

iSound AB88-UX

USB-C and XLR to Dante® 8x8 Audio Bridge

Datasheet V1.0



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1. INTRODUCTION

The **iSound AB88-UX** USB-C and XLR to Dante® audio bridge is a Dante® transmitter based on DEP technology. It features **6x analog + 2x digital audio inputs**, and **6x analog + 2x digital audio outputs**. It interconverts between **USB-C/XLR** analog audio and **Dante®** digital audio.

The analog input adopts **XLR/TRS** combination port, which supports both balanced and unbalanced audio input. Analog input supports **48V phantom power** supply and 6-level sensitivity adjustment, while analog output supports 5-level output adjustment.

The **USB-C** port is equipped with a built-in sound card and supports **2x2 digital audio** input/ output.

The audio bridge features **built-in DSP** (Digital Signal Processor) for gain, equalizer and delay control. It is simple to configure and operate via the internal **Web GUI** or the standard **Dante® Controller** software. It supports Dante® primary and backup networks and can be backed up through backup networks. This product can be powered by **dual PoE+** (Power over Ethernet) and local **DC power** supply.

This cost-effective **1U rack-mount** unit offers an easy solution for professional AV systems and can be paired with various types of professional audio equipment, while greatly simplifying the wiring of the system.

2. FEATURES

- **6x balanced** analog **XLR inputs**, supporting **XLR/TRS** combo connection.
- **6x balanced** analog **XLR outputs**.
- **2x2** digital **USB-C** inputs/outputs.
- **Dante® 8x8** and **AES67** audio input/output.
- Supports **balanced/unbalanced** analog audio input and output.
- **2x RJ45 Dante® connectors** with **redundancy** and dual **PoE+**, supporting Dante® **primary** and **backup** networks.
- Each input supports **+48V phantom power**.
- Adjustable global 0dBFS line up selection (**6-level input sensitivity** adjustment: -35dBV/-18dBV/0dBV/+4dBu/+14dBu/+24dBu; **5-level output** adjustment: +20dBu/+14dBu/+4dBu/0dBV/-18dBV).
- **Built-in audio DSP** processing for **sensitivity, gain, 8-band PEQ** and **delay** control.
- Audio input and output support **8 band PEQ** adjustment (with +15dB/-15dB gain), and a maximum of **50ms delay** setting.
- Dante® audio supports: **44.1kHz, 48kHz, 88.2kHz, and 96kHz** sampling rates @ 16/24bit.



- Dante® audio delay supports settings of **2, 3, 4, 5, 10ms**.
- USB-C audio output up to **192KHz@24bit**, USB-C audio input up to 96KHz@24bit.
- Configuration using internal **Web GUI** or **Dante® Controller**.
- Powered by **PoE+** or local **DC power** supply.
- Standard **1U 19” rack-mount** form factor.

3. PACKAGE CONTENTS

- 1x iSound AB88-UX audio bridge
- 1x 12V/2.5A Locking Power Supply with Optional Multinational Conversion Plug
- 2x Mounting Ear
- 8x Machine Screw
- 1x User Manual

4. SPECIFICATIONS

Model	iSound AB88-UX
Name	USB-C and XLR to Dante® 8x8 Audio Bridge
Technical	
Network Bandwidth	Dante® Network 1000M
Audio Latency	Configurable Dante® device latency: (Supports 2, 3, 4, 5, 10ms configurable using Dante® Controller)
Audio Format	DANTE [Dante®/AES67 digital audio input/output, PCM 2CH 44.1K-96KHz, 16/24Bit] LINE IN [Analog audio input, Balanced/unbalanced, Max input level 24dBu] MIC IN [Analog audio input, Balanced/unbalanced, Min input level -35dBV] USB IN [Digital audio input, PCM 2CH 44.1K-96KHz 16/24bit] USB OUT [Digital audio output, PCM 2CH 44.1K-192KHz 16/24bit] LINE OUT [Analog audio output, Balanced/unbalanced, Max output level 20dBu, Min output level -18dBV]
Line/Mic Input Audio	
Input Impedance	20K Ohm balanced; 10K Ohm unbalanced
Input Level	Max 24dBu (12.28Vrms) @ balanced line audio; Max 18dBu (6.14Vrms) @ unbalanced line audio; Min -35dBV (17.78mVrms) @ balanced mic audio;
Line Output Audio	

