



# Dual DSU III Module

## Expansion and Plug-on Module for the TSU

### Product Features

- Dual DSU functions per module
- RS-232 and V.35 interfaces
- Supports sync and async rates from 2.4 to 64 kbps
- Extensive built-in test functions
- Local and remote configuration
- Remote configuration of DSU III and DSU IV units
- Manual, automatic, AT commands, V.25 bis or stored number dialing
- Auto answer of incoming calls
- Local and remote loopback capability
- Built-in test patterns for troubleshooting
- 24 DTE ports max supported in TSU 600e
- T-Watch PRO monitoring and control
- Industry-leading five-year North American warranty

**The ADTRAN® Dual DSU III Module is one of several expansion modules for the TSU™ Multiplexer family of products.** This module should be selected when the customer's data terminal equipment (DTE) needs to be connected to the Digital Data Service (DDS) or the Switched 56 network using a T1 line. The module installs in the expansion slot of the TSU and is subject to the unit's operation and control. A plug-on version of the Dual DSU III is also available for any of the other TSU expansion modules. Both the expansion module and the plug-on module provide two DTE interfaces each.

Configuration is available from the front panel of the TSU or by the optional T-Watch PRO™ Management software. Monitoring, performance requests, and testing functions are initiated from the front panel. Each unit provides two separate all rate DSUs supporting synchronous and asynchronous data rates. The synchronous rates supported are 2.4, 4.8, 9.6, 19.2, 38.4, 56, and 64 kbps. Asynchronous data rates are provided from 2.4 to 19.2 kbps, 38.4 kbps, and 57.6 kbps. The DTE interface can be selected as either EIA-232 or V.35 for all data rates.

Additional features of the Dual DSU III module include a DTE-to-service rate

matching feature for both dedicated and switched modes, and various anti-streaming time-out values used to disable streaming terminals on a multi-point circuit. Private networks and modem tail circuits can be accommodated through clocking/timing options. In Switched 56 mode, dialing options include manual dialing, redialing, and dialing of stored numbers. Dialing over the DTE interface is supported by use of an AT command set or the V.25 bis in-band dialing protocol.

The unit responds to standard loopback commands from the telephone company central office. In addition, the user has several built-in test functions. These include V.54 remote loopback, 2047 and 511 BERT test patterns, and four DDS stress patterns—results of which are displayed on the TSU front panel. These features, backed by the quality, service and support you expect from ADTRAN, make the DSU III module an excellent choice for sub-rate access for T1 networks. The Dual DSU III module is one of many application-specific modules available for the TSU 100e, TSU 120e and the TSU 600e. The ability to combine different expansion modules with plug-on units provides a variety of interface port combinations for voice, data, dial backup and video applications.



ADTRAN, Inc.

Attn: Enterprise Networks  
901 Explorer Boulevard  
Huntsville, AL 35806

P.O. Box 140000  
Huntsville, AL 35814-4000

256 963-8000 voice  
256 963-8699 fax  
256 963-8200 fax back

**General Information**  
800 9ADTRAN  
info@adtran.com  
www.adtran.com

**Pre-Sales**

**Technical Support**  
800 615-1176 toll-free  
application.engineer@adtran.com  
www.adtran.com/support

**Where to Buy**  
877 280-8416 toll-free  
channel.sales@adtran.com  
www.adtran.com/where2buy

**Post-Sales**  
**Technical Support**  
888 423-8726  
support@adtran.com  
www.adtran.com/support

**ACES Installation & Maintenance Service**  
888 874-ACES  
aces@adtran.com  
www.adtran.com/support

**International Inquiries**  
256 963 8000 voice  
256 963-6300 fax  
international@adtran.com  
www.adtran.com/international

**For the regional office nearest you, visit:**  
www.adtran.com/where2buy



ADTRAN is an ISO 9001:2000 certified supplier.



ADTRAN is a TL 9000 3.0 certified supplier.

61200127L1#HS-8B May 2002  
Copyright © 2004 ADTRAN, Inc.  
All rights reserved.

# Dual DSU III Module

## Expansion and Plug-on Module for the TSU

### Product Specifications

#### Operating Modes

- Dedicated DDS (point-to-point, multi-point)
- Switched 56 (4-wire)

#### Data Rates

##### Dedicated Mode Service Rates

- 2.4, 4.8, 9.6, 19.2, 38.4, 56, and 64 kbps

##### Switched Mode Service Rate

- 56 kbps

#### DTE Rates Provided

- DTE-to-network rate matching in both 56 and 64 kbps service rates as well as switched mode

#### Synchronous Rates

- 2.4, 4.8, 9.6, 19.2, 38.4, 56, and 64 kbps

#### Asynchronous Rates

- 2.4, 4.8, 9.6, 19.2, 38.4, and 57.6 kbps

#### DTE Interfaces

- DTE interface supports both EIA-232 and V.35 electrical
- Two physical DB26 mini-DIN interfaces per card
- Physical 232 and V.35 DTE interfaces with adapter cable
- No adapter cable shipped with unit

#### Data Buffering

- Internal slack buffer

#### Switched Mode Dialing Options

- Stored number
- Front panel keypad from TSU Mux
- DTR dialing of stored number
- V.25 bis in-band dialing
- T-Watch PRO
- In-band AT commands

#### Diagnostics

##### Network

- OCU, CSU and DSU loopbacks

##### User

- Local DTE and network, remote V.54

##### Test Patterns

- 2047, 511, DDS stress patterns 1-4

#### Agency Approvals

- FCC Part 68, Part 15 A
- UL and CUL, Industry Canada CS03

#### Physical Specifications

##### Module Size

- Standard TSU, TDU or HSU option module
- Expansion module accepts other Plug-on modules
- Plug-on module works with any expansion module
- Both modules are hot swappable

#### 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

#### Product Includes

- User manual

### Ordering Information

Equipment	Part #
Dual DSU III (Module)	1200127L1#HS
Dual DSU III (Plug-on)	1200128L1
RS232 Cable	1200167L2
V.35 Cable	1200167L1



Specifications subject to change without notice. T-Watch PRO and TSU are trademarks of ADTRAN, Inc. ADTRAN is a registered trademark of ADTRAN, Inc. All registered trademarks and trademarks mentioned in this publication are the property of their respective owners.