



LD DUSB 22

USB-C TO DANTE® INTERFACE 2X2

LDDUSB22;

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1 DOCUMENT VERSIONS AND REVISIONS

Version	Date	Implemented Changes
1	11/2025	Original version

2 INTRODUCTION

2.1 YOU MADE THE RIGHT CHOICE!

This product has been developed and manufactured to the highest quality standards to ensure many years of problem-free operation. Find further information about LD Systems on our website:

<https://www.ld-systems.com/>

2.2 CONTACTS

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2.3 LINK TO THE DOWNLOAD CENTRE



You can download some information, such as CAD data or technical data, from the Download Centre. Scan the QR code or click the link to download this information:

2.4 VISUALISATION CONVENTIONS IN THIS USER MANUAL

In this manual we use graphical symbols and icons in certain contexts. Find below a table with explanations and use cases of the graphical symbols and icons.

Icon / Symbol	Designation	Context	Explanation / Example
✓	Prerequisite	Tasks	Used in task topics to indicate a prerequisite that must be met before beginning the task.
⇒	Result / Intermediate Result	Tasks	Used in task topics to indicate a result or intermediate result of an action step.
1 Step a) Substep	1 Action Step a) Substep	Tasks	Used in task topics to indicate action steps and substeps.
1	Callout	Graphics; tasks	Text-image reference or labeling of certain functions on the device
[...]	Value range indicator	Technical data; paragraphs; lists	Indicates the range of a value, such as "Compressor ratio: 1:1...20:1 ". Mostly used in tables or callouts.
*	Asterisk	Paragraphs; tables	Indicates additional information in a footnote.
The LIM LED lights up	General User Interface element	Paragraphs; tasks; tables; lists	The words presented in this way represent graphic user interface elements on the device.
PAGE button	Key / Button	Paragraphs; tasks; tables; lists	The words presented in this way represent user interface controls on the device.
<name>	User input	Paragraphs; tasks; tables; lists	The words presented in this way represent required user inputs.
<u>https://adamhall.com</u>	Weblink	Paragraphs; tables; lists	External link to a website

3 PRODUCT COMPLIANCE

3.1 MANUFACTURER'S DECLARATION

Adam Hall offers a voluntary, EU-wide manufacturer's guarantee of 5 years. The statutory warranty period is not affected by this voluntary guarantee.

Visit the Adam Hall Service Portal to access the **Download Centre**:

<https://portal.adamhall.com/>

Under the **Service & Regulations** section, you find our current detailed manufacturer's declarations, warranty conditions, and limitation of liability.

To request warranty for a product, please contact:

Adam Hall GmbH, Adam-Hall-Str. 1, 61267 Neu-Anspach

customerservice@adamhall.com

0049 (0)6081 / 9419-1000

3.2 DECLARATION OF CONFORMITY

UK
CA

Hereby, Adam Hall Ltd. declares that this product meets the following guidelines (where applicable)

- Electrical Equipment (Safety) Regulations 2016
- Electromagnetic Compatibility Regulations 2016 (SI 2016/1091)
- The Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment Regulation 2012 (SI 2012/3032)
- Radio Equipment Regulations 2017 (SI 2016/2015)

Products that are subject to Electrical Equipment(Safety)Regulation 2016, EMC Regulation 2016 or RoHS Regulation can be requested at info@adamhall.com. Products that are subject to the Radio Equipments Regulations 2017 (SI2017/1206) can be downloaded at <http://www.adamhall.com/compliance>.

FCC STATEMENT

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:

1. This device may not cause harmful interference.
2. This device must accept any interference received, including interference that may cause undesired operation.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected to.
- Consult the dealer or an experienced radio/TV technician for help.

4 SAFETY INSTRUCTIONS

4.1 INTENDED USE

The **DUSB22** is intended to convert audio signals between USB and Dante® networks for two-channel digital audio transmission.

This product has been developed for the professional use in the field of event technology. Furthermore it is intended for qualified users with specialist knowledge of event technology only.

