TSU

Full Featured T1/FT1 DSU/CSU

Product Features

- Single V.35 DTE interface

- Nx56 or Nx64 operation for data rates to 1.536 Mbps

- Auto and manual D4(SF) or ESF framing support

- B8ZS or AMI line coding

- Easy to use front panel keypad for unit configuration and monitoring

- Remote TSU configuration via FDL or 8k in-band

- Local and remote loopback capability

- Extensive built in test capabilities

- Support for T-Watch PRO software for optional PC based configuration

- Industry-leading five-year North American warranty

The ADTRAN® TSU™ is a low cost, full-featured T1/FT1 Data Service/ Channel Service Unit (DSU/CSU). The TSU provides an interface between T1 or Fractional T1 service and the end user's Data Terminal Equipment (DTE) for applications such as LAN to LAN bridging, Frame Relay circuit termination and videoconferencing. The TSU provides access to traditional dedicated point-to-point T1 services as well as network termination for Frame Relay.
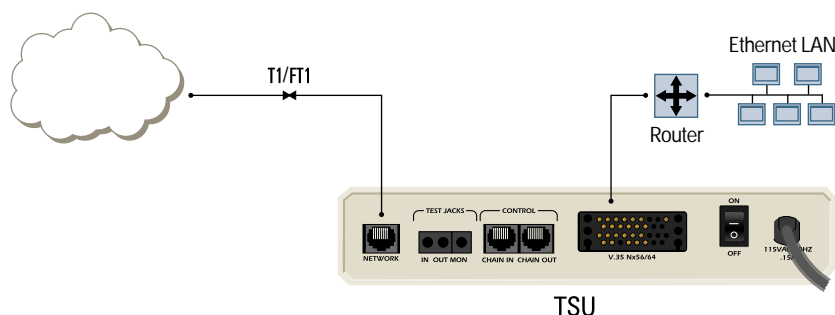
Housed in a rugged metal housing the TSU supports synchronous data rates from 56 kbps to 1.536 Mbps at Nx56 or Nx64 kbps. A single V.35 physical interface provides a connection to the end user's DTE equipment.

For configuration and testing, the TSU provides the capability to control a remote TSU through the T1 FDL channel. If the FDL channel is unavailable, the TSU can use 8 kbps of the data traffic to provide configuration and control of the remote unit. The in-band control channel is used on an as needed basis and is automatically controlled by the TSU.

The TSU responds to standard local and remote loopback commands from the telephone company central office. In addition, the user has several built-in test capabilities including V.54 remote loopback and 511 BERT test patterns. Complete configuration and performance data is available from the front panel keypad and two-line by 16 character LCD display. For additional configuration and monitoring options, the TSU supports a VT 100 terminal configuration and control mode which is available through the control port. For direct serial connections or for remote devices, optional Windows® based PC management is available through the comprehensive, easy to use T-Watch PRO™ software package.

ADTRAN provides several T1 DSU/CSUs for a variety of customer applications. Additional products in the TSU family include the TSU ACE, TSU ESP, TSU100, TSU120, TDU120 and the TSU600. These T1/FT1 DSU/CSUs offer flexibility, modularity and end user configuration. The modular approach allows the ADTRAN TSU family to serve in point-to-point T1 applications with a mixture of voice, data and video.

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Full Featured T1/FT1 DSU/CSU

Product Specifications

Network Interface
- **Line Rate:** T1/FT1 (1.544 Mbps)

Physical Interface
- **RJ-48C:** 8-pin modular

Framing
- SF/ESF
- Auto detection

ESF Format
- AT&T 54016
- ANSI T1.403

Line Code
- AMI/B8ZS

Input Signal
- 0 to –36dB

DSO Assignment
- Contiguous
- Alternating

T1 Transmit Timing
- Loop timed
- Internal
- DTE

DTE Interface
- **Bit Rate:** 56 kbps to 1.536 Mbps, Nx56 or Nx64 kbps (N=1 to 24)

Electrical
- CCITT V.35

Mechanical
- V.35 (Winchester Type 34 pin)

DTE Transmit Clock
- Automatic

Performance Monitor
Performance Data
- BPVs/CRCs, ES, SES, UAS, % AS, % EFSEC, alarms, errors

Reports
- NI information stored for last 24 hours in 15 minute increments

PRMS
- ANSI performance report messages (user selectable)

Tests
- **Local:** Payload/line loopback, DTE loopback
- **Remote:** Payload/line loopback, V.54 (DTE) loopback
- **Network:** CSU and DSU loopbacks

Built-In Test Patterns
- 511 (active DS0s) with error insert available
- 1:8 (all DS0s)
- All 1's (all DS0s)
- All 0's (all DS0s)
- QRSS (active DS0s) w/ error insert available

Agency Approvals
- FCC part 15
- Class A
- FCC Part 68
- Industry
- Canada CS03, UL, CUL

Environment
Operating Temperature
- 0° to 50°C, (32° to 122°F)

Storage Temperature
- –20° to 70°C, (–4° to 158°F)

Relative Humidity
- Up to 95%, non-condensing

Physical
Dimensions
- 1.5" H, 6.25" D, 9" W

Weight
- 2 lbs

Power
- 115 vAC, 60 Hz, 5 W

Ordering Information

Equipment	Part #
TSU	1200060L2