SET-UP INSTRUCTIONS

How can the **DB91-TX** be set to act as a Streaming Audio Server, sending audio to **DB91-RX** decoder/s used as an IP Audio Client

DEVA® BROADCAST

Publish Date: 21-Jun-2017

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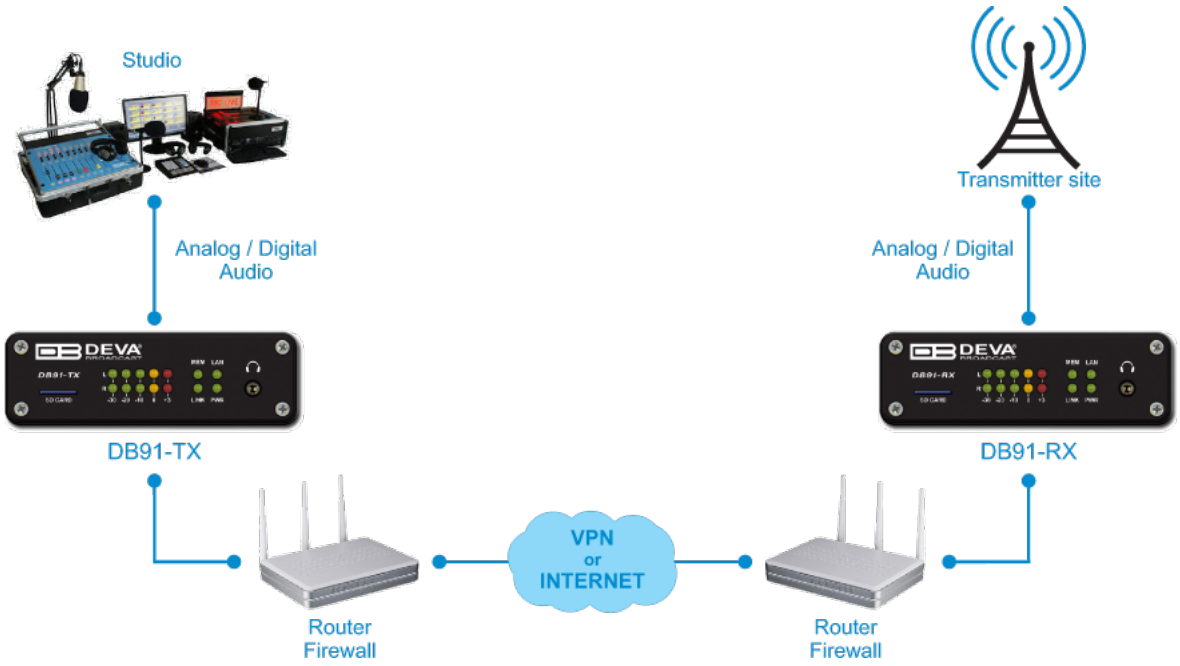
General information

The IP Audio encoder and decoder are controlled trough a build in WEB Server and a standard web browser is used to monitor their status or to make some adjustments. To operate the devices you need to know their IP Address. In case you are not aware of the IP Addresses and how to open the WEB interface, please refer to "Appendix A - DB91-TX Quick User Guide" on page 7 and "Appendix B - DB91-RX Quick User Guide" on page 13.

This configuration allows two types of applications:

POINT-TO-POINT AUDIO TRANSMISSION



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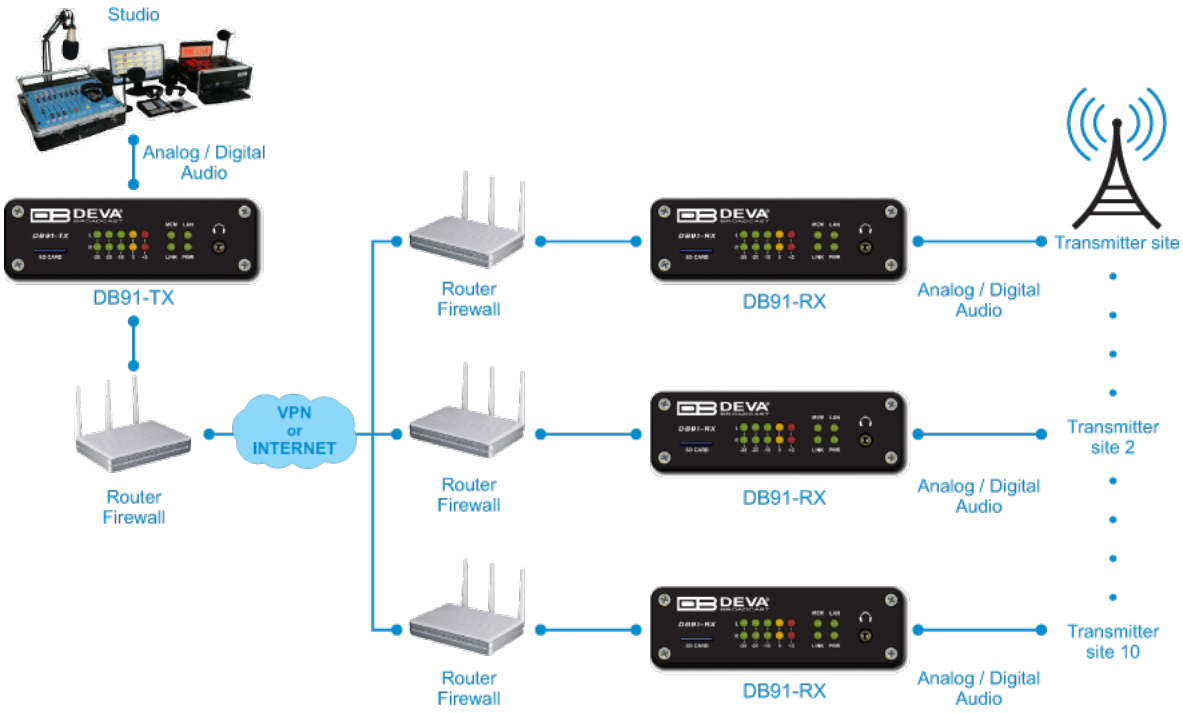
POINT TO MULTI-POINT AUDIO TRANSMISSION

