

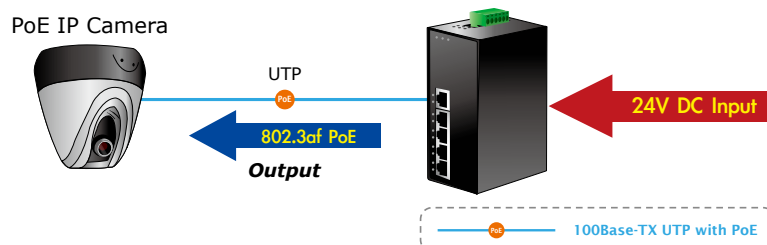
4-Port 10/100Mbps with PoE + 1-Port 100FX Industrial Web Smart Switch



The PLANET **ISW-514PS series**, 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-514PS series provides four 10/100Mbps copper ports supporting **IEEE 802.3af Power over Ethernet** injector and **one 100Base-FX fiber optic interface** delivered in an IP-30 rugged strong case. Supporting up to 15.4 watts 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-514PS series is an ideal solution to deploy surveillance system and wireless service in climatically demanding wide temperature range (-10 to 60 Degree 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-514PS series 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-514PS series shall 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 lowers the installation costs, simplifies the installation effort and eliminates the need for electricians or extension cords. Furthermore, there is only 24V DC input in some industrial environments, the ISW-514PS series supports **24V DC** or **48V DC** dual voltages input and able to provide more wide range of industrial IEEE 802.3af PoE applications.



Fiber Optic Link Capability for Flexible Distance Extension

The ISW-514PS series equips **one 100Base-FX port** that provides more flexibility for Transportation, Manufacturing, Security and Surveillance on distance extension without any limitation. The ISW-514PS series offers high performance switch architecture as below:

ISW-514PS equips with 4 10/100Mbps UTP ports and 1 100FX (SC interface within 2km)

ISW-514PS15 equips with 4 10/100Mbps UTP ports and 1 100FX (SC interface within 15km)

ISW-514PSF equips with 4 10/100Mbps UTP ports and 1 100FX (LC interface within optional of Single / Multi-Mode SFP module)

Excellent Web Smart Features

For efficient management, the ISW-514PS series is built with Web-Based management design to offer a user-friendly configuration interface. It makes the ISW-514PS series easy to survey and control the PoE power provision to the devices via the Web interface. The ISW-514PS series features Web Smart functions including 802.1Q VLAN, bandwidth control, QoS, PoE Configuration, Port Management, Alert Trap Configuration and etc. These features provide a cost-effective way to manage the network devices through the Internet whenever you are at work or at home.

Environmentally Hardened Design

With IP-30 industrial case protection, the ISW-514PS series provides a high level of immunity against electromagnetic interference and heavy electrical surges which are usually found on plant floors or in curb side traffic control cabinets. The aluminum metal case helps cooling excellently and enables the Industrial PoE Switch to operate stably under the harsh temperature environment ranges from -10 to 60 Degree 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.

KEY FEATURES

PHYSICAL PORT

- ISW-514PS
 - 4-Port 10/100Base-TX RJ-45 with IEEE 802.3af PoE injector
 - 1-Port 100Base-FX Multi-mode SC interface - 2km
- ISW-514PS15
 - 4-Port 10/100Base-TX RJ-45 with IEEE 802.3af PoE injector
 - 1-Port 100Base-FX single mode SC interface - 15km
- ISW-514PSF
 - 4-Port 10/100Base-TX RJ-45 with IEEE 802.3af PoE injector
 - 1-Port 100Base-FX SFP interface

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 detect powered device (PD)
- Circuit protection prevent 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 PLANTE 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
- Integrated address look-up engine, supports 1K absolute MAC addresses
- CSMA/CD Protocol

