

BX21 – Optical Access Device



Highlights

The BX21, the next-generation SDH Access Device of AimBridges, enables true multi-service carrier-grade access network solutions for tomorrow's converged networks. The cost-effective terminal multiplexer integrates voice, leased line and packet transport on a compact platform. The system is designed for customer premises access as well as metro aggregation networks, furthermore it is very well suited as a transport device in the wireless infrastructure. The BX21 is optimized to provide unparalleled density and small size at low cost.

The BX21 has the following key features:

- SDH interfaces: STM-1 interface enabling SDH carrier class transport
- Access interfaces: E1 and Fast Ethernet
- Hot-pluggable SFP module for flexible reach selection
- Standards compliant Ethernet mapping via GFP, Virtual Concatenation and LCAS for Ethernet private line applications
- Intuitive web-browser based user interface
- Compact design measuring only 1RU high, 19" wide
- Low power and low cost start configuration

Reduced capital and operational expenses

Capex and Opex reductions are the main benefits of the BX21:

- Highly integrated architecture with all functions combined on a single low-cost box
- The system is preconfigured to ease installation and simplify service turn up without the need for costly and trained staff
- Convergence of data and voice combined with high integration density significantly reduces the amount of equipment; this results in considerable lower investment, installation, operational and maintenance costs
- Optimal bandwidth utilization and flexibility is guaranteed by data mapping using GFP, Virtual Concatenation and LCAS. The operator can allocate a specific amount of bandwidth per end user, in steps of 2 Mbit/s up to 100 Mbit/s.
- Hot-pluggable small form factor pluggable (SFP)

- **Add/Drop multiplexer for STM-1 access networks**
- **Multiservice access for data, leased line or voice traffic over SDH, PDH and Ethernet**
- **Very compact Ethernet access system**
- **Applications:**
 - **Full-rate FE and E1 access at CPE**
 - **Backhaul for wireless networks**
 - **Carrier grade Ethernet over SDH**

modules for the STM-1 optical interface allows flexibility to select the required optical power budget and link distance

Integration in existing networks

The BX21 protects the investments made in the installed SDH network and improves the operator's TDM services and revenue through its higher integration and lower cost solution. In addition, the system supports effective Ethernet transport over the existing network without the need for costly deployment of an overlay network.

Management of the BX21 is easily integrated in an existing network management solution. The system provides an Ethernet management port for on-site craft maintenance. Remote management is via a dedicated VC12 and does not conflict with DCC channels already in use for existing network management. The TCP/IP stack and OSPF routing simplify management of remote BX21 systems from a single operations system.

The BX21 provides SNMP alarm traps as well as web-browser based provisioning.

Specifications

Traffic Interfaces	1x STM-1 via SFP 4x E1, 75 or 120 Ohm (RJ45) 2x Fast Ethernet: 10 or 100 Mb/s (RJ45)
Pluggable modules	STM-1 (S1.1) 15km STM-1 (L1.1) 40km STM-1 (L1.2) 80km STM-1 single fiber STM-1 electrical
Cross connect and Protection	Pre-defined configurations for cross connect and VCAT bandwidth allocation LCAS based protection Loopbacks on E1 and Fast Ethernet interfaces
Synchronization	Internal 4.6 ppm SEC G.813 clock Clock reference mode selection: - Locked to STM-1 line timing - Hold-over mode - Free running on local clock
Ethernet applications	Point-to-point Ethernet Private Line Up to 100 Mb/s end-to-end on Ethernet port 1 Up to 20 Mb/s end-to-end on Ethernet port 2
Ethernet mapping	GFP-F encapsulation Virtual Concatenation VC3-xv (1..2) or VC12-xv (1..46) LCAS
OAM&P	Ethernet Port Performance counters STM-1 MS Performance Monitoring Fault management and reporting Local and remote software and database download Alarm contact and discrete inputs
Management	Ethernet 10/100BASE-T for local management access Console port (RS232) SNMP traps for alarming Web-browser based provisioning TCP/IP and PPP over dedicated VC12 for remote management access OSPF routing for remote management access
Dimensions	19" wide, 1 RU high, 180 mm deep
Power	Power input configurations (factory option): - 230V AC power or - Redundant 48V/60V DC power Power dissipation less than 15 Watt
Environment	Operating condition: ETS 300 019, class 3.1E Storage condition: ETS 300 019, class 1.2 Transport condition: ETS 300 019, class 2.3 Free convection cooling without the need for fans
Standards compliance	In compliance with the latest ITU, ETSI, IEC and IEEE standards for SDH and Ethernet equipment

The information in these materials is given to describe certain component concept and shall not be considered as a guarantee of characteristics. Please note that AimBridges' product information does not constitute or contain any guarantee, warranty or legal binding representation, unless expressly identified as such in duly signed writing.

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