

EXTENDING YOUR LAN NETWORK UP TO 13KM

The family of SHDSL (XSLAN) and SPE (XELAN) switches enables the connection of remote Ethernet networks using a simple copper pair in order to reach data rate up to 15Mbps.

A large range of Ethernet extenders is offered :
Point-to-point, multipoint up to 12 lines concentrator.

Switch SHDSL / SPE

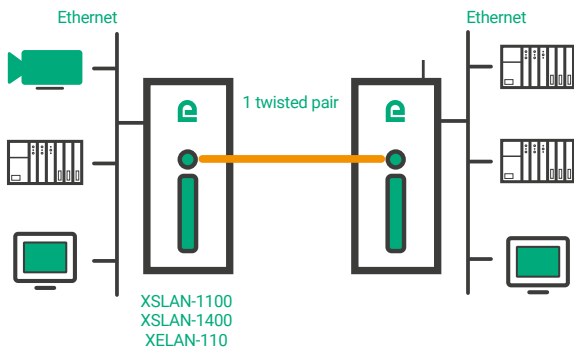
- From 1 to 12 WAN ports
- From 1 to 6 Ethernet ports
- Technology: SHDSL or SPE
- Up to 13 km
- Up to 15 Mb/s
- IP Router
- SNMP, QoS Diffserv, VLAN
- Bypass feature
- Failsafe ring (RSTP or proprietary protocol)
- Auto-negotiation
- Railway compatible
- AES256 encryption (MACSec)
- Authentication 802.1X



DOC_MPR_XSLAN_Data sheet_E (latest update 11/29/2024)

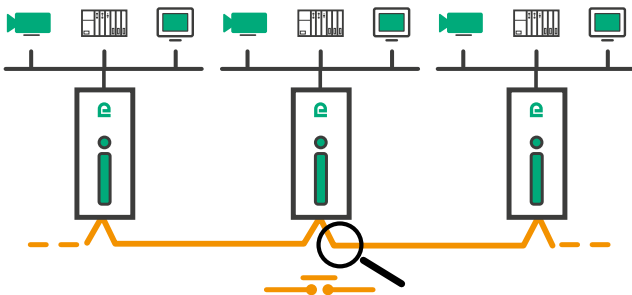
A "PLUG AND PLAY" MODEL

Activation of a point to point connection (XSLAN-1100 or XELAN-110) or web page (XSLAN-1400).



DAISY CHAIN NETWORK

The XSLAN-2400 or XELAN-210 can be used to build a daisy chain topology via a copper pair.

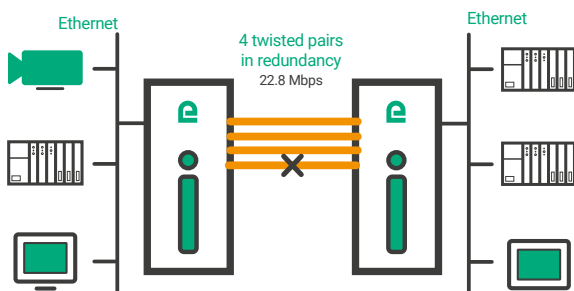


"The Bypass"

The "By-Pass" feature is used to close the line (electro-mechanical relay) when the XSLAN or XELAN is switched off. The daisy chain is thus not cut.

SHDSL LINE AGGREGATION TO INCREASE DATA RATE AND SECURITY

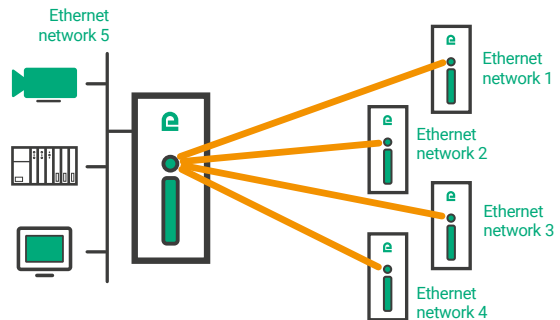
XSLAN-2xxx and XSLAN-4200 can aggregate SHDSL lines to increase the data rate or to offer a line backup.



XELAN's strengths

- Low consumption
- Plug & Play
- Quick connexion
- Economically optimized

SHDSL LINE CONCENTRATOR



Models : XELAN 210, XSLAN-2400, XSLAN-4200 and XSRACK-1260.