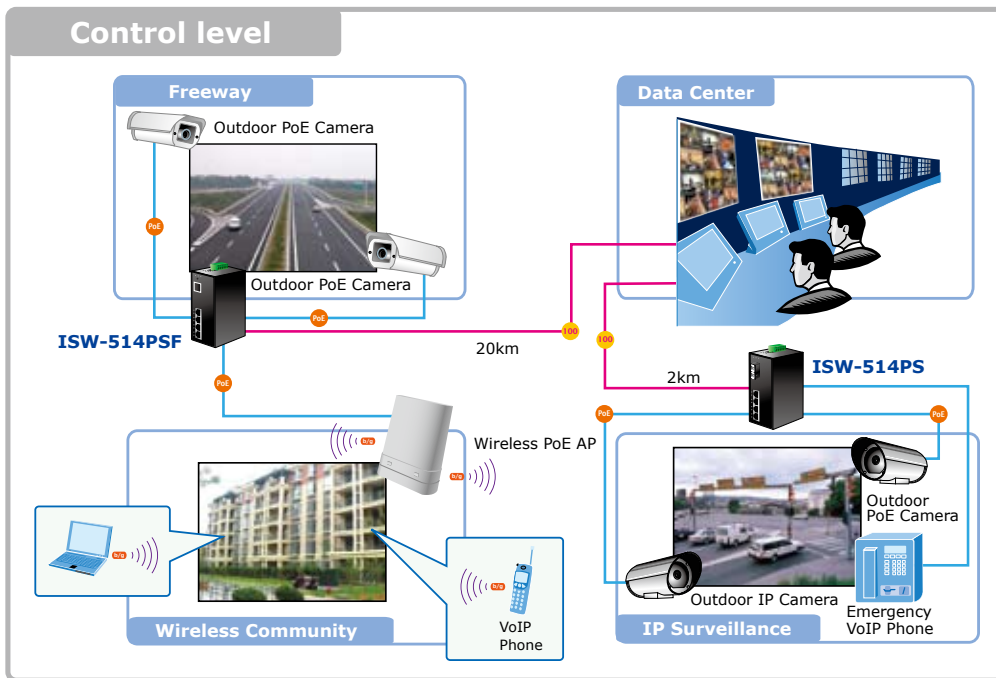
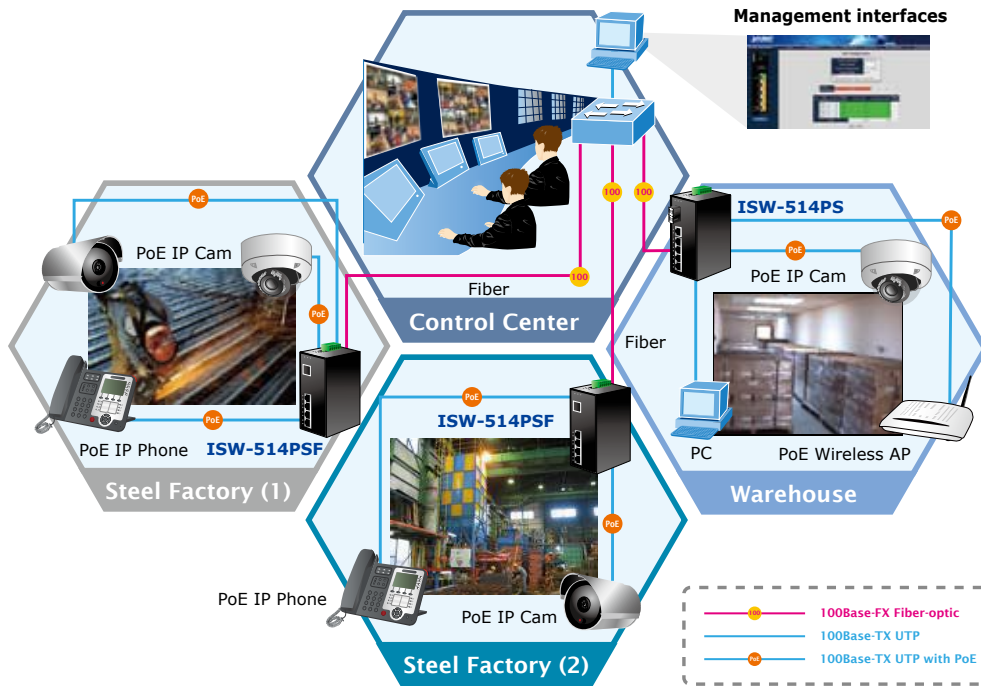
INDUSTRIAL CASE / INSTALLATION

- IP-30 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 6000V DC Ethernet ESD protection
- -10 to 60 Degree C operation temperature

APPLICATIONS

Industrial area Department / Workgroup PoE Switch

Providing up to 4 PoE, in-line power interface, the **ISW-514PS series Industrial Switch** can easily build a power centrally-controlled IP phone system, IP surveillance system, and wireless AP group for the enterprise. For instance, 4 camera / AP 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-514PS series makes the installation of IP cameras or WLAN AP more easily and efficiently.



