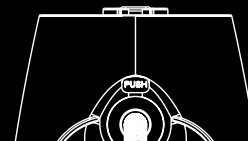
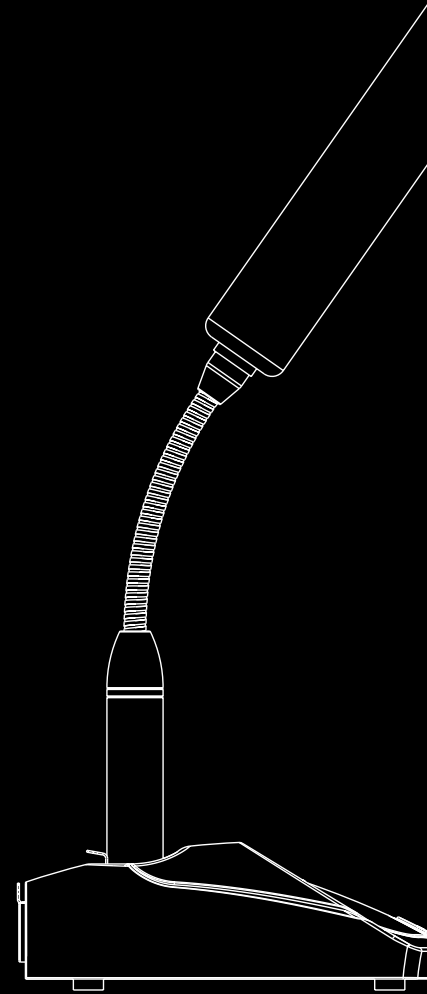
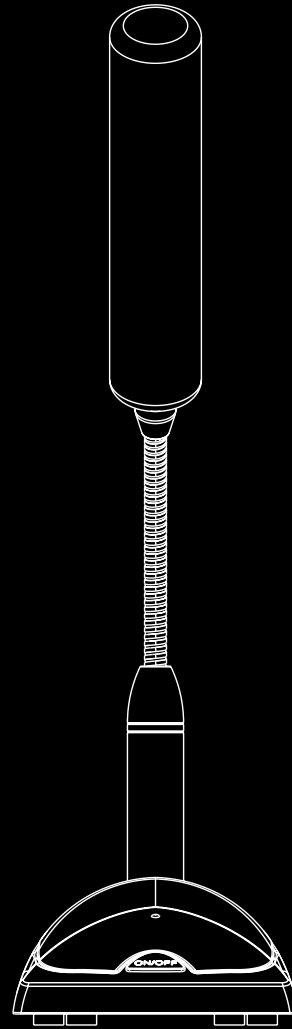
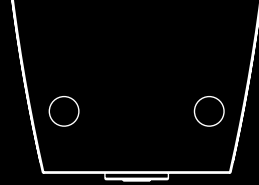


# INTEGRAL-MC02

User manual



### **DAS Audio is a unique brand. We create sound solutions for businesses, always adapted to the different needs of our clients.**

The Integral Series is the heart and brain of our installation solutions. It comprises of a series of devices that in addition to feeding and processing the signal of our speakers, allow an absolute control to our users, guaranteeing the protection and quality of the equipment.

You are about to discover what it means to work with our brand, and this is just the beginning. You will have access to quality training materials on our website, where you will discover specific business solutions and learn how to use them: [dasaudio.com/en/training/](https://dasaudio.com/en/training/)

This user manual is designed to guide you, swiftly and smoothly, during the installation of our equipment, but in case you have any questions or doubts, do not hesitate to contact our technical support team by writing directly to [support@dasaudio.com](mailto:support@dasaudio.com) or, if you prefer, through our website, contacting your nearest office at [dasaudio.com/contact](https://dasaudio.com/contact)

