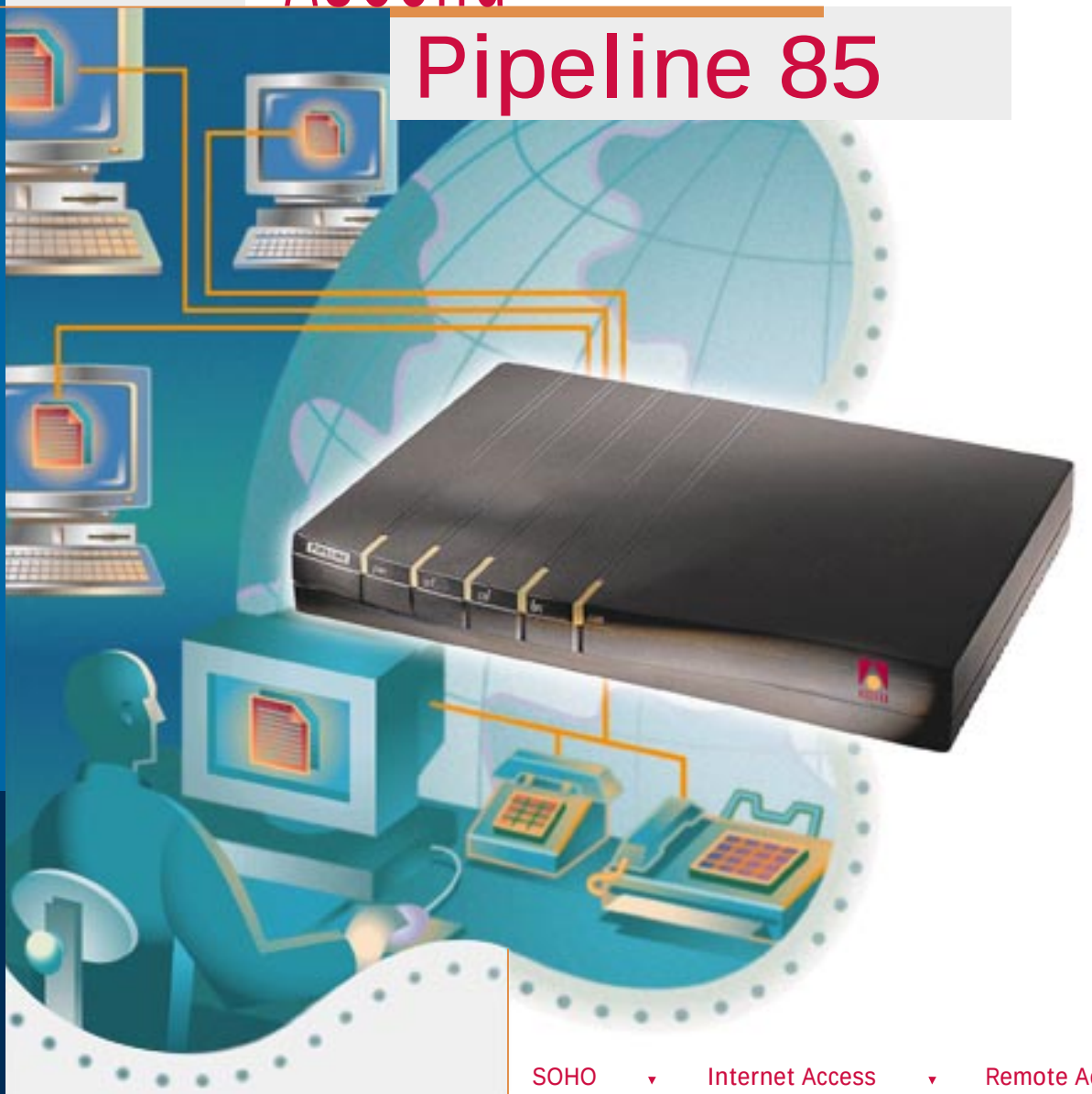
product information

Ascend Pipeline 85



Introducing a remote access solution designed to outpace your growing application needs. The Pipeline 85—a scalable solution for expanding your network.

