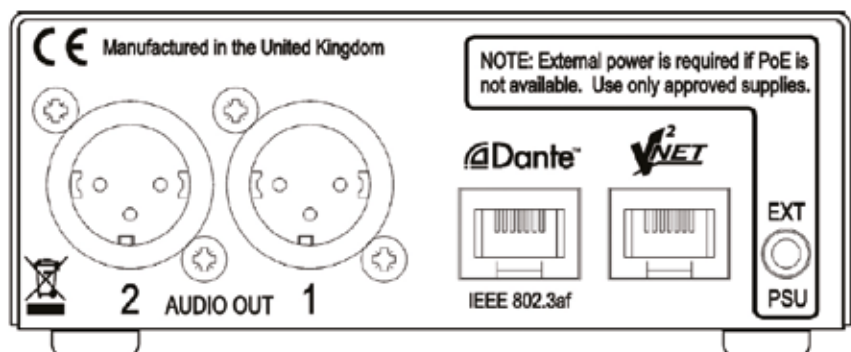


DANTE BRIDGE



Important safety instructions

Please carefully read following instructions and safety information and retain for future reference. Heed all warnings and follow all instructions.

- Do not remove covers. There are no user-serviceable parts inside. Please refer servicing to qualified service personnel.
- Only use attachments/accessories specified by the manufacturer.
- Servicing is required when the apparatus has been damaged in any way. Damage can occur when liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or excessive moisture, does not operate normally, or has been dropped.

Regulatory compliance

This product complies with the EMC Directive (89/336/EEC) as issued by the Commission of the European Community.

Compliance with these directives implies conformity with the following European standards:

- EN55103-1 Electromagnetic Interference (Emission)
- EN55103-2 Electromagnetic Susceptibility (Immunity)

This product is intended for operation in the E2 (commercial & light industrial) and E3 (urban outdoors) Electromagnetic Environment

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1. Thank you

Thank you for choosing the Dante Bridge for your professional audio application. Please study the contents of this guide to obtain the best possible performance from this unit.

2. Unpacking

After unpacking the unit, please check carefully for damage. If damage is found, please notify the shipping carrier concerned at once. As the consignee, you must initiate any claims. Please retain all packaging in case re-shipment is necessary.

3. Introduction / key features

Dante is a low-latency multi-channel digital audio networking technology developed, patented and licensed by Audinate (<http://www.audinate.com>).

The Dante Bridge enables connection of a computer or IT system to a range of products which do not natively support Dante.

The three primary uses for the Dante Bridge are:

- Dante audio to AES3 conversion with VNET™ control (for use with VNET2 equipped products eg. Tannoy QFlex)
- Conversion of Dante audio to analogue audio (for connection to any product with analogue inputs)
- Conversion of Dante audio to analogue audio with VNET control (for use with 1st generation VNET equipped products)

When the Dante Bridge is connected to a network of VNET-equipped devices, all devices can be controlled and monitored via a direct Ethernet connection from your PC.

Housed in a rugged steel case, the Dante Bridge can be used free-standing or rack mounted (along with up to two additional accessory products) in a 1U rack space.

Key features include:

- Rugged steel enclosure
- Free-standing or rack-mount options
- Self-powered using Power Over Ethernet (PoE)
- Capable of driving 1 km of VNET network cable
- No special cables needed

4. Computer system requirements

Minimum requirements:

- PC with >1 GHz processor
- > 512 kb RAM
- 32-bit Windows™ operating system (NT, 2000, XP, Vista, Windows 7)
- CD-ROM drive or Internet access
- Ethernet connection

5. Installation

Because the Dante Bridge uses Ethernet, no drivers need to be installed. However, you will need to install Audinate's Dante Controller PC software to control the audio routing and the PodWare application to control and monitor VNET devices.