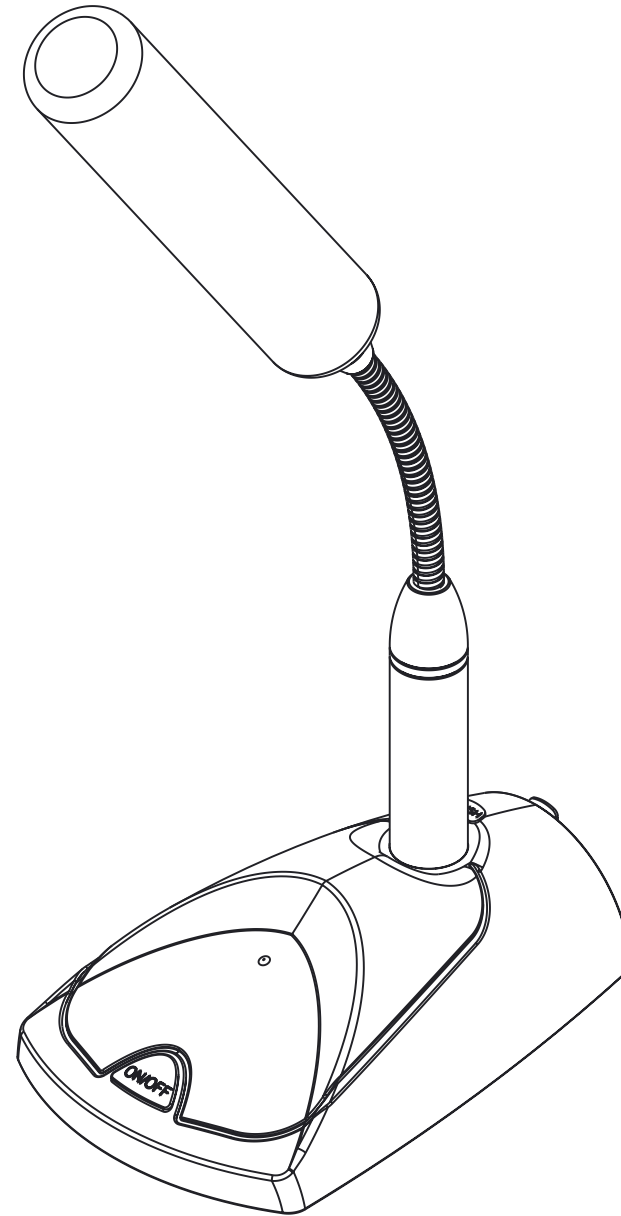
# INTEGRAL

## Description and features

INTEGRAL-MC02 is a Dante-enabled desktop electret condenser gooseneck microphone. Desktop base allows microphones to be used in multi-purpose or conference rooms, retail stores, or large installations with big distances between the sound sources where digital audio via ethernet is the perfect solution.

