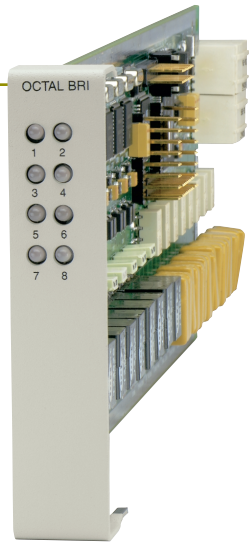
Adit

ISDN BRI Service Cards

Part Numbers:
740-0041 Dual ISDN BRI Card
740-0048 Quad ISDN BRI Card
740-0042 Octal ISDN BRI Card



High Density ISDN Service Deployment and Digital Loop Carrier Applications

The Adit™ ISDN BRI Service Cards enable service providers and enterprises to deploy high-density, standards-based, ISDN Basic Rate Interface (BRI) services over one or more T1 or DSL access lines using TDM or ATM transport. ISDN voice, data, and real-time video applications may be cost-effectively deployed as part of any integrated broadband service delivery.

Adit ISDN BRI Service Cards support two modes of operation: 3-DS0 BRITE standard ISDN transport and 4:1 Subrate D Channel Mode Access Navigator for high-density ISDN transport or GR-303 Digital Loop Carrier applications.

- In the 3-DS0 BRITE mode, three DS0 channels support a BRI channel, providing eight BRI per T1. The BRI channel consists of two Bearer channels (B-channels) at 64 Kbps each, and a 16 Kbps Data channel (D-channel), which is also transported in a full DS0. The D-channel supports the Embedded Operations Channel (EOC) and is used to pass signaling and other management information, such as loopback commands.

- In the 4:1 Subrate D-Channel Mode, up to 10 BRI channels are carried over each T1line. Four16 Kbps D-channels are multiplexed into each DS0. The Access Navigator GR-303, in conjunction with the Adit Customer Service Terminal (CST), functions as an Integrated GR-303 Digital Loop Carrier system using this mode. Standard 4:1 D-Channel concentration is utilized from the GR-303 interface of a Class 5 switch. EOC management information from the switch is supported.

Features At-A-Glance:

- Enables carriers to economically bundle ISDN at either 64 or 128 Kbps with all other services over T1 or DSL access, using either TDM or ATM transport
- Configures as either Local Termination for interfacing to ISDN switch interfaces at the central office or Network Termination Unit (NTU) for customer premise installations
- Direct NTU service demarcation for ISDN video conferencing, 128 Kbps dial-up Internet, point-of-sale terminals, and ISDN centrex or telephone applications
- High service density 40 ISDN BRI lines from 4 T1 lines, with battery back up, in a single wall-mounted Adit 600 chassis. 80 BRI lines in two rack units
- Enables superior economic deployment of ISDN services with on-premise T1 concentration via the Access Navigator/GR-303 host and Adit Customer Service Terminal to provision 40 to 240 ISDN-BRI channels over only 3 to 8 T1 access lines
- Solid-state fuseless protection for Central Office NEBS and customer premises FCC and UL safety requirements
- Element management software offers simplicity of installation, testing, and monitoring from SNMP, graphical user interface (Adit Pilot), or Command Line Interface (CLI) control

CarrierAccess
Access with no limits™

Technical Specifications

Components:

Dual ISDN BRI: Two ISDN BRI channels
Quad ISDN BRI: Four ISDN BRI channels
Octal ISDN BRI: Eight ISDN BRI channels

Features common to ISDN BRI cards:

- Configurable as Line Unit Line Terminal (LULT) or Line Unit Network Terminal (LUNT)
- Works with all standard Carrier Serving Area (CSA) loops – maximum 18,000 ft. range (#26 AWG copper)
- Supports standard Bellcore 3-DS0 or 4:1 TDM modes
- Line coding: 2B1Q
- Line rate: 80 kbaud (160 Kbps)
- Front-panel multi-function LEDs provide Out of Service, LOS/Self test fail, ES/SES detected, Sync, Loopback, and Normal indications
- Interoperable with other standards-based ISDN BRI equipment
- B1, B2, and 2B+D payload loopbacks supported
- Maximum bridged tap length is 2.5 kft.
- Rear-accessed U-Interface connections

Management:

- Standard ISDN SNMP MIB supported

Network Interface:

- 3 DS0 mode: uses 3 contiguous DS0 channels per ISDN BRI channel on T1
- 4:1 TDM mode: T1 to Access Navigator/GR-303

System Clocking:

- Loop timing derived from Channel 1 of ISDN BRI card or any T1 line on Adit

Diagnostics:

- Initiates 2B+D, B1, or B2 loopbacks toward the BRI at the NT1
- Performs built-in self-test at power-up
- 3 DS0 mode: supports external loopback testing via EOC messages from the switch
- 4:1 TDM mode: supports external loopback testing through CLI commands or as commanded by switch

Supports:

- TR-821 alarms
- TR-397/TR-829/TR-821 Generic Segmented Performance Monitoring
- TR-829 multi-EOC messages in 3 DS0 and 4:1 TDM modes
- Metallic DC test signature in Line Unit Network Terminal (LUNT) mode

Physical Dimensions:

- Dimensions: 3 1/2" H x 3/4" W x 11 1/4" D
- Weight: 1 lb.

Power:

- Maximum Power Input: 6 Watts (8-port)
- Solid state fuseless protection

Regulatory Approvals:

- FCC Part 68, CS-03 listed for connection to PSTN
- FCC Part 15, Class A Radiated Emissions Control
- NRTL safety listed: UL 1950, CSA
- National Electrical Code 1996 safety requirements
- NEBS Level 3 certified
- Telcordia TR-NWT-000063, TR-NWT-001089

Network Standards:

- Telcordia TR-NWT-000397 (1993)
- Telcordia TR-TSY-000821 (1991)
- Telcordia TR-TSY-000829 (1989)
- ANSI T1.601-1992
- ITU-T Q.920, Q.921

Environment:

- Operating temperature range: 32° to 104°F (0°C to 40°C)
- Storage temperature range: –40° to +158°F (–40° to 70°C)
- Cooling method is by free air convection and requires long axis of unit to be mounted horizontally
- Maximum operating altitude: 10,000 feet
- Maximum non-operating altitude: 40,000 feet
- Relative humidity (non-condensing) range: 0 to 95%

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