## IPES-2204F

## 4 10/100TX PoE at/af + 2 100SFP Smart Industrial Ethernet Switch w/Pro-Ring 2se

- Pro-Ring 2se covers Single-Ring and Dual Homing Topology
- Pro-Ring 2se provides Ring recovery time of less than 10 ms for up to 50 switches in one Ring
- Built-in 4port PoE injectors feeding up to 30W per port
- Advanced PoE Management including of scheduling and detection
- Wide operating temperature range from $-40^{\circ} \mathrm{C}$ to $75^{\circ} \mathrm{C}($ E model)


## OVERVIEW

The Lantech IPES-2204F is a Smart Redundant Ring Ethernet switch with 4 IEEE 802.3at/af High Power PoE +2 100M SFP ports Industrial Switch. It can be configured easily via web-browser, SNMP.

With smart and easy management functions including Port based VLANs, RSTP/STP and Pro-Ring2se, a self-recovery ring protocol operating in less than 10 ms (for up to 50 switches), the IPES-2204F can protect your mission-critical applications from network interruptions or temporary malfunctions. In the case of a power-down, port-down or CPU overload event, IPES-2204F can send SNMP traps and alert emails to 6 pre-defined addresses, and trigger an alarm via the relay contact connection.

The IPES-2204F supports 4 PoE ports meeting with IEEE802.3at/af standard where can feed HI-power up to 30W at each PoE port for big power consumption
devices like PTZ IP camera, High power wireless AP etc. The IPES-2204F-12V is able to receive $12 / 24 \mathrm{~V}$ input and boost to 48 V output for PoE feeding for $80 \mathrm{~W}(12 \mathrm{~V})$ or $120 \mathrm{~W}(24 \mathrm{~V})$ budget in vehicle use.

The IPES-2204F 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. The IPES-2204F can be used in extreme environments with an operating temperature range of $-40^{\circ} \mathrm{C} \sim 75^{\circ} \mathrm{C} /-40^{\circ} \mathrm{F} \sim 167^{\circ} \mathrm{F}$ ( E model) The Lantech IPES-2204F is the best choice for building automation, factory, and process automation applications.

## FEATURES \& BENEFITS

- System Interface/Performance
- 4x10/100 PoE at/af+ 2 100M SFP
- 2 K MAC Address Table
- Redundant Power Supply Design for DC(48V~56VDC) or DC (9.5V~60VDC)for 12 V model
- Wide operating temperature range from $-40^{\circ} \mathrm{C} \sim 75^{\circ} \mathrm{C}$ / -40 F~167 F (-E model)
- PoE budget 80 W for 12 V input; 120 W for $24 \mathrm{~V} / 48 \mathrm{~V} / 54 \mathrm{~V}$ input
- PoE management including PoE detection and scheduling for PD (power devices)
$■$ CPU Load Display and overload alert event
- Pro-Ring2se covers Single Ring, Dual Homing.
- Pro-Ring2se povides a recovery time of less than 10 ms for a ring of up to 50 switches
■ RSTP/STP (IEEE 802.1Ss/w/D) for Ethernet Redundancy

Supports IEEE802.1ab LLDP

- DHCP client supported
- Port based VLANs
- Security

Port Security: Loopback protection to proven loop condition and corrupt ether cable
IP Security: 10 IP address access pemission management to prevent unauthorized intruder.

- Disable/enable Web MMI via console/Telnet

■ Multiple notifications of events by emails and traps

- Web-based, SNMP V1/V2c/V3 Management.
- TFTP/HTTP Firmware upgrade
- Reset / Factory default button to restore factory setting
- IP-30 enclosure with DIN-Rail and wall-mounting design


