

AIO-16 A Audio Card

General Description

Installed directly into the ADAM or ADAM-M Matrix Intercom System, the AIO-16 A card gives 16 ports of audio in and out for each card installed. The AIO-16A 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-16A is fully compatible with AIO-16 cards. It can run side-by-side the AIO-16 and AIO-8, seamlessly integrating into the port scheme already in place.

There are three (3) AIO-16 A backcards, the traditional 50-pin SCSI backcard and the new 50-pin MDR backcard, which allows for a separate data driver per keypanel port, and the RJ-45 backcard, exclusively designed for the ADAM-M frame.

The AIO-16A is compatible with each of the AIO-16 breakout panels— DB-9, RJ-45 and Telco Breakouts, 50-pin SCSI backcard, 50-pin MDR backcard, which allows for a separate data driver per keypanel port, and the RJ-45 backcard, exclusively designed for the ADAM-M frame.

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.



Specifications

Analog

Signal type: Fully differential

Nominal level: 8dBu

Maximum level: 20dBu

Input Load Impedance: High (200K Ω)

Output Drive Impedance: Lowest (600 Ω)

A/D and D/A

Sampling Rate: 44.1kHz

Resolution: 24 Bits

Converter Architecture: 128x Oversampling Δ - Σ Modulator

Audio Performance

SNR with 20dBu signal output:

non-weighted 90dB / 85dB(min.)

THD+N at 20dBu, 1kHz : 0.02% non-weighted @ 1kHz

Frequency Response at 20dBu:

within $\pm$ 2dB from 80Hz–18.5kHz

All measurements performed using an Audio Precision APx525 Dual

Domain System. Measurements were performed using a sine wave at:

f=1kHz and level=20dBu bandwidth=20Hz to 20kHz

Connections

4-wire balanced audio. RS-485 data is available to communicate with keypanels. AIO-16A 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 (2) single RS-485 data pairs; one (1) data pair per group of eight (8) keypanel ports.

MDR Backcard

Can be connected to 1 RU, 48-port RJ-45 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.

RJ-45 Backcard

Specifically designed for the AIO-16A card, and used exclusively in the ADAM-M intercom system. Not compatible with any other card or intercom system. Supports both RJ-45 and RJ-12 connector plugs, as well as 568A, 568B, and USOC wiring.

XCP-32-DB9 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

XCP-48-RJ45 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

XCP-955 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 +

Order Information

AIO-FC-16 • AIO-16A Card • 16-channel Audio Input/Output card for the ADAM Intercom System.

AIO-BC-16-SCSI • SCSI Backcard • SCSI Backcard with two 50-pin connectors. One data pair per connector.

AIO-BC-16-MDR • MDR Backcard • Backcard with two MDR connectors. Allows for a separate data pair per keypanel port.

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

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

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

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

XCP-40-RJ11 • RJ-12 Breakout Panel • RJ-12 Breakout Panel for expansion of the ADAM Intercom System.

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

RJ45BC-ADM M • ADAM M - RJ45 Back Card • RJ45 Back Card for Adam M

The specification information is subject to change without notification.
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