X-Net Ethernet Switch

Managed industrial Gigabit Ethernet switch with SFP optic support.
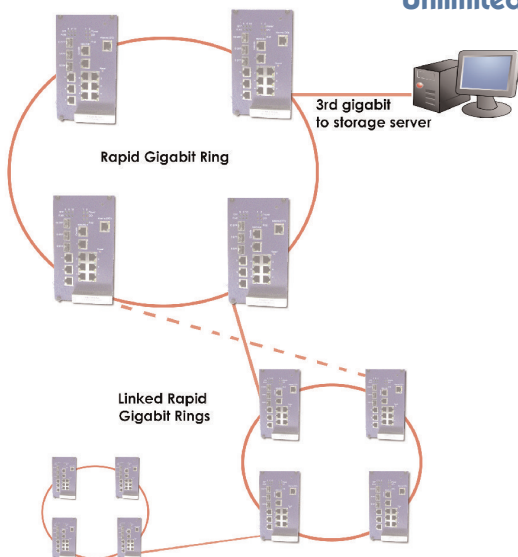
Designed to work alongside the X-Net transmission product range, the X-Net Ethernet Switch provides a range of interface options with both optical fibre SFP ports and Ethernet copper ports.

Equipped with three Gigabit RJ-45/SFP optic combo ports and seven 10/100BaseT ports, this product offers new levels of flexibility in CCTV network design and planning.

System Features and Benefits

Three Flexible fast Ethernet combo ports – Seven 10/100BaseT ports and 3 Gigabit RJ-45/SFP optic combo ports provide a wide range of transmission options for providing flexible connectivity in a dense package.

Comprehensive Redundant Solutions – Ring topology supports multiple Gigabit rings reducing failsafe switching time to 5ms with zero-second restore time recovery., in addition to dual homing, supporting zero-second restore time.

Rugged Industrialised Switch – Rugged housing, - 20°C to +70°C operating temperature, and fail-safing options facilitate hazardous environment operation.

Bandwidth Flexibility – Link aggregation, sharing bandwidth load between multiple 1Gb ports, can be achieved by either static trunk or LACP protocol. This increases maximum potential bandwidth across a network.

Unlimited Network Expansion – Utilising three 1Gb output ports enables complex network topologies to be created with no decrease in failsafe switching time (5ms) and potential for limitless expansion to link capacity with no loss to quality or recovery speed.

Intuitive Network Management – The X-Net Ethernet Switch is remotely configurable via an intuitive web browser interface, as well as via HyperTerminal, Telnet and SSH.

Unlimited Network Potential

3rd gigabit to storage server

Rapid Gigabit Ring

Linked Rapid Gigabit Rings

★ **Rapid Spanning Tree Protocol :** IEEE802.1D-2004 Rapid Spanning Tree Protocol. Compatible with Legacy STP & IEEE802.1w.

★ **Rapid Gigabit Ring :** Advanced Ring Redundancy Technology. Failure recovery within 5ms.

★ **Dual Homing :** Multiple uplink paths to upper switches.

★ **Multiple Rings :** Couple or multiple Rapid Super Rings.

Sales Codes

X-Net ETHSW	X-Net 7 x 10/100 BaseT Ethernet Ports, 3 x 1Gb Ethernet Ports/SFP Module ports, Utilises 3 rack/box slots.
X-Net SFPOPT48T	X-Net 4/8TX SFP Module 1.25Gb single fibre 1310nm Tx, 1550nm Rx*
X-Net SFPOPT48R	X-Net 4/8RX SFP Module 1.25Gb single fibre 1550nm Tx, 1310nm Rx*
PSU12V DC	PSU Module 12V 1.25A Universal
X-Net BOX TRIPLE	X-Net Box Triple

Various other optical modules available on request, please contact COE for more information.

Performance and Specifications

Technology

Standards

IEEE 802.3	10Base-T Ethernet
IEEE 802.3u	100Base-TX Fast Ethernet
IEEE 802.3ab	1000Base-TX
IEEE 802.3z	Gigabit Ethernet Fibre
IEEE 802.3x	Flow Control and Back-pressure
IEEE 802.1p	Class of service
IEEE 802.1Q	VLAN and GRVP
IEEE 802.1D-2004	Rapid Spanning Tree Protocol (RSTP)
IEEE 802.3ad	LACP
IEEE 802.1X	Port_based Network Access Control

Performance

Switch Technology	Store and Forward Technology with 32Gbps Switch Fabric.
System Throughput	14,880pps for 10M Ethernet, 1,488,100 for Gigabit Ethernet
Transfer packet size	64 bytes to 1522 bytes (with VLAN Tag)
MAC Address	8K MAC
Packet Buffer	1Mbit
Relay Alarm	Dry Relay output with 1A @24V ability

Power Requirements

System Power	12V DC /24V AC
Power Consumption	12 Watts

Environmental

Operating temperature	-20°C to +70°C
Operating Humidity	0% - 95%RH (Non-Condensing)

Mechanical

Dimension	137mm(H) x 96mm (W) x 119mm (D)
Weight	0.195kg with package

Interface

Number of Ports	10/100TX: 7 x RJ-45, Auto Negotiation 10/100/1000TX: 3 x RJ-45, combo with SFP Gigabit/Fibre/100Base-FX: 3 x SFP with Hot Swappable
RS232 Console	RJ-45 Connector
Power	2 sets of power inputs
Alarms	2 sets of Relay outputs

Management

Configuration

Cisco-like LCLI, Web, HTTPS, SSH: TFTP/Web update facility, DHCP Client, Warm reboot, Port Speed/Duplex control, MAC address table display, Static MAC, Aging time, **SNMP v1, v2c, v3,** Traps and RMON1
SNMP MIB: MIBII, Bridge MIB, VLAN MIB, SNMP MIB, RMON and Private MIB

Port Trunk

Up to 5 Static Trunk and IEEE 802.3ad LACP

VLAN

IEEE 802.1Q VLAN, GVRP. Up to 64 VLAN groups

Quality of Service

Four priority queues per port, IEEE 802.1p COS and Layer 3 TOS/DiffServ

IGMP Snooping

IGMP Snooping V1/V2/V3 for multicast filtering and IGMP Query V1/V2

Rate Control

Ingress filtering for Broadcast, Multicast, Unknown DA or All packets, and Egress filtering for All packets

NTP

Network Time Protocol to synchronize time from internet or local PC

Embedded Watchdog

Timer to auto reset system with switch system failure

Port Mirroring

Online traffic monitoring on multiple selected ports

Port Security

Assign authorised MAC to specific port

Network Redundancy

Rapid Spanning Tree Protocol
Compatible with Legacy STP & IEEE 802.1w

Rapid Gigabit Ring
Superior Ring Redundancy Technology. Failure recovery within 5ms

Dual Homing
Multiple uplink paths to upper switches

Multiple Rings
Couple or multiple Rapid Gigabit Rings

Regulatory Approvals

Safety:	UL/cUL 60950	Shock:	IEC60068-2-27
Vibration:	IEC60068-2-6	Free Fall:	IEC60068-2-32
MTBF:	249683 Hours, MIL-HDBK-217F GB standard		
EMI:	FCC Class A, CE/EN55022. Class A		
EMS:	EN61000-4-2, EN61000-4-6, EN61000-4-8, EN61000-4-11		
Warranty:	5 years		

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