

# data sheet MX150 1U IP ADSL2 + DSLAM: MXK-150A, MXK-151A, MXK-152A

### Features

- 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

## Overview

The MX-150 provides next generation IP DSLAM features in a compact, hardened form-factor that makes it easy and costeffective 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. Its 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. Our MX-150 ADSL2+ solution offers ADSL2+ performance for packetbased service delivery. This low-power, fully programmable, high performance solution enables service providers to costeffectively 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, DZS offers ADSL2+ CPE and CO products to offer high-speed, long reach and low cost solutions for multi-tenant and multidwelling 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 tripleplay 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 ZMS management system 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. J

# **Specifications**

## WEIGHT & DIMENSIONS

- 10lbs (4.53kg)
- 1.72in H x 17.32in W x 9.06in D
- 4.37cm H x 43.99 cm W x 23.02 cm D

#### 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
- 994.1 (G.handshake)
- 997.1 (physical layer management)
- 992.1 (full-rate G.dmt)
- 992.3 (ADSL2) Annex A
- 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 SUPORT

- 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 management system) via SNMP v2c for GUI and CORBA IDL machine interface
- Embedded Web Graphical Interface
- Command Line Interface (CLI)

#### **OPERATING REQUIREMENTS**

- Bandwidth / Distance
  - Data rates provisionable up to 24Mbps
  - Distances up to 24,000ft/7,320m
- Operating Temperature: -40°F to 149°C (-40°C to 65°C)
- Storage temperature: -40oF to 158oF (-40oC to 70oC)
- Humidity: Up to 85%, non-condensing
- Altitude: -200ft to 16,500ft (-60m to 5,000m)

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# **Ordering Information**

MODELS	
MODEL	DESCRIPTION
MX-150A MX 48-PORT ADSL2+ (BRCM) ANNEX A, NO SPLTR, 2 FE/GE, -48V DC (REQUIRES SFPS)	MX-150A MX 48-PORT ADSL2+ (BRCM) ANNEX A, NO SPLTR, 2 FE/GE, -48V DC (REQUIRES SFPS)
MX-151A MX 48-PORT ADSL2+ (BRCM) ANNEX A, W/ 6000HM SPLTR, 2 FE/GE, -48V DC (REQUIRES SFPS)	MX-151A MX 48-PORT ADSL2+ (BRCM) ANNEX A, W/ 600OHM SPLTR, 2 FE/GE, -48V DC (REQUIRES SFPS)
MX-152A MX 48-PORT ADSL2+ (BRCM) ANNEX A, W/ 900OHM SPLTR, 2 FE/GE, -48V DC (REQUIRES SFPS)	MX-152A MX 48-PORT ADSL2+ (BRCM) ANNEX A, W/ 900OHM SPLTR, 2 FE/GE, -48V DC (REQUIRES SFPS)
ACCESSORIES	
MODEL	DESCRIPTION
XP-AC-SUPPLY Raptor/MALC XP AC Power Supply, 90-264 VAC, 48 VDC, 150W	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-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	XP-RT-LP-UNIT Raptor/MALC XP Line Power RT Unit +/- 190VDC IN, 40-60VDC OUT, w/ 5 chan- nels

