X-Net Video & Ethernet Optical Modules

Digital video, data & Ethernet transmission over a single optical fibre.

The COE X-Net Video & Ethernet range enables you to realise the potential of a fibre optic network by providing digital video, high speed data and Ethernet services over a single optical fibre.

Using this equipment, network architects may integrate a host of remotely based Ethernet services within their networks. These combined with the superb video quality and lowest PTZ latency that COE provides, heighten the functionality of a fibre optic infrastructure immensely.
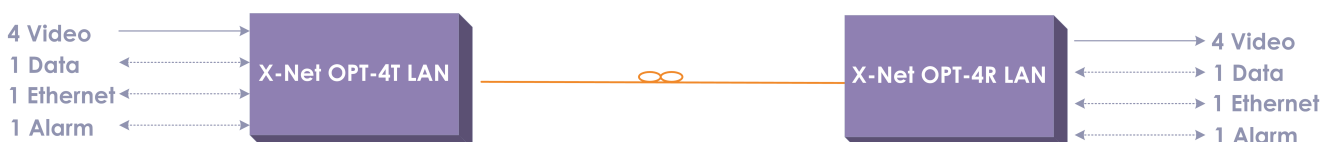
System Features and Benefits

Built-in Ethernet LAN Extender - Functional compatibility to Ethernet services including ANPR, IP Cameras, Wireless LAN, IP Intercom etc.

Hot pluggable SFP laser optics - All X-Net transmission products utilise COE's exclusive SFP hot pluggable lasers. These can be removed and replaced in seconds in order to allow you to increase transmission range >120km, and safe-proof your equipment eliminating costly engineering work and downtime.

CWDM ready SFP laser port - Upgrade to Coarse Wave Division Multiplexing optics to create drop and insert fibre optic rings.

Comprehensive network management features and SNMP support – Enables remote administration of complex CCTV installations via a standard web browser or applications such as HP OpenView, thus reducing the maintenance costs.

High speed data channel - 128kbps data channel with switch selectable support for RS232/422/485.

Comprehensive 5 year warranty - All X-Net modules are covered by a comprehensive 5 year warranty and have MTBF in excess of 100,000 hours.

Cyber Your Fibre!

The X-Net Video & Ethernet range gives the user the best of both worlds of fibre optic and Ethernet based transmission, and as it is an agnostic, open product, it may be integrated within almost any existing fibre infrastructure to enable Ethernet Services. Using this product there is limitless potential to the number of Ethernet based services that can be made available over a fibre infrastructure.

System Diagram

4 Video
1 Data
1 Ethernet
1 Alarm

X-Net OPT-4T LAN

X-Net OPT-4R LAN

4 Video
1 Data
1 Ethernet
1 Alarm

Sales Codes

X-Net OPT1T/R-LAN
X-Net 1 x simplex video channel transmit/receive module, including 1 x 10/100 BaseT Ethernet, 1 x duplex data, 1 x duplex contact closure channel. Utilises 1 rack/box slot.

X-Net OPT2T/R-LAN
X-Net 2 x simplex video channel transmit/receive module, including 1 x 10/100 BaseT Ethernet, 1 x duplex data, 1 x duplex contact closure channels. Utilises 1 rack/box slot.

X-Net OPT4T/R-LAN
X-Net 4 x simplex video channel transmit/receive module, including 1 x 10/100 BaseT Ethernet, 1 x duplex data, 1 x duplex contact closure channel. Utilises 1 rack/box slot.

Performance and Specifications

Video

Video Channels	1/2/4
Format	10 bit encoding
Channel bandwidth	6.5MHz min
Video Input level	1Vp-p with +3dB overload point
Video channel gain	1
Impedance	75 Ohms unbalanced
Signal/Noise ratio	>60dB weighted
Diff Phase	0.5° (typical)
Diff gain	0.5% (typical)
K rating	<1% (typical)
C/L Delay	40ns (typical)
Connector	75 Ohms BNC

(Meets overall requirements of RS250B medium haul)

Data

Channels	1
Rate	128kbps
Format	RS232/422/485 (DIP switch configured)

Optical

Optical budget (dB)	20dB (up to 37dB available)
Range on 50 or 62.5/125um multimode fibre (Km)	2 typical*
Range on 9/125um singlemode fibre (Km)	60 (>120Km available**)
Connector	LC
Wavelength (nm)	1310 TX, 1550 RX

Contact Closure

Channels	1
Direction	Duplex

Ethernet

Channels	1
Direction	Full/Half Duplex
User Bandwidth	X-Net OPT1T/R-LAN = 13Mb/s
User Bandwidth	X-Net OPT2T/R-LAN = 26Mb/s
User Bandwidth	X-Net OPT4T/R-LAN = 52Mb/s
Port	1 x RJ45

Environmental

Operating temperature	-40°C to +74°C
Storage temperature	-40°C to +74°C

Mechanical

Dimensions	6HP x 4U x 167mm

Power requirements

Power	+12VDC @ 300mA
	9 - 24V AC/DC

MTBF

Duration	>100,000 hours

EMC

EN55022 Class B, EN61000-3-2 Class A, EN61000-3-3, EN61000-4-2 6kV(C), 8kV (A), EN61000-4-3 10V/m, EN50204 20V/m, EN61000-4-6 10V, EN61000-4-4 2kV, EN61000-4-5 2kV, EN61000-4-8 50Hz & dc 100A/m, EN61000-4-9 300A/m, EN61000-4-11, EN60950-1:2002 + A1:2003, EN60825-2:2000

* Typical distances only: Optical transmission distance is limited by optical loss of the installed fibre and installed fibre bandwidth.
**High powered versions are available upon request.

In line with the company policy of continuous improvement, COE reserves the right to vary descriptions and specifications without notice.