

SWM-24GSBIS - 2CB

24 PORTS GSHDSL-BIS

Specifications

- Compact IP DSLAM 1U 19"
- 24 ports GSHDSL-Bis
- EFM 802.3ah compliant
- EFM C Bounding PAF up to 4 pairs 22Mbps
- 2 Uplink ports Combo 10/100/1000BaseT and SFP for 1000SX/LX/ZX
- 1 management port

Ethernet links over EFM

- 24 ports at 5,7Mbps/2 wires
- 12 ports at 11,4Mbps/4 w
- 6 ports at 22Mbps/8 w
- Or mix
- 7,2 km at 200kbps/pair
- Limitation of Ethernet per port per 64Kbps, starting at 64kbps, 128kbps...

Ethernet Switch on DSL

- Layer 2 Switch
- VLAN per port
- VLAN 802.1Q tagging
- Provider VLAN or Q-in-Q
- QoS—DiffServ— Level 4
- Full and Half Duplex,
- Auto MDI/MDI-X

IEEE protocols

- 802.3ah EFM
- 802.3x Flow Control
- 802.1p Prioritisation Qos
- 802.1Q VLAN tag
- 802.1ad Provider VLAN.
- 802.1w Rapid Spanning Tree

Clients control

- IGMP Snooping V1/V2/V3 support for IP multicasting
- Bandwidth Limitation 64Kbps step on DSL.

Management

- HTTP, Web interface
- CLI per console port & LAN
- SNMPV2/V3

Connector

- Telco50 RJ21
- Console Port DB9F



LAN extension, Provider VLAN Network, Wireless Backhaul (3G+ / 4G)



CXR **SWM-24GSBIS** is a twenty four port EFM 2BASE-TL Access Concentrator that delivers symmetric data rates up to 22Mbps, using EFM bonding technology with up to 4 copper pairs. This 1U compact form factor solution enables Service Provider or Enterprises customer to deliver fiber-like Ethernet connectivity service to sites where fiber is not fed.

End-to-End management provide Carrier grade Ethernet SLA of the **SWM-24GSBIS** implements IEEE 802.3ah standard and the vendor extended management features based on the standard. It enables users to significantly reduce OPEX by eliminating unnecessary truck roll costs and additional training costs as it is based on user-friendly Ethernet technology. **SWM-24GSBIS** is interoperable with Fast and Gigabit Ethernet interfaces from switches, routers, and NG-SONET/SDH equipment.

In addition, **CopperLAN-Bis** and **SpeederLAN-Bis** series can work as a smart Ethernet Demarcation Device which is necessary for carriers to provide separation between carrier WAN and enterprise LAN by monitoring net-

work status and operation at the customer site. **SWM-24GSBIS**'s management interfaces include Web-based GUI, comprehensive command-line interface (CLI), SNMP and Telnet.

Future-proof Ethernet traffic management and QoS features—The **SWM-24GSBIS** provides future-proof features meeting Ethernet Quality of Service (QoS) and Class of Service (CoS) requirements by utilizing 802.1q VLAN and DSCP capabilities, stacked VLANs(Q-in-Q), four levels of priorities, traffic flow control and rate control. This traffic management and QoS features enable carriers to offer highly profitable and value-added services to a vast majority of business and institutional customers.

Application

- Metro Ethernet Extension (E-Line, E-LAN Services)
- Ethernet Demarcation Device (EDD) for PVN Provider VLAN Network
- Transparent LAN Service
- Fast Internet Access

Mini DSLAM G.SHDSL-Bis / EFM

PRODUCT REFERENCE

SWM-24GSBIS-2CB	Switch 24 ports GSHDSL-Bis - 2 ports Combo 10/100/1000 BaseT et SFP pour modules 1000SX/LX/ZX, module et câbles en sus
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Cables Telco 50 points

CA-TELCO50M/M-03 / 1 / 5	Câble Telco50M à Telco50/DS-M 0,3m ou 1m ou 5m
CA-TELCO50D/NU-2 / 5	Câble Telco50M à 24 paires de fils nus de 2m ou 5m
CA-TELCO50M/RJ45-2 / 5	Câble Telco50M à 24 RJ45 - Long: 2m ou 5m
CA-TELCO50M/RJ21M-03 / 1 / 5	Câble Telco50M à Telco50/RJ21-M 0,3m ou 1m ou 5m

Modem CPE-GSHDSL-Bis

CopperLAN-Bis-E	Modem GSHDSL-Bis 2/4 w Bridge/Router 4 Ethernet ports, AC w adapter
CopperLAN-Bis-C	Modem GSHDSL-Bis 2/4 w Bridge/Router 4 Ethernet ports, DC
CopperLAN-Bis-POE	Modem GSHDSL-Bis 2/4w Bridge/ Router 4 Ethernet ports w 1 POE PsE port, DC and AC w adapter
SpeederLAN-Bis-4-I or C	Modem GSHDSL-Bis 2 to 8W Bridge w 3 Ethernet ports, AC or DC
SpeederLAN-Bis-8-I or C	Modem GSHDSL-Bis 2 to 16W Bridge w 3 Ethernet ports , AC or DC
CopperWAY-Bis	Dual Modem GSHDSL-Bis 2/4W Bridge w 4 Ethernet ports, AC