IMPORTANT NOTE: One DB91-TX can send audio to maximum ten DB91-RXs. However, in order for stable connectivity to be guaranteed, the recommended number of clients is 8.



DB91-TX AND DB91-RX SET-UP

Prior to implementing the below written adjustments, the following requirements should be fulfilled:

- DB91-TX must have a static IP address;
- If the device is placed behind a router, you will have to make sure that the Stream Server Port is properly NAT forwarded;
- DB91-RX may have a dynamic IP address;
- DB91-RX should have access to DB91-TX over the network (Internet or LAN).

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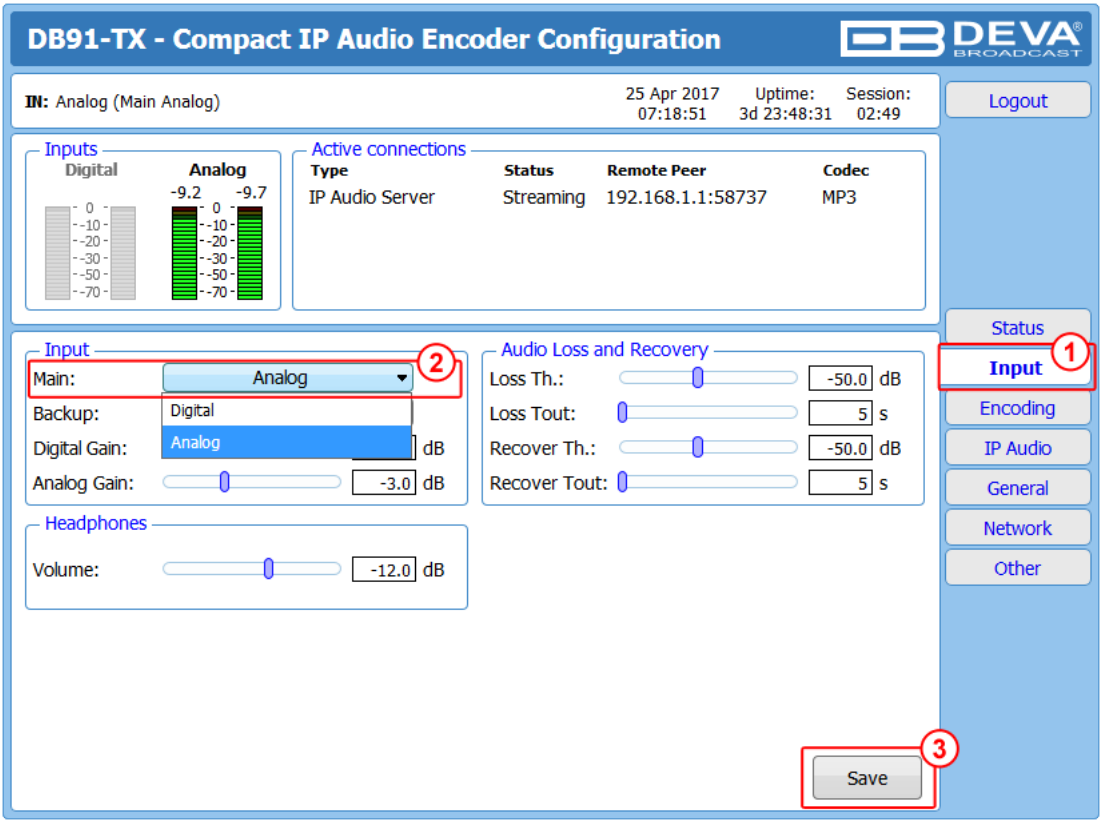
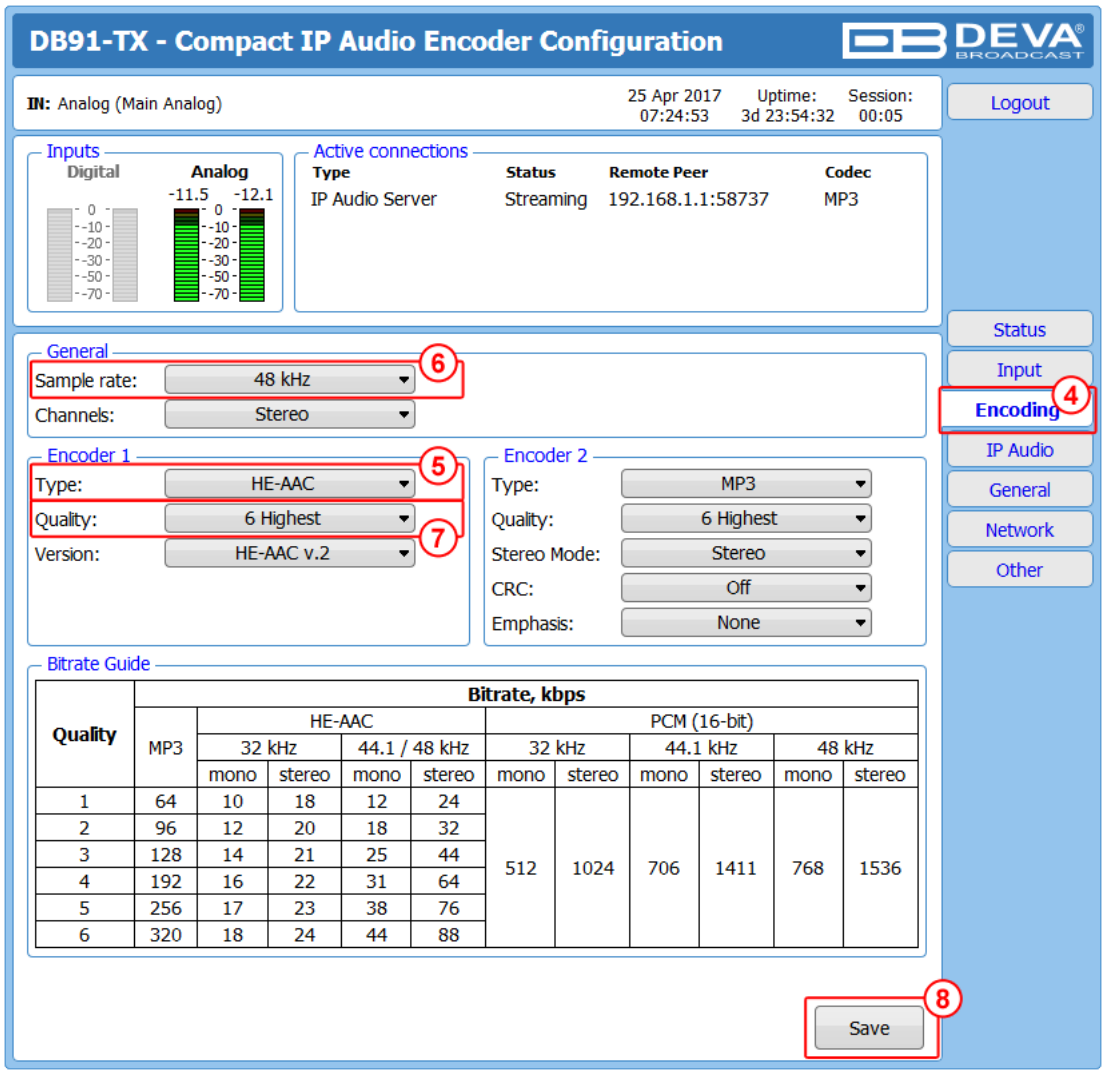
DB91-TX STREAMING AUDIO SERVER SET-UP



