

TURBO

PicoTURBO

- **Affordable Remote Site Multi-Protocol Frame Relay and X.25 Connectivity**
- **Supports Synchronous, Asynchronous devices**
- **Wide Selection of Protocols Supported**
- **1988 CCITT Compliance with X.25, X.3, X.28, X.29 and X.121**
- **SNMP Manageable**
- **Integrates a PAD, 3-Port Switch and Protocol Concentrator into on Low-Cost Unit**
- **Ideal for Connecting Remote Sites to Public or Private Packet Data Networks**

X.25 and Frame Relay Switch, PAD and Protocol Concentrator

NSGDatacom's PicoTURBO is a low-cost, high-performance, fully featured Frame Relay FRAD and X.25 PAD which concentrates two synchronous or asynchronous data channels into a dial-up or leased line at speeds of up to 256 Kbps. It supports packet sizes of up to 4096 bytes and has a maximum throughput of 60 packets per second for 128-byte data packets.

Each port can be configured quickly and easily to one of several synchronous protocols or to an asynchronous PAD port. The synchronous ports support a wide range of protocols including X.25, X.3/X.28/X.29, Frame Relay, HDLC, QLLC, and SDLC. Optional support is available for Bisynchronous 3270 and 2780/3780, Burroughs Poll Select, SNA Logical Unit Session Switching, NEC, Multidrop X.25, X.32 Dial-Out, and X.75 Gateway. Support for other specialized protocols are available upon request. Unit management is provided via any SNMP compatible network management system.



The PicoTURBO is fully programmable, menu-driven, and provides full support for most CCITT facilities. It allows permanent virtual circuits or switched virtual circuits on a per-port basis in any combination.

Optional software download capability enables new software to be installed without interrupting normal network operation. The unit supports two concurrent software loads, which may be switched via the network management or MMI interface, allowing installation and testing of new software features prior to converting the entire network.

Competitively priced, the three-port PicoTURBO is an ideal Frame Relay and X.25 access unit for connecting remote sites to public or private packet data networks. With its wide selection of available protocol support, the PicoTURBO is able to accommodate both synchronous and asynchronous remote uses in a single low-cost packet switching system.

Communication solutions from

NSGDatacom

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Product Features

Protocol Support

- **Standard**
 - X.25
 - Frame Relay
 - X.3/X.28/X.29
 - HDLC LAPB
 - IBM QLLC
 - IBM SNA/SDLC
 - SCADA
 - Bit and Byte Synchronous PAD (Sypad)
 - SNMP
- **Optional**
 - Bisynchronous 3270 and 2780/3780
 - Burroughs Poll Select
 - SNA Logical Unit Session Switching
 - NEC
 - Multidrop X.25
 - X.32 Dial-Out
 - X.75 Gateway

Link Level

- **Framing:**
 - X.25/HDLC, SNA/SDLC, Frame Relay
- **Procedure:**
 - LAP and LAPB or SDLC (SDLC NRM/UNC)
- **Addressing:**
 - DTE or DCE (selectable per port)
- **Parameters:**
 - K: 1 to 7 (modulo 8) and 1 to 127 (modulo 128) standard.
 - N1: 128, 256, 512, 1024, 2048, 4096
 - N2: 1 to 100
 - T1: 1 to 120 seconds; LQA timer
- **Numbering:**
 - Modulo 8 and modulo 128 standard

X.25 Features

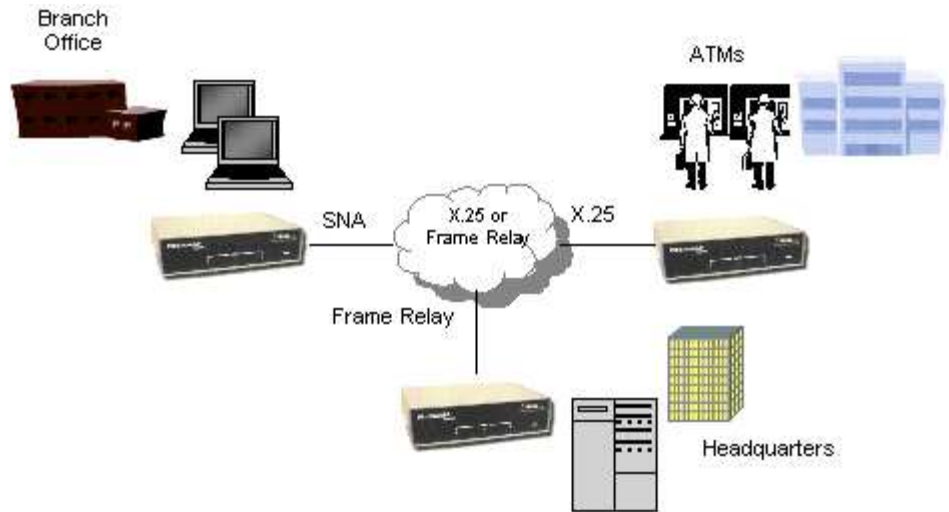
- Broadcast capability
- Billing and Statistics
- Window and Packet Size Negotiation
- Throughput Class Negotiation
- Reverse Charging

Packet Level

- **Service:** SVC and/or PVC on a per-port basis.
- **Numbering:** Modulo 8 and modulo 128 standard.
- **Data Fields:** Octet aligned.
- **Logical Channels:** 32 per port, expandable.
- **Logical Channel Number Range:** 1 through 4095, concurrently, with ascending and descending assignment.
- **Address Format:** Up to 15 digits; supports abbreviated addressing, subaddressing and subaddressing via the Call User Data field.
- **Routing:** Fixed path routing via primary and alternate links with load balancing.
- **Window Size:** 1 to 7 (modulo 8) and 1 to 127 (modulo 128) standard.
- **Packet Size:** Selectable up to 4096 octets.
- **D-bit, M-bit and Q-bit:** Fully supported.
- **Packet Throughput:** Up to 60 packets per second (128-byte data packets).

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Physical

- **Size:** 2.5" H x 8.09" W x 6.25" D
- **Environment:**
 - Operating Temperature: 0° to 40° C (32° to 104° F)
 - Storage Temperature: -20° to 70°
 - Humidity: 95% non-condensing

Electrical

- **Power:**
 - External Power Supply
 - Input 115 or 240 VAC @ 50/60 Hz
 - Output: 9 VAC, .5 Amp
- **Connectors:**
 - EIA RS-232-C (V.24/X.21 bis) male connector. The command facility may be accessed from any port.
- **Data Rates:**
 - Asynchronous: 50 bps to 38.4 Kbps
 - Synchronous: 1200 bps - 256 Kbps (Higher data rates require external line drivers and external clocking).
- **Clocking:**
 - Internal or external, software selectable.

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