

## Compact, High-Performance 1U Gigabit Ethernet Aggregation/MDU ONU

- ✓ *High-Performance 1U GE/10GE Aggregation/MDU ONU (Ethernet Uplinks)*
- ✓ *24-Port Gigabit Ethernet Downlinks (SFP-based)*
- ✓ *SLMS family member supporting industry-leading multimedia traffic management*
- ✓ *Environmentally Hardened*
- ✓ *Fiber 10GE and Gigabit Ethernet Uplinks with EAPS, RSTP (802.w), or LAG/LACP (802.3ad)*
- ✓ *WebGUI, CLI, SNMP Management*



The Zhone MX-180-GE-LT provides next generation Gigabit Ethernet Aggregation/MDU ONU features in a compact, hardened form-factor that makes it easy and cost-effective to deliver uncompromising triple play services throughout serving area. Models are available with 24 Gigabit Ethernet Ports (fiber SFP-based).

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 MX-180-GE-LT offers multiple Fast/Gigabit Ethernet uplink interfaces. The Fast/Gigabit Ethernet interfaces on MX family products can be configured as linear, ring, or aggregated links.

Zhone's MX-180-GE-LT Ethernet solution offers full-rate Gigabit Ethernet 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 ONTs 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**

MX-180-GE-LT provides simple yet powerful management facility via embedded Web GUI along with complete NMS integration.

### **Triple Play Services**

MX-180-GE-LT includes high-performance packet switching 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 fiber infrastructure.

MX-180-GE-LT is defined by its ease of use and packet processing/switching capability to support rich triple-play services on each subscriber port.

### **Optical or Copper Transport**

MX-180-GE-LT provides multiple SFP-based Gigabit Ethernet and 10GE SFP + uplinks to provide simple cost-effective transport. The GigE uplink ports allow daisy-chained linear RSTP (802.w), or ring deployments, and on rings the MX-180-GE-LT provides standards-based EAPS support.

### **End-to-End Access Management**

The easy-to-use Zhone Management System (ZMS) provides OSMINE-certified management and provisioning across the access network, from CPE to the Central Office. The MX-180-GE-LT 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 17.31in W x 9.06in D
- 4.37cm H x 43.97 cm W x 23.02 cm D

### Weight

- 18lbs (8kg)

### Power

- DC: -43.75V to -59V
- Optional AC and Line Power Supplies

### Interfaces

- Uplink Interfaces:
  - MX-180-GE-LT
  - (4) 100/1000Mbps Ethernet SFP slots
  - (2) 10GE Uplinks SFP+ slots
- Subscriber Line Interfaces:
  - (24) 1000Mbps Ethernet SFP slots (Copper or Fiber)
- Serial craft management interface
- 10/100BT management interface

### Standards Support

- IEEE 802.3 Ethernet
- IEEE 802.1p
- IEEE 802.1Q
- IEEE 802.w
- IEEE 802.3ad

### Protocol Support

- IP host and gateway support
- EAPS RFC3619 support
- RSTP (802.w)
- MSTP (802.s)
- RIP v1 (RFC 1058) RIP v2 (RFC 2453)
- 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
- 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/XML Northbound interface
- Embedded Web Graphical Interface
- Command Line Interface (CLI)

### 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-180-GE-LT	MX 24-PORT FE/GE (SFP), 2 10GE (SFP+), 4 FE/GE (SFP), -48V DC (REQUIRES SFPS AND SFP+S)
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### Accessories

XP-AC-SUPPLY	Raptor/MALC XP AC Power Supply, 90-264 VAC, 48 VDC, 150W
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