1. Go to ***Settings> Input***;
2. Choose the preferred audio **signal input**;
3. Press [Save];

4. Go to ***Settings> Encoding***;

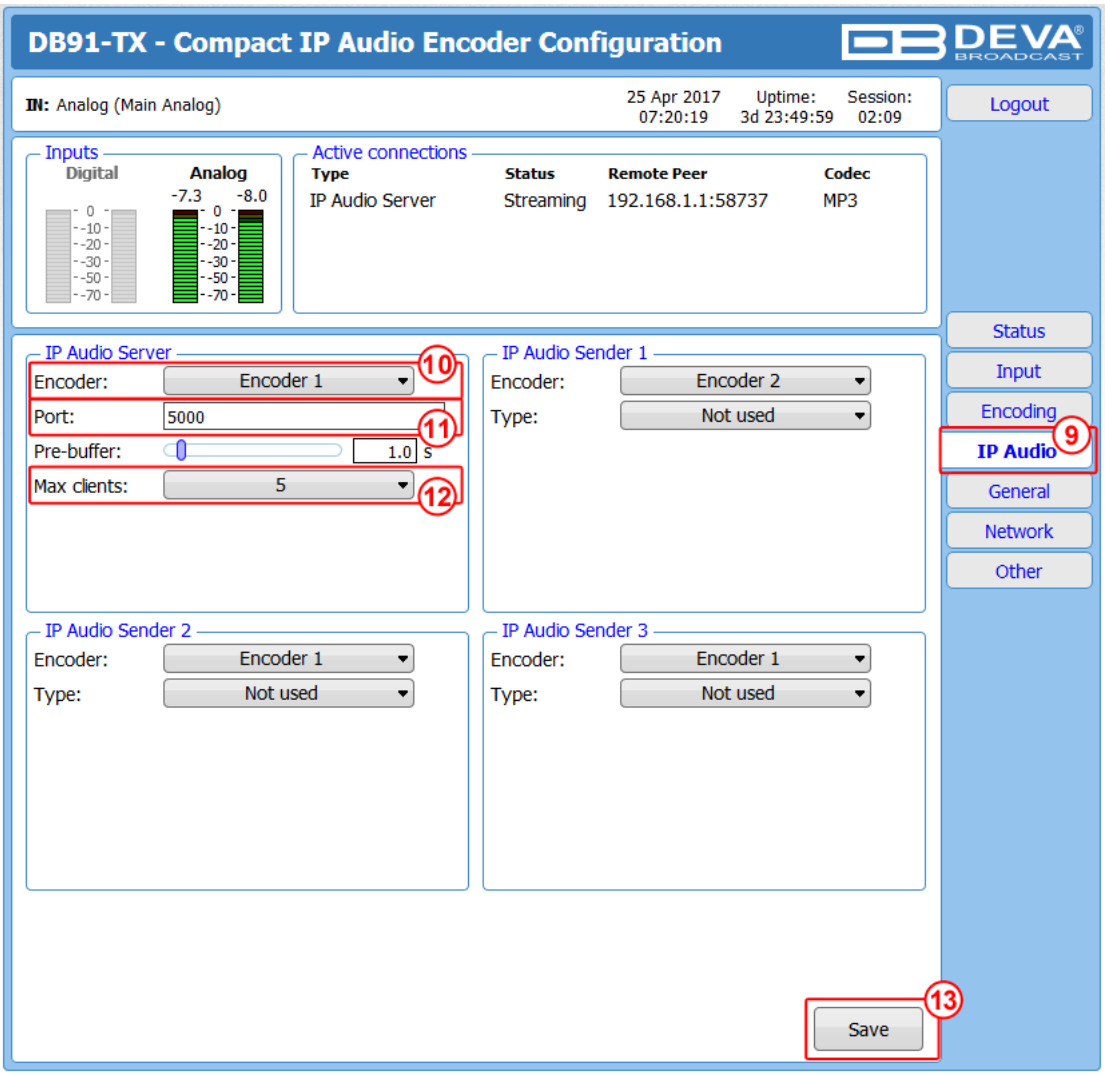


5. Assign **Encoder type;**
6. Assign **Sample rate**;
7. Assign desired **Signal Quality**.

The combination of these parameters will define the stream bitrate (see ***Bitrate Guide*** table at the bottom of this screen). The network connection should have enough bandwidth to process all the streams. As a rough estimate, the bandwidth should be at least twice the stream's bitrate, multiplied by the number of simultaneous connections;