SOHO ▾ Internet Access ▾ Remote Access

The Pipeline® 85 ISDN bridge/router offers robust remote access capabilities as well as a 4-port Ethernet hub for linking SOHOs and remote offices directly to a corporate site or the Internet. Dual analog ports allow users to connect their phone and fax over the same ISDN BRI line used to provide high-speed digital access. In addition, every Pipeline 85 includes Ascend's exclusive SmoothConnect™—a bundling of features and functionality designed to make remote connectivity simpler and more cost-effective than ever.

The Pipeline 85 is ideal for SOHO and remote office applications requiring an extensible solution that offers high performance, adjustable bandwidth and security. This gives users the flexibility to make secure connections to a remote office, download the latest financial data from their corporate intranet or simply surf the Internet. The Pipeline 85 is the ultimate solution for handling all your remote access needs.

ASCEND

Remote Networking Solution for SOHOs and Remote Offices

Cost-effective platform includes router and hub in a single, integrated solution

The Pipeline 85 offers an integrated 4-port 10Base-T Ethernet hub, allowing SOHOs and remote offices to directly connect up to four workstations to a single unit. The 10 Mbps Ethernet interfaces let users take advantage of the full throughput of an ISDN BRI line. And by adding any third-party Ethernet hub, you can support up to 1024 users.

- 4-port 10Base-T hub for directly connecting up to four workstations
- Support for multiple platforms (PC, UNIX workstation, Apple Macintosh)
- Support for varying software configurations

Integrated analog and digital capabilities in one complete solution

By consolidating separate transmission services over one ISDN BRI line, telecommuters no longer have the burden of maintaining separate analog and digital lines. The Pipeline 85 allows remote users to have a single, digital line for all their networking needs.

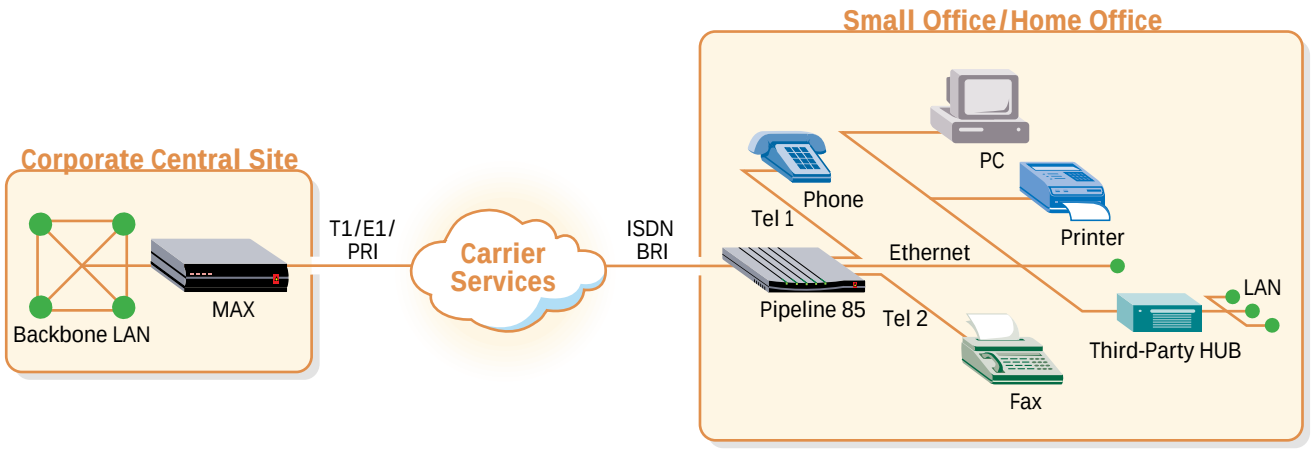
- High-speed Ethernet to ISDN router/bridge
- Standard U interface (NI-1 compliant) eliminates the need for an external NT1 device (S/T model also available)
- Advanced analog calling features such as Calling Line ID (CLID), Hold, Drop, Transfer and Conference
- Dual analog ports allow you to connect phones, modems, and fax machines over a single ISDN BRI line
- Sophisticated call routing directs calls to the correct analog device (phone, fax or modem)
- Two analog devices can be used simultaneously when both B-channels are available

