

IES-2008

8 10/100TX with Pro-Ring Management Industrial Switch

- *Pro-Ring System covers X-Ring, Dual Homing and Couple Ring*
- *X-Ring provides Ring recovery time of less than 10ms for up to 250 switches in one Ring*
- *IP-30 metal housing with DIN rail and wall mount design*



OVERVIEW

The Lantech IES-2008 is a managed Industrial Switch with SNMP functionality, equipped with 8 10/100BaseTX ports. The SNMP features are including QoS for 4 queues, 801.q VLAN, IGMP snooping and query mode as well as SNTP and SMTP. Featured with relay contact to alarm system function, the IES-2008 can send SNMP traps and alert emails immediately to notify of power failure and / or port down events.

The Lantech IES-2008 is designed with redundant power supply and provides polarity reverse protection as well. It is able to use AC power adapter with wide VDC input range from 9 to 56VDC.

To meet the demands of Industrial environments, the IES-2008 comes packaged in a robust IP30 housing and has been tested extensively to meet Industrial EMI and EMC standards. Rigorous mechanical testing has also been undertaken to comply with free fall, shock and vibration stability test requirements, which ensure long term reliability in critical industrial environments. The -E model, which is able to be used

in extreme environments with an operating temperature range of -40°C to 75°C, is also available.

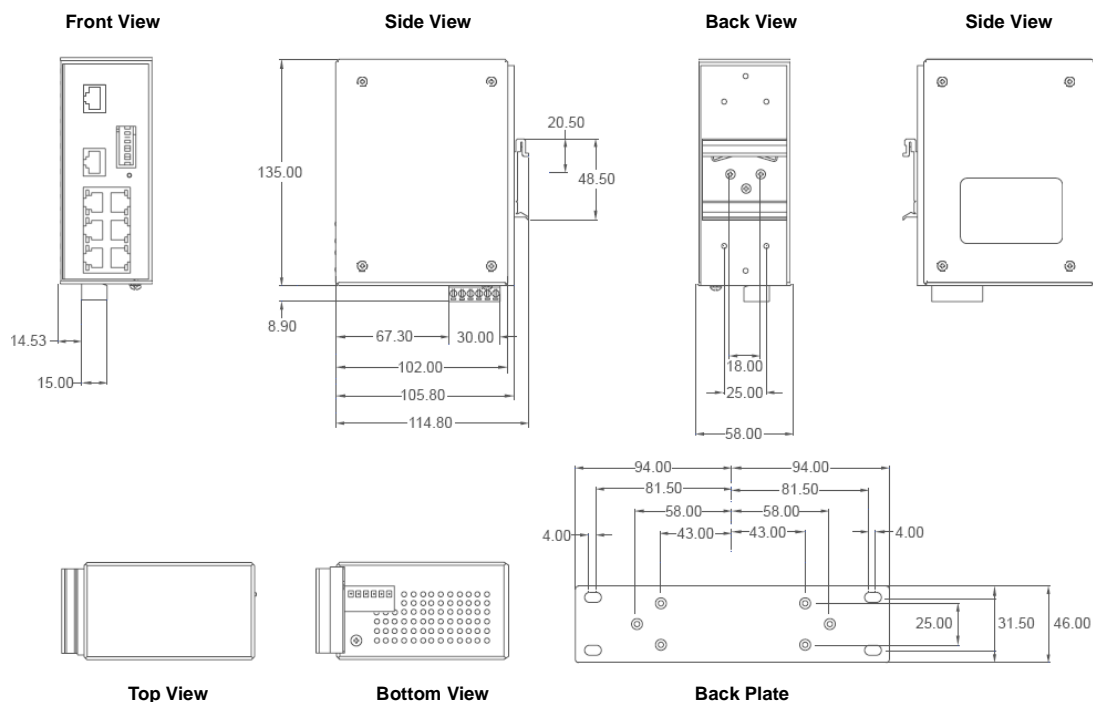
The Lantech IES-2008 features "Pro-Ring", which covers X-Ring, Dual Homing, and Couple Ring. X-Ring is a self recovery Ring scheme, with a recovery time of less than 10ms when network is failed over and can be ring up to 250 Lantech Industrial Switches in a Ring. The IES-2008 supports Dual Homing feature, which can ensure two X-Ring groups with redundant back up when connected to a backbone switch. Couple Ring is to ensure network recovery protection between two X-Ring groups. The IES-2008 can set Back-up Masters in X-Ring to ensure the most secure network.

