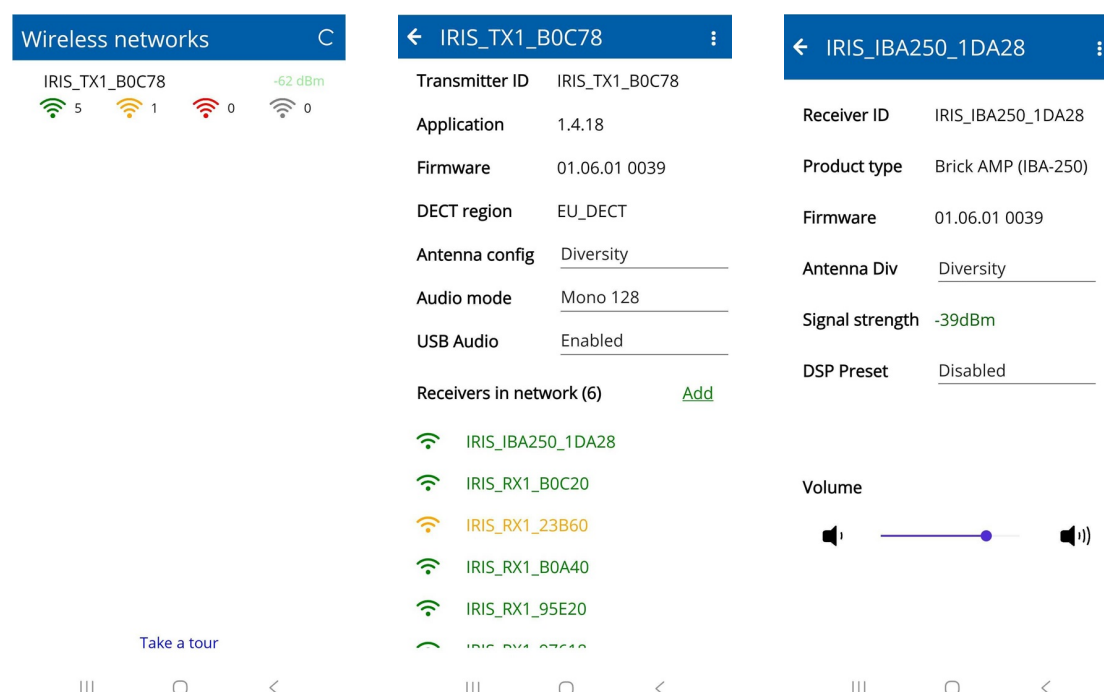
Iris Configurator is the companion mobile app for the Iris. It enables you to configure audio networks and can be used as a remote control by the end user. The app is available for free for both iOS ([App Store](#)) and Android ([Google Play](#)).

Using the Iris Configurator app is only possible when all device in your Iris audio network have been updated to the [latest available firmware](#). The app lists all audio networks in BLE proximity, with the transmitter device being the gateway to the network. The default name of the network will be the [advertising name](#) of the transmitter device (composed using hardware type and unique identifier, information that can be found on the label of the device).

Once connected to the network, you can manage the configuration as well as the receivers in your network.

Screenshots of the main three pages of the app are shown below.

- The overview page shows all audio networks in BLE proximity, including connection quality information for all receivers in the network
- When selecting a network (password is required the first time), the properties page is shown including a listing of all receivers in the network. Additional options are available using the vertical ellipsis.
- When selecting a receiver, the properties page is shown including a slider for configuring the volume. Additional options are available using the vertical ellipsis.