SmoothConnect ensures easy and cost-effective connectivity

SmoothConnect provides all the features and functionality that make it easy and cost-effective to connect to a corporate headquarters or the Internet. It allows even novice users to configure and setup their Pipeline for access, removing the barriers that used to make remote connectivity cumbersome. In addition, SmoothConnect reduces costs by making efficient use of protocols and bandwidth. This new functionality includes the following ease-of-use and cost savings features:

- The Java-based Pipeline Configurator (JBPC) is a state-of-the-art configuration utility for graphical point-and-click Pipeline setup and configuration
- Touch tone configuration of ISDN B-channel telephone numbers using an analog telephone
- AutoSwitch and AutoSPID detection automatically detects the ISDN switch type and SPID numbers
- Ascend's patented Dynamic Bandwidth Allocation™ saves money by increasing/decreasing bandwidth as needed for the duration of your connection

Corporate Remote Access



The Pipeline 85 makes it easy to connect multiple users to a corporate central site. If more than four connections are required, additional hubs can be "daisy-chained" from the Pipeline 85 to support up to 1,024 users.

- Integrated idle timer allows Pipeline users to remain connected without paying for telecommunications resources when they aren't being used
- Network Address Translation (NAT) eliminates the need to pay for a dedicated TCP/IP address by allowing the Pipeline to accept a dynamically assigned address from a central-site pool of addresses
- Dynamic Host Configuration Protocol (DHCP) spoofing allows network managers to configure and dynamically assign IP addresses across multiple clients from the Pipeline
- Data compression that boosts throughput up to 512 Kbps to handle bandwidth-intensive files

Flexible remote management capabilities provide centralized control

Remote management capabilities reduce the cost of installation and on-going support by enabling network managers to monitor and troubleshoot remote user problems directly from the central site.

- SNMP (MIB II) support
- Telnet remote management
- Ascend Remote Management protocol
- Call Detail Reporting (CDR)
- Flash memory for easy software upgrades

Concurrent routing and bridging ensures efficient connectivity to all LANs and the Internet

Concurrent routing and bridging eliminates the need for two separate devices by providing one configurable solution for accessing any LAN and the Internet.

- IP, IPX and AppleTalk routing
- BCP standard multiprotocol bridging
- PPP, Multilink PPP (MP), Multilink Protocol Plus™ (MP+)

Comprehensive security for iron-clad remote networking

Support for user authentication makes it easy to manage the security of large-scale remote access applications.

- Authentication profiles with PAP, CHAP and Calling Number ID
- Token-based security including SecureID and Engima Logic
- Callback assures connections are made with known users
- Transmit and receive packet filtering
- Telnet password
- Optional Secure Access™ Firewall provides complete network protection

Network Address Translation

Pipeline 50, 75, 85, 130 and 220 users can avoid paying for a dedicated IP address with the Network Address Translation (NAT) capability. When a Pipeline user connects to the Internet or any other IP network, a network address can be transparently assigned to the user for the duration of the connection session. And when NAT is used in conjunction with the Dynamic Host Configuration Protocol (DHCP) spoofing, IP address management becomes a breeze. Network managers can configure and dynamically assign IP addresses to multiple workstations on the remote office LAN in one easy step.

