

The IQDLY00/01 provides synchronization, tracking or preset audio delay, proc. amp control and channel level routing for up to four AES streams. In short it is a complete AES processing solution in one package. Audio can be synchronized to a video reference, tracked to a video synchronizer, or synchronized to an audio reference. Tracking delay control is available via RollTrack or TTL signal. Bypass paths allow for the passing of non-PCM audio such as Dolby E.

IQDLY00/01

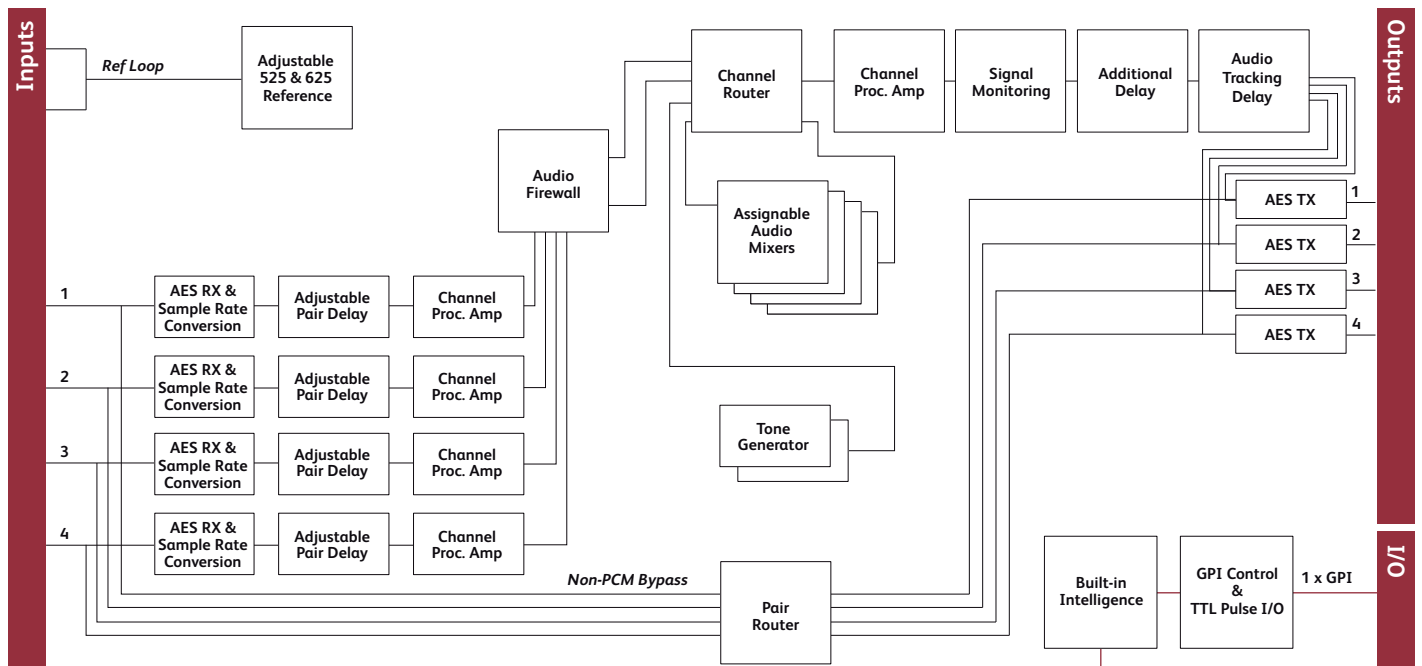
8 Channel AES/EBU Audio Synchronizer, Delay and Shuffler Module

Does this module suit your application?

- 4 x balanced or unbalanced AES paths
- Synchronizes AES inputs
- Proc. amp control of audio channels
- Flexible preset and tracking delay
- Channel-level shuffling
- 4 off assignable 4 input mixers
- References to video or AES signals
- Professional standard 48kHz operation, sample rate converts non-48kHz signals
- Firewall for processed PCM audio to provide a continuous output regardless of input
- Passes non-PCM AES signals including Dolby E
- Pair-level Dolby E routing

Why should you choose this module?

