



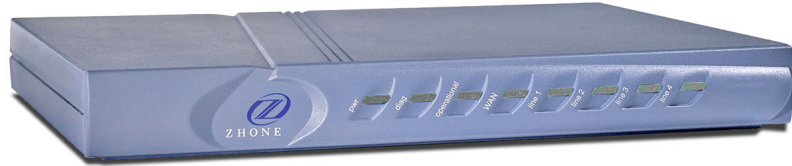
Z H O N E

EtherXtend EFM Ethernet Access Device

ETHX-3014, ETHX-3024, ETHX-3044

- ✓ Available in 1-port, 2-port or 4-port SHDSL.bis configurations
- ✓ Four 10/100 Ethernet ports
- ✓ Up to 5.7 Mbps on a single copper pair
- ✓ Up to 22 Mbps on four bonded loops
- ✓ Automatic load balancing and fail-over on bonded ports for optimum throughput redundancy (2-port and 4-port models)
- ✓ Seamless failure recovery allows dropped lines to retain and re-enter a bonded group automatically
- ✓ Compatible with Zhone's CO aggregation products (e.g. MALC, and 8820)

SHDSL.bis EFM (IEEE 802.3ah) Ethernet Access Device



Zhone's EtherXtend SHDSL EFM Ethernet Access Devices (EADs) allow Carriers, CLECs, ISPs and PTTs to deliver Ethernet services to their customers simply, quickly and cost-effectively over the existing copper plant. Intended for deployment at end-users' locations, these devices allow delivery of IEEE 802.3ah Ethernet in the First Mile (EFM) services using the latest in SHDSL standards. By supporting up to 5.7 Mbps over a single copper pair, each pair can carry 150% more bandwidth than competing products that rely on traditional G.SHDSL standards.

The EtherXtend SHDSL EFM products are available in 1-port, 2-port, and 4-port configurations. The 2-port and 4-port units support loop bonding, thereby enabling up to 11.4 Mbps transmission rates over two copper pairs, or 22Mbps over four copper pairs. As with all of Zhone's EtherXtend product family, these products share some common attributes - enhanced performance in a streamlined, low-cost architecture, designed for ease-of-use, rapid deployments, and low-density applications.

At the Central Office, the MALC can be used with the EtherXtend EFM endpoints.

Zhone's line of EtherXtend EFM access devices are built for reliability and resiliency: dynamic and proactive performance monitoring ensures the quality of bonded groups; seamless failure recovery and hitless adds and drops ensure maximum uptime; a hardware platform designed for a carrier environment.

Technical Specifications

Dimensions

- 1.25" (3.18 cm) H x 10" (25.4 cm) W x 7.625" (19.37 cm) D

Weight

- 1.35 lb (0.61 kg)

Power

- Universal AC Power Supply:
 - input: 100 - 240 V AC (50/60 Hz)
 - output: 5Vdc (3 Amps max)

Interfaces

- 1, 2, or 4 SHDSL (2Base-TL) Interfaces (RJ45)
- 4 10/100 Ethernet Interfaces (RJ45)
- Serial Console

Standards Support

- ITU G.994.1 G.handshake
- IEEE 802.3 Ethernet
- IEEE 802.3ah EFM (2Base-TL)
- IEEE 802.1Q/p

Protocol Support

- IEEE 802.1D support
- VLAN 802.1Q/p support.
- HTTP, HTTPS
- Telnet, SSH

Management

- Serial terminal and telnet for Command Line Interface (CLI)
- In-band IP via 10/100 Ethernet or WAN port
- Web interface
- TR-069
- ZMS (Zhone Management System)

Bandwidth/Distance

- Up to 5.7 Mbps per SHDSL port, symmetrical
- Up to 22 Mbps over four, loop-bonded ports
- Distances up to 24,000ft (7,320m)

Regulatory Compliance

- EMC: FCC Part 15 Class A, ICES-003 Class A, EN55022 Class A, EN55024
- Safety: UL1950-1, CSA C22.2 No. 60950-1, EN 60950-1, CE Marking
- Network: FCC Part 68, IC CS-03

Operating Requirements

- Temperature: 0°C to 40°C (32°F to 122°F)
- Storage: -20°C to 70°F (-4°F to 158°F)
- Humidity: 5% to 85%, non-condensing

Ordering Information

ETHX-3014-US	Single port SHDSL.bis EFM, 4 Ethernet Ports, AC power, US
ETHX-3014-EU	Single port SHDSL.bis EFM, 4 Ethernet Ports, AC power, EU
ETHX-3014-UK	Single port SHDSL.bis EFM, 4 Ethernet Ports, AC power, UK
ETHX-3024-US	Two port SHDSL.bis EFM, 4 Ethernet Ports, AC power, US
ETHX-3024-EU	Two port SHDSL.bis EFM, 4 Ethernet Ports, AC power, EU
ETHX-3024-UK	Two port SHDSL.bis EFM, 4 Ethernet Ports, AC power, UK
ETHX-3044-US	Four port SHDSL.bis EFM, 4 Ethernet Ports, AC power, US
ETHX-3044-EU	Four port SHDSL.bis EFM, 4 Ethernet Ports, AC power, EU
ETHX-3044-UK	Four port SHDSL.bis EFM, 4 Ethernet Ports, AC power, UK



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