

# IPS-3106-SE-PB

## Management Industrial PoE Switch



4 ports 10/100/1000Base-T 30W PoE ports  
 2 Ports 100/1000Base-X SFP ports  
 Managed Industrial PoE Switch

### Features

- Network Redundant LACP, Spanning Tree STP, RSTP and Fast Ring, Fail-Over Protection (< 50 ms)
- Port-Based /Tag-Based VLAN
- Broadcast Storm Control
- Dual Power Input with power booster (24~57 VDC) & Reverse Power Protection
- Support 10K Jumbo Frames
- L2 Wire-Speed Switching Engine
- 8K MAC Forwarding Addresses
- DIN-Rail and Wall Mount (Optional)
- Support PoE IEEE 802.3 af/at
- Extended Operation Temperature -40°C ~ 75°C
- All Aluminum Housing for Excellent Heat Dissipation
- +/- 6KV Surge Protection on PoE Ports

### Target Applications

- Point-to-Point Fiber Connectivity in Harsh Environment
- Long Distance IP Surveillance Network Deployment
- Factory, Parking Lot, ITS, Smart City Network Deployment

### Description

Connection Technology Systems (CTS) IPS-3106-SE-PB Industrial PoE Switch is the Fast & Gigabit Ethernet 10/100/1000Base-T to 100/1000Base-X Industrial PoE Switch.

The IPS-3106-SE-PB switches the traditional twist-pair RJ-45 cable into various fiber optics media. It offers easy management of uplink port (2 x port fiber). The fiber optical port of IPS-3106-SE-PB can support various connection distances via multi-mode fiber, single-mode fiber or Bi-directional single-mode fiber for the deployment to the control room, warehouse or factory.

The IPS-3106-SE-PB Industrial PoE Switch is designed for deployment at industrial sites. With DIN-rail mounting, you can easily mount the Industrial PoE Switch at your sites such as factory or warehouse. The terminal blocks provide power redundancy to prevent any possible power outage and digital input/output to serve as an alarm.

The IPS-3106-SE-PB Industrial PoE Switch provides perfect solution for delivering power over Ethernet for IP cameras, Wi-Fi access points or IP phones at an extended operating temperature (-40°C ~ 75°C ) to withstand against harsh environment for better performance. The IPS-3106-SE-PB is fully compliant with IEEE standards such as IEEE 802.3/802.3u/802.3ab/802.3z to ensure interoperability between network devices.

The IPS-3106-SE-PB Industrial PoE Switch provides easy management ways via telnet CLI and SNMP. Combined with rich L2+ features and reliable management functions, the IPS-3106-SE-PB will significantly help save OPEX (operational cost) for network administrators.

## Specification

### ■Interface

- Uplink Port (Type):  
2 x 100/1000Base-X SFP
- LAN Port (Type):  
4 x 10/100/1000Base-T RJ-45
- Console Port (Type):  
1 x RS-232 Port (RJ-45)

### ■Power over Ethernet

- 4 x 802.3af/at 30W RJ-45
- 120 Watts PoE Budget

### ■Standards

- IEEE 802.3 10Base-T
- IEEE 802.3u 100Base-TX/FX
- IEEE 802.3ab 1000Base-T
- IEEE 802.3z 1000Base-X
- IEEE 802.3az EEE
- IEEE 802.3x Flow Control
- IEEE 802.3ad Link Aggregation
- IEEE 802.1p Priority
- IEEE 802.1q Tag VLAN
- IEEE 802.1d STP
- IEEE 802.1w RSTP
- IEEE 802.1x Authentication Network Access control
- IEEE 802.3af Power over Ethernet
- IEEE 802.3at Power over Ethernet Enhancements

### ■H/W Specification

- MAC Address table : 8K
- Non-Blocking Switching Fabric : 12Gbps
- Jumbo frame : 10K Bytes
- Store and Forward Switching Mechanism
- Auto-Cross Over for MDI/MDIX in TP Ports
- Auto-Negotiation in TP Ports
- Full/Half Duplex Mode Operation
- 1 x Digital Output (Alarm Relay)
- 1 x Digital Input

### ■LED

- P1, P2, STA, ALM, Master, Ring, Link/ACT, COM PoE

### ■Forward / Filter Rate

- 10M : 14,880/14,880pps
- 100M: 148,800/148,800pps
- 1000M:1,488,000/1,488,000pps

### ■Layer 2 Switch Features

#### VLAN

- IEEE 802.1q tag VLAN
- VLAN concurrent groups: 2K VLAN Groups
- Port Based VLAN