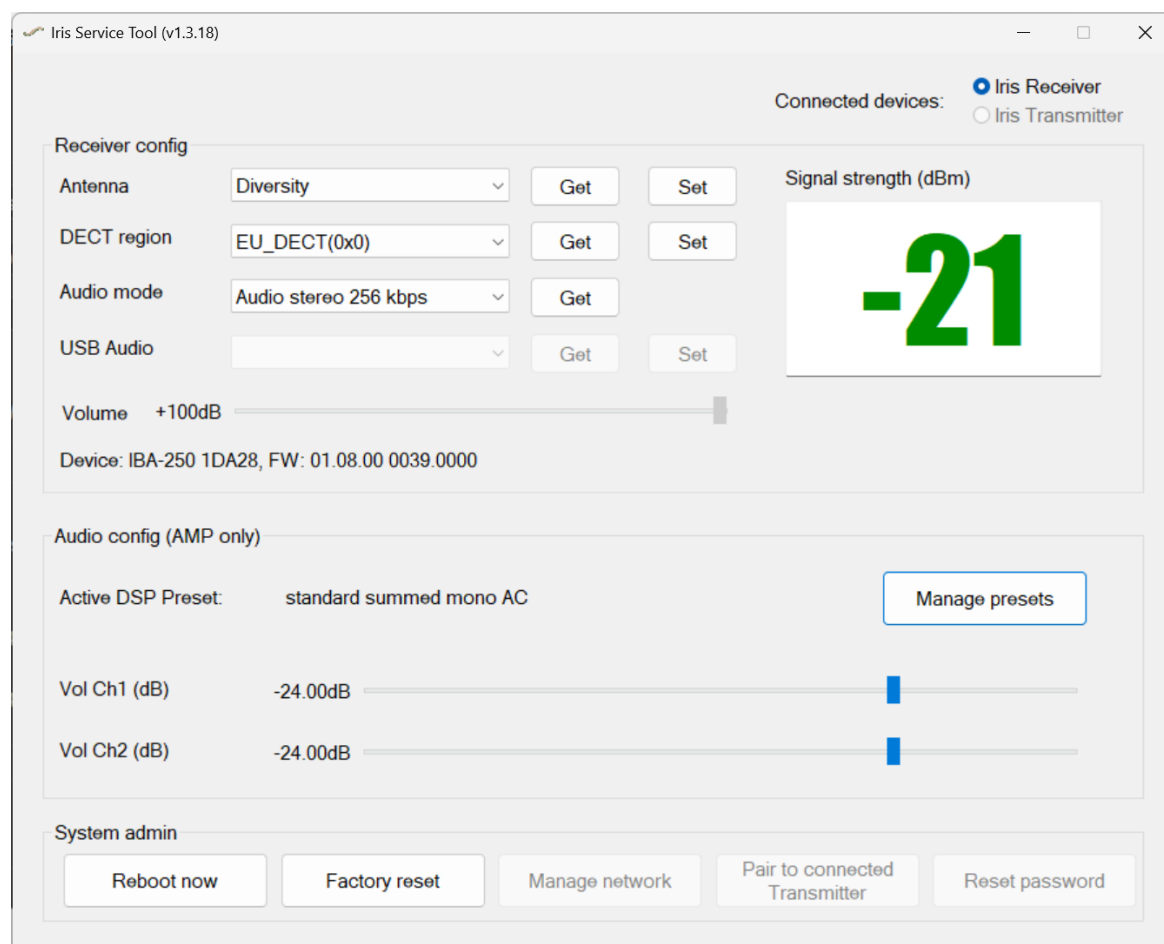




## 7 The Iris Service Tool

The Iris Service Tool is a Windows PC app initially designed for service purposes, to later be used as the configuration and monitoring tool, awaiting the mobile app release (Iris Configurator).

With the Iris Configurator now available, the main reason to use the Iris Service Tool would be for uploading DSP presets to your AMP devices.



When an AMP-device is connected, the DSP configuration pane (for audio and presets) will be enabled. Press "Manage presets" to upload and manage the [DSP configuration](#).



## 8 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, and is present on all Iris devices. The main controller firmware may also be referred to as the DECT firmware in some of our documentation and communications.

All transmitter devices feature a secondary controller. This controller is responsible for additional processing and the remote-control connectivity, enabling audio network monitoring and management via the mobile app. The secondary controller firmware may also be referred to as the BLE firmware.

The RX-1 receiver also features a secondary controller, which used to implement a considerable part of the functionality. Following a major update in April 2026, most functionality was migrated to the main controller. Once your RX-1 receiver is updated to this version (v1.6), we expect secondary controller updates to become redundant.

Depending on the hardware type, but also which version secondary controller firmware is running, updating might be required for either one or both controllers.

|                      | PTX-1 | TX-1 | RX-1   | PRX-1 | IBA-250 | DAM-250 |
|----------------------|-------|------|--------|-------|---------|---------|
| Main controller      | v     | v    | v      | v     | v       | v       |
| Secondary controller | v     | v    | √ (*1) |       |         |         |

(\*1) An update is only required if the RX-1 device is running 'old' firmware (lower than v1.6)

We highly recommend using the matching secondary controller firmware for the transmitter devices. For receiver devices already running secondary firmware v1.6, you only need to update the main controller firmware.

An overview of the released firmware is shown below. The dependency information can be found in the [release notes](#).

|                                      | Main controller | Secondary controller |            |
|--------------------------------------|-----------------|----------------------|------------|
|                                      | All devices     | TX-1 / PTX-1         | RX-1       |
| Release: July 2026                   | v1.10           | v1.8                 | v1.6+ (*2) |
| Release: April 2026                  | v1.8            | v1.6                 | v1.6       |
| Beta: February 2026 (build 20260220) | v1.6.1          | v1.4.15              | v1.4.15    |
| Release: March 2025                  | v1.6            | v1.4                 | v1.4       |

|                                      | Main controller | Secondary controller |         |
|--------------------------------------|-----------------|----------------------|---------|
|                                      | All devices     | TX-1 / PTX-1         | RX-1    |
| Beta: March 2025 (build 20250317)    | v1.5.13         | v1.3.14              | v1.3.14 |
| Beta: January 2025 (build 20250121)  | v1.5.13         | v1.3.14              | v1.3.14 |
| Beta: February 2024 (build 20240229) | v1.5            | v1.3                 | v1.3    |
| Release: September 2023              | v1.4            | v1.2                 | v1.2    |
| Release: February 2023               | v1.0            | v1.0                 | v1.0    |

(\*2) The secondary controller firmware for RX-1 is expected to remain at v1.6. Starting with 'July 2026' release, all secondary controller distributables will contain 'receiver\_dfu\_v1.6+.zip'.

## 8.1 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.

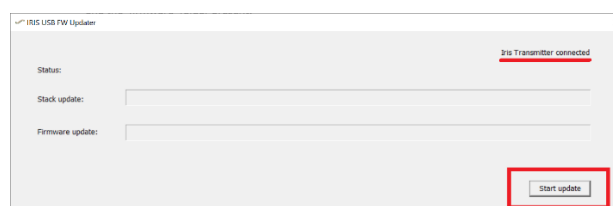
Check and make sure that the executable file and the 'firmware' folder are present.

| Name                 | Date modified    | Type        | Size     |
|----------------------|------------------|-------------|----------|
| Firmware             | 25/03/2025 15:17 | File folder |          |
| IrisUSBFWUpdater.exe | 21/01/2025 13:31 | Application | 2.774 KB |

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.

