

# TDU 110DC

## *T1-FT1 Rackmounted DSU/CSU*



### FEATURES

- **T1 facility interface compatible with D4(SF), ANSI ESE, or AT&T ESF framing with B8ZS or AMI coding**
- **1U high 19" rackmount enclosure**
- **DB15 network interface**
- **Provides a base DB15 DSX-1 interface**
- **Slot accepts option modules used in ADTRAN's TSU units providing flexibility or path for growth**
- **Ability to store two DS0 maps and switch configurations at predetermined times**
- **Front panel test and monitor jacks**
- **LEDs on the front panel indicate the status of each port**
- **Easy to follow menu system accessed with a terminal or a computer using T-Watch PRO**
- **19 to 60 VDC powering**

The TDU 110DC (T1 Distribution Unit) is an intelligent, full-featured, T1 DSU/CSU in a 1U high 19-inch rackmount enclosure. Designed to interface customers data terminal equipment (DTE) to T1 or Fractional T1 services, the TDU 110DC is fully compatible with D4 or ESF framing formats with AMI or B8ZS coding. When in ESF framing mode, the unit satisfies ANSI T1.403 and AT&T 54016 modes for utilization of the facility data link (FDL). It uses option modules identical to those used with other ADTRAN TSU units.

A base DB15 DSX-1 (PBX) interface is provided on the rear of the unit. The DSX-1 interface is a short haul T1 interface intended for connection to a PBX, cellular/PCS switch or similar device. The channels used by the DSX-1 port can be selected at random.

A major feature of the TDU 110DC is an option slot on the rear of the unit that accepts a single expansion module. A number of application-specific modules are available to provide flexibility and room for growth. The optional plug-in modules currently available include a Nx56/64 (V.35), Dual Nx56/64, DSX-1, OCU DP, DBU, FXS, FXO, 4-wire E&M, and Drop and Insert. Additionally, the plug-in modules are designed to accept a plug-on version of many of these modules.

Specialized applications such as Cellular and PCS infrastructure can benefit from the features of the Digital Cross Connect Module and the flexibility of the TSU/TDU family. The Digital Cross Connect Module provides a timeslot interchange function in the TDU between an incoming T1 signal and the module's secondary T1 interface. When used in the TDU 110/120, DS0s can arrive on a timeslot, be reassigned a different timeslot and passed through to the next destination.

The TDU 110DC is configured using a terminal or computer through a craft port located on the front of the unit or a rear-mounted daisy chainable control port. The terminal displays an easy-to-follow menu structure allowing the user to configure, monitor, and test the TDU 110DC. An optional software package, called T-Watch PRO™, is available to interface to the TDU 110DC. The T-Watch PRO software runs on a PC under Windows®, and allows full access to monitor and test several local and remote TDU devices. Pop-up menus provide complete configuration and diagnostic control with a few clicks of the mouse. Management of remote units may be in-band or out-of-band. Optional SNMP management is available using the Agent Module.

**ADTRAN**

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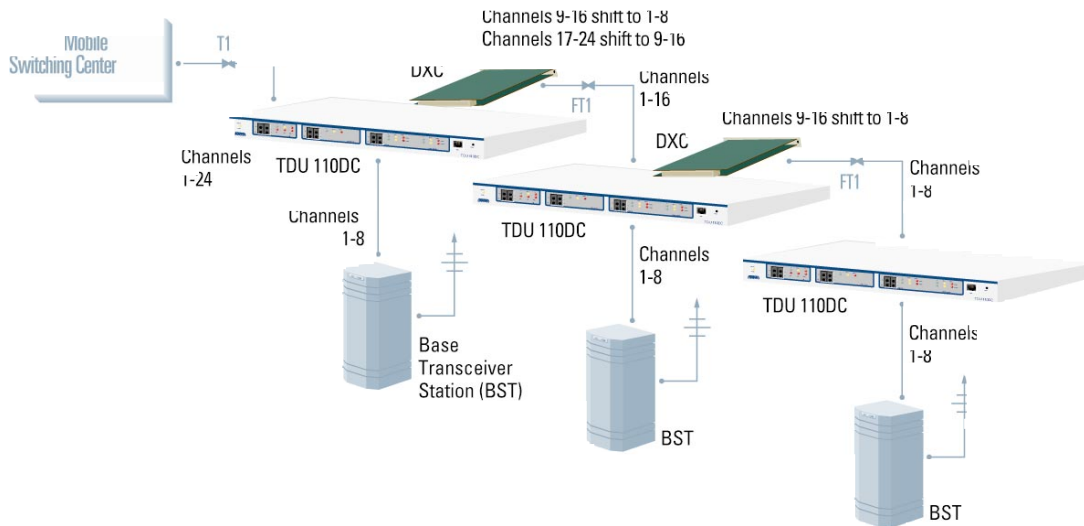
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## Product Specifications

### Network Interface

- Line Rate: T1 (1.544 Mbps)
- Physical: DB15 (M)
- Framing: D4/ESF
- Line Code: AMI/B8ZS
- ESF: AT&T 54016 or ANSI T1.403
- Input Signal: 0 to -36 dB
- DS0 Assignment: User selectable
- T1 Transmit Timing: Loop timed, internal, Base DSX-1, or secondary interface (if installed)

### DSX-1 Interface

- Line Length: 0-655 ft
- Physical: DB15 (F)
- Framing: D4/ESF
- Line Coding: AMI/B8ZS

### Tests

- Local: Payload/Line (NI)
- Remote: Payload/Line (NI)
- Pattern:
  - 511 (selectable DS0s)
  - QRSS (selectable DS0s)
- All 1's & All 0's

### Front Panel Test Jack Access

- CSU: In, Out and Monitor
- DSX: In, Out and Monitor

### Performance Monitor

- Error Counts: ES, SES, UAS, % AS, % EFSEC, Alarms, error rates
- Reports: NI information stored for last 24 hours in 15 minute increments
- PRMS: ANSI Performance Report Messages (selectable)

### Management Options

- Management Systems: T-Watch PRO or SNMP Agent
- Management Channels: FDL

### Physical

- Size: 1.7" H, 11.625" D, 17" W fits 1U high 19" rack space
- Weight: 7 lbs
- Power: 120 VAC, 9W
- 23" Rack Kit: 1200.171L1

### Environment

- Operating Temperature:
  - 0°C to 50°C
  - 32°F to 122°F
- Storage Temperature:
  - 20°C to 70°C
  - 4°F to 158°F

## Ordering Information

### TDU 110 DC

- PART NUMBER: 1200190L1

### Other Products for Cellular/PCS Infrastructure

EQUIPMENT	PART NUMBER
■ 2FXS+ Module	1200080L1 #HS
■ DSU III Module	1200127L1 #HS
■ RS 232 I/F Cable	1200167L2
■ DXC P/O Module	1200168L1

Specifications subject to change without notice.

Call for individual module information.

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