With DIN-rail and wall-mountable design, the Lantech IES-2008 is easy to be installed. It is the best to use in Automation, Transportation, Semi-conductor factory, Heavy Industrial factory and other factory assembly lines.

FEATURES & BENEFITS

- 8-port 10/100TX industrial switch
- Supports ingress packet filter and egress rate limit.
- Conforms to IEEE 802.3 10Base-T, 802.3u 100Base-TX
- IEEE 802.3x flow Control Support.
- Flow control on full-duplex
- RJ-45 port support auto MDI/MDI-X function
- Provides Fiber link ability
- Wide-range redundant power design
- Relay alarm output for system events
- DIN rail and wall mount design
- Supports X-Ring (10ms recovery) function
- Easy configuration design
- Power polarity reverse protect.
- Store-and-Forward Switching Architecture.
- 1Mbits Embedded memory
- 2K MAC address table
- SNMP, Web management, RMON
- Per port supports 4 priority queues
- IEEE 802.1p class of service and provide port base, Tag base and Type of service priority method.
- Supports Port based VLAN / 802.1 Q Tag VLAN
- TFTP firmware update and system configure restore and backup.
- IGMP with Query mode for multimedia application
- Simple Network Time protocol support
- Port mirror for TX or TX and RX packet.
- DHCP client support
- Management IP security
- System event log support
- Simple mail transfer protocol

DIMENSIONS (unit=mm)



SPECIFICATION

| Hardware Specification | | Software Specification | | | |
|------------------------|--|-------------------------------|---|---|--|
| Standards | IEEE 802.3 10Base-T Ethernet IEEE 802.3u 100Base-TX Fast Ethernet IEEE 802.3x Flow Control and Back-pressure IEEE 802.1d spanning tree IEEE 802.1w rapid spanning tree IEEE 802.1p class of service IEEE 802.1Q VLAN Tag | Operating Temperature | 20°C~60°C / -4°F~140°F (Standard model) -40°C~75°C / -40°F~167°F (-E model) | | |
| Switch Architecture | Back-plane (Switching Fabric): 1.6Gbps | Storage Temperature | -40°C~85°C / -40°F~185°F | | |
| Protocol | CSMA/CD | Case Dimension | IP-30, 54 mm (W) x 135 mm (H) x 105mm (D) | | |
| Technology | Store and forward switching architecture | Weight | 1106 g | | |
| Transfer Rate | 14,880 pps for 10Base-T Ethernet 148,800 pps for 100Base-TX Fast Ethernet | EMI & EMS | FCC Class A, CE EN61000-4-2 (ESD), CE EN61000-4-3 (RS), CE EN61000-4-4 (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 | | |
| Transfer packet size | 64bytes to 1522 bytes (with VLAN tag). | Safety | UL, cUL, CE/EN60950-1 | | |
| Mac Address | 2K MAC address table | Stability Testing | IEC60068-2-32 (Free fall), IEC60068-2-27 (Shock), IEC60068-2-6 (Vibration) | | |
| Memory Buffer | 1Mbits | MTBF | 319175 hrs | | |
| Network Cables | 10Base-T: 2-pair UTP/STP Cat. 3, 4, 5, 6 cable EIA/TIA-568 100-ohm (100m) 100Base-TX: 2-pair UTP/STP Cat. 5, 6 cable EIA/TIA-568 100-ohm (100m) | Install | Provides DIN rail kit and wall mount ear for wall mount or DIN-type cabinet install. | | |
| LED | Per port: Link/Activity (Green), Full duplex/Collision (Yellow) Per unit: Power 2 (Green), Power 1 (Green), Power (Green), Fault (Yellow), Master (Green) | Warranty | 5 years | | |
| Power Supply | 24VDC (9~56VDC); 24VAC, Redundant power with polarity reverse protect function and connective removable terminal block for master and slave power. | Software Specification | | | |
| Power Consumption | DC input | DC 12V | Management | Provides SNMP v1 v2c, Web-browser interface management and one default button for system default setting. | |
| | Un- load | A | 0.28A | SNMP MIB | RFC 1213 MIBII, RFC 1493 Bridge MIB, RFC 1757 RMON, RFC 2674 VLAN MIB, RFC 1643 Ethernet like MIB, RFC1215 Trap MIB, IGMP MIB. |
| | | W | 3.36 | Private MIB for switch information, super ring, port alarm, TFTP firmware upgrade, reset, port mirror, IP security. | |
| | Full Load | A | 0.42A | | SNMP Trap |
| W | | 5.04 | | | |
| Operating Humidity | 5% ~ 95% (Non-condensing) | | | | |

