



## AIO-16 Audio Card

Installed directly into the ADAM Matrix Intercom System, the AIO-16 card gives 16 ports of audio IN and OUT for each card installed (up to 17 cards) in the system. This doubles the amount of audio ports available from its predecessor the AIO-8. The AIO-16 is hot swappable, allowing the user to insert the card and begin using it instantaneously. Once inserted into the system, it uses its “smart card” capability to see the backcard configuration and switches its keypanel communication protocol accordingly.

The AIO-16 is fully compatible with AIO-8 cards. It can run side-by-side the AIO-8, seamlessly integrating into the port scheme already in place.

There are two AIO-16 backcards, the traditional 50-pin SCSI backcard and the new 50-pin MDR backcard, which allows for a separate data pair per keypanel port.

There are also three new breakout panels that can be used with the AIO-16 card - DB-9 Breakout and RJ-45 Breakout and Telco Breakout- bringing the total number of breakout panels compatible with the AIO-16 to six.

Note: When using either the DB-9 Breakout panel, the RJ-45 Breakout panel, or the 48-port Telco Breakout panel you must use the MDR backcard.

### Features

#### Backward Compatibility

The AIO-16 is compatible with the AIO- 8 card. To accomplish this backward compatibility the AIO-16 must use the existing RJ-12/DB-9 Breakout panel with the SCSI backcard.

#### Smart Card

When the AIO-16 card is inserted into the system, it automatically figures the backcard configuration and the protocols being used.

#### Breakout Panels

Along with the existing breakout panels, three new panels (DB-9, RJ-45, and 48-port Telco) have been specially made to integrate with the new MDR backcard. When using either the XCP-32-DB9 breakout, the XCP-48-RJ45 breakout, or the XCP-48-Telco breakout you must use the MDR backcard.

# AIO-16 Specifications

## Analog

Signal type: Fully differential (balanced)

Nominal level: 8 dBu

Maximum level: 20 dBu

Input Impedance: High (22 k $\Omega$ )

Output Impedance: Low (600  $\Omega$ )

## A/D and D/A

Sampling Rate: 44.1 kHz

Resolution: 24 Bits

Converter Architecture: 128x Oversampling  $\Delta$ - $\Sigma$  Modulator

## Audio Performance

SNR at 22 dBu: (A-weighted) >85dB

THD+N at 22 dBu, 1 kHz (unweighted): <0.005%

Frequency Response at 20 dBu: within  $\pm$  1dB from 50 Hz - 20 kHz

All measurements performed using an Audio Precision System 1 Dual Domain System.

Measurements were performed using a sine wave at:

f= 1 kHz and level = 22 dBu

bandwidth = 50 Hz to 20 kHz

## Connections

4-wire balanced audio. Optional RS-485 data is available to communicate with keypanels. AIO-16 can be plugged into either a SCSI backcard or MDR backcard.

### SCSI Backcard

Backward compatibility to existing AIO-8 breakout panels. This card carries two single RS-485 data pairs; one data pair per group of 8 keypanel ports.

### MDR Backcard

Can be connected to 1 RU, 48-port CAT-5 breakout panel or to a 2 RU, 32-port DB-9 breakout panel. This card has 16 RS-485 data pair so each intelligent key panel can communicate with the matrix separately.

### DB-9 Breakout Panel: 9-pin male D-sub

Pin 1 Keypanel Data +

Pin 2 Keypanel Data -

Pin 3 N/A

Pin 4 Audio Out +

Pin 5 Audio Out -

Pin 6 N/A

Pin 7 Audio In -

Pin 8 Audio In +

Pin 9 N/A

### RJ-45 Breakout Panel

Pin 1 N/A

Pin 2 Keypanel Data -

Pin 3 Audio Out +

Pin 4 Audio In +

Pin 5 Audio In -

Pin 6 Audio Out -

Pin 7 Keypanel Data +

Pin 8 N/A

### RJ-12 Breakout Panel

Pin 1 Keypanel Data -

Pin 2 Audio Out +

Pin 3 Audio In +

Pin 4 Audio In -

Pin 5 Audio Out -

Pin 6 Keypanel Data +

## Ordering Information

**AIO-16 Card** 16-channel Audio Input/Output card for the ADAM Intercom System

Catalog Number: 9000-7726-000

**SCSI Backcard** SCSI Backcard with two 50-pin connectors. One data pair per connector

Catalog Number: 9000-7726-002

**MDR Backcard** MDR Backcard with two MDR connectors. Allows for a separate data pair per keypanel port.

Catalog Number: 9000-7726-003

**DB-9 Breakout Panel XCP-32-DB9** 32-port DB-9 breakout panel for expansion of the ADAM Intercom System

Catalog Number: 9000-7810-000

**RJ-45 Breakout Panel XCP-48-RJ45** 48-port RJ-45 breakout panel for expansion of the ADAM Intercom System

Catalog Number: 9000-7809-000

**Telco Breakout Panel XCP-48-Telco** 48-port Telco breakout panel for expansion of the ADAM Intercom System

Catalog Number: 9000-7822-000

**DB-9 Breakout Panel XCP-40-DB9** DB-9 Breakout Panel for expansion of ADAM at 40+, 80+, and 120+.

Catalog Number: 9000-7515-000

**RJ-12 Breakout Panel** RJ-12 Breakout Panel for expansion of the ADAM Intercom System.

Catalog Number: 9000-7494-000

**24-Port Telco Breakout Panel XCP-24-Telco** 24-port Telco Breakout Panel for expansion of the ADAM Intercom System.

Catalog Number: 9000-7559-000

This specifications information is preliminary and is subject to change without notification.

Brand names mentioned are the property of their respective companies.

## Contact Information

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