

## *Extreme Copper NT 200 ADSL Modem*



Extreme Copper's NT 200 is a fully featured ADSL modem and more. Allowing an "always on" high-speed broadband connection to the Internet using existing twisted-pair telephone lines to deliver data rates at more than 100 times the speed of conventional dial-up modems. Data transfer rates of up to 8 Mbps downstream and 1 Mbps upstream make it the ideal solution for high-bandwidth applications for Internet access, video delivery, or other streaming media.

The NT 200 is designed using the latest technology featuring a USB 1.1 compliant interface and an IEEE 802.3 compliant Ethernet MAC interface to provide connectivity options, it does not rely on host PC drivers, and thus is not limited by them. The NT 200 is also fully auto-provisioning in accordance with the DSL Forum Technical Report TR37. The result is extreme ease-of-use with active auto selection of the interface and simultaneous operation of both USB and Ethernet.

Through the use of a flash file system, firmware upgrades are easily managed,

- Complete ADSL router
- Full-rate ADSL and G.lite operation
- Annex A and Annex B support
- Integrated 10/100 Ethernet MAC
- USB 1.1 Interface
- 802.11b Wireless Access Point Interface
- Simultaneous USB and Ethernet operation
- Complete network stack including bridge and router operation
- Web-based management
- DSL Forum TR 37 compliant

allowing for simple, reliable product updates or feature enhancements.

The NT 200 is built upon a scalable architecture and is fully compliant with full-rate ADSL (T1.413 Issue 2 and G.dmt standards) and the "splitterless" G.lite (G.992.2) standards, including Annex A (ADSL over POTS) and Annex B (ADSL over ISDN). This broad level of standards compliance ensures the NT 200 can address the customer's existing installed base and continued deployment of ADSL lines. Telephone companies, for example, can deploy full-rate, splitterless full-rate, as well as G.lite to the consumer.

Networking support includes both bridge and router modes. The router mode includes advanced features such as Network Address Translation (NAT), Dynamic Host Protocol (DHCP) and Routing Information Protocol (RIPv2).

## NT 200 Features and Specifications

- ADSL Compliance
  - Compliant with ADSL standards
    - Full-rate ANSI T1.413 Issue 2 and ITU G.dmt (G.992.1) standards
    - Splitterless ITU G.lite (G.992.2) specification
    - Annex A (ADSL over POTS) and Annex B (ADSL over ISDN)
  - DMT modulation and demodulation
  - Full-rate adaptive modem
    - Maximum downstream rate of 8 Mbps
    - Maximum upstream rate of 1 Mbps
  - Tone detection for low power mode
  - Supports splitterless ADSL implementation
  - Supports Dying Gasg
  - Interoperable with all major DSLAM equipment
- ATM Protocols
  - WAN mode support: PPP over ATM (RFC 2364) and PPP over Ethernet (RFC 2516)
  - LAN mode support: bridged/routed Ethernet over ATM (RFC 1483) and classical IP over ATM (RFC 1577)
  - ATM Forum UNI 3.1/4.0 PVC
  - Up to 8 VCs (virtual circuits)
  - ATM AAL5 (adaptation layer type 5)
- Bridge Mode
  - Ethernet to ADSL self learning Transparent Bridging (IEEE 802.1D)
  - Supports up to 128 MAC learning addresses
- Router Mode
  - IP routing-RIPv2
  - Static routing
  - DNS Proxy
  - Port Forwarding
  - DHCP (dynamic host configuration protocol) server and client
  - NAT (network address translation)
  - NAPT (network address and port translation)
  - ICMP (Internet control message protocol)
  - Simultaneous USB and Ethernet operation
- Security
  - 802.1x Access Control
  - WEP Encryption capable
  - User authentication for PPP
  - PAP (password authentication protocol)
  - CHAP (challenge authentication protocol)
  - Password protected system management
- Ethernet Interface
  - IEEE 802.3 compliant
- 10/100 Mbps
- Media Independent Interface (MII)
- USB Interface
  - Compliant with USB Specification, Revision 1.1
  - USB full speed (12 Mbps)
  - Vendor-specific descriptors
  - Windows and Macintosh OS support
- Wireless Interface
  - PCMCIA-like interface to 802.11b subsystem
- HTTP Web-Based Management
  - Firmware upgrade via FTP
  - Customizable Web pages
  - WAN and LAN side connection statistics
  - Configuration of static routes and routing table
  - Configuration of NAT/NAPT
  - Password protected access
  - Selection of bridge or router mode
  - PPP user ID and password
  - Configuration of VCs (virtual circuits)
- Electrical
  - External AC power cube
  - 90 to 240 VAC @ 47 to 63Hz.
  - 1.5 Watt
  - Connectors
    - USB 1.1 connection
    - RJ45 for 10BaseT Ethernet access
    - RJ11 for ADSL access
  - Indicators
    - Power
    - Ethernet "Good Link",
    - Ethernet "Activity",
    - ADSL "Sync",
- Mechanical
  - Height 1.75in (4.4cm)
  - Depth 5.0in (12.6cm)
  - Width 4.5in (11.3 cm)
- Operating Environment
  - Telcordia GR-57-Core
  - Temperature: -40°C to +65°C
  - Humidity: 10- 95%, non-condensing
- Regulatory Compliance
  - UL 1950/ CSA C22.2 No.950
  - FCC Part 15 Class B
  - ICES-003 Class B emissions
  - FCC Part 68/ CS-03
  - CE mark

