PRODUCT INFORMATION

Ascend NetWarp 128



Remote Access ▾ Telecommuting ▾ Internet Access

High-speed access to the Internet or corporate LAN doesn't have to be expensive. The NetWarp 128 high-performance terminal adapter brings the power of ISDN to your desktop.

Ascend's NetWarp™ 128 ISDN terminal adapter provides a cost-effective solution for high-speed remote access to the Internet or enterprise networks. It is affordable enough for use by individuals and powerful enough for server-based branch office internetworking. By interfacing directly to the PC's ISA bus as a network adapter, the NetWarp 128 gives users the full bandwidth available from an ISDN BRI line.

The card's unique IntelliSense™ capability, combined with support for standard Plug-and-Play, simplifies ISDN installation and setup. Its innovative design reduces the number of on-board components and offers a highly reliable solution for use at home or in remote offices. The NetWarp 128 package includes everything needed to connect a stand-alone PC to high-speed ISDN services.

ASCEND

Networking Solutions for Home Offices and Telecommuters

ISA bus network interface assures peak performance for maximum productivity

The NetWarp 128 gives users the full bandwidth available from an ISDN BRI line. A 16-bit ISA bus half card that interfaces as a network adapter, the NetWarp 128 delivers up to 512 Kbps of throughput using compression features.

- Support for 128 Kbps synchronous Multilink PPP gives users maximum data transfer rate
- Built-in Microsoft and Stac compression increases throughput up to 512 Kbps
- Simultaneously connects to two separate locations through a single BRI line
- Basic functionality such as HDLC frame formatting and on-chip buffering are implemented in hardware for optimal performance

Cost-effective solution for remote corporate LAN and Internet access

The NetWarp 128 is the price/performance leader for Internet users and telecommuters. It supports all Microsoft operating systems and includes everything needed for connecting to the power of ISDN.

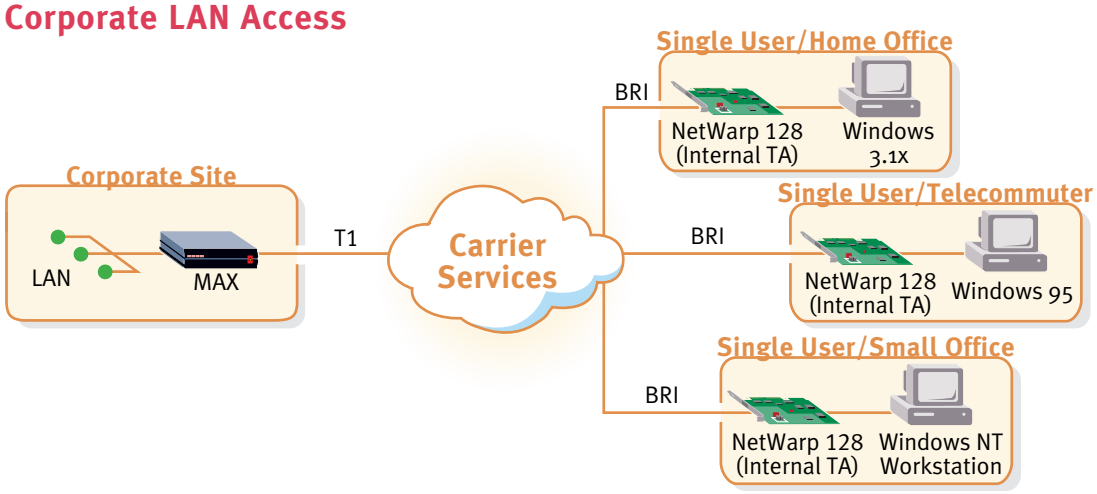
- Compatibility with Microsoft Dial-Up Networking supports essential features such as dynamic IP addressing, compression and authentication
- Support for all Microsoft Windows operating systems (Windows 95, Windows NT 3.5x/4.0 and Windows 3.1x)
- An on-board NT-1 eliminates the need for any external adapters or accessories
- Package includes Microsoft Internet Explorer, Microsoft ISDN Accelerator, user manuals, NetManage Web Kit, ISDN diagnostics software and RJ-45 cable

Software-based design protects your investment against product obsolescence

Users can upgrade the NetWarp 128 through simple, inexpensive software updates. As a result, the NetWarp 128 readily adapts to your changing networking needs.

- NetWarp drivers including NDIS WAN Miniport, ISDN Layer-2, Layer-3, and D and B channel device drivers are implemented in software for future upgradability
- Latest driver updates readily available from Ascend's web site

Corporate LAN Access



The NetWarp 128 gives telecommuters and workers in small offices high speed access to the corporate LAN, whether they are using Windows 3.1, Windows 95 or Windows NT.