This product is intended for fixed installation and not for mobile application.

This product is intended for indoor use only.

This product is not suitable for domestic use.

Do not use the product outside the operating conditions as stated in the user manual under Technical Data. Liability for damage and third-party damage to persons and property due to inappropriate use is excluded.

This product is not suitable for children and persons with limited physical, sensory, or mental capabilities or lack of experience and knowledge.

4.2 EXPLANATION OF SAFETY AND WARNING SYMBOLS

Find the following safety and warning symbols on the device, the user manual, or the packaging:



This symbol indicates that you must read the complete user manual before using the product.



This symbol indicates a general hazardous situation.



This symbol indicates hazards that can cause electric shock.



This symbol indicates that the product is for indoor use only.



This symbol indicates that the product is not suitable for household use.



This symbol indicates that the product has no serviceable parts. Only authorized personnel is allowed to perform maintenance or service work.



This symbol indicates helpful hints or additional information.

4.3

STRUCTURE OF WARNING MESSAGES

In this user manual, warning messages are structured with a safety symbol, a signal word, a hazard description, and instructions on how to avoid injuries or death.



DANGER

Indicates a hazardous situation which will result in death or serious injury.



WARNING

Indicates a hazardous situation which could result in death or serious injury



CAUTION

Indicates a hazardous situation which could result in minor or moderate injury.



NOTICE

Indicates situations or conditions that could result in damage to property and/or the environment.

4.4

GENERAL SAFETY



- Read this document carefully.
- Keep this document for later reference.
- Follow closely the instructions in this document.
- This document is an integral part of the product. If you sell or pass on the product, you must include this document.
- Only use this product according to its intended use.
- Risk of choking. Keep small parts away from children and individuals with impaired physical, sensory, or mental capabilities.
- Risk of suffocation. Keep plastic bags away from children and individuals with impaired physical, sensory, or mental capabilities.
- Observe all safety instructions and warning messages in this document, on the device, and on the packaging.
- Products are subject to continuous further development. If you find discrepancies between this document and the product labeling, the information on the product always takes priority.
- Do not remove safety instructions or warning messages from the product.
- Do not modify the product.
- If the product shows any sign of damage, do not use it.

- Do not operate the product with removed or missing covers.
- Do not expose the product to direct sunlight.
- If not further specified in the user manual under Technical Data, do not use the product in ambient temperatures that exceed 40 °C / 104 °F or fall below 0 °C / 32 °F
- Do not use the product in tropical climate.
- Do not use the product above 2000 metres of altitude.
- Unless otherwise stated, do not use the product under marine conditions.
- Maintenance and repairs may only be carried out by authorized service personnel.
- Store and transport the product in a dry and safe environment.
- Clean the product on a regular basis. If applicable, see the user manual for maintenance intervals.
- If the device was exposed to strong temperature changes, such as during transport, do not switch it on immediately. Wait until the device has reached ambient temperature.

4.5

ELECTRICAL SAFETY



- Only operate the device with the provided power supply. If no power supply is included, the device should be powered via Power over Ethernet (PoE) using equipment compliant with the IEEE 802.3af standards (PSE output up to 15.4 W).
- If you don't use PoE or the provided power supply, any external power supply used must meet the following specifications:
 - Comply with all applicable local safety regulations
 - Be certified for use in the country of installation
 - Meet SELV (Safety Extra Low Voltage) or PELV (Protective Extra Low Voltage) requirements
- This is an electrical device in protection class III, using safety extra-low voltage (SELV) or protective extra-low voltage (PELV).
- Do not bypass the mains fuse.
- Use only mains fuses as specified by the manufacturer.
- Do not use kinked or otherwise damaged power cables.
- Only operate the device on compliant, tested and intact mains power outlets.
- Do not use the device in the vicinity of water. Keep the device away from splashing or dripping water.
- Make sure that the voltage and frequency of the mains power match the values specified by the manufacturer.
- Take suitable measures against overvoltage, such as lightning strikes.
- For devices with a power out connector, make sure the total current consumption of all connected devices does not exceed the value specified by the manufacturer.
- This device is suitable for continuous current.

