# IQDAA00

4 Channel Digital to Analog Audio Converter

NEW

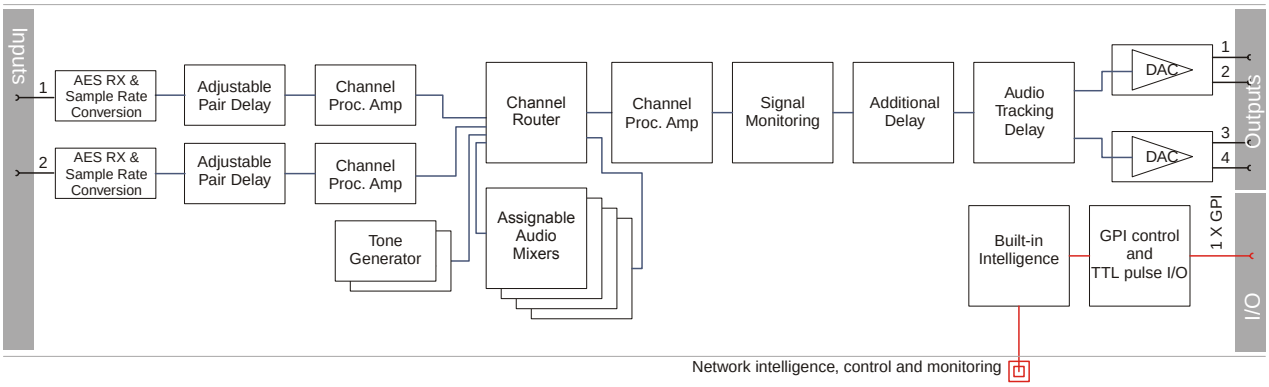
The IQDAA00 converts two AES/EBU digital audio streams into two analog stereo pairs, or four analog mono channels. The AES streams are converted to analog with 20-bit resolution, and the IQDAA00 also provides proc. amp control, channel routing and mixing, up to 0.5s of tracking audio delay and additional fixed delay of up to 3 s adjustable in 1 ms steps.

### Does this module suit your application?

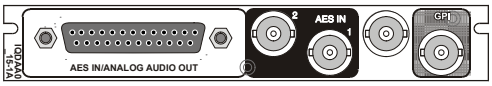
- Converts two AES/EBU digital audio streams into four analog audio channels
- Channel-level (Sub-frame) routing
- 4 off 4 channel assignable audio mixers
- Flexible audio delay including per pair fixed delay, common fixed delay and tracking delay
- Variable audio delay of up to 0.5s which seamlessly tracks an external video delay via RollTrack / GPI input
- Audio proc-amp (gain, mute, polarity))
- RollCall control and monitoring compatible

### Why should you choose this module?

- Converts two AES/EBU digital audio streams into four analog audio channels, useful for monitoring multi-lingual systems
- Balanced or unbalanced input configurations enables use in all environments
- A comprehensive audio conversion solution with proc. amp, audio shuffling and delay

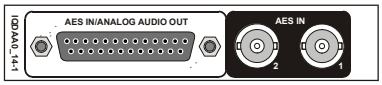



### Order codes for IQH3A/1A enclosures




IQDAA0015-1A Analog Audio DAC. 2 unbalanced/balanced AES/EBU inputs, 4 balanced analog audio outputs, 1 GPI

### Order codes for other enclosures




IQDAA0014-1 Analog Audio DAC. 2 unbalanced/balanced AES/EBU inputs, 4 balanced analog audio outputs

**For more details on enclosure types please refer to the Frames/Enclosures section**

## Inputs & Outputs

### Signal Inputs

Unbalanced digital audio ..... 2 x AES/EBU (BNC)

Balanced digital audio ..... 2 x AES/EBU (25 Way D-Type)

Standards ..... AES3 - 1992

### Signal Outputs

Analog Audio ..... 4 Channels (2 Stereo Pairs) (25Way D-Type)

### Control Interface

GPI ..... 1x Closing contact I/O interface

# IQDAA00

4 Channel Digital to Analog Audio Converter

## Card Edge & RollCall Controls

### Card Edge Controls

NONE

### Card Edge Indicators

Input Present ..... 1 x LED per pair

CPU running / Power..... One green LED, flashing = OK

### RollCall Functions

### Audio Controls

Set line up level ..... +20 to –20 dBu in 1 dB steps

Set headroom ..... 4 to 24 dB in 1 dB steps

Set audio detector thresholds
High/low levels, silence, overload, time delay

Audio input delay..... Up to 1.5 s additional delay in 1 ms steps

Input side control proc. - audio gain and polarity
Independent Gain, Mute, Polarity control over input channels. +18 dB to –18 dB in 0.1 dB steps.

Channel routing ..... Output channels routed from AES pairs 1 & 2, test tone and silence

Output side control proc. - gain and polarity
Independent Gain, Mute, & Polarity control over output channels. +18 dB to –18 dB in 0.1 dB steps.

Global delay offset..... up to +1.5 s in 1 ms steps, common to all processed audio.

Variable audio delay control source
Up to 0.5 s from RollTrack + GPI

Tone frequency, amplitude & Ident
2-channel tone generator. 100 Hz to 15 kHz in 100 Hz steps.

### Tone Setup:

Frequency..... 100 Hz to 15 kHz in 100 Hz steps

Channel Ident ..... 0.5 s interruption every 2 s

### Other Controls

Preset Unit..... Returns settings to factory defaults

User Memories ..... Name, clear, save and read 8 user memories

GPI/O set-up ..... May be attached to any memory function/polarity

### Reporting (* also Logged)

Audio Silence, High Level, Low Level, Overflow
For processed audio channels only

Input AES audio state ..... Pair present

### RollTrack Input

Delay ..... RollTrack + fixed

### RollTrack Output

Delay ..... Current audio delay

Audio state ..... PCM, Non-PCM, LOST

GPI ..... High, Low, Inactive

## Specifications

### Digital Audio Input (Balanced)

Connector/Format ..... 25 W D

Sample Frequency..... 25 – 96 kHz

Input Cable Length..... >150 m of AES3 cable

Impedance ..... 110 Ω

### Digital Audio Input (Unbalanced)

Connector/Format..... BNC

Sample Frequency..... 25 – 96 kHz

Input Cable Length..... >500 m of RG59 cable

Impedance ..... 75 Ω

### Analog Audio Outputs

Output Impedance ..... ~25 Ohms

THD+N..... -92 dB @ 23 dBu typical, at 1 kHz

Conversion ..... min 20-bit – 105 dB dynamic range

Sampling ..... 48 kHz

### Power Consumption

Module Power Consumption
8.5 W max.