

# IES-2008-67

### 8 10/100TX M12 / IP-67 Managed Industrial Switch

- Pro-Ring covers X-ring, Dual Homing, and Couple Ring Topology
- Provides M12 connector with IP-66/67 rated protection
- Wide Operating Temperature from -40 °C to 75 °C



### **OVERVIEW**

Lantech IES-2008-67 is an 8 10/100 Base-TX with M12-connctor Managed Industrial Switch for IP66/67 rated protection. The full SNMP management features are including QoS for 4 queues, 801.q VLAN, IGMP snooping and query mode as well as SNTP and SMTP. The PTP (Precision Time Protocol) client will be future supported.

Equipped with DC 9V-56V power input design, Lantech IES-2008-67 can support redundant power supply input to ensure power runtime. It also supports relay contact to connect with alarm system, which can immediately notify of power failure and/or port down events. In case of events, Lantech IES-2008-67 will immediately send an email to pre-defined addresses and send trap to stations.

Lantech IES-2008-67 supports our Pro-Ring system including X-Ring, which is able to find an auto-recovery-path within 10ms up to 250 Lantech Industrial Switches and Dual-Homing feature ensures two X-Ring groups with redundant back up when

connected to a backbone switch. Pro-Ring also provides Couple Ring to provide network recovery protection between two X-Ring groups. Furthermore, it can set back-up masters in X-Ring to ensure the most secure network.

IES-2008-67 is designed to meet with critical network environment with IP67 enclosure and M12 connectors for protection against water and dust ingress. It has passed harsh environmental testing to comply with Industrial EMI and Safety standards. Besides 1.2KVA Hi-Pot abnormal test, it also passed stability testing such as Free fall, Shock, and Vibration. For a greater flexibility in application the IES-2008-67 supports an extended operating temperature range from -40°C to 75°C.

Lantech L-Key (M12) can be used to quickly configure the IES-2008-67 on site without the need for an IP connection or notebook PC. Lantech IES-2008-67 is an ideal choice for critical industrial environments such as smelters, crusher plants, open cut mines etc.

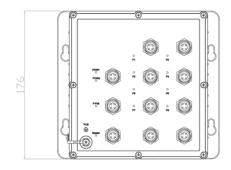
### **FEATURES & BENEFITS**

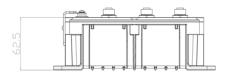
- 8-port 10/100TX Managed Industrial Switch with M12 connectors and IP66/67 rated protection
- Back-plane (Switching Fabric): 5.6Gbps
- 1Mbits Packet Buffer
- IGMP with Snooping and Query mode for Multi Media Application
- 8K MAC address table
- Redundant Power Design with wide DC9V-56V input
- IEEE 802.1d Spanning Tree & IEEE 802.1w RSTP
- Port Based VLAN, 802.1Q Tag VLAN, GVRP
- Pro-Ring
  - · X-ring, Dual Homing, and Couple Ring Topology.
  - Provide redundant backup feature and the recovery time below 10ms.
- Port Trunk with LACP
- Supports IEEE 802.1ab LLDP
- IEEE 802.1p Class of Service, per port 4 priority queues
- Port base, Tag Base and Type of Service Priority

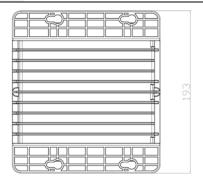
- Supports Ingress Packet Filter and Egress Rate Limit
- Supports Broadcast/Multicast Packet Filter Control
- Port Mirror: Monitor traffic in switched networks
- System Log Server/Client
- Security
  - · Port Security: MAC address entries/Filter
  - IP Security: IP address security management to prevent unauthorized intruder
  - · Login Security: IEEE802.1X/RADIUS
- SNMP Trap
  - Device cold start, Power status, Authentication failure, X-ring topology changed, Port Link up/Link down, port events
- Relay Alarm Output System Events
- IGMP with Query mode for Multi Media Application
- TFTP Firmware Update and System Configure Restore/Backup

