

# 7110 SNMP T1/FT1 DSU/CSU



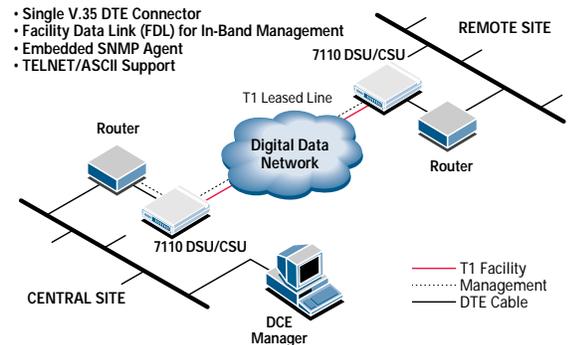
## BENEFITS

- SIMPLE TO INSTALL AND SETUP USING EASY-TO-FOLLOW INSTRUCTIONS
- STANDARD INTERFACE CONNECTORS FOR DATA EQUIPMENT, NETWORK MANAGEMENT AND TERMINAL PORTS
- MANAGED BY PARADYNE'S DCE MANAGER AND PERFORMANCE WIZARD™ SNMP APPLICATIONS
- MANAGEMENT AND DIAGNOSTICS TO A REMOTE SITE WITHOUT DEPENDENCY ON THE ROUTER VIA FDL. THIS PROVIDES THE ABILITY TO TEST THE T1 CIRCUIT AND THE 7110 DSU/CSU EVEN IF THE ROUTER IS NOT FUNCTIONAL.
- MULTIPLE MANAGEMENT METHODS (ASCII, TELNET, IN-BAND, OUT-OF-BAND) OFFERS FLEXIBILITY TO MATCH INSTALLATION AND APPLICATION REQUIREMENTS
- FULL NETWORK, DIAGNOSTIC, AND MANAGEMENT COMPATIBILITY WITH PARADYNE'S ACCULINK® 3160 SERIES DSU/CSUs
- PEACE OF MIND KNOWING YOU HAVE SELECTED ONE OF THE MOST RELIABLE T1 SNMP DSU/CSUs IN THE INDUSTRY

**E**conomical, reliable transportation for application data traffic is provided by Paradyne's 7110 SNMP T1/Fractional T1 DSU/CSU, making today's network manager worry free. State-of-the-art design is ideal for today's standards-based management networks, providing a single V.35 DTE port for data applications and two EIA-232 ports for SNMP management and ASCII setup. The 7110 supports Facility Data Link (FDL) for non-disruptive, in-band SNMP management over T1 networks and provides SNMP management over Fractional T1 and Frame Relay networks with a connection from the 7110 management port to a remote router AUX port or external LAN adapter.

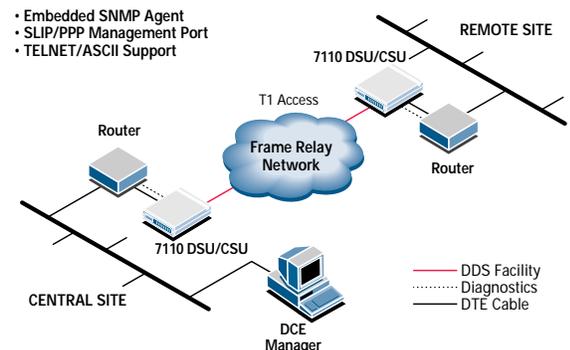
### T1 NETWORK APPLICATION

The 7110 supports Facility Data Link (FDL) for in-band SNMP management of remote 7110 DSU/CSUs. The FDL supported in the 7110 is fully compatible with Paradyne's 3160/3164 DSU/CSUs. The in-band management over the T1 circuit eliminates the need for a management connection at the remote site. This saves the cost of an additional router port or the cost of an external LAN adapter at the distant end.



### FRAME RELAY NETWORK APPLICATION

The 7110 DSU/CSU is a natural fit in Frame Relay networks. Remote management is provided through a router AUX port or an external LAN adapter. The 7110 presents a very cost effective option for high-speed access over Frame Relay networks. The unit offers SNMP management for maximizing network availability on mission-critical applications.

