

# Ascend

## SA 600 Broadband Service Concentrator



The SA 600 Broadband Service Concentrator furnishes a powerful mid-level solution to the broadband access market. The SA 600 delivers the reliability and architecture to geographically extend the ATM network infrastructure and enable broad ATM services deployment. By economically concentrating regional ATM traffic for transport to a core ATM backbone network, the SA 600 lets service providers reduce their trunk requirements. The SA 600 supports a wide range of data, voice and video services and can effectively provision services in multi-tenant or enterprise locations that require an abundance of advanced broadband service offerings. Its modular architecture economically supports a high mix of applications, giving service providers configuration options to meet all user requirements.

### High-performance components ensure full wire speed

With three Interface Control Modules (ICMs), the SA 600 accommodates up to 60 I/O interfaces, supporting 10/100 Mbps LANs, circuit-switched and high-speed ATM connections. A powerful Protocol Accelerator™ provides wire-speed translation to and from ATM cells and can process up to 200,000 packets per second per ICM. The SA 600 provisions transparent LAN services and supports up to 24 10/100 Mbps Ethernet ports. Circuit-switched connections provide interfaces to voice and video equipment. ATM interfaces support high-throughput router and server connections as well as connections to the ATM core network. A high-speed backplane provides fully-meshed interconnection of ICMs. Traffic entering the SA 600 on any ICM can be switched to any other ICM.

- ▶ High-performance protocol accelerator for wire-speed translation
- ▶ Simultaneous 1 Gb/s cell and 1 Gb/s packet processing per ICM

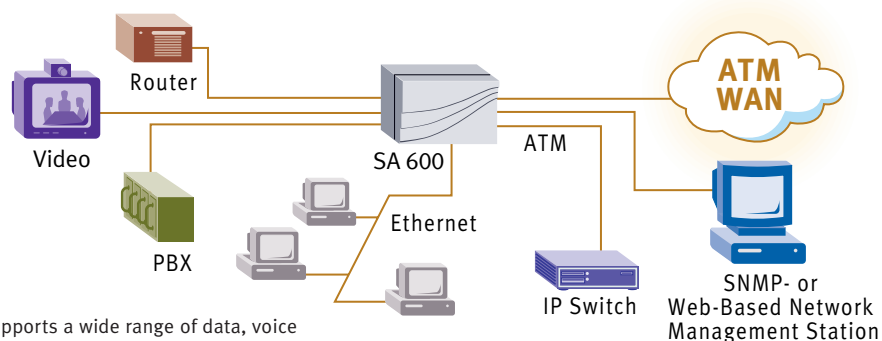
- ▶ ATM Forum TM 4.0 support
- ▶ Support for CBR, rt-VBR, nrt-VBR, UBR and ABR service types

### Carrier-class design optimizes network operation

The SA 600 offers optional hardware redundancy and protection switching for automatic backup of critical interfaces, providing today's required levels of fault tolerance and redundancy. Sophisticated performance monitoring and diagnostic capabilities help network operators anticipate and correct problems before they affect users. Component-based software increases network availability, reduces memory requirements and accelerates the new services development. Software modules are added (or upgraded) on a stable software foundation with minimal disruption.

- ▶ Interchangeable hardware module ensures continuous uptime
- ▶ Component-based software for high system availability and increased service development ease

### Advanced Broadband Service Concentrator



The SA 600 supports a wide range of data, voice and video services at multi-tenant or enterprise locations.

## Sophisticated tools deliver powerful network management

WebXtend™ network management leverages Web technology to deliver secure, user-friendly access to advanced management tools. WebXtend architecture is based on a standard Web client/server model. The server is embedded in every Ascend Broadband Access system; the client can be any Java-enabled Web browser.

- ▶ Powerful Web-based management tool
- ▶ Sophisticated WebXtend, SNMP and NavisCore™ management access

### Specifications

Physical dimensions	Size: 17.5 in x 12 in x 7 in (44.5 cm x 30.5 cm x 17.8 cm) Weight: 34.0 lb (15.4 kg) fully loaded
Rack Mounting Options	Stand-alone or rack-mount
Power	AC PSU 90 to 132/180-264 VAC 47-63 Hz Autoranging 200W PSU 2A Draw Max DC PSU: -36 to 76 VDC 100W PSU 4A Draw Max
Environmental	Operating temperature: 32°-122°F (0-50°C) Storage temperature: -40°-+140°F (-40°-+60°C) Humidity: 5% to 95% non-condensing Altitude range—500 ft (152 meters) to 10,000 ft (3,048 meters)
Agency certification	EMI: FCC Part 15A, GR-1089-CORE, EN55022, AUSTEL, JATE Telecom: FCC Part 68 GR-63-CORE, IC, AUSTEL, JATE Safety: UL 1950, EN60950, AUSTEL, IEC950
OA&M	Performance monitoring per ITU.610 and Bellcore GR-1248-CORE
System clocking	Clock sources: Internal reference oscillator, recovered from user-specified interface, recovered from system timing bus
MIB support	SNMP MIB II ATOM, MIB, ILMI MIB, Interface MIBs, Bridging MIB and Broadband Access Enterprise MIB
Expansion Protocol Option Devices (XPODs)	OC-3/STM-1 single/multimode, SR, IR, LR (1 port) T3/E3 PLCP and G.804 ATM (1 port) T1/E1 G.804 ATM (1 port) T1/E1 Inverse Mux ATM (4 ports) T1 G.804 ATM with integral CSU/DSU (1 port) T1/E1 structured/unstructured circuit emulation (2 ports)
Interface Protocol Option Devices (IPODs)	OC-3/STM-1 single/multimode, SR, IR, LR (1 or 2 ports) T3/E3 PLCP and G.804 ATM (1 or 2 ports) T1/E1 G.804 ATM (4 ports) T1/E1 structured/unstructured circuit emulation (4 ports) 10/100Base-T Ethernet (4 ports) Universal Frame Forwarding V.11, V.35, X.21, RS-232, RS-449, RS-530 (2 ports) Universal serial structured/unstructured circuit emulation V.11, V.35, V.21, RG-232, RS-449, RS-5302.2 (2 ports)
Service interfaces	Circuit emulation with A+B bit interpretation, dynamic bandwidth over AAL1 Frame forwarding over AAL5 LAN switching over AAL5 Native ATM cell switching
System management	WebXtend HTTP/Java via Web browser Local craft; VT-100 ANSI terminal and/or modem Ethernet port Inband ATM Telnet/FTP NavisCore SNMP

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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](mailto: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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