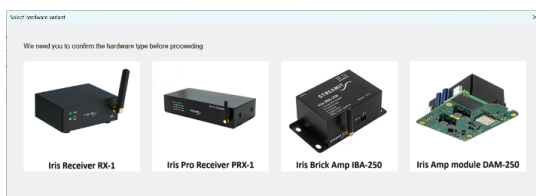
Start the executable 'IrisUSBFWUpdater.exe' and connect the Iris device to the PC using a USB cable.

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



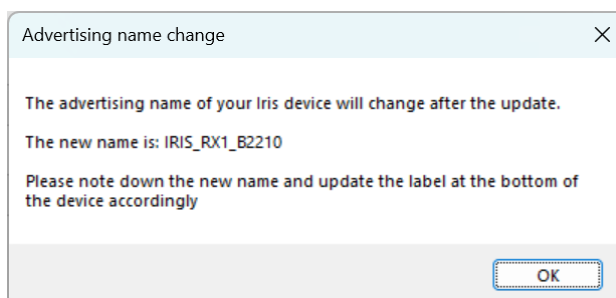
Press 'Start update' and wait for the update to be completed.

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.



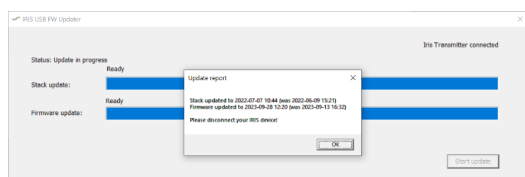
Please make sure to select the correct type, as this determines which functionality gets supported and well as the device identification.

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.

## 8.2 Updating the secondary controller

Updating the secondary controller is required for all transmitter devices (PTX-1 and TX-1) and any RX-1 receiver devices running secondary controller firmware older than v1.6 (April 2026).

The update process requires using a Bluetooth-enabled mobile device and a third-party mobile application 'nRF Connect for Mobile'.

The app is available for download from the Google Play as well as the App Store:

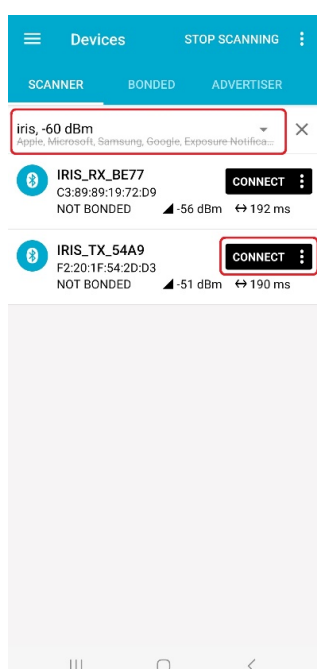
**Android:** <https://play.google.com/store/apps/details?id=no.nordicsemi.android.mcp&hl=en&gl=US>

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

Once you have installed 'nRF Connect' 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), one for the receiver and one for the transmitter device. These ZIP 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 updating your device.

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



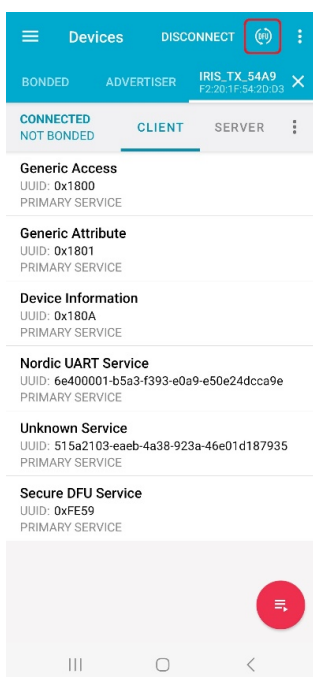
After starting the 'nRF Connect' app, scanning for devices will start automatically.

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

You could restrict the scan results to only Iris devices by entering 'iris' in the filter field "Filter by name or address". 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.

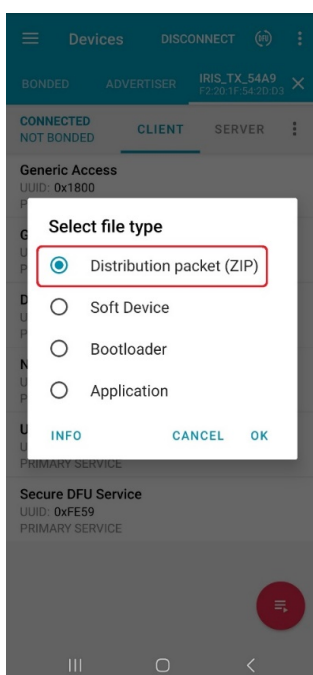


When you connect to your Iris device, the capabilities of the device will be discovered, and some information will be displayed. The specifics of this information are out of scope for this document.

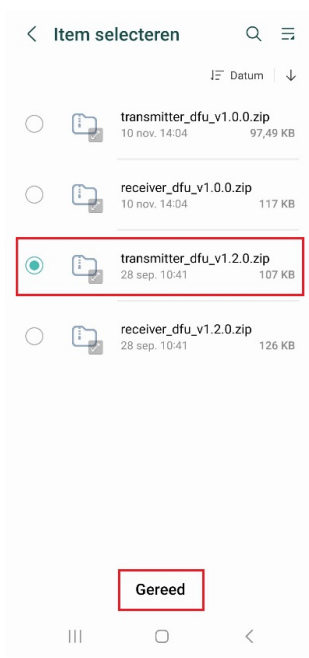
When the Iris device supports the firmware update functionality, an icon  will be shown at the upper right corner.