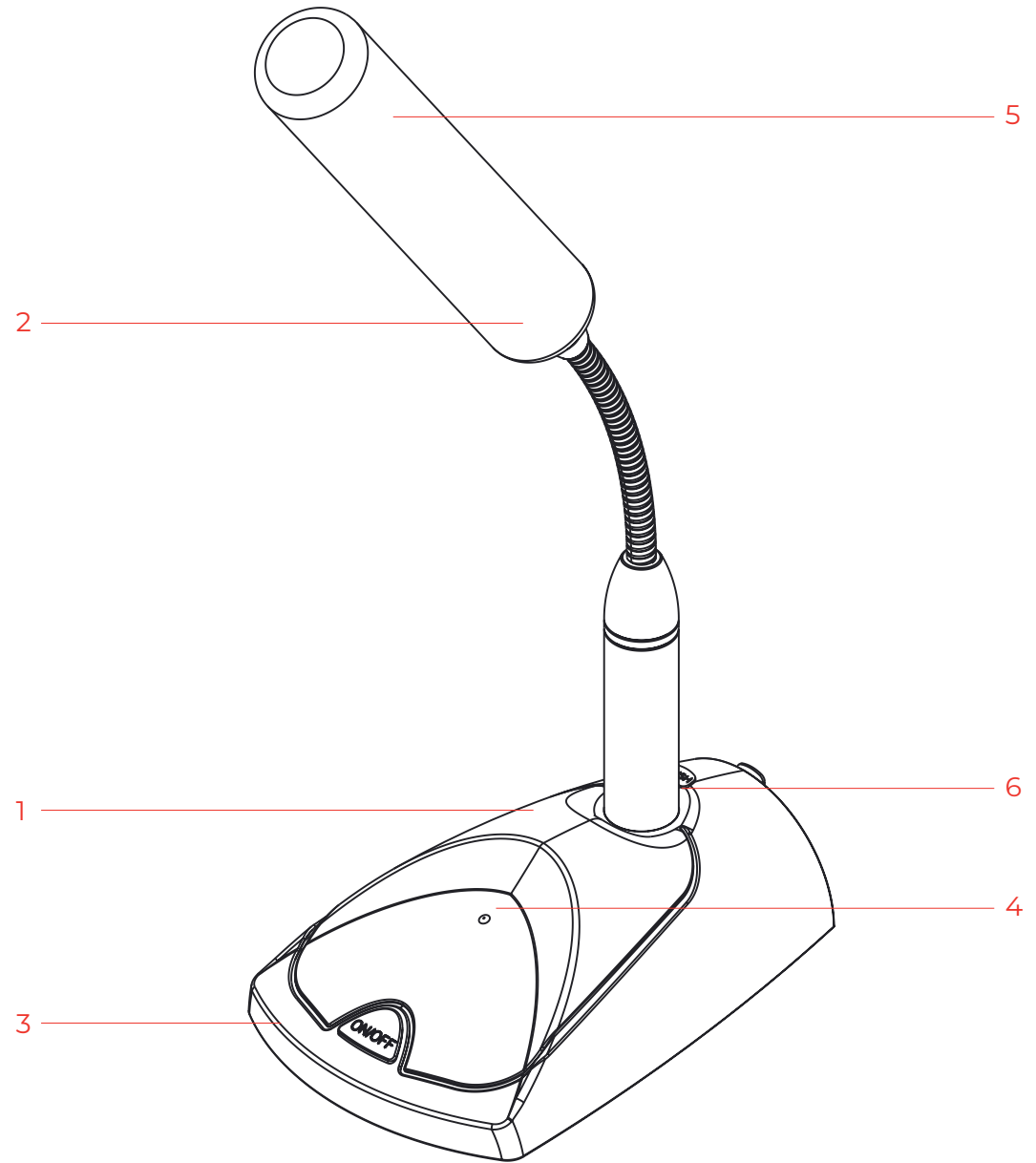
The desktop base includes a 3-pin XLR type input connector for the microphone and a Dante ethernet output connector enabling direct connection to the digital audio network. The user button with integrated red indicator permits advanced local control.

- Dante enabled electret condenser microphone
- Wide dynamic range and frequency response for accurate sound reproduction
- Cardioid pattern
- Powered by PoE
- Integrated user switch control on/off
- Red LED indicator when active
- Local rotatory microphone gain control



