

IES-2008

8 10/100TX with X-Ring Managed Industrial Switch



Features

- 8-port 10/100TX X-Ring Managed Industrial Switch.
- RJ-45 Port Support Auto MDI/MDI-X Function.
- Store-and-Forward Switching Architecture.
- Back-plane (Switching Fabric): 1.6Gbps
- 1Mbits Packet Buffer.
- 2K MAC Address Table.
- IP-30 Protection.
- DIN Rail And Wall Mount Design.
- Wide-range redundant power design.
- Power polarity reverse Protect.
- Supports IEEE 802.1d Spanning Tree
- Supports IEEE 802.1w Rapid Spanning Tree
- Port Based VLAN
- Supports 802.1Q Tag VLAN
- X-Ring
 - X-ring, Dual Homing, and Couple Ring Topology.
 - Provide redundant backup feature and the recovery time below 300ms.
- Supports IEEE 802.1p Class of Service,
- Per port provides 4 priority queues
- Port base, Tag Base and Type of Service Priority
- Supports Ingress Packet Filter and Egress Rate Limit.
- Supports Broadcast/Multicast Packet Filter Control

Lantech Industrial Switch series are designed with four unique hardware features: 1. Able to use option DC power adapter. 2. Terminal block is placed on the bottom of device to isolate dust. 3. Auto detection with DC12V to 48V. 4. Relay contact to connect with alarm system in case of power or port failure.

Lantech Industrial Switch series are designed to meet with critical network environment Each of Lantech Industrial Switch is passed under 1.2KVA Hi-Pot abnormal test IP30 enclosure design and test under extensive Industrial EMI and Safety standards.

Lantech patent-pending feature of "X-Ring" incorporating on Industrial Switch series is to find a auto-recovery-path in 300ms when network is failed over and can be ring up to twenty(20) Lantech Industrial Switches. Lantech Dual-Homing feature can ensure two X-Ring groups with redundant back up when connected to a backbone switch. Lantech Industrial Switch can set Back-up Masters in X-Ring to ensure the most secure network.

Lantech IES-2008 is a 8 x 10/100TX Industrial Switch with SNMP functionality. The SNMP features are including QoS for 4 queues, 801.q VLAN, IGMP snooping and query mode as well as SNTP and SMTP. Lantech Industrial Switch's relay contact to Alarm system can immediately notify of Power failure and/or Port down events. In case of events, Lantech IES-2008 will immediately send an email to pre-defined addresses.

Lantech IES-2008 is the best to use in Automation, Transportation, Semi-conductor factory Heavy Industrial factory and other factory assembly lines.

Specification

Standard	IEEE 802.3 10Base-T Ethernet IEEE 802.3u 100Base-TX Fast Ethernet IEEE802.3x Flow Control and Back Pressure IEEE802.1d Spanning Tree/ IEEE802.1w Rapid Spanning Tree IEEE802.1p Class of Service IEEE802.1Q VLAN Tag
Switch Architecture	Back-plane (Switching Fabric): 1.6Gbps Packet throughput ability (Full-Duplex): 2.38Mpps @64bytes
Transfer Rate	14,880pps for Ethernet port 148,800pps for Fast Ethernet port
Packet Buffer	1Mbits
Mac Address	2K MAC address table
Flash ROM	512Kbytes
DRAM	8Mbytes
Connector	10/100TX: 8 x RJ-45 with auto MDI/MDI-X function
Network Cable	10Base-T: 2-pair UTP/STP Cat. 3, 4, 5 cable EIA/TIA-568 100-ohm (100m) 100Base-TX: 2-pair UTP/STP Cat. 5 cable EIA/TIA-568 100-ohm (100m)
Protocol	CSMA/CD
LED	Per port: Link/Activity (Green), Full duplex/Collision (Yellow) Per unit: Power (Green), Power 1 (Green), Power 2 (Green), Fault (Yellow), Master (Green)
Power Supply	DC 12~48V, Redundant power with polarity reverse protect function and connective removable terminal block for master and slave power
Power Consumption	6 Watts
Operating Humidity	5%~95% (Non-condensing)
Operating Temperature	Standard: Mode(-10℃~60℃) E Mode: (-40℃~75℃) Wide Operating Temperature
Storage Temperature	-40℃~85℃
Case Dimension	IP-30 Case protection, 54mm (W) x 105mm (D) x 135mm (H)
Installation	Provide DIN rail kit and wall mount ear for wall mount or DIN-type cabinet install
EMI	FCC Class A, CE EN61000-4-2 (ESD), CE EN61000-4-3 (RS), CE EN-61000-4-4 (EFT), CE EN61000-4-5 (Surge), CE EN61000-4-6 (CS), CE EN61000-4-8, CE EN61000-4-11, CE EN61000-4-12, CE EN61000-6-2, CE EN61000-6-4
Safety	UL, cUL, CE/EN60950-1
Stability Testing	IEC60068-2-32 (Free fall), IEC60068-2-27 (Shock), IEC60068-2-6 (Vibration)