Auto-configuring capabilities simplify installation and setup procedures

With industry standard Plug-and-Play and NetWarp's unique IntelliSense, installation can be completed by novice users simply and quickly. The NetWarp 128 automatically detects carrier switch type and line speed, eliminating the frustration of manually entering protocol parameters.

- Plug-and-Play support automatically senses and assigns IRQ and I/O addresses
- IntelliSense automatically configures the carrier's switch type and 56/64 Kbps channel data rate
- Software-based configuration eliminates the need for manually setting jumpers or switches
- On-screen "virtual LEDs" indicate successful installation and proper working status
- Menu-driven setup utility facilitates easy installation

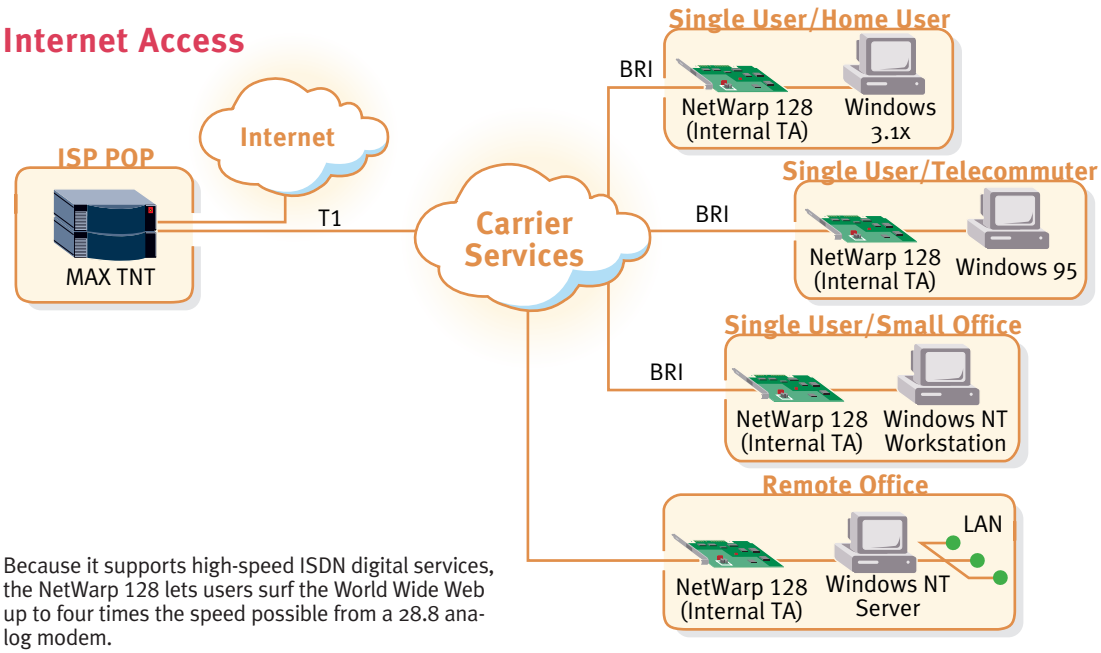
State-of-the-art, passive architecture offers unsurpassed reliability for dependable operation

NetWarp's advanced design minimizes the number of complex components on the board. The lower component count results in fewer possible points of failure for exceptional product reliability. Ascend includes a three-year limited warranty for factory repair or replacement of every NetWarp 128 card.

NetWarp 128



Internet Access



Because it supports high-speed ISDN digital services, the NetWarp 128 lets users surf the World Wide Web up to four times the speed possible from a 28.8 analog modem.

Hardware Specifications

Dimensions	6.63 in. X 4.63 in. (NetWarp 128-U) 6.25 in. X 2.50 in. (NetWarp 128-S/T)
WAN Interfaces	BRI U (Model: N128-UI) S/T (Model N128-SI)
Connectors	RJ-45 jack (ISDN)
Operating Requirements	Power: +5 VDC at 0.5 amp. maximum Temperature: 0-55˚F (32-131˚C) Humidity: up to 90% non-condensing
System Requirements	ISA bus 486 or greater IBM compatible PC ISDN Basic Rate Interface (BRI) digital telephone line One RJ-45 cable (included) Microsoft WIN95, Windows 3.1 or Windows NT 3-10 MB of available hard disk space 3.5-inch high-density disk drive or CD-ROM drive
Regulatory Compliance	FCC Part 15, Class B CSA

