

SHDSL EFM Ethernet Access Device

- ✓ *CE 2.0 E-Line and E-Access Certification*
- ✓ *IEEE 802.1ag (Fault Detection)*
- ✓ *ITU Y.1731 (Performance Monitoring)*
- ✓ *Automatic load balancing and fail-over on bonded ports*
- ✓ *Works with MxK or MALC platforms, or in "bookend" configurations.*
- ✓ *Management options include 802.3ah OAM, CLI, and HTTP*
- ✓ *Extended Rates up to 12.7 Mbps per loop*



The 8 port EtherXtend SHDSL Ethernet access ETHX-3584 device has been designed to deliver bonded high-speed Ethernet First Mile (EFM) services over SHDSL. The ETHX-3584 combines SHDSL bonding with advanced performance and management features to ensure high reliability, low latency, and maximum throughput.

Zhone's line of EtherXtend 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. With application-aware traffic control services and built-in OAM, EtherXtend is able to provide more intelligence to a larger portion of the network than any other CPE, making EtherXtend the leading choice for delivering business-class SLAs over Ethernet.

Supporting Zhone's own lightweight Ethernet bonding technologies, the EtherXtend is the most flexible Ethernet Access Device available; the EtherXtend device can aggregate into products such as the MxK or MALC multiservice access platforms, Raptor-XP-170's, other EtherXtend units. The ETHX-3584 provides 8 individual single copper pair SHDSL lines, each allowing for data rates up to 12.7 Mbps symmetrical bandwidth per port. The ETHX-3584 supports loop bonding, combining multiple copper pairs together for bandwidths of up to 100Mbps (8 ports) to a single customer.

Technical Specifications

Dimensions

- 1.75" (4.45 cm) High x 10" (21.6 cm) Wide x 7.5" (19.1 cm) Deep

Weight

- 3.35 lbs (1.52 kg)

Power

-48V DC and Universal AC power options available

- Max power consumption: 22 watts

Interfaces

- 8 extended-rate SHDSL (2Base-TL) Interfaces
- 4 10/100 Ethernet Interfaces

Standards Support

- ITU G.994.1 G.handshake
- IEEE 802.3 Ethernet
- IEEE 802.3ah EFM (2Base-TL)
- IEEE 802.1Q/p
- IEEE 802.1ag (Fault Detection)
- ITU Y.1731 (Performance Monitoring)
- CE 2.0

Protocol Support

- Host-based routing for per-interface IP address assignments
- Network-based routing for per-interface IP subnet assignments
- IP host and gateway support
- RFC 1483/2684 Encapsulation
- 802.1D support
- Jumbo Frame support (>2k)
- IPv6 Tested for Bridged Services

Management

- Serial terminal and telnet for Command Line Interface (CLI)
- In-band IP via 10/100 Ethernet or WAN port
- Web UI

Bandwidth/Distance

- Data rates provisionable up to 12.7Mbps symmetrical
- (TCPAM 4, 8, 16, 32, and 64)
- Distances up to 24kft (7.3 km)
- Cross-talk cancellation within bonded groups

Regulatory Compliance

- EMC: FCC Part 15, CSA/C108.8, EN55022, CE Marking
- Safety: CSA C22.2.60950-1:2007, UL 60950-1:2007, EN 60950-1/A1:2010
- CE Marking

Operating Requirements

- Temperature: 32°F to 104°F (0°C to 40°C)
- Non operating temperature: -40°F to 158°F (-40°C to 70°C)
- Humidity: 5% to 95%, non-condensing
- Altitude: -200ft to 16,500ft (-60m to 5,000m)

Ordering Information

ETHX-3584-DC	8 port Extended Rates EFM SHDSL Ethernet Access Device, DC Power
ETHX-3584-NA	8 port Extended Rates EFM SHDSL Ethernet Access Device, AC Power (NA plug)
ETHX-3584-UK	8 port Extended Rates EFM SHDSL Ethernet Access Device, AC Power (UK plug)
ETHX-3584-EU	8 port Extended Rates EFM SHDSL Ethernet Access Device, AC Power (EU plug)