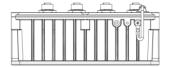


## DIMENSIONS (unit=mm)









## **SPECIFICATIONS**

| Hardware Sp                       | pecification                                                                                                                     | EMI & EMS          | FCC Class A, CE EN61000-4-2 (ESD),                                                                                                               |
|-----------------------------------|----------------------------------------------------------------------------------------------------------------------------------|--------------------|--------------------------------------------------------------------------------------------------------------------------------------------------|
| IEEE Standard                     | IEEE802.3 10Base-T Ethernet<br>IEEE802.3u 100Base-TX<br>IEEE802.3x Flow Control and Back Pressure                                |                    | CE EN61000-4-3 (RS), CE EN-61000-4-4 (EFT),<br>CE EN61000-4-5 (Surge), CE EN61000-4-6 (CS),<br>CE EN61000-4-8, CE EN61000-6-2,<br>CE EN61000-6-4 |
|                                   | IEEE802.3ad Port trunk with LACP IEEE802.3af Power over Ethernet                                                                 | Stability Testing  | IEC60068-2-32 (Free fall), IEC60068-2-27 (Shock), IEC60068-2-6 (Vibration)                                                                       |
|                                   | IEEE802.1d Spanning Tree IEEE802.1w Rapid Spanning Tree                                                                          | MTBF               | TBD                                                                                                                                              |
|                                   | IEEE802.1p Class of Service                                                                                                      | Warranty           | 5 years                                                                                                                                          |
|                                   | IEEE802.1Q VLAN Tag                                                                                                              | Software Sp        | ecification                                                                                                                                      |
|                                   | IEEE802.1x User Authentication (Radius)                                                                                          | Management         | SNMP v1 v2c, v3/ Web/Telnet/CLI                                                                                                                  |
|                                   | IEEE802.1ab LLDP                                                                                                                 | SNMP MIB           | RFC 1215 Traps MIB, RFC 1213 MIBII,                                                                                                              |
| Curitah Arabitaatura              | IEEE1588 PTP client*                                                                                                             |                    | RFC 1157 SNMP MIB, RFC 1493 Bridge MIB,                                                                                                          |
| Switch Architecture Transfer Rate | Back-plane (Switching Fabric): 5.6Gbps  14,880pps for Ethernet port  148,800pps for Fast Ethernet port                           |                    | RFC 2674 VLAN MIB, RFC 1643 EtherLike,<br>RFC 1757 Rmon, RSTP MIB, Private MIB, PoE                                                              |
| Packet Buffer                     | 1Mbits                                                                                                                           |                    | MIB,LLDP MIB                                                                                                                                     |
| MAC Address                       | 8K MAC address table                                                                                                             | VLAN               | Port Based VLAN                                                                                                                                  |
| Connector                         | 10/100TX: 8 x M12 4-pole D-coded with auto MDI/MDI-X function                                                                    |                    | IEEE 802.1Q Tag VLAN (256 entries)/ VLAN ID (Up to<br>4K, VLAN ID can be assigned from 1 to 4096.)<br>GVRP (256 Groups)                          |
|                                   | RS-232 connector: 1 x M12 8-pole A-coded                                                                                         | Port Trunk with    | LACP Port Trunk: 4 Trunk groups/Maximum 4 trunk                                                                                                  |
| Network Cable                     | 10Base-T: 2-pair UTP/STP Cat. 3, 4, 5 cable                                                                                      | LACP               | members                                                                                                                                          |
|                                   | EIA/TIA-568 100-ohm (100m)<br>100Base-TX: 2-pair UTP/STP Cat. 5/ 5E cable                                                        | LLDP               | Supports IEEE802.1ab LLDP, the advertising of the switch's Identity and capabilities                                                             |
| Protocol                          | EIA/TIA-568 100-ohm (100m) CSMA/CD                                                                                               | Spanning Tree      | Supports IEEE802.1d Spanning Tree and IEEE802.1w Rapid Spanning Tree                                                                             |
| LED                               | Per unit: Power 1 (Green), Power 2 (Green), P-Fail (Red), R-Master (Green)  Ethernet: Link/Activity (Green, Fiber: Link/Activity | Pro-ring           | Supports X-ring, Dual Homing, and Couple Ring. Provides redundant backup feature and the recovery time below 10ms                                |
| Power Supply                      | (Green)  DC 9-56V, Redundant power with M12 5-pole A-coded                                                                       | Quality of Service | The quality of service determined by port, Tag and IPv4 Type of service, IPv4/IPv6 Different Service                                             |
| Reserve polarity                  | connector  Present                                                                                                               | Class of Service   | Supports IEEE802.1p class of service, per port provides 4 priority queues                                                                        |
| Overload current                  | Present                                                                                                                          | Port Security      | Supports 100 entries of MAC address for static MAC and another 100 for MAC filter                                                                |
| protection                        | 4.404                                                                                                                            | Port Mirror        | Supports 3 mirroring types: "RX, TX and Both packet                                                                                              |
| Power<br>Consumption              | 14W                                                                                                                              | IGMP               | Supports IGMP snooping v1,v2                                                                                                                     |
| Operating                         | -40°C~75°C / -40°F~167°F                                                                                                         |                    | 256 multicast groups and IGMP query                                                                                                              |
| Temperature Storage               | -40°C~85°C / -40°F~185°F                                                                                                         | IP Security        | Supports 10 IP addresses that have permission to access the switch management and to prevent                                                     |
| Temperature                       |                                                                                                                                  | 1 : 0 ::           | unauthorized intruder.                                                                                                                           |
| Operating Humidity                | 5% ~ 95% (Non-condensing)                                                                                                        | Login Security     | Supports IEEE802.1X Authentication/RADIUS                                                                                                        |
| Case Dimension                    | IP-67, 193mm (W) x 176mm (H) x 62.5mm (D)                                                                                        | Flow Control       | Supports Flow Control for Full-duplex and Back Pressure for Half-duplex                                                                          |
| Weight                            | TBD                                                                                                                              | System Log         | Supports System log record and remote system log                                                                                                 |
| Installation                      | Wall mount design                                                                                                                | Cystem Log         | server                                                                                                                                           |
|                                   |                                                                                                                                  | SMTP               | Supports SMTP Server and 6 e-mail accounts for receiving event alert                                                                             |