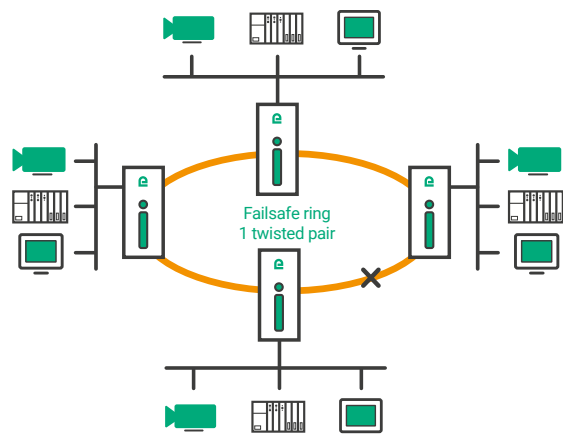


Auto-negotiation

This configuration mode can be used to quickly plug the XSLAN or XELAN without configuration.

FAILSAFE RING

XSLAN is working with RSTP or Etic Telecom protocol in order to build any type of topology with redundancy.



Loop VPN for secured ring (XSLAN only)

When the SHDSL network forms a daisy chain and when it is not possible to form a secured ring, the "loop VPN" function allows a network redundancy if an Internet or a private (MPLS) connection is available at each end of the SHDSL network.

SELECTION GUIDE



PRODUCT DESIGNATION	XELAN 110	XELAN 210	XSLAN 1100	XSLAN 1400	XSLAN 1220	XSLAN 2400	XSLAN 2220	XSLAN 4200	XSRACK-1260
Managed switch	No	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Technology	SPE	SPE	SHDSL	SHDSL	SHDSL	SHDSL	SHDSL	SHDSL	SHDSL
Number of WAN ports	1	2	1	1	1	2	2	4	12
Ethernet port (LAN)	1	1	1	4	2	4	2	2	6
Serial port (RS232/RS485)					✓		✓		
Data rate	10 Mbps	10 Mbps	CF page 4	CF page 4	CF page 4	CF page 4	CF page 4	CF page 4	CF page 4
Powered Product (802.3af PoE Option)	✓	✓							
2 Power inputs				✓	✓	✓	✓	✓	✓
PODL remote power supply (XELAN 110 PW)	✓								
"Plug & Play" installation	✓	✓	✓						
ByPass option		✓				✓	✓	✓	
Loop VPN				✓	✓	✓	✓	✓	✓
Latency	<0,2 ms	<0,2 ms	2 ms	2 ms	2 ms	2 ms	2 ms	2 ms	2 ms
Configuration DIP Switch = DP, Web Server = WS	Auto/DP	Auto/DP	Auto/SW	SW	SW	SW	SW	SW	SW
Diagnostic	LED	LED	LED/SW	LED/SW	LED/SW	LED/SW	LED/SW	LED/SW	LED/SW
AES256 Encryption			✓	✓	✓	✓	✓	✓	✓
Railway compatibility				✓	✓	✓	✓	✓	

