HN | HARDENED NETWORKS

ITS- 8024

Where Innovation Meets Reliability

New Flex-Technology

- Hardened Advanced Layer 2+
- 1000Mb Copper Ports
- 1000Mb Hybrid Fiber SFP
- 56 GB Back- Plane

- Optical monitoring
- Event Notification
- Exceeds NEMA TS-2 Specifications

Our exciting new Flex-Technology revolutionizes speed upgrades in hardened switches!
Now you can purchase switches with any higher speed SFPs 10gig /2.5 gig and connect them to your existing slower speed 100 or 1000 optics without requiring like optics. Make your upgrade path fast, simple, and pain-free!

Ask your sales representative today!

- Designed for heavy video use in unicast/multi-cast in extreme environments
- Exceeds NEMA TS-2 Specifications
- Layer 2++ Managed hardened IGMP video switch
- 16 dual use 1000Mb hybrid SFP fiber ports/10Mb/100Mb/1000Mb-TX copper ports
- 8 dedicated 10Mb/100Mb/1000MbTX RJ45s copper ports
- Easy to configure, web interface designed by ITS users
- Optical monitoring with mapping capabilities
- Multiple configurations: web browser, Telnet, CLI, CLI Menu
- Fast ITS ring recovery time< 10ms over 250 units of connections
- Event Notification: email, SMTP, Syslog, SNMP, and relay output
- SFP/SFP+ Mix and match all speeds single or multi-mode, dual strand (LX,EX,ZX) or single strand fiber (BX, BR, ZR) 100Mb/1000Mb/2.5Gb/10Gb
- Full layer 2+ management, 802.1x Authentication
- Remote monitoring (RMON) Technology
- Notifications for link up, link down, SFP temperature, topology change ring environment, etc.
- 19 inch rack mountable design

ITS Express/ Hardened Networks switches have been specifically engineered to handle the challenging demands of extreme environmental conditions and 8k multi-cast high bandwidth video applications.

A vast array of redundancy protocols combined with dual redundant power capabilities ensure maximum uptime for mission-critical applications.

Hardened Networks provides state-of-the-art designed switches, which all feature next-generation ASICs, robust backplanes, and dependable firmware. This gives you the "best-of-breed" in environmentally challenging switch products.

Switch Model	ITS-8024
Physical Ports	
10Mb/100Mb/1000Mb TX RJ45s	8
Dual use 100Mb/1000Mb SFP 10Mb/100Mb/1000MbTX RJ45s	16
Technology	
Ethernet Standards	-IEEE Std. 802.3 10Base-T -IEEE Std. 802.3u 100Base-TX and 100Base-FX -IEEE Std. 802.3z 1000Base-X -IEEE Std. 802.3ab 1000Base-T -IEEE Std. 802.3x Flow -IEEE Std. 802.3ad Port trunk with LACP -IEEE Std. 802.1d Spanning Tree Protocol -IEEE Std. 802.1w Rapid spanning tree -IEEE Std. 802.1p Class of service -IEEE Std. 802.1q VLAN Tagging -IEEE Std. 802.1x user authentication -IEEE Std. 802.1s MSTP -IEEE Std. 802.1ab LLDP
Processing	Adaptive Cut-Through w/Fallback to Store-and-Forward
Protocols	CSMA/CD
Connectors	-8x 100Mb/1000Mb SFP Ports -16x Combo 100Mb/1000Mb SFP/1000MbTX RJ45's
Memory Buffer	128 Kbytes
Jumbo Frame	Max 9K bytes jumbo frame support
Backplane	56 GBPS
Redundant Input Power	100 -240 VAC
sFlow	Network enabling performance optimization
Firmware Update	Supports TFTP firmware updates, TFTP backup and restore
Software Features	-STP/RSTP/MSTP (IEEE 802.1D/w/s) -Redundant Ring with recovery time less than 10ms over 250 units -TOS/Diffserv supported
Switch Properties	-Switching Latency: 7 us -Max. Number of Available VLANs: 256 (VID 1-4095)
Security Features	-IP Police security feature -Enable/disable ports -MAC based port security -Port based network access control (802.1x) -VLAN (802.1Q) to segregate and secure network traffic -Radius centralized password management, SNMPv3 encrypted authentication and access security