8. Press [Save];

9. Go to ***Settings> IP Audio***;



10. Then in ***IP Audio Server*** section - select **Encoder** from the drop-down menu;
11. Specify **Port** to be used;
12. Specify Maximum supported connections(clients);
13. Press [Save].

For detailed information and instructions on how communication with the DB91-TX can be established, please refer to "Appendix A - DB91-TX Quick User Guide" on page 7.

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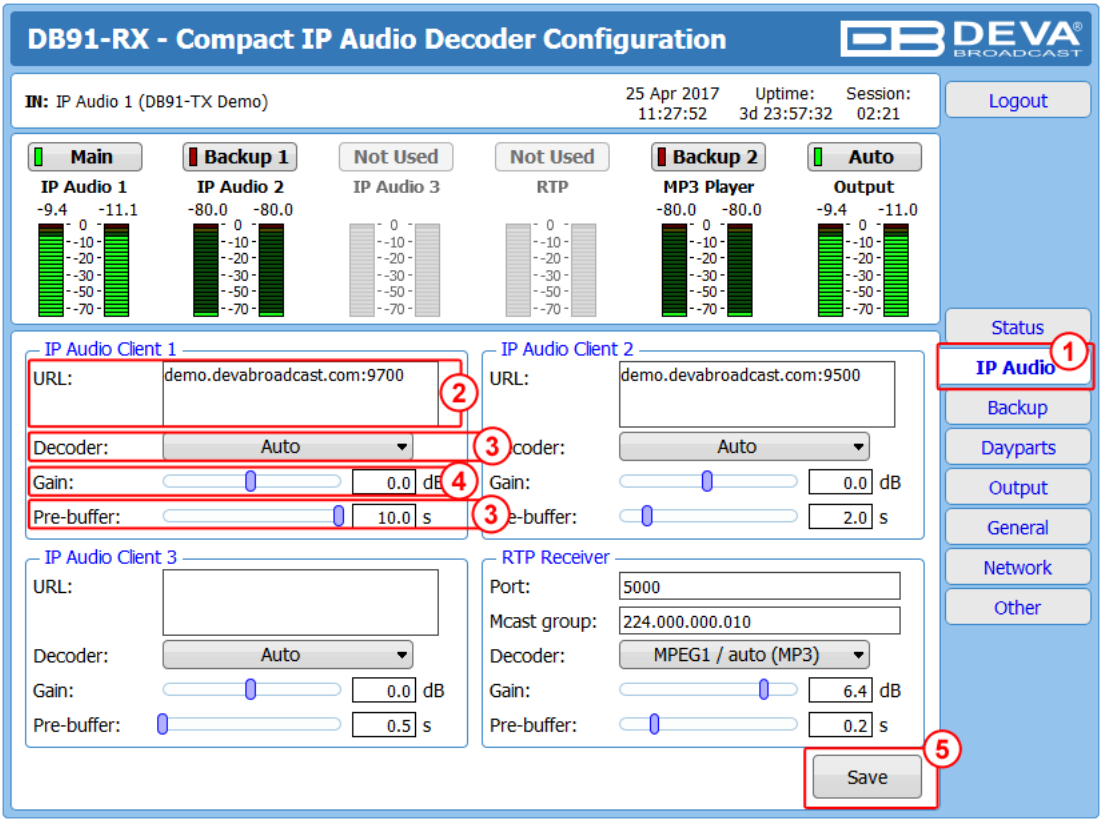
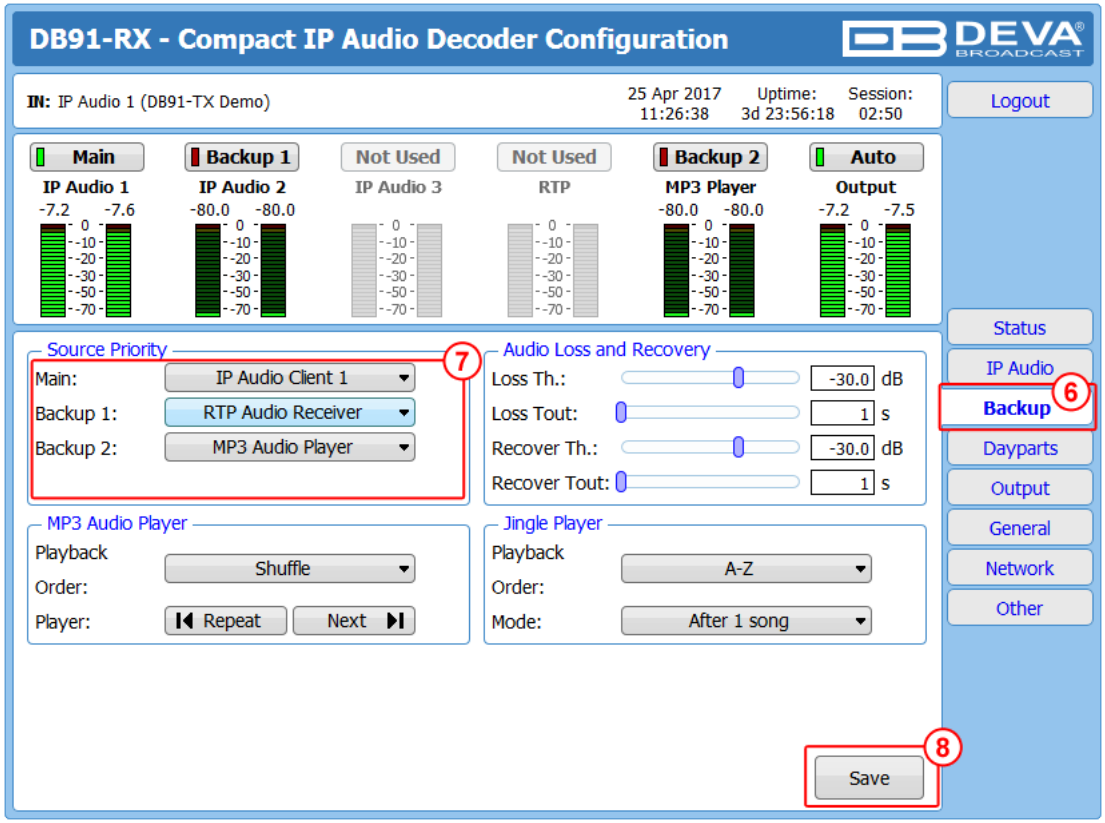
DB91-RX IP AUDIO CLIENT SET-UP