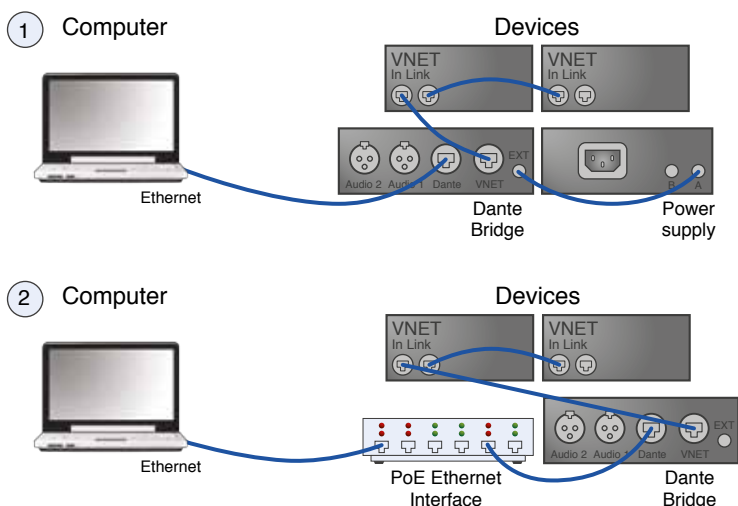
6. External power supply

This product may be powered from a Power Over Ethernet (PoE) Ethernet switch. However, if such a switch is not available, provision is made to power the unit from an external accessory power supply via a cable with a 3.5 mm jack (Tannoy part no. XXXX). One or two compatible accessories may be powered from a single power supply; either the A or the B output may be used as they are identical.

7. Connecting a computer

You can connect your computer to the Dante Bridge in one of two ways:

- By direct connection from the Ethernet port of your computer to the Dante Bridge
- By connecting your computer to an Ethernet switch, and connecting the same switch (or another switch on the same network) to the Dante Bridge



Manual IP addressing is not required with the Dante Bridge. It is set by default to DHCP, so your DHCP server will automatically allocate the IP address. If there is no DHCP server, it will use “zero config”. In either case, addressing is fully automatic. For more information on this topic, please refer to information pertaining to automatic configuration on the Audinate web site.

8. PodWare setup

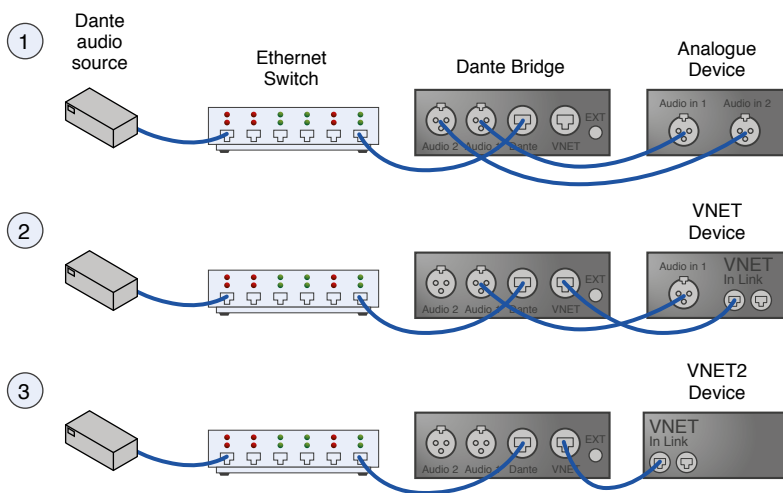
The PodWare application uses a direct connection via Ethernet to communicate with the connected devices via the Dante Bridge.

Using PodWare V5.68 or later, select and add the Dante Bridge network under the Networks -> Add Networks dialogue.

You can connect multiple Dante bridges to PodWare via Ethernet. The Bridges will be transparent to PodWare and the devices will appear under the Dante Bridge network in the device tree.

9. Connecting devices

- For analogue audio applications, simply connect one or both audio output XLRs to the analogue input(s) of the device.
- For VNET devices, connect the VNET Link socket on the Dante Bridge to the VNET In socket of the first device you wish to control; then connect the VNET Link socket of this device to the VNET In socket of the next device, continuing as required. The order in which the devices are connected is not important. The Link socket of the last device in the 'chain' need not be connected.
- For VNET2 devices (which have long-distance AES3 integrated with VNET networking) there is no need to make connections to the audio outs since audio will be delivered to the device in digital format. (It will be necessary to select digital inputs on the device).



