



Z H O N E

ADSL2+ 1U DSLAM w/ Modular Uplinks

4929-A1-530, 4929-A1-520, 4929-A2-530, 4929-A2-520

- ✓ *Plug 'n' play operation and auto-configuration*
- ✓ *Small enough to fit in any remote terminal in ETSI standard form factor for 19" and 23" racks*
- ✓ *24 ports of ADSL2+ (ITU G.992.5)*
- ✓ *Modular, hot-swappable media independent backhaul using Uplink Media Interface Modules, MIM interface*
- ✓ *NEBS compliant and Environmentally Hardened for remote deployment*
- ✓ *Compliant to ETSI 300-119-1-3 Environmental Requirements*
- ✓ *Built-in POTS voice splitter to minimize space requirements*

Feature-rich ADSL2+ 1U DSLAM enables IP video from the Remote Terminal/Street Cabinet in a native IP Ethernet DSLAM supporting multiple network connections



Zhone's 4900 series of ADSL2+ 1U DSLAMs are ADSL ITU G.992.5 compliant IP DSLAMs, Ethernet based, environmentally hardened and small enough to fit in even the most crowded Remote Terminals/Street Cabinets. The 4929 uses EAPS for Ethernet ring topology support, for use with the IPD12000E DSLAM or other EAPS devices.

The 4929 is extremely feature rich, including IGMP snooping for IP Video support, SNMP Management, IP Traffic Management, enhanced security features, and up to 24 Mbps downstream bandwidth available on every port. Front loading, hot-swappable uplink module options called Media Interface Modules are available for installation into the DSLAM. MIMs include T1/E1, 100BaseFX, and 10/100 Ethernet for easy integration with other network elements as well as providing easy upgrades as bandwidth requirements increase. In addition MIM uplink options exist to add more Gigabit Ethernet Interfaces to the units

The 4929 interoperates with industry standard ADSL2+ modems over the local loop while still preserving the benefits of a packet based architecture.

Simultaneous voice and data support allows providers to take advantage of line sharing agreements and further reduces the cost of deploying the residential DSL services such as High-speed Internet Access, Multicast Video (IP TV), Video on Demand, Audio/Video streaming, Voice over IP, Gaming and LAN-to-LAN connections that will increase the providers Average Revenue Per User (ARPU).

ADSL2+ is an ideal voice and data solution for residential use, supporting data and POTS voice service over a single copper pair. By maintaining lifeline POTS, the voice connection is never terminated in the event of power loss.

ADSL2+ provides the high-speed bandwidth required to deliver IP video from the remote terminal.

Technical Specifications

Dimensions

- Height 1U
- Width : 430 mm (excluding the mounting wings)
- Depth : 241mm (excluding the room for cabling)

Weight

- 2.5 lbs. (1.1 kg)

Power

- DC: Dual -48 Volt DC terminal blocks
- Consumption: < 1.5 Amps
- AC: Requires separate AC power supply (sold separately)

Interfaces

- Access ports
- 24 ADSL2+ ports using RJ-21 connector (Annex A)
- 24 Splitter ports using RJ-21 connector (Annex A)
- Uplink ports
- 1 10/100/1000BT or fiber based (SFP) GigE port for management or uplink
- 1 RS232 Console port for RS-232 serial management connection
- 1 Media Interface Module (MIM) slot:
 - 2 x Gigabit Ethernet (MIM-2000F)
 - 2 x T1 (MIM-2T1)
 - 2 x E1 (MIM-2E1)
 - 4 x E1 (MIM-4E1)
 - 4 x T1 (MIM-4T1)
 - 10/100 Ethernet (MIM-10/100)

Standards Support

- IEEE 802.3
- IEEE 802.1p CoS
- IEEE 802.1Q VLAN
- IGMP Snooping - supports IGMPv 1 and IGMPv2

Protocol Support

- MTM Traffic Management - Configurable Priority scheme 802.1p, DiffServ, IP address range, Rate Limiting, Security
- IGMP snooping
- Enterprise MIBs "Chassis and Module Identification, Configuration, IP Traffic Management"
- IETF RFC1213 "Network Management of TCP/IP-based internets: MIB-II"
- IETF RFC3440: "Definitions of Extension Managed Objects for ADSL Lines"
- ITU-G.997.1: "Physical Layer Management for DSL Transceivers"
- ADSL Forum Technical Report TR-024: "DMT Line Code Specific MIB"
- Flash Upgradeable

Bandwidth/Distance

- Bandwidth: Maximum within ITU ADSL2+ standard
- Distance: up to 18,000 feet/7,500m (lower speeds will be achieved at greater distances)

Regulatory Compliance

- NEBS: GR-63-CORE, GR-1089-CORE
- EMC: FCC Part 15; ICES-003; EN 300 386-2; CE Marking
- Safety: UL1950, CSA C22.2 No. 950, EN60950, IEC950, CE Marking

Operating Requirements

- Complies to ETSI 300-019-1-3 Environmental Requirements
- Climatic conditions Classes 3.1 to 3.3
- Temperature: -40°F to 149°F (-40°C to 65°C)
- Non-operating temperature: -40°F to 158°F (-40°C to 70¼C)
- Humidity: 5% to 95%, non-condensing
- Altitude: -200ft to 16,600ft (-60m to 5,000m)

Ordering Information

4929-A1-520	ADSL2+ Annex A unit with no integrated splitter
4929-A1-530	ADSL2+ Annex A unit with integrated Annex A 900 ohm splitter
EPC-AC-2.5A-US	Optional AC Power Supply, 2.5A, US plug
EPC-AC-2.5A-UK	Optional AC Power Supply, 2.5A, UK plug
EPC-AC-2.5A-EU	Optional AC Power Supply, 2.5A, EU plug



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