3E1 Interface Card for QX3440 and QX3440S

Features

- Three ports E1 plug-in module
- DS0-SNCP protection within 50ms
- Programmable delay of Time Slot AIS detection for SNCP protection switching
- Synchronization Status Message(SSM) clock mode
- Full Time Slot Interchange (TSI) capability among all time slots in the main unit
- Remote diagnostics
- Single LED indicator per E1 port
- Software field upgradeable
- BNC or RJ48C Connectors
- RoHS Compliant

DESCRIPTION

QX3440-3E1 plug-in card is designed for the QX3440 DACS multiplexer and provides DS0-SNCP (64K bps Sub-Network Connection Protection). Users can mix the non-SNCP protected traffic with SNCP protected traffic on the same E1 ring. It allows each DS0 time slot in QX3440-3E1 interface to be interchanged and multiplexed onto a digital network.

Continuous error checking, performance polling, and in-service diagnostics are provided through the main controller of the QX3440 DACS multiplexer. In addition, LEDs on the plug-in card provide status indication.

SPECIFICATIONS

E1 Line Interface

Line Rate	2.048 Mbps ± 50 ppm	Framing	ITU G.704
Line Code	AMI/HDB3	Output Signal	ITU G.703
Input Signal	ITU G.703	Electrical	75W coax/120W twisted pair
Jitter	ITU G.823	Connector	RJ48C or BNC
Data Rate	n * (64) Kbps (n = 1 to 32)		

Performance Monitor

Performance Registers	Last 24 hours performance in 15 minute intervals and last 7 days in 24 hour summaries
Separate Registers	Network, user, and remote site
Performance Reports	Reports include E1 Bursty Errored Second, Severe Errored Second, Degraded Minutes, and Controlled Slip Second. Also available in Statistics (%)
Alarm Queue	Containing 40 alarm records which record the latest alarm type, location, and date & time
Threshold	Bursty Seconds, Severely Errored Second, Degraded Minutes

Diagnostics Test Line

Loopback	E1 interface (Line Loopback, Payload Loopback, Local Loopback)
Test Pattern	E1 interface (215-1 PRBS)

APPLICATION ILLUSTRATION

DS0-SNCP Protection Architecture

The diagram below illustrates the DS0 signal path in normal condition. The DS0 signal travels on both primary path and secondary path. The primary path is configured to be the working path and the secondary path is configured to be the protection path.
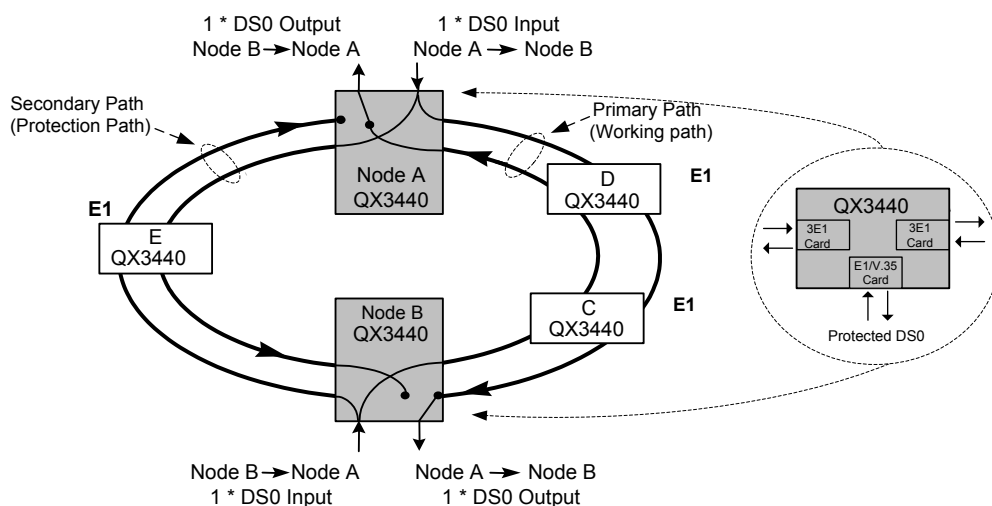
Figure 1. Normal Condition

The diagram below illustrates the DS0 signal path in faulty condition. When the primary path is broken, the secondary path will automatically become the working path.
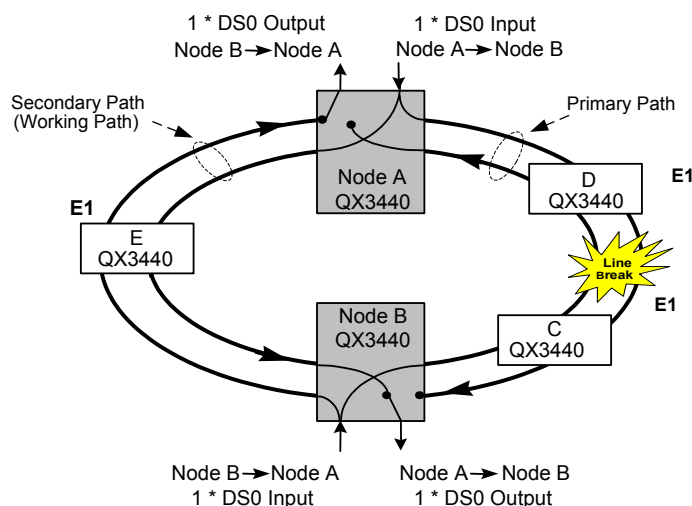
Figure 2. Faulty Condition