# INTEGRAL Top panel

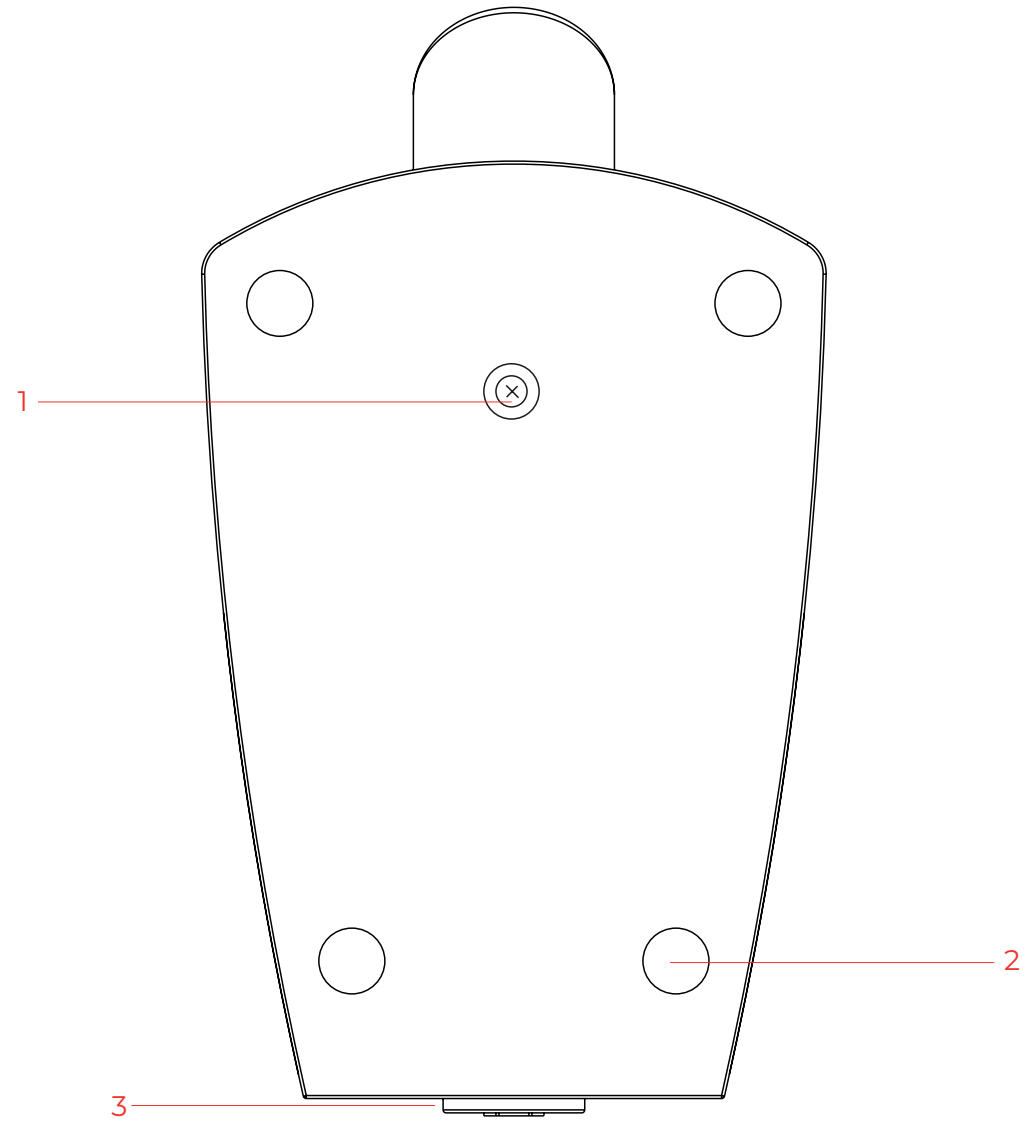
- 1 Base Desktop
- 2 Neck and Microphone´s cartridge
- 3 On/Off button
- 4 LED
- 5 Windscreen
- 6 XLR type input connector



# INTEGRAL

## Bottom panel

- 1 Rotatory gain control.
- 2 Rubber feet (x4).
- 3 Output Ethercon type connector.

