



Z H O N E

Raptor 100 1U DSLAM

Raptor 100, Raptor 100 OSP

Compact, full-featured DSLAM extends your multi-service broadband network

- ✓ *Flexible, 1U High DSLAM*
- ✓ *24 or 48 Port ADSL 2+*
- ✓ *Line-Powered Option Extends DSL Reach to 38 kft / 11.6 km*
- ✓ *Environmentally Hardened*
- ✓ *Optional Watertight OSP Enclosure for Pole, Pedestal, or Underground Deployment*
- ✓ *Choice of Uplinks T1/E1 IMA, Ethernet or Gig-E RPR*
- ✓ *Integrated IP Termination, VLAN*



The Raptor 100 provides exceptional deployment flexibility. Models with 24 or 48 ports are available, with optional integrated POTS splitters. An optional watertight outside plant (OSP) enclosure enables pole-mount, pedestal, or underground deployment for even greater range and flexibility. Line-Powered models receive power over the uplink or separate twisted pair line, extending full ADSL service up to 38 kft / 11.6 km from the central office.

The Raptor 100 line includes a range of products to provide complete deployment flexibility. Each member of the product line shares the same next-generation DSLAM feature capabilities:

- Traditional ATM or IP DSLAM functionality - Advanced IP features, including IP termination, bridging, and VLAN support - Optional integrated POTS splitters - Complete remote management, test, and monitoring - Power options include -48 VDC, 110-240 VAC, or line-powered.

The Raptor 100 delivers 24 or 48 ports of ADSL service in a 1U format, supporting both central office and remote terminal outside plant deployments. The 24-port version has 8 T1/E1 uplink ports. The 48-port version uses 2 Gigabit Ethernet uplink ports, which are capable of supporting RPR for ring topologies. Available with optional integrated splitters, the Raptor 100 provides mid-level density support for extending your DSL network.

Zhone's MALC loop carrier or Raptor 300/700 DSLAM provide ideal aggregation and termination support for a network of remote Raptor 100s. The MALC or Raptor Chassis provides head-end capability for the RPR ring when using the Raptor 100 in RPR mode. In addition the Raptor 100 can be subtended from either the T1/E1 IMA uplink or the GigE uplink card in the Raptor/MALC chassis. The MALC, as a full-featured Packet Loop Carrier, can also terminate any POTS circuits associated with the Raptor 100 remotes.

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 Raptor 100 is fully remote managed, allowing carriers to reduce service turn-up intervals, reduce truck rolls, and ultimately, improve customer service.

Ordering Information

RAPTOR-100-24A-ATM	Raptor 100, 24 Ports ADSL, 4 ports T1/E1 ATM Uplink
RAPTOR-100-24A-EN-48V	Raptor 100, 24 Ports ADSL2+, 2 ports 10/100Base-T Uplink
RAPTOR-100-24A-SPLTR-48V-OSP	Raptor 100, 24 Ports ADSL2+, Integrated Splitters, 8 ports T1/E1 IMA Uplink, -48V DC Power, OSP Enclosure
RAPTOR-100-24A-SPLTR-ATM	Raptor 100, 24 Ports ADSL, Integrated Splitters, 4 ports T1/E1 IMA Uplink
RAPTOR-100-24A-SPLTR-EN-48V	Raptor 100, 24 Ports ADSL2+, Integrated Splitters, 2 ports 10/100Base-T Uplink
RAPTOR-100-24A-SPLTR-T1/E1	Raptor 100, 24 Ports ADSL2+, Integrated Splitters, 2 ports 10/100Base-T and 8 ports T1/E1 IMA Uplinks
RAPTOR-100-24A-SPLTR-T1/E1-LP	Raptor 100, 24 Ports ADSL2+, Integrated Splitters, 2 ports 10/100Base-T and 8 ports T1/E1 IMA Uplinks, Line Powered
RAPTOR-100-24A-SPLTR-T1/E1-OSP	Raptor 100, 24 Ports ADSL2+, Integrated Splitters, 2 ports 10/100Base-T and 8 ports T1/E1 IMA Uplinks, Line Powered, OSP Enclosure
RAPTOR-100-24A-T1/E1	Raptor 100, 24 Ports ADSL2+, 2 ports 10/100Base-T and 8 ports T1/E1 IMA Uplinks
RAPTOR-100-24A-T1/E1-LP	Raptor 100, 24 Ports ADSL2+, 2 ports 10/100Base-T and 8 ports T1/E1 IMA Uplinks, Line Powered
RAPTOR-100-48A-GE-48V	Raptor 100, 48 Ports ADSL2+, 2 Gigabit Ethernet Uplinks with RPR
RAPTOR-100-48A-SPLTR-GE-48V	Raptor 100, 48 Ports ADSL2+, Integrated Splitters, 2 Gigabit Ethernet Uplinks with RPR
RAPTOR-100-AC-PWR-SUP-POS-GND	Universal AC Power Supply, 90-264VAC, -48VDC:

Technical Specifications

Dimensions

- Raptor 100 1U - 1.72in/4.27cm H x 17.31in/43.97cm W x 9.61in/24.41cm D
- Raptor OSP - 19.38in/49.2cm H x 13.13in/33.35cm W x 3.35in/8.51cm D

Weight

- Raptor OSP - 24lbs/ 10.9 kg

Power

- Local Power DC: -43.75V to -62V
- Local Power AC: 110 to 240V
- Line-power Input voltage: -48VDC
- Line Power Output voltage: +/-130V or +/-190V

Interfaces

- Uplink Interfaces:
 - T1/E1 ATM (IMA)
 - 10/100BT
 - Dual GigE (SFP interface) with RPR
- Subscriber Line Interfaces:
 - ADSL (DMT/G.Lite) Annex A, S=1/2, ADSL2+

Protocol Support

- IP Models:
 - Host-based routing for per-interface single IP address assignments
 - Network-based routing for per-interface IP subnet address assignments
- IP host and gateway support
- RIP v1 (RFC 1058) RIPv2 (RFC 2453)
- RFC 1483/2684 bridged encapsulation
- DHCP Server (RFC 2131, 2132)
- DHCP Relay (RFC 3046)
- Bridging 802.1D support
- VLAN 802.1Q support
- IEEE 802.17 RPR
- ATM Models:
 - Multiple IMA Groups Supported
- QOS: VBR-rt, VBR-nrt, UBR
- VP and/or VC switching
- Connection Admission Control (CAC) with over-subscription
- OAM: F4/F5 Support

Management

- In-band IP over AAL5
- Out-band IP over 10/100BT Ethernet or V.24 serial for async terminal
- Up to 2 external alarm closures
- ZMS (Zhone Management System) via SNMP v2c for GUI and CORBA IDL machine interface
- Embedded GUI for Management
- Command Line Interface (CLI)
- ZMS (Zhone Management System) via SNMP v2c
- Terminal for Command Line Interface
- ZMS LT GUI Configuration Software

Regulatory Compliance

- NEBS Level 3 Compliant
- Safety: UL 60950 3rd edition, CSA 950 3rd edition, EN 60950, AS/NZS 3260, TS 001
- Emissions: EN 55022A, CFR47 Part 15A (FCC)
- Immunity: NEBS GR-1089-Core Level 3, EN 55024, EN 55082-1, T1.601-1992
- Environmental: NEBS GR-63-Core level 3, GR-487 compliant, ETS 300 019-2-x compliant, ISTA Transportation and Handling
- Network Certification: FCC Part 68, CTR-12, CTR-13, DOC CS-03, TSO 16, GR-57

Operating Requirements

- Ambient Operating Temperature: -40°C to +65°C
- Relative Operating Humidity: up to 85% (non-condensing)
- OSP:
- GR-487 Compliant
- Designed for outside plant deployment



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