| SNTP              | Supports SNTP to synchronize system clock in<br>Internet                                                                                                                                                                                                                                                                                                                                   | DHCP                                    | Provides DHCP Client/ DHCP Server/ IP Relay functions                    |
|-------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------|--------------------------------------------------------------------------|
| Bandwidth Control | Support ingress packet filter and egress packet limit The egress rate control supports all of packet type and the limit rates are 100K–102400Kbps(10/100) 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 from 100K–102400Kbps(10/100) | DNS                                     | Provides DNS client feature and support Primary and Secondary DNS server |
|                   |                                                                                                                                                                                                                                                                                                                                                                                            | Firmware Update                         | Supports TFTP firmware update, TFTP backup and restore.                  |
|                   |                                                                                                                                                                                                                                                                                                                                                                                            | Configuration<br>upload and<br>download | Supports binary format configuration file for system quick installation  |
| Relay Alarm       | Provides one relay output for port breakdown, power fail and alarm Alarm Relay current carry ability: 1A @ DC24V                                                                                                                                                                                                                                                                           |                                         | *Future Release<br>**Optional                                            |
| 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                                                                                                                                                                                                       |                                         |                                                                          |

### **ORDERING INFOMATION**

IES-2008-67......P/N: 8360-490

8 10/100TX IP67 rated Managed Industrial Switch w/M12 connectors

### **OPTIONAL ACCESSORIES**

#### **DIN Rail Power**

| AD1048-24FS | 24VDC, 2A, Wide AC Input, Convection Cooled, DIN Rail or Wall Mounted, RoHS, Operating Temp20°C~50°C     |
|-------------|----------------------------------------------------------------------------------------------------------|
| AD1024-24F  | 24VDC, 1A, Wide AC Input, Convection Cooled, DIN Rail or Wall Mounted, RoHS, Operating Temp20°C~50°C     |
| AD1240-48S  | 48VDC, 5A, Wide AC Input, Build-in fan Cooled, DIN Rail or Wall Mounted, RoHS, Operating Temp20°C~50°C   |
| AD1120-48F  | 48VDC, 2.5A, Wide AC Input, Build-in fan Cooled, DIN Rail or Wall Mounted, RoHS, Operating Temp20°C~50°C |

#### Accessory

L-Key (M12 Type).....P/N: NA

Configuration backup and restoration tool for managed switches w/ M12 connector

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