Management	-SNMP v1 v2c v3/ Web/Telnet/CLI/Menu Driven Management -Window's based Innerspace Software Suite
VLAN	-VLAN (802.1Q) with VLAN tagging and GVRP supported -IGMP v1, v2 & v3 snooping for multicast filtering port configuration, status, statistics, monitoring, security
Network Redundancy	STP, RSTP, MSTP, ITS Chain, G.8032, Express-Chain, Express-Ring multi-vendor support
RS-232 Serial Console Port	RS-232 in DB9 connector with console cable. 115200bps, 8, N, 1
Spanning Tree	Supports IEEE802.1D/w/s Spanning Tree
Port Mirror	Supports 3 mirroring types: "RX, TX and Both packet
QOS	Quality of Service (802.1p) for real-time traffic
Power	
Power Supply	120V AC with internal power supply
Power Consumption (Typ.)	33 Watts
Physical Characteristics	
Weight (lb/g)	7.5 lb/3402g
Dimension (W x D x H)	431 (W) x 342 (D) x 44 (H) mm
Environmental	
Operating Temperature	-40 to 90C (-40 to 194F)
Regulatory Approvals	
EMI	FCC Class A, CE EN61000-4-2, CE EN61000-4-3, CE EN-61000-4-4, CE EN61000-4-5, CE EN61000-4-6, CE EN61000-4-8, CE EN6100-4-11 CE EN61000-4-12, CE EN61000-6-2, CE EN 61000-6-4 & NEMA TS-2 (traffic control equipment)
Safety Compliance	UL, cUL, CE/EN60950-1
Warranty	5 Years

Other Solutions

Hardened Networks has created variety of high quality products to fit your needs. If you did not find what you needed in the ITS- 8024, please browse our other solutions.

Ethernet Switches

ITS-8012-24 V3

- 4 Ultra Fiber Ports SFP+ 100Mb/1000Mb/2.5Gb/10Gb
- 4 Enhanced Fiber Ports SFP 100Mb/1000Mb/2.5Gb
- 16 Copper Ports 10Mb/100Mb/1000Mb
- 176 GBPS Back-Plane

ITS-8042 V3

- 2 Ultra Fiber Ports SFP+ 100Mb/1000Mb/2.5Gb/10Gb
- 2 Enhanced Fiber Ports SFP 100Mb/1000Mb/2.5Gb
- 8 Copper Ports 10Mb/100Mb/1000Mb
- 96 GBPS Back-Plane

ITS-8012-24+ V3

- 4 Ultra Fiber Ports SFP+ 100Mb/1000Mb/2.5Gb/10Gb
- 4 Enhanced Fiber Ports SFP 100Mb/1000Mb/2.5Gb
- 16 Copper Ports 10Mb/100Mb/1000Mb
- Two sets of bypass fiber ports
- 176 GBPS Back-Plane

ITS-8042+ V3

- 2 Ultra Fiber Ports SFP+ 100Mb/1000Mb/2.5Gb/10Gb
- 2 Enhanced Fiber Ports SFP 100Mb/1000Mb/2.5Gb
- 8 Copper Ports 10Mb/100Mb/1000Mb
- Two sets of bypass fiber ports
- 96 GBPS Back-Plane

Communications

ITS- MC-1000

- 10Mb/100Mb/1000tMbps Ethernet BASE-T/TX to SFP (MM or SM)
- Optical port supports 100Mb or 1000Mb full duplex data

ITS- MC-100

- 10Mb/100Mbps Ethernet BASE-T/TX to SFP (MM or SM)
- Flexible power 18-46VAC/12-60 VDC

ITS- VC-100

- High Speed VDSL-2 Technology
- 10Mb/100Mbps Ethernet BASE-T/TX to a pair of copper cables
- Flexible power 18-46VAC/12-60 VDC

We here at Hardened Networks are proud to carry products that are certified by:

Express Supply, Inc.   www.expresssupply.net   (407) 497-8614