

RTSTM DIGITAL MATRIX INTERCOM SYSTEMS

TECHNICAL DATA SHEET



DESCRIPTION

The AES-3 Digital Audio Interface Card expands the connectivity to the ADAM® Intercom by supporting AES-3 over coaxial cable. It supports 8 audio channels in and out through 8 AES-3 connections. The AES-3 card provides connectivity to any other third party AES-3 audio device. It supports all standard hot swappable and configurable features within the ADAM Intercom family. This card supports incoming sample rates from 16 kHz to 108kHz with 24 bit audio. Outputs are compatible with all AES-3 recommended procedures. Along with the newly introduced RVON-8 VOIP card, the RTS ADAM intercom systems now natively support analog, AES-3 digital and VOIP signal formats.

FEATURES

- The AES-3/EBI cards are hot swappable to allow live insertion to the AIO slot in the ADAM frame.
- The TDM and Control Bus interfaces are compatible with the current and next generation ADAM matrix TDM and control buses.
- Hardware and firmware compatible with current and next generation ADAM matrix systems.
- Provides downloadable firmware features through AZedit.

PLEASE CONTACT US

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ORDER INFORMATION

MODEL No.	DESCRIPTION	CATALOG No.
AES Card	AES Digital Audio Interface Card	9002-7745-002

AES-3 DIGITAL AUDIO INTERFACE CARD

SPECIFICATIONS

Performance Specifications

Dynamic Range:	120 dB
Input Sample Rate	
(serial input port - Fsi):	15 to 132 kHz
Output Sample Rate (Fso):	8 to 44.1 kHz
Output Data:	16 bits capable of 24 bits
Output to Input	
Sample Ratio Rate:	.33 to 3
Total Harmonic	
Distortion + Noise:	105dB
Peak idle channel noise component:	-140 dBFS
Resolution:	16-24 bits

Digital Filter Characteristics

Passband:	
Upsampling:	.4535Fsi Hz
Downsampling:	.4595Fso Hz
Passband Ripple:	±0.007dB
Stopband (downsampling):	.5465Fso Fsi/2 Hz
Stopband Attenuation:	110 dB
Group Delay:	175ms
Group Delay Variation vs. Frequency:	0.0µs
Interchannel	
Phase Deviation:	0.0°
High-Level Input Voltage, except RXP, RXN:	2.0 - (VD+)+0.3V
Low-Level Input Voltage, except RXP, RXN:	-0.3 - 0.8V
Low-Level Output Voltage (Io=-20uA), except TXP and TXN:	0.4V
High-Level Output Voltage (Io=-20uA), except TXP and TXN:	(VD+) -1V
Input Leakage Current:	±10 - ±15µA
Differential Input Voltage, RXP to RXN:	200 mV
Output High Voltage, TXP and TXN:	(VD+) -.07 (VD+) -0.4V
Output Low Voltage, TXP, TXN:	0.4 - 0.7 V