- Disconnect the device from all poles before maintenance, repair or extend periods of non-use.
- Permanently connected power cables may only be replaced by a qualified service technician.

4.6**THERMAL SAFETY**

- Do not install the device near heat sources, such as radiators or ovens.
- Do not block any ventilation openings.
- Unless otherwise stated, keep a minimum clearance of at least 20 centimetres around the device.
- Unless otherwise stated, keep flammable materials, such as paper or wood, at least 50 centimetres away from the device

4.7**DEVICE SAFETY**

- Do not switch the device on and off in quick succession, because this will shorten the device lifetime.

5 PRODUCT DESCRIPTION

5.1 PRODUCT OVERVIEW

The **DUSB 22** converts audio signals between USB and Dante® formats. It supports two-channel USB audio (Class 1.0/2.0) with output up to 192kHz/24bit and input up to 96kHz/24bit. The device can be powered via a local USB-C port or through PoE (Class 0, IEEE 802.3af). Its compact design allows for flexible installation.

Audio Networking Features:

- Sample rate: 44.1, 48, 88.2, and 96kHz @ 24 Bit
- Device latency 1, 2, or 5 ms selectable
- Supports AES67 RTP audio transport

5.2 THIRD-PARTY TRADEMARKS

Dante® is a trademark of Audinate Pty Ltd.

Audinate® is a registered trademark of Audinate Pty Ltd.

5.3 TECHNICAL DATA

Technical

Control Method	Dante® Controller
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Video Network Bandwidth	100 Mbps
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Audio Latency	Configurable Dante® device latency (Supports 1, 2 or 5ms configurable using Dante® Controller)
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Transmission Distance	328 ft / 100m (CAT6/6A/7)
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Audio Formats	USB AUDIO IN [Digital audio input, PCM 2CH 44.1K- 96kHz 16/24bit] USB AUDIO OUT [Digital audio output, PCM 2CH 44.1K-192kHz 16/24bit] Dante® audio networking IN/OUT [Digital audio input/output, PCM 2CH 44.1K-96kHz 16/24bit]
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Audio Parameters USB Audio IN

Frequency Response	20 Hz ... 20 kHz (±0 dB)
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Dynamic Range	> 130 dB, 1 kHz A-weighted
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Audio S/N Ratio	> 130 dB, 1 kHz A-weighted
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Audio THD+N	< 0.01 % at -4dBFS, 1 kHz
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Audio Output Sync Delay	< 10 ms
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Audio Parameters USB Audio OUT

Frequency Response	20 Hz ... 20 kHz (± 0 dB)
Transmission Distance	328 ft / 100 m (CAT6/6A/7)
Dynamic Range	> 130 dB, 1 kHz A-weighted
Audio S/N Ratio	> 130 dB, 1 kHz A-weighted
Audio THD+N	< 0.01 % at +4 dBu, 1 kHz
Audio Output Sync Delay	< 10 ms

