

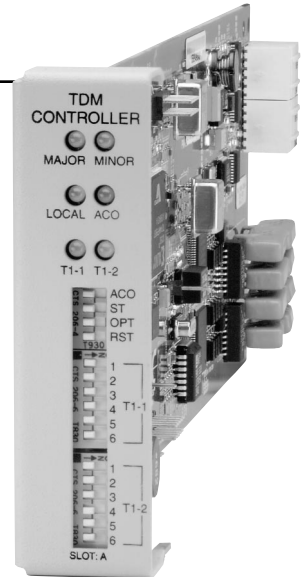
Adit 600

Release 2.0

Dual T1 TDM Controller Card

Part Number: 740-0039

TDM-based converged voice, data and Internet access for the Adit 600 Customer Service Terminal



New in Release 2.0:

- IP management over a dedicated DS0
- FXO with ring detect
- FXS/GS enhancement for troubleshooting

The Adit™ 600 with Dual T1 TDM Controller Card offers an extremely cost-effective, compact solution for delivering a wide range of services from TDM access networks in both wire-line and wireless applications. Capabilities include a 2 to 18 T1 multi-service digital cross-connect system, GR-303 digital loop carrier terminal, 48 voice or 40 ISDN channel bank, 6 Ethernet IP router/WAN nest, and 2 to 12 port V.35 drop and insert CSU/DSU.

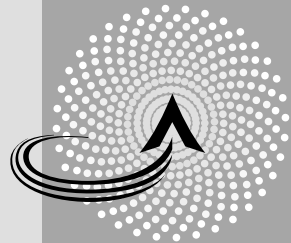
The Dual T1 TDM Controller Card includes a built-in 512 timeslot (DS0) 1/0 cross-connect matrix to provide full non-blocking connectivity between any of the six Adit 600 service card slots. Two T1 ports with integrated CSUs are included on the Controller to facilitate quick service establishment and efficient provisioning of 48 voice channels, IP network routing, or 12 V.35 channels. T1 capacity can be increased to a total of 16 network or user connections (plus the two Controller T1s) by adding the appropriate service cards.

Service cards provide the physical, electrical, and logical connections for either customer service demarcations or network access. Customer interface types include Routed Ethernet, FXS, FXO/DPT, V.35, ISDN BRI, and T1. Any service card may be used in any available slot. This capability allows the Adit 600 to uniquely scale across all service types and bandwidth needs for business service delivery. Changing to broadband ATM and Inverse Multiplexing network access will be available simply by removing the TDM Controller Card and inserting an Adit 600 ATM Controller Card in its place.

In addition to controlling the network access technology, the Adit Controller Card configures and manages the Adit Customer Service Terminal. Management capabilities facilitate service deployments in minutes using the front panel DIP switches, indicators, and remote software. Remote capabilities include a SNMP agent for use with the NetworkVale™ Element Management System (EMS), and Vale™ Configuration Graphical User Interface (GUI), and a command line interface, which is accessible via Telnet, a local RS-232 craft port, or a CO-based Access Navigator™ GR-303 host.

Features At-A-Glance:

- Integrated 512 DS0 digital cross-connect for service grooming economy and restoration
- Any service connection or network access line in any slot
- Capacity for 48 analog voice lines, 40 ISDN BRI, 18 T1s, or 12 V.35 in an Adit 600 chassis
- Includes integration of Dual T1 CSU/DSU functionality and SNMP management
- Remote SNMP EMS or Telnet provisioning, monitoring, and testing of services and network
- GR-303 remote terminal management from Access Navigator host software
- Solid-state fuseless protection for Central Office NEBS and customer premises FCC and safety requirements



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Technical Specifications

■ Components:

Unit is a controller card for the Adit family of Customer Service Terminals

■ Product Includes:

- Built in non-blocking 512 DSO Digital Cross-Connect System (DCS)
- Robbed-bit (voice) and clear channel (data) signaling on the same T1
- Fractional T1 data formats
- Integral dual T1 ports that support drop and insert applications
- T1.231 performance monitoring statistics – Ninety-six 15-minute segments (24-hour period)
- Performance Report Messages (PRMs)
- Digital voice (PBX) trunk signaling
- Analog voice signaling, CLASS features such as Caller ID, Call Waiting, Call Forwarding, and DNIS/DID
- Front panel LED indicators for T1 status, major and minor alarms, remote/local management mode, and Alarm Cutoff (ACO) status
- Any service card, any slot architecture
- Configurations automatically stored in non-volatile memory
- RPM
 - Supports Remote Provisioning and Management (RPM) over FDL with Access Navigator Release 1.5 or higher
- SNMP agent, supporting MIB objects:
 - RFC 1213 (MIB-II)
 - RFC 1659 (V.35)
 - RFC 1907 (SNMPv2-MIB)
 - RFC 2011 (IP-MIB)
 - RFC 2233 (IF-MIB)
 - RFC 2494 (DS0-MIB)
 - RFC 2495 (DS1-MIB)

■ Network T1 Interface:

- Selectable single or dual T1 ports operating at 1.544 Mbps \pm 50 bps
- Expansion to 16 T1s in chassis using Quad T1 cards
- SF (D4) and ESF line types
- AMI or B8ZS coding
- Short or long haul line levels
- Integrated CSU function
- RJ48C connectors on rear panel of chassis
- Solid-state (fuseless) overvoltage and overcurrent T1 line protection meets Telcordia™ GR-1089 intrabuilding lightning/power cross limits

■ Management:

- Local:
Simple setup using front panel DIP switches for channel bank applications
- Remote:
 - RS-232 craft port interface drives up to 50 ft. (15.24 m) cable and provides Command Line Interface via ASCII terminal or PC with terminal emulation software, modem using XMODEM or PPP sessions
 - SNMP agent access
 - 10Base-T Ethernet port provides:
 - Local IP management connectivity
 - RJ-45 connector mounted on rear panel of chassis
 - Carrier sense LED
 - IP management over a dedicated DSO
 - Command Line Interface/FDL-based support with Access Navigator (Rel. 1.5 or higher)

- Contains integrated TFTP server for remote download of controller software upgrades
- SNMP agent for use with NetworkVale™ Element Management System (EMS)
- Command Line Interface offers three levels of password-controlled security

■ Network Standards:

- AT&T PUB 54017
- TR 62411
- ANSI T1.403, T1.203, T1.231
- AT&T PUB 54016

■ Clocking:

- Loop-timed from any T1
- Revertive clock switching provides automatic backup to secondary T1 should the primary T1 fail
- Operates as a stratum 4E node as defined by GR-1244-CORE and AT&T TR62411

■ Alarms:

- One major, one minor alarm output
- One alarm input
- Alarm contacts accessible from external alarm connector
- All alarms are logged in an event log
- Loss of AC power triggers minor alarm
- Generates SNMP traps for alarming MIB objects

■ Testing and Diagnostics:

- Standard T1 line and payload loopbacks
- T1.231 Performance History

■ Power:

- 4 watts maximum

■ 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
- Telcordia™ TR-NWT-001089

■ Physical:

- Height: 3.5 in. (8.89 cm)
- Width: 0.75 in. (1.91 cm)
- Depth: 11.25 in. (28.58 cm)
- Weight: 1.0 lb. (0.45 kg)

■ Environment:

- Operating temperature range: 32° to 104°F (0° 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 ft. (3,048 m)
- Maximum non-operating altitude: 40,000 ft. (12,192 m)
- Relative humidity (non-condensing) range: 0% to 95%



CarrierAccess

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