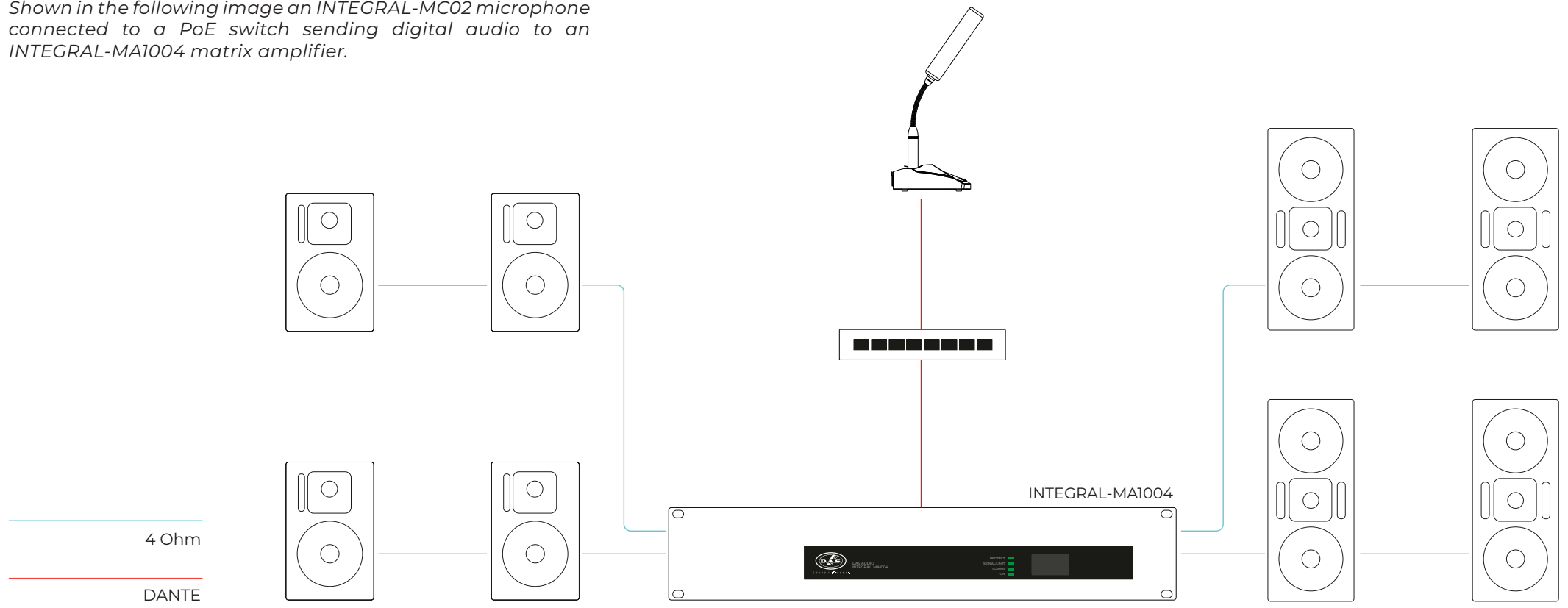


# INTEGRAL

## Connections

The INTEGRAL-MC02 transmits audio signal and receives power Over Ethernet. Therefore, it is necessary to connect switches or other routing devices that support PoE power supply function. The use of CAT5E cabling (or superior) is recommended. The microphone can be routed to whatever INTEGRAL-MA or M Dante enabled model.

