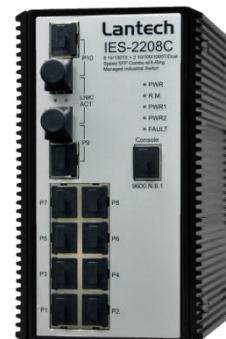


IES-2208C

8 10/100TX + 2 10/100/1000T/Dual Speed SFP Combo w/Pro-Ring Managed Industrial Switch

- Wide operating temperature range from -40°C ~ 75°C (-E model)
- Pro-Ring system covers X-Ring, Dual Homing, and Couple Ring Topology
- Wide range redundant power with polarity reverse protection



OVERVIEW

The Lantech IES-2208C is an 8-port 10/100 Base-TX + 2-port 10/100/1000T or 100/1000 SFP Industrial Switch with managed functionality. It supports full management features, including QoS for 4 queues, 801.q VLAN, IGMP snooping and query mode as well as SNMP and SMTP.

The Lantech IES-2208C supports Pro-Ring system, which includes X-Ring, an auto-recovery-path within 10ms up to 250 Lantech Industrial Switches; Dual-Homing to 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. Furthermore, it can set back-up masters in X-Ring to ensure the most secure network.

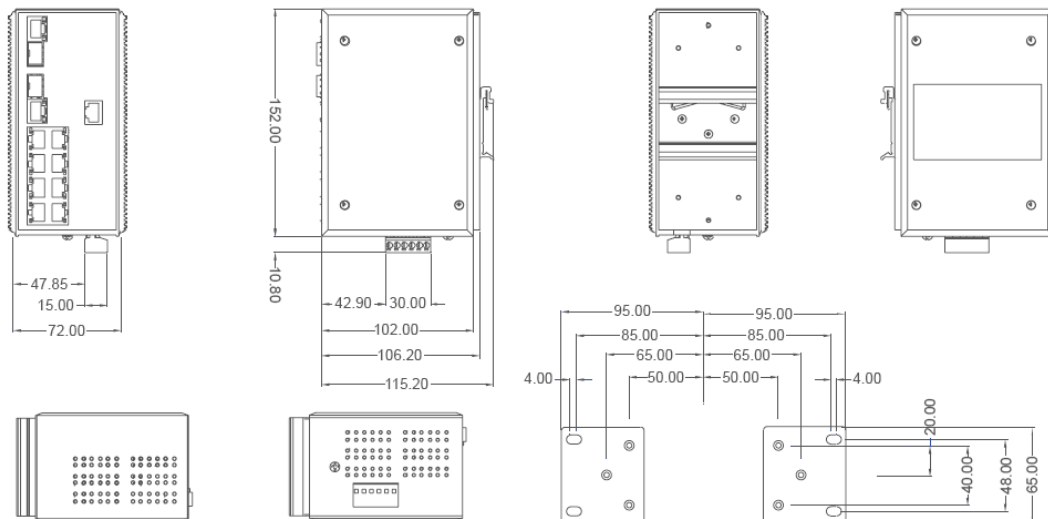
With relay contact to alarm system design, the IES-2208C can immediately notify of power failure and/ or port down events. In case of events, the Lantech IES-2208C will send emails to pre-defined addresses and send SNMP traps to stations.

The IES-2208C is designed to meet the demands of Industrial environments, 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. Thus, the Lantech IES-2208C is the best to use in automation, transportation, semi-conductor factory, heavy industrial factory and other factory assembly lines.

FEATURES & BENEFITS

- **System Interface/Performance**
 - Supports 3000 VDC EFT Surge Protection and 6000VDC ESD for Industrial area that has un-stable power and electrostatic discharge
 - SFP(Mini-GBIC) supports 100/1000 Dual Mode
- **Wide Operating Temperature (-40°C ~ 75°C) for -E model**
- **Pro-Ring System**
 - X-Ring, Dual Homing, and Couple Ring Topology
 - Provide redundant backup feature and the recovery time below 10ms
- **VLAN**
 - Port Based VLAN ; 802.1 Q Tag VLAN ;GVRP
- **QoS (Quality of Service)**
 - Support IEEE 802.1p Class of Service, Per port 4 queues
 - Port Base, Tag Base and Type of Service Priority
- **Port Trunk with LACP**
- **Support 802.1ab LLDP**
- **Security**
 - Port Security : MAC address entries/filter
 - IP Security: IP address security management to prevent unauthorized intruder.
 - Login Security: IEEE802.1X/RADIUS
- **IGMP**
 - Query mode for Multi Media Application
 - Support multicast filter
- **Spanning Tree**
 - IEEE802.1d Spanning Tree ;802.1w RSTP
- **Bandwidth Control**
 - Ingress Packet Filter and Egress Rate Limit
 - Broadcast/Multicast Packet Filter Control
- **System Event Log**
 - System Log Server/Client
 - SMTP e-mail Alert
 - Relay Alarm Output System Events
- **SNMP Trap**
 - Device cold start, Power status, Authentication failure, X-Ring topology changed, Port Link up/Link down