Electrostatic Discharge

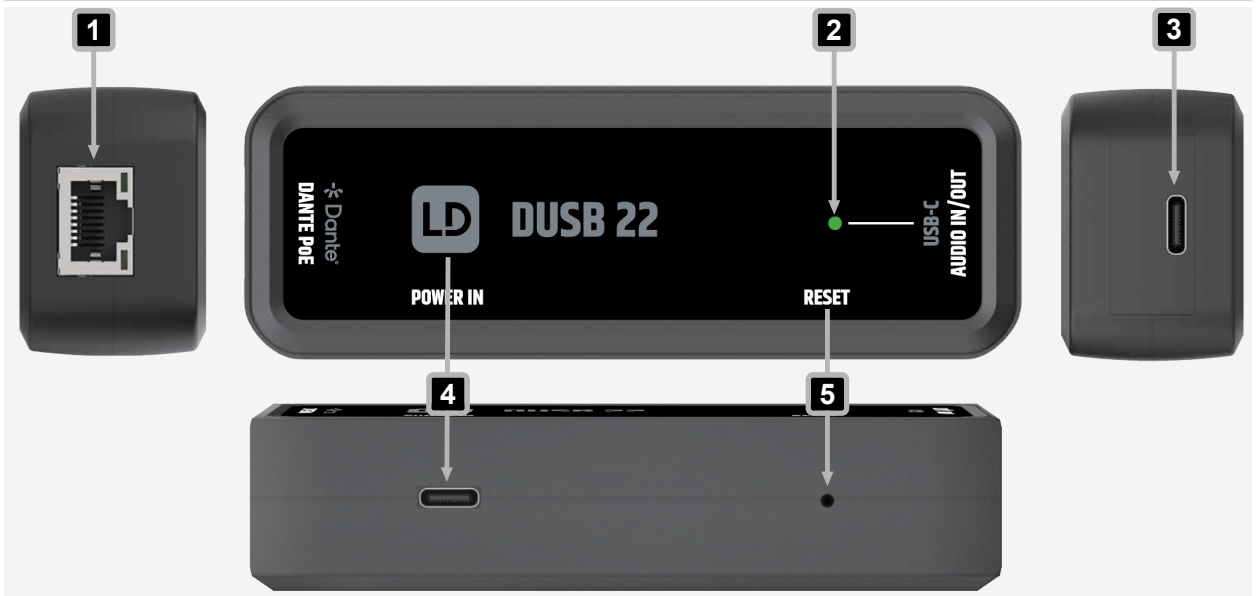
ESD Protection	IEC 61000-4-2: ± 8 kV (Air-gap discharge) & ± 4 kV (Contact discharge)
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Mechanical

Housing	Plastic Enclosure
Colour	Black
Dimensions	115 mm [W] x 40 mm [D] x 28 mm [H]
Weight	94 g
Power Supply	USB input: 5V/500mA PoE input: PoE IEEE802.3af Class 0
Power Consumption (Max)	1.65 W
Operating Temperature	32°F ... 104°F / 0°C ... 40°C
Storage Temperature	-4°F ... 140°F / -20°C ... 60°C
Operating Humidity	20 % ... 80 % RH (relative humidity, non-condensing)
Storage Humidity	10% ... 90 % RH (relative humidity, non-condensing)

5.4

USER INTERFACE



- 1 Dante PoE** - Ethernet port for Dante® audio networking input and output. This port connects the device to a Dante® network via a standard Ethernet switch.

Download link for the Dante® Controller: [*Dante® Controller / Dante®*](#)

Supports Power over Ethernet (PoE) according to IEEE 802.3af (Class 0). Enables bidirectional 2-channel audio transmission via Dante® audio networking.

RJ45 status LEDs:

- LINK LED (green): Lights continuously when a valid network connection is established.
- DATA LED (yellow): Flashes when audio or control data is transmitted over the Dante® network.

- 2 USB-C LED Indicator (green)** - Indicates the presence of 5 V power at the USB-C port

- 3 AUDIO IN/OUT** - USB-C port for bidirectional USB audio transmission.

Allows connection to a computer or other USB-C host device for USB audio input and output (USB Audio Class 1.0 / 2.0). When connected to a host device that supplies power via USB-C, the DUSB22 is powered through this port. In this case, no additional power supply is required on the POWER IN port.

- 4 POWER IN** - Provides a dedicated USB-C port for power supply and service functions

Supplies 5V / 500mA when the device is not powered via:

- AUDIO IN/OUT USB-C port (e.g., when connected to a non-powered USB host)
- Power over Ethernet (PoE) via the Dante® PoE RJ45 port

Is only required when neither the USB-C audio connection nor PoE supplies power to the device. The port supports firmware updates only and does not transmit audio signals.

- 5 RESET Button** - Reboots the device. Press to restart the system. Does not reset device or network settings; configuration reset must be performed using Dante® Controller.