1. Go to ***Settings> IP Audio***;
2. In ***IP Audio Client*** 1/2 or 3 section – **URL** of the DB91-TX Server should be specified. The **URL** is a mandatory requisite needed in order for a connection with the server to be established. The **URL** could be compound of DB91-TX's IP Address and Server Port, ex. 192.168.1.20:5000;
3. Choose the preferred **Decoder** and **Pre-buffer**. The decoder set in the DB91-RX must match the encoder specified in DB91-TX;
4. If needed, set new **Gain** adjustment settings;
5. Press [Save];

6. Go to ***Settings> Backup***;



7. From the ***Source Priority*** Section set the priority of the **IP Audio Client**. Apply the same settings to all IP Audio clients to be used in the configuration;
8. Press [Save];

For detailed information and instructions on how communication with the DB91-RX can be established, please refer to "Appendix B - DB91-RX Quick User Guide" on page 13.

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Appendix A

Quick User Guide

DB91-TX

Compact IP Audio Encoder

→ BEFORE YOU USE THIS PRODUCT ←

In order to be able to enjoy all the benefits of owning your new DEVA product, please verify first that the latest software and firmware release were installed.

Visit **www.devabroadcast.com/downloads** for the most recent software and firmware downloads, prior the installation.

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This Quick user guide will make the installation of **DB91-TX** quick and easy. Applying these principles, you can simplify the process and save yourself extra time and effort. **For more information about the Safety precautions and the Operating environment recommendations please refer to the User Manual.**

STEP 1 Connection

1. The encoder has to be connected to the local network or Internet by cable with RJ-45 connector;
2. As only one input at a time can be managed by the encoder, please select the preferred signal source input - either analog or digital one:
   - For Analog audio use a cable that ends with two standard RCA jacks to connect the analog signal source to the analog audio inputs of DB91-TX;
   - For Digital audio use a cable that ends with standard RCA jack to connect the S/PDIF signal source to the digital audio input of DB91-TX;
3. Connect the device to the power supply.

STEP 2 Configuration

DB91-TX is controlled trough a build in WEB Server and a standard web browser can be used to monitor its status or to make some adjustments.

To operate the device you need to know its IP Address. In case you are not aware of it, you can hear it through the headphones when you turn on the the device. Alternatively, use the Network discovery feature at Local networks (for reference see Step 3).

STEP 3 Network discovery for Windows 7

Network discovery is a network setting that defines whether your computer can see (find) other computers and devices on the network and whether other computers on the network can see your computer. By default, Windows Firewall blocks network discovery but you can enable it.

