

# IES-2208F-67

## 8 10/100TX + 2 100FX 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
- Support with L-Key(M12) for easy maintenance



### OVERVIEW

Lantech IES-2208F-67 is an 8 10/100 Base-TX + 2 100FX with M12-connector 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-2208F-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-2208F-67 will immediately send an email to pre-defined addresses and send trap to stations.

Lantech IES-2208F-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.

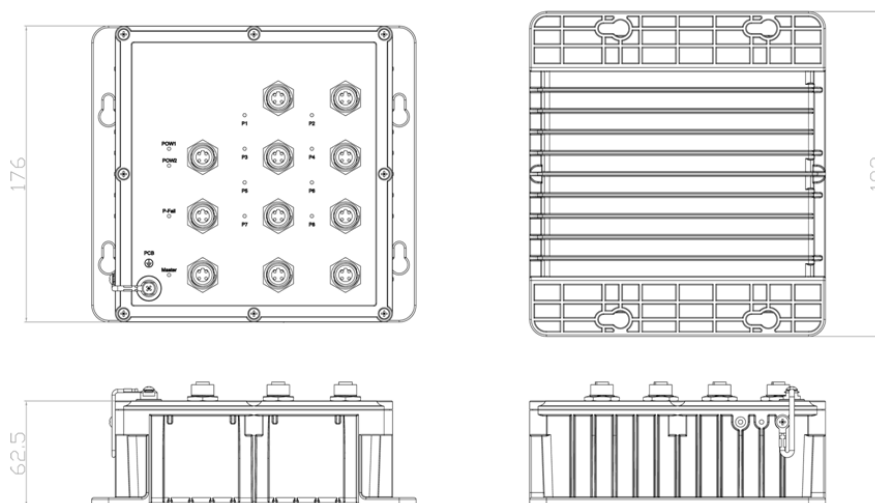
IES-2208F-67 is designed to meet with critical network environment with IP67 enclosure and M12 connectors for protection against water and dust ingress. It has passed harsh environmental testing to comply with Industrial EMI and Safety standards. Besides 1.2KVA Hi-Pot abnormal test, it also passed stability testing such as Free fall, Shock, and Vibration. For a greater flexibility in application the IES-2208F-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-2208F-67 on site without the need for an IP connection or notebook PC. Lantech IES-2208F-67 is an ideal choice for critical industrial environments such as smelters, crusher plants, open cut mines etc.