Long haul 26 AWG or 0.4 mm

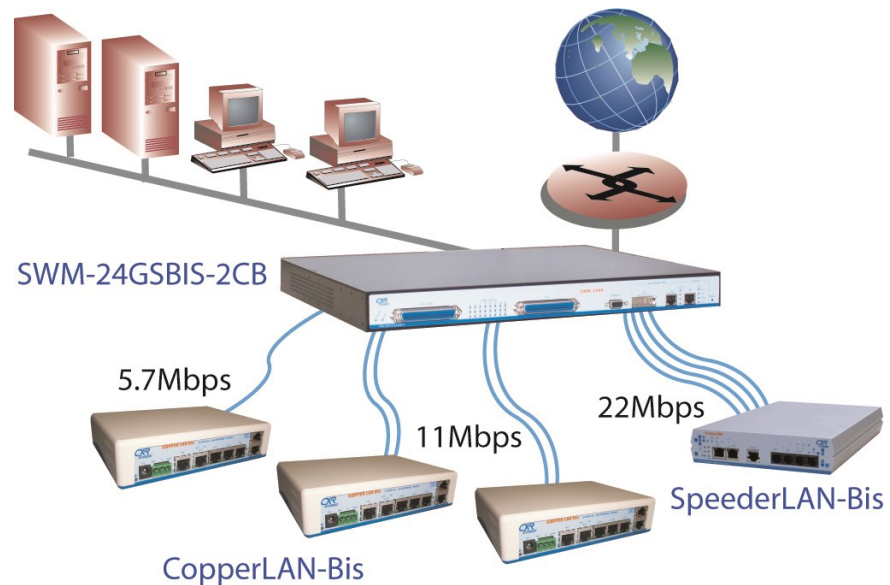
1 pair	2 pairs	4 pairs	AW26 (*)
192 kbps	384 kbps	384 kbps	7.2 km
512 kbps	1,024kbps	2,048 kbps	5,8 km
1,280 kbps	2,560 kbps	5,120 kbps	5 km
2,048 kbps	4,092 kbps	8,184 kbps	4,4 km
3,072 kbps	6,144 kbps	12,288 kbps	3,8 km
4,608 kbps	9,216 kbps	18,416 kbps	2,9 km
5,696 kbps	11,392 kbps	22,784 kbps	2,6 km

xDSL Access

Switch xDSL Ethernet

IEEE protocols

TYPICAL APPLICATION



SPECIFICATION DU DSLAM IP SWM24GS

LINE INTERFACE	Uplink : Dual GE combo 10/100/1000Mbps and SFP for 1000SX/LX/ZX MDI/MDI-X SHDSL : 24-port SHDSL-Bis (Compliant to ITU G.991.2) RJ-21 connector (Telco 50 pin connector) 192Kbps-5696Kbps at 64Kbps step 384Kbps-11392Kbps at 128Kbps step (4 wire mode) TC-PAM modulation 16 and 32
TRANSMISSION	EFM 2BASE-TL subscriber side IEEE 802.3ah OAM EFMC Bounding PAF up to 4 pairs 22Mbps Y.1731 / 802.1ag CFM soon
Console	RS-232C—DB-9F connector
Diagnostic LEDs	Power : On / Off SHDSL: SYNC : 24 ports, ACT : Light flashing (Tx / Rx) Ethernet : Right Light ON : 1000M Ethernet; OFF:100M Ethernet Left Light ON : Link on; Left Light flashing : Tx / Rx
Ethernet	Support 802.3/3u/3x Back pressure flow control for half duplex Flow control for full duplex (802.3x) Frame buffer memory size : 2Mb
Bridging	32K MAC addresses MAC address filtering MAC address limiting Flooding control Spanning Tree Protocol (802.1d) Rapid Spanning Tree Protocol (802.1w) Per VLAN Spanning Tree (PVST) support
VLAN	Port-based VLAN IEEE 802.1Q Tag-based VLAN Provider VLAN double tagging or Q-In-Q No. of IEEE 802.1Q tag-based VLAN : 255 GVRP support
QoS	Traffic Classification based on : - Port based priority - VLAN priority field in VLAN tagged frame - DS/TOS field in IP packet - TCP/UDP logical ports 4 priority queues with delay bounded, strict priority and WFQ service disciplines 2 dropping precedence with WRED mechanism
IP Multicast	Support IGMP snooping V1/V2/V3
Management	Local console, Telnet, CLI SNMP v2 and V3 soon Web-based management http
MIB	RFC 1213 MIB II, RFC 1493 Bridge MIB, SHDSL line MIB
Line protection	Surge protection 15K volt for 8 micro seconds on Ethernet uplink, management and all DSL ports.
Power	100 ~ 240VAC, 50 ~ 60Hz
Mechanical	Size : 440mm (W) x 300mm(D) x 44mm (H) Weight : 4.5Kg Mount : 19" rack mount, 1U, or desktop
Environment	Operating Temp. 0°C to 50°C Storage Temp. -20°C to 70°C Humidity 5%~95%, non-condensing

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*Clients control**Network
management**GSHDSL
Symmetrical
5,7Mbps
per pair*Smart Solutions for
Smart Networks

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