## AoIP22M
## Two Channel Input & Output With Dante/AES67 Plus Microphone Amplifiers

### Highlights



- Two analogue mic/line inputs on XLR
- Selectable 48v
- Independent gain controls
- POE & USB C power
- Up to 96k/24bit with Dante

### Overview

The AoIP22M is a rugged unit, designed for broadcast, theatre and location applications.

It can be used as a 2 input, 2 output device between analogue audio and Dante/AES67 network audio.

The AoIP22M can also be used as a 2 channel mic amp into Dante/AES67 with 2 analogue return channels from the network.

PoE power means that only a single cable is needed to connect to the network to carry both audio and power.  USB C power is also available for plug top USB supplies or using USB power bricks.

The network can operate from 44.1-96 kHz using Dante, or  48kHz on AES67.

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● **Mic or Line Inputs**

The two analogue inputs are on XLR connections and can be switched independently between mic or line level. 48v phantom power can be selected separately per input, and is indicated as active on the front panel.



● **Secure Gain Adjusts**

Each input has  the gain adjust on a small, spring loaded pot.  Pushing it in releases it into the adjust position, and when the level is set, it can be pushed back flush to the front panel to avoid accidental adjustment.

● **7 Segment PPM Meters**

Each input has a three colour, 7 LED PPM meter to help with the correct setting of input gain level.

● **Adjustable Line Up Levels For Worldwide Standards**

Output levels can be set with different firmware to be -18dBfs, -20dBfs, or -24dBfs.



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The AoIP22M is digitally controlled.  This allows us to have additional functionality that can be easily selected with the front panel switches.  The switch function is detailed on the top panel as shown above.

● **Dante Mic Amp & Analogue Mic Amp**
The output of each mic amp can be separately selected in two modes of operation:
- **Mic In**
In this mode the output is the line level of the mic input.  In other words, the channel is operating as a normal analogue microphone amplifier.
- **Dante**
In this mode the output is the line level return audio from the Dante network.

● **3 x High Pass Filter (HPF) Settings**
A high pass filter is selectable on each input channel and can be set at 27Hz, 43Hz or 86Hz.  This is particularly useful when the AoIP22M is being used as a mic amp as it reduces the audio level below the filter point.

● **3 x Compressor Settings** (applicable in mic and line mode)
- **Off**
Clean input with no compressor.
- **Soft**
When set to 'soft' the AoIP22M uses the Glensound Referee compressor.   The Referee compressor does not affect the overall dynamics of the input like a traditional compressor.  It only becomes active as the input signal approaches clipping, at which point a progressively curved compressor is applied.  The compression gets harder and harder up to the clip point to prevent clipping from occurring.
- **Hard**
A hard compressor at a ratio of 4:1.

**Ethernet Connection**

- **Halo EtherCON**

  The AoIP22M uses the latest Neutrik Halo EtherCON connector for the network connection. This is a standard XLR size and allows the connection of standard RJ45 network cables, as well as the more secure locking EtherCON plugs.

  The outer ring of the EtherCON shows power and data traffic via its LED ring, without the need for separate LED indicator lights.

- **Power Options**
  - **Power Over Ethernet (PoE)**

  The AoIP22M can be powered via its network connection when connected to a PoE switch. It can also receive power from a mid span PoE injector if the switch being used does not have PoE.
  - **USB C**

  A 5V, 3A USB C input can also power the AoIP22M. This can be via a USB C plug top power supply, a PC, or a USB power bank, making the AoIP22M truly portable.

**AoIP Rack Kit (available separately)**

- **Single 19" 1U Panel**

  The aim with the AoIP rack panel was to keep it simple and cost effective. It is a single 1U 19" panel that allows moutning of any three AoIP units.

- **Includes 2 Blank Panels**

  Remove the bumpers from your AoIP unit and use the same screws to fix into the rack panel. The further two blanking plates can be removed at any time to add a total of 3 units in one panel.

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### The AoIP22M Case

- **Two Part Extruded Enclosure**
  Using an extruded aluminium enclosure for the body of the AoIP22M makes it extremely strong and resistant to knocks and crush damage.