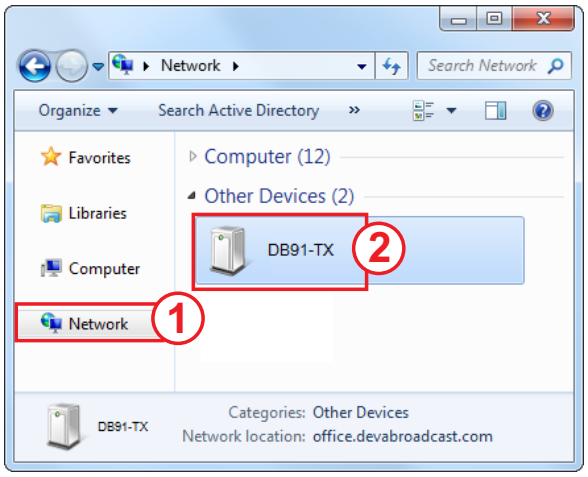
If you have already enabled this function on your computer just open a new Explorer bar and click on **(1)**. The device must be displayed.

1. Open Advanced sharing settings by clicking the Start button, and then on "Control Panel". In the search box, type "network", click "Network and Sharing Center", and then, in the left pane click "Change advanced sharing settings";

2. Select your current network profile;

3. Click **Turn on network discovery**, and then click Save changes. If you're prompted for an administrator password or confirmation, type the password or provide confirmation.

4. To access the device open a new Explorer bar and click on **(1)**. If you have successfully enabled the network discovery option, the device will be displayed. Double click on **(2)** will open a new WEB browser window requiring username and password. Default values being -Username: user or admin, Password: pass.



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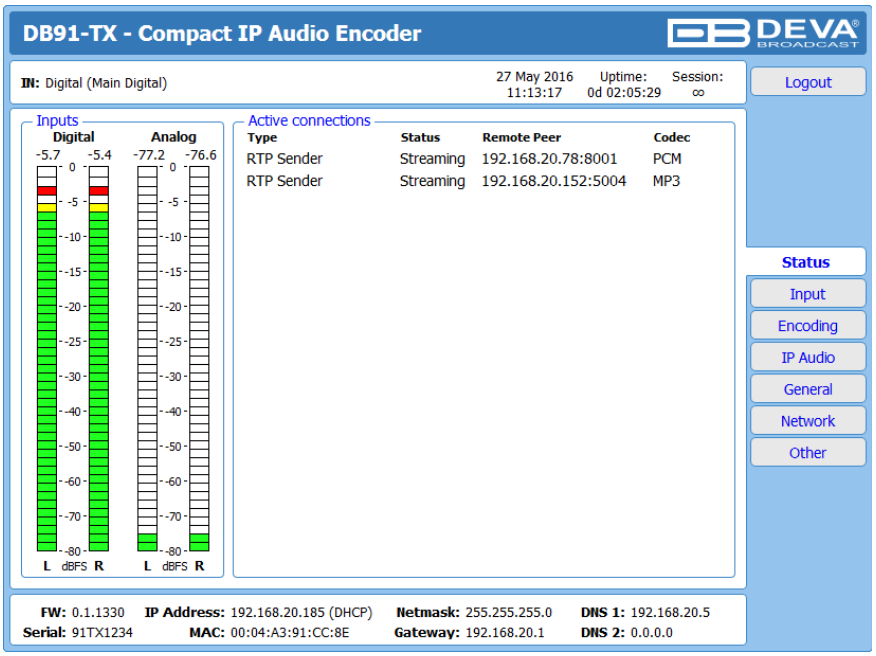
STEP 4 — WEB Interface

A successful log-in in the WEB Interface will look like this:

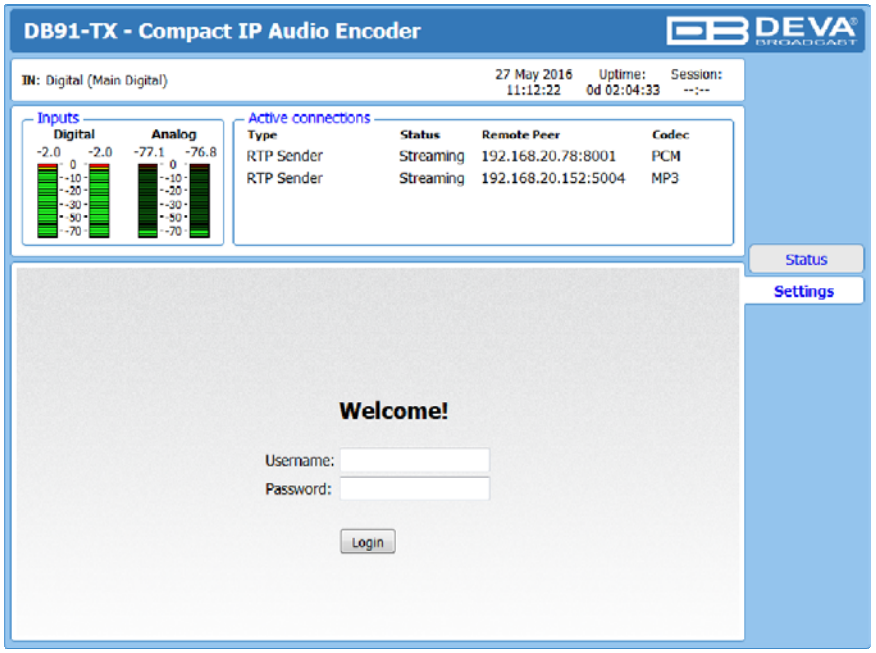


Upon opening the WEB interface, the main Status window will appear. The page contains information on the device's current status - the LED bar-graph representation of the left and right Digital and Analog audio levels in dBFS, as well as the Active connections - Type, Status, Remote Peer and Codec.

At the top of the control window is placed a constant section, containing information about the input in use, Date/Time and session timeout.

The DB91-TX provides you with a protected access to the device settings. Upon pressing the Settings button, a window requiring username and password will appear.