| | | | |
|------------------------|--|-----------------|---|
| | Failure, Private Trap for power status, Port Alarm configuration, Fault alarm, X-ring. | | and the limit rates are 128Kbps, 256Kbps, 512Kbps, 1MB, 2MB, 4MB, and 8MB. 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, and 64Mbps |
| VLAN | Port based VLAN IEEE802.1Q Tag VLAN Both of port based and Tag based VLAN group up to 64 VLANs | Port mirror | Supports TX packet only or both of TX and RX packet |
| IGMP | Supports IGMP v1 and Query mode. Up to 256 groups. | Firmware update | Supports TFTP firmware update, TFTP configuration backup and restore. |
| Pro-Ring | Support X-Ring, Dual Homing and Couple Ring. X-Ring provides redundant backup feature and the recovery time below 10ms for up to 250 switches in a ring. | 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 |
| Redundant ring | 2 ports for redundant ring. It also supports coupling ring function. Ring and coupling port configure by web interface and ringmaster by hardware DIP switch | DHCP client | Provide DHCP client function to obtain IP address from DHCP server. |
| Class of Service | IEEE802.1p class of service support, per port provides 4 priority queues. | Packet filter | 4 types of packet filter rule with different packet combination: 1. All of packet 2. Broadcast/ multicast/ unknown unicast packet 3. Broadcast/ multicast packet 4. Broadcast packet only |
| Quality of Service | The quality of service support port based, Tag based and IPv4 Type of service. | | |
| Spanning Tree | IEEE802.1d spanning tree IEEE802.1w rapid spanning tree. | | |
| SNTP | Supports simple network time protocol. | | |
| SMTP | Supports Simple mail transfer protocol. | | |
| Management IP security | Supports IP address security to prevent unauthorized intruder. | | |
| System event log | Provides 1000 event log entries | | |
| Bandwidth control | Support ingress packet filter and egress packet limit. The egress rate control supports all of packet type | | |

*Future release
**Optional

ORDERING INFORMATION

- **IES-2008.....P/N: 8350-230**
8 10/100TX with Pro-Ring management industrial switch, Standard Operating Temperature (-20°C~60°C)
- **IES-2008-E.....P/N: 8350-231**
8 10/100TX with Pro-Ring management industrial switch, Wide Operating Temperature (-40°C~75°C)

OPTIONAL ACCESSORIES

DIN Rail Power

- **AD1048-24FS** 24VDC, 2A, Wide AC Input, Convection Cooled, DIN Rail or Wall Mounted, RoHS, Operating Temp. -20°C~50°C (ambient, derating each output at 2.5% per degree from 50°C ~ 75°C, which means the output is 18 Watts at 75°C.)
- **AD1024-24F** 24VDC, 1A, Wide AC Input, Convection Cooled, DIN Rail or Wall Mounted, RoHS, Operating Temp. -20°C~50°C (ambient, derating each output at 2.5% per degree from 50°C ~ 75°C, which means the output is 9 Watts at 75°C.)
- **AD1240-48S** 48VDC, 5A, Wide AC Input, Build-in fan Cooled, DIN Rail or Wall Mounted, RoHS, Operating Temp. -20°C~50°C (ambient, derating each output at 2.5% per degree from 50°C ~ 70°C)
- **AD1120-48F** 48VDC, 2.5A, Wide AC Input, Build-in fan Cooled, DIN Rail or Wall Mounted, RoHS, Operating Temp. -20°C~50°C (ambient, derating each output at 2.5% per degree from 50°C ~ 70°C)

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