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.



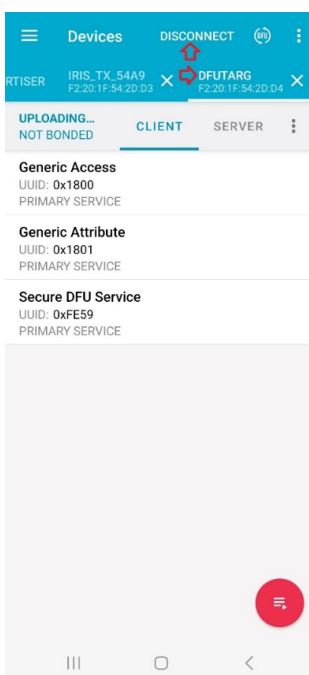
Navigate to the folder where the firmware was downloaded or moved to.

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.

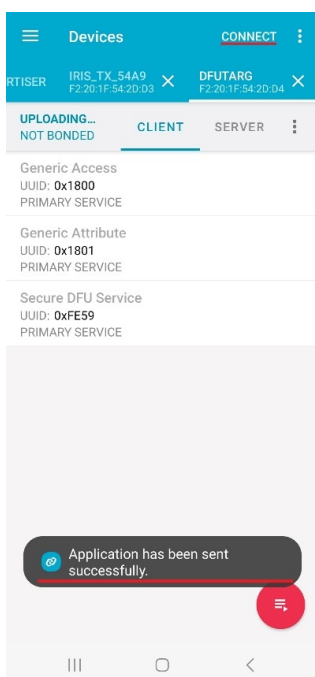


Once the update starts, a new tab called DFUTARG will be added; to the left of the  icon you will still read DISCONNECT.

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  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.

## 9 Technical specifications

|  | Iris Brick | Iris DSP Amplifier Module |
|--|------------|---------------------------|
|--|------------|---------------------------|

### Wireless

|                                 |                              |     |
|---------------------------------|------------------------------|-----|
| Wireless technology             | DECT 1.9GHz                  |     |
| Reception Range                 | 50m indoors to 300m outdoors |     |
| Latency                         | 16.8ms - 17.9ms (*3)         |     |
| Synchronicity between receivers | 0.15ms                       |     |
| Internal antenna                | no                           | yes |
| External antenna                | yes                          |     |

### Analog audio

|                             |                 |  |
|-----------------------------|-----------------|--|
| Max Output Power @4-8Ω      | 2x50W           |  |
| Audio frequency range       | 20 Hz to 20 kHz |  |
| Signal-to-noise ratio (SNR) | >90 dB          |  |
| THD+N(@1 kHz)               | <0,1%           |  |

### Audio DSP

About 100 configurable biquads  
 Volume control / limiter  
 Dynamic range compressors  
 Multiband DRC  
 Dynamic EQ  
 Delay up to 1x20 ms or 2x10ms  
 X-over

### Electrical

|                        |                     |  |
|------------------------|---------------------|--|
| Power supply           | Integrated          |  |
| Operating voltage      | 100~240VAC/50~60Hz  |  |
| Power consumption (AC) | Max 45W, <1W (idle) |  |



|                                 | Iris Brick          | Iris DSP Amplifier Module         |
|---------------------------------|---------------------|-----------------------------------|
| <b>Digital input</b>            |                     |                                   |
| Logical low                     | -                   | $\leq 0.8V$                       |
| Logical high                    | -                   | $\geq 2.5V$                       |
| Internal pull-up resistance     | -                   | 10 k $\Omega$                     |
| Maximum input voltage           | -                   | 3.3V                              |
| <b>Digital output</b>           |                     |                                   |
| Maximum switching voltage       | -                   | 42V                               |
| Maximum output current          | -                   | 1.4A                              |
| <b>Mechanical</b>               |                     |                                   |
| SMA antenna connector           | female              | U.FL                              |
| Audio output connector          | terminal block      | pinheader 0.1"                    |
| Power connector                 | C8                  | pinheader 0.2"                    |
| Service connector               | USB-C               |                                   |
| Relay control input             | terminal block (*1) | pinheader 0.025" (*1)             |
| Relay control output            | terminal block      | pinheader 0.025"                  |
| LEDs                            | RGB (2x)            | pinheader 0.025" (max 4 RGB leds) |
| Charger/battery connector       | -                   | pinheader 0.05"                   |
| Dimensions (LxWxH)              | 150x100x52 mm       | 98x77x40 mm                       |
| Weight                          | 590 gr              | 230 gr                            |
| <b>Environmental and safety</b> |                     |                                   |

|                                 | Iris Brick                     | Iris DSP Amplifier Module |
|---------------------------------|--------------------------------|---------------------------|
| Operating temperature           | -20°C to 50°C                  |                           |
| Humidity                        | 30% to 90%, RHL non-condensing |                           |
| Regulatory compliance           | CE, WEEE                       |                           |
| Radio Equipment Directive (RED) | 2014/53/EU                     |                           |
| RoHS                            | 2011/65/EU & (EU) 2015/863     |                           |

(\*1) Can be used to [factory reset](#) a receiver device

(\*2) No function yet

(\*3) The latency depends on the selected audio mode, with the lowest value applying to "Mono 128" and the highest to "Stereo 256"

## 10 Protective measures

The audio amplifier of the AMP-device contains a range of protection features to avoid damage to the amplifier itself or the attached speakers.

