COPPERLAN BIS

Ethernet Bridge over SHDSL Bis/Copper

BENEFITS

- Bridge over 1 or 2 copper pairs
- High data rate, 15 Mbps on 1 pair, 30 Mbps on 2 pairs
- SHDL Bis, UIT-T G.991.2 Standardgttgc
- Automatic rate adaptation from 192 kbps to 30 Mbps according to the line quality
- Distance up to 8 km
- Bonding : EFM, IEEE 802.3ah
- Four Ethernet 10/100 interfaces
- POE, Power Over Ethernet, 15W interface
- Ethernet, 802.1d bridge
- Per port VLAN and 802.1q
- QoS and traffic prioritization
- Spanning Tree, 802.1d
- RS232 interface for adapting an asynchronous terminal (except –E version)
- Management : Web interface, http / https, telnet, ssh, and local console port
- Remote management in IP and out of band supervision through EOC channel
- Compact and economic solution
- DIN rail mounting
- 48Vdc and 110/230Vac mains supply options

SHDSL Bis/EFM Bridge & Router

CopperLan-Bis is an enterprise network access unit that provides high rate connection over one or two telephone copper pairs. It operates as a manageable Ethernet bridge with VLAN capabilities. It complies to the ITU-T G.991.2, G.SHDSL Bis standard with a 15 Mbps throughput per pair. It performs 30 Mbps over two pairs with EFM, Ethernet First Mile, IEEE 802.3ah standard.

LAN extension over 2/4 wires lines up to 30Mbps or 12km

CopperLan-Bis offers a maximum rate of 30 Mbps or a maximum distance of 8 km over existing 0.4mm / AWG26 copper pairs. Four Ethernet ports connect to the LAN and terminal equipments. The first Ethernet port supplies a POE source for feeding up to 13W terminals.
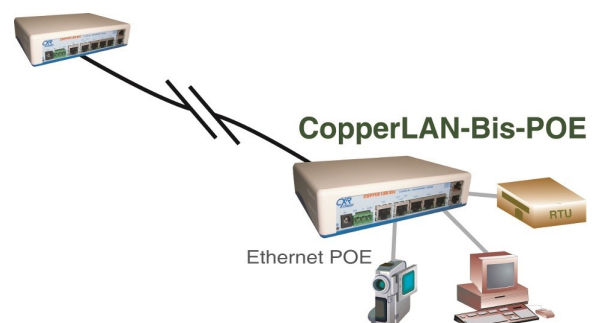
CopperLan-Bis is a high performance Ethernet bridge with per port VLAN and 802.1q VLAN processing. It assures rate limiting, traffic prioritization and QoS control from the IP DSCP field.

CopperLan-Bis connects a V24/RS232 terminal to the network & converts its asynchronous data to IP. Such terminal can be a payment terminal or the control port of a machine, etc. It can be reached from the IP/Ethernet network through the DSL line.

CopperLan-Bis management is very flexible and secure. Most management is done through intuitive Web pages in http / https. It can be supervised through snmp. Access is secured through password policy and secured protocols – ssh and https. The equipment provides also a local console port and a Syslog service.

CopperLan-Bis is suitable for any professional environment. It comes as a compact device powered from both a 5 Vdc or a 48 Vdc input. An external converter is provided as a 110-230 Vac mains supply. The unit can be mounted on a DIN rail or in a 19'' rack.

The first Ethernet port of the *CopperLan-Bis-POE* is a POE source of 15W to power feed a terminal like IP caméra or IP-Phone.

CopperLAN-Bis-POE

Ethernet POE

TECHNICAL SPECIFICATIONS

SHDSL interface
- G.SHDSL Bis, UIT-T G.991.2 Annex A/B, ETSI TS-101524
- 2 pairs mode : EFM bonding, IEEE 802.3ah
- Code : TC-PAM 16/32/64/128
- Support : 1 or 2 copper pairs with metallic continuity
- Line rate from 192 kbps to 15 Mbps per pair
- Impedance : 135 Ohms
- Connector : RJ45

Ethernet interfaces
- 4 Ethernet ports, 10/100 BaseT
- RJ45 connectors
- POE on port 1, Class 3 – 13 W, 802.3af
- Automatic rate 10/100 Mbps
- Auto MDI/MDI-X

Ethernet bridge
- Ethernet bridge, 802.1d
- Frame memory : 64 Ko
- MAC address memory : 1 K@
- Aging : 300 S
- Per port VLAN and 802.1q
- Spanning Tree : 802.1d
- Frame size : 1536
- QoS and traffic priority from DSCP
- Rate limiting

Management
- Web interface, http / https
- ssh
- ftp : backup and editing of the configuration file
- snmp v1/v2
- Syslog for critical events
- Local and remote management in tcp-ip
- Local console port
- Extended status and statistics of interfaces and protocols

Light indicators
- Power
- CD1, CD2 : SHDSL line activation
- ACT : frame transmission on the Ethernet interfaces
- 100 : 100 Mbps speed of the Ethernet interfaces
- TD, RD : data transmission of the RS232 terminal interface

Power
- Unit power consumption : 7 W
- 48Vdc input :22W max, active POE :13W
- 5Vdc input and 10W mains power adapter

General characteristics
- Size (DxWxH): 170 x 120 x 41 mm
- Plastic case weight : 0,38 kg
- Metallic case weight : 0,7 kg
- Operating temperature : -20 to +60°C, 48Vdc supply
- Hygrometry : 10 to 90%, non condensing
- MTBF : 150 000 H
- Safety : EN-60950
- EMC : EN-55022 Class B and EN-55024

- **DSL Range** : no noise conditions

1 pair	2 pairs	AW26 (*)
192 kbps	384 kbps	7.2 km
512 kbps	1,024kbps	5,8 km
1,280 kbps	2,560 kbps	5 km
2,048 kbps	4,092 kbps	4,4 km
3,072 kbps	6,144 kbps	3,8 km
4,608 kbps	9,216 kbps	2,9 km
5,696 kbps	11,392 kbps	2,6 km

G.SHDSL Bis, EFM LAN Extension

GAMME DE PRODUIT

CopperLan-Bis –E	Plastic case, External power supply 110/230Vac/5Vdc. No Terminal port
CopperLan-Bis –POE	Plastic case, base unit with 230Vac/48Vdc mains converter 25W for POE source feeding on LAN1 port.
CopperLan-Bis –MC1	Metallic case unit with 48Vdc input
CopperLan-Bis –MC2	Metallic case unit with 24Vdc input
CopperLan-Bis –MPOE	Metallic case unit with 110-230Vac / 48Vdc, 25W converter for POE source feeding on LAN1 port.

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