



**PicoTURBO II**

**Legacy to IP Protocol Converter  
For Point-of-Sale Applications**

- **Affordable Remote Site Multi-Protocol IP Connectivity**
- **Supports Synchronous, Asynchronous and Ethernet 10Base-T Devices**
- **Protocols including X.42 with Spoofing, Frame Relay, X.25, TCP/IP and XOT (RFC 1613) supported**
- **Optional Automatic Failover Protection**
- **SNMP and Enhanced Management**
- **VPN Security**
- **Ideal for Connecting Point-of-sale terminals at Remote Sites through Public or Private IP Networks**

NSGDatacom's PicoTURBO II is a low-cost, high-performance, fully featured multi-protocol switch/router. With three serial ports and one Ethernet 10Base-T port, it can concentrate two synchronous or asynchronous data channels into a dial-up or leased line at speeds up to 2.0 Mbps. Alternatively, the PicoTURBO II can transport WAN protocols over IP via it's Ethernet 10Base-T interface, or it can transport IP over X.25, Frame Relay, Satellite, DSL, or Wireless networks. It supports packet sizes up to 4096 bytes and has a maximum throughput of 60 packets per second for 128-byte data packets. Depending upon network requirements the TURBO products can be configured with VPN security, integrated ISDN, wireless modem, analog modem, or CSU/DSU modules.

Each serial 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 in addition to X.25, including X.3/X.28/X.29, Frame Relay, HDLC, QLLC and SDLC. Support is available for X.42 with spoofing, Bisynchronous 3270 and 2780/3780, SCADA, 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 is available upon request. Unit management may be accomplished via any SNMP-compatible network management system.

The PicoTURBO II is available in desktop and rack mountable forms. Our Standard version where has serial ports fixed as RS-232 ports. In our Enhanced version, the three serial ports can be configured as RS-232/V.24, X.21 or V.35. Serial ports use DB25 connectors, thus adapter cables are available for X.21 and V.35 interfaces.

The PicoTURBO II is programmed and managed (in or out of band) by the NSGDatacom Network Management System. The product is menu-driven, and provides full support for most CCITT facilities. Additionally, if required, industry standard MIBs can be provided for integration with customers' NMS.

The 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 II with Ethernet is an ideal solution for connecting remote sites to public or private data networks, including the Internet. With its wide selection of available protocol support, the PicoTURBO II is able to accommodate synchronous, asynchronous and Ethernet users in a single low-cost access concentration device.



*Communication solutions from*

**NSGDatacom**

*extend. evolve. innovate.*

## Product Features

### Protocol Support

- **Standard**
  - X.42 with spoofing
  - X.25
  - Frame Relay
  - Ethernet 10Base-T
  - IP, TCP, UDP, ICMP, RIP, XOT (Cisco X.25 over TCP—RFC 1613)
  - X.3/X.28/X.29
  - SCADA
  - HDLC LAPB
  - IBM QLLC
  - IBM SNA/SDLC
- **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

### 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).

### X.25 Features

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

### IP Routing

- IP Static Routing Table
- Dial-Up and DLCI IP configuration
- RIP configuration
- TCP Port configuration
- TCP Broadcast

### Physical

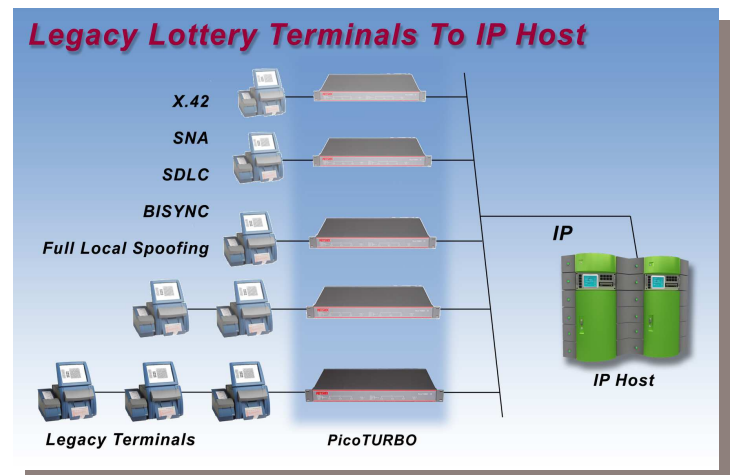
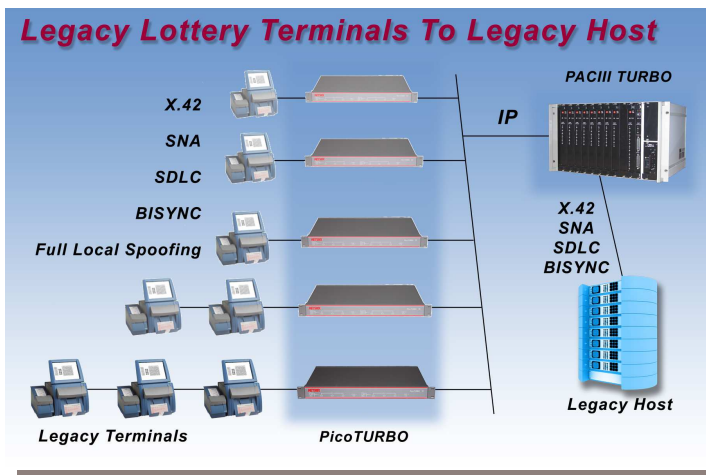
- **Size:**
  - Desktop: 2.5" H x 8.09" W x 6.25" D
  - Rack Mount: 1.75" H x 19" W x 6" D
- **Environment:**
  - Operating Temperature: 0° to 40° C (32° to 104° F)
  - Storage Temperature: -20° to 70° C (-4° to 158° F)
  - Humidity: 95% non-condensing

### Electrical

- **Power:**
  - External Power Supply
  - Input 115/240 VAC @ 50/60 Hz
  - Output: 5 VDC, 4.0 Amp
- **Connectors:**
  - DB-25 male connectors
  - RS-232/V.24 in Standard Version
  - RS-232/V.24, X.21 or V.35 in Enhanced Version
  - 10Base-T Ethernet port
- **Data Rates:**
  - Asynchronous: 50 bps to 38.4 Kbps
  - Async PPP: 50 bps to 115.2 Kbps
  - Synchronous: 1200 bps - 2.0 Mbps.
- **Clocking:**
  - Internal or external, software selectable.

### Option

- Integrated modem for automatic dial back-up in case of primary link failure
- VPN Security—IPSec compliant



# NSGDatacom

[www.nsgdata.com](http://www.nsgdata.com)

3863 Centerview Drive, Suite 100  
Chantilly, VA, 20151-3232 USA  
Phone: +(1) 703 793 2000  
Fax: +(1) 703 793 2001

7435 New Technology Way  
Frederick, MD, 21703 USA  
Phone: +(1) 301 662 5926  
Fax: +(1) 301 694 6279

The Brackens, London Road  
Ascot, Berkshire SL5 8BE, UK  
Phone: +(44) 1344 893 000  
Fax: +(44) 1344 891 990