

8 Channels Of Analogue Audio Across a Dante/AES67 Audio Network



DARK88 Dante Network Audio Interface

Highlights

Dante Network
Audio Interface

Sample Rates
Up to 192K

8 Bi-directional
Channels Of
Analogue Audio

Redundancy On
Network Links &
Power Supplies

Copper & Fibre
Network Interface

Designed
For 24/7 Operation

Overview

Moving audio from A to B is now more flexible than ever. The Dante system allows audio links over networks to be un-compressed, low latency and reliable. The Dante Controller software allows simple point to point or point to multipoint routing across a network of Dante enabled products.

Glensound adds broadcast grade reliability to the Dante interface with a primary and redundant CAT5 link, a primary and redundant SFP/fibre link, and a primary and redundant power supply. The Dark88 is designed for professional applications where 24/7 usage is the norm.

AES67 network audio is also accommodated for those customers wishing to utilise this Audio over IP standard instead of Dante.

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DARK88 Dante Network Audio Interface

Features

- Network Audio Link Options**
Links between DARK88s and other Dante network devices across a network can be via:

 - Network cable - Primary & Redundant**
Two CAT6 network cable connections provide a primary and redundant connection. The maximum range of this link is 100m.
 - Fibre - Primary & Redundant**
Two SFP slots provide options for single, multi mode or bi-directional SFP modules, on a primary and a redundant connection. The distance of this link could be over many kilometres depending on the SFP module used
- Audio Inputs & Outputs**
The Dark88 has 8 analogue inputs and outputs. All audio input and output connections are presented on Neutrik XLRs, are electronically balanced and can be wired unbalanced if required.
- Network Or Direct Linking**
Two DARK88s can be linked directly or as part of a Dante network.
- AES67**
A special version of firmware can be loaded into the DARK88 to allow it to be used as an AES67 compliant device. So those customers utilising AES67 networks can also benefit from a Dark88.
- Local Ethernet Switch**
Each DARK88 has a 4 port Ethernet switch. If your primary network link is on fibre using the primary and redundant connections, you can utilise the CAT6 connections for linking multiple units. Only one DARK88 has to connect to the network, and the rest can daisy chain through any spare CAT6 or copper ports. Each will be presented on Dante Controller as a separate unit.
- Designed for 24/7 Operation**
The technology that goes into making the Dark88 comes from years of Glensound know how and the unit is designed to be suitable for permanent robust 24 hours a day 365 days a year operation.



DANK88 Dante Network Audio Interface

Description

The DANK88 is a versatile break in/ out box for sending/ receiving analogue audio to/ from a network utilizing the Dante audio over IP (AoIP) protocol.

In total there are 8 channels of audio sent from the Dark1616 into the network. The Dark88 has 8 off analogue electronically balanced audio inputs on Neutrik XLRs.

Simultaneously there are 8 channels of audio being received from the network by the Dark88 and these incoming circuits are provided as outputs from the Dark88 in analogue.

Being designed for resilient broadcast applications the Dark88 features both redundant power supplies and redundant Dante network links. Both primary and secondary network links are provided with both magnetic (copper RJ45) and fibre (SFP) interface connections. The Dante system itself provides a completely transparent redundant link system which means that if the Dark88 lost its primary link circuit the secondary link would automatically take over with no loss of audio.

The primary and secondary network interfaces are routed internally via a network switch and it is possible to set this switch to work as a traditional network switch instead of the default redundant mode meaning that there would be just one link to the Dante network and the other connections of the switch could have other Dante or network devices connected to them. As with all Dante devices once set up Dark88 units can be directly connected with each other with no external network hardware.

On the front panel 2 bright LEDs indicate the status of the 2 power supplies.

Network connections are placed on the front panel of the DANK88 in order that the network cables (or fibres) match those of a rack mounted professional network switch, making installation and tracing interconnecting cables easy. Fibre connections are via SFP slots, meaning that users can select their own preferred fibre type & connector style by installing their own fibre SFP modules (a selection of modules are available from GlenSound if preferred).

For those customers who want to utilise the AES67 Audio over IP protocol then a special version of code can be installed in the Dar88 to accommodate this.