*Shown in the following image an INTEGRAL-MC02 microphone connected to a PoE switch sending digital audio to an INTEGRAL-MA1004 matrix amplifier.*



# INTEGRAL

## Dante Controller, MIC Routing

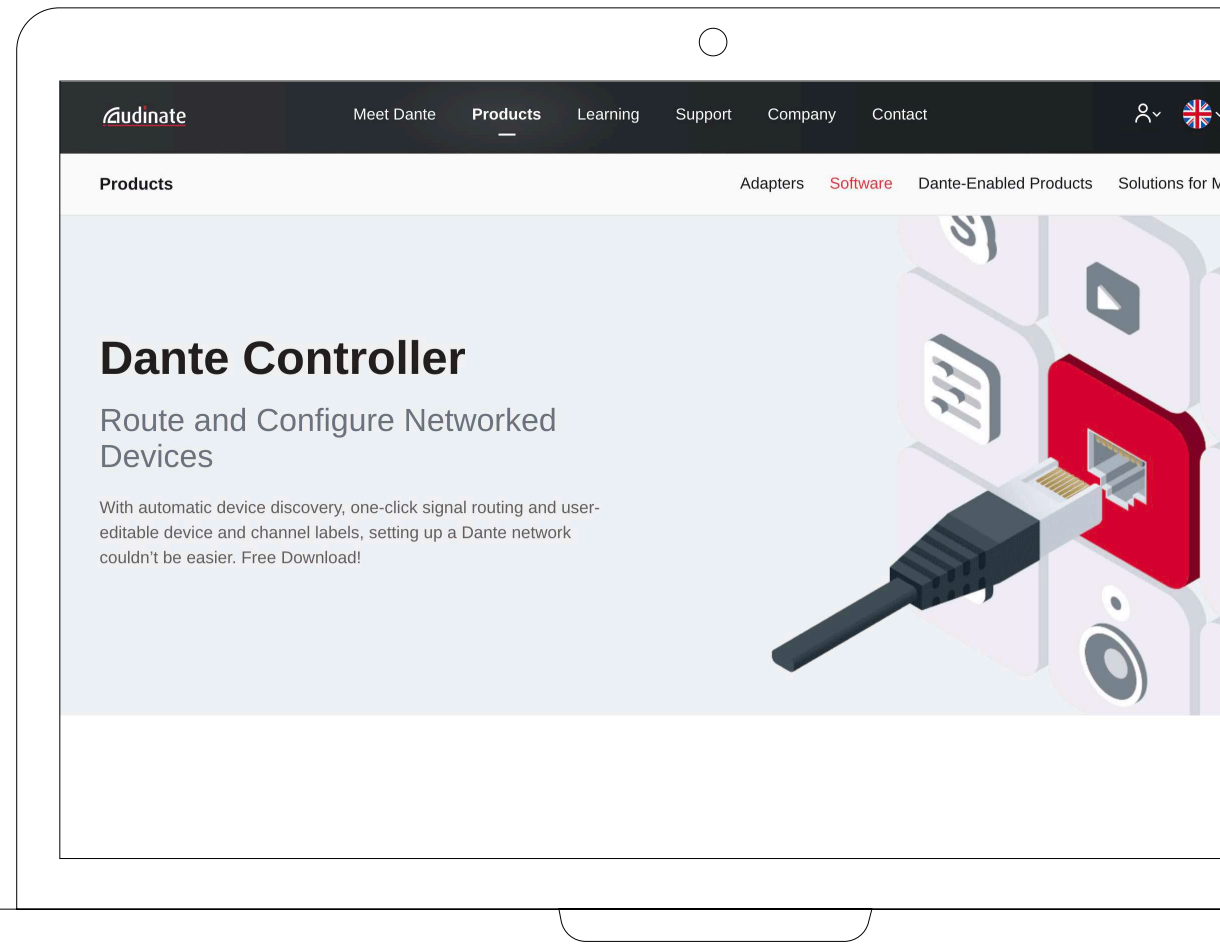
In order to route the audio channel from the microphone to other Dante-enabled products present in the network the Dante Controller software shall be needed.