DIMENSIONS (unit=mm)



SPECIFICATION

Hardware Specification		Software Specification	
IEEE Standards	IEEE802.3 10BASE-T IEEE802.3u 100BASE-TX IEEE802.3z Gigabit fiber IEEE802.3ab 1000Base-T IEEE802.3x Flow control and Back-pressure IEEE802.1p COS IEEE802.1X Authentication/RADIUS IEEE802.1d Spanning Tree IEEE802.1w Rapid Spanning Tree IEEE802.1Q VLAN IEEE802.3ad Port trunk with LACP IEEE802.1ab LLDP	Temperature	
Switch Architecture	Back-plane (Switching Fabric): 5.6Gbps	Case Dimension	IP-30, 72mm (W) x 105mm (D) x 152mm (H)
Transfer Rate	14,880pps for Ethernet port 148,800pps for Fast Ethernet port 1,488,000pps for Gigabit Fiber Ethernet port	MTBF	272761 hrs
Packet Buffer	1Mbits	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 EN61000-4-11, CE EN61000-4-12, CE EN61000-6-2, CE EN61000-6-4
Mac Address	8K MAC address table	Safety	UL, cUL, CE/EN60950-1
Connectors	10/100TX: 8 x RJ-45 10/100/1000T: 2 x RJ-45 Mini GBIC: 2 slots for 100/1000M SFP transceiver RS-232 connector: RJ-45 type	Stability Testing	IEC60068-2-32 (Free fall), IEC60068-2-27 (Shock), IEC60068-2-6 (Vibration)
Network Cable	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/ 5E/ 6 cable EIA/TIA-568 100-ohm (100m)	Warranty	5 years
Optical Cable	Multi-mode: 50/125um-62.5/125um Single mode: 9/125um Available distance: 2km (Multi-mode)/30km (Single-mode) Wavelength: 1310nm (Multi-mode/Single-mode)	Software Specification	
Protocol	CSMA/CD	Management	SNMP v1 v2c, v3/ Web-browser/ Telnet/ CLI/ Lantech-View Management
LED	Per unit: Power/ Power 1/ Power 2 (Green), Fault (Red), Ring Master (Green) 8 10/100TX: Link/Activity (Green), Full duplex/Collision (Yellow) Combo Port: (Green / Green) SFP: Link/Activity (Green)	SNMP MIB	RFC 1215 Trap, RFC1213 MIBII, RFC 1157 SNMP MIB, RFC 1493 Bridge MIB, RFC 2674 VLAN MIB, RFC 1643 EtherLike, RFC 1757 RMON MIB, RSTP MIB, Private MIB
Installation	DIN rail and wall mount ear	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)
Power Supply	12-48VDC (9-56VDC) /-48VDC 18-36VAC*, Redundant power with polarity reverse protects function and removable terminal block.	Port Trunk with LACP	LACP Port Trunk: 4 Trunk groups/Maximum 4 trunk members
Power Consumption	9.5 Watts	LLDP	Supports LLDP to allow switch to advise its identification and capability on the LAN
Operating Humidity	5% to 95% (Non-condensing)	Spanning Tree	Supports IEEE802.1d Spanning Tree and IEEE802.1w Rapid Spanning Tree
Operating Temperature	-20°C-60°C / -4°F-140°F (Standard model) -40°C-75°C / -40°F-167°F (E model)	System Log	Supports System log record and remote system log server
Storage	-40°C-85°C / -40°F-185°F	Pro-Ring	Pro-Ring system covers X-Ring, Dual Homing, and Couple Ring Topology. X-Ring provides redundant backup feature and the recovery time below 10ms for up to 250 switches in a ring.
		Quality of Service	The quality of service determined by port, Tag and IPv4 Type of service, IPv4/IPv6 Different Service
		Class of Service	Supports IEEE802.1p class of service, per port provides 4 priority queues
		Port Security	Supports 100 entries of MAC address for static MAC and another 100 for MAC filter
		Port Mirror	Supports 3 mirroring types: "RX, TX and Both packet".
		IGMP	Supports IGMP snooping v1,v2 256 multicast groups and IGMP query Supports multicast filter
		IP Security	Supports 10 IP addresses that have permission to access the switch management and to prevent unauthorized intruder.
		Login Security	Supports IEEE802.1X Authentication/RADIUS
		SNTP	Supports SNTP to synchronize system clock to