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Dante Controller Route Audio & Configure Devices On A Dante Network

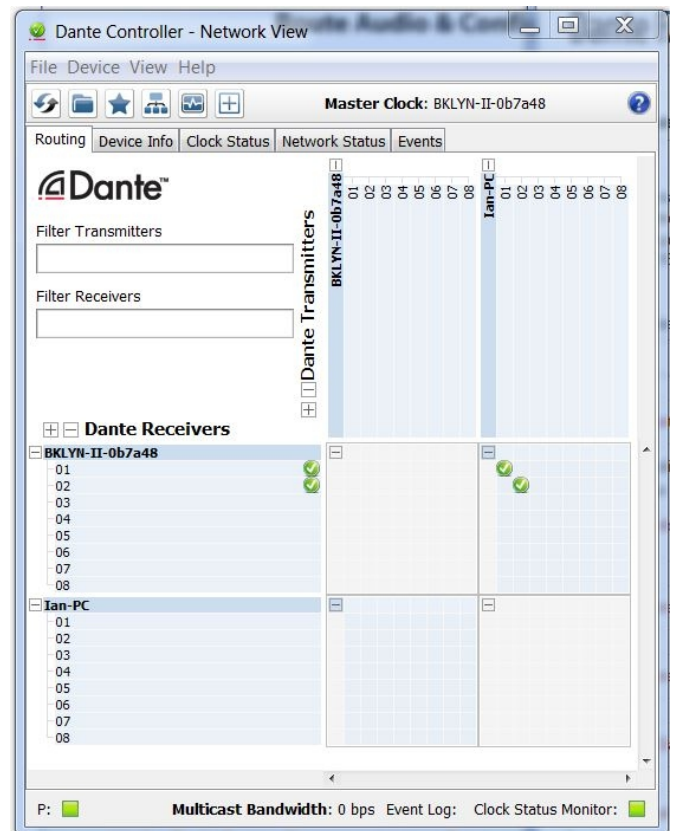
Overview

Dante Controller

Dante Controller is a free software application that enables you to route audio and configure devices on a Dante network. With automatic device discovery, one-click signal routing and user-editable device and channel labels, setting up a Dante network couldn't be easier. See the overview for more detail on Dante audio networking.

Dante Controller is much more than just a configuration and routing matrix. Dante Controller provides essential device status information and powerful real-time network monitoring, including device-level latency and clock stability stats, multicast bandwidth usage, and customized event logging, enabling you to quickly identify and resolve any potential network issues. You can also quickly and easily backup, restore, move, and reuse Dante network configurations using Presets, and edit Dante routing configurations offline.

Dante Controller is available for Windows and Mac OS X.



Features

- View all Dante-enabled audio devices and their channels on the network
- View and edit device clock and network settings
- Route audio between devices, and view the state of existing audio routes
- Rename devices and channels using your own friendly names
- Customize the receive latency (latency before playout)
- Save and reapply audio routing presets
- Edit presets offline, and apply as configurations for new network deployments
- Change sample rates and clock settings
- View multicast bandwidth across the network
- View transmit and receive bandwidth for each device
- View device performance information, including latency stats, clock stability stats and packet errors
- View comprehensive, configurable event logs



DANTE The DANTE Audio Network Overview

Overview

Based on industry standards, Dante is an uncompressed, multi-channel digital media networking technology, with near-zero latency and synchronization. Dante is the preferred audio networking solution that has been adopted by more pro-audio AV manufacturers than any other networking technology. Interoperability is not a dream of the future, but a reality today. Hundreds of Dante-enabled products are available from the world's leading manufacturers, enabling you to mix devices from multiple manufacturers.

Economical and Versatile

One cable does it all. Dante does away with heavy, expensive analog or multicore cabling, replacing it with low-cost, easily-available CAT5e, CAT6, or fiber optic cable for a simple, lightweight, and economical solution. Dante integrates media and control for your entire system over a single, standard IP network.

Dante systems can easily scale from a simple pairing of a console to a computer, to large capacity networks running thousands of audio channels. Because Dante uses logical routes instead of physical point-to-point connections, the network can be expanded and reconfigured at any time with just a few mouse clicks.

