4-Port 10/100Mbps with PoE + 1-Port 100FX Industrial Web Smart Switch
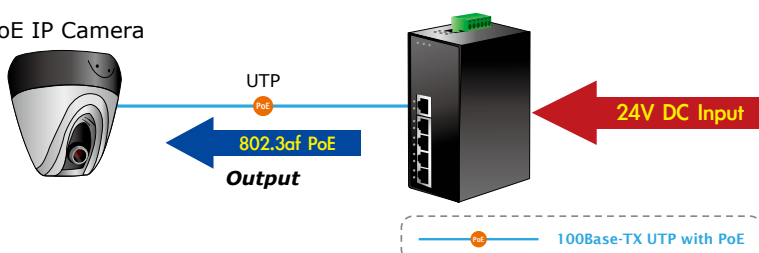
PLANET ISW-514PS series, a Web Management Industrial PoE Switch, is designed to transmit power and data over single Ethernet cable to remote PoE capable devices and performs intelligent PoE control, power usage monitoring and smart Layer 2 switching management in industrial harsh environments. The ISW-514PS 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 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-514PS series 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-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 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 lowers the installation costs, simplifies the installation effort and eliminates the need for electricians or extension cords. Furthermore, as there is only 24V DC input in some industrial environments, the ISW-514PS series 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

UTP
PoE
802.3af PoE
Output
24V DC Input

100Base-TX UTP with PoE

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 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

Fiber Optic Link Capability for Flexible Distance Extension

The ISW-514PS series is equipped with 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 shown below:

ISW-514PS comes with 4 10/100Mbps UTP ports and 1 100FX (SC interface within 2km)
ISW-514PS15 comes with 4 10/100Mbps UTP ports and 1 100FX (SC interface within 15km)
ISW-514PSF comes 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 more. 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 IP30 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 curbside traffic control cabinets. The aluminum metal case helps cooling much faster 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.

- 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
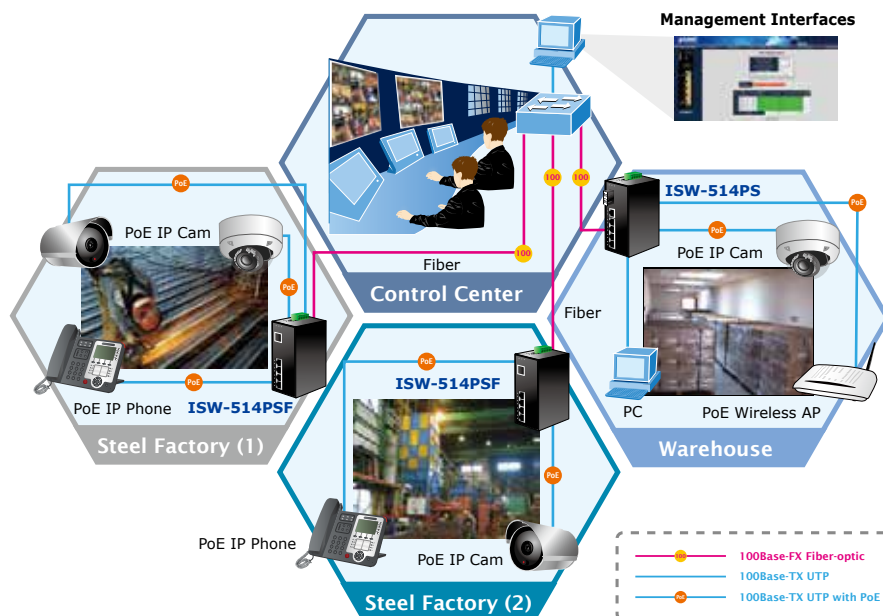- CSMA/CD Protocol
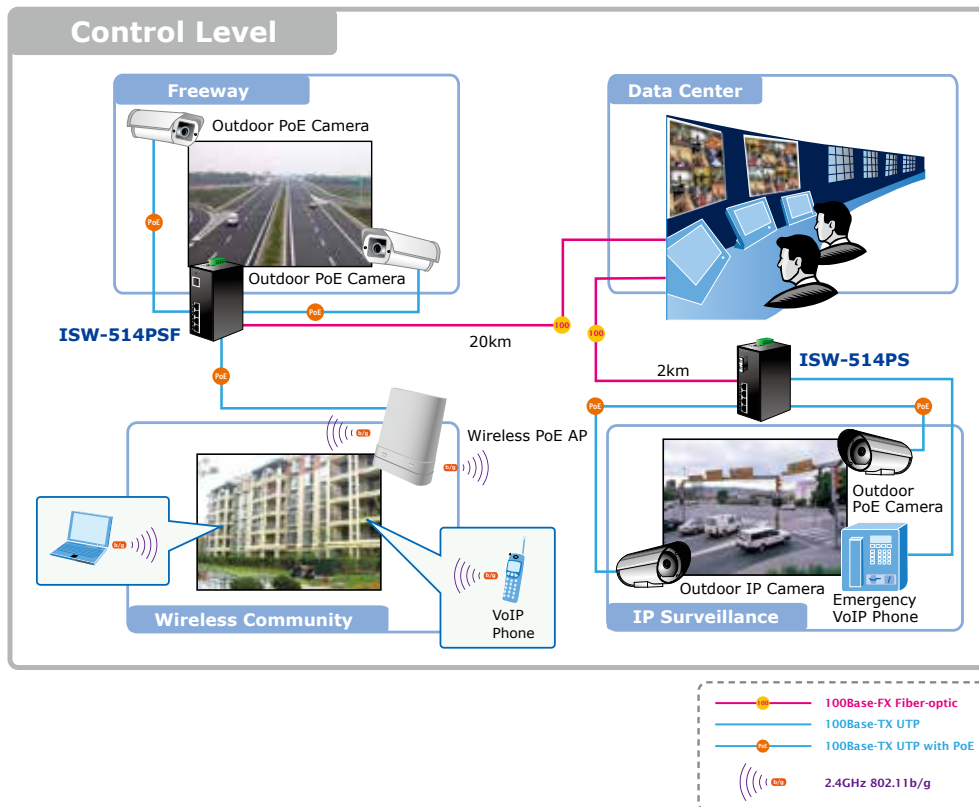
Industrial Case / Installation