<https://www.audinate.com/products/software/dante-controller>

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.

Devices are automatically discovered and correlated with the proper firmware for error-free deployment of updates. With Dante Updater, you can quickly and safely take advantage of all the latest features and capabilities of Dante as well as the manufacturers' product updates.

Dante Controller is available for Windows and macOS.



## Dante Controller, MIC Routing

### Configuration of the unit with the Dante Controller

1. Start the Dante Controller.
2. Automatically all the units in the network should be recognized and present on the main Network View window on Dante Controller.

Note: If a unit fails to appear, the reason could be:

- The corresponding unit has not been switched on or not connected to a PoE port.
- The Cat5E cable that connects the unit is defective.
- The unit is in a different subnet.
- The unit is not able to synchronize with the other Dante units.


However, if one of the two last-mentioned reasons applies, the Dante unit should at least appear under the tab “Device Info” or “Clock Status” in the network view. A fast solution of this problem may be to switch the unit off and on or to disconnect and re-establish the connection to the network switch. For further information please refer to the user manual of the Dante Controller.

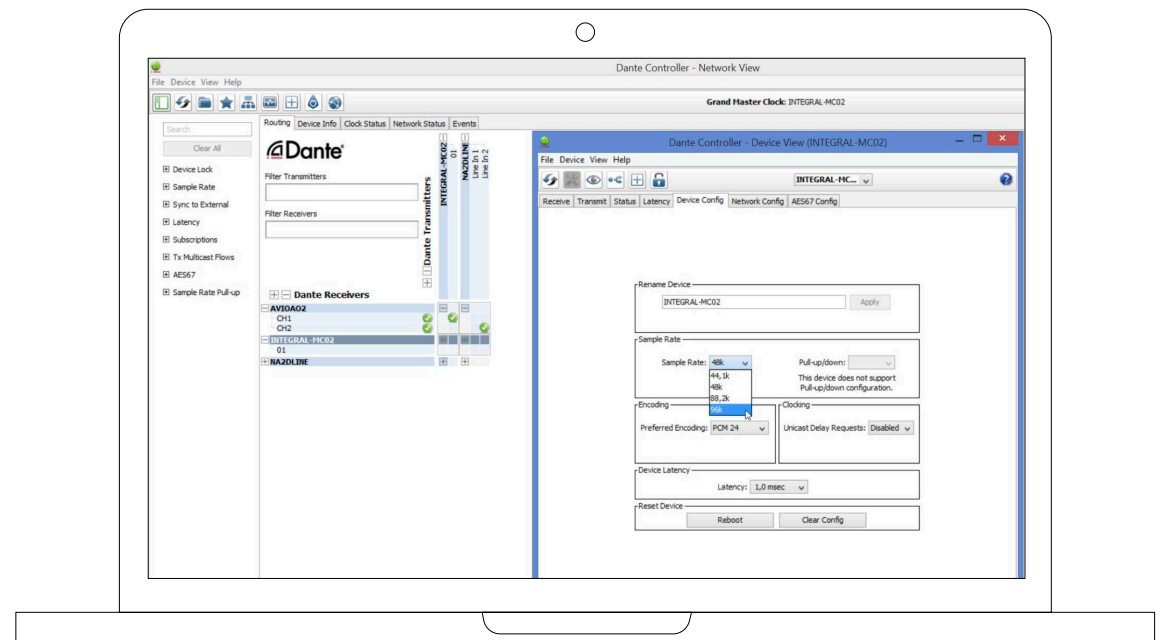
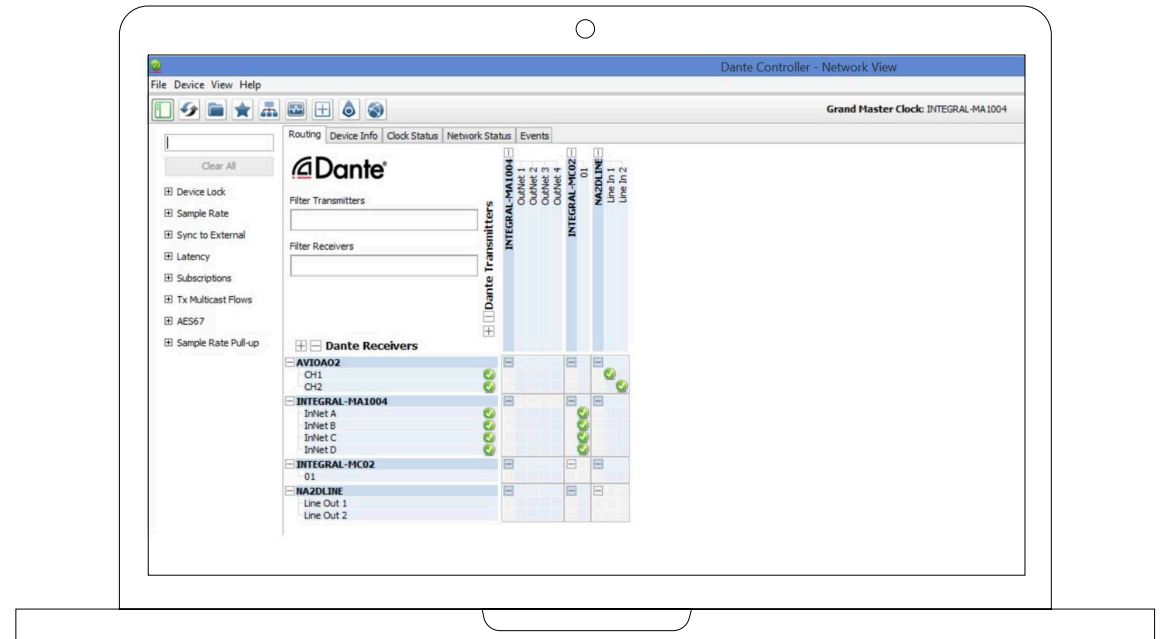


# INTEGRAL

## Dante Controller, MIC Routing

### Configuration of the unit with the Dante Controller

3. Route the microphone transmission channel to other Dante Receivers' channels.
  - Select the "Routing" folder in the window "Network View", click  to open the channels of the "Dante Transmitters" and the channels of the desired connection devices under "Dante Receivers".
  - Navigate from the column of the Dante transmitter's channel to the line of the desired Dante receiver's channel and click the field at the intersection point.
  - Wait for the field to show a green circle with a white check mark ✓
  - Repeat the steps for additional connections.
4. The device name and other properties (as sample rate) can be configured for each device on the network by use of the window Device View (or Ctrl + D). The routing of audio channels between devices won't be possible if the sample rate of each one is different, so it is mandatory to match sample rates of transmitters and receivers.