## DIMENSIONS (unit=mm)



SPECIFICATION

| Standards | IEEE 802.3 for 10Base-T, <br> IEEE 802.3u for 100Base-T(X) and 100Base-FX, |  | Topology. Pro-Ring provides a recovery time of less than 10 ms for up to 50 switches |
| :---: | :---: | :---: | :---: |
|  | IEEE 802.3x for Flow control | Firmware upgrade | TFTP/HTTP firmware upgradable |
|  | IEEE 802.1D for STP <br> IEEE 802.1w for RSTP <br> IEEE 802.1AB for LLDP <br> IEEE 802.3at / af Power over Ethernet | Port Control \& Security | Port configuration, status, statistics, monitoring, security <br> Able to set the state, speed/duplex, flow control, and |
| Connectors | 10/100TX: $4 \times$ RJ-45 with auto MDI/MDI-X function <br> $2 \times 100 B a s e-F X$ SFP Port |  | security of the port |
|  |  | DHCP | DHCP Client |
| Mac Address | 2048 MAC addresses | VLAN | Port Based |
| Switch Properties | Switching bandwidth: 1.2Gbps | DNS | Provide DNS client feature support Primary and |
| Processing | Store-and-Forward |  | Secondary DNS server |
| Management | SNMP v1 v2c, v3/ Web | Input Power | 46~56VDC; 54V for PoE at |
| Security Features | Enable/disable port VLAN to segregate and secure network traffic |  | 9.6~60VDC for 12 V model |
|  |  | PoE Budget | 80 W for 12 V input; 120 W for $24 \mathrm{~V} / 48 \mathrm{~V} / 54 \mathrm{~V}$ input |
| Spanning Tree | Supports STP/RSTP (IEEE 802.1D/w) | Power | 3 Watts Max. |
| SMTP | SMTP Server and 6 e-mail accounts for receiving event alert | Consumption (Typ.) |  |
|  |  | Overload Current | Present |
| SNTP | SNTP to synchronize system clock in Internet | Protection |  |
| SNMP trap | Available | LED | Power Indicator |
| System Event Log | Log Server/ SMTP / SNMP trap |  | Green LED $\times 2$ |
| Pro-Ring | Pro-Ring2se covers Single Ring, Dual Homing |  | 10/100Base-T(X) RJ45 port indicator |



## ORDERING INFOMATION

- IPES-2204F-48V. $\qquad$ P/N: 8350-130

4 10/100TX PoE at/af+ 2 100M SFP Smart Industrial Ethernet PoE Switch w/Pro-Ring2se; 48V input; $-20^{\circ} \mathrm{C} \sim 60^{\circ} \mathrm{C}$

- IPES-2204F-48V-E P/N: 8350-131
4 10/100TX PoE at/af +2100 M SFP Smart Industrial Ethernet PoE Switch w/Pro-Ring2se; 48 V input; $-40^{\circ} \mathrm{C} \sim 75^{\circ} \mathrm{O}$
IPES-2204F-12V $\qquad$ P/N: 8350-133

4 10/100TX PoE at/af+ 2 100M SFP Smart Industrial Ethernet PoE Switch w/Pro-Ring2se; 12~48V input; $-20^{\circ} \mathrm{C} \sim 60^{\circ} \mathrm{C}$

- IPES-2204F-12V-E $\qquad$
4 10/100TX PoE at/af +2100 M SFP Smart Industrial Ethernet PoE Switch w/Pro-Ring2se; 12~48V input; $-40^{\circ} \mathrm{C} \sim 75^{\circ} \mathrm{C}$


## OPTIONAL ACCESSORIES

## 55VDC DIN Rail Power for 802.3at Applications

- AD1240-48S-5 48~56VDC, 4.3A, Wide AC Input, Build-in fan Cooled, DIN Rail or Wall Mounted, RoHS, Operating Temp. $-20^{\circ} \mathrm{C} \sim 50^{\circ} \mathrm{C}$
(ambient, derating each output at $2.5 \%$ per degree from $50^{\circ} \mathrm{C} \sim 70^{\circ} \mathrm{C}$ )
■ AD1360-48S-5 48~56VDC, 6.5A, Wide AC Input, Build-in fan Cooled, DIN Rail or Wall Mounted, RoHS, Operating Temp $-20^{\circ} \mathrm{C} \sim 50^{\circ} \mathrm{C}$
(ambient, derating each output at $2.5 \%$ per degree from $50^{\circ} \mathrm{C} \sim 70^{\circ} \mathrm{C}$ )
■ AD1500-48S-5 48~56VDC, 9A, Wide AC Input, Build-in fan Cooled, DIN Rail or Wall Mounted, RoHS, Operating Temp. $-20^{\circ} \mathrm{C} \sim 50^{\circ} \mathrm{C}$ (ambient, derating each output at $2.5 \%$ per degree from $50^{\circ} \mathrm{C} \sim 70^{\circ} \mathrm{C}$ )


## Mini GBIC (SFP)

| $\square \mathbf{8 3 3 0 - 0 6 0}$ | 100Base FX 2KM, Multi-mode, LC Transceiver |
| :--- | :--- |
| $\square \mathbf{8 3 3 0 - 0 6 5}$ | 100Base FX 5KM, Multi-mode, LC Transceiver |
| $\square \mathbf{8 3 3 0 - 0 6 1}$ | 100Base LX 30KM, Single-mode, LC Transceiver |

All SFP with -D are with DDM function