Outstanding Quality

Since audio is transmitted digitally, you don't have to worry about the common analogue challenges of interference from other electrical equipment, crosstalk between cables, or signal degradation over long cable runs.

Easy To Install

Setting up Dante networks couldn't be easier. You no longer have to shudder when considering the deployment of an audio network. Even the most complex networks can be set up and configured quickly and easily with Dante, making system integration simple. Dante automatically handles the technical complexities for you.

Signal routing and system configuration with Dante is fast, simple, and incredibly flexible. Dante Controller is a powerful software application that manages devices on the network. Setting up a Dante network is typically just a matter of plugging devices into an Ethernet switch and connecting a computer to the network. All Dante devices are automatically discovered and displayed in Dante Controller, so you can be up and running in seconds. channels; multicast sends an audio stream to multiple devices simultaneously.





DANTE

The DANTE Audio Network Overview

Overview (cont...)

Easy to Use

With Dante Controller you can easily edit device names and channel labels, control sample rates, and set device latencies. There is no longer any need to remember device IDs or channel numbers. Instead, a single audio channel is referred to just like an email address: "commentatorA @ studio or "news_mic @ voboothA". Set it and forget it. Once the network is configured, the computer running Dante Controller can be removed from the network, and reconnected only if changes are required or system monitoring is desired. Signal routing and other system settings are stored safely in the Dante devices themselves, so they are automatically restored if a device is power-cycled.

Network Health and Management

Real-time information about the health of your network is essential for a proper understanding of its performance. There are a rich suite of diagnostic tools within Dante Controller, providing visibility into the network health status through features such as device latency monitoring, active clock health monitoring, packet error reporting, and bandwidth usage statistics.

Glitch-Free Redundancy

Many Dante-enabled devices support 'glitch-free' redundancy, enabling a secondary physical network to be provided, duplicating the audio traffic on the primary network. This automatically prevents any audio loss or interruption in the event of a connectivity problem on the primary network.

Unicast or Multicast

Dante audio channels can be configured as unicast or multicast as appropriate, to make best use of available bandwidth. Unicast provides a direct point-to-point stream for unique channels; multicast sends an audio stream to multiple devices simultaneously.

Fully Integrated with Windows and Mac OS X

With Dante Virtual Soundcard, your computer becomes a Dante audio interface for multitrack recording and media playback, using the computer's existing Ethernet port — no additional hardware is required. Digital Audio Workstations, software-based media players, Skype, iTunes, Pandora, Spotify and other applications are easily integrated into your network via Dante Virtual Soundcard.



DARK88



6 Brooks Place, Maidstone, Kent, ME14 1HE, UK
Tel: +44 (0)1622 753662
Email: sales@gkensound.co.uk

SPECIFICATIONS

DARK88

AUDIO

Frequency Response

>-0.25dB 20Hz to 22kHz (Input to Output)

Maximum Input Level

+18dB

Maximum Output Level

+18dBu

Input Impedance

>20k Ohm

Output Impedance

=<50 Ohms

Distortion

0.008% @ 100Hz

0.007% @ 1kHz

0.005% @ 10kHz

Reference to +8dBu output

Noise

-93dB @ line up A weighted

RMS (22Hz to 22kHz)

Interchannel Crosstalk

>109dB @ 0dB with 1kHz tone

Dynamic Range

>111dB

Output Type

Electronically balanced (can be wired unbalanced)

Input Type

Electronically balanced (can be wired Unbalanced)

POWER

Mains Inputs

2 off Filtered IEC, 100 to 240VAC

47 - 63Hz

AC Consumption

16 Watts

Internal Mains Fuse

20mm 1A Anti Surge

PHYSICAL

Size

1RU 19" 300mm deep (from rear of front panel to rear panel (excluding connectors))

Weight

3 kg

Mechanics

All aluminium construction, anodized and laser etched front & rear panels

Shipping Carton

Rugged export quality cardboard carton

610 x 420 x 130mm LxDxH

Shipping Weight

4.5kg

Technical Specifications

 Dante™



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E&OE