

Standard ADSL2+ with Loop Bonding delivers high-speed IP capability for high bandwidth Triple Play applications of voice, video, and high speed data

- ✓ *Broadcom ADSL2+ chip set delivers high-density (48-port), standards based, ADSL, ADSL2 and ADSL2+*
- ✓ *Supports G.998.1 ADSL2+ Loop Bonding (New!)*
- ✓ *Full interoperability with Aware's Dr. DSL® Line Diagnostics Platform (New!)*
- ✓ *IP Multicast for delivering high speed IP Video over ADSL2+*
- ✓ *Full MTM Feature Set Support with IP QoS Support for Traffic Management and Prioritization*
- ✓ *Plug & Play architecture minimizes configuration and set up time*
- ✓ *Full range of integrated CLI, SNMP, and Web GUI Management options, including Loop Diagnostics (SELT/DELT) support*

Zhone's AIM29000-48 ADSL2+ Line Card is a high-density ADSL2+ access module for Zhone's IPD12000E/4000E IP-DSLAM product family.

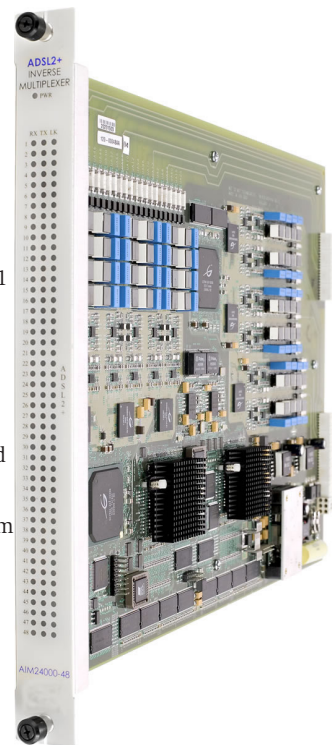
Available in versions that support Annex A/L/M (AIM29000-48) and Annex B (AIM29000-48B), the AIM29000 line cards are 48-port modules that use Broadcom's 2nd generation BladeRunner™ BCM6411 DSL chip sets to deliver very high speed, asymmetrical bandwidth, with downstream data rates of up to 29 Mbps and upstream rates up to 3 Mbps (using Annex M) on a single loop. And with the ability to support the ITU G.998.1 ATM standard for multi-pair bonding protocol, multiple ports can be bonded together to provide even greater upstream / downstream bandwidth with automatic, fail-safe operation under a wide variety of loop plant conditions. The AIM29000 also provides backwards compatibility with standard ADSL and ADSL2 modems, preserving previous investments in those CPE technologies.

The AIM29000 access modules support Zhone's Multimedia Traffic Management (MTM) feature set, which includes packet QoS, rate limiting, traffic steering, and advanced packet filtering. MTM ensures that specific applications are given appropriate priority and bandwidth allocation throughout the system, while marking the packets for upstream network devices.

The AIM29000 supports full backwards compatibility with ADSL and ADSL2 modems, while bringing the newest advancements in ADSL2+ technology. A few of the enhancements supported by the AIM29000-48 include: seamless rate adaptation; power management; Annex M support for higher upstream data rates (up to 3Mbps); multi-pair loop bonding; and enhanced loop diagnostic capability via SELT and DELT.

Enhanced SNMP MIBS on the AIM29000 access modules allow for full interoperability with 3rd party loop diagnostic analyzers, such as Aware's Dr. DSL® Line Diagnostic Platform. Aware's Dr. DSL® Line Diagnostics Platform is a centralized, software based test and diagnostics solution that provides service providers with a comprehensive system for pre-qualification, fault detection, line diagnostics and monitoring of DSL lines. The server-based solution collects single-ended (SELT) and dual-ended (DELT) raw data from the AIM29000 cards where it is normalized, interpreted and presents results using a simple, graphical user interface.

The AIM29000 also features easy 'Plug & Play' operation. The AIM29000 auto configures every port, including ADSL line mode (ADSL2+, ADSL2, ADSL) and PVC information, making installation of ADSL2+ lines quick, easy and configuration free.



Technical Specifications

Dimensions

- 12.75" H x 1.15" W x 16.75" D
- 32.4cm H x 2.9cm W x 42.5cm D

Weight

- 3.6 lbs (1.6 kg)

Power

- 1.4A @ -48 VDC

Interfaces

- 48 ADSL2+ Ports (2-RJ21 50-pin Telco)
- 2-IP DSLAM GigE Backplane Interfaces

Standards Support

- ITU G.992.1 (full-rate G.dmt)
- ITU G.992.2 (G.lite)
- ITU G.992.3 (ADSL 2)
- ITU G.992.5 (ADSL2+)
- ITU G.994.1 (Hand Shake Protocol)
- ITU G.997.1 (physical layer management)
- ITU G.998.1 (ADSL2+ Loop Bonding)

Protocol Support

- ATM PVC Support:
- VPI/VCI defaults to 0/35
- VPI range: 0-255
- VCI range: 0-65,535 (0-255 loop bonded)
- Auto VPI/VCI detection
- ATM Encapsulation:
- RFC 1483/2684 LLC or VCM

Management

- SNMP
- CLI
- Web Based GUI

Bandwidth/Distance

- Selectable speed settings
- Up to 29Mbps Down / 3Mbps Up (Annex M)
- Support for multi-pair bonding for higher rates

Regulatory Compliance

- NEBS: GR-63-CORE, GR-1089-CORE
- EMC: FCC Part 15; CSA/C 108.8; EN55022; EN55024 CE Marking
- Safety: UL1950, CSA C22.2 No. 950; EN60950; CE Marking

Operating Requirements

- Temperature: 32°F to 122°F (0°C to 50°C)
- Non operating: -40°F to 158°F (-40°C to 70°C)
- Humidity: 5% to 95%, non-condensing
- Altitude: -200ft to 16,500ft (-60m to 5,000m)

Ordering Information

AIM29000-48	48 port ADSL2+ Line Card for the 12000E/4000E BLC (Annexes A, L, and M)
AIM29000-48B	48 port ADSL2+ Line Card for the 12000E/4000E BLC (Annex B)

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