

## Dante® Network Intercom




**BEATRICE D4**  
Four\* Channel Desktop Intercom

## Highlights

4\* Channel  
Desktop

Simple To Use

Large Highly  
Intelligible  
Loudspeaker

48kHz Crystal  
Clear Digital Audio

Mains/  
PoE Powered

Low Noise  
Microphone Amp

## Overview

This device uses Audinate's Ultimo Chipset, which can receive 4 incoming audio channels, each at 48kHz. However, this chipset can only receive these 4 audio channels from a maximum of 2 network locations (2 different devices). This is common with any manufacturer that uses this chipset.

The Glensound BEATRICE D4 is a robust, 4\* channel Desktop intercom with crystal clear audio designed for broadcast, theatre and professional audio applications.

It is part of our Beatrice intercom system that utilises the reliable and proven Dante® network audio transmission protocol to allow real time distribution of uncompressed audio across standard networks. As such the BEATRICE D4 is also fully compatible with other manufacturers' equipment using the Dante® protocol. The Beatrice D4 is AES67 compliant.

This small desktop was designed to be easy to use for the operator and simple to setup for the technician. It includes all the basic functionality required for small intercom systems and none of the overly complex installation requirements usually associated with large systems.



- 4\* Channels**

One single user connected to the unit can listen to and communicate with 4\* separate locations on the network. Depending upon how the Dante® network has been routed the incoming audio circuits and outgoing circuits can be different locations. PLEASE NOTE THERE IS A LIMITATION TO INCOMING NETWORK STREAMS SEE\* IN SPECIFICATION.
- Dante® Routing & Partyline**

Audio routing to/ from other devices is setup using Dante® controller which allows for point to multipoint routing on outgoing circuits (but only 1 single incoming circuit for each of the 4 channels).

An inbuilt partyline facility allows any of the 4 incoming circuits to be routed to any of the 4 output circuits making both simple partyline and more complex group circuits easily configured.
- Onboard Mic & External Mic Input**

A good quality, clear sounding microphone amplifier designed for communication purposes is fitted which also has the benefit of a compressor/limiter circuit to help keep levels and intelligibility consistent even when the operator gets overly excited. This microphone amp has two microphone sources, either the inbuilt front panel mounted electret capsule which provides good voice intelligibility from normal working distances or a balanced XLR input for connecting external gooseneck microphones. Twelve Volt Phantom power is also available and can be turned on/off as required.
- Large Diameter Visatron Loudspeaker**

What's the point of an intercom unit if the onboard speaker is so small and cheap that you can't understand what is being said to you? We use high output, high quality, large magnet Visatron speakers with excellent voice intelligibility to make communication straightforward and easy to understand.



- Volume, Panning & Incoming Levels**

The front panel features an easy to use volume/setup control. This multi-functional control provides day to day operational control of:

  - A)** Overall volume control (just turn the knob)
  - B)** Incoming channel level (push the speak key and turn the knob simultaneously)
  - C)** Panning (push the speak key and push and turn the knob simultaneously)
- Mains or PoE Powered**

An inbuilt wide range switch mode mains power supply is fitted for powering the Beatrice D4. It is terminated with a standard IEC plug, making it easy to plug in wherever you are in the World. It can also be powered via the Ethernet cable by standard PoE (Power over Ethernet), which can be supplied by an external PoE switch or a midspan power injector.
- Headphone Output**

One of our unique headphone amplifiers is fitted to the Beatrice D4. This allows either low or high impedance headphones to be used and automatically adjusts the output level to match the impedance of headphones in use. The headphone amplifier is stereo and sources can be panned to left or right ears as desired. The unique headphone amplifier can also drive mono earpieces from its stereo output without any performance issues. Headphone connection is via a standard 6.35mm TRS jack socket located out of the way on the rear panel.
- Call Function**

A simple call function is inbuilt allowing the operator of one unit to call/alert other users that they want to communicate with them. To call another user the operator double taps the speak key of the channel they want to call, this then flashes a bright yellow call LED on the other users keypanel, which continues to flash until the call is answered. As well as flashing a LED at the receiving end of the call an audible 'beep' can be set to alert the user that an incoming call has been placed to them.

