SKU: 0120-0122
Category:

T1 Transceiver (T1-XCVR)

The line powering T1 Transceiver (T1-XCVR) plug-in card provides a T1 cable interface, transmitting and receiving up to 24 DS0s of voice or data. Use the T1-XCVR card at both the LETs and RSTs. It operates at the ANSI rate of 1.544 Mbps with a receiver sensitivity of -36 dB. It has an Automatic Line Build Out function on its receive side and four discrete Line Build Out settings on its transmit side.

© 2025 Tellabs Access LLC

Features

- •Support for T1 UNI ATM uplink
- •One T1 (1.544 Mbps) interface per card
- •SF and ESF framing formats
- •Provisionable line coding
- •Repeater power feed for up to six repeaters
- •Front panel jack access for testing and monitoring
- •Dual memory support for upgrades

Highlights

Power and Repeaters

The T1-XCVR card has a power feed system (60 mA constant current source at -130 Vdc) to power multiple span line repeaters in end-to-end, midspan, or span
terminating (sink) powering configurations. The number of repeaters powered is a function of the repeater voltage and wire gauge used between repeaters. The external
power feed resistance must not exceed a 2 kÃŽÂ© equivalent resistance for the network.

Alarms, Test and Stastics

The T1-XCVR transceiver has selectable alarm thresholds, BER calculation, performance monitoring statistics, and alarm history.

Line Coding and Signaling

The T1-XCVR card performs signaling conversion and datalink termination. The T1-XCVR line coding options are AMI/ZCS and B8ZS.

Easy Provisioning

The T1-XCVR can be easily provisioned from CUI or Tellabs Panorama Element Management System (EMS)

LED indicators System Configuration

When the T1-XCVR cards are linked in an AccessMAX system, the green ACTV LED indicates that the unit is communicating with the counterpart T1 and a datalink is present. The ACTV LED blinks rapidly (120 flashes per minute) during self-test, and slowly (60 fl ashes per minute) during a loopback test. The red FAIL LED indicates a plug-in card failure. The red LOC LED indicates a problem with in coming data. The amber REM LED indicates that the far end is not receiving data. The card can be disabled using CLI commands, in which case the green ACTV LED will turn off (other LEDs may remain on). If all LEDs are off, this indicates either Alarm Indication Signal (AIS) or that the card has been disabled via software.

LED indicators TR-8 Configuration

When the T1-XCVR unit is connected in a TR-8 configuration, the green ACTV LED indicates that the card is communicating with the switch and that the TR-8 group Å“AÂ datalink is present. The red FAIL LED indicates a hardware failure. The red LOC LED indicates a problem receiving data. The yellow REM LED indicates a protection switch from the far end.

LED indicators Groomed Services Configuration

© 2025 Tellabs Access LLC

When the T1-XCVR unit is used for groomed service, the green ACTV LED indicates that the card recognizes valid framing. The red FAIL LED indicates a hard ware failure. The red LOC LED indicates a problem receiving data. The yellow REM LED indicates that the far end is not receiving data. A blinking green ACTV LED always indicates a loopback (the card sees its own signal). The T1 transceiver features front panel jack access for testing and monitoring.

Specifications

Analog Parameters

- Equalization Receive: Automatic line build out (36 dB attenuation)
- Equalization Transmit: 4 step attenuator – 0, -7.5, -15, -22.5 dBm
- Input impedance: 100 ÃŽÂ©

Faceplate Jacks

- E OUT Equipment Output: DS1 test access toward the internal cross-connect (backplane)
- F OUT Facility Output: DS1 test access toward the facility (line)
- E IN Equipment Input: DS1 monitoring access from the internal cross-connect (backplane)
- F IN Facility Input: DS1 monitoring access from the facility (line)

Installations

- Supported in Tellabs 1000 MSAP CBA1120 and CBA1048

Software Support

- Minimum base software FP16 and higher

Management

- Tellabs Panorama Element Management System (EMS)
- Craft User Interface (CUI)

Faceplate LED Indicators

- FAIL Red: Plug-in card failure, or card unable to communicate with the CPU
- ACTV Green: Datalink is established with far end
- ACTV Flashing Green: 60 flashes per minute loopback in progress (card is receiving its own signal) and 120 flashes per minute diagnostics, self-testing, or provisioning in progress
- LOC Red: Local signal reception failure (LOF, LOS, high BER, timing slip, and so forth)
- REM Amber: Remote (far end) signal reception failure

Signaling

- Framing: SF and ESF
- Line coding: AMI/ZCS or B8ZS
- Loopback modes: Equipment and Facility
- Channel sequence: D1D, D2, D3/D4

Compliance

- GR-1089-CORE
- GR-499

Environmentals

- Operating temperature: -40 F / -40 C to +149 F / +65 C

© 2025 Tellabs Access LLC

•Humidity (relative): 5 to 95% non-condensing

Power

•Output current: 60 mA Â3 2 mA
•Output voltage (open circuit): -135 Vdc Â3 5 Vdc
•External power feed resistance: x â°Â€ 2000 ÃŽÂ© equivalent resistance
•Typical power consumption (span power off): 1.4 W
•Typical power consumption (span power for 5 repeaters): 10.9 W

Interfaces

•One (1) T1 (1.544 Mbps) interface per card

Physical

•Height: 5.125 inches (13.018 cm)
•Width: 0.563 inch (1.429 cm)
•Depth: 10.5 inches (26.67 cm)
•Weight: 0.5 pound (0.23 kg)

© 2025 Tellabs Access LLC