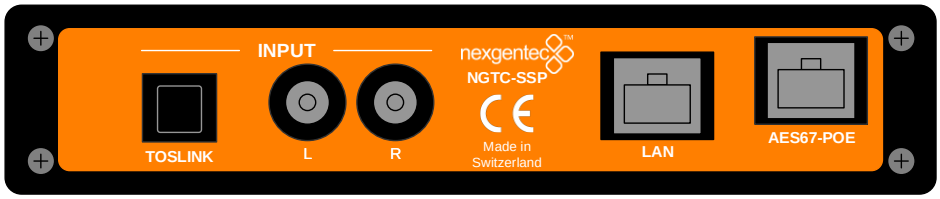
NGTC-SSPR2
Manual

Configuration – Connection - Specification

Contents

Overview

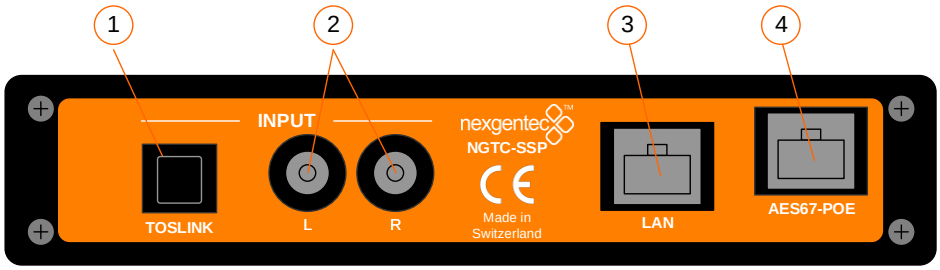
The NGTC-SSPR2 AES67 interface is the ideal interface for adding one multichannel Toslink and one analog stereo audio source to a Dante/AES67 system. Its small form factor allows it to be mounted close to the audio sources.



The stereo analog audio input, uses two RCA connectors for unbalanced connectivity. The digital analog audio input uses an optical (TOSLINK) connector. The digital input supports multichannel PCM, DD, DTS and will convert these to 6 discrete audio channels.

The NGTC-SSPR2 is powered by a POE on the AES67 port. Its own Web UI is used to configure the AES67 interface.
The additional LAN port is only used for service.

Device Installation



1 Optical Digital audio in (PCM/DD/DTS)

2 Stereo analog audio in

3 Control Network interface – only used for device setup

4 AES67 Network interface (POE)

All connections to the NGTC-SSPR2 should be made before power is applied.

- Attach any audio sources that will be used, to the inputs.
- Attach the AES67 network port to the AES67/Dante POE network switch, using a CAT-5 cable

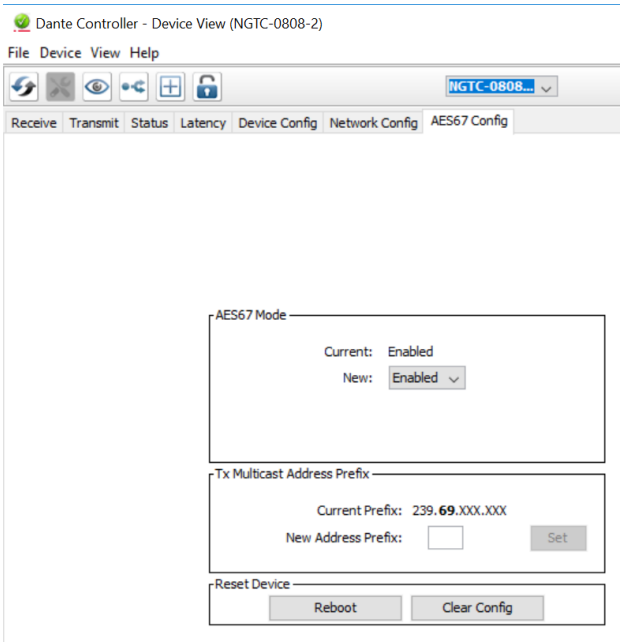
Device Audio Configuration and Setup

Setup to establish interoperability between the NGTC-SSPR2 and Dante devices

To enable your Dante devices to receive an AES67 stream, you must enable AES67 interoperability first. This is done by using Audinate's Dante Controller, which can be obtained from the Audinate website (www.Audinate.com).

When using the Dante controller, all your Dante devices that are connected to the network, will show up automatically. AES67 interoperability is needed in every Dante device that will receive a AES67 stream.