Please refer to Application Note DQ2707 “Large system statistics for VNET” if this product is to be used in a system with more than 16 VNET nodes or more than 100 m of VNET cable.

10. Audio routing

The Dante Bridge can use one or two audio channels from the Dante stream. Normally the unit would be configured to route channels to Input 1 and Input 2. You may see an option to route to channels 3 and 4; however, these are not used in the product. Audio routing is accomplished using the Dante Controller application. You may find it helpful to name all Dante devices to clarify routing.

11. Rack mounting

The Dante Bridge and accessory power supply may be used free-standing. If you wish to mount them in a 19-inch rack, then the Accessory Mounting Kit may be used (Tannoy part no. 8001 4470).

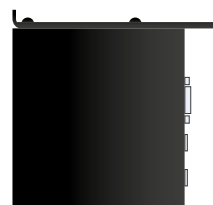
Please note that this product generates some heat, which is normal. However, to prevent overheating, allow for a free flow of air around the unit. Do not stack units on top of one another.

To mount an Accessory in the Mounting Kit panel:

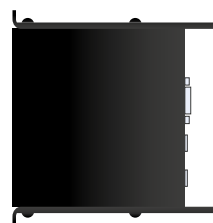
1. Remove the two mounting brackets and Lexan blanking sheet which are covering the aperture you wish to mount the Accessory in, by removing the two nuts. (Keep these and the screws and washers).
3. Using the two screws removed in 2, attach one mounting bracket loosely to the side of the Accessory, with the 'ear' towards the front, pointing outwards



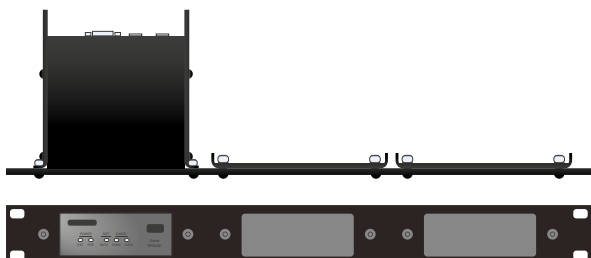
2. Remove the two screws from one side of the accessory.



4. Repeat 2 and 3 for the other side. Now push the lid towards the back of the unit as far as it will go then align the bracket ears with the front edge of the lid. Now tighten the screws.



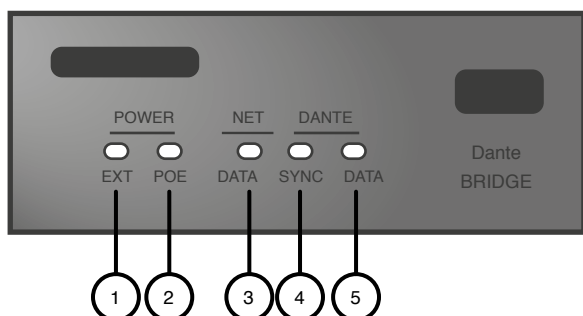
5. Offer the Accessory with its mounting brackets up to the reverse side of the Mounting Panel, and fix it in place using the two sets of screws, washers and nuts removed in 1.



Note that the holes at the rear ends of the brackets may be used as cable tie-off points if desired.

12. Operation

Once the Dante Bridge has been connected to the computer/switch and to the audio devices (and to the power supply if applicable), then there are no further adjustments required on the unit itself. The indicators on the front of the unit operate as follows:



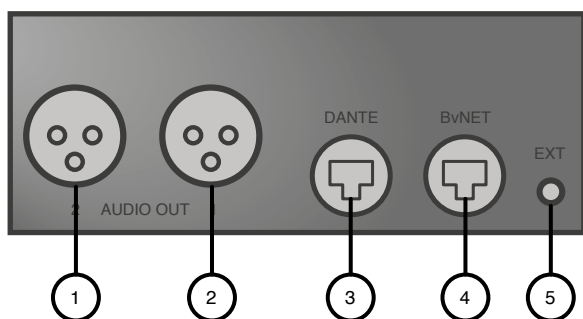
The EXT Power indicator (1) illuminates when DC power is applied to the EXT Power socket on the rear of the unit.