SPECIFICATION

Product	4-Port 10/100Mbps with PoE + 1-Port 100FX Industrial Ethernet Switch – Wide Temperature		
Model	ISW-514PS	ISW-514PS15	ISW-514PSF
10/100Base-TX Ports	4	4	4
100Base-FX Port	1	1	1
Fiber Port Type	Multi-Mode	Single Mode	Vary on SFP
Connector Type	SC	SC	SFP
Maximum Distance	2km	15km	Vary on SFP
Optical Frequency	1300nm	1310nm	Vary on SFP
Launch Power (dBm)	Max.: -14 Min.: -20	Max.: 0 Min.: -20	Vary on SFP
Receive Sensitivity (dBm)	-32	-32	Vary on SFP
IEEE 802.3af PoE Ports	4		
Dimension (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 Requirement	24 or 48 VDC, Redundant power with polarity reverse protection function		
Enclosure	IP-30 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 fail Alarm Relay current carry ability: 1A @ DC 24V		
Power over Ethernet			
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(-)		
Switch Specification			
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	<ul style="list-style-type: none"> • 10/100Base-TX: <ul style="list-style-type: none"> - 2-Pair UTP Cat. 3, 4, 5, 5e, 6 (100meters, max.) - EIA/TIA-568 100-ohm STP (100meters, max.) • 100Base-FX: <ul style="list-style-type: none"> - Multi-Mode optic fiber 62.5/125µm or 50/125µm - Single-Mode optic fiber 9/125µm 		
Layer 2 Function			
Management	Web management, SNMP Trap		
VLAN	<ul style="list-style-type: none"> • Port-Based VLAN • IEEE 802.1Q Tag-Based VLAN, Up to 16 VLAN groups 		
QoS	2 priority queues for three type of Class of Service <ul style="list-style-type: none"> • Port-Based • IEEE 802.1p priority tag • TCP/IP header's DSCP classifier Weighted Round Robin queue scheduling		
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		

Standards Conformance	
Regulation Compliance	FCC Part 15 Class A, CE IEC60068-2-32 (Free Fall)
Stability Testing	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
Layer 2 Function	
Temperature	Operating: -10~60 Degree C Storage: -40~85 Degree C
Humidity	Operating: 5~90% Storage: 5~90% (Non-condensing)

ORDERING INFORMATION

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

AVAILABLE SFP MODULE FOR ISW-514PSF

<i>MFB-TFX</i>	SFP-Port 100Base-FX Transceiver (1310nm) -2km (-40~75 Degree C)
<i>MFB-TF20</i>	SFP-Port 100Base-FX Transceiver (1310nm) - 20km (-40~75 Degree C)

RELATIVE POE PRODUCT

<i>POE-151S</i>	IEEE 802.3af Power over Ethernet Splitter with 5V / 12V DC output
<i>POE-E101</i>	IEEE 802.3af Power over Ethernet Extender
<i>ICA-H312</i>	H.264 25-meter IR Internet Camera
<i>ICA-H610</i>	H.264 Indoor CCD Internet Camera
<i>ICA-HM100</i>	Wired H.264 Mega-Pixel IP Camera
<i>ICA-HM120</i>	H.264 Mega-Pixel Box IP Camera
<i>ICA-HM125</i>	2 Mega-Pixel H.264 Box IP Camera
<i>ICA-HM126</i>	H.264 Full HD Box IP Camera
<i>ICA-HM131</i>	H.264 Full-HD Fixed Dome IP Camera
<i>ICA-HM135</i>	H.264 Mega-Pixel 20M IR Vandal Proof Dome IP Camera
<i>ICA-HM240</i>	H.264 Mega-Pixel Vandal Proof Pan/Tilt IP Camera
<i>IVS-110</i>	1-Channel Internet Video Server
<i>WNAP-1120PE</i>	802.11n Wireless Access Point with PoE
<i>WNAP-3000PE</i>	802.11n Enterprise PoE Access Point
<i>WNAP-4033PE</i>	54Mbps Wireless PoE Access Point
<i>VIP-254PT</i>	SIP PoE IP Phone
<i>VIP-255PT</i>	Multi-Language PoE IP Phone
<i>VIP-360PT</i>	Enterprise PoE IP Phone
<i>VIP-560PT</i>	Professional PoE IP Phone
<i>VIP-560PE</i>	Professional Enterprise PoE IP Phone with Expansion Function
<i>VIP-156PE</i>	802.3af PoE SIP Analog Telephone Adapter