- Start the Dante Controller Software and wait for it to be synchronized with the network
- Select the "device info" tab in the software
- Double click on the DSP you would like to configure for AES67, a new window will open
- Select the "AES67 config" tab
- Enable AES67 mode and make a note of the Tx multicast prefix. You will need this number later, even if you are not using the DSP as a transmitter. This must be the same for all DSP's that are ready for AES67.
- Reboot the Dante device
- This needs to be done with every Dante device that will receive an AES67 stream

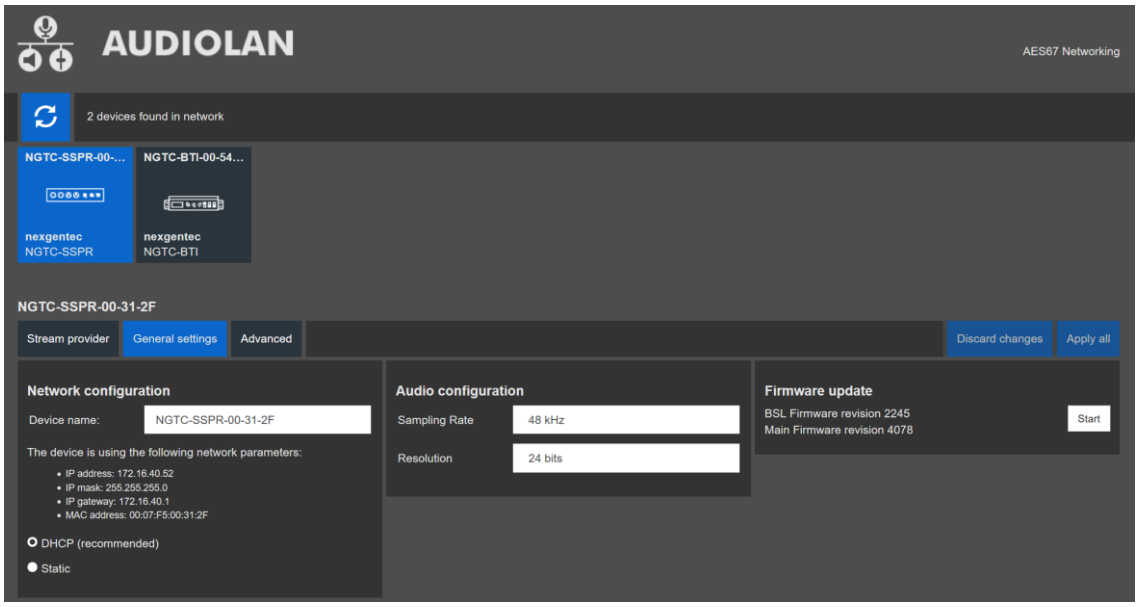


NGTC-SSPR2 AES67 IP Address Setup

To configure the NGTC-SSPR2 via the Audiolan web UI, the PC will need to be connected to the Dante network and it needs to be in the same IP range. By default, the NGTC-SSPR2 is set to a static IP address (192.168.4.233).

Please make sure you are in the same IP range with your browser interface.All NGTC-SSPR2 devices that are connected to the network will show up in the Audiolan web UI. To configure your SSP-R2 device, open the browser with the device's IP address.

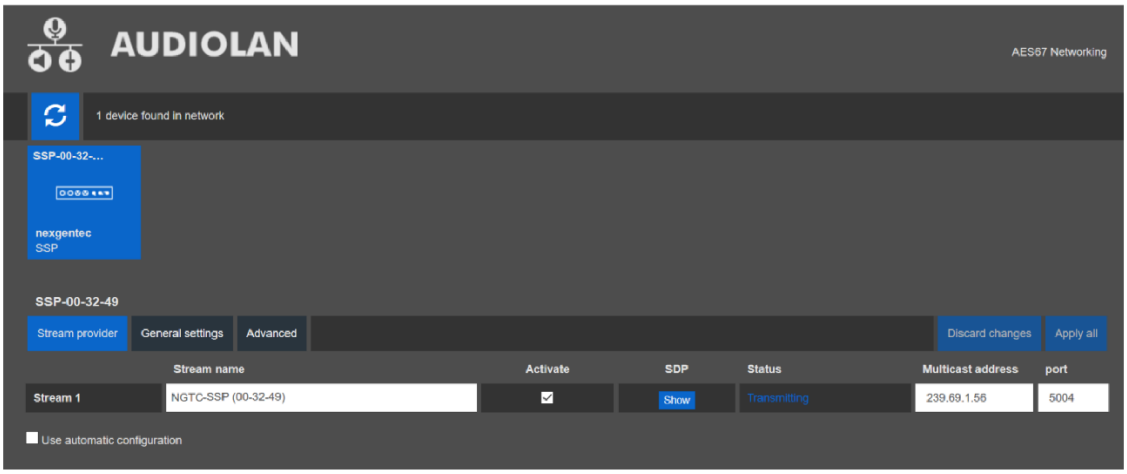
- Select the "General settings" tab in the web UI to change the devices IP address
- The NGTC-SSPR2 must have an IP and Subnet address in the same range as the Dante devices
- Apply all settings and reboot the device



