TBX-2

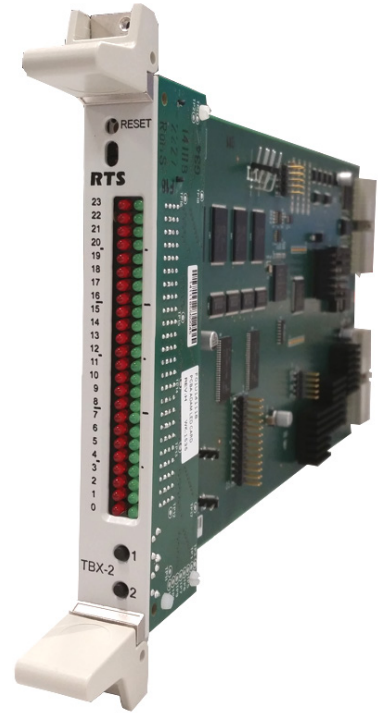## Triple Bus Expander Card Kit

General Description

A single TBX-2 fiber card can link up to four (4) ADAM/ADAM-M frames, while multiple Tribus cards can link up to nine (9) frames. This makes it possible to increase the number of available users on a system by transparently integrating additional frames. The ADAM/ADAM-M frame must be equipped with an MCII-e Master Controller card (version 2.0.4 or later), allowing the TBX-2 to link together multiple ADAM/ADAM-M intercom systems. This functionality can be useful in mobile production scenarios to tie systems together via fiber using the digital audio of the TBX-2. In this scenario, the MCII-e Master Controllers are tied together via Ethernet connections. In a failure of the Ethernet connection of one (1) frame, the affected ADAM/ADAM-M can be automatically isolated as an autonomous frame, and the remaining frames function as a normal interconnected system.

The TBX-2 works in both AIO-8 and AIO-16 frame environments with simple software settings in AZedit intercom software. The TBX-2 card comes with a fiber connection only, allowing a range of up to 24.8 miles (40km) between ADAM/ADAM-M frames.

Features

- The TBX-2 card is fully backward compatible with all existing MADI, 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-2 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-2 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.

- The backcard features three (3) SFP (Small Form-factor Pluggable) connectors that allow support for multiple distances. This allows the user to configure the cards based on their custom application. Additionally, users can insert COTS (Commercial-Off-the-Shelf) modules (Multi-Mode/Single Mode) to match their needs.

- Autonomous mode allows the TBX-2 to operate without an Ethernet link. Under normal circumstances a TBX-2 frame communicates with other frames that are part of the same intercom, however, if an Ethernet link is not present the TBX-2 will automatically enter 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.

Specifications

Power

Input Power .... 2.6 Amps at 5 V (Combined)

Power Consumption .... 13.2 W

Audio

Audio Performance...THD+N at 1 kHz, 0.4%

Frequency Response ....Within ± 1 dB from 20 Hz - 20 kHz

Environmental

Weight

   Front Card .... 0.72 lb (0.33 kg)

   Back Card .... 0.42 lb (0.19 kg)

Temperature

   Operating ....0°C to 50°C (32°F to 122°F)

   Storage...-40°C to 70°C (-40°F to 158°F)

Board Performance

Throughput per Link ....360 Mb/sec

SFP Fiber Transceiver

Voltage...3.3 V Rails

Standard Rate .... SONET OC12 or Gigabit Ethernet

Recommended Parts

Multi-Mode... Finisar - FTLF8519P2BNL (Oxide VCSEL, Mx. reach of 550m)

Single-Mode ....Finisar - FTLF1422P1BTL (1310nm,Max. reach 40km)

Fiber Cable Connector Type

Multiple Mode Fiber LC-LC Duplex Connector... Max. Length 500 m (546.8 yd)

Single Mode Fiber LC-LC Duplex Connector ....Max Length 40 km (24.9 mi)

Configuration Requirements

An MCII-e Master Controller card must be installed in the same frame as the TBX-Tribus. For more information, see the MCII-e User Manual which can be found at www.rtsintercoms.com.

Order Information

For ordering information, contact your regional sales representative at www.rtsintercoms.com

- TRIBUS FRONT/BACK CARD KIT SINGLE MODE • TBX-2 KIT SM
- TRIBUS CARD KIT SINGLE MODE @PI • TBX-2 KIT SM @PI
- TRIBUS FRONT/BACK CARD KIT MULTI MODE • TBX-2 KIT MM
- TRIBUS CARD KIT MULTI MODE @PI • TBX-2 KIT MM @PI

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