- A complete AES solution in one module for all common 48kHz audio signal tasks
- Firewall function makes this an ideal first unit in a signal chain
- Channel-level manipulation and mixing allows detailed control of audio material
- Tracking capability allows the audio to follow a video synchronizer



Order codes for IQH3A/1A enclosures

IQDLY0115-1A

8 channel AES Audio Synchronizer, Delay and Shuffler Module. Balanced AES connection via 25 way D type. 4 AES inputs, 4 AES outputs, AES/Video reference.

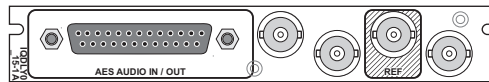
IQDLY0117-2A

8 channel AES Audio Synchronizer, Delay and Shuffler Module. Balanced AES connection via 25 way D type. 4 AES inputs, 4 AES outputs, AES/Video reference and 1 x GPI.

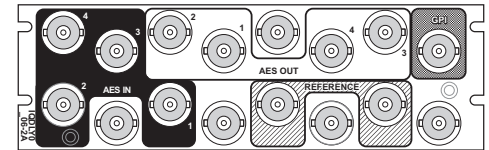
IQDLY0006-2A

8 channel AES Audio Synchronizer, Delay and Shuffler Module. Unbalanced AES connection via BNC. 4 AES inputs, 4 AES outputs, AES/Video reference and 1 x GPI.

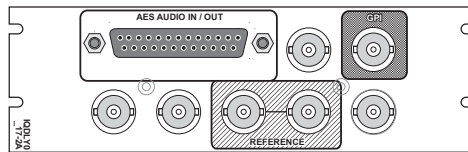
For more details on enclosure types please refer to datasheet IQH3A.



IQDLY0115-1A



IQDLY0006-2A



IQDLY0117-2A

Technical Specification

Inputs and Outputs

Signal Inputs

Video / AES reference	Composite video / AES/EBU (BNC)
Unbalanced digital audio	4 x AES/EBU, AC3, Dolby E (BNC)
Balanced digital audio	4 x AES/EBU, AC3, Dolby E (25 Way D-Type)

Signal Outputs

Unbalanced digital audio	4 x AES/EBU, AC3, Dolby E (BNC)
Balanced digital audio	4 x AES/EBU, AC3, Dolby E (25 Way D-Type)

Control Interface

GPI	1 x Closing contact I/O interface (BNC)
-----	---

Card Edge and RollCall Controls

Card Edge Controls

NONE

Card Edge Indicators

AES input present	1 x LED per pair
CPU running / power	Reference Loss One green LED, flashing = OK

RollCall Functions

Audio Controls

Set headroom	4 to 24 dB in 1 dB steps
Set audio detector thresholds	High and low levels, time delay
Input audio 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 input channels. +18 dB to -18 dB in 0.1 dB steps.
Channel routing	Output channels routed from AES pairs 1 to 4, test tone and silence
Output side control proc. - gain and polarity	Independent Gain, Mute, and Polarity control over AES 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 and 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

User memories	Name, clear, save and read 8 user memories
Default audio output	Silence
GPI/O set-up	May be attached to any memory function/polarity

Reporting (* also Logged)

No reference	*No reference present
Audio silence, high level, low level, overflow	For processed audio channels only

RollTrack Input

Delay	Audio delay – Fixed, RollTrack + fixed
-------	--

RollTrack Output

Delay	Current audio delay
Reference state	Ref Lost, Ref Present, Ref Error
External AES audio state	Pair Present/Lost
GPI state	Low, High, Inactive

Specifications

Reference return loss	Better than -35 dB to 5.8 MHz
Reference input level	1 V p-p ± 3 dB
THD+N	<-117 dB @ 700 Hz (24 bits) AES to AES

Digital Audio Input (Balanced)

Connector / format	25 W D
Sample frequency	25 – 96 kHz (48 kHz for Reference)
Input cable length	>150 m of AES3 cable
Impedance	110 Ohms

Technical Specification cont...

Digital Audio Input (Unbalanced)

Connector / format	BNC
Sample frequency	25 – 96 kHz (48 kHz for Reference)
Input cable length	>500 m of RG59 cable
Impedance	75 Ohms
Output sampling	48 kHz frame locked to 48 kHz AES/EBU Reference in AES lock mode

Digital Audio Output (Balanced)

Connector / format	25 WD
Level	3 V p-p typical into 110 Ohms

Digital Audio Output (Unbalanced)

Connector / format	BNC
Level	1 V p-p typical into 75 Ohms

Power Consumption

Module power consumption	8.5 W
--------------------------	-------