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: 8dBu
Maximum level: 20dBu
Input Impedance: High (22kΩ)
Output Impedance: Low (600 Ω)

A/D and D/A
Sampling Rate: 44.1 KHz
Resolution: 24 Bits
Converter Architecture: 128x Oversampling Δ-Σ Modulator

Audio Performance
SNR at 22dBu: (A-weighted) >85dB
THD+N at 22dBu, 1 kHz (unweighted): <0.005%
Frequency Response at 20dBu: within ± 1dB from 50Hz - 20kHz
All measurements performed using an Audio Precision System 1 Dual Domain System. Measurements were performed using a sine wave at:
f= 1kHz and level = 22dBu
bandwidth = 50Hz to 20kHz

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 1RU, 48-port CAT-5 breakout panel or to a 2RU, 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