

# Resilient Surveillance Networks

## Compact Video Fibre Links

Fibre transmitter (COE XNET®PIXI) & receiver (XNETPIXRX & XNET173SRXC)



Digital Barriers

The industry's most compact uncompressed video transmission system for cost effective transmission of video signals up to 5km on multimode fibre optic cable. The COE X-Net 173SRXC fibre optic receiver supports three X-Net Pixi transmitters for optimum rack/box housing density.

### Flexible, intelligent infrastructures by design

COE X-Net modules provide world-class fibre transmission for surveillance and security networks that are complex and operationally critical. The X-Net range is designed for use in transportation, industrial, high-security and other sectors that require a highly reliable solution with a range of integrated features. X-Net combines high-quality video with redundancy, remote monitoring and automatic maintenance and alarm facilities, building exceptional resilience and intelligence into the network.

**XNETPIXI, XNETPIXIRX & XNET173SRXC** The X-Net Pixi features an ultra compact fibre optic transmitter, ideal for 'in' or 'near' camera operation. A choice of one or three channel receiver modules completes the range of cost effective video over fibre links for security and CCTV applications. X-Net Pixi enables the transmission of video signals up to 5km whilst maintaining a very high Signal to Noise ratio for unparalleled video quality.

### Practical operational benefits

The miniature transmitter module is housed in a small box with flange mount holes to allow screw mounting on any flat surface. Powered from an external 12V DC source and featuring a power on LED, X-Net Pixi utilises a BNC connector for the video input and an STII bayonet type optical connector for multimode fibre. Typical uses include fixed security cameras, industrial process monitoring and applications where space is at a premium.

X-Net is proven in some of the world's most critical and high-capacity surveillance networks. With experience of very large scale systems, complex network topologies and safety-critical requirements, COE solutions are engineered for exacting, fault-free core performance and ease of use. The X-Net range provides comprehensive options for transmission, from the Pixi, a miniature uncompressed video transmitter, through to 8 channel video/12 channel data modules and Gigabit Ethernet/SFP switches.

### Key features

- Miniature size transmitter may be powered from camera power supply
- 10MHz bandwidth for full colour PAL and NTSC video
- Three channel video receiver supports three transmitters
- Three channel receiver is compatible with X-Net Rack. 42 channels can be housed in a single 19" 4U sub-rack
- Optical AGC automatically adjusts optical levels. No user adjustments required
- Receivers provide video loss alarm relays for each channel

### Operational domains and installed base

X-Net transmission modules have been deployed as part of the surveillance infrastructures of leading airports, seaports, mass-transit networks, and other demanding locations worldwide. The modular form factor and ease of installation make X-Net ideal for a range of operating scenarios including:

- Secure long distance communication links
- Spark-free environments e.g. petrochemicals
- Safety-critical applications e.g. rail crossings



Transmitter  
(XNETPIXI)

Product codes on reverse

### Video

Video Channels:	1 (XNETPIXI/RX), 3 (XNET173SRXC)
Format:	Uncompressed Analogue PAL/NTSC
Channel bandwidth:	Up to 10MHZ
Video Input Level:	1V p-p
Video Channel Gain:	1
Impedance:	75 Ohms unbalanced
Signal/Noise ratio:	>65 dB weighted (Typical)
Diff Gain:	3% (Typical)
Diff Phase:	3° (Typical)
K Rating:	0.7% (Typical)
Connector:	75 Ohms BNC Socket

### Optical

Optical Budget:	10dB
Multimode Range: (50 or 62.5/125um)	5km
Connector:	STII
Wavelength:	850nm

### Regulatory

EMC:	CE, EN50130-4: 1995 + A1: 1998 + A2:2003 – Immunity (Alarm systems), EN 61000-6-3-2001 – Emissions (Light industrial), EN 50121-4-2006 – Emissions and immunity (Railway6), ENV 50204: 1996 – Immunity (mobile phone frequencies)
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### Hardware

Physical Size :	20 x 57 x 63mm (XNETPIXI) 20 x 96 x 63mm (XNETPIXIRX) 12HP x 4U x167mm (XNET173SRXC) 202 x 32 x 172mm (BOXSINGLE) 202 x 64 x 172mm (BOXDOUBLE) 202 x 96 x 172mm (BOXTRIPLE)
Operating Temperature:	-40°C to +74°C (XNETPIXI) -10°C to +74°C (XNETPIXIRX) -10°C to +74°C (XNET173SRXC)
Storage Temperature:	-40°C to +85°C
Operating Humidity:	Up to 95% RH (non-condensing)
Power Requirements:	+12V DC @ 50mA (XNETPIXI) +12V DC @ 60mA (XNETPIXIRX) +12V DC @ 270mA (XNET173SRXC)
MTBF:	>100,000 hours (HRD5)

### Alarms & Diagnostics

Alarms:	Low video level/optical loss
Connector:	Screw terminal



Three channel receiver  
(XNET173SRXC)



One channel receiver  
(XNETPIXIRX)

### Product codes

XNETPIXI	X-Net single channel simplex video transmit module, multimode fibre. Compatible with XNETPIXIRX and XNET173SRXC receivers
XNETPIXIRX	X-Net single channel simplex video receive module, multimode fibre. Compatible with XNETPIXI and 171STXB transmitters
XNET173SRXC	X-Net 3x single channel simplex video receive card. Multimode fibre. Utilises 1 rack/box slot
XNETBOXSINGLE	X-Net module box housing - Single unit for use with XNET173SRXC receiver
XNETBOXDOUBLE	X-Net module box housing - Double unit for use with 2x XNET173SRXC receivers
XNETBOXTRIPLE	X-Net module box housing - Triple unit for use with 3x XNET173SRXC receivers
PSU12VDC	Standalone 12V DC power supply for use with XNET173SRXC
PSU12VDCNS	Standalone 12V DC power supply for use with XNETPIXI and XNETPIXIRX

