Nx56/64 Solutions

Expansion and Plug-On Modules for the TSU

Product Features

- Nx56/64 data interfaces for the TSU multiplexer family

- Five different modules to meet a variety of installation requirements

- Single V.35, dual V.35 and single EIA-530 interfaces available

- All modules provide Nx56/64 synchronous operation

- Built in test capabilities to aid in troubleshooting

- Operation for 1 to 24 DS0s per interface

- T-Watch PRO monitoring and control

- Easy configuration from the front panel, T-Watch PRO or VT100 terminal

- Industry-leading five-year North American warranty

The ADTRAN® TSU multiplexer family provides end users flexibility with the capability to add and remove option modules for voice, data and video. Some of the most popular applications in which the TSU™ is used involve high speed data interfaces for routers, audio broadcasting systems, and video-conferencing systems. To meet the requirements for high-speed, programmable, synchronous data, ADTRAN provides five Nx56/64 modules for V.35 and EIA-530 DTE interfaces. The basic expansion modules plug in to the available expansion slot of a TSU multiplexer. Plug on modules plug on to an expansion module.

Designed to interface with standard DTE connectors on routers, bridges, codecs and switches, the ADTRAN Nx56/64 modules provides synchronous data at rates from 56 kbps to 1.536 Mbps. To aid in setup and troubleshooting, the modules provide local and remote loopbacks and built-in test patterns with errored seconds display. In addition, the optional T-Watch PRO™ software package can be used to configure, test and control each Nx56/64 module.

Nx56/64 V.35 Expansion Module and Plug-On Module

When a small number of high speed DTE ports are required, the network manager may choose to use the Nx56/64 V.35 Module or Plug-On. Providing a single, female V.35 Winchester interface, the Nx56/64 V.35 Module provides a standard interface to synchronous data applications.

Using the built-in 8 kbps inband management channel, the Nx56/64 V.35 Module provides an end-to-end communications channel for SNMP (Telnet) traffic or T-Watch PRO commands from the host site TSU. The Nx56/64 V.35 (expansion) Module will accept most plug-on modules while the Nx56/64 V.35 Plug-On Module works with any TSU expansion module.

DUAL Nx56/64 Expansion Module and Plug-On Module

When density is an issue in your TSU multiplexer installation, the Dual Nx56/64 Module or Plug-On should be used. Providing two miniature DB-26 interfaces, this module uses adapter cables to provide a female V.35 Winchester interface. The Dual Nx56/64 Module provides two standard synchronous data interfaces suitable for most high speed data applications.

Using the same 8 kbps inband management channel as the Nx56/64 V.35 Module, the Dual Nx56/64 Module also provides an end-to-end communications capability for SNMP (Telnet) and T-Watch PRO.

Nx56/64 EIA-530 Expansion Module

When your application requires an EIA-530 or EIA-449 interface, the Nx56/64 EIA-530 (expansion) Module should be selected. Available as a plug-in module only, the EIA-530 (expansion) Module provides a single, female DB-25 interface which can be adapted to EIA-449 (user supplied cable). For future expansion, the Nx56/64 EIA-530 (expansion) Module will accept most plug-on modules.

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Expansion and Plug-On Modules for the TSU™

Product Specifications

Nx56/64 V.35 (Expansion) Module and Plug-On
DTE Interface
- CCITT V.35, Electrical

Connector
- 34 pin V.35 Winchester DTE (Female)

Slot Capacity
- Expansion module plus plug-on provides 2 DTE interfaces

Dual Nx56/64 Expansion Module and Plug-On
DTE Interface
- Dual CCITT V.35, Electrical

Connector
- Sub-miniature DB26
- Adapter available for physical CCITT V.35 34 pin Winchester (Female)

Slot Capacity
- Expansion module plus plug-on provides 4 DTE interfaces

Nx56/64 EIA-530 (Expansion) Module
DTE Interface
- EIA-530, Electrical

Connector
- DB 25 DTE (Female)

Slot Capacity
- Expansion module provides 1 DTE interface

Common Specifications
Rates
- 56k to 1.536 Mbps in 56k or 64k increments, Synchronous

Clock Options
- Internal
- Inverted
- External

Data Inversion
- Menu selectable

Test
- Local Loopback (Bilateral)
- Remote (V.54)
- Self test

Test Pattern Generation
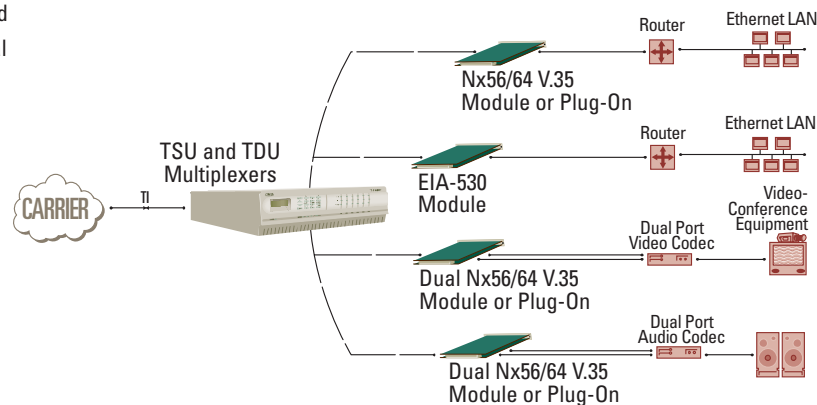- 511 with errored seconds display

InBand Management
- 8k on first DS0 (V.35 modules only)
- Off, On or On demand

Physical Specifications
- Standard TSU™ option slot format
- Expansion module accepts other plug-on module
- Plug-on module works with any expansion module
- All modules are hot swappable

Ordering Information

Equipment	Part #
ATNx56/64 V.35 (expansion) Module™	1202054L1
Nx56/64 V.35 Plug-On™	1202053L1
Nx56/64 EIA-530 (expansion) Module	1200054L2
Dual Nx56/64 (expansion) Module	1200142L1#HS
Dual Nx56/64 Module (expansion) w/ cables	4200142L1#HS
Dual Nx56/64 Plug-On	1200159L1
Dual Nx56/64 Plug-On w/ cables	4200159L1
Adapter Cable (6 ft.)	1200167L1

Router — Ethernet LAN
Nx56/64 V.35 Module or Plug-On

Router — Ethernet LAN
EIA-530 Module

TSU and TDU Multiplexers

CARRIER — T1

Dual Port Video Codec — Video-Conference Equipment
Dual Nx56/64 V.35 Module or Plug-On

Dual Port Audio Codec
Dual Nx56/64 V.35 Module or Plug-On