IPES-2208C/E

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

Lantech Industrial Switch series are designed with 3 unique hardware features: 1.Terminal block is placed on the bottom of device to isolate dust. 2. 48V Redundant Power Design. 3. 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 X-Ring is incorporating on Industrial Switch series to find a auto-recovery-path within 300ms, and can be ringed up to twenty (20) Lantech Industrial Switches. Lantech Dual-Homing feature ensures 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 IPES-2208C is a 8 10/100TX + 2 10/100/1000T/Dual Speed SFP Combo w/8 PoE Injectors function. The SFP connection is suitable with 100M and 1000M Dual Speed. The full SNMP features are including QoS for 4 queues, 802.1q VLAN, IGMP snooping and query mode as well as SNMP and SMTP

Lantech IPES-2208C is the best to be used in Automation, Transportation, Semi-conductor factory, Heavy Industrial factory and other factory assembly lines where needs PoE functionality.

Features

- 8-port 10/100TX + 2 10/100/1000T Dual Speed SFP Combo w /X-Ring Managed Industrial Switch. (Total 10 Port Switch)
- RJ-45 Port Support Auto MDI/MDI-X Function.
- Embedded 8-port PoE inject function
- SFP(Mini-GBIC) supports 100/1000 Dual Mode.
- Store-and-Forward Switching Architecture.
- Back-plane (Switching Fabric): 5.6Gbps
- 1Mbits Packet Buffer.
- 8K MAC address table.
- IP-30 Protection.
- DIN rail and wall mount design.
- Redundant Power Design
- Supports IEEE 802.1d Spanning Tree
- Supports IEEE 802.1w Rapid Spanning Tree
- Port Based VLAN
- Supports 802.1Q Tag VLAN
- GVRP
- Double Tag VLAN (Q in Q)*
- Private VLAN**
- X-Ring
  → X-ring, Dual Homing, and Couple Ring Topology.
  → Provide redundant backup feature and the recovery time below 300ms.
- Port Trunk with LACP.

Specification

Standard	IEEE 802.3 10Base-T Ethernet IEEE 802.3u 100Base-TX IEEE 802.3z Gigabit fiber IEEE802.3ab 1000Base-T IEEE802.3x Flow Control and Back Pressure IEEE802.3ad Port trunk with LACP IEEE802.3af Power over Ethernet IEEE802.1d Spanning Tree/ IEEE802.1w Rapid Spanning Tree IEEE802.1p Class of Service IEEE802.1Q VLAN Tag IEEE 802.1x User Authentication (Radius) IEEE802.1ab LLDP**
Switch Architecture	Back-plane (Switching Fabric): 5.6Gbps Packet throughput ability(Full-Duplex): 8.3Mpps @64bytes
Transfer Rate	14,880pps for Ethernet port 148,800pps for Fast Ethernet port 1,488,000pps for Gigabit Fiber Ethernet port
Packet Buffer	1Mbits
Mac Address	8K MAC address table
Flash ROM	4Mbytes
DRAM	32Mbytes
Connector	10/100TX: 8 x RJ-45 10/100/1000T/ Mini-GBIC Combo: 2 x RJ-45 + 2 x 100/1000 SFP sockets RS-232 connector: RJ-45 type
Network Cable	10Base-T: 2-pair UTP/STP Cat. 3, 4, 5/ 5E cable EIA/TIA-568 100-ohm (100m) 100Base-TX: 2-pair UTP/STP Cat. 5/ 5E cable EIA/TIA-568 100-ohm (100m) 1000Base-TX: 2-pair UTP/STP Cat. 5/ 5E cable EIA/TIA-568 100-ohm (100m)
Optical Fiber	Distance: Multi mode: 0 to 5 km, 1300 nm (50/125 µm, 800 MHz*km) 0 to 4 km, 1300 nm (62.5/125 µm, 500 MHz*km) Single mode: 0 to 40 km, 1310 nm (9/125 µm, 3.5 PS/(nm*km)) 0 to 80 km, 1550 nm (9/125 µm, 19 PS/(nm*km)) Min. TX Output: Multi mode: -20 dBm Single mode: 0 to 40 km, -5 dBm; 0 to 80 km, -5 dBm Max. TX Output: Multi mode: -14 dBm Single mode: 0 to 40 km, 0 dBm; 0 to 80 km, 0 dBm Sensitivity: -36 to -32 dBm (Single mode); -34 to -30 dBm (Multi mode)