Software Specifications

Operating System Supported	Windows 95, Windows 3.1x, Windows NT 3.5x and 4.0
WAN Protocols Supported	Synchronous PPP, Multilink PPP
Security	PAP and CHAP
ISDN Signaling Protocols	National ISDN NI-1, Nortel DMS 100, AT&T 5ESS Custom, ETSI Net-3 (Europe), INS-64 (Japan)
Compression	Microsoft/Stac
Software compatibility	WIN95 and Windows NT 3.5x/4.x (32-bit VxD driver), Windows 3.1x (16-bit DLL driver), Microsoft Dial-Up Networking, Network Driver Interface Specification (NDIS WAN Miniport), Windows ISDN API (WinISDN), WinSock API (TCP/IP)
Package Contents	ISDN terminal adapter ISA card, RJ-45 ISDN cable Installation, operating and diagnostic software NDIS WAN Miniport driver for Windows 95 and Windows NT Microsoft ISDN Accelerator Pack Internet access software (Microsoft Internet Explorer for Windows 95 and Windows NT 3.5x/4.x) NetManage Web Kit version 4.6 (for Windows 3.1x)
Warranty	Limited three year factory repair or replacement

Ascend's Remote Networking Products

GRF™ Family
GRF products are high-performance IP switches that let network service providers cost-effectively and reliably offer network access and backbone services.

MAX™ Family
The MAX family of high-density, multiprotocol WAN access switches provide access to central sites or the Internet over high-speed access lines such as Frame Relay over ISDN PRI, channelized T1/E1 and ISDN BRI lines.

Pipeline® Family
Pipeline products are Ethernet-to-ISDN bridges/routers that connect remote users in small or home offices to backbone networks and/or the Internet.

Multiband™ Family
Multiband bandwidth on demand controllers are designed for videoconferencing and multimedia applications and let users dial up bandwidth in increments of 56/64 Kbps up to 4 Mbps.

NetWarp™ Family
NetWarp products are high-performance ISDN terminal adapters that enable PC users to access the Internet or a remote LAN using the full 128 Kbps of an ISDN BRI line.

Security Family
Ascend's Security family incorporates the dynamic firewall technology in Secure Access products with Access Control's comprehensive security management system to deliver iron-clad, end-to-end security for the entire network.

Ascend's Services

Ascend Advantage Service℠
Ascend Advantage Services offers a comprehensive selection of installation, maintenance, remote support and per-incident services for customers of Ascend's remote networking products

Ascend Communications, Inc.

Worldwide and North American Headquarters
One Ascend Plaza
1701 Harbor Bay Parkway
Alameda, CA 94502, United States
Tel: 510.769.6001
Fax: 510.747.2300
E-mail: info@ascend.com
Toll Free: 800.621.9578
Fax Server: 415.688.4343
Web Site: http://www.ascend.com

European Headquarters
Rosemount House
Rosemount Avenue
West Byfleet
Surrey KT14 6NP, United Kingdom
Tel: +44 (0) 1932.350.115
Fax: +44 (0) 1932.350.199

Japan Headquarters
Level 14 Shinjuku Daiichi-Seimei Bldg.
2-7-1 Nishi-Shinjuku
Shinjuku-ku, Tokyo 163-07, Japan
Tel: +81.3.5325.7397
Fax: +81.3.5325.7399
Web Site: http://www.ascend.co.jp

Asia-Pacific Headquarters
Suite 1419, Central Building
1 Pedder Street
Central, Hong Kong
Tel: +852.2844.7600
Fax: +852.2810.0298

Ascend Communications, Inc. is a leading, worldwide provider of remote networking solutions for corporate central sites, Internet Service Providers' points of presence, remote offices, mobile workers, and telecommuters. Ascend develops, manufactures, markets, sells and supports products which utilize bandwidth on demand to extend existing corporate networks for applications such as remote LAN access, Internet access, telecommuting, SOHO connectivity and video-conferencing/multimedia access. Detailed information on Ascend products, news announcements, seminars, service and support is available on Ascend's home page at the World Wide Web site: http://www.ascend.com.

Ascend markets the GRF, MAX, Multiband, Pipeline, Netwarp and Security families of products. Ascend products are available in more than 30 countries worldwide.

Access Control™, Dynamic Bandwidth Allocation™ (U.S. Patent No.5,231,649), FrameLine™, Intellisense™, MAX™, MAX TNT™, MAXDial™, MAXLink Pro™, MegaPOP™, Multiband™, Multilink Protocol Plus™, NetWarp™, Pipeline® and Secure Access™ are trademarks of Ascend Communications, Inc. Ascend Advantage Services℠ is a servicemark of Ascend Communications, Inc. Other trade names mentioned in this publication belong to their respective owners.

Specifications are subject to change without notice.

© Copyright 1996
Ascend Communications, Inc.

11-96
01-42

ASCEND

Remote Networking Solutions That Work.™

ISO 9001 REGISTERED