PRODUCT INFORMATION

Ascend

GX 550
ATM Base I/O Module



The GX 550 ATM Base I/O Module provides the flexibility required by today's ATM networks and supplies ATM cell processing for all GX 550 Physical Interface modules. The GX 550 ATM Base I/O Module is independent of the ATM interface type supported: 155 Mbps OC-3/STM-1, 622 Mbps OC-12/STM-4, or 2.5 Gbps OC-48/STM-16.

Ascend's Enhanced Quad-Plane Architecture and per-VC queuing guarantee ATM Quality of Service (QoS) for all connections flowing through the switch. Virtual Network Navigator (VNN), Ascend's enhanced version of the OSPF routing technology, extends to the GX 550, providing seamless integration across Ascend's switching products and guaranteeing QoS throughout the network.

Superior architecture provides industry-leading port density

The GX 550 switch offers an industry-leading port density of 160 OC-3/STM-1, 40 OC-12/STM-4, and 10 OC-48/STM-16 ports per switch. This density is made possible through a 10-slot Base I/O architecture. Each Base I/O module is capable of supporting up to four Physical Interface modules that can be mixed and matched in any desired configuration.

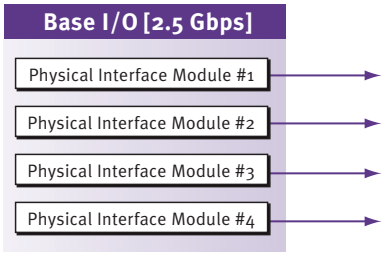
Advanced design allows independent port configuration

Ascend's Logical Port design lowers provision costs by allowing each port to be independently configured as either a User Network Interface (UNI 3.0, UNI 3.1, or UNI 4.0), an Interim Inter-Switch Signaling Protocol (IISP), a Private Network Node Interface (PNNI), a Broadband Inter-Carrier Interface (B-ICI), Traffic Management 4.0 (TM 4.0), or a Direct Trunk.

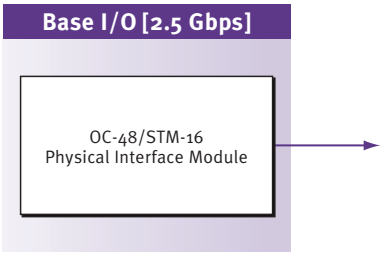
Operational features

- 2.5 Gbps ATM cell processing capability for up to 4 Physical Interface Modules
- Logical port architecture for port-independent software configuration of ATM UNI 3.0, UNI 3.1, UNI 4.0, IISP, B-ICI, PNNI, TM 4.0, or Direct Trunks
- Enhanced Quad-Plane architecture (CBR rt-VBR, nrt-VBR, and UBR/ABR) and per-VC Queuing
- Distributed CAC and SVC processing on each Base I/O for rapid connection setup and dynamic processing power
- Multiple cell buffer options up to 2,048,000 per Base I/O Module
- ATM PVCs and SVCs
- Up to 5,000 SVCs per second per switch
- Up to 256,000 connections (VCCs and VPCs) per Base I/O Module
- Up to 192,000 multicast connections per switch
- Virtual Channel Connection (VCC) switching and Virtual Path Connection (VPC) switching
- TM 4.0 RM cell processing
- Comprehensive ATM OAM support: F4/F5 flows, alarm surveillance, and connectivity verification
- Extensive set of ATM circuit, port, and line statistics for monitoring and reporting
- Independently configurable static and dynamic thresholds for selective cell discard, early packet discard, partial packet discard, random early discard, and EFCI marking
- Ingress Usage Parameter Control (UPC) and Network Parameter Control (NPC)
- Per-port line card spanning protection through 1+1 Automatic Protection Switching
- Hot swappable

Physical Interface Module Support



Base I/O Module supporting 4 Physical Interface Modules. Any mix of 4-port OC-3/STM-1 and 1-port OC-12/STM-4 Physical Interface Modules can be supported.



Base I/O Module supporting single 1-port OC-48/STM-16 Physical Interface Module.

Carrier-class switches ensure high availability, reliability and scalability

Ascend products offer superior scalability, high network availability and maximum reliability in mission-critical carrier-class environments. Exceptional QoS support with Priority Frame and Priority Reroute capabilities provides different levels of service for emerging applications. Superior design supports growing networks with leading edge hardware and shared software components. The powerful hardware architecture delivers exceptional scalability for high-bandwidth transmission environments or high port density configurations.

- Fault tolerant Permanent Virtual Circuits and Switched Virtual Circuits
- Fast circuit setup and rerouting

Powerful management provides advanced network control

Navis™ network and service management software lets service providers deliver new networking services to business and enterprise customers more quickly and profitably. Sophisticated applications deliver add-on functions such as service level agreements and real-time statistics monitoring. Exceptional management of Ascend networking nodes, using industry-standard protocols, builds seamless network management across Ascend core switching products for all network services: ATM, Frame Relay, IP private line and ISDN.

- Multiservice management from a single platform
- Extensive configuration, performance management and security support
- Reduced operating costs

Managed by Navis™

Specifications

Physical Dimensions	1.7 in x 19.7 in x 13.9 in [4.3 cm x 50 cm x 35.3 cm]
Power Requirement	100 watts
Temperature Range	32° – 122° F [0° – 50° C]
NEBS Compliance	GR-63-CORE GR-1089-CORE
Agency Approvals	EN55022 Class A (CISPR) EN50082-1 EN61000-3.2, 3.3 FDA Class 1 FCC Part 15 Class A UL 1950 3rd edition
Standards	ATM Forum: UNI 3.0, UNI 3.1, UNI 4.0, ILMI 4.0, ILMI 4.0, IISP, PNNI 1.0, B-ICI 1.1, TM 4.0 ITU: G.783, I.371, I.610, Q.701-Q.710, Q.2100, Q.2110, Q.2130, Q.2140, Q.2610, Q.2724, Q.2761-Q.2764, Q.2722, Q.2931, Q.2971 Bellcore: GR-253, TR-474, GR-1100, GR-1110, GR-1248,GR-1343 ANSI: T1.231 IETF: RFC 1595

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: 650.688.4343
Web Site: http://www.ascend.com

European Headquarters
Rudolf-Diesel-Strasse 16
D-64331 Weiterstadt
Germany
Tel: +49.6150.1094.10
Fax: +49.6150.1094.98

Japan Headquarters
Level 19 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 1908, Bank of America Tower
12 Harcourt Road
Hong Kong
Tel: +852.2844.7600
Fax: +852.2810.0298

Latin, South America and the Caribbean Headquarters
One Ascend Plaza
1701 Harbor Bay Parkway
Alameda, CA 94502, United States
Tel: 510.769.6001
Fax: 510.747.2669

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 Ascend SS7 Gateway, B-STDX, CBX, GRF, GX, Intragy, IP Navigator, MAX, Multiband, MultiDSL, Navis, Pipeline, SA, SecureConnect and STDX families of products. Ascend products are available in more than 40 countries worldwide.

Ascend and the Ascend logo are registered trademarks and all Ascend product names are trademarks of Ascend Communications, Inc. Other brand and product names are trademarks of their respective holders.

Specifications are subject to change without notice.

© Copyright 1999 Ascend Communications, Inc.

01-101a

2/99

ASCEND Where Network Solutions Never End™

ISO 9001 REGISTERED