- 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 6000V DC Ethernet ESD protection
- -10 to 60 degrees C operation temperature

Applications

Industrial Area Department / Workgroup PoE Switch

Providing up to 4 PoE, in-line power interface, the ISW-514PS Industrial Switch series 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-514PS series makes the installation of IP cameras or WLAN AP easier and more efficient.
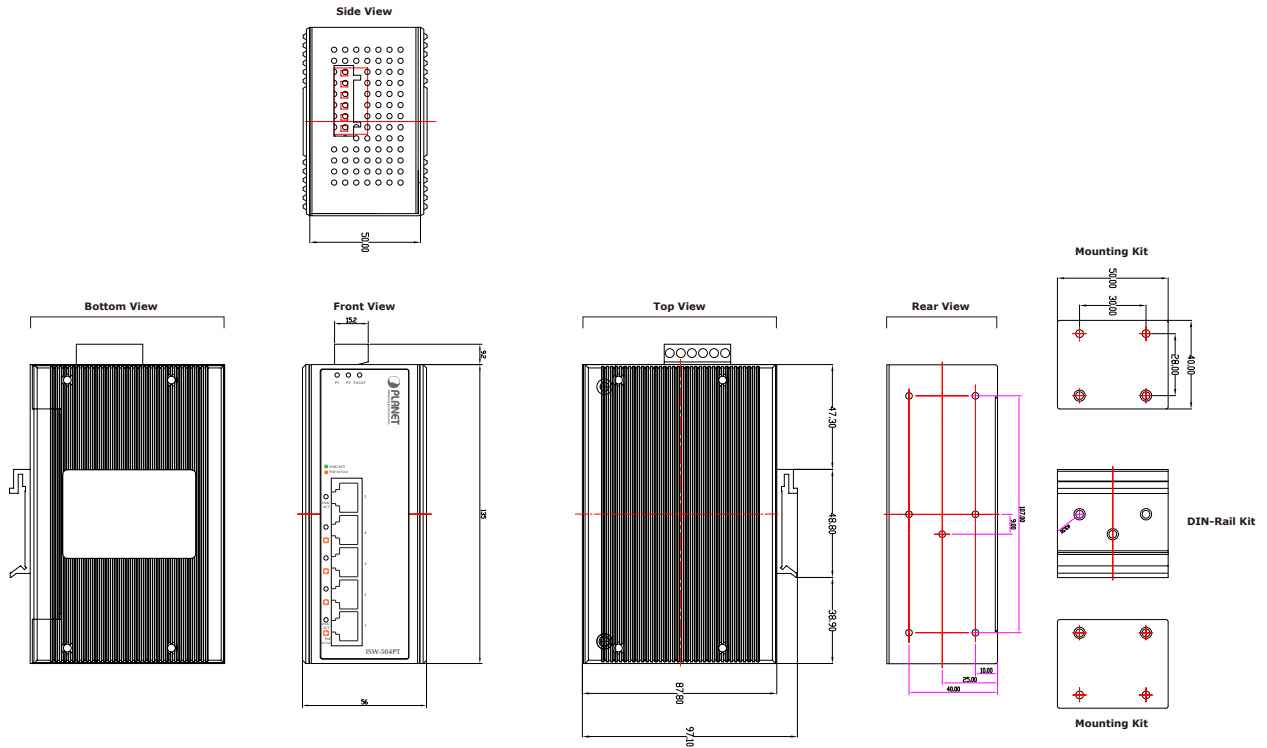
Specifications