6 PREPARATION

6.1

SCOPE OF DELIVERY

Item Description	Quantity
Device	1
Self-adhesive Mounting Strips	2
Safety Compliance Information	1

7 OPERATION

7.1 POWER SUPPLY

7.1.1 ABOUT POWER OVER ETHERNET (POE)

Power over Ethernet (PoE) delivers both power and data through a single Ethernet cable. The Ethernet cable, typically Cat5e or Cat6, runs from a PoE switch or injector to the PoE-enabled device.



We recommend using Power over Ethernet (PoE) as the primary power source, as it simplifies installation and reduces the need for additional power infrastructure.

7.1.2 TURNING THE DEVICE ON OR OFF



The device automatically turns on when connected to a power source.

The device automatically detects the available power source. If both PoE and USB-C are connected, the internal circuitry handles this without any issue.

- 1 Plug in the power source to turn the device on.
- 2 Remove the power source to turn the device off.

7.1.3 CONNECTING A POWER ADAPTER



A power adapter is not included in the scope of delivery.



WARNING

Mains voltage

Risk of electric shock

- a. Do not use kinked or damaged mains power cables.



NOTICE

Damage to the device

- a. Make sure that the voltage of the mains power socket matches the device operating voltage.
- b. Do not plug the device under load.

- ✓ Power adapter which meets the specifications indicated on the device label and features a USB-C connector for device-side connection.

- 1 Plug the USB-C connector of the power adapter into the **POWER IN** port on the device.
- 2 Plug the AC input of the power adapter into a mains power socket.

7.2 USE CASE



8 MAINTENANCE

8.1

PRODUCT MAINTENANCE



CAUTION

Mains Voltage

Risk of electric shock

- a. Before you perform maintenance work on the device, disconnect the device from all poles.



NOTICE

Damage to the device and void of warranty

- a. Do not use cleaning agents, disinfectants, alcohol, or agents with abrasive effect for cleaning.

Carry out the maintenance measures listed below on a regular basis. The frequency of cleaning depends on the environment in which you use the product. Damp or dirty environments may cause increased soiling and wear.

VISUAL INSPECTION

Check the following points before operating the device.

-  **WARNING! Risk of electric shock.** Check mains power cables for damage or material fatigue.
- Check all air inlets and outlets for damage, dust, or dirt deposits.
- Check all outside screws and covers for corrosion, damage or excessive wear.
- Check all connectors and rubber sealing caps for damage, dust, or dirt deposits.
-  **WARNING! Risk of falling objects.** Check that all screws, fasteners, and rigging points are securely tightened.

CLEANING

- Clean the surface with a clean and damp lint-free cotton cloth. Wipe off all excess moisture.
-  **NOTICE! Do not use compressed air.** Clean any air inlets and outlets of dust and dirt deposits with a clean and damp lint-free cotton cloth.
- Clean all plug contacts from dust and dirt with a dry lint-free cotton cloth.

9 DISPOSAL

9.1

PACKAGING DISPOSAL



1. You can feed the packaging into the reusable material cycle using the usual disposal methods.
2. Separate the packaging in accordance with the applicable disposal laws and recycling regulations in your country

9.2

DEVICE DISPOSAL



1. This device is subject to the European Directive on Waste Electrical and Electronic Equipment, as amended. WEEE Directive Waste Electrical and Electronic Equipment. Old appliances do not belong in the household waste. The old device must be disposed of via an approved disposal company or a municipal disposal facility. Observe the applicable regulations in your country.
2. Observe all disposal laws applicable in your country.
3. As a private customer, you can obtain information on environmentally friendly disposal options from the seller of the product or the appropriate regional authorities.
4. Retailers are often legally obliged to take back items free of charge.
5. Old appliances that contain harmful substances are labelled with the symbol of a crossed-out dustbin.
6. Current information on the collection rate can be found at the following website:
<https://environment.ec.europa.eu/>. Search for the following term: waste-electrical-and-electronic-equipment-weee.

