

Compact, High-Performance 1U IP ADSL2+ DSLAM

- ✓ *High-Performance 1U IP DSLAM*
- ✓ *48 Port ADSL2+ with optional POTS Splitters*
- ✓ *SLMS family member supporting industry-leading multimedia traffic management*
- ✓ *Environmentally Hardened*
- ✓ *Fiber or, Copper Fed Dual 100/1000Mbps Ethernet Uplinks with RSTP (802.w), or LAG/LACP (802.3ad)*
- ✓ *Removable Fan Tray*
- ✓ *WebGUI, CLI, SNMP Management*



The Zhone MX-150 provides next generation IP DSLAM features in a compact, hardened form-factor that makes it easy and cost-effective to deliver uncompromised triple play services throughout serving area. Models are available with 48 ADSL2 + Ports with option of integrated POTS splitters.

This MX family product is designed for easy configuration and management via built-in Web Graphical Interface. It's compact design allows easy deployment in remote cabinets and space constrained central offices.

The Fast/Gigabit Ethernet interfaces on MX family products can be configured as linear, ring, or aggregated links.

Zhone's MX-150 ADSL2 + solution offers ADSL2 + performance for packet-based service delivery. This low-power, fully programmable, high performance solution enables service providers to cost-effectively generate additional revenue through their triple-play offering, including the different iterations of video services emerging in the marketplace. As an end-to-end solution, Zhone offers ADSL2 + CPE and CO products to offer high-speed, long reach and low cost solutions for multi-tenant and multi-dwelling unit (MxU), remote terminal and CO deployments.

Ease of Management

The MX-150 provides simple yet powerful management facility via embedded Web GUI along with complete NMS integration.

Triple Play Services

The MX-150 includes high-performance packet processing with advanced IP capabilities to deliver secure, reliable, and efficient voice, data, and video services. Now service providers can offer compelling bundles of multi-line voice, high-speed Internet access, and multi-set IP video (including HDTV) over their existing copper infrastructure.

The MX-150 is defined by its ease of use and packet processing capability to support rich triple-play services on each subscriber port.

Optical or Copper Transport

The MX-150 provides dual 100/1000Mbps Ethernet uplinks, supporting both copper and fiber, to provide simple cost-effective transport. The dual FastE/GigE ports allow daisy-chained linear or ring deployments.

End-to-End Access Management

The easy-to-use Zhone Management System (ZMS) provides management and provisioning across the access network, from CPE to the Central Office. The MX-150 is fully remote managed, allowing carriers to reduce service turn-up intervals, reduce truck rolls, and ultimately, improve customer service.

Technical Specifications

Dimensions

- 1.72in H x 17.32in W x 9.06in D
- 4.37cm H x 43.99 cm W x 23.02 cm D

Weight

- 10lbs (4.53kg)

Power

- DC: -43.75V to -59.90V (Dual/Redundant Inputs)
- Optional AC and Line Power Supplies

Interfaces

- Uplink Interfaces:
 - MX-150
 - (2) SFP-based 100/1000Mbps Ethernet
 - (2) RJ45 100/1000Mbps Ethernet
- Subscriber Line Interfaces:
 - 48 ADSL2+ (ITU G.992.5 A/B/M)
 - (2) 50-pin connectors for local loop DSL and POTS connections
 - 48 POTS Splitters (600 Ohm or 900 Ohm)
 - (2) 50-pin connectors
- Serial craft management interface
- 10/100BT management interface
- Alarm Output & Input connections

Standards Support

- ANSI T1.413 Issue 2
- G.994.1 (G.handshake)
- G.997.1 (physical layer management)
- G.992.1 (full-rate G.dmt)
- G.992.3 (ADSL2) Annex A
- G.992.5 (ADSL2+) Annex A, Annex M
- ADSL2+ Bonding
- SELT/DELT
- IEEE 802.3 Ethernet
- IEEE 802.1p
- IEEE 802.1Q
- IEEE 802.w
- IEEE 802.3ad

Protocol Support

- IP host and gateway support
- RIP v1 (RFC 1058) RIP v2 (RFC 2453)
- RFC 1483/2684 encapsulation
- DHCP server (RFC 2131, 2132)
- DHCP Relay with Option 82
- Bridging 802.1D support
- VLAN 802.1p/q support
- RSTP 802.w support
- Link Aggregation and LACP 802.3ad support
- Dense / sparse multicast support, IGMPv2
- Integrated access control and content protection
- PPPoE Intermediate Agent
- RADIUS Authentication

Management

- In-band IP
- Out-band IP over 10/100BT Ethernet or V.24 RS-232 serial for async terminal
- ZMS (Zhone Management System) via SNMP v2c for GUI and CORBA IDL machine interface
- Embedded Web Graphical Interface
- Command Line Interface (CLI)

Bandwidth/Distance

- Data rates provisionable up to 24Mbps
- Distances up to 24,000ft/7,320m

Operating Requirements

- Operating Temperature: -40°F to 149°F (-40°C to 65°C)
- Storage temperature: -40°F to 158°F (-40°C to 70°C)
- Humidity: Up to 85%, non-condensing
- Altitude: -200ft to 16,500ft (-60m to 5,000m)

Ordering Information

Models

MX-150A	MX 48-PORT ADSL2+ (BRM) ANNEX A, NO SPLTR, 2 FE/GE, -48V DC (REQUIRES SFPS)
MX-151A	MX 48-PORT ADSL2+ (BRM) ANNEX A, W/ 600OHM SPLTR, 2 FE/GE, -48V DC (REQUIRES SFPS)
MX-152A	MX 48-PORT ADSL2+ (BRM) ANNEX A, W/ 900OHM SPLTR, 2 FE/GE, -48V DC (REQUIRES SFPS)

Accessories

XP-AC-SUPPLY	Raptor/MALC XP AC Power Supply, 90-264 VAC, 48 VDC, 150W
XP-CO-LP-SHELF	Raptor/MALC XP Line Power CO Shelf 40-60VDC IN, +/- 190VDC OUT, w/ 24 channels
XP-RT-LP-UNIT	Raptor/MALC XP Line Power RT Unit +/- 190VDC IN, 40-60VDC OUT, w/ 5 channels