To make the necessary adjustments to the device log in as ADMINISTRATOR. This will give you full control over the settings. The default values beingusername: *admin*, password: *pass*);



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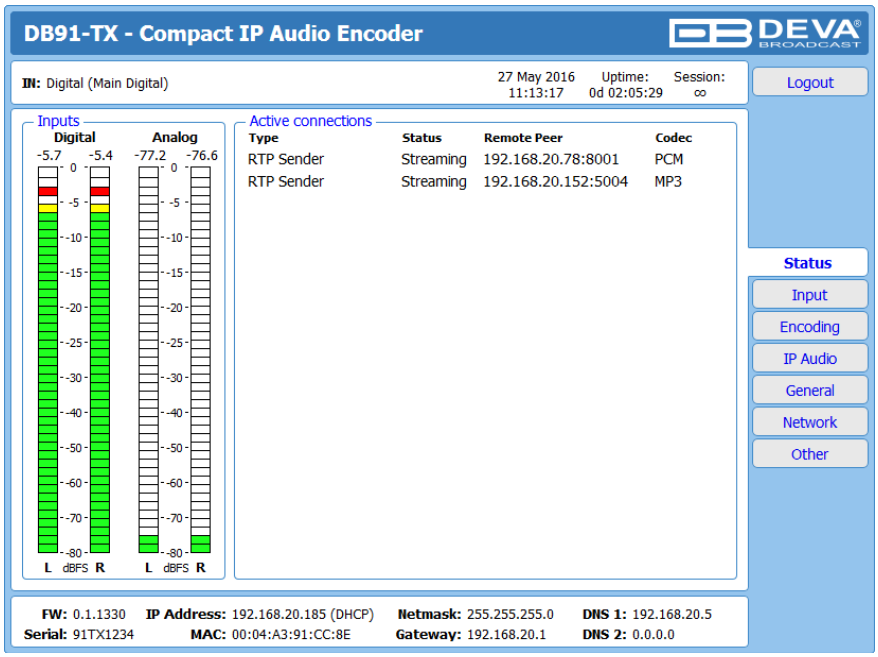
STEP 5 Device Settings

Upon entering the device's settings, you will be able to apply needed adjustments to the Inputs, Encoding and IP Audio configuration of the DB91-TX.



For further information on the available options and features, please refer to the User Manual which can be found on www.devabroadcast.com/downloads, and the accompanying CD.

Thank you for choosing DEVA!

Please refer to the User manual for detailed information on how to configure and explore your device.

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Appendix B

Quick User Guide

DB91-RX

Compact IP Audio Decoder

→ BEFORE YOU USE THIS PRODUCT ←

In order to be able to enjoy all the benefits of owning your new DEVA product, please verify first that the latest software and firmware release were installed.

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This Quick user guide will make the installation of **DB91-RX** quick and easy. Applying these principles, you can simplify the process and save yourself extra time and effort. **For more information about the Safety precautions and the Operating environment recommendations please refer to the User Manual.**

STEP 1 Connection

1. Connect the device to a local network or to the Internet by a cable with an RJ-45 connector;
2. Connect the DB91-RX to the power supply.

RECOMMENDATION: Preferably, connect the device to a DHCP Server network from which DB91-RX will receive an IP address.

STEP 2 Configuration

DB91-RX is controlled trough a build in WEB Server and a standard web browser can be used to monitor its status or to make some adjustments.

To operate the device you need to know its IP Address. In case you are not aware of it, you can hear it through the headphones when you turn on the the device. Alternatively, use the Network discovery feature at Local networks (for reference see Step 3).

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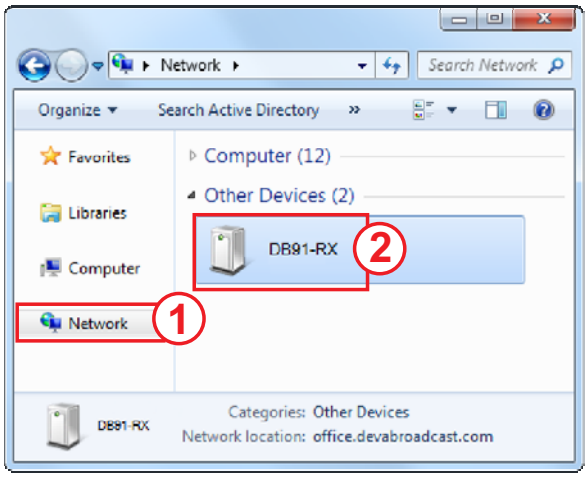