## BEATRICE D4

Four\* Channel Desktop Intercom

### Features



- Display for Setup**

To make setup of the unit easy and intuitive a display is provided on the front panels. This display provides a simple menu system for setting up such items as:

  - Button Configuration
  - Input Type (Mic/Line)
  - Microphone Gain
  - Phantom Power On/Off
  - Sidetone Level (Own voice in own headphones)
  - Partyline/ Loop Through Mode
  - Mixing/Cutting of Partyline when User Speaks
- Presence Indicator**

Each channel has its own red LED that acts as a presence detector on the incoming audio circuit. When audio is detected the LED is lit and it stays lit for a short period after the incoming audio stops.
- Small and Robust**

The Beatrice D4 is manufactured using lightweight but strong aluminium. It has laser etched aluminium front & rear panels and powder coated aluminium sides. The form factor has been carefully designed to be as small as the internal electronics allow whilst keeping user buttons, microphone and loudspeaker ergonomically positioned for optimum user experience. Weighing in at just 1.5Kg it is light enough to easily transport but heavy enough to stay put on a busy desk or work surface, and at just 41 x 214 x 172mm it won't get in the way.



Intercom & Talkback

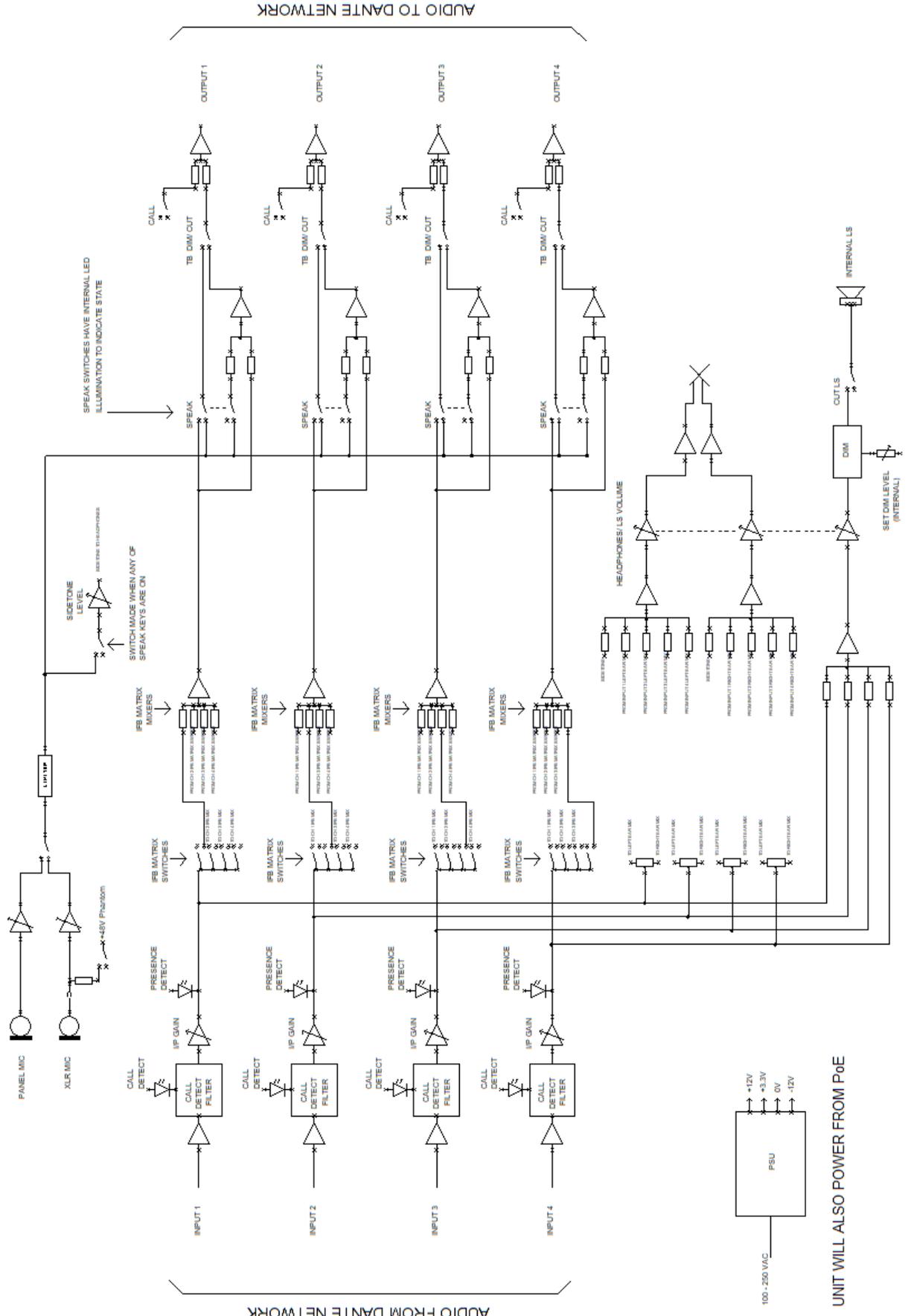


**Dante**<sup>®</sup>

**Simplified Block Diagram**

The audio block diagram below shows an analogue representation of the digital audio routes within the Beatrice D4.

**Block Diagram**



Intercom & Talkback



## Specification

\* **FOUR INCOMING AUDIO CIRCUITS:** This device uses Audinate's Ultimo Chipset. This chipset can receive 4 incoming audio channels each at 48kHz. However this chipset can only receive these 4 audio channels from a maximum of 2 network locations.

### NETWORK

#### Physical Interface

1 off RJ45 Neutrik Ethercon

#### Audio Sample Frequency

48kS/s

#### Transfer Rate

100 Mbps

#### Dante® Chipset

Ultimo UXT-01-004