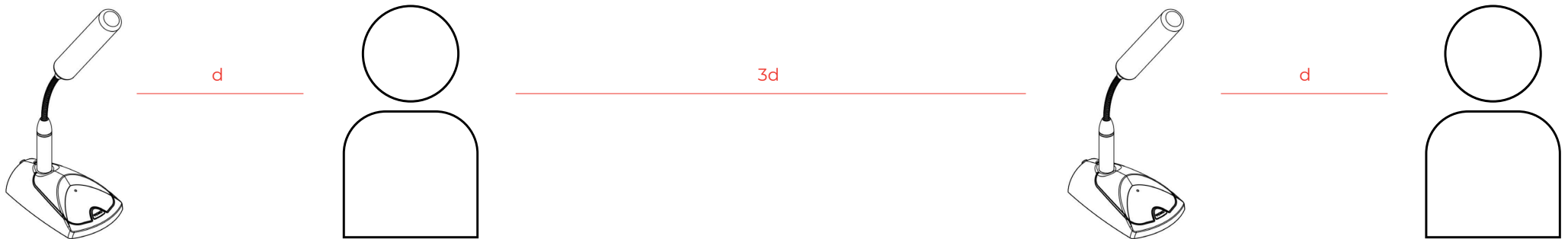
## INTEGRAL

### Microphone placement

Place the microphone within 15 to 30cm (6 to 12 in.) of the desired audio source.

Aim the microphone towards the desired source, such as the talker. Aim it away from any unwanted source, such as a loudspeaker. The loudspeakers should always avoid facing the microphone, in order to prevent feedback. The speaker system should be in a location that will not be in the walking path of the presenter or easily walked in front of.

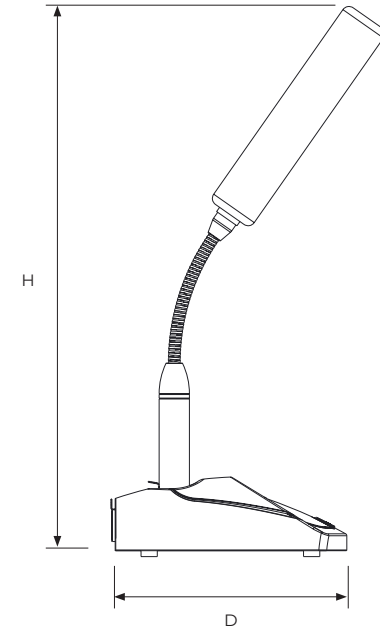
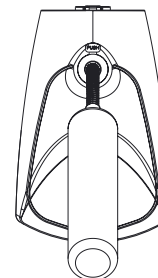
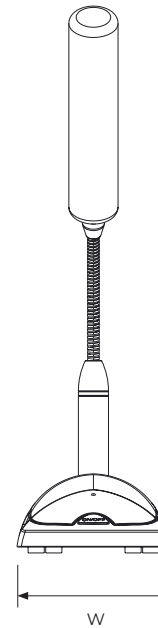
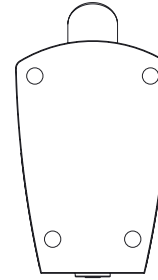
When using more than one microphone in order to avoid feedback and phasing problems follow the rule 3:1, the distance from any audio source to the closest microphone has to be at least 3 times less than the distance from the audio source to the other microphones.



# INTEGRAL Specifications

<b>Microphone type</b>	Electret Condenser
<b>Frequency Response</b>	40Hz – 16kHz
<b>Input Impedance</b>	2.2Kohm
<b>Max Input</b>	0dBu
<b>Polar Pattern</b>	Cardioid
<b>Sensitivity</b>	-44dB
<b>Power Supply</b>	PoE IEEE802.3af
<b>Dimensions (H x W x D)</b>	370* x 103 x 157mm (14.5 x 4 x 6.2 in)
<b>Weight</b>	1265g (0.57 lb)

H\*: Height with microphone's neck at 50°





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