Output Impedance	600 Ohm balanced; 300 Ohm unbalanced
Output Level	Max 20dBu (7.75Vrms) @ balanced audio; Max 14dBu (3.875Vrms) @ unbalanced audio;
Frequency Response	20Hz to 20kHz (-/+0.5dB)
Dynamic Range	≥ 105dB@ +4dBu, 1kHzA-weighted
Audio S/N Ratio	≥ 105dB@ +4dBu, 1kHzA-weighted
Audio THD+N	< 0.01% at +4dBu, 1kHz
Transmission Distance	328ft/100m (CAT6/6A/7)
ESD Protection	IEC 61000-4-2: ±8kV (Air-gap discharge) , ±4kV (Contact discharge)
Connection	
6x MIC/LINE INPUTS	XLR/TRS Combo, female; Line analogue audio, Balanced/unbalanced 6CH, Max input level 24dBu; Mic analogue audio, Balanced/unbalanced 6CH, Min input level -35dBV;
6x LINE OUTPUTS	XLR, male; Analogue audio, Balanced/unbalanced 6CH, Max output level 20dBu;
1x USB-C	USB Type C, 2x2 digital audio in/out.
1x DANTE PRIMARY	RJ45 locking connector, PoE+/PD (Class 4 IEEE 802.3at); Dante/AES67 digital audio in/out, PCM 2CH 44.1K-96KHz 16/24Bit, Web GUI and TCP/IP;
1x DANTE SECONDARY	RJ45 locking connector, PoE+/PD (Class 4 IEEE 802.3at); Dante/AES67 digital audio in/out, PCM 2CH 44.1K-96KHz 16/24Bit;
1x DC 12V IN	2-pin DC Locking Power Jack, Max 2.5A.
Mechanical	
Housing	Metal Enclosure
Color	Black
Dimensions	440mm [W]×200mm [D]×44.5mm [H]
Weight	2.285kg
Power Supply	(1) 12V/2.5A 2PIN Locking Power Supply; (2) PoE+/PD (Class 4 IEEE 802.3at)
Power Consumption (Max)	11.52W (Test with 1Hz sine wave)
Operating Temperature	0°C ~ 40°C / 32°F ~ 104°F
Storage Temperature	-20°C ~ 60°C / -4°F ~ 140°F
Operating Humidity	20%~80% (relative humidity, non-condensing)

Storage Humidity	10%~90% (relative humidity, non-condensing)
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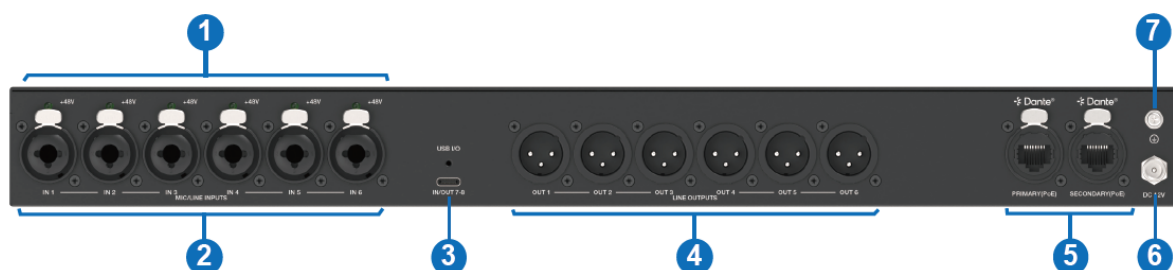
5. OPERATION CONTROLS AND FUNCTIONS

5.1 FRONT PANEL



No.	Name	Function Description
1	POWER LED	Green ON: The system is powered on (PoE+ or DC power supply). Red ON: The system is in standby mode. OFF: The system is powered off.
2	STATUS LED	System status indicator. Green ON: The system is normal. Flash at 2Hz: The system is abnormal.
3	RESET button	Press and hold this button for 5 seconds to restore the product to factory default settings (including network settings), all LEDs on the front panel will flash at 2Hz for 5 seconds.