The integrated protection system monitors a range of parameters to check if min/max thresholds are exceeded.

Exceeding the thresholds will trigger internal error events, some of these errors also can be monitored in the app or with a LED.

The following errors and warnings can be reported:

- Low temperature warning
- PVDD Over/Under-voltage
- Over-temperature warning/error
- Output DC
- Over-Current
- Clipping

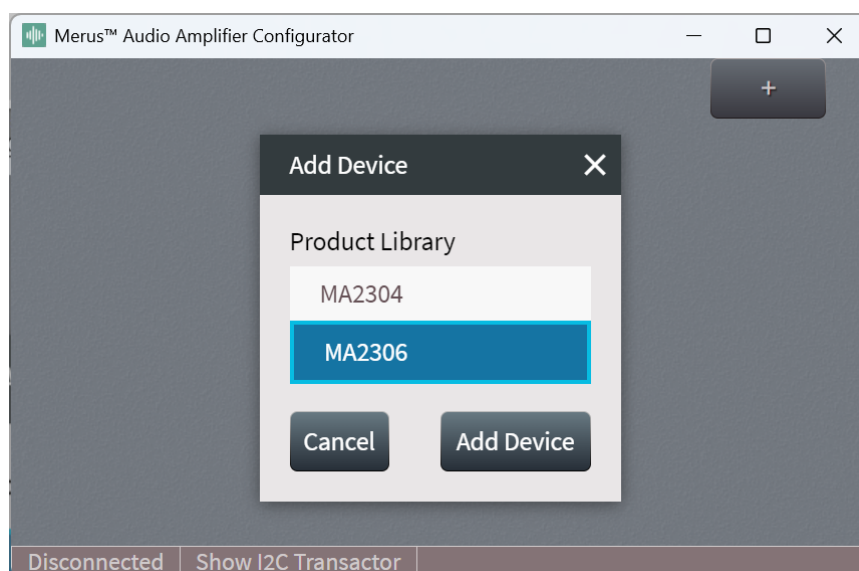
More details about the protection features are described in the Technical Manual.

## 11 DSP configuration

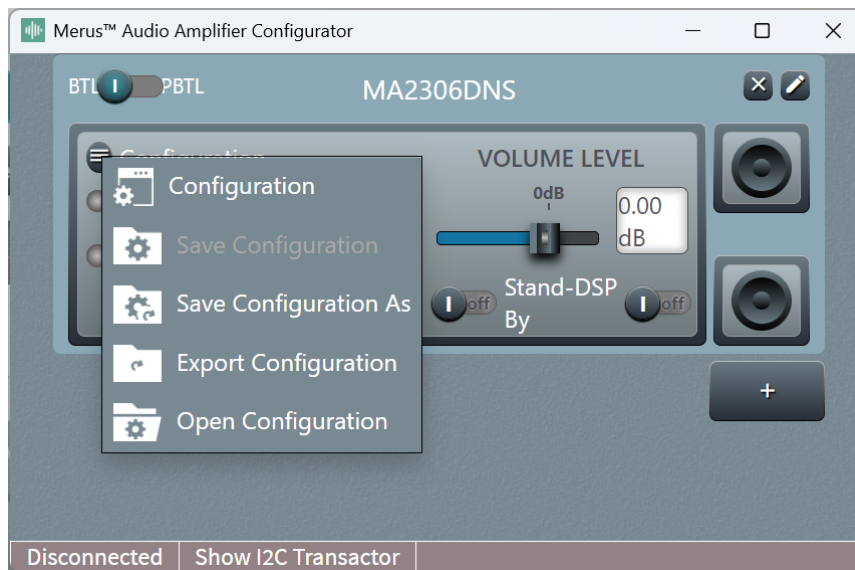
On-the-fly DSP configuration of Iris AMP devices is not possible. A configuration is first prepared using Infineon's 'MERUS Audio Amplifier Configurator', then exported as a preset compatible with AMP-devices.

Using the [Iris Service Tool](#) you can upload up to 6 DSP presets to your AMP-device, and select which preset to activate.

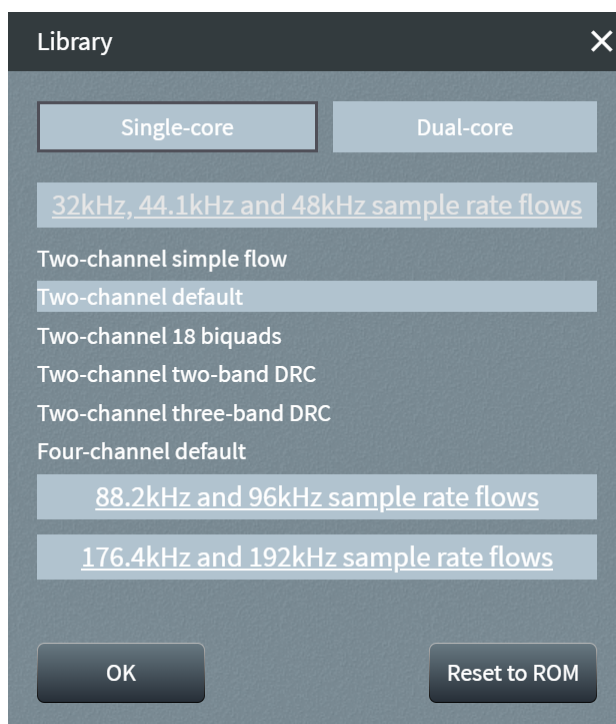
- Download and install the "MERUS Audio Amplifier Configurator" ([https://streamit.eu/dl-content/temp/tools/merusaudioamplifierconfigurator\\_2.0.1.202402281050.zip](https://streamit.eu/dl-content/temp/tools/merusaudioamplifierconfigurator_2.0.1.202402281050.zip))
- Start the tool and disregard the 'Disconnected' in the status bar, as the MERUS configurator does not connect directly to the Iris.
- To work in what is called the demo mode (without a device connected), we press the add button 
- Select the product option MA2306, then press 'Add Device'



