

### SHDSL.bis EFM Ethernet Access









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

- 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 ITT's CO aggregation products (e.g. MALC, and 8820)

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 ITT' EtherXtend product family, these products share 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.

ITT' 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.

SERVICES: Guaranteed Warranty



## SHDSL EFM Ethernet Access



#### Specifications:

Specifications.	
Weight &	> 1.35 lb (0.61 kg)
Dimensions	> 1.25 (3.18 cm) H x 10 (25.4 cm) W x 7.625 (19.37 cm) D
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
<b>Protocol Support</b>	➤ IEEE 802.1D support
	➤ VLAN 802.1Q/p support.
	► HTTP, HTTPS
	➤ Telnet, SSH
Management	<ul> <li>Serial terminal and telnet for Command Line Interface (CLI)</li> </ul>
	> In-band IP via 10/100 Ethernet or WAN port
	> Web interface
	> TR-069
	ZMS management system
Operating	> Temperature: 0°C to 40°C (32°F to 122°F)
Requirements	> Storage: -20°C to 70°F (-4°F to 158°F)
	Humidity: 5% to 85%, non-condensing
Bandwidth /	> Up to 5.7 Mbps per SHDSL port, symmetrical
Distance	> Up to 22 Mbps over four, loop-bonded ports
	Distances up to 24,000ft (7,320m)
Regulatory	<ul> <li>EMC: FCC Part 15 Class A, ICES-003 Class A, EN55022 Class A, EN55024</li> <li>Safety: UL1950-1, CSA C22.2 No. 60950-1, EN 60950-1, CE Marking</li> </ul>
Compliance	<ul> <li>Safety: UL1950-1, CSA C22.2 No. 60950-1, EN 60950-1, CE Marking</li> <li>Network: FCC Part 68, IC CS-03</li> </ul>
Dimension	> 485*245*90MM
Weight	→ 4.3KG
110.8.10	7 4.510

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# SHDSL.bis EFM Ethernet Access

### **Ordering Information:**

Model	Description
ETHX-3014-US	<ul> <li>SINGLE port SHDSL.bis EFM</li> <li>4 Ethernet Ports</li> <li>AC power</li> <li>US</li> </ul>
ETHX-3014-EU	<ul> <li>SINGLE port SHDSL.bis EFM</li> <li>4 Ethernet Ports</li> <li>AC power</li> <li>EU</li> </ul>
ETHX-3014-UK	<ul> <li>SINGLE port SHDSL.bis EFM</li> <li>4 Ethernet Ports</li> <li>AC power</li> <li>UK</li> </ul>
ETHX-3024-US	<ul> <li>TWO port SHDSL.bis EFM</li> <li>4 Ethernet Ports</li> <li>AC power</li> <li>US</li> </ul>
ETHX-3024-EU	<ul> <li>TWO port SHDSL.bis EFM</li> <li>4 Ethernet Ports</li> <li>AC power</li> <li>EU</li> </ul>
ETHX-3024-UK	<ul> <li>Single port SHDSL.bis EFM</li> <li>4 Ethernet Ports</li> <li>AC power</li> <li>UK</li> </ul>
ETHX-3044-US	<ul> <li>TWO port SHDSL.bis EFM</li> <li>4 Ethernet Ports</li> <li>AC power</li> <li>US</li> </ul>
ETHX-3044-EU	<ul> <li>FOUR port SHDSL.bis EFM</li> <li>4 Ethernet Ports</li> <li>AC power</li> <li>EU</li> </ul>
ETHX-3044-UK	<ul> <li>FOUR port SHDSL.bis EFM</li> <li>4 Ethernet Ports</li> <li>AC power</li> <li>UK</li> </ul>
ETHX-3044-UK	<ul> <li>FOUR port SHDSL.bis EFM</li> <li>4 Ethernet Ports</li> <li>AC power</li> <li>UK</li> </ul>

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