### FEATURES & BENEFITS

- 8-port 10/100TX + 2-port 100FX 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 Specification		Operating Humidity	5% ~ 95% (Non-condensing)	
IEEE Standard	IEEE802.3 10Base-T Ethernet	Case Dimension	IP-67, 193mm (W) x 176mm (H) x 62.5mm (D)	
	IEEE802.3u 100Base-TX	Weight	TBD	
	IEEE802.3x Flow Control and Back Pressure	Installation	Wall mount design	
	IEEE802.3ad Port trunk with LACP	EMI & EMS	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 EN61000-6-2, CE EN61000-6-4	
	IEEE802.3af Power over Ethernet		Stability Testing	IEC60068-2-32 (Free fall), IEC60068-2-27 (Shock), IEC60068-2-6 (Vibration)
	IEEE802.1d Spanning Tree			MTBF
	IEEE802.1w Rapid Spanning Tree		Warranty	5 years
	IEEE802.1p Class of Service	Software Specification		
	IEEE802.1Q VLAN Tag	Management	SNMP v1 v2c, v3/ Web/Telnet/CLI	
	IEEE802.1x User Authentication (Radius)	SNMP MIB	RFC 1215 Traps MIB, RFC 1213 MIBII, RFC 1157 SNMP MIB, RFC 1493 Bridge MIB, RFC 2674 VLAN MIB, RFC 1643 EtherLike, RFC 1757 Rmon, RSTP MIB, Private MIB, PoE MIB,LLDP MIB	
IEEE802.1ab LLDP	VLAN	Port Based VLAN IEEE 802.1Q Tag VLAN (256 entries)/ VLAN ID (Up to 4K, VLAN ID can be assigned from 1 to 4096.) GVRP (256 Groups)		
IEEE1588 PTP client*	Port Trunk with LACP	LACP Port Trunk: 4 Trunk groups/Maximum 4 trunk members		
Switch Architecture	Back-plane (Switching Fabric): 5.6Gbps	LLDP	Supports IEEE802.1ab LLDP, the advertising of the switch's Identity and capabilities	
Transfer Rate	14,880pps for Ethernet port 148,800pps for Fast Ethernet port	Spanning Tree	Supports IEEE802.1d Spanning Tree and IEEE802.1w Rapid Spanning Tree	
Packet Buffer	1Mbits	Pro-ring	Supports X-ring, Dual Homing, and Couple Ring. Provides redundant backup feature and the recovery time below 10ms	
MAC Address	8K MAC address table	Quality of Service	The quality of service determined by port, Tag and IPv4 Type of service, IPv4/IPv6 Different Service	
Connector	10/100TX: 8 x M12 4-pole D-coded with auto MDI/MDI-X function 2 100FX/LC (LX/SX) connectors RS-232 connector: 1 x M12 8-pole A-coded	Class of Service	Supports IEEE802.1p class of service, per port provides 4 priority queues	
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/ 5E cable EIA/TIA-568 100-ohm (100m)	Port Security	Supports 100 entries of MAC address for static MAC and another 100 for MAC filter	
Optical Cable	Multi-mode: 50/125um-62.5/125um Single mode: 9/125um Available distance: 0.5km (Multi-mode)/10km (Single-mode) Wavelength: 1310nm (Multi-mode/Single-mode)	Port Mirror	Supports 3 mirroring types: "RX, TX and Both packet"	
Protocol	CSMA/CD	IGMP	Supports IGMP snooping v1,v2 256 multicast groups and IGMP query	
LED	<b>Per unit:</b> Power 1 (Green), Power 2 (Green), P-Fail (Red), R-Master (Green) <b>Ethernet:</b> Link/Activity (Green, Fiber: Link/Activity (Green)	IP Security	Supports 10 IP addresses that have permission to access the switch management and to prevent unauthorized intruder.	
Power Supply	DC 9-56V, Redundant power with M12 5-pole A-coded connector	Login Security	Supports IEEE802.1X Authentication/RADIUS	
Reserve polarity protection	Present	Flow Control	Supports Flow Control for Full-duplex and Back	
Overload current protection	Present			
Power Consumption	14W			
Operating Temperature	-40°C~75°C / -40°F~167°F			
Storage Temperature	-40°C~85°C / -40°F~185°F			

System Log	Pressure for Half-duplex Supports System log record and remote system log server	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
SMTP	Supports SMTP Server and 6 e-mail accounts for receiving event alert	DHCP	Provides DHCP Client/ DHCP Server/ IP Relay functions
SNTP	Supports SNTP to synchronize system clock in Internet	DNS	Provides DNS client feature and support Primary and Secondary DNS server
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),	Firmware Update	Supports TFTP firmware update, TFTP backup and restore.
		Configuration upload and 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  
\*\*Optional

## ORDERING INFORMATION

- **IES-2208F-67-SX**.....P/N: **NA**  
8 10/100TX + 2 100SX (LC, MM 550m) IP67 rated Managed Industrial Switch w/M12 connectors
- **IES-2208F-67-LX**.....P/N: **NA**  
8 10/100TX + 2 100LX (LC, SM 10km) 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 Temp. -20°C~50°C
- **AD1024-24F**     24VDC, 1A, Wide AC Input, Convection Cooled, DIN Rail or Wall Mounted, RoHS, Operating Temp. -20°C~50°C
- **AD1240-48S**     48VDC, 5A, Wide AC Input, Build-in fan Cooled, DIN Rail or Wall Mounted, RoHS, Operating Temp. -20°C~50°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

### Accessory

- **L-Key (M12 Type)**.....P/N: **NA**  
Configuration backup and restoration tool for managed switches w/ M12 connector

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