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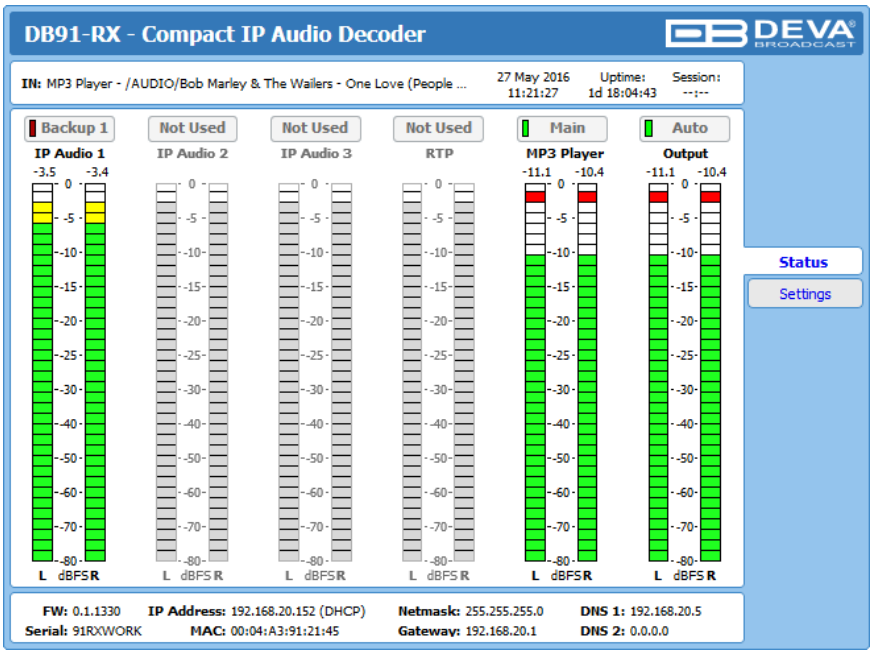
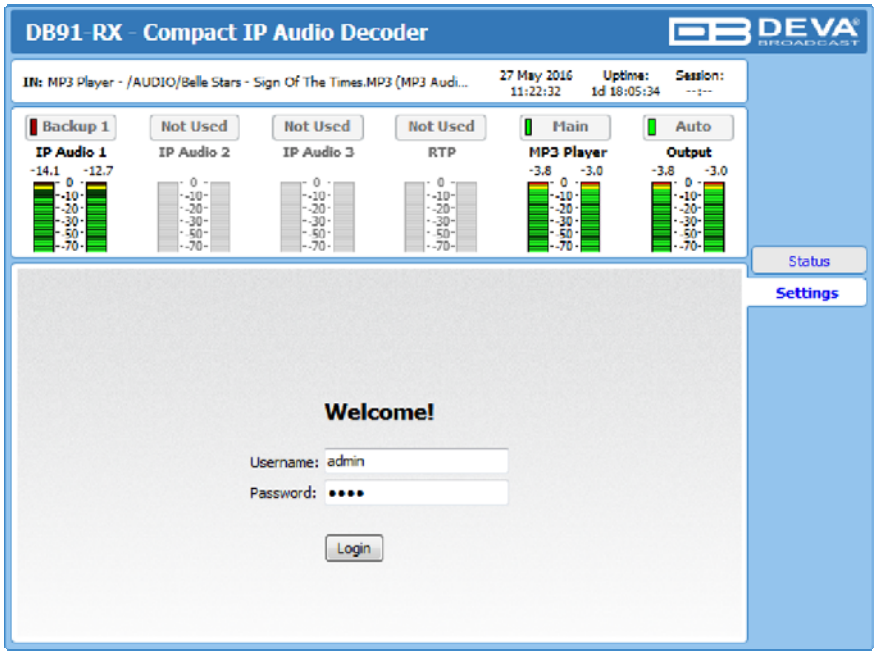


The main Status window contains information on the device's current status - the LED bar-graph representation of the audio sources. The interactive buttons placed over the LED bar-graphs allow the audio source to be manually changed.

If the mouse cursor is pointed at a label of an audio source, a balloon containing information for the Codec, Bit rate and Sample rate will appear (as depicted above).

The DB91-RX provides you with a protected access to the device settings. Upon pressing the Settings button, a window requiring username and password will appear.

In order to make the necessary adjustments to the device please log in as ADMINISTRATOR which will give you full control over the settings. The default values are username: *admin*, password: *pass*.



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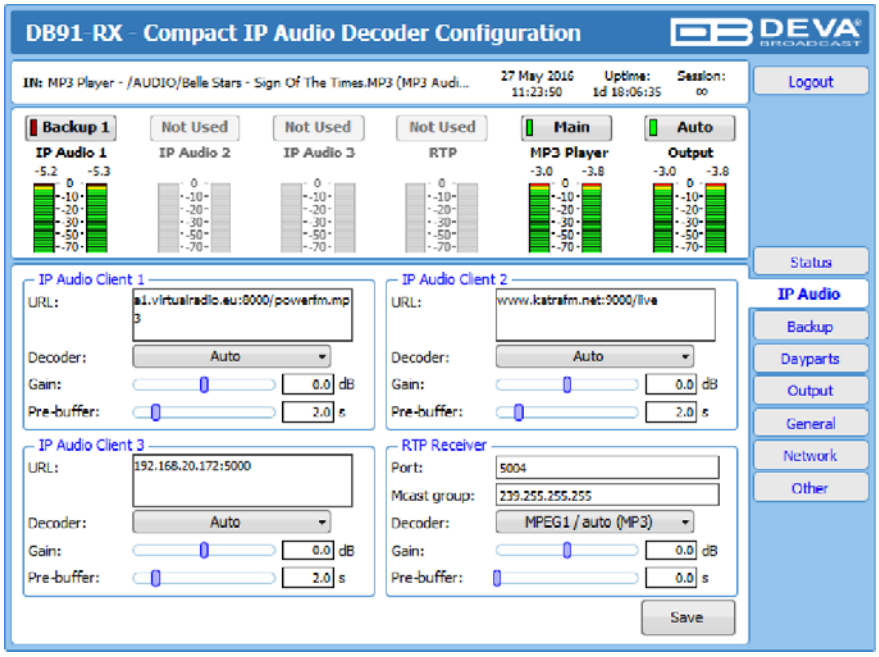
STEP 5 — Device Settings

Upon entering the device's settings, you will be able to apply needed adjustments to the DB91-RX. In order the applied settings to be used press the [Save] button, placed on the bottom right part of each screen.



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