



maxsquare

MSQ-3900D

4CH Dante Analog Audio Network Interface Box



MADE IN TAIWAN

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1. Introduction

MSQ-3900D 4CH Dante Analog Audio Network Interface Box is designed for professional analog audio distribution over IP networks. It supports four channels and features high-quality XLR input connectors. The device transmits uncompressed, low-latency analog audio signals over a standard IP network. It also includes Power over Ethernet (PoE) functionality, allowing it to be powered through any PoE-enabled network switch, which facilitates straightforward installation.

2. Features

- Supports four XLR connectors, four channels of analog audio input
- Supports sample rates up to 96kHz
- Supports PoE (Power over Ethernet)
- Supports Dante audio over IP and AES67 RTP transport formats
- Excellent dynamic range, SNR and THD performance
- Supports DHCP and static IP configuration

3. Package Contents

- 1x MSQ-3900D
- 1x USB 2.0 Type-C to USB 2.0 Type-A Cable
- 1x User Manual

4. Specifications

Technical	
Sample rates	44.1, 48, 96kHz
Dante device latency	1, 2, or 5ms (configurable using Dante Controller)
Network transport	Dante Audio over IP, AES67 RTP
ESD protection	Human body model — $\pm 15\text{kV}$ [air-gap discharge] & $\pm 8\text{kV}$ [contact discharge]
PCB stack-up	4-layer board [impedance control — differential 100Ω ; single 50Ω]
Input	4x XLR (Female)
Output	1x RJ-45
XLR connector	XLR female
RJ-45 connector	WE/SS 8P8C with 2 LED indicators
Mechanical	
Housing	Metal enclosure
Power supply	48V PoE or 5V DC
Power consumption	6 Watts [max]
Operation temperature	0~40°C [32~104°F]
Storage temperature	-20~60°C [-4~140°F]
Relative humidity	20~90% RH [no condensation]

5. Panel Description



1. **LED:** Power LED indicator
2. **USB-C:** +5V power
3. **RJ-45:** Dante link port
4. **XLR Input 1-4**

6. Connection Diagram



7. Choose A Network Switch

Refer to the following page to choose a Network Switch.

<https://www.getdante.com/support/faq/networks-and-switches>

The selected network switch must support the following:

- Gigabit ports for inter-switch connections*
- Quality of Service (QoS) with 4 queues
- Diffserv (DSCP) QoS, with strict priority
- A managed switch is also recommended, to provide detailed information about the operation of each network link: port speed, error counters, bandwidth used, etc.
- IGMP snooping (routing for Dante AV devices)



- * For low channel count (<32) applications, a 100Mbps switch may be used as long as it supports proper QoS, and QoS is active. The use of 100Mbps switches without QoS is not recommended or supported.
- * For higher channel counts, Gigabit switches are essential. QoS is recommended for Gigabit switches on networks that share data with services other than Dante.

Switches incompatible with Dante:

- Switches that support EEE may cause poor synchronization performance and occasional loss.*



- * If you use managed switches, ensure that they allow EEE to be disabled. Make sure that EEE is disabled on all ports used for real-time Dante traffic.
- * If you use unmanaged switches, do not use Ethernet switches that support the EEE function, because you cannot disable EEE operation in these switches.

8. Dante Controller

Dante Controller provides users to configure and route audio around Dante networks. Please use it to make connections between Dante devices on your network.

Download the software

Browse the download page of the Dante Controller website and create an account to download the software.

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

Device Setup Steps

1. Connect the device to Network.
2. Make sure to set up your PC/ Mac and the device in the same domain.
3. Start to use Dante Controller.

How to use Dante Controller

Refer to the following websites to use the functions of Dante Controller.

[User Guide] https://dev.audinate.com/GA/dante-controller/userguide/webhelp/content/front_page.htm

[Video] <https://www.audinate.com/learning/training-certification/video-tutorials/video-series-dante-controller-101>

The screenshot shows the Dante Controller website interface. At the top, there are navigation tabs: "Products", "Adapters", "Software", "Dante-Enabled Products", and "Solutions for Manufacturers". The main content area features a heading "Dante Audio Networking, Going beyond configuration and routing". Below this, there is a paragraph describing the software's capabilities: "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." A red banner states "Dante Controller is available for Windows and macOS." Below that, another heading reads "Always Up-to-date", followed by text about "Dante Updater" which connects to a library of firmware updates from manufacturers. The sidebar on the right, titled "Get Dante Controller", contains a "Download Dante Controller" button, a note that the controller is free to download and use, and links for "Download Software", "Videos", "Support", and "User Guide".

9. Warranty

Maxsquare warrants the MSQ-3900D 4CH Dante Analog Audio Network Interface Box for one year from the date of purchase from Maxsquare or an authorized dealer from defects in material and workmanship. If this product fails to function properly within the first year of its warranty, Maxsquare may repair or replace it at its discretion, provided that the device has not been subjected to accident, disaster, abuse, or other unauthorized modifications, including static discharge and power surge. Maxsquare provides this warranty to its BUYER solely in the case of a direct transaction. This warranty is void if the warranty seal on the metal housing is broken.

Unit that fails under conditions other than those covered will be repaired at the current price of parts and labor in effect at the time of repair. These repairs are warranted by a 90-day warranty from the date of reshipment to the buyer. Customers agree to ensure the unit or incur the risk of loss or damage in transit if the unit is delivered by mail. A unit will not be accepted if it does not have a return authorization number.

The warranty is in lieu of all other warranties expressed or implied, including without limitations, any other implied warranty or fitness or merchantability for any particular purpose, all of which are expressly disclaimed.

Proof of purchase may be required to claim the warranty. Customers outside of Taiwan must pay for shipping to and from Maxsquare. Cables and power adapters have a 30-day warranty and must be free of any markings or scratches, as well as neatly coiled.

This manual's material has been carefully reviewed and is believed to be accurate. Maxsquare, on the other hand, takes no responsibility for any inaccuracies or omissions in this manual. Even if advised of the possibility of such losses, Maxsquare will not be liable for direct, indirect, incidental, special, or consequential damages resulting from any defect or omission in this manual. Furthermore, the technical information contained in documents on the MSQ-3900D's features and specifications is subject to change without further notice.