

# LPES-2208CA

8 10/100TX + 2 100M/Giga SFP Combo Managed Switch  
w/ 8 PoE Injectors & Pro-Ring System

- Pro-Ring covers X-Ring, Couple Ring, and Dual Homing Topology
- X-Ring provides recovery time < 10ms up to 250 units in one Ring
- Fully complies with IEEE802.3af PoE standard



## OVERVIEW

Lantech LPES-2208CA is a 8-Port 10/100TX built in 8 PoE Injectors + 2-Port 10/100/1000T / Dual Speed SFP combo Managed Switch with SNMP and "X-Ring" Self-Heal Recovery functionality. The SNMP features are including QoS for 4 queues, 801.q VLAN, IGMP snooping and query mode as well as Sntp and Smtp.

Lantech LPES-2208CA supports Pro-Ring, fast network recovery scheme in less than 10ms. Couple Ring is to ensure network recovery protection between two Pro-Ring groups. Dual homing is to back up the Pro-Ring groups when connect to upper layer or core switch.

LPES-2208CA supports 48V input power and fully complies with IEEE802.3af feeding power up to 15.4W per port up to 8 ports via twisted pair cable.

Lantech-View is free bundle with LPES-2208CA, in which it monitors and configures multiple Lantech industrial switches up to 10. Optional Lantech-View Pro can map up to 1000 nodes with auto-layout, configuration and discovery.

Lantech LPES-2208CA is the best switch to use in Surveillance, Traffic Management, Automation, Airport, Wireless backhaul etc where PoE function and SNMP are required.

## FEATURES & BENEFITS

- **PoE Management**
  - PoE Enable/Disable, Power limit by classification, Power limit by management, Power feeding priority, Detect Legacy Signature
- **Lantech-View, Windows-based Utility for multiple switch monitoring & configuration**
  - Supports up to 10 switches version for free
- **Pro-Ring System**
  - Covers X-Ring, Dual Homing, Couple Ring Topology
  - X-Ring provides redundant backup and recovery time below 10ms for a ring of up to 250 switches
- **Port Based, Tag Based VLAN, GVRP**
- **Port Trunk with LACP**
- **QoS (Quality of Service)**
  - Per port provides 4 priority queues
  - Port Base, Tag Base and Type of Service Priority
- **Port Mirror: Monitor traffic in switched networks.**
- **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
- **IEEE802.1d Spanning Tree;IEEE802.1w RSTP**
- **Support 802.1ab LLDP**
- **Bandwidth Control**
- **System Event Log**
- **SNMP Trap & Email Alert for events**
  - Device cold start, Power status, Authentication failure, Pro-Ring topology changed, Port Link up / Link down

## SPECIFICATION

Hardware Specification		
Switch Architecture	Back-plane (Switching Fabric): 5.6Gbps Packet throughput ability (Full-Duplex): 2.38Mpps @64bytes	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)
Transfer Rate	14,880pps for Ethernet port 148,800pps for Fast Ethernet port	Optical Cable 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:
Mac Address	8K MAC address table	
Connector	10/100TX: 8 x RJ-45 with auto MDI/MDI-X function 10/100/1000T/ Mini-GBIC Combo: 2 x RJ-45 + 2 x 100/1000 SFP sockets RS-232 connector: DB-9	
Network Cable	10Base-T: 2-pair UTP/STP Cat. 3, 4, 5/ 5E cable	

Datasheet Version 1.0

	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)		Rapid Spanning Tree
Protocol	CSMA/CD	Pro-Ring	Support X-Ring, Dual Homing, Couple Ring Topology. Provide redundant backup feature and the recovery time below 10ms
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.	Quality of Service	The quality of service determined by port, Tag and IPv4 Type of service, IPv4/IPv6 Different Service
LED	System: Power Per port: Link/Activity, Speed, PoE Gigabit Combo port: Link/Activity	Class of Service	Support IEEE802.1p class of service, per port provides 4 priority queues
Power Supply	External Power Supply: DC 48V power input	Port Security	Support 100 entries of MAC address for static MAC and another 100 for MAC filter
Power Consumption	135 Watts(Full Load)	Port Mirror	Support 3 mirroring types: "RX, TX and Both packet".
PoE Power budget	15.4W per port, Max 84 Watts with 96W DC-48V power adapter	IGMP	Support IGMP snooping v1,v2 256 multicast groups and IGMP query Support multicast filter
Operating Humidity	5% to 95% (Non-condensing)	IP Security	Support 10 IP addresses that have permission to access the switch management and to prevent unauthorized intruder.
Operating Temperature	Standard: 0°C~45°C;	Login Security	Support IEEE802.1X Authentication/RADIUS
Storage Temperature	-40°C to 85°C	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), 100K~256000Kbps(1000) 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), 100K~256000Kbps(1000)
Case Dimension	217mm (W) x 140mm (D) x 43mm (H)	Flow Control	Support Flow Control for Full-duplex and Back Pressure for Half-duplex
Fan Number	0	System Log	Support System log record and remote system log server
Installation	Rack mount and wall mount ear.	SMTP	Support SMTP Server and 6 e-mail accounts for receiving event alert
EMI	FCC Class A, CE	SNMP Trap	1. Cold start, 2. Link down, 3. Link up, 4. Authorization fail, 5. PD disconnect trap-PoE port event
Safety	UL, cUL, CE/EN60950-1	DHCP	Provide DHCP Client/ DHCP Server functions
Warranty	2 years	SNTP	Support SNTP to synchronize system clock in Internet
<b>Software Specification</b>		Firmware Update	Support TFTP firmware update, TFTP backup and restore.
Management	SNMP v1 v2c, v3/ Web/Telnet/CLI/X-View Management		
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, 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)		
Port Trunk with LACP	LACP Port Trunk: 4 Trunk groups/Maximum 4 trunk members		
LLDP	Support LLDP to allow switch to advise its identification and capability on the LAN		
Spanning Tree	Support IEEE802.1d Spanning Tree and IEEE802.1w		

\*Future Release  
\*\*Optional

## ORDERING INFORMATION

- **LPES-2208CA.....P/N: 8450-540**  
8 10/100TX + 2 x 10/100/1000T /Dual Speed SFP combo w/ 8 PoE injectors Managed Switch with 96W DC-48V power adapter
- **LPES-2208CA.....P/N: 8450-541**  
8 10/100TX + 2 x 10/100/1000T /Dual Speed SFP combo w/ 8 PoE injectors Managed Switch without power adapter

## OPTIONAL ACCESSORIES

### Mini GBIC (SFP)

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

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