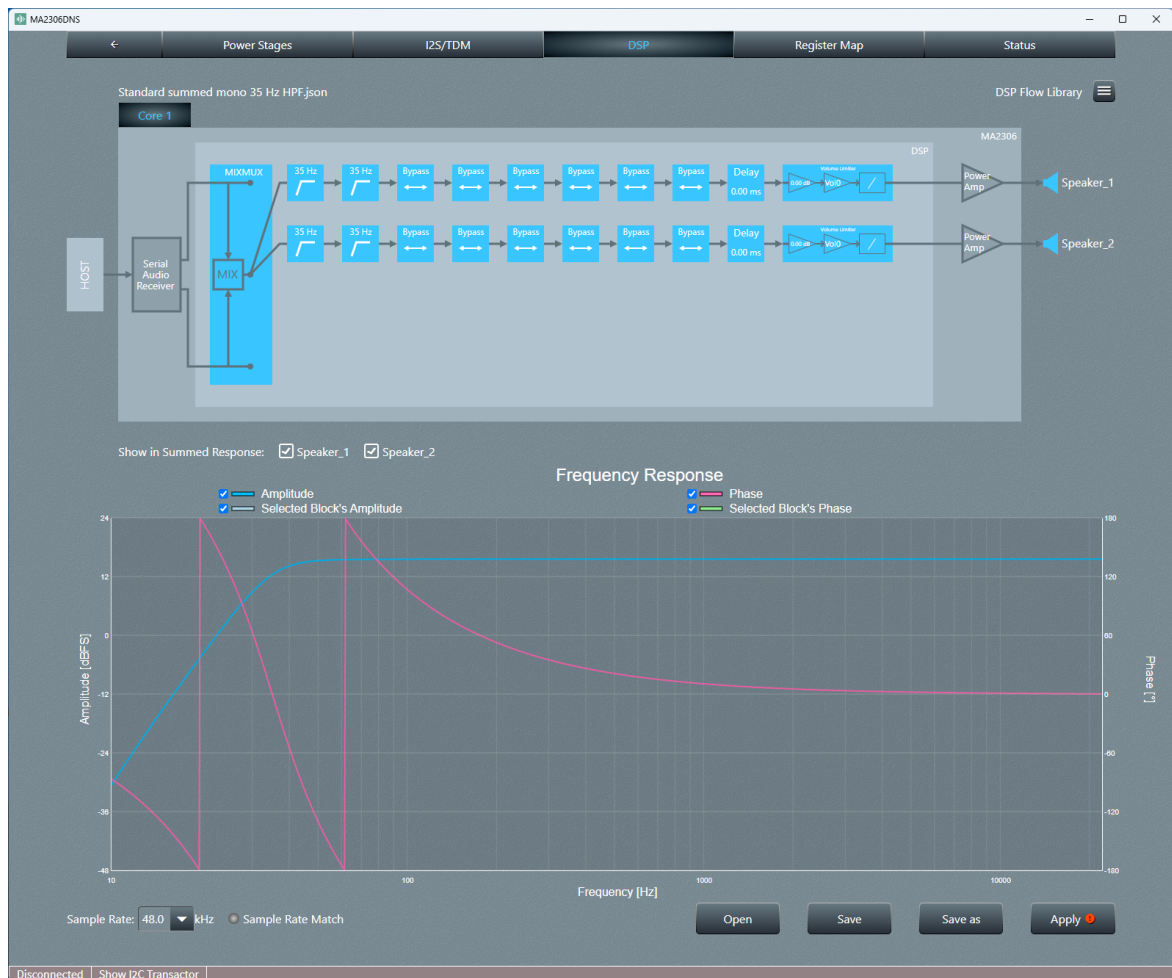
- Access the configuration interface for the MA2306 using  and selecting Configuration



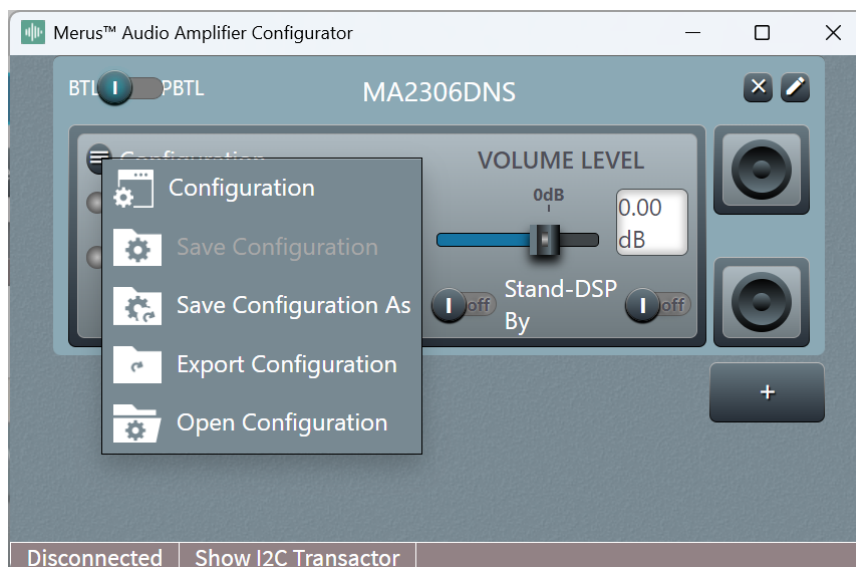
- Select the DSP tab, then access the **DSP Flow Library** and select the flow that best fits your needs, from the 48kHz section. It is also possible to open an already existing flow you might have saved earlier.