The PoE Power indicator (2) illuminates when DC power is provided by a Power Over Ethernet (PoE) Switch.

The Net DATA indicator (3) illuminates when data is being received from the VNET network.

The Dante SYNC (4) indicator illuminates when the unit is supplied with a Dante Clock signal. Note that it will not illuminate if the Device is acting as a clock master.

The Dante DATA (5) indicator will illuminate when the unit is receiving control data over Ethernet.



The Audio Out 2 male XLR connector (1) carries the analogue audio signal for the second channel.

The Audio Out 1 Male XLR connector (2) carries the analogue audio signal for the first channel.

The Dante RJ45 connector (3) is the Ethernet port, which should be connected from your computer or Ethernet Switch.

The VNET RJ45 socket (4) is the serial VNET network connection which should be connected to the first VNET device in your VNET network. It carries control data and AES3 digital audio when VNET2 is enabled. If you are using the Bridge for audio only (not control), then this socket is unused.

The Ext 3.5mm Jack socket (5) is used for applying external power to the Bridge. Use only an approved DC power source. If you are using a PoE Switch, then no connection is made to this connector.

13. Trouble shooting

The EXT Power indicator does not illuminate

If you do not have a connection to a PoE Ethernet Switch, you need to use the Accessory Power Supply. Make sure this is connected properly. Check if the power indicator on the Power Supply illuminates. If you are using a PoE Ethernet Switch, an external power supply is not needed and this indicator will not illuminate.

No Audio on the connected Device

Check that the Dante Audio signal is routed to the correct channel. If using VNET2, check that the Digital Input is selected. Also check the audio cables.

Dante Controller does not find Bridge

Check that the Dante Data indicator flashes to indicate that there is an Ethernet connection. Make sure the Ethernet network cable is not too long, is correctly connected, and is not damaged. Turn off the wireless port on your computer. Check that the Ethernet switch has QoS features. Also see: "Setting Up Dante FAQ" and "Troubleshooting FAQ" on <http://www.audinate.com>

PodWare finds no devices

Check that you have added the Dante Network node in PodWare. Also check that the appropriate indicators are illuminated. (See above). Make sure the VNET network cabling is not too long, is correctly connected, and is not damaged. Cable must conform to Application Note DQ2707. Check that the VNET Data indicator flashes when PodWare attempts to go online. If not, there may be a problem with the VNET cabling. Check to determine if any firewall is blocking PodWare from accessing the network.

14. Technical Specifications

Ethernet	
Compliance	100 base T or 1000 base T
VNET	
Cable type	Category 5 UTP (or better)
Max. total cable length	1 km
Max. Network span	1 km
Connector	Standard RJ45
Ext Power	
	Only to be provided by a Linea Research Accessory Power Supply via a 3.5 mm Jack-to-Jack lead (Linea Research part no. LD1047)
Power	
Consumption	3 W max.
Analog Audio	
Connector	3-Pin locking male XLR
Frequency Response	20 Hz to 20 kHz ± 0.2 dB
THD	$<0.005\%$ typ. At 1 kHz
Dynamic range	114 dB (A weighted)
Max. output level	+10 dBu into 600 ohms
Environmental	
Temperature	0 to $+45^{\circ}\text{C}$
Humidity	0 to 80% RH (non-condensing)
Physical	
Dimensions (HxWxD)	43 x 115 x 115 mm, (1.7 x 4.5 x 4.5")
Weight	0.5 kg (1.1 lbs)

A full range of measurements and performance data can be downloaded from www.tannoy.com. For project-specific system design assistance, contact our AET Group via www.aetgroup.tc

tannoypro.com

Tannoy operates a policy of continuous research and development. The introduction of new materials or manufacturing methods will always equal or exceed the published specifications. All specifications are subject to change without notice.

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