#### QoS

- QoS based on 802.1p CoS, VLAN and DSCP
- QoS Priority Queues : 8 Queues
- SPQ and WRR
- Port based rate limit

#### Network Redundancy

- STP IEEE 802.1d
- RSTP IEEE 802.1w
- CTS Fast Ring
- LACP algorithm of source / destination IP, MAC , L4 Port
- Static Port Trunking
- Up to 3 Aggregation Groups, 4 ports per Group

#### Multicast

- IGMP Snooping v1/v2/v3
- MLD v1/v2
- IGMP Fast Leave
- Static Multicast Configuration

#### Other Features

- ACL Based on physical port, 802.1p, VID
- Per VLAN loopback

#### ■Security

- 802.1x Port Base Access Control
- 802.1x RADIUS Authentication
- 802.1x TACACS+
- 802.1x MAC Authentication Bypass
- DHCP Snooping and Relay Agent
- IP Source Guard
- Loop Detection
- Storm Control

#### ■IPv6

- IPv6 over Ethernet (RFC 2464)
- IPv6 Addressing Architecture (RFC 4291)
- IPv6 Dual Stack (RFC4213)
- ICMPv6 (RFC4884)
- Path MTU Discovery for IPv6 (RFC 1981)
- Neighbor Discovery (RFC4861)

### ■Management

- SNMP v1/v2c/v3
- WEB/Telnet/SSH/CLI Interface
- Text Base CLI Configure file
- Port Configuration Speed/duplex/flow control/Description
- SNTP
- Static MAC address Table

### ■Maintenance

#### Diagnostic

- Event log
- Syslog
- SFP SFF-8472 DDMI monitor
- System CPU loading and Memory usage
- Temperature monitor

#### Upgrade/Restore

- HTTP/FTP/TFTP Firmware & configuration update
- DHCP Auto-provision

#### Monitoring

- Switch Port Status , Traffic , packet Error , Packet Analysis Statics

### ■ Power Requirement

- Input DC: 24~57VDC
- Redundant Input Terminals
- Power Consumption: 135W
- PoE Budget: 120W

### ■ Environmental Condition

- Operation : -40°C ~ 75°C
- Storage Temperature : -40°C ~ 85°C
- Humidity:5%~90%, Non-condensing

