

## 5-Port 10/100Mbps with 4-Port PoE Industrial Web Smart Ethernet Switch



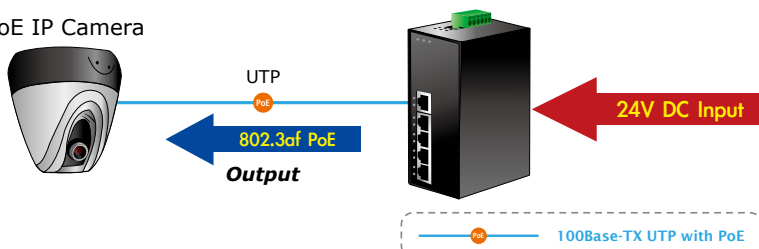
### IEEE 802.3af Power over Ethernet Industrial Switch

PLANET ISW-504PS, a Web management Industrial PoE Switch, is designed to transmit power and data over single Ethernet cable to remote PoE capable devices and performs intelligent PoE control, power usage monitoring and smart Layer 2 switching management in industrial harsh environments. The ISW-504PS provides 5 10/100Mbps copper ports with 4 IEEE 802.3af Power over Ethernet inject interfaces delivered in an IP30 rugged strong case. Supporting up to 15.4-watt power per port for any remote IEEE 802.3af powered device (PD) such as PoE IP cameras and PoE wireless LAN access point, the ISW-504PS is an ideal solution to deploying surveillance system and wireless service in climatically demanding wide temperature range (-10 to 60 degrees C) environments.

### IEEE 802.3af Power over Ethernet Industrial Switch

PoE feature is more often supported in the industrial Ethernet devices for efficient operation in harsh environments. The ISW-504PS in-line power follows standard IEEE 802.3af and able to give power to 4 PoE compliant devices at the distance up to 100 meters through the 4-pair Cat 5 / 5e UTP wire. With Data and Power over Ethernet from one unit, the ISW-504PS can reduce cables deployment and eliminates the need for dedicated electrical outlets on the wall, ceiling or any unreachable place. A wire that carries both data and power results in lowering the installation costs, simplifying the installation effort and eliminating the need for electricians or extension cords. Furthermore, as there is only 24V DC input in some industrial environments, the ISW-504PS supports 24V DC or 48V DC dual voltages input and is able to provide more wide-ranging industrial IEEE 802.3af PoE applications.

PoE IP Camera



### Physical Port

- 5-port 10/100Mbps RJ-45 with auto MDI/MDI-X function
- 4-port support 48V DC power to PoE Powered Device (Port-1 to Port-4)

### IEEE 802.3af PoE

- Complies with IEEE 802.3af Power over Ethernet End-Span PSE
- Up to 4 IEEE 802.3af devices powered
- Supports PoE Power up to 15.4 watts for each PoE port
- Auto detects powered device (PD)
- Circuit protection prevents power interference between ports
- Remote power feeding up to 100m

### PoE Management

- Total PoE Power Budget Control
- Enable / Disable PoE Function on each port
- PoE port Power Feeding priority
- Power limit on PoE port
- PD Classification Detection

### Web Management

- Web interface for remote management
- Firmware upgrade through Web interface
- Planet Smart Discovery utility automatically finds Planet devices on the network
- SNMP Trap for alarm notification of events
- VLAN and QoS configuration

### Layer 2 Features

- Supports auto-negotiation and 10/100Mbps half / full duplex and auto MDI/MDI-X
- High performance Store and Forward architecture, runt/CRC filtering eliminates erroneous packets to optimize the network bandwidth
- Prevents packet loss with back pressure (half-duplex) and IEEE 802.3x pause frame flow control (full-duplex)
- Automatic address learning and address aging

**Excellent Software of Web Smart Features**

For efficient management, the ISW-504PS is built with Web-based management design to offer a user-friendly configuration interface. It makes the ISW-504PS easy to survey and control the PoE power provision to the devices via the Web interface. The ISW-504PS provides Web Smart functions including 802.1Q VLAN, bandwidth control, QoS, PoE Configuration, Port Management, Alert Trap Configuration and more. These features provide a cost-effective way to manage the network devices through the Internet whenever you are at work or at home.

**Robust Switch Performance**

The ISW-504PS offers high performance switch architecture with 5 10/100Mbps UTP ports. It provides non-blocking switch fabric, wire-speed throughput as high as 1Gbps and the 1K MAC Address table. It also performs wire-speed packets transfer without risk of packet loss and the Flow Control function is default enabled to provide fast and reliable data transfer.

