



X-Stream™ 400

4 Channel Digital Video Server



The X-Stream™ 400 video server provides H.264 encoding and IP Ethernet transmission for 4 channels of analogue video.



Utilising the latest H.264 Main Profile compression algorithm, X-Stream 400 delivers superior picture quality at reduced bandwidth across any Ethernet network. By providing digital compression and encoding for up to 4 channels of analogue video, as well as data, audio & contact closure interfaces, X-Stream 400 is a fully featured and highly cost-effective video transmission solution.

Key Features of X-Stream 400 Include:

- ▷ **H.264 Main Profile low latency compression.**
 - X-Stream 400 provides best-of-breed video performance (D1 resolution @ 25/30 frames per second), resulting in highest quality video at low latency and bandwidth for CCTV applications.
- ▷ **Meets & exceeds transport standards.**
 - X-Stream video servers are part of COE's X-Net range, which is specifically designed for demanding transport and industrial environments. X-Stream 400 meets extended transportation regulatory specifications.
- ▷ **Two way audio.**
 - Two way audio channel to support audio applications. Supports encoding/decoding via PC software, or in hardware via X-Stream 200D video client. This creates an ideal solution for help point, conferencing and concierge solutions.
- ▷ **In-built protocol translation for peripheral device control.**
 - Utilising industry standard method of upgrade (flash upload), new serial protocols can be loaded into the encoder, minimising requirement for inventory & spares holding.
- ▷ **Comprehensive remote network management.**
 - X-Stream 400 features comprehensive remote diagnostics via intuitive SNMP and web browser interfaces.
- ▷ **Direct to fibre / Dual Ethernet port option.**
 - Option for two 10/100 BaseT Ethernet ports, boxed as 2 copper, or 1 copper & 1 100BaseFx fibre optic (via SFP optic interface).
- ▷ **Video loop-through option.**
 - Analogue video loop-through for direct connection to devices such as DVRs available on all channels.

Product Codes:

X-Stream 400	4 Channel H.264 video server, 4 x video, 2 x data I/O, 1 x audio I/O, 2 x contact, 1 x relay
X-Stream 400-FX-VL	X-Stream 400 + SFP port* + Video loop-through + Additional contacts
X-Stream 400-DE-VL	X-Stream 400 + Second Ethernet Port + Video loop-through + Additional contacts
X-Net Box Single	6HP housing for external mounting of X-Stream 400
X-Net Box Double	12HP housing for external mounting of 2 x X-Stream 400 or 1 x X-Stream 400-FX-VL
PSU12VDC	12V DC power supply for use with X-Stream video server
X-Net Rack	19" 4U Rack housing up to 14 X-Stream 400 modules

*SFP Optic sold separately.



X-Stream™ 400

Technical Specifications



Video

Compression algorithm	H.264 Main Profile
Frame Rate	From 1fps up to 25/30 fps (PAL/NTSC)
Bandwidth Control	From 64Kb/s to 6Mb/s per stream
Resolution	D1, 2CIF, CIF QCIF
Dual Streaming	Supported
Video Input	PAL/NTSC, analogue composite, 75 Ohm, 1V p-p
Loop-Through	PAL/NTSC, analogue composite, 75 Ohm, 1V p-p

Data

Data Channel	1 x Transparent or User defined Protocol Translator, 1 x Transparent or console
Data Formats	1 x RS232, RS422, RS485 (2 & 4 wire), 1 x RS232
Baud Rate	1 x Up to 38.4k baud, 1 x Up to 115.2k baud
Link Type	Asynchronous

Binary I/O

Inputs (400)	2 x TTL inputs - Max Isolation 48VRMS, - Max Forward Current
Inputs (400-FX-VL/400-DE-VL)	4 x TTL inputs - Max Isolation 48VRMS, - Max Forward Current
Outputs (400)	1 x relay O/P (grounded) - Max Load 0.1A, 48V. Max RON 16 Ohm
Outputs (400-FX-VL/400-DE-VL)	3 x relay O/P (grounded) - Max Load 0.1A, 48V. Max RON 16 Ohm

Audio

Encoding	Audio/L16
Input Impedance	600 Ohms
Input Level	Line - 2V p-p typ. Input gain level selectable
Output Level	2V p-p typ. (into 600 Ohm) - Balanced, User volume control
Bandwidth	8kHz, 16kHz, 48kHz
Signal to Noise Ratio	>60dB

Video Latency

Encoding	<80 ms
Encoder to I-Command Display	<100 ms
Encoder to Decoder (Analogue Out)	160 ms

Network

Protocols	DHCP, ARP, HTTP, RTP, NTP, UDP unicast, UDP multicast, TCP/IP, ICMP, IGMP, SNMP, RTCP, RTSP
Configuration	Web browser interface
Software Upgrade	Remote Flash Programmable

Physical Interfaces

Video Input	4 x BNC
Video Loop-Through (400-FX-VL/400-DE-VL)	4 x BNC
Data, Audio, Binary, I/O	2 x RJ45 (3 x RJ45 with FX-VL)
Network (400)	1 x IEEE 802.3aa 10/100BaseT, auto-sensing, full/half duplex
Network (400-FX-VL/400-DE-VL)	2 x IEEE 802.3aa 10/100BaseT (Additional port is 10/100BaseT or 10/100BaseFX)
SFP Slot	LC Connector*

Power Supply

X-Net Chassis	Power from Backplane, 12VDC 800mA max
Stand alone	12VDC, 800mA max

Mechanical

Card (400)	4U x 160mm x 6HP
Card (400-FX-VL/400-DE-VL)	4U x 160mm x 12HP
Box (400)	170mm x 180mm x 66mm
Box (400-FX-VL/400-DE-VL)	170mm x 180mm x 132mm

Environmental

Operating Temperature	-30° to +60°C
Storage Temperature	-30° to +60°C
Humidity	20% to 95% (Non-Condensing)

Regulatory Approvals

Standard (Alarms/CCTV Equipment)

EN 55130-4 - Immunity; EN 61000-6-3 - Emissions Light Ind; ENV50204 - Radiated (mobile phone frequencies); EN 60950-1:2002 + A1:2003 - Electrical Safety

Additional (Railways, Transport)

EN 55011: 1998 (inc. low freq. magnetic emissions); EN 50121-4 - Traction Frequency voltages; GS/ES1914, GM/RC1500 - Radiated Emissions; EN61000-4-16 - Signal lines conducted RF immunity

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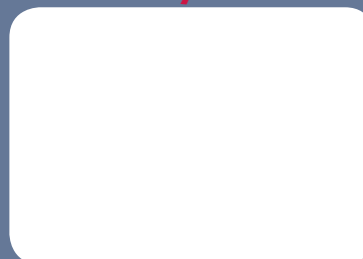
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