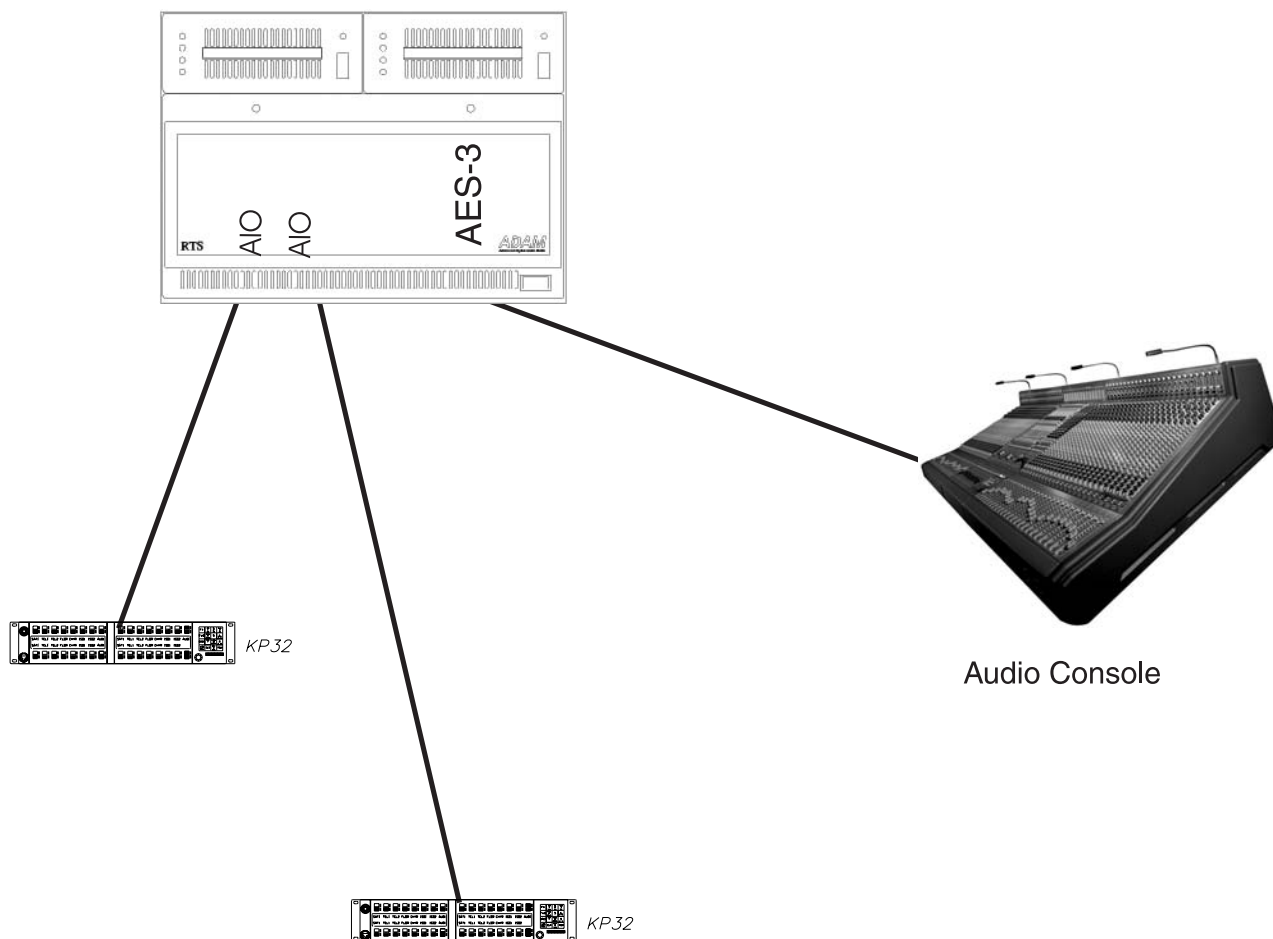
Switching Characteristics

RST pin Low Pulse Width: 200ms

OMCK:

Frequency for OMCK=512Fso: 4.096-55.3 MHz
Low and High Width for OMCK = 512Fso: 8.2 ns
Frequency for OMCK = 384Fso: 3.072 to 41.5 MHz
Low and High Width for OMCK = 384Fso: 12.3 ns
Frequency for OMCK = 256 Fso: 2.048 - 27.7MHz
Low and High Width for OMCK = 256 Fso: 16.4ns
PLL Clock Recovery Sample Rate Range:
8.0 - 108.0 kHz
RMCK output jitter: 200 ps RMS
RMCK output duty cycle: 40-60% (typ. 50%)
RMCK input frequency: 2.048 - 27.7 MHz
RMCK Input Low and High Width: 16.4 ns
AES-3 Transmitter Output Jitter: 1 ns

ADAM



AES-3 Digital Audio Interface Card System Diagram

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 entitled "Procedure for Returns" and "Shipping to Manufacturer for Repair or Adjustment".

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.

ANY AND ALL IMPLIED WARRANTIES, INCLUDING THE IMPLIED WARRANTY OF MERCHANTABILITY ARE LIMITED TO THE DURATION OF THIS EXPRESS LIMITED WARRANTY.

NEITHER TELEX NOR THE DEALER WHO SELLS TELEX PRODUCTS IS LIABLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES OF ANY KIND.