All of the RJ-45 copper interfaces support 10/100Mbps auto-negotiation for optimal speed detection through RJ-45 Category 3, 4, 5, 5e or 6 cable. The standard auto-MDI/MDI-X support can detect the type of connection to any Ethernet device without requiring special straight-through or crossover cables.

**Environmentally Hardened Design**

With IP30 industrial case protection, the ISW-504PS provides a high level of immunity against electromagnetic interference and heavy electrical surges which are usually found on plant floors or in curbside traffic control cabinets. The aluminum metal case helps cooling excellently and enables the Industrial PoE Switch to operate stably under the harsh temperature environment ranging from -10 to 60 degrees C. Therefore, the web management Industrial PoE Switch can be placed in almost any difficult environment. It also offers dual-redundant, reversible polarity 24V DC or 48V DC power supply inputs for high availability applications requiring dual or backup power inputs.

- Integrated address look-up engine, supports 1K absolute MAC addresses
- CSMA/CD Protocol

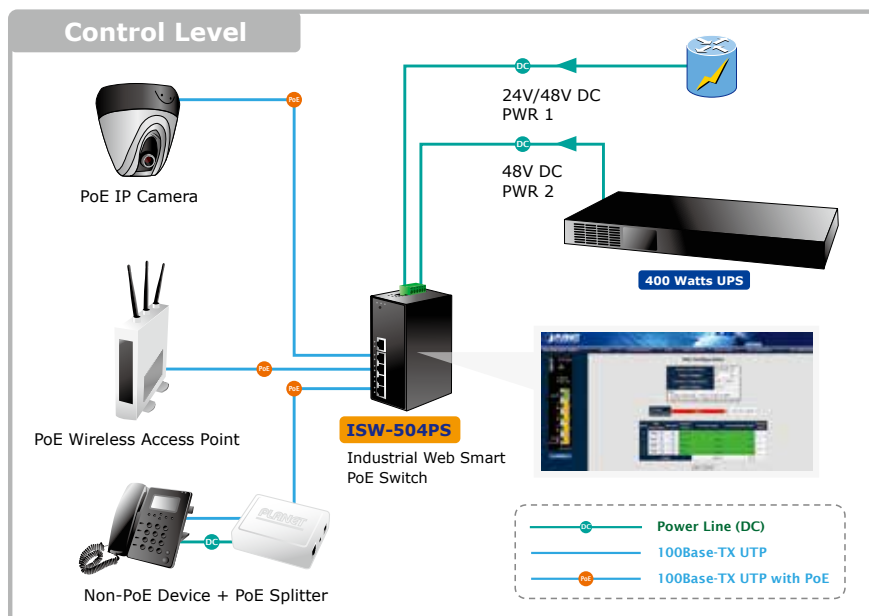
**Industrial Case / Installation**

- IP30 aluminum metal case protection
- DIN rail and wall mount design
- Redundant power design
- 24 or 48V DC, redundant power with polarity reverse protect function
- Supports EFT protection 6000V DC for power line
- Supports ESD 6000V DC Ethernet protection
- -10 to 60 degrees C operating temperature

