



Z H O N E

EtherXtend SHDSL "Lite"

ETHX-SHDSL-x-LT-S, ETHX-SHDSL-x-LT-P

Ethernet over Copper access device supports loop bonding up to 11.4 Mbps

- ✓ Available in 1-port or 2-port SHDSL.bis configurations
- ✓ Up to 5.7 Mbps on a single copper pair; up to 11.4 Mbps on a pair of bonded loops
- ✓ Automatic load balancing and fail-over on bonded ports for optimum throughput and redundancy (on 2-port model only)
- ✓ Seamless failure recovery allows dropped lines to retrain and then re-enter a bonded group automatically
- ✓ Can operate in back-to-back, book-ended configurations
- ✓ Compatible with Zhone's CO Aggregation products (e.g. MALC, IPD, and EtherXtend SHDSL 4|8 port models)



Zhone's EtherXtend SHDSL "Lite" Ethernet Access Devices (EADs) allows Carriers, CLECs, ISPs and PTTs to deliver 10/100BT Ethernet services to their customers simply, quickly and cost-effectively over existing copper plant. Intended for deployment at end-users' locations, these devices allow delivery of Ethernet in the First Mile (EFM) services using the latest in SHDSL.bis transport protocols. 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 "Lite" products are available in 1-port and 2-port configurations (ETHX-SHDSL-1-LT and ETHX-SHDSL-2-LT respectively). The 2-port unit supports loop bonding, thereby enabling up to 11.4 Mbps transmission rates over two copper pairs. As with all of Zhone's EtherXtend "Lite" product family, the ETHX-SHDSL-LT products share some common attributes - enhanced performance in a streamlined, low-cost architecture, designed for ease-of-use, rapid deployments, and low-density applications.

The EtherXtend SHDSL "Lite" products can interoperate with each other in a point-to-point (i.e. book-ended) configuration. Where several of these devices will home in on a common central office (CO) location, CO aggregation can be achieved using the ESIM5700-48 line card of Zhone's IP-DSLAM (IPD) platform. Alternatively, service providers can use Zhone's Single Line Multi-Service (SLMS) family of products (e.g. MALC or ETHX-SHDSL-4/8) as aggregation devices for the ETHX-SHDSL-LT. This is because, in addition to being fully compliant with the IEEE 802.3ah EFM standards, the SLMS products can also be configured to operate using the industry's first and unique loop bonding techniques that are implemented in the ETHX-SHDSL-LT products.

What differentiates Zhone's EtherXtend "Lite" loop bonding product offerings from all other vendors' EFM offerings, is the simplicity and efficiency with which Ethernet services can be deployed over bonded loops with a minimum of fuss and operation complexity only made possible by the automatic, configuration-free, "plug and play" operation of the EtherXtend "Lite" methods of loop bonding techniques.

Therefore, by supporting two different types of loop bonding technologies and solutions, only Zhone Technologies can offer the customer the choice between maximum network flexibility and multi-vendor interoperability (as is available in Zhone's fully compliant, 802.3ah EFM solutions) to the lower-cost, hassle-free deployment options only available from Zhone's EtherXtend "Lite" loop bonding solutions.

Technical Specifications

Dimensions

- 1.4 in H x 8.4 in W x 5.0 in D
- 3.7 cm Hx 21.4 cm Wx 12.7 cm D

Weight

- 1.0 lbs (0.45 kg)

Power

- 100-125VAC @ 0.15A
- 200-240VAC @ 0.075A

Interfaces

- Single-port Unit (ETHX-SHDSL-1-LT)
 - 1 x SHDSL Hybrid RJ11/RJ45 (TC-PAM encoding)
 - 1 x 10/100 Ethernet RJ45
- Dual-port Unit (ETHX-SHDSL-2-LT)
 - 2 x SHDSL Hybrid RJ11/RJ45 (TC-PAM encoding)
 - 2 x 10/100 Ethernet RJ45

Standards Support

- ITU G.991.2 G.SHDSL
- IEEE 802.3 Ethernet

Protocol Support

- Transparent 802.1D Bridging

Bandwidth/Distance

- Up to 5.7 Mbps per SHDSL port
- Up to 11.4 Mbps over two, loop-bonded ports (using two pair)

Regulatory Compliance

- EMC: FCC Part 15; CSA/C108.8; EN55022; EN55024
- Safety: UL1950, CSA C22.2 No. 950; EN60950
- CE Marking

Operating Requirements

- Operating: 32°F to 122°F (0°C to 50°C)
- Storage: -40°F to 158°F (-40°C to 70°C)
- Humidity: 5% to 95%, non-condensing
- Altitude: -200 ft to 16,500 ft (-60 m to 5,000 m)

Ordering Information

EtherXtend SHDSL Lite Ethernet Access Devices - Provider Units

ETHX-SHDSL-1-LT-P-EU	Single-port SHDSL EtherXtend Lite, Provider Unit, AC power (EU Plug)
ETHX-SHDSL-1-LT-P-UK	Single-port SHDSL EtherXtend Lite, Provider Unit, AC power (UK Plug)
ETHX-SHDSL-1-LT-P-US	Single-port SHDSL EtherXtend Lite, Provider Unit, AC power (US Plug)
ETHX-SHDSL-2-LT-P-EU	Dual-port SHDSL EtherXtend Lite, Provider Unit, AC power (EU Plug)
ETHX-SHDSL-2-LT-P-UK	Dual-port SHDSL EtherXtend Lite, Provider Unit, AC power (UK Plug)
ETHX-SHDSL-2-LT-P-US	Dual-port SHDSL EtherXtend Lite, Provider Unit, AC power (US Plug)

EtherXtend SHDSL Lite Ethernet Access Devices - Subscriber Units

ETHX-SHDSL-1-LT-S-EU	Single-port SHDSL EtherXtend Lite, Subscriber Unit, AC power (EU Plug)
ETHX-SHDSL-1-LT-S-UK	Single-port SHDSL EtherXtend Lite, Subscriber Unit, AC power (UK Plug)
ETHX-SHDSL-1-LT-S-US	Single-port SHDSL EtherXtend Lite, Subscriber Unit, AC power (US Plug)
ETHX-SHDSL-2-LT-S-EU	Dual-port SHDSL EtherXtend Lite, Subscriber Unit, AC power (EU Plug)
ETHX-SHDSL-2-LT-S-UK	Dual-port SHDSL EtherXtend Lite, Subscriber Unit, AC power (UK Plug)
ETHX-SHDSL-2-LT-S-US	Dual-port SHDSL EtherXtend Lite, Subscriber Unit, AC power (US Plug)



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