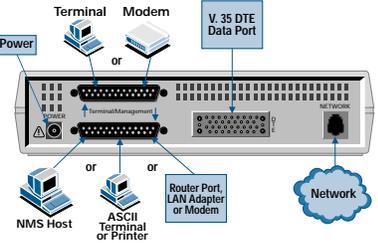


# FEATURES

- DIRECT SNMP MANAGEMENT
- T1 AND FT1 SUPPORT
- SINGLE V.35 DATA PORT
- PROVIDES FDL FOR T1 IN-BAND SNMP MANAGEMENT
- SUPPORTS Nx56 AND Nx64 Kbps APPLICATIONS
- FRIENDLY ASCII (VT-100) USER INTERFACE
- DUAL EIA-232 (DB-25) CONNECTORS FOR ASCII INTERFACE AND NETWORK MANAGEMENT
- SLIP OR PPP MANAGEMENT CONNECTION PROTOCOL
- MIB II AND ENTERPRISE MIB SUPPORT
- TELNET
- 5-YEAR WARRANTY, RETURN TO FACTORY

## PORTS AND CONNECTORS

The 7110 provides a single V.35 connector for connection of a router or other data equipment (DTE). The ASCII terminal port can support either a direct connect ASCII terminal for local setup and diagnostics, or a modem connection for remote access to the terminal port for setup and diagnostics. The management port can be directly connected to an SNMP manager, an ASCII terminal or printer for alarms to be printed, or connected to a router port or external LAN adapter for SNMP management.



## 7110 SPECIFICATIONS

### Approvals

FCC Part 15: Class A digital device  
FCC Part 68: Refer to the equipment's label for Registration Number  
Listed UL 1950  
Certified CSA 1080.0 M1983  
Safety: Certified Component CSA 22.2, No. 950-M93  
Emissions Class A digital apparatus

### Clock Sources

T1 network interface, port, or internal clock

### Environment

Operating Temperature: 32° to 122° F (0° to 50° C)  
Storage Temperature: -4° to 158° F (-20° to 70° C)  
Relative Humidity: 5% - 95% (non-condensing)  
Shock and Vibration: Withstands normal shipping and handling

### Network T1 Interface

Physical Interface (USA): RJ48C  
Physical Interface (Canada): CA81A using adapter cable (Optional feature 3100-F1-501)  
Framing Format: D4, ESF  
Coding Format: AML, B8ZS  
Line Build-Out (LBO): 0.0 dB, -7.5 dB, -22.5 dB  
ANSI PRM: Selectable  
Bit Stuffing: FCC Part 68, AT&T TR 62411

### Loopbacks

Standard: AT&T TR 54016, AT&T TR 62411, ANSI T1.403.1989  
Additional: LLB (Line Loopback), PLB (Payload Loopback), RLB (Repeater Loopback), DTLB (Data Terminal Loopback), DCLB (Data Channel Loopback), V.54 Loop 2 and Loop 3, ANSI T1.403 Annex B Fractional T1 Loopback

### Front Panel Indicators

System LEDs:

OK = Normal Operation  
FAIL = Fault in DSU  
TEST = Test in Progress

Network LEDs:

SIG = Signal Present  
OOF = Out of Frame  
ALARM = Alarm Condition  
EER = Excessive Error Rate

Port LEDs:

TXD = Transmit Data  
RXD = Receive Data  
RTS = Request To Send  
CTS = Clear To Send  
DTR = Data Terminal Ready

### NMS Compatibility

SNMP Network Manager

### IP Connectivity

Up to 20 routes

### MIB II Object Groups Supported

- ICMP group
- Interfaces group:
  - T1 network
  - DTE Data port
  - Terminal port
  - Management port
- IP group
- SNMP group
- System group
- TCP group
- Transmission group:
  - T1 network - DS1/E1 MIB
  - DTE Data port - RS-232-like MIB
  - Terminal port - RS-232-like MIB
  - Management port - RS-232-like MIB
- UDP group

### DTE Port Interface

Standards: 34-pin connector (socket) ITU V.35 (ISO 2593)  
Rates: Nx64: 64 Kbps - 1.536 Mbps  
Nx56: 56 Kbps - 1.344 Mbps

### Management Port

25-pin DB-25 connector (socket)  
EIA-232 / ITU V.24 (ISO 2110)

### Management Port Data Rates

9.6, 14.4, 19.2, 28.8, and 38.4 Kbps  
Synchronous/Asynchronous  
2.4, 4.8 asynchronous only

### Terminal Port

25-pin DB-25 connector (socket)  
EIA-232 / ITU V.24 (ISO 2110)

### Terminal Port Data Rates

2.4, 4.8, 9.6, 14.4, 19.2, 28.8, and 38.4 Kbps

### Async Terminal

ANSI X3.64/VT-100 compatibility  
Data Rate: 2.4, 4.8, 9.6 (Default), 14.4, 19.2, 28.8, and 38.4 Kbps  
8 bits per character, 1 stop bit, no parity

### Housing

Height: 2.13" (54.1mm)  
Width: 9.14" (231.2mm)  
Depth (case): 6.15" (157.5mm)  
Depth (case and connectors): 6.51" (164.3mm)

### Power Consumption and Dissipation

4.5 watts, 15.4 BTU/hr. at 120V AC

### Power Requirements

120V AC  $\pm$  12V AC  
60 Hz  $\pm$  3 Hz

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