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- System Log Server/Client.
- SMTP e-mail Alert.
- Relay Alarm Output System Events.
- Security
 - IP Security: IP address security management to prevent unauthorized intruder.
- IGMP with Query mode for Multi Media
- TFTP Firmware Update and System Configure Restore/Backup.

Software Feature

Management	SNMP v1 v2c, Web interface management
SNMP MIB	RFC 1213 MIBII, RFC 1493 Bridge MIB, RMON RFC 1757, RFC 2674 VLAN MIB, RFC 1643 Ethernet like MIB, RFC1215 Trap MIB, IGMP MIB Private MIB for switch information, X-Ring, port alarm, TFTP firmware upgrade, reset, port mirror, IP security
VLAN	Support Port based VLAN and IEEE802.1Q Tag VLAN Provide redundant backup feature and the recovery time below 300ms
Spanning Tree	Support IEEE802.1d Spanning Tree and IEEE802.1w Rapid Spanning Tree
X-Ring	Support X-Ring, Dual Homing, and Couple Ring
Quality of Service	The quality of service determined by port, Tag and IPv4 Type of service
Class of Service	Support IEEE802.1p class of service, per port provides 4 priority queues
Port Mirror	Support TX packet only or both of TX and RX packet
IGMP	Support IGMP v1 and Query mode. Up to 256 groups
IP Security	Support 10 IP addresses that have permission to access the switch management
Bandwidth Control	Support ingress packet filter and egress packet limit The egress rate control supports all of packet type and the limit rates are 128Kbps, 256Kbps, 512Kbps, 1Mbps, 2Mbps, 4Mbps, and 8Mbps Ingress filter packet type combination rules are Broadcast/Multicast/Unknown Unicast packet, Broadcast/Multicast packet, Broadcast packet only and all of packet. The packet filter rate can be set follow as: 1Mbps, 2Mbps, 4Mbps, 8Mbps, 16Mbps, 32Mbps, 64Mbps
Flow Control	Support Flow Control for Full-duplex and Back Pressure for Half-duplex
System Log	Support System log record and remote system log server
SMTP	Support SMTP Server and 4 e-mail accounts for receiving event alert
Relay Alarm	Provides one relay output for port breakdown, power fail and provide DIP switch to mask link down port Alarm Relay current carry ability: 1A @ DC24V
SNMP Trap	Up to 3 Trap stations Cold start, Port link up, Port link down, Authentication Failure, Private Trap for power status, Port Alarm configuration, Fault alarm, X-Ring topology change
DHCP	Provide DHCP client function to obtain IP address from DHCP server
SNTP	Support SNTP to synchronize system clock in Internet
Firmware Update	Support TFTP firmware update, TFTP backup and restore
Configuration upload and download	Support text format configuration file for system quick installation

*Future release

**Optional

Ordering Information

- IES-2008P/N 8350-230R
8 10/100TX with X-Ring Managed Industrial Switch
- IES-2008/EP/N 8350-231R
8 10/100TX with X-Ring Managed Industrial Switch, E mode (Wide Operating Temperature)