PRODUCT INFORMATION

Ascend

CBX 500 Product Overview



The CBX 500 Multiservice ATM switch delivers on the vision of ATM with the Frame Relay and IP service capabilities required to build the New Public Network. The CBX 500 delivers leading-edge ATM features with integral high-speed Frame Relay and IP switching access. The CBX 500 offers an advanced, versatile multiservice switch platform that will allow providers to take advantage of the expanding data communications opportunities that lie ahead.

Modular architecture protects investment

The CBX 500 Multiservice ATM switch is a high-performance cell switch based on crosspoint technology as its core switch fabric. The CBX 500 assures seamless integration with the features of the GX 550 and B-STDX family of switches to build multiservice networks.

- High-performance, high-capacity multiservice ATM switch
- Integral ATM, high-speed Frame Relay and IP service capability
- IP Navigator support
- Sophisticated Virtual Network Navigator (VNN) topology management for network-wide guaranteed Quality of Service (QoS)
- Advanced traffic management and sophisticated Connection Admission Control (CAC) algorithm for increased network resource utilization

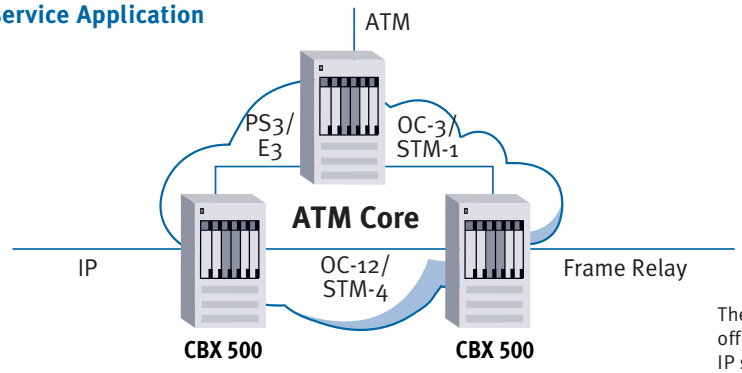
Advanced switch processor delivers platform-wide system coordination

The CBX 500 switch processor incorporates a silicon-based Quad-Plane crosspoint matrix switching fabric for traffic isolation. The Model 10 switching fabric offers up to 5 Gb/s of nonblocking switching capacity consisting of a 4x4 matrix that runs at 640 Mbps for a capacity of 1.5 Gb/s nonblocking 64K cell buffers. The Model 20 switching fabric offers an output-buffered, self-routing, 8x8 matrix for individual ports that run at 640 Mbps for a total capacity of 5 Gb/s, nonblocking, 128K cell buffers. Each port contains buffering that creates five distinct QoS traffic queues: CBR, rtVBR, nrtVBR, ABR/UBR and UBR+.

An i960 microprocessor subsystem ensures platform-wide system coordination, participation in distributed management, routing signaling and traffic management. The switch provides three software-selectable clock source options: internal, recovered from ATM trunks or external.

- Multiprocessor and custom-silicon design for highest performance and throughput
- Quad-Plane switch architecture with 128K cell buffers to ensure the highest level of data integrity

CBX Multiservice Application



The CBX lets service providers offer ATM with Frame Relay and IP service capabilities.

Industry-standard PCMCIA peripheral port support ensures compatibility

The CBX 500 supports an industry-standard PCMCIA interface to support an Ethernet interface for network management and control. In addition, it supports a redundant hard disk that contains software images for the ATM switch processor and I/O modules as well as an RS-232 connection for an external modem dial-in alternative for out-of-band remote network management.

- Ethernet interface for network management and control
- External modem for out-of-band remote network management

I/O modules offer the industry's highest port density and price/performance

The CBX 500 supports both 8-port T3/E3 and 4-port OC-3/STM-1 modules and a single-port OC-12/STM-4 module. A midplane architecture is used to attach I/O modules to the physical port connector panels. The I/O modules offer wire-speed data throughput, 16K point-to-multipoint connections per switch and large data buffering with 8K cell buffer per T3/E3 port and 24K cell buffer per OC-3/STM-1 ports.

- Single-platform port density: up to 112 T1/E1, T3/E3, 56 OC-3/STM-1 and 14 OC-12/STM-4 connections
- Up to 96,000 additional cell buffers per I/O module
- 64,000 additional cell buffers for optional per-Virtual Circuit (VC) queuing
- Up to 16,000 VCs (SVCs, PVCs, PVPs) per I/O module

Specifications

Interface Specifications	Supports 8-port T3/E3 ATM UNI module, 8-port T1/E1 UNI, 4-port OC-3/STM-1 ATM UNI module
	Multiservice: 6-port T3/E3 Frame Relay/IP: 4-port 10/100 Mbps Ethernet (IP)
	Individual interface configurations: UNI 3.0, UNI 3.1; Ascend trunk; PNNI IISP; PNNI Phase 1; B-ICI: Indirect trunk
	Ethernet interface for management
	T3/E3 ATM (44.735 Mbps) with PLCP or HEC cell delineator
	SONET/SDH single-mode/multimode fiber, OC-3/STM-1 (155.52 Mbps), OC-12/STM-4 (622 Mbps) medium reach and long reach
	ATM MIB support specifications
Physical Dimensions	Size: 19.0 in x 33.25 in x 15.0 in [48.26 cm x 84.46 cm x 38.1 cm] Weight: Less than 200 lbs. [90.7 kg] fully configured
Rack Mounting Options	EIA 19-inch or 23-inch midmount, central office style
Power Requirements	AC Power: Autoranging 100 to 240 AC DC Power: -48 to –60 volts DC Current: 12 amps @ 120 volts AC; 45 amps @-48 volts DC
Agency Approvals	Environmental ▸ GR-63-CORE ▸ GR-1089-CORE EMC ▸ FCC Part 15 Class A ▸ EN55022 Class A Safety ▸ UL 1950 ▸ CAS 950
Thermal Dissipation	Maximum: 1400 watts per power supply
Temperature Range	Degrees: 32-122° F (0-50° C)

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Ascend Communications, Inc. develops, manufactures and sells wide area networking solutions for telecommunications carriers, Internet service providers, and corporate customers worldwide. For more information about Ascend and its products, please visit the Ascend Web site at http://www.ascend.com, or e-mail info@ascend.com.

Ascend markets the B-STDX, CBX, GRF, GX, IP, MAX, Multiband, MultiDSL, Navis, Pipeline, SA, SecureConnect and STDX families of products. Ascend products are available in more than 40 countries worldwide.

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