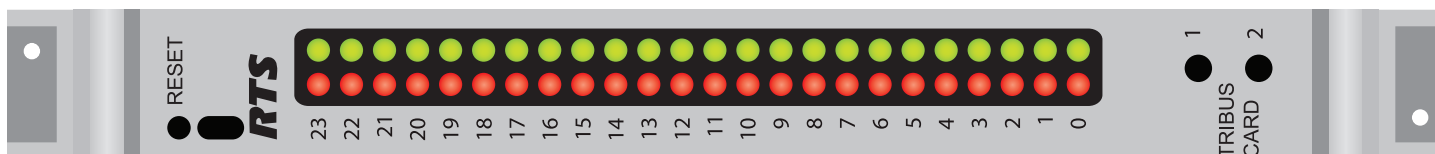


## TBX-Tribus

### Triple-Bus Expander Card Kit for ADAM/ADAM-M



A single TBX-Tribus fiber card can link up to four (4) ADAM or ADAM-M frames together and allow them to appear as one (1) matrix system or cluster. This makes it possible to increase the number of available users on a system by transparently integrating additional frames. The ADAM frame must be equipped with a MCII-e Master Controller card, allowing the TBX-Tribus to link together multiple frames, thereby allowing users to quickly connect multiple ADAM Intercom Systems. This functionality is useful in mobile production scenarios to tie systems together via fiber using the digital audio of the TBX-Tribus. In this scenario, the MCII-e master controllers are tied together via Ethernet connections. In a failure of the fiber or Ethernet link of one (1) frame, the affected ADAM is automatically isolated as a fully functional *Island* frame, and the remaining frame(s) function as a normal interconnected system. The TBX-Tribus works in both AIO-8 and AIO-16 frame environments with simple software settings in AZedit intercom software. The TBX-Tribus card is available with fiber connection only, allowing a range of up to 24.8 miles (40km) between ADAM frames. The TBX-Tribus surpasses the Dual Bus Expansion card with its superior channel capability, transmitting 256 audio channels rather than the 128 supported by the DBX.

## Features

- The TBX-Tribus card is fully backward compatible with all existing AES, AIO, and RVON cards in an ADAM intercom system. The hardware and software is completely compatible and seamlessly works with the TDM and control bus circuitry for routing audio and control data.
- The TBX-Tribus has three (3) fiber links. Each link can support up to a maximum of 256 audio channels per link.
- The system architecture has been redefined for the TBX-Tribus allowing the system to reconfigure itself in the advent of a frame failure. This fail-safe mechanism monitors both audio and control, messaging to prevent any corrupt behavior in the system.
- Support for multiple distances, the backcard features three (3) **SFP** (Small Form-factor Pluggable) connectors that allow support for multiple distances. This allows the user to configure these cards based on their custom application. The user can insert **COTS** (Commercial-Off-the-Shelf) modules (Multi-Mode/Single Mode) to match their needs.
- The TBX-Tribus employs the next generation ASIC “Nucleus” for higher performance and future system expansion.
- Autonomous mode, normally a TBX-Tribus frame communicates with other frames that are part of the same intercom. However, if an Ethernet link is not present, the Tribus automatically enters Autonomous mode.
- Automatic transfer of control, within each frame, both the active and the standby MCII-e maintain messaging links with every other frame over Ethernet. If the Active controller in the frame loses its messaging links, but the standby controller has one (1) or more available, an automatic transfer of control is performed.
- Alarms and warnings, a new view in AZedit displays various alarms and warnings that have occurred in the intercom system.
- AZedit Connections (Options|Connect to Frame) allows the user to select the frame to which AZedit should connect.

# Specifications

## Performance

Bits: 24

Input Sampling Rate: 44.1kHz

Throughput Per Link: 360Mb/sec

## Performance of the Board

SFP Fiber Transceivers

Voltage: 3.3V Rails

Standard Rate: SONET OC12 or Gigabit Ethernet

Recommended Parts

Multi Mode: Finisar-FTLF8519P2BNL (Oxide VCSEL,  
Maximum reach of 550m)

Single Mode: Finisar-FTLF1422P1BTL (1310nm,  
Maximum reach of 40km)

Single Mode Fiber LC Duplex Connector:

max length 40km (24.9 miles)

Multiple Mode Fiber LC Duplex Connector:

max length 500m (546.8 yd)

Configuration Requirements

A MCII-E master controller card (version 2.0.4 or higher)  
must be installed in the same frame as the TBX-Tribus.

Ethernet connection to the network.

AZedit version 3.6.1 or higher.

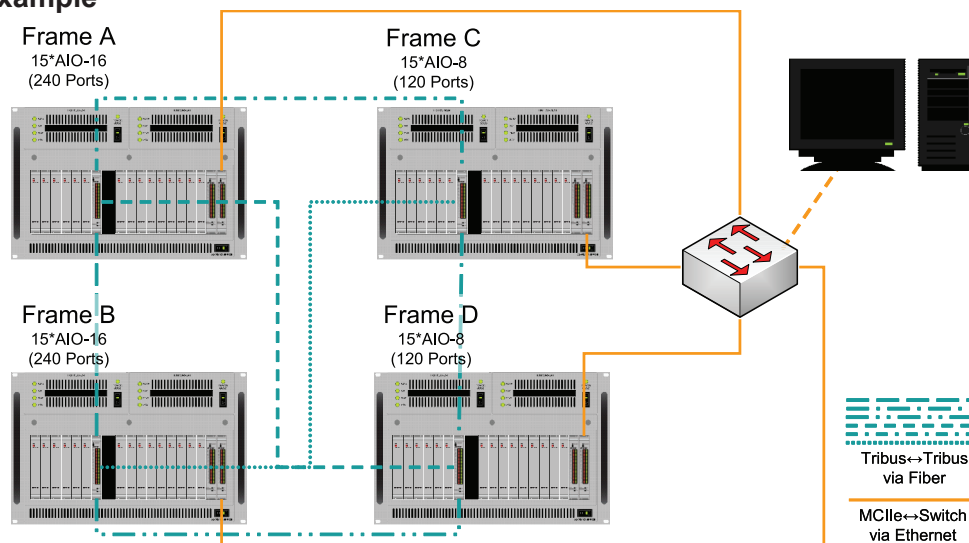
## Systems Supported by the TBX-Tribus

Links Used	System	Frames Supported	Channels
1	AIO-8	2	256
1	AIO-16	2	512
2	AIO-8	3	384
2	AIO-16	3	768
3	AIO-8	4	512
3	AIO-16	4	880

A total of up to eight (8) ADAM frames with AIO-8 cards can be connected via TBX-Tribus.

Using the TBX-Tribus, AIO-8 and AIO-16 card frames can be mixed.

## Mixed System Example



# Order Information

90027838500 • TBX-Tribus • TBX-Tribus front/back card kit single MO

TBX-TRIBUS-FRONT • TBX-Tribus • TBX-Tribus front card

TBX-TRIBUS-BACK-S • TBX-Tribus • TBX-Tribus back card single mode

TBX-TRIBUS-BACK-M • TBX-Tribus • TBX-Tribus back card multi-mode

The specification information is preliminary and is subject to change without notification.

Brand names mentioned are the property of their respective companies.