Bandwidth Control	Internet Supports ingress packet filter and egress packet limit The egress rate control supports all of packet type and the limit rates are 100K~250Mbps 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 to 250Mbps	Failure, Private Trap for power status, Port Alarm configuration, Fault alarm, X-Ring topology change
Flow Control	Supports Flow Control for Full-duplex and Back Pressure for Half-duplex	DHCP Provides DHCP Client/ DHCP Server/ IP Relay functions
SMTP	Supports SMTP Server and 6 e-mail accounts for receiving event alert	DNS Provides DNS client feature and support Primary and Secondary DNS server.
Relay Alarm	Provides one relay output for port breakdown, power fail and alarm Alarm Relay current carry ability: 1A @ DC24V	Firmware Update Supports TFTP firmware update, TFTP backup and restore.
SNMP Trap	Up to 3 Trap stations Cold start, Port link up, Port link down, Authentication	Configuration upload /download Supports binary configuration file for system quick installation ifAlias Each port allows importing 128bit of alphabetic string of word on SNMP and CLI interface.

*Optional

ORDERING INFORMATION

- **IES-2208C.....P/N: 8350-450**
8 10/100TX + 2 10/100/1000T with 100/1000 SFP Combo Industrial Switch, Standard Operating Temperature (-20°C to 60°C)
- **IES-2208C-E.....P/N: 8350-440**
8 10/100TX + 2 10/100/1000T with 100/1000 SFP Combo Industrial Switch, Wide Operating Temperature (-40°C to 75°C)
- **IES-2208C-AC.....P/N: 8350-450-AC**
8 10/100TX + 2 10/100/1000T with 100/1000 SFP Combo Industrial Switch, Standard Operating Temperature (-20°C to 60°C); 18~36VAC
- **IES-2208C-E-AC.....P/N: 8350-440-AC**
8 10/100TX + 2 10/100/1000T with 100/1000 SFP Combo Industrial Switch, Wide Operating Temperature (-40°C to 75°C); 18~36VAC

OPTIONAL ACCESSORIES

DIN Rail Power

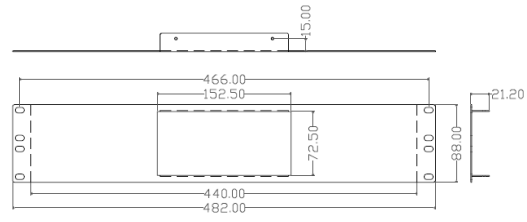
- **AD1048-24FS** 24VDC, 2A, Wide AC Input, Convection Cooled, DIN Rail or Wall Mounted, RoHS, Operating Temp. -20°C~50°C (ambient, derating each output at 2.5% per degree from 50°C ~ 75°C, which means the output is 18 Watts at 75°C.)
- **AD1024-24F** 24VDC, 1A, Wide AC Input, Convection Cooled, DIN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

Mini GBIC (SFP)

- | | |
|--|--|
| ■ 8330-162 MINI GBIC 1000SX (LC/0.5km) Transceiver | ■ 8330-061 100Base LX 30KM, Single-mode, LC Transceiver |
| ■ 8330-163 MINI GBIC 1000SX2 (LC/2km) Transceiver | ■ 8330-188 LTSFP-1000BX-10KM Transceiver (WDM 1310) |
| ■ 8330-165 MINI GBIC 1000LX (LC/10km) Transceiver | ■ 8330-189 LTSFP-1000BX-10KM Transceiver (WDM 1550) |
| ■ 8340-0591 MINI GBIC 1000LHX (LC/40km) Transceiver | ■ 8330-186 LTSFP-1000BX-20KM Transceiver (WDM 1310) |
| ■ 8330-166 MINI GBIC 1000XD (LC/50km) Transceiver | ■ 8330-187 LTSFP-1000BX-20KM Transceiver (WDM 1550) |
| ■ 8330-169 MINI GBIC 1000XD (LC/60km) Transceiver | ■ 8330-180 LTSFP-1000BX-40KM Transceiver (WDM 1310) |
| ■ 8330-167 MINI GBIC 1000ZX (LC/80km) Transceiver | ■ 8330-182 LTSFP-1000BX-40KM Transceiver (WDM 1550) |
| ■ 8330-170 MINI GBIC 1000EZ (120km) Transceiver | ■ 8330-181 LTSFP-1000BX-60KM Transceiver (WDM 1310) |
| ■ 8330-168 MINI GBIC 10/100/1000T (100m) Transceiver | ■ 8330-183 LTSFP-1000BX-60KM Transceiver (WDM 1550) |
| ■ 8330-060 100Base FX 2KM, Multi-mode, LC Transceiver | ■ 8330-184 LTSFP-1000BX-80KM Transceiver (WDM 1490) |
| ■ 8330-065 100Base FX 5KM, Multi-mode, LC Transceiver | ■ 8330-185 LTSFP-1000BX-80KM Transceiver (WDM 1550) |

Rack Mounting Kit

- **MBAK19001** 19" Rack Mounting Kit for 72x105x152mm Industrial Switch



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