Java-Based Pipeline Configurator

The Java-based Pipeline Configurator (JBPC) is a Graphical User Interface (GUI) that lets Pipeline users configure, save and restore the Pipeline 25-*Px*, 25-*Fx*, 50, 75 and 85 configurations from a PC or Macintosh over an Ethernet LAN connection. It is included free of charge on the Pipeline Companion CD-ROM or you can download via anonymous ftp at ftp:\\ftp.ascend.com\pub\Software-Releases\PL_CD-ROM\.

The JBPC offers a comprehensive QuickStart utility designed to get users up and running in less than 15 minutes. This utility guides them through the application and features complete HTML-based, on-line help. Because the JBPC runs over Ethernet, it eliminates the need for a serial cable, VT-100 terminal or terminal emulation software.

Ascend's Secure Access Solution

Protect corporate resources with Ascend's Secure Access

Ascend's Secure Access™ offers a combination of dynamic firewall, encryption and authentication in one rock-solid security solution. Secure Access is ideal for companies who want to secure their information assets at the corporate LAN, remote offices and telecommuters' home offices. It also provides the data integrity, privacy and data origin authentication needed when using the Internet to establish corporate intranets. In addition, the Pipeline 85 includes standard security features such as PAP, CHAP, CLID and token card security to deliver the most complete security solution available on the market today for securing the edge of your network.

Secure Access is a cost-effective, single vendor solution for securing your company's remote network against attacks on sensitive data. See the SecureConnect datasheet or visit the Ascend Web site for more information.

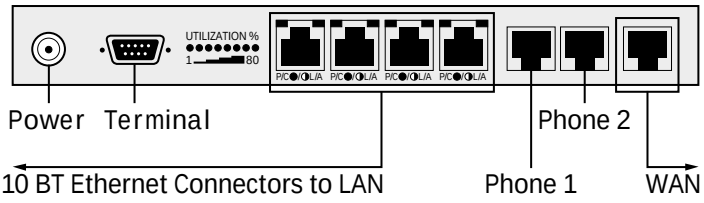
Hardware Specifications

Dimensions	8.63 in x 6.19 in x 1.25 in/22 cm x 15.7 cm x 3.2 cm
Weight	2.5 lbs [1.13 kg]
LAN Interface	4-port 10 Mbps Ethernet (AUI, 10Base-T)
WAN Interface	BRI S/T Interface (model: P85-1SBRI) BRI U Interface (model: P85-1UBRI)
Software Upgrade	Via built-in flash RAM
Power Requirements	90-130VAC. 0.4A 22-=24-VAC. 0.2A 47-63Hz
Operating Requirements	Temperature: 32-104˚F/0-40˚C Altitude: 0-14,800 feet/0-4,500 meters Relative Humidity: 5-90% (non-condensing)
Safety Certifications	FCC Class B, CSA, UL
EMI/RF	FCC Part 68, FCC Part 15

Software Specifications

Protocols Supported	TCP/IP, IPX routing, BCP Standard bridging of all protocols
WAN Protocols Supported	PPP, Multilink PPP (MP), Multilink Protocol Plus (MP+)
Bandwidth Management	MultiLink PPP (MP), Multilink Protocol Plus (MP+), TCP header compression, STAC data compression (optional)
Security	PAP, CHAP, callback, Telnet password, token-based security (Security Dynamics, Enigma Logic), packet filtering, optional integrated dynamic firewall with IPSec Encryption (Models: P85-SBRI-ASA and P85-UBRI-ASA)
Management	SNMP, Telnet, Syslog, Ascend's remote management protocol, serial cable connection (DB-9), Java-based Pipeline Configurator
IP Address Management	Network Address Translation (NAT), Dynamic Host Configuration Protocol (DHCP) spoofing

Pipeline 85 Back Panel



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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, MultiDSL, Network Management, Pipeline and Security families of products. Ascend products are available in more than 30 countries worldwide.

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Remote Networking Solutions That Work.™

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