SHDSL EFM Pseudowire Access Device

- ✓ *MEF 18 Certified*

- ✓ *Full VLAN support with priority and QoS*

- ✓ *TLS mode*

- ✓ *Units operate in back to back mode (CO and CPE mode)*

- ✓ *Multiple clock recovery mechanisms: Adaptive, Synchronous, Differential*

- ✓ *Multiple Encapsulation methods: MEF, IP, MPLS*

- ✓ *Extended SHDSL data rates*

The EtherXtend access devices with Pseudowire Emulation Edge to Edge (PWE3) (ETHX-3142, ETHX-3143) allow customers to extend TDM services over a packet based network. These access devices connect to TDM and Ethernet services simultaneously. The ETHX-31xx units allow a standard T1/E1 circuit to be transported over the EFM bonded connection. This eliminates the need to maintain a separate T1/E1 connection to customers who are using bonded Ethernet for their data needs. Customers can migrate their TDM applications to a more cost effective packet based network. These Pseudowire devices support multiple TDM clock recovery methods (Adaptive, Synchronous, Differential). This allows for accurate clock recovery in a variety of different network configurations.

Zhone's EtherXtend Family of 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. The unit supports EFM loop bonding, thereby enabling up to 48 Mbps over four copper pairs, using the extended data rates. Because this is an EFM product, the loops can be at different rates, and still be part of the EFM bundle. This access device is equipped with an autorate capability that allows the unit to run at the maximum line rate supported by the copper loop. This autorate feature greatly simplifies installation and service provisioning.

Technical Specifications

Dimensions

- 2.0 in H x 8.7 in W x 6.2 in D
- 5 cm H x 22 cm W x 16 cm D

Weight

- 1.0 lb (0.45kg)

Power

- 48 VDC (DC Models)
- 100- 240 VAC 50/60 Hz (AC Models)

Interfaces

- 4 SHDSL Interfaces 8-pin modular
- 4 10/100 Ethernet Interfaces 8-pin modular
- 1 Serial (Craft) interface
- 2 T1/E1 Interfaces 8-pin modular for 100/120 Ohm (ETHX-3142)
- 2 E1 Interfaces BNC for 75 Ohm (ETHX-3143)

Standards Support

- MEF 18
- RFC 4553 (SAToP)
- RFC 5086 (CESoPSN)
- ITU G.8261, G.823, G.824,
- ITU G.703
- ITU Y.1413
- ITU Y.1453, Y.1452
- CTR 12/13, and ETS 30011
- IEEE 802.3 Ethernet
- IEEE 802.3ah EFM
- IEEE 802.1Q/p VLANs

Protocol Support

- Telnet
- SSH
- HTTP
- HTTPS
- SNMP

Management

- ZMS (Zhone Management System)
- HTTP
- SNMP
- Command Line Interface (CLI)

Bandwidth/Distance

- Up to 12 Mbps per SHDSL port
- Up to 48 Mbps over four, loop-bonded ports
- Distances up to 24,000 ft (7,320m)

Regulatory Compliance

- EMC: FCC Part 15 Class A, ICES-003 Class A, EN55022 Class A, EN55024
- Safety: UL60950-1, CSA C22.2 No. 60950-1, EN 60950-1.
- CE Marking
- Network: FCC Part 68, IC CS-03

Operating Requirements

- Temperature:
- 0° C to 60° C (32° F to 140° F) (AC Model) -40° C to 65° C (-40° F to 149° F) (DC model)
- Storage Temperature: -40°C to 70°C (-40°F to 158°F)
- Humidity: 5% to 95%, non-condensing

Ordering Information

ETHX-3142-EU	PWE, 4 SHDSL EFM, 2 T1/E1(RJ), 4 Ethernet , AC EU
ETHX-3142-UK	PWE, 4 SHDSL EFM, 2 T1/E1(RJ), 4 Ethernet, AC UK
ETHX-3142-US	PWE, 4 SHDSL EFM, 2 T1/E1(RJ), 4 Ethernet, AC US
ETHX-3142-DC	PWE, 4 SHDSL EFM, 2 T1/E1(RJ), 4 Ethernet, DC
ETHX-3143-EU	PWE, 4 SHDSL EFM, 2 E1(BNC), 4 Ethernet, AC EU
ETHX-3143-UK	PWE, 4 SHDSL EFM, 2 E1(BNC), 4 Ethernet, AC UK
ETHX-3143-US	PWE, 4 SHDSL EFM, 2 E1(BNC), 4 Ethernet, AC US
ETHX-3143-DC	PWE, 4 SHDSL EFM, 2 E1(BNC), 4 Ethernet, DC