NGTC-SSPR2 AES67 Stream Setup

The AES67 stream of the NGTC-SSPR2 device needs to be configured to be received by the Dante devices.

- To configure your NGTC-SSPR2 device, open the browser with the devices IP address
- Select the “Stream provider” tab in the web UI and uncheck the “Use automatic configuration” checkbox
- Make sure that the multicast address of the stream matches the Multicast Address Prefix given in the Dante Controller (239.69.xxx.xxx in the example below), assigning addresses that are unique in the network
- Make sure that the “Activate” checkbox for the stream is checked
- Select the “Advanced” tab and ensure that the SAP browsing is enabled

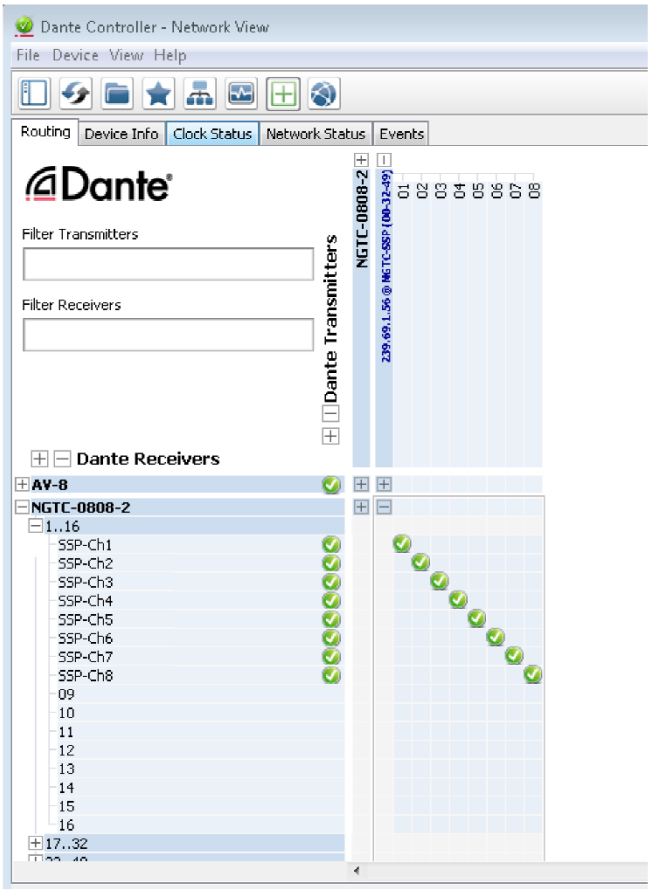


Audio Routing Setup

The audio routing will be done by using Audinate’s Dante Controller. When using it, all your Dante and AES67 devices that are connected to the network will show up automatically.

The NGTC-SSPR2 will be shown at the ‘‘Dante Transmitters’’ part, using its multicast address@hostname-HH-HH-HH where ‘‘HH-HH-HH’’ are the last three bytes of the devices MAC address.

- If not done native, make the audio connections in the Dante controller



NGTC-SSPR2 audio channel index:

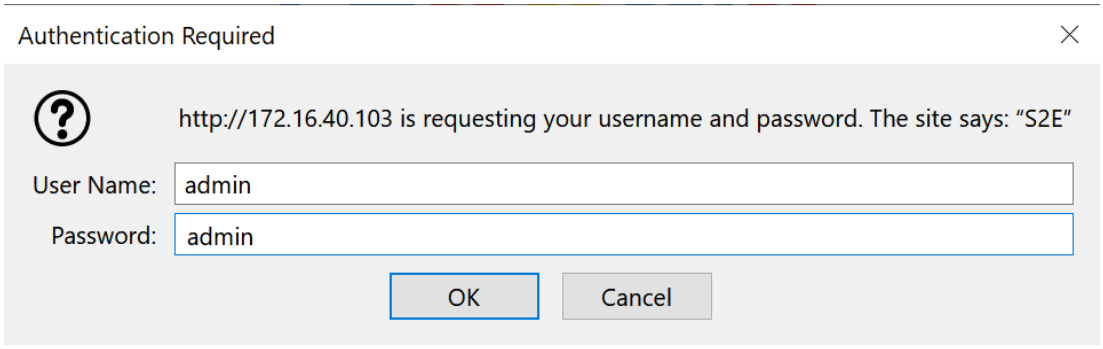
01: Left Analog IN
02: Right Analog IN
03: Left Front
04: Right Front
05: Center Front
06: LFE
07: Left Surround
08: Right Surround

Device Control Configuration

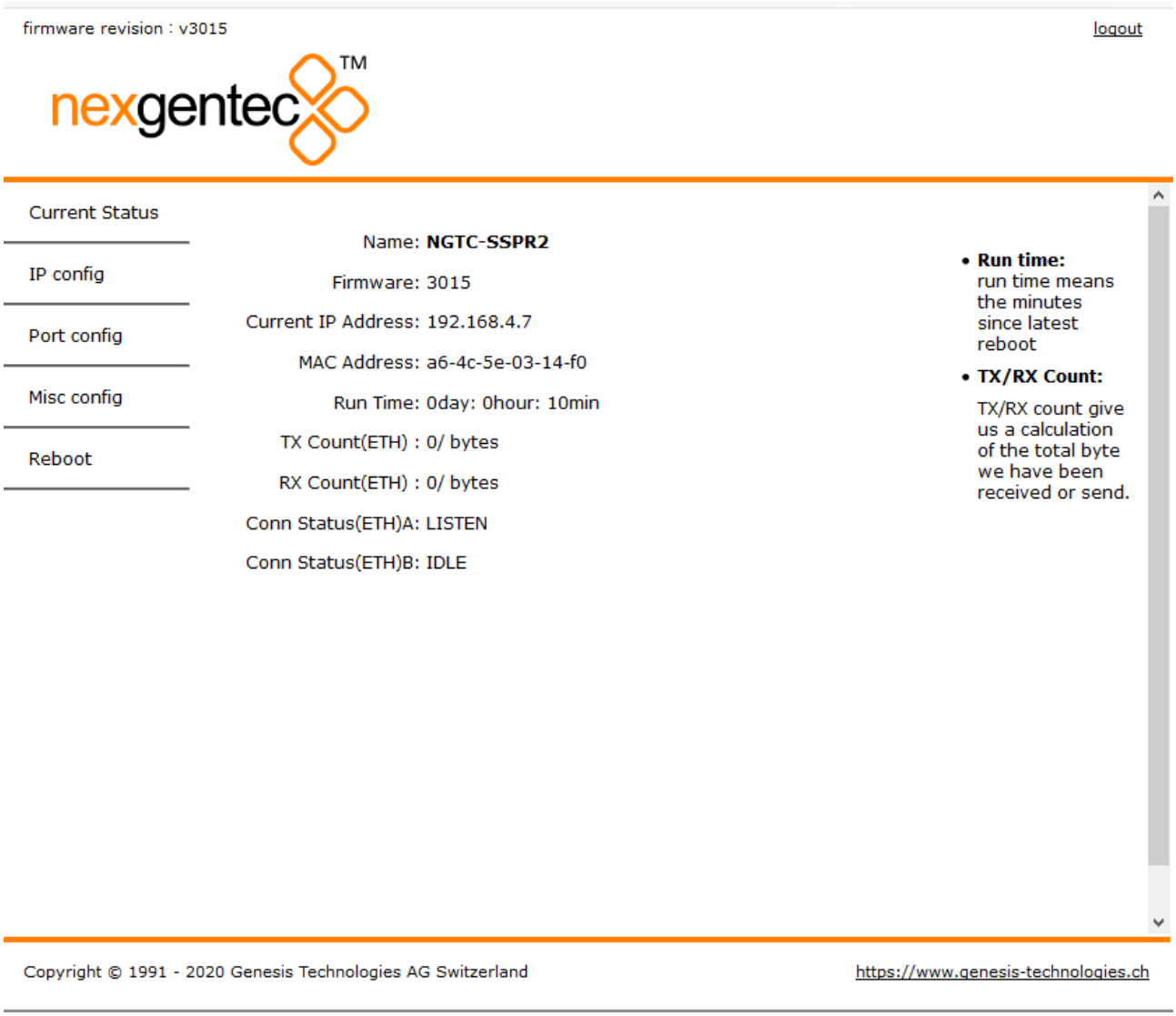
Setup to of the Communication LAN Port

The setup of the communication part of the NGTC-SSPR2 will be done via it's Web UI.
By the default the interface is set to a fixed IP 192.168.4.7, please make sure your browser is in the same IP range to access the setup page.

After opening the webpage, you will be asked to enter the password:

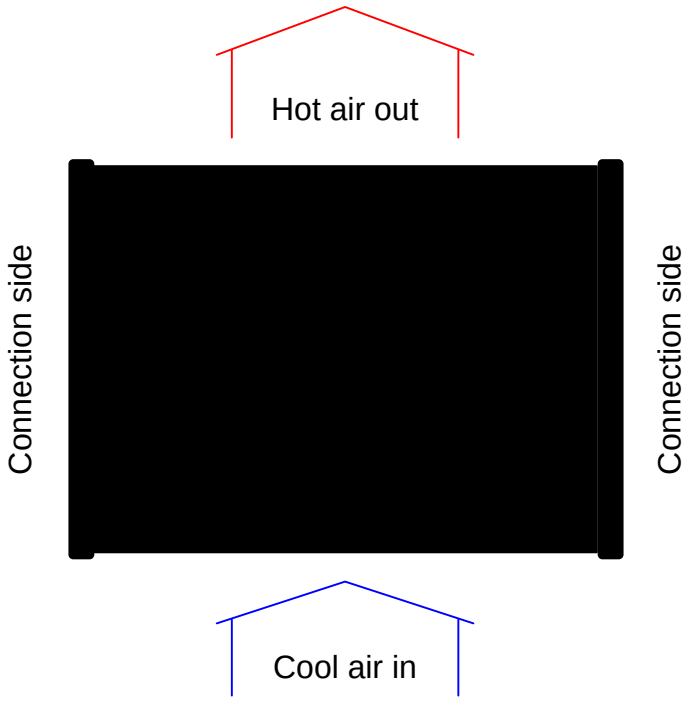


All the communication related settings are done in the WebUI. It is self-explaining.



Mounting Advice

If mounted behind the TV, please mount it vertically, so air can pass the device, to have the best possible cooling.



Device Specifications

Analog Audio Input

Type:	Analog Audio, Stereo Balanced and RF filtered
Gain:	0dB
Input Impedance:	>1.8K Ohm
Maximum Input Levels:	+23dbU @ 0dB gain

Digital Audio Input

Type:	TOSLINK
Format:	PCM, LPCM, DD, DTS up to 6 channels. 24Bit/96kHz

Audio Performance

EIN:	-115dBu
System THD+N:	<100dB, unweighted; 1kHz@+22dBu with 0dB gain
Frequency Response:	20Hz – 20kHz, +/- 1dB

AES67 Network

Physical Level:	Standard Ethernet
Connector:	Single RJ-45
Cable Quality:	CAT-5/6/7
Transmission Speed:	100 Mbps

General

Power Requirements:	POE
Power Consumption:	6 W Max
Total heat dissipation:	20.00 BTU/hr
Ambient temparature:	0°C – 60°C
Dimensions:	L: 164mm, W: 165mm, H:35mm
Compliance:	CE, ROHS

Communication Protocol

TCP (NGTC-SSPR2 is server), Port 20108

The communication protocol has the following format: 0x07**COMMAND/REPLY**0xF5 (no spaces). The COMMAND/REPLY part is ascii.

Function	**COMMAND**	**REPLY**	**Description**
Direct 5.1	P1	RP1	Set Mode 5.1
Direct 7.1	P2	RP2	Set Mode 7.1
ProLogic II Movie	P3	RP3	PLII Movie Postprocessing
ProLogic II Music	P4	RP4	PLII Music Postprocessing
Downmix 2.1	P5	RP5	Downmix to 2.1
Get Mode	P?	RPx	Get active mode
Get Format	F?	RFx	Get active input format
Push info on format change			
		RF0x0	Idle
		RF0x1	PCM
		RF0x2	Dolby Digital
		RF0x3	DTS
		RF0x4	HDCD
		RF0x5	MP3
		RF0x6	MPEG2
		RF0x7	AAC
		RF0x8	Dolby Digital EX
		RF0x9	DTS ES D6
		RF0x0A	DTS ES M6
		RF0x0B	NA
		RF0x0C	LPCM
		RF0x12	NA
		RF0x13	DSD
		RF0xF0	Unknown format

Note: Send only one command at the time and wait for reply before sending the next one.