



COE X-Net™ OPT1-Nano/2R



Digital video, high speed data & contact closure transmission, all in a package smaller than a credit card.

The COE X-Net™ OPT1-Nano modules are ideally suited for installation within dome camera housing, inside poles or any other location where space is at a premium.

The X-Net OPT2R module resides in an X-Net rack or Eurocard box and can act as the receiver module for up to two OPT1-Nano modules, thus providing a cost effective solution for high density installations.

System Features and Benefits

- **Smaller than a credit card** - With dimensions of 45mm x 56mm x 22mm, the OPT1-Nano is smaller than a credit card and can easily fit into dome camera housings or within poles.
- **High density receiver** - A single OPT2R can act as a receiver for up to two OPT1-Nanos, thus providing a cost effective and high density receiver solution.
- **10-bit encoded, uncompressed digital video channels** - 4 times more sensitive to contrast changes than competing products. Ensures highest video quality under varying light and contrast conditions.
- **Remote Management** - Comprehensive remote management and diagnostics via X-Net Network Management System. Supports diagnostics via SNMP and web browsers.
- **Field upgradeable SFP lasers** - Modules can be field upgraded to CWDM or Long Haul version thus future proofing your investment.
- **High speed data channels** - Configurable 128kbps data channels with support for RS232/422/485.
- **Ultra low loss LC connectors** - For reduced insertion loss and increased operation range.
- **Flexible dual redundant power supply options** - Support for rack mounted or external 12V DC dual redundant power supplies for OPT2R.
- **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.
- **Meets and Exceeds Transport Specifications** - All X-Net modules have been designed for use in transport and industrial environments and therefore meet or exceed the relevant, rail and light industrial, EMC specifications.

Sales Codes

X-Net OPT1TNano-VID	X-Net 1 x simplex video channel transmit module for singlemode/multimode fibre, including 1 x simplex contact closure channels. Comes in its own box.
X-Net OPT1TNano-PTZ	X-Net 1 x simplex video channel transmit module for singlemode/multimode fibre, including 1 x duplex data, 1 x simplex contact closure channel. Comes in its own box
X-Net OPT1TNano-MM	X-Net Multimode only 1 x simplex video channel transmit module , including 1 x duplex data, 1 x simplex contact closure channel. Comes in its own box.

Sales Codes Continued...

X-Net OPT2R-VID	X-Net 2 x simplex video channel, dual fibre receive module for singlemode/multimode fibre. Utilises 1 rack slot. Also includes 2x duplex contact closure channels.
X-Net OPT2R-PTZ	X-Net 2 x simplex video channel, dual fibre receive module for singlemode/multimode fibre, including 2x duplex data and 2x duplex contact closure channels. Utilises 1 rack slot.
X-Net OPT2R-MM	X-Net 2 x simplex video channel, dual fibre receive module for multimode fibre, including 2x duplex data and 2x duplex contact closure channels. Utilises 1 rack slot.
X-Net Nano L-Kit	L shaped mounting bracket kit for X-Net Nano Box. Includes 2 x L-Shaped brackets and mounting screws.
X-Net Nano D-Kit	DIN rail mounting bracket kit for X-Net Nano Box. Includes 1 x DIN rail bracket and mounting screws.

Performance and Specifications

Video

Video Channels	1/2
Format	10 bit uncompressed, PAL/NTSC
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	>65 dB weighted
Diff Phase	0.5 °
Diff gain	0.5 %
K rating	<1 %
Connector	75 Ohms BNC

(Meets overall requirements of RS250B medium haul)

Data

Channels	Up to 2 independent channels
Rate	128kbps
Format	RS 232/422/485 (2W & 4W)

Optical

Optical budget (dB)	20 *
Range on 50 or 62.5/125um multimode fibre (Km)	4
Range on 9/125um singlemode fibre (Km)	60
Connector	LC
Wavelength (nm)	1310/1550

* High powered versions with optical budget up to 37dB, for distances in excess of 120Kms, available on request.

Contact Closure

Channels	1/2
Direction	Simplex/Duplex

Environmental

Operating temperature	-40 °C to +74 °C
Storage temperature	-40 °C to +85 °C

Mechanical

OPT1Nano	56mm x 45mm x 22mm
OPT2R	6HP x 4U x 167mm

Power requirements

OPT1Nano	+12VDC @ 200mA
OPT2R	+12VDC @ 400mA

MTBF

All Modules	>100,000 hours
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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



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

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