Note: Audiante recommends no more than 10 Ultimo chipsets on one network **UNLESS** another Dante® device such as the Brooklyn Module (found in 8 channel Beatrice/ Dark units), is on the same network

#### AES67 Compliant

The Audinate Ultimo chipset is AES67 compliant

### AUDIO

#### Mic Gain Range

60 to 20dB

#### Phantom Power

12 Volts

#### Equivalent Input Noise

-110dB (20-20Khz RMS A Weighted 300 Ohms)

#### Headphone Impedance

32 - 1000 Ohms

#### Max Headphone Output Level

+10dB into 600 Ohms

#### Headphone Connector

6.35mm (1/4") TRS socket, can be safely connected to mono TS jack plug

#### Band Pass Filter

50Hz to 15kHz

#### Line Input Gain Range

+10 to -20dB

#### Loudspeaker Drive Unit

8cm (3.3") fullrange, high efficiency, 10 watt  
130 - 20000 Hz

### INCLUDED ITEMS

#### Handbook

By download

#### RJ45 Network Cable

2 metre Cat5 RJ45plug /RJ45plug cable

### POWER

#### Mains Voltage

100 - 240 VAC +/-10%

#### Consumption

8 Watts

#### Mains Frequency

50 to 60 Hz

#### Power over Ethernet (PoE)

48V

#### Redundancy

Mains & PoE supplies are dioded together for glitch free redundancy

### Call Circuit

#### Inband Calling Frequency

20kHz

#### Amplitude

-20dBfs

#### Duration Of Signal

2 seconds

#### Compatibility

All Glensound Beatrice units & Studio Technologies

### PHYSICAL

#### Mechanics

All aluminium with laser etched panels and light textured black powder coated sides

#### Size

214x172x41mm (w x l x h)

#### Weight

1.1kg 2.42lb

### ENVIRONMENTAL

#### Operating Temperature

0 to +50 °C (32° to 122°F)

#### Storage Temperature

-20 to +70 °C (-4° to 158°F)

#### Relative Humidity

0 to 95% non-condensing

### SHIPPING SPECIFICATIONS

**Weight:** 2.6Kg

**Shipping Size:** 3290x230x270mm

#### Shipping Carton

Rugged export quality cardboard

The name **Beatrice** was chosen for our intercom range as she was the love of Dante Alighieri:

*'Dante had fallen in love with another, Beatrice Portinari (known as Bice), whom he first met when he was only nine.'* Source Wikipedia.

We hope that you will also fall in love with Beatrice.

E & OE