



FT1-TDM

FRACTIONAL T1 TANDEM CHANNEL UNIT

PRODUCT FEATURES

- Intra-office tandeming between D4 channel banks
- 12 DS0 capability
- Multiple loopbacks and diagnostics
- Compatible with standard AT&T D4

The ADTRAN FT1-TDM is a central office (CO) unit used to deploy Nx64 kbps tandeming between channel banks within a CO, where N is a selectable number of channels ranging from 2 to 12. The FT1-TDM plugs directly into a standard AT&T D4 (or equivalent) channel bank, or SLC-96 when running SLC Mode 1 or 3 operation. The unit occupies a single slot. No installation wiring is required. Signals are provided to and from the channel bank or RT, while PCM signals are provided to the local CO loop.

One ten-position switch pack is used to configure the mode of operation for the unit. Configuration is performed by manually selecting each option switch.

Bandwidth is set by the FT1-TDM in contiguous or alternating time slots.

The front panel of the FT1-TDM contains DS0 splitting Bantam jacks. The metallic splitting jacks provide an intrusive, signal-interrupting access to the first DS0 channel. The Bantam jacks allow connection of a Tele-Path Industries 108/109 RT II (or equivalent) test set through one DS0 channel at 64 kbps for functions such as sending and receiving bit error rate signals, and latching loopback sequences.

There are two loopbacks available to the FT1-TDM. NEAR loopback loops the received T1 signal back to the T1 transmitter at the DSX-1 interface. FAR loopback loops the received PCM data back to the PCM backplane. NEAR loopback is a digital loopback toward the DSX-1 interface. This loopback is initiated by the DS0 latching loopback command or by the front panel NEAR DIP switch. FAR is a digital loopback toward the PCM interface. This loopback is initiated by the DS0 latching loopback command or by the front panel FAR DIP switch. When the FT1 circuit is looped, all DS0s in use will be looped back toward the PCM backplane and an all 1s signal will be sent to the DSX-1 interface.

If needed, bi-directional tandem latching loopbacks are available by looping a remote FT1-TDM and sending the sequence from a local unit. The tandem loopback sequence can also be initiated through the front panel Bantam jacks.

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Product Specifications

DSX-1 INTERFACE

- **Interface Type:** 4-wire (Tx pair and Rx pair)
- **Operating Mode:** Full Duplex
- **Maximum Data Rate:** 768 kbps (12 channels x 64 kbps)
- **Line Equalization:** 0-655 feet
- **Line Code:** AMI, B8ZS
- **Framing:** D4 ESF
- **Line Impedance:** 100Ω

CHANNEL BANK FACILITY INTERFACE

- Fully compatible with D4 channel bank equipment

CLOCK SOURCES

- Derived from channel bank

DIAGNOSTICS

- Self Test
- Near Loopback
- Far Loopback

ENVIRONMENT

- **Operating (standard):** -40° to +70°C
- **Storage:** -40° to +85°C
- **Relative Humidity:** Up to 95% non-condensing

PHYSICAL CHARACTERISTICS

- **Dimensions:** 4.4" H, 1.4" W, 10" D
- **Weight:** 8 ounces, nominal
- **Plugs into AT&T D4, SLC-96, or ADTRAN ACT 1241 customer premises bank**
- **Power:** 5 Volts: 100μ max
- **-48 Volts:** 40 mA max
- **Total Power:** 2.0 W max

FACEPLATE INDICATORS

- The FT1-TDM has four faceplate LEDs which indicate operational status

FACEPLATE SWITCHES

- Two DIP switches are located on the FT1-TDM faceplate. Use these to activate and deactivate far end loopback and near end loopback. Use the twelve-position rotary switch to select the number of channels to be used.

Ordering Information

EQUIPMENT

PART

FT1-TDM1242052L1

Specifications subject to change without notice.

