

1RU Eight Channel Analogue & AES3 Input Dante® Network/ AES67 Audio Interface



DARK8ADI
Network Audio Analogue & AES3 Inputs

Highlights

Ideal For
Broadcast, Theatre &
Pro Audio

AES3 Inputs
Sample up to 192kHz

Dante® & AES67
Compatible

Redundant
Network Interface

Auto Switches
Between AES3 &
Analogue inputs

Redundant
Mains Powering

Overview

The DARK8ADI (Analogue & Digital Input) is a very powerful Dante®/ AES67 network audio interface, in a robust 1RU 19" subrack. It has a 8 off low noise analogue line inputs and 4 off transformer balanced AES3 digital audio inputs. These inputs are transmitted on a fully redundant Dante®/ AES67 network interface.

In total 16 audio circuits are sent to the Dante®/ AES67 network. Eight of these circuits are always derived from the 4 x AES3 inputs, the other eight are automatically switched between the AES3 and analogue inputs. If the Dark8ADI detects valid AES3 signal on a channel then this will be routed to the network output, if no valid AES3 is detected then the analogue input will be routed to the network output instead of the AES3.

The rugged design, redundant mains powering & redundant network facility of the unit means that it can easily be placed and left unattended wherever audio sources are required.



- Eight Analogue Audio Inputs**
The DARK8ADI has 8 electronically balanced analogue line level audio inputs. Each input is on it's own Neutrik 3 pin XLR socket.
- Quality Analogue To Digital Converters**
To get the best possible results from your analogue audio inputs the very best widest range analogue to digital converter's (ADCs) currently available are used to make sure the digital audio on your network is as good as it possibly can be.
- Four AES3 Audio Inputs**
The DARK8ADI has 4 transformer balanced digital AES3 audio inputs. Each input is on it's own Neutrik 3 pin XLR socket. These inputs can accept sample rates up to 192kHz.
- Analogue/ AES3 Auto Switching**
Eight of the audio outputs are derived from both the 4 x AES3 inputs and the 8 analogue inputs, whereby the AES3 inputs take priority to the analogue circuits. Our input circuitry looks for valid AES3 data streams on the AES3 inputs, if one is detected then the pair of audio outputs (AES3 is two audio channels) associated with that circuit will be routed to the Dante®/ AES67 output and if no valid AES3 signal is detected then the analogue input will be routed to that output.
- AES3 Network Outputs**
As well as the switched outputs the outputs of the 4 x AES3 input circuits are always routed to 8 audio channels of the AoIP network.
- Sample Rate Converters**
The AES3 audio inputs are fed through sample rate converters so that they match the AoIP networks sample frequency. The AoIP network supports up to 192k sampling and the AES3 inputs can be between 32 & 192kHz.



- Network Interface**
 There are 4 network interfaces on the DARK8ADI. There are 2 x Neutrik Ethercon (Rj45) connectors and there are also 2 x SFP slots for customers to fit their own preferred fiber interfaces.
- Redundant Network Interface**
 When using the Dante® protocol it is possible to set the DARK8ADI to have a fully redundant network interface whereby a completely glitch free automatic redundant audio network link is provided across 2 off the network interfaces.
- Power**
 Each DARK8ADI can be powered from two independent sources to provide a multi-redundant power option.
 Two wide range switch mode power supplies are fitted as standard to provide redundant mains power supplies.
- Alarms & LEDs**
 The front panel features two LEDs (one indicating OK and the other fault) for both power supplies and both network ports. This data OK/ Fault information is also provided on solid state relay outputs on front panel D connectors.



DARK8ADI

Designed For Broadcast & Audio Professionals

Specification

ANALOGUE AUDIO

Frequency Response

+/-0.25dB 20Hz to 22kHz (Input to Output)

Maximum Input Level

+18dB

Input Impedance

>20k Ohm

Distortion

0.0013% @ 100Hz

0.0022% @ 1kHz

0.00094% @ 10kHz

Reference to +8dBu output

Noise

-93dB @ line up A weighted

RMS (22Hz to 22kHz)

Interchannel Crosstalk

>101dB @ 0dB with 1kHz tone

Dynamic Range

>111dB

Input Type

Electronically balanced (can be wired Unbalanced)

POWER

Mains Inputs

2 off Filtered IEC, 100 to 240VAC

47 - 63Hz

AC Consumption

18 Watts @ 230VAC

Internal Mains Fuse

20mm 1A Anti Surge

MISC

Audio Connectors

Neutrik 3 Pin Female XLRs

Alarm Connector

9 Way D Socket

Alarm Type

Solid State Relay

INCLUDED ITEMS

Network Cable

1 off 2 metre RJ45 Cable

Handbook

By download

Mains Lead

IEC 2 metres (UK & EU only)

DIGITAL AES3 AUDIO

Frequency Response

Flat to 22kHz (Input to Output)

Maximum Input Level

0dBfs

Input Impedance

110 Ohms

THD + N

0.00018% relative

Noise

>-123dB (residual) A weighted

RMS (22Hz to 22kHz)

Dynamic Range

>141dB

Input Type

Transformer balanced

Input Frequency

16 - 192kHz (sample rate converted to match Dante network frequency)

PHYSICAL

Size

1RU 19" 300mm deep (from rear of front panel to rear panel (excluding connectors))

Weight

3kg

Mechanics

All aluminium construction, anodized and laser etched front & rear panels

Shipping Carton

Rugged export quality cardboard carton 610 x 420 x 130mm LxDxH

Shipping Weight

4.5kg

ENVIRONMENTAL

Operating Temperature

0 to +50 °C (32 to 122 °F)

Storage Temperature

-20 to +70 °C (-4 to 158 °F)

Relative Humidity

0 to 95% non-condensing

Specification