TECHNICAL CHARACTERISTICS

GENERAL CHARACTERISTICS							
Dimensions	<ul style="list-style-type: none"> XSLAN-1100, XELAN-110 and XELAN-210 : 120x37x-88mm (h,l,d) XSRACK : 44x435x290 mm (h,l,d) Others products : 137x51x142 mm (h,l,d) 						
Weight	<ul style="list-style-type: none"> XELAN and XSLAN-1100 : 500g XSRACK : 3500g Other products : 750g 						
Power	<ul style="list-style-type: none"> XELAN-110, XELAN-210, XSLAN-1100 : 10-30 VDC (nominal : 12-24 VDC). Optional remote-powered product (contact us) Others XSLAN : 10-60 VDC (nominal : 12-48 VDC) Phoenix type 2-point connector (removable) Isolation : 1500 V 						
Consumption	<ul style="list-style-type: none"> XSLAN-1100 : <2 W XSLAN-1XXX : 3 W XSLAN-2XXX : 4 W XSLAN-4XXX : 6 W XSLANBP4200 : 7W XELAN-110 : 0,5 W XELAN-110 PW : 3 W XELAN-210 : 0,7 W XSRACK : 27 W 						
Temperature	<ul style="list-style-type: none"> XSRACK : 0°C / + 50°C Other products : -40°C / + 70°C (Humidity 5 to 95 %) 						
EMC	Immunity (EN 61000-6-2) <ul style="list-style-type: none"> EN61000-4-2 : Electrostatic discharge (ESD) EN61000-4-3 : RF radiated EN61000-4-4 : EFT/Burst EN61000-4-5 : Surge EN61000-4-6 : RF Conducted Emission (EN 61000-6-4) <ul style="list-style-type: none"> EN55032 : Radiated and conducted emission 						
Electrical Safety	IEC/EN 62368-1						
Hazardous substances	<ul style="list-style-type: none"> Directive 2011/65UE (RoHS) REACH 						
Casing	Metallic case with RailDIN or RACK fixation <ul style="list-style-type: none"> XELAN and XSLAN-1100 : IP31 Other products : IP21 						
SHDSL TRANSMISSION							
Cable	1 copper pair (shielded and diameter between 0.4mm and 1mm is recommended)						
Connector	Phoenix type 2-point connector (removable)						
Isolation	1500 V						
DISTANCE AND DATA RATE IN SHDSL (Estimated values without noise)							
Data rate	<table border="1"> <tr> <td>192 Kb/s</td> <td>2,3 Mb/s</td> <td>5,7 Mb/s</td> <td>10 Mb/s</td> <td>12 Mb/s</td> <td>15 Mb/s</td> </tr> </table>	192 Kb/s	2,3 Mb/s	5,7 Mb/s	10 Mb/s	12 Mb/s	15 Mb/s
192 Kb/s	2,3 Mb/s	5,7 Mb/s	10 Mb/s	12 Mb/s	15 Mb/s		
Distance (Ø 0.9 mm)	13 Km 6 Km 3,7 Km 1,5 Km 1 Km 0,7 Km						
Distance (Ø 0.4 mm)	7 Km 3 Km 3,7 Km 0,9 Km 0,6 Km 0,4 Km						
DISTANCE AND DATA RATE IN SPE (Estimated values without noise)							
Data rate & distance	10 Mbit/s full duplex up to 2 km. Greater range with the addition of repeaters (contact us)						
ETHERNET FEATURES (LEVEL 2)							
Ethernet	<ul style="list-style-type: none"> RJ45 Auto : 10/100 full & half MDI/MDI-X 						
SHDSL Ethernet	802.3ah : 2BaseTL						
SPE Ethernet	10 Base T1L						
Switch	Store and forward						
VLAN	VLAN via port IEEE 802.IQ (XSLAN only)						
MAC Filtering	Destination MAC address filtering (XSLAN only)						
Redundant network	RSTP Protocol and Failsafe Ring (XSLAN only)						
IP FEATURES (LEVEL 3 / XSLAN ONLY)							
IP Address	IPv4 and IPv6						
SNMP	<ul style="list-style-type: none"> SNMP V3 RFC1213 MIB II HDLSL2-SHDSL-LINE-MIB HOST-RESOURCES-MIB IF-MIB IP-MIB BRIDGE-MIB 						
QoS	DiffServ - 5 priority levels management depending on traffic						
IP Router	<ul style="list-style-type: none"> IP routing between LAN interface and SHDSL interface 25 static routes RIP V1 and V2 Address translation 						
SERIAL GATEWAY							
Connectors	<ul style="list-style-type: none"> RS232 : RJ45 RS485 : removable 2-point connector 						
Data rate	1200 to 115 200 b/s						
Gateway	<ul style="list-style-type: none"> Raw TCP client & server UDP (unicast or towards broadcast list) Multicast, Telnet Modbus Master & Slave, Unitelway Slave 						
SYSTEM AND CONFIGURATION (XSLAN ONLY)							
XSLAN Configuration	Web server (configuration and diagnostic)						
Backup	<ul style="list-style-type: none"> Configuration file backup Editable text file 						
Date and hour	NTP client and server						
Upgrade firmware	Locally or via the SHDSL link						
Diagnostic	LOG, Syslog, line quality monitoring						
Alarms	<ul style="list-style-type: none"> Digital Input Digital Output (SHDSL default) 						