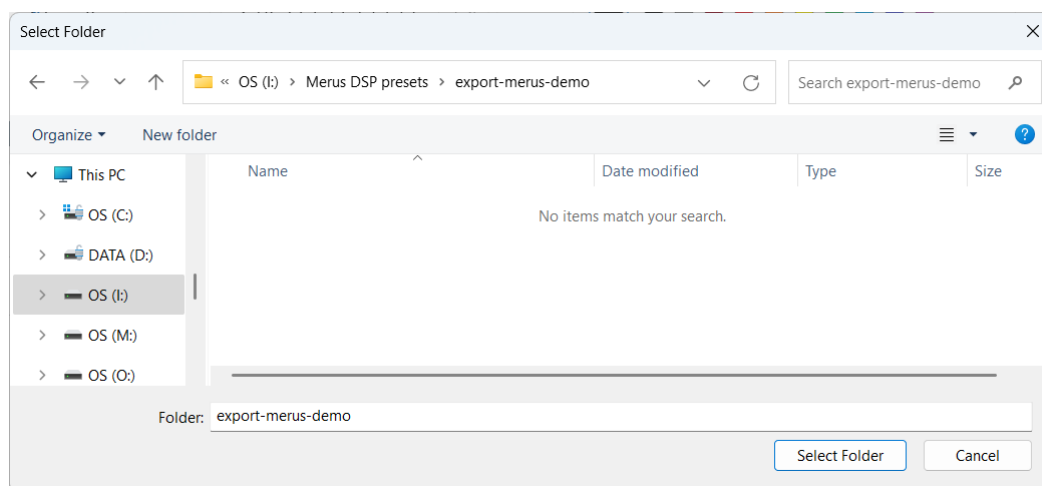
- Configure the DSP to your needs, eventually saving the DSP flow for later use (Save as/Save buttons at the bottom). and get back to the main application using the back-arrow tab.



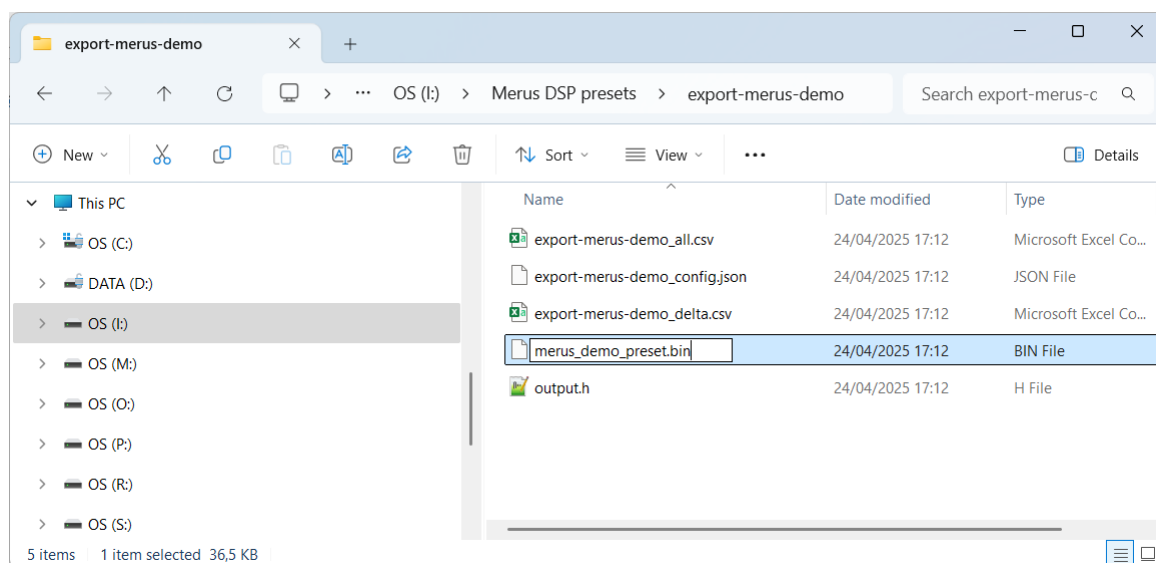
- From the main application screen we can export the DSP configuration we just created/updated, so it can be used as a preset for your Iris AMP-device. Open the configuration menu using and select the option "Export Configuration"



- Select a folder for the configuration to be saved, eventually creating a new one when needed.



- On confirmation of the folder to save your output to, the DSP configuration gets exported in different formats with different files being generated. The file we are interested in for using as a DSP preset for our AMP-device is the one named 'output' (without an extension). Give this file a logical name describing the preset and rename it making sure the '.bin' extension is added.