- **Custom Made End Bumpers**
  The end bumpers were custom made to provide the functionality that is expected from small Glensound units:
  **- Protection**
  As the end bumpers are oversized, they provide a high degree of protection for all corners of the unit should it be dropped.
  **- Standing**
  The bumpers mean that the AoIP22M can stand flat on its end if required.
  **- Mounting**
  The AoIP22M provides fixing holes on the corners to allow mounting underdesks or on the inside of racks.  These mounting holes are also often used as cable tie down points for easy temporary fixing.
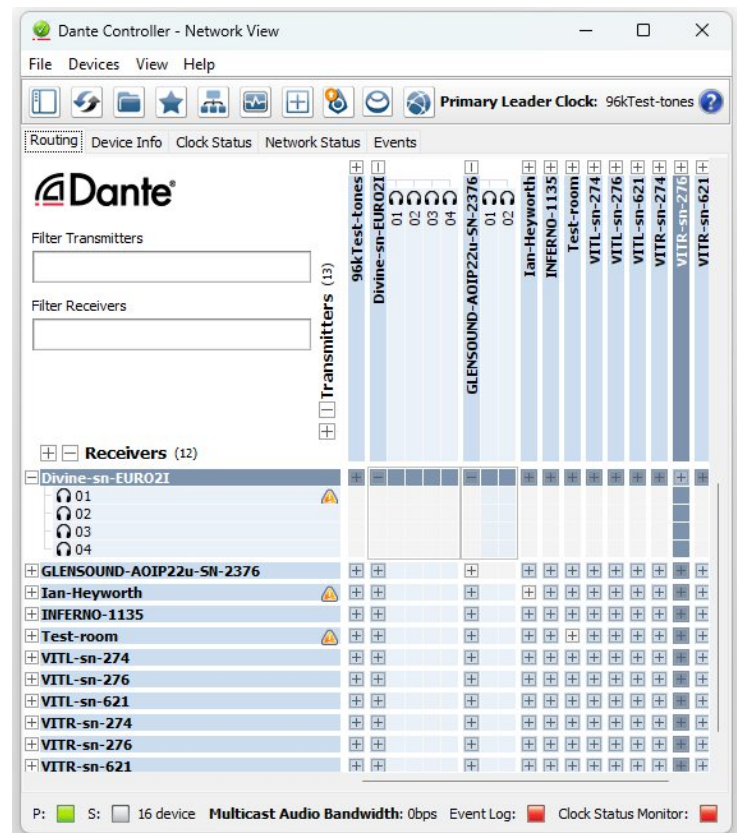
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**Dante Controller**

Dante Controller is a free software application that enables you to route audio and configure devices on a Dante network. With automatic device discovery, one-click signal routing and user-editable device and channel labels, setting up a Dante network couldn't be easier.

Dante Controller is much more than just a configuration and routing matrix. 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.

**Features**

- View all Dante-enabled audio devices and their channels on the network
- View and edit device clock and network settings
- Route audio between devices, and view the state of existing audio routes
- Rename devices and channels using your own names
- Customize the receive latency (latency before playout)
- Save and reapply audio routing presets
- Edit presets offline, and apply as configurations for new network deployments
- Change sample rates and clock settings
- View multicast bandwidth across the network
- View transmit and receive bandwidth for each device
- View device performance information, including latency stats, clock stability stats and packet errors

**Dante Controller is available free from**
**www.getdante.com**

E&OE

**Dante**

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**AoIP22M Specification**

## POWER

| PoE |
|---|
| Powered by the PoE network port Complies to: IEEE 802.3af-2003 Classification Class 0 |
| **DC** |
| 12V |
| **Consumption** |
| <3 Watts |
| **Power On LED** |
| Bright Blue |

## NETWORK

| Dante |
|---|
| Yes using the Ultimo module |
| **AES67 Compliant** |
| Yes |
| **SMPTE ST-2110-30 Compliant** |
| No |
| **Number Of Network Interfaces** |
| 1 |
| **Copper Ethernet** |
| 1 x Neutrik EtherCON connector |
| **Fibre Ethernet** |
| No |
| **Transfer Rate** |
| 100 Mbps |
| **Dante Network Sample Rate** |
| 44.1k, 48k, 88.2k, 96k |
| **AES67 Network Sample Rate** |
| 48k |
| **Resolution** |
| 24 bit |

## PHYSICAL

| Size |
|---|
| 125 x 122 x 48mm(WxDxH) |
| **Weight** |
| 540g |
| **Mechanics** |
| All aluminium construction. Anodized and laser etched. Front and rear hard rubber bumpers. |

## AUDIO

| Mic Input Gain Range |
|---|
| 25dB - 68dB |
| **Phantom Power** |
| 48v |
| **Equivalent Input Noise** |
| 123.9dBu/150r source/20Hz-22kHz |
| **Frequency Response @ -1dB** |
| HPF off:     27Hz to 22kHz HPF low:    43Hz to 22kHz HPF high:  86Hz to 22 kHz |
| **PPM Meter** |
| Tri-colour, 7 segment LED per channel. Line up level indicated on panel. |
| **Compressor** |
| Three compressor options: Off:    No compression active Soft:   'Referee' clip limiting only Hard:  4:1 |
| **High Pass Filter @ -3dB** |
| Three HPF settings Off:    27Hz Low:  43Hz High: 86Hz |
| **Output Options** |
| Two output options, configurable per channel:   1:  return from network   2:  line level output from local input |

## ENVIRONMENTAL

| Operating Temperature |
|---|
| 0 to +50 °C (32 to 122 °F) |
| **Storage Temperature** |
| -20 to +70 °C (-4° to 158 °F) |
| **Relative Humidty** |
| 0 to 95% non-condensing |

## INCLUDED ITEMS

| Handbook |
|---|
| Available by download |
| **RJ45 Network Cable** |
| 2 metre Cat5 RJ45 plug /RJ45 plug cable |

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