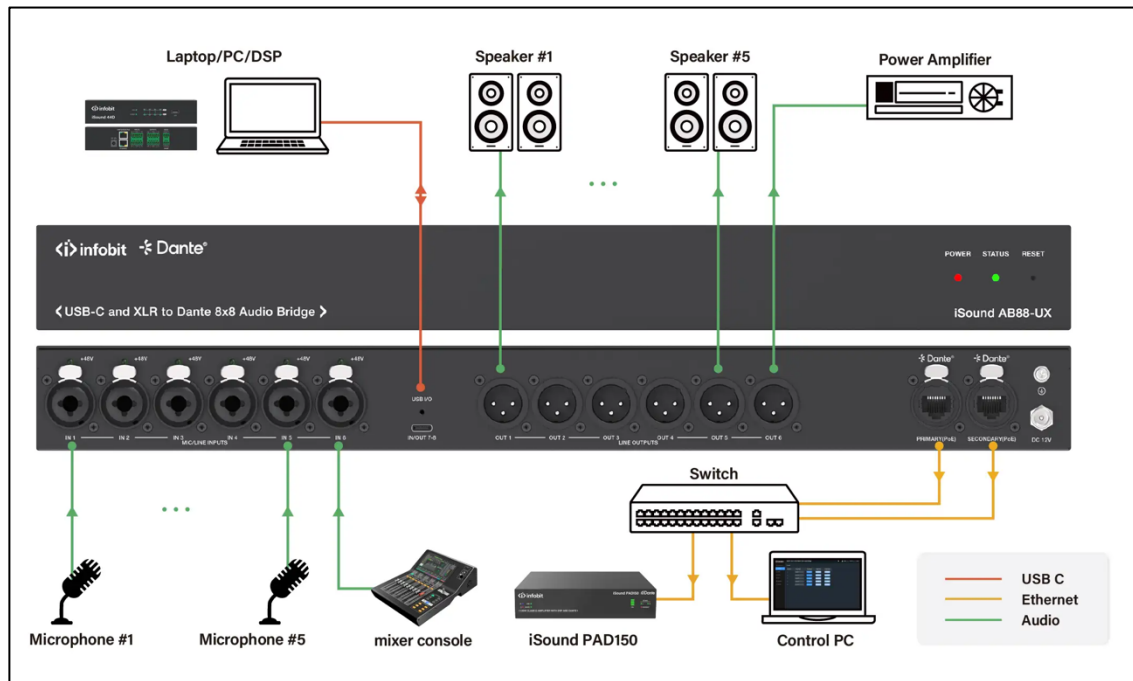
5.2 REAR PANEL



No.	Name	Function Description
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1	48V phantom power indicator lights	8x 48V phantom power indicator lights. When the MIC/LINE IN 1/2/3/4/5/6/7/8 port is used as a MIC input port, and the corresponding 48V phantom power is turned on, the corresponding green indicator light is on.
2	MIC/LINE INPUTS ports	LINE analogue audio input port, supporting balanced/unbalanced 6CH, with a Max input level of 24dBu. MIC analogue audio input port, supporting balanced/unbalanced 6CH, with a Min input level of -35dBV. Note: These ports support 48V phantom power. When the phantom power function is turned on through Web GUI or API commands, these ports can supply power to the connected MIC.
3	USB I/O port	USB Type C port, with built-in sound card, supporting 2x2 digital audio input/output.
4	LINE OUTPUTS ports	LINE analogue audio output ports, supporting balanced/unbalanced 6CH, with a Max output level of 20dBu.
5	PRIMARY(PoE) /SECONDARY (PoE) port	Dante® primary/secondary network port, supporting PoE+, with the following two functions: (1) Dante® audio input and output port. (2) Web GUI and TCP/IP control port. Note: The primary and secondary networks of this product are hot backup networks, that is, when the primary network encounters a problem, it will automatically switch to the secondary network.
6	DC 12V	DC 12V/2.5A power input port.
7	GND	Connect the unit housing to the ground.

6. DIAGRAM



Note: Please pay attention to the XLR connector pinouts when connecting XLR audio input/output devices.