We can upload and activate our preset using the Iris Service Tool . When an AMP-device is connected, the DSP configuration pane (for audio and presets) will be enabled. Use 'Manage presets' to upload/remove and activate/deactivate presets.

[illegible]



## 12 Troubleshooting

In this section several tools and options for troubleshooting are described. Please consider these options before contacting support, this might save you time.

### 12.1 Audio disruptions

When the installation is done properly and the Iris devices are placed correctly as described in [§General installation notes](#), you will not experience any audio disruptions.

- Check and make sure the external antenna is fastened tightly.
- Check the received signal strength using the Iris Configurator and select the antenna orientation that results in the strongest signal.
- Should the received signal be weak and not possible to improve, then evaluate the application requirements in the context of the audio mode setting. When 256kbps is used, you could experiment whether 128kbps results in less or no disruptions.

### 12.2 Finding the advertising name

The name of an Iris device as shown in the Iris Configurator is called the advertising name. It always starts with "IRIS" and is composed by appending the hardware type and the unique identifier. This information is printed on the label found on the bottom side of the device (e.g. for a PTX-1 device with id 1234A, the advertising name would be IRIS\_PTX1\_1234A).

Iris devices running outdated firmware have a different name format (e.g. IRIS\_RX\_ABCD), which has been deprecated. When updating older devices, the advertising name will change to the new format and you will be asked to note down the new name. It is highly recommended to note down the new name, and update the information on the label as well. Should you fail to do so, you can always find the advertising name by connecting your device to the Iris Service Tool.

### 12.3 Find the login password

In order for an instance of the Iris Configurator to be authorized to connect to the audio network, a password needs to be entered.

The default password is '**streamit**' (without quotes). It is highly recommended to change the password as one of the first steps in setting up your network, so that only those authorized can access the network.

Should you no longer remember which password was used for a specific network, you can [reset the password](#) using the Iris Service Tool.

## 12.4 Password reset

Resetting the password of your Iris audio network is only possible through the Iris Service Tool:

- Connect the TX-device via USB to the PC where the tool is running
- Start the Iris Service Tool
- Make sure the TX-device is selected
- Press 'Reset password' button and accept to proceed with the reset

Use the Iris Configurator to connect to your network with the [default login password](#), and change the password right away.

## 12.5 Factory reset

Resetting a device will apply default values for all important settings.

A factory reset for a transmitter device is only possible through the Iris Configurator, after having signed in. See [password reset](#), in case you no longer remember the password.

Receiver devices can be reset through the Iris Configurator, by accessing the network it belongs to. Another option is to reset a receiver device is using the relay control input. This will require making a simple reset dongle using a terminal block connector, and connecting a wire between input and ground.

The steps to reset a receiver using a reset dongle:

- Disconnect the power
- Plug the reset dongle in the RX-device
- Connect back the power with the dongle still attached
- Remove the reset dongle within 10 seconds of startup
- When the above procedure was followed, a factory reset will be executed 10 seconds after startup

## 13 Release notes

**Version:** 1.10.0

**Release date:** 2026-07-02

### **New Features:**

- Extended the BLE API with additional diagnostic functions.

### **Improvements:**

- Optimized resource management for BLE traffic on the transmitter.
- Optimized the live data exchange mechanism with the transmitter, significantly improving the Iris Configurator user experience.
- Low latency configuration now gets automatically applied after a factory reset.

### **Bug Fixes:**

- Fixed a regression introduced in the previous release where only the left channel was encoded in stereo mode.
- Fixed an issue introduced in the previous release that increased latency by nearly 10 ms.

### **Dependencies:**

- Compiled with DECT stack v0042\_STREAMIT.
- Secondary controller firmware compatibility:
  - Transmitter devices: v1.8
  - Receiver devices: v1.6

**Version:** 1.8.0

**Release date:** 2026-04-23

### **New Features:**

- Added support for configuring and monitoring receivers over DECT through the transmitter
- Significantly extended and updated the BLE API to support working with the new Iris Configurator app
- Added the VU meter functionality for the Iris Pro transmitter
- Added USB audio input support for transmitter devices
- Added support for mono audio encoding at 256kbps
- Added the basics for implementing range extension functionality, but the functionality remains disabled in this version
- Replaced the login PIN with login password
- Added password reset through the Iris Service Tool

### **Improvements:**

- Major improvements made to the BLE connection configuration, BLE data exchange mechanisms, API commands, and memory management.
- Receiver devices will automatically enter pairing mode when not belonging to an audio network

- Simplified the unpairing mechanism and added option to forget receiver devices not in range
- Changed the USB driver name to "Streamit Iris TX device" or "Streamit Iris RX device"
- Disabled the BLE control interface of RX-1 receiver devices
- Factory reset is no longer possible without being logged in

#### **Bug Fixes:**

- Fixed: There was a 1dB difference between the output signal on the receiver and the input signal.
- Fixed: Volume changes did not always persist correctly

#### **Dependencies:**

- Compiled with DECT stack v0039\_STREAMIT.
- Compatible with v1.6 firmware for the secondary controller.

### **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.

## 14 More information

In addition to this manual, the following sources are available for your reference:

- Support page: <https://www.streamit.eu/support>
- Streamit site with additional manuals: <https://www.streamit.eu>

## 15 Support

For technical support regarding the Iris devices, software tools or technical documentation, please contact your dealer first. In case you are a direct customer of Streamit, please visit the support page (<https://www.streamit.eu/support>) where you will find the option to submit a support ticket.



