



DESCRIPTION

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 keypad 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 keypad 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.

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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.

ORDERING INFORMATION

Model	Description	Catalog No.
AIO-16 Card	16-channel Audio Input/Output card for the ADAM Intercom System	9000-7726-000
SCSI Backcard	SCSI Backcard with two 50-pin connectors. One data pair per connector	9000-7726-002
MDR Backcard	MDR Backcard with two MDR connectors. Allows for a separate data pair per keypad port.	9000-7726-003
New Breakout Panels		
DB-9 Breakout Panel XCP-32-DB9	32-port DB-9 breakout panel for expansion of the ADAM Intercom System ** When using the DB-9 Breakout Panel, you must use the MDR backcard with the AIO-16 card.	9000-7810-000
RJ-45 Breakout Panel XCP-48-RJ45	48-port RJ-45 breakout panel for expansion of the ADAM Intercom System ** When using the RJ-45 Breakout Panel, you must use the MDR backcard with the AIO-16 card.	9000-7809-000
Telco Breakout Panel XCP-48-Telco	48-port Telco breakout panel for expansion of the ADAM Intercom System ** When using the 48-port Telco Breakout Panel, you must use the MDR backcard with the AIO-16 card.	9000-7822-000
Existing Breakout Panels		
DB-9 Breakout Panel XCP-40-DB9	DB-9 Breakout Panel for expansion of ADAM at 40+, 80+, and 120+.	9000-7515-000
RJ-12 Breakout Panel	RJ-12 Breakout Panel for expansion of the ADAM Intercom System. **When using the RJ-12 Breakout Panel, you must use the SCSI backcard with the AIO-16 card.	9000-7494-000
24-Port Telco Breakout Panel XCP-24-Telco	24-port Telco Breakout Panel for expansion of the ADAM Intercom System. **When using the 24-port Telco Breakout Panel, you must use the SCSI backcard with the AIO-16 card.	9000-7559-000



DIGITAL MATRIX INTERCOM SYSTEMS

AIO-16 Audio Card

Technical Data Sheet

SPECIFICATIONS

Analog

Signal type	Fully differential (balanced)
Nominal level	8dBu
Maximum level	20dBu
Input Impedance	High (22k Ω)
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 \pm 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 +

WARRANTY

Products are warranted by Telex Communications, Inc. to be free from defects in materials and workmanship for a period of three years from the date of sale.

The sole obligation of Telex during the warranty period is to provide, without charge, parts and labor necessary to remedy covered defects appearing in products returned prepaid to Telex. This warranty does not cover any defect, malfunction or failure caused beyond the control of Telex, including unreasonable or negligent operation, abuse, accident, failure to follow instructions in the manual, defective or improper associated equipment, attempts at modification and repair not authorized by Telex, and shipping damage.

To obtain warranty service, follow the procedures listed on the Warranty card enclosed with the product.

This warranty is the sole and exclusive express warranty given with respect to RTS™ products. It is the responsibility of the user to determine before purchase that this product is suitable for the user's intended purpose.

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