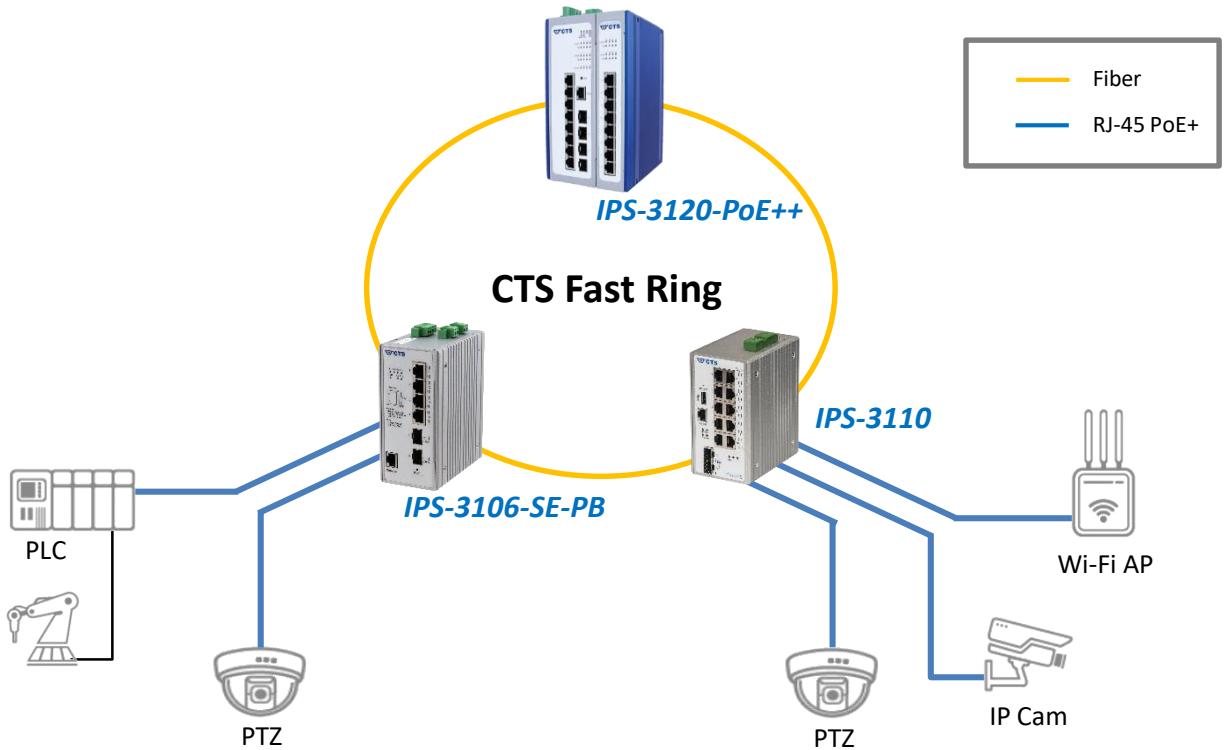
### ■ Dimension & Weight

- Size: 63 x 110 x 135 mm (W x D x H)
- Weight: 0.92 Kg
- Housing: Aluminum, IP30

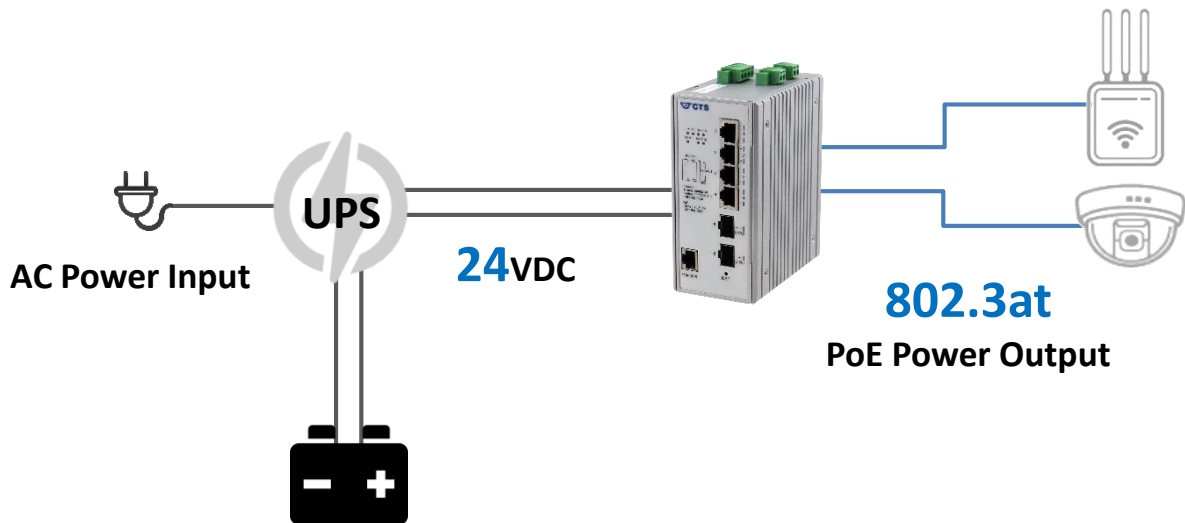
### ■ EMC/Safety

- FCC Class A, CE
- Shock: IEC 60068-2-27
- Freefall: IEC 60068-2-32
- Vibration: IEC 60068-2-6

## Application



## Power Booster Technology



## Order Information

### IPS-3106-SE-PB

Model	Fiber Ports					TP Ports		Support Power Source
	Speed	Type	Connector	Distance	Ports	Speed	PoE+ Ports	
IPS-3106-SE-PB	100/1000 Mbps	SFP	-	-	2	10/100/1000 Mbps	4	Terminal Block with 2 Power Input

### Power Supply

Model	Description	Remarks
SDR-240-48	48V/240W Din-Rail Power Supply	Working Temperature: -20°C ~ 60°C

### SFP-31-D

Model	Fiber Port					Operating Temperature
	Speed	Type	Connector	Distance	Wavelength	
SFP-31FC-D	1000Mbps	MM	LC	550M	850nm	-40°C ~ 85°C
SFP-31FC-(MM-02)-D	1000Mbps	MM	LC	2KM	1310nm	-40°C ~ 85°C
SFP-31FC(SM-10/20/40/80)-D	1000Mbps	SM	LC	10/20/40/80 KM	1310nm/1310nm/1310nm/1550nm	-40°C ~ 85°C
SFP-31W2A(SM-10/20)-D	1000Mbps	WDM	LC	10/20KM	TX: 1310nm/1310nm	-40°C ~ 85°C
					RX: 1550nm/1550nm	
SFP-31W2B(SM-10/20)-D	1000Mbps	WDM	LC	10/20KM	TX: 1550nm/1550nm	-40°C ~ 85°C
					RX: 1310nm/1310nm	

## Dimension