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Features

- Supports IEEE 802.1ab LLDP**.
- 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
- Port Mirror: Monitor traffic in switched networks.
  → TX Packet only
  → RX Packet only
  → Both of TX and RX Packet
- 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

Specification

Protocol	CSMA/CD
PoE pin assignment	RJ-45 port # 1 ~ # 8 support IEEE 802.3af End-point, Alternative A mode. Per port provides 15.4W ability. Positive (VCC+): RJ-45 pin 1,2. Negative (VCC-): RJ-45 pin 3,6.
LED	Per unit: Power (Green), Power 1 (Green), Power 2 (Green), Fault (Yellow), Master (Green) 8 port 10/100: Link/Activity (Green), Full duplex/Collision (Yellow) Giga port: Link/Activity
Power Supply	External Power Supply: DC 48V, Redundant power DC 48V and connective removable terminal block for master and slave power
Operating Humidity	5% to 95% (Non-condensing)
Operating Temperature	-10℃ to 60℃;
Storage Temperature	-40℃ to 85℃
Case Dimension	IP-30, 72mm (W) x 105mm (D) x 152mm (H)
Fan Number	0
Installation	Provides DIN rail kit and wall mount ear for wall mount or DIN-type cabinet install
EMI	FCC Class A, CE EN61000-4-2, CE EN61000-4-3, CE EN-61000-4-4, CE EN61000-4-5, CE EN61000-4-6, CE EN61000-4-8, CE EN61000-4-11
Safety	UL, cUL, CE/EN60950-1
Stability Testing	IEC60068-2-32 (Free fall), IEC60068-2-27 (Shock), IEC60068-2-6 (Vibration)

Software Feature

Management	SNMP v1 v2c, v3/ Web/Telnet/CLI
SNMP MIB	RFC 1215 Trap, RFC1213 MIBII, RFC 1157 SNMP MIB, RFC 1493 Bridge MIB, RFC 2674 VLAN MIB, RFC 1643 , RFC 1757, RSTP MIB, Private MIB, PoE MIB, UPS MIB, LLDP MIB**
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) Double Tag VLAN (Q in Q)* Private VLAN**
Port Trunk with LACP	LACP Port Trunk : 4 Trunk groups/Maximum 4 trunk members
LLDP**	Supports LLDP to allow switch to advise its identification and capability on the LAN
Spanning Tree	Supports IEEE802.1d Spanning Tree and IEEE802.1w Rapid Spanning Tree
X-Ring	Supports X-ring, Dual Homing, and Couple Ring Provide redundant backup feature and the recovery time below 300ms
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
IP Security	Supports 10 IP addresses that have permission to access the switch management and to prevent unauthorized intruder.

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Software Feature

Login Security	Supports IEEE802.1X Authentication/RADIUS
Bandwidth Control	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
Flow Control	Supports Flow Control for Full-duplex and Back Pressure for Half-duplex.
System Log	Supports System log record and remote system log server
SMTP	Supports SMTP Server and 6 e-mail accounts for receiving event alert
Relay Alarm	Provides one relay output for port breakdown, power fail and alarm. Alarm Relay current carry ability: 1A @ DC24V
SNMP Trap	1. Cold start, 2. Link down, 3. Link up, 4. Authorization fail, 5. AC disconnect trap-PoE port Event 6. DC disconnect trap-PoE port Event 7. Disconnect PD off-PoE port event 8. Over loading trap-PoE port event 9. Short circuit trap-PoE port event 10. Over Temp protection trap –PoE port event. 11. Power management –PoE port off event. Trap station up to 3
DHCP	Provide DHCP Client/ DHCP Server/ IP Relay functions
DNS	Provides DNS client feature and support Primary and Secondary DNS server.
SNTP	Supports SNTP to synchronize system clock in Internet
Firmware Update	Supports TFTP firmware update, TFTP backup and restore.
Configuration upload and download	Supports binary format configuration file for system quick installation

*Future release
**Optional

Features

- SNMP Trap
  → Device cold start
  → Power status
  → Authentication failure
  → X-ring topology changed
  → Port Link up/Link down
  → PoE port events
- SMTP e-mail Alert.
- Relay Alarm Output System Events.
- IGAP with Query mode for Multi Media Application
- TFTP Firmware Update and System Configure Restore/Backup.

Ordering Information

- IPES-2208C/E ....P/N 8350-700
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