**Applications**

**Industrial Area Department / Workgroup PoE Switch**

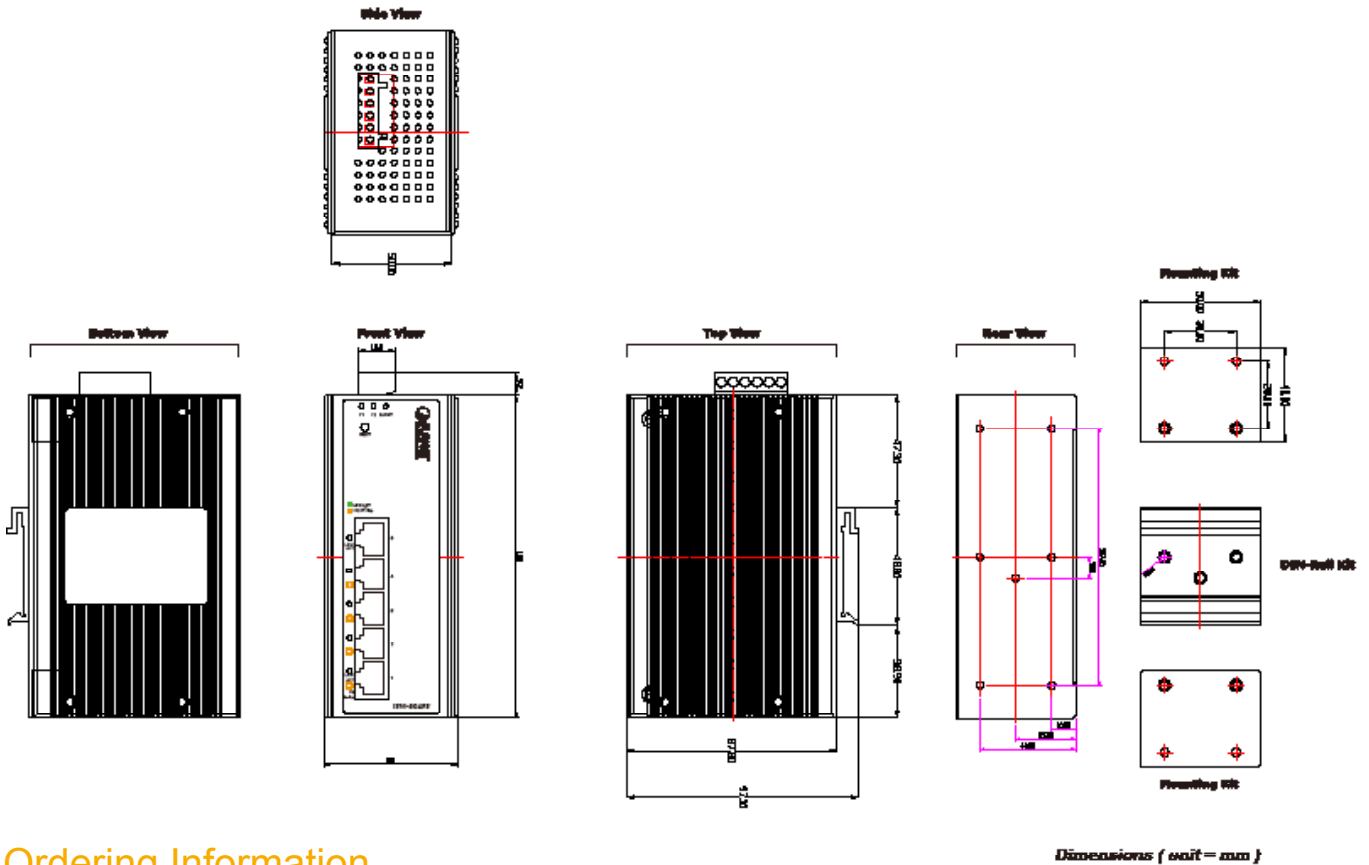
Providing up to 4 PoE, in-line power interface, the ISW-504PS can easily build a power centrally-controlled IP phone system, IP surveillance system, and wireless AP group for the enterprise. For instance, 4 cameras / APs can be easily installed around the corner of the company for surveillance demands or building a wireless roaming environment in the office. Without the power-socket limitation, the ISW-504PS makes the installation of IP cameras or WLAN AP easier and more efficient.



## Specifications

Model	ISW-504PS
<b>Hardware Specifications</b>	
10/100Base-TX Ports	5
100Base-FX Port	NA
IEEE 802.3af PoE ports	4
Dimensions (D x W x H)	135 x 87.8 x 56 mm
Weight	871g
Power LED	Power1, Power2 and Fault Port 1~4: PoE In-Use, LNK/ACT Port 5: LNK/ACT
Power Requirements	24 or 48V DC, redundant power with polarity reverse protection function
Enclosure	IP30 aluminum metal case
Protection	ESD (Ethernet): 6KV DC Surge (Power): 6KV DC
Installation	DIN rail kit and wall mount ear
Alarm	One relay output for power failure Alarm relay current carry ability: 1A @ DC 24V
<b>Power over Ethernet</b>	
PoE Standard	IEEE 802.3af Power over Ethernet / PSE
PoE Power Supply Type	End-Span
PoE Power Output	Per port 48V DC, 350mA . max. 15.4 watts
Power Pin Assignment	1/2(+), 3/6(-)
<b>Switch Specifications</b>	
Switch Processing Scheme	Store-and-Forward
Switch Fabric	1Gbps
Throughput (packet per second)	0.74Mpps@64bytes
Address Table	1K entries
Maximum Frame Size	1536 Bytes
Pack Buffer	512k bits
Flow Control	Back pressure for half duplex IEEE 802.3x pause frame for full duplex
Network cables	10/100Base-TX: Cat. 3, 4, 5, 5e and 6 UTP cable (100meters max.) EIA/TIA-568 100-ohm STP (100meters, max.)
<b>Layer 2 Function</b>	
Management	Web management, SNMP Trap
VLAN	<ul style="list-style-type: none"> <li>▪ Port-based VLAN</li> <li>▪ IEEE 802.1Q Tag-based VLAN, Up to 16 VLAN groups</li> </ul>
QoS	2 priority queues for three type of Class of Service <ul style="list-style-type: none"> <li>▪ Port-based</li> <li>▪ IEEE 802.1p priority tag</li> <li>▪ TCP/IP header's DSCP classifier</li> <li>▪ Weighted Round Robin queue scheduling</li> </ul>
Bandwidth Control	Inbound Rate Limit and Outbound Traffic shaping
Storm Control	Disable, 12.5%, 25%, 50%, 62.5% 4 levels
Security	Supports 5 IP addresses that have permission to access the switch
<b>Standards Conformance</b>	
Regulation Compliance	FCC Part 15 Class A, CE
Stability testing	IEC60068-2-32 (Free Fall) IEC60068-2-27 (Shock) IEC60068-2-6 (Vibration)
Standard Compliance	IEEE 802.3 Ethernet IEEE 802.3u Fast Ethernet IEEE 802.3x Flow Control IEEE 802.3af Power over Ethernet IEEE 802.1p Class of Service IEEE 802.1Q VLAN Tagging
<b>Environment</b>	
Temperature	Operating: -10~60 degrees C Storage: -40~85 degrees C
Humidity	Operating: 5~90% Storage: 5~90% (non-condensing)

## Environment



## Ordering Information

ISW-504PS	5-Port 10/100Mbps with 4-PoE Industrial Web Smart Switch (-10~60 degrees C)
ISW-514PS	4-Port 10/100Mbps with PoE + 1-Port 100FX(MM, SC) Industrial Web Smart Switch - 2km (-10~60 degrees C)
ISW-514PS15	4-Port 10/100Mbps with PoE + 1-Port 100FX(SM, SC) Industrial Web Smart Switch - 15km (-10~60 degrees C)
ISW-514PSF	4-Port 10/100Mbps with PoE + 1-Port 100FX(SFP) Industrial Web Smart Switch (-10~60 degrees C)

## Related Product

POE-152S	IEEE 802.3af Power over Ethernet Splitter
POE-E101	IEEE 802.3af Power over Ethernet Extender
WNAP-C3220	802.11n Wireless Ceiling Mount PoE Access Point
WNAP-W2200	802.11n 300Mbps In-Wall Access Point w/ USB Charger (EU Type)
ICF-1700	Touch Screen Internet Multimedia Phone
VIP-256PT	802.3af PoE SIP IP Phone
VIP-2020PT	Enterprise HD PoE IP Phone (2-Line)
VIP-5060PT	Professional HD PoE IP Phone (6-Line)
ICA-1200	Full HD PoE Cube IP Camera
ICA-2200	Full HD PoE Box IP Camera
ICA-2250VT	Industrial PoE Plus Outdoor IR IP Camera
ICA-2500	5 Mega-pixel PoE Box IP Camera
ICA-3250V	Full HD Outdoor IR PoE IP Camera
ICA-3350V	3 Mega-pixel Vari-focal Bullet IR IP Camera
ICA-4200V	Full HD 20M IR Vari-focal Dome IP Camera
ICA-4500V	5 Mega-pixel 20M IR Vari-focal Dome IP Camera
ICA-5250	Full HD Ultra-mini Vandal Dome
ICA-5350V	3 Mega-pixel Vandalproof IR IP Camera
ICA-HM101	2 Mega-pixel PoE Cube IP Camera
ICA-HM127	3 Mega-pixel H.264 Box IP Camera
ICA-HM131	H.264 Full-HD Fixed Dome IP Camera
ICA-HM132	H.264 2 Mega-pixel 20M IR Vari-focal Dome IP Camera
ICA-HM136	H.264 2 Mega-pixel 20M IR Vandalproof Dome IP Camera
ICA-HM312	2 Mega-pixel 25M IR Outdoor Bullet PoE IP Camera
ICA-HM316	2 Mega-pixel Outdoor IR PoE IP Camera
ICA-HM351	2 Mega-pixel 35M IR Outdoor Box PoE IP Camera

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