

4-Port 10/100Mbps with PoE + 1-Port 100FX Industrial Ethernet Switch with Wide Temperature Range



PLANET ISW-514PT PoE Industrial Ethernet Switch series is designed to transmit power and data over single Ethernet cable to remote PoE capable devices and operates reliably in heavy industrial demanding environments. The ISW-514PT 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-514PT series is an ideal solution to deploying surveillance system and wireless service in climatically demanding wide temperature range (-40 to 75 degrees C) environments. The 100Base-FX fiber optic uplink port provides long distance, high speed and stable data transmission to remote core network.

IEEE 802.3af Power over Ethernet PSE Industrial Switch

PoE feature is more often supported in the industrial Ethernet devices for efficient operation in harsh environments. The ISW-514PT series in-line power follows standard IEEE 802.3af and allows to supply 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-514PT 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 results in lowering the installation costs, simplifying the installation effort and eliminating the need for electricians or extension cords. Furthermore, there is only 24V DC input in some industrial environments. The ISW-514PT series supports 24V DC or 48V DC dual voltages input and is able to provide more wide-ranging industrial IEEE 802.3af PoE applications.

Physical Port

ISW-514PT :

- 4-port 10/100Base-TX RJ-45 with IEEE 802.3af PoE injector
- 1-port 100Base-FX multi-mode SC interface - 2km

ISW-514PT15 :

- 4-port 10/100Base-TX RJ-45 with IEEE 802.3af PoE injector
- 1-port 100Base-FX single mode SC interface - 15km

ISW-514PTF :

- 4-port 10/100Base-TX RJ-45 with IEEE 802.3af PoE injector
- 1-port 100Base-FX SFP interface

IEEE 802.3af PoE

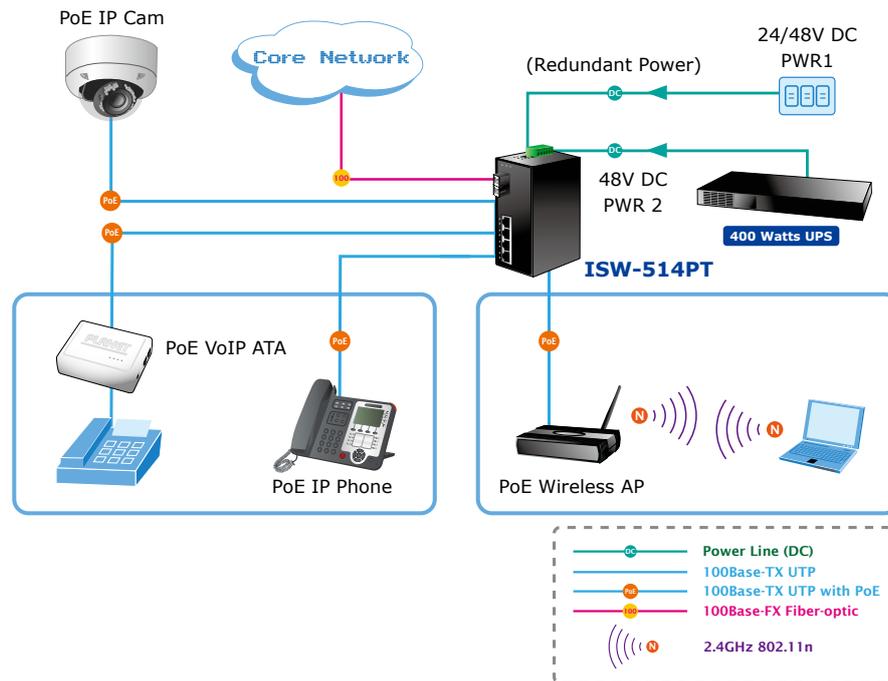
- Complies with IEEE 802.3af Power over Ethernet End-Span PSE
- Up to 4 IEEE 802.3af devices powered
- Supports PoE Power up to 15.4 watts for each PoE port
- Auto detects powered device (PD)
- Circuit protection prevents power interference between ports
- Remote power feeding up to 100m

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

Industrial Case / Installation

- IP30 aluminum metal case protection
- DIN rail and wall mount design
- 24 or 48V DC, redundant power with polarity reverse protect function
- Supports EFT 6000V DC protection for power line
- Supports Ethernet ESD 6000V DC protection
- -40 to 75 degrees C operating temperature



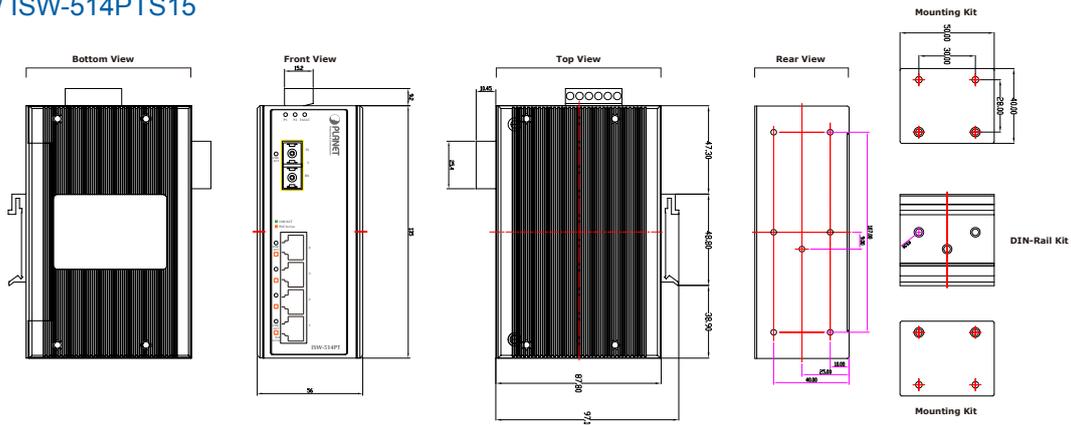
Specifications

| ISW-514PT / ISW-514PT15 / ISW-514PTF | |
|--------------------------------------|---|
| Hardware Specifications | |
| 10/100Base-TX Ports | 4 |
| 100Base-FX Port | 1 |
| Fiber Port Type | ISW-514PT: Multi-Mode ISW-514PT15: Single Mode ISW-514PTF: Vary on SFP |
| Connector Type | ISW-514PT: SC ISW-514PT15: SC ISW-514PTF: LC |
| Maximum Distance | ISW-514PT: 2km ISW-514PT15: 15km ISW-514PTF: Vary on SFP |
| Optical Frequency | ISW-514PT: 1300nm ISW-514PT15: 1310nm ISW-514PTF: Vