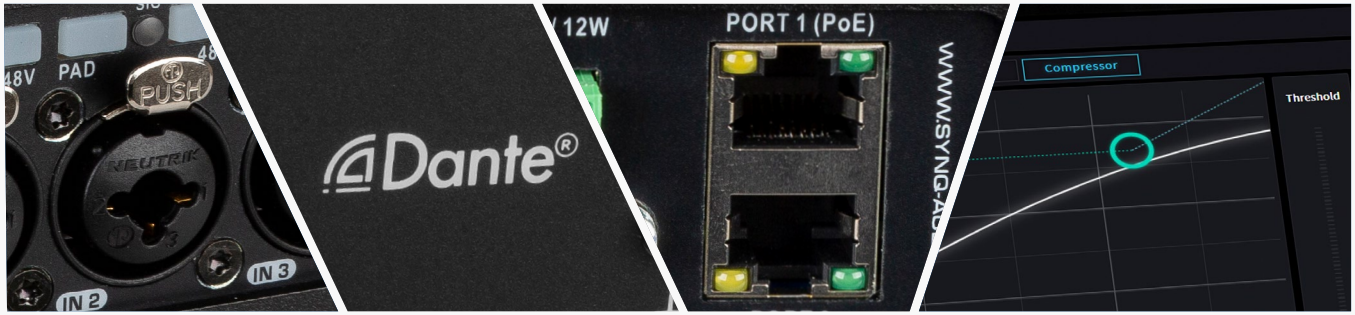
# Network Audio Bridges




SYNQ®
AUDIO RESEARCH

# About DANTE™

*DANTE™ is the NEW STANDARD for "Audio over IP" !*

## Dante™ advantages

- Uncompressed multi-channel audio over standard Ethernet networks
- No bulky snake cables !
- No more buzzing due to ground loops !
- Cheap CAT5E–cabling + standard Ethernet switches
- Plug & Play : auto discovery, no IP-addresses, no network knowledge required!
- Easy routing of audio signals ! (Free Dante™ Controller software)
- Extremely low latency : < 2 ms
- Virtual Sound Card : turns any Windows PC / MAC into a Dante™ audio device
- Up to 512 audio channels per GIGABIT network!
- Automatic discovery of all Dante™ devices on the network
- 1 Universal protocol : no compatibility problems !

## Dante™ requirements

Currently not all audio equipment can talk Dante™-language.
The new SYNQ Dante™ I/O interfaces translate analog audio to and from Network Audio (Dante™).

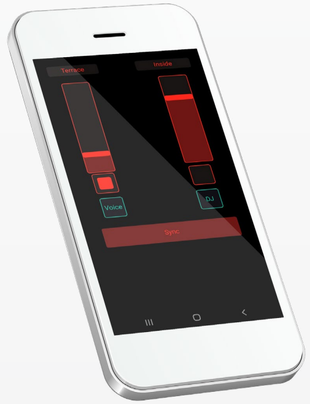
Analog > Dante™ :
- Connect your MIC to the Dante™ network
- Connect your Guitar, audio player, … to the Dante™ network

Dante™ > Analog :
- Connect the Dante™ network to your analog amplifier/active speaker
- Connect the Dante™ network to Recorder with analog input

# Main **Features**

Main features of the SYNQ analog/Dante® network audio bridges

- GIGABIT Ethernet I/O based on Hi-speed Marvell switch (no linking delays)
- Built-in DSP AUDIO PROCESSING (parametric EQs, compressors, delays, ...) on all channels : perfect for use as DANTE enabled speaker management processor, but also deployable in many other applications
- 8x8 AUDIO MATRIX for local premix, flexible routing, …
- Integrated WEB SERVER : fully graphical and very user-friendly user interface for easy configuration and DSP control on any network device!
- The free "SYNQ Network Discovery Tool" software makes it extremely easy to find the device(s) on a local network and open the interface on any desktop computer, without any knowledge of the IP-address or networking
- Support for the OSC protocol : all functions can be controlled by user-created apps running on iPhones, Android phones, Tablets and desktop computers
- Extremely high audio quality : S/N > 120dB ~ THD : < 0.003%
- Complies with IEEE 802.3-2005 standard for Information Technology
- Extreme reliability, thanks to the exclusive use of industrial-grade components, such as : high-end Burr Brown audio DACs, AKM ADCs, Wurth electrolytic capacitors, ...
- HOUSING: ½ 19" diecast housing with different installation options :
  - 1 unit fits in a 1U 19" rack (19" adapter optional)
  - 2 units fit together in a 1U 19" rack (adapters included)
  - Easy wall mounting with optional wall mount adapter
  - Easy truss mounting with optional truss mount adapter


# OSC **Support**

Create your own user interface

Open Sound/System Control (OSC) was created as a successor to the MIDI control protocol.
It enables advanced communication between computer software,
sound synthesizers and other multimedia devices that support OSC.

All our Synq analog/Dante® network audio bridges support OSC messages to control their attributes (Volume, Mute, Gain, Delay, EQ, ... )
The integration of OSC allows you to easily create dedicated user friendly interfaces to control your setup that can run on any PC, Tablet or Smartphone.

# DBT/DBI **Software**

The integrated webserver can be accessed by any PC in the network.

The fully graphical and user-friendly user interface allows easy configuration and DSP control.

Multiple configurations can be stored into the device and reloaded when needed

## Input and Output configuration screen

On the input screen you can configure the routing of all inputs.

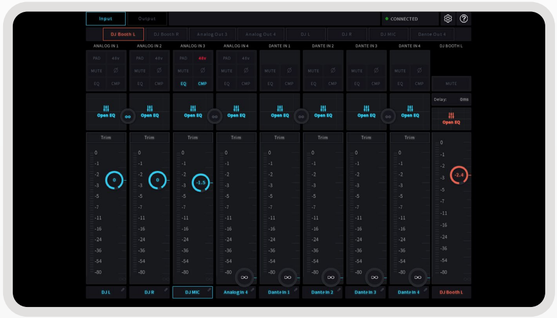
For each analog channel you can :

- enable/disable input padding (-26dB)
- enable/disable 48V Phantom power for your microphones

For each analog and digital channel you can :

- mute the channel
- set normal or inverted phase
- enable/disable the equalizer
- enable/disable the compressor

The channels all have VU meters and can be linked.



On the output screen you can configure all output levels and parameters at once.

For each analog and digital channel you can:

- mute the channel
- set normal or inverted phase
- enable/disable the equalizer
- enable/disable the compressor

On the analog channels you can also specify delays.

The channels all have VU meters and can be linked.

## EQ, Compressor and Delay configuration screen

On the EQ screen you can set the frequency, Gain and Q factor (or S factor) of up to 10 points for any of the channels.

Various presets are available for different type of instruments.

On the Compressor screen you can enable soft knee and set the threshold, ratio, attack speed, hold time and release rate for any of the channels.

## DBT-04

Converts DANTE® Network audio to 4 hi-grade balanced analog outputs.

GIGABIT Ethernet with Hi-speed Marvell switch
SYNQ Network Discovery Tool
Built-in DSP AUDIO PROCESSING
8x8 AUDIO MATRIX for local premix, flexible routing, …
Integrated web server
Full OSC support
Extremely high audio quality: S/N > 120dB ~ THD: < 0.003%

Optional wall mount adapter
Optional truss mount adapter
Optional strong rubber protection adapters for use as stage box

## DBT-44

Converts DANTE® Network audio to 4 hi-grade balanced analog outputs.
Converts 4 hi-grade balanced analog inputs to DANTE® Network audio.
All 4 (LINE/MIC) inputs equipped with -24dB PAD & 48V Phantom power.

GIGABIT Ethernet with Hi-speed Marvell switch
SYNQ Network Discovery Tool
Built-in DSP AUDIO PROCESSING
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Integrated web server
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## DBI-04

Premium quality analog / Dante network audio bridge for fixed installation.

Converts DANTE® Network audio to 4 hi-grade balanced analog outputs

GPI ports: connect switches, potentiometers, control gear, alarm systems,…
GPO: control all kinds of external gear, triggering PowerPoint presentations, …

EUROBLOCK connectors for easy installation.

GIGABIT Ethernet with Hi-speed Marvell switch
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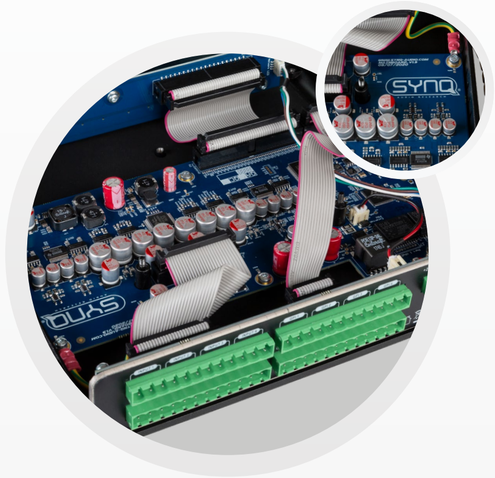
# Technical **Details**

Technical details of the SYNQ analog/Dante® network audio bridges

| | |
|---|---|
| Power touring versions : | AC100-240V, 50/60Hz |
| Power fixed intall versions : | External 24Vdc input |
| Power consumption : | 12W |
| PoE : | 802.3af PoE-standard |
| | 57V / 0,35A maximum) |
| Frequency response : | 20-20.000Hz (+/- 1dB) |
| Input s/n ratio : | 117dB |
| Output s/n ratio : | 120dB |
| THD+N : | <0.003% @ 1kHz, 0dB |
| A/D Resolution : | 24 bits |
| Sampling frequency : | 48 kHz |
| Max. input level : | max. +20dBu |
| Max. output level : | max. +20dBu (@ 0dBfs) |
| PAD : | -20dB |
| Ethernet connections : | 2x Neutrik RJ45 Ethercon (Gigabit) |
| Size : | 222 x 44 x 205 mm (19"/1U) |
| Weight : | 1.40 kg |








# DANTE™ **Examples**

Multiroom Install examples using PoE

**Room 1 :**

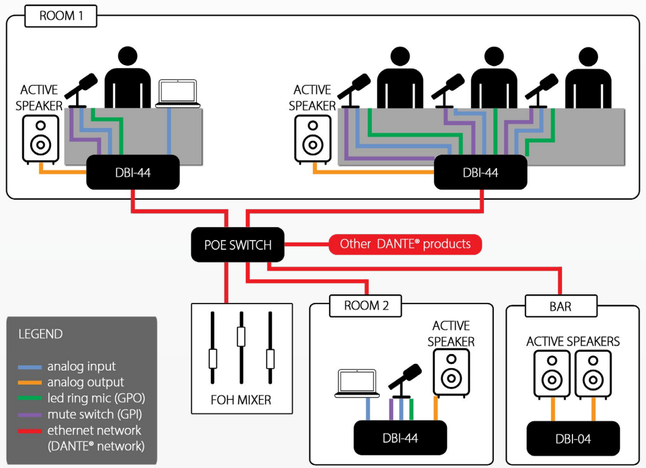
- Easy cabling :
  1 single Cat5e network cable transports all audio signals in both directions. This makes it very easy to expand and modify the existing system.
- A single GPI trigger (here a mute button on the desk which is plugged into the DBI-44) sends a signal to the GPO connected devices (the microphones and a LED light) to turn them on and off.
- Record and play audio from and to any room on the Dante™ network.

**Room 2 :**

- No need for a seperate mixer :
  Mix all sources (microphone, audio input from a computer, the audio from the main room) using the DBI-44 its integrated webbrowser and add EQ, compression, ...
- If you need extra audio inputs just add an extra DBI-44 box. Thanks to the DBI-44 its integrated 8x8 matrix you can easily mix up to 8 separate inputs (or 4 stereo inputs).
- GPIO allows you to control the gain of each microphone locally. Just connect a potentiometer to one of the GPI inputs.

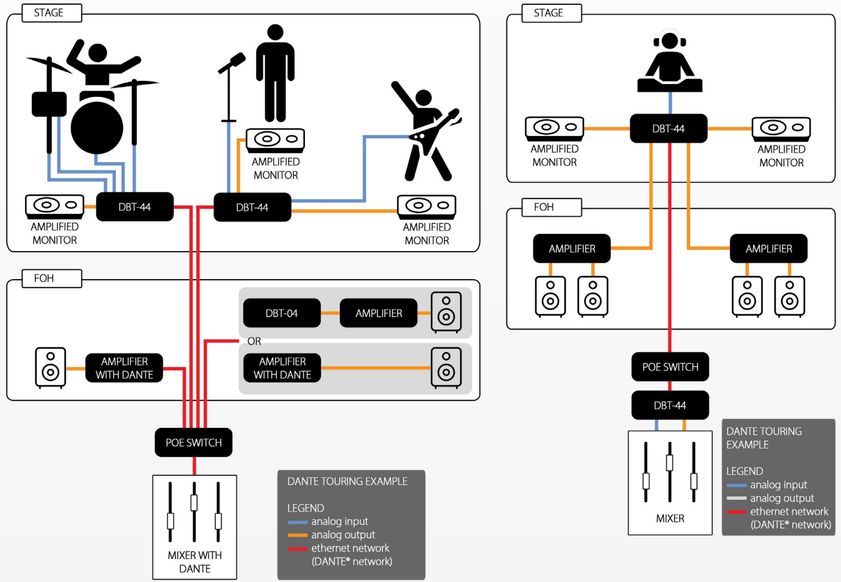
**Bar :**

- The DBI-04 box allows the playback of audio originating from any sound source in the Dante™ network.



## Touring examples using PoE

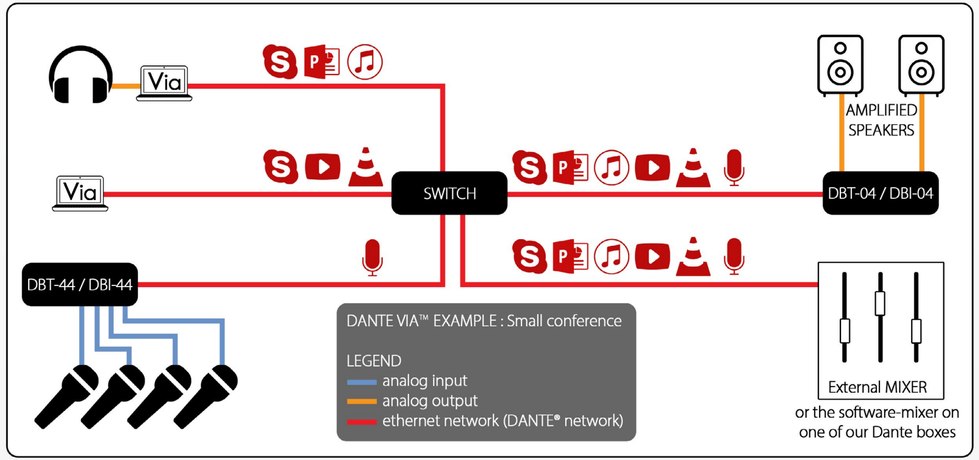
- Musicians or DJs can connect their instruments directly to the Dante boxes on the stage. This results in shorter analog signal cables with less chance for noise interference.
- For redundant power you can connect the DBT-44 boxes to both the POE Switch and directly to the mains power.
- Active speakers can be connected directly to the DBT-44 boxes. For passive speakers the digital signal first needs to be converted to an analog signal. This can be done with either an amplifier with Dante integrated or with a SYNQ analog/Dante® network audio bridge.




## DANTE VIA for small conferences

- DANTE VIA™ is an easy-to-use software that delivers unprecedented multi-channel routing of computer-based audio, allowing a wide range of applications and devices to be networked and interconnected, easily and inexpensively.

- In this example it is used to host a small conference with 4 speakers (4 microphones) that want to share audio from different sources on different PCs.



# About-SYNQ

Starting in 1961, as a supplier of sound and lighting products we decided in 2003 to make High-End Professional sound solutions accessible to a wider public with the introduction of our first professional DJ turntable XTRM-1.
A new audio brand was born: "Synq Audio Research®" or "Synq®"!

With the increased competitive offering in DJ material, and the shift to computer-based DJ'ing we decided to refocus Synq, in 2014, from a Professional High-End DJ scene brand to a Professional High-End PA brand.

The product development, which takes place in Belgium, focuses on users' comfort and reliability.
Each application has its specific needs, and that is exactly what our engineers bear in mind whenever they work out a new product and concept.
To maintain our edge over the competition we have made major development investments over the last years to improve the quality and innovation of Synq.
To improve the quality and serviceability we are also working more and more with European manufacturers such as Beyma, Faital Pro, … .

Backed up by a skilled, multi-lingual team and service department in the centre of Europe, Synq is your best partner for high-end professional sound equipment.
Our staff, trained by experience and action "in the field", is known for its efficiency and reactiveness. No question without a reply, no problem without a solution!
Our after sales department is a role model for the business since its very beginning.

Synq is a registered trademark of BEGLEC NV, a Belgian sound & light distributor with over 60 years of experience.

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