



## Dante® Input & Output Bridge



## DATA SHEET

POE Copper & Fibre Ethernet

AES-EBU Input & Output

Analogue Input & Output

Headphone Output

GPIO

Made in Australia

The **army knife** for audio

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## ANALOGUE AUDIO

Analogue Audio	Balanced Inputs (D25 connector)	Balanced Outputs (D25 connector)
Channels	2 x Balanced, Max input level +24dBu	2 x Balanced Max output level +24dBu
Sample Rate	48 kHz (24bit)	48 kHz (24 bit)
Dynamic Range	> 95dB (A weighted)	> 97dB (A weighted)
THD	< -83dB 1khz +18dBu input, -6dBFS output	< -86dB 1khz -6dBFS, 18dBu output
Frequency Response	20Hz - 20kHz	20Hz - 20kHz
Channel Gain Control	+6dB to -12dB in 0.5db increments	+20dB to -57dB in 0.5db increments

Analogue Audio	Headphone Amplifier (D25 connector)
Channels	2 ch, 15vpp 220ohm load, 8vpp 50ohm load, short circuit protected
Dynamic Range	> 97dB (A weighted)
THD	< -85dB 1khz -6dBFS
Frequency Response	20Hz - 20kHz
Soft Clipper	0.1 to 10, in 0.1 increments
External Volume Control	Channel and gain range selectable

Analogue Audio	Input (Microphone) Phoenix Connector
Input Gain Block	+55.5 to -12dB in 0.75db increments
Dynamic Range	> 95dB (A weighted) unity gain, -112 dBu EIN150ohm reference -50dBu input level
THD	< -80dB 1khz 0dBu input, -3dBFS output
Frequency Response	20Hz - 20kHz
Attack	TC 6ms to 2000ms
Release	TC 24ms to 786430ms
Hold	2ms to 87491ms
Noise Gate Threshold	30 to -77db relFS
Phantom Power	+48v selectable
External DC output	+24v 40ma

## DIGITAL AUDIO

Input	(RJ45 Connector)
Sample Rate	48 kHz (32bit)
Modes	Transparent / Non-transparent
Redundancy	2 x Buffered inputs (via Dante)

Output	(RJ45 Connector)
Sample Rate	48 kHz (32bit)

## ETHERNET

Switchports	2
Port 1	1 Gbit Copper (POE In)
Port 2	1 Gbit Copper or Fibre (SFP Cage)^
Dante™ Configuration	8 x 8

## POWER

External	12-48 volts
Power Over Ethernet	POE Switch required
Power	10 watts

Redundancy power is provided between both inputs

## GPIO

Inputs	2 x Opto Inputs Max 5mA Sink
Outputs	2 x Isolated Outputs 200V Max 150mA

## MESSAGE PLAYER (OPTION)

WAV, MP3 Message player triggered by GPIO or UDP protocol

# DSP OPTIONS

## Filters

First and Second Order IIR  
Single and Double Precision IIR  
Crossover (2 & 3 way)  
Tracking Filter  
DC Blocking  
De-emphasis  
State Variable  
FIR - 2 X 1000 Point

## Dynamics Processors

Peak Detector  
RMS Detector  
Limiter

## Advanced Algorithms

Chime Design  
Flanger  
Vocal Chorus  
Reverb  
Dynamic Bass  
Loudness  
Midnight Mode  
Phat Stereo  
SuperPhat Spatializer  
Enhanced Stereo Capture  
Wind Noise Detection

## Volume Controls, Mute

Volume Control  
Mute

## Counters

Stop Watches  
Counters  
Pulse Counter

## GPIO Conditioning

Push Button Volume Control  
Rotary Encoder Volume Control  
Up/Down Table

## Level Detectors, Lookup Tables

Level Detectors  
Lookup Tables

## Mixers, Splitters

Mixers  
Splitters

## Muxes, Demuxes

Switches  
Multiplexers  
Demultiplexers

## Hard/Soft Clipping

Hard Clipping  
Soft Clipping

## Sources

DC  
Beep  
Sine, Square, Triangle,  
Sawtooth Waves  
VCO

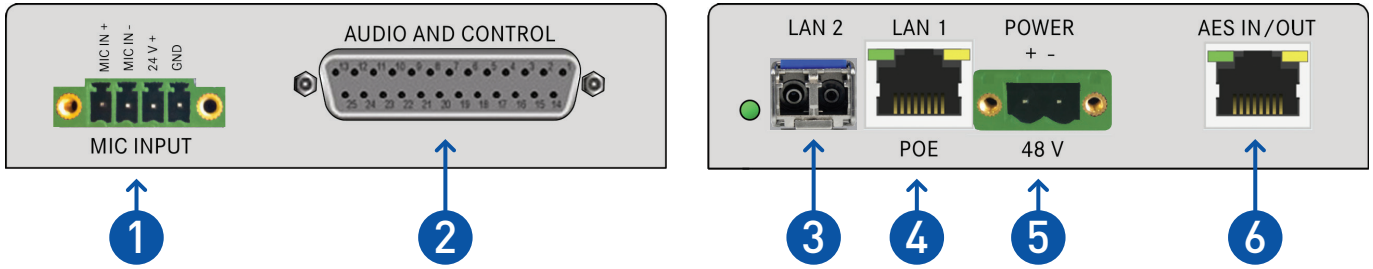
## Basic DSP

Absolute Value  
Signal Add  
Signal Subtract  
Divide  
Multiply  
Square Root  
Clipper  
AB in/out Condition  
Tolerance Analyser  
Logic - And, Or, Nand, Nor  
Invert  
One-Shot  
Linear Gain  
Value Cross Detection  
Linear Interpolator  
Delay  
Voltage Controlled Delay  
Readback  
Value Hold  
Signal Invert

## Project Design Tools

Image, Comment insert  
Hierarchy design support  
Filter magnitude/phase response  
Support for MLSSA response files

# PIN OUTS



**1 Mic Input**

1 2 3 4

- 1: MIC IN +
- 2: MIC IN -
- 3: GPI VE
- 4: GND

**3 SFP Cage (1 Gbit Switch)**

\*SFP not included

Suitable for:

- 1. Single mode fibre
- 2. multi mode fibre
- 3. Copper SFP's

**5 Power**

1 2

- 1: DC +
- 2: DC -

**2 Audio and Control**

1: GPI VE +24	14: GPO 1/2 CE
2: GPI 1/2 CA	15: GPO 1
3: GPI 1	16: GPO 2
4: GPI 2	17: VCA C
5: GND	18: GND
6: GND	19: R OUT -
7: R OUT+	20: L OUT -
8: L OUT+	21: GND
9: GND	22: R IN -
10: R IN+	23: L IN -
11: L IN+	24: GND
12: GND	25: R HP
13: L HP	

**4 LAN with POE (1 Gbit Switch)**

87654321

- 1: TxRx A+ [Model A: DC+]
- 2: TxRx A- [Model A: DC+]
- 3: TxRx B+ [Model A: DC -]
- 4: TxRx C+ [Model B: DC+]
- 5: TxRx C- [Model B: DC+]
- 6: TxRx B- [Model A: DC -]
- 7: TxRx D+ [Model B: DC -]
- 8: TxRx D- [Model B: DC -]
- GND:** CHASIS

**6 AES**

87654321

- 1: AES TX +
- 2: AES TX -
- 3: -
- 4: EDC FLAG
- 5: 232 RX to DIO
- 6: 232 TX from DIO
- 7: AES RX +
- 8: AES RX -
- GND:** CHASIS

# DIMENSIONS