	ISW-514PS / ISW-514PS15 / ISW-514PSF
Hardware Specifications	
10/100Base-TX Ports	4
100Base-FX Port	1
Fiber Port Type	ISW-514PS: Multi-Mode ISW-514PS15: Single Mode ISW-514PSF: Multi / Single Mode (Vary on SFP)
Connector Type	ISW-514PS: SC ISW-514PS15: SC ISW-514PSF: SFP
Maximum Distance	ISW-514PS: 2km ISW-514PS15: 15km ISW-514PSF: Vary on SFP
Optical Frequency	ISW-514PS: 1300nm ISW-514PS15: 1310nm ISW-514PSF: Vary on SFP
Launch Power (dBm)	ISW-514PS: Max.:-14 Min.:-20 ISW-514PS15: Max.: 0 Min.: -20 ISW-514PSF: Vary on SFP
Receive Sensitivity (dBm)	ISW-514PS: -32 ISW-514PS15: -32 ISW-514PSF: Vary on SFP
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

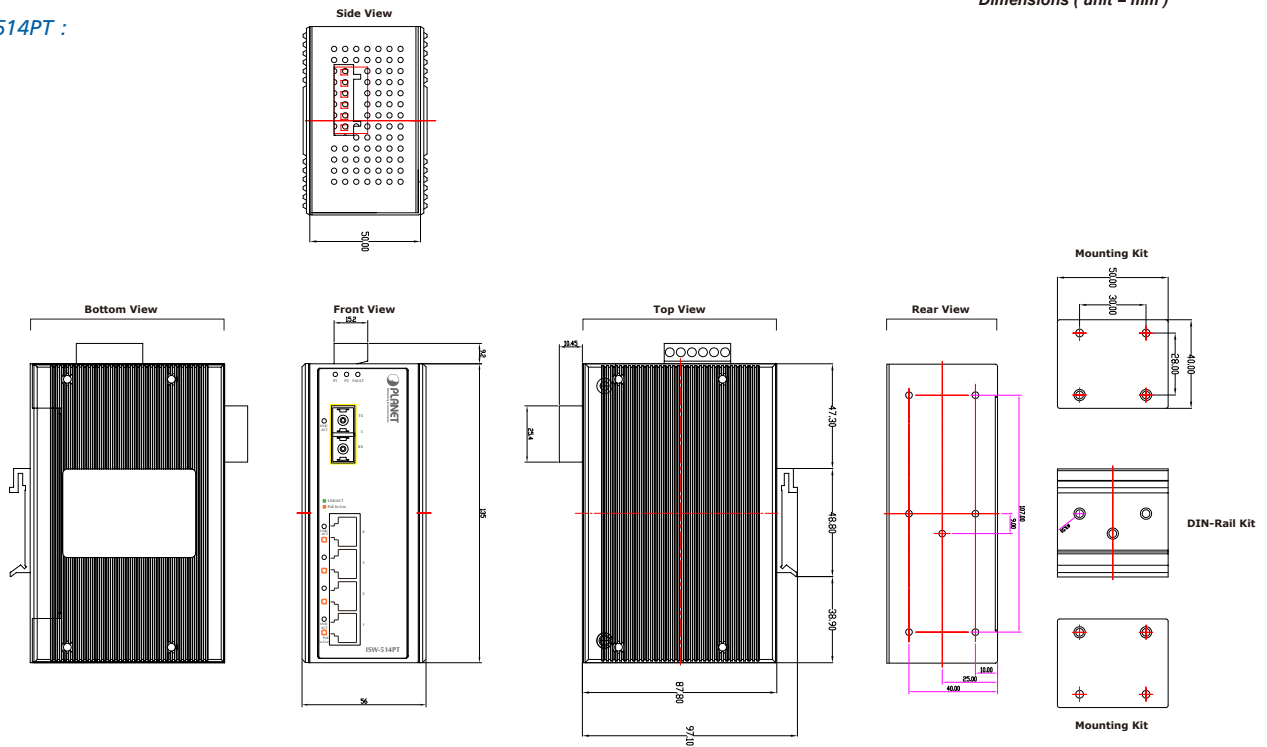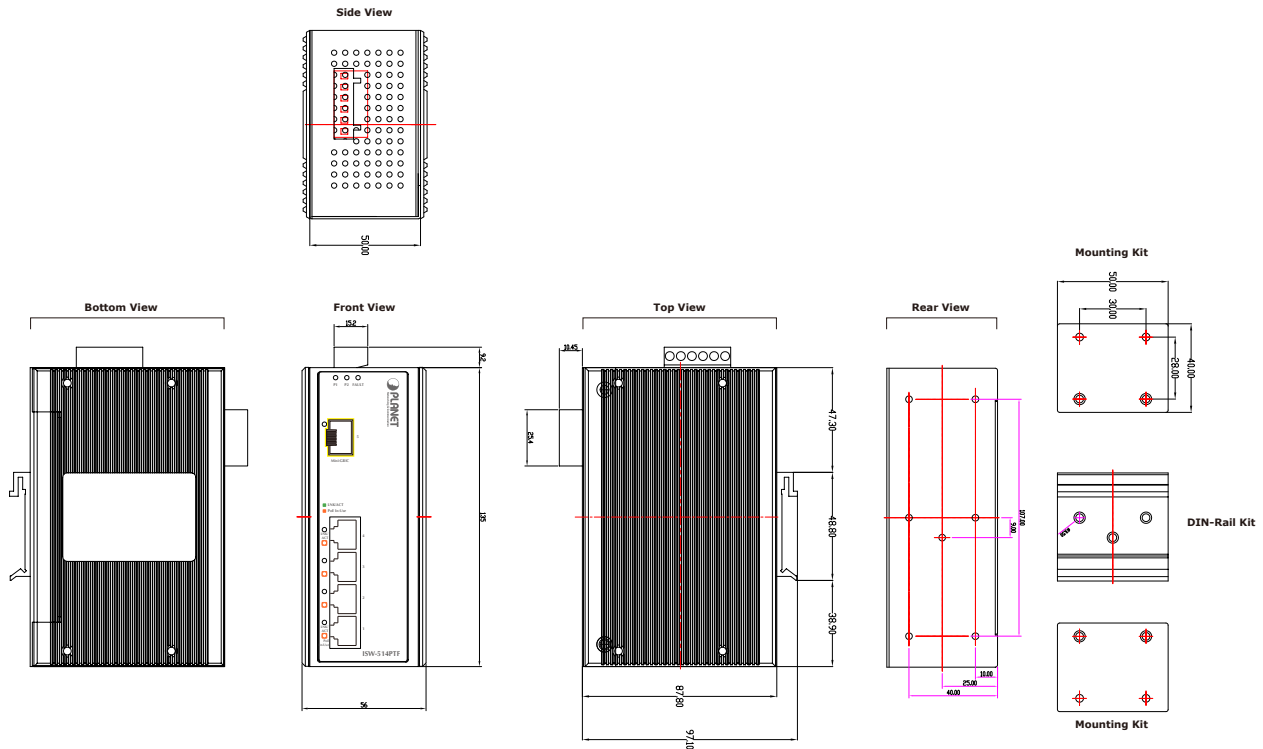|	
Installation	DIN Rail kit and Wall Mount ear
Alarm	One relay output for power failure Alarm Relay current carry ability: 1A @ DC 24V
Power over Ethernet	
PoE Standard	IEEE 802.3af Power over Ethernet / PSE
PoE Power Supply Type	End-Span
PoE Power Output	Per Port 48V DC, 350mA . Max. 15.4 watts
Power Pin Assignment	1/2(+), 3/6(-)
Switch Specifications	
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: − 4-Pair UTP Cat. 3, 4, 5, 5e, 6 (100meters, max.) − EIA/TIA-568 100-ohm STP (100meters, max.) ■ 100Base-FX: − 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	■ 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 − Port-based VLAN − 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
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
Environment	
Temperature	Operating: -10~60 degrees C Storage: -40~85 degrees C
Humidity	Operating: 5~90% Storage: 5~90% (non-condensing)

Dimensions

ISW-504PT :

Side View

Bottom View **Front View** **Top View** **Rear View** **Mounting Kit**

DIN-Rail Kit

Mounting Kit

Dimensions (unit = mm)

ISW-514PT :

Side View

Bottom View **Front View** **Top View** **Rear View** **Mounting Kit**

DIN-Rail Kit

Mounting Kit

Dimensions (unit = mm)

ISW-514PTF :

Side View

Mounting Kit

Bottom View **Front View** **Top View** **Rear View**

ISW-514PTF

DIN-Rail Kit

Mounting Kit

Dimensions (unit = mm)

Related Products

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

C-ISW514PSxx