SDSL ETHERNET EXTENDER

Extend your LAN to 3.4 km over twisted pair with no repeaters!

Product Features

- Single Pair Copper Link
- 2.3 Mbps link speed
- 10 Base-T Ethernet Bridging
- Integrated 4 port 10 base-T Hub
- SDSL link performance monitoring
- Ethernet Performance monitoring
- Cost effective E1 SDSL deployment
- Extended loop reach without the need for repeaters
- Low power requirements
- Fractional E1 digital interfaces
- Ethernet bridging (10-Base-T)
- Embedded operations channel
- Selectable parameters for easy installation and configuration

What is an SDSL Ethernet Extender?

The SDSL Ethernet Extender provides the ideal solution for the extension of a 10 BASE-T Ethernet Local Area Network over existing copper cabling, offering dramatic savings over fibre alternatives and high reliability. Bridging of the Ethernet network onto the 2.048Mbps SDSL copper link ensures high throughput between 10 BASE-T LANs. The high integrity copper link circuitry enables distances up to 3.5km using 0.4 mm diameter twisted pair copper wire. The units tolerate bridge traps making copper pair selection easy. The Carrierless Amplitude Phase modulation technique employed by these units has superior crosstalk characteristics ensuring that these units are spectrally compatible with other services such as ISDN, E1, 2B1Q HDSL, and RADSL. For assured link integrity, an embedded options channel allows full performance and fault management through network management interfaces. Local and remote network and terminal loopbacks facilitate easy installation and network maintenance.

Applications

The SDSL Transmission Units (STUs) provide high-speed campus-style network services for enterprise and government, university, hospital, school, and military locations. The equipment is installed within minutes on standard copper telephone lines with minimal configuration and set up.

The SDSL Advantage

STUs provide triple the speed of other twisted-pair symmetric services. They can transport a full E1 (2.048 Mbps) payload, compared with 768 kbps offered by other SDSL solutions. The units transmit over standard telephone wires up to 3.5 km using 0.4 mm twisted-pair copper wire. The units tolerate bridge traps, making copper pair selection easy. The products provide high performance, yet interfere less with other adjacent services. This key advantage is based on Black Box's use of a bandwidth-efficient line code, CAP (carrierless amplitude phase modulation), that has superior crosstalk characteristics. As a result, network managers can install SDSL equipment knowing it is spectrally compatible with repeatered T1/E1 service, ISDN, 2B1Q-based HDSL, CAP-based RADSL, and DMT-based RADSL. CAP is fully ETSI standard.

Network Management
The system provides local and remote network and terminal loopbacks to facilitate installation and network maintenance. The embedded operations channel allows full performance and fault through network management interfaces.

Specifications

Network SDSL Interface

• Standard	ETSI RTR TM06002 CAP section
• Media	Unshielded Twisted Pair (UTP CAT 4 or 5)
• Termination	135 Ohms
• Payload	2.3 Mbps
• Line Code	Carrierless Amplitude Phase (CAP 128) modulation
• Spectrum	4khz to 443.7 kHz
• Bandwidth	444.7 kHz (includes 15% excess bandwidth)
• Tx Signal Power	+15.5 dB
• Noise Margin	6.0 dB for 2.048 Mbps
• Range	3.5km over 0.4mm
• Connector	RJ-48C

Data Interfaces

• Connector	RJ-48
• Full Line Rate	2.3 Mbps
• Timing	From CO unit

Diagnostics

• Monitoring	SNR real-time, plus FEBE, FAW, CRC, CV and FAS current periods and historical

Power Requirements

• Input voltage	24 VDC
• Consumption	Powered up : 4.8 Watts
• Adapters	230VAC/24VDC or 120VAC/24VDC Power supply available separately (optional)

Environmental

• Operating Temp.	0° to 40° C (32° to 104° F)
• Storage Temp.	-40° to 85° C (-40° to 185° F)
• Relative humidity	0 to 95% non-condensing

Ordering Information

Item	Code
SDSL Ethernet Extender	LEU9020
Bulk CAT5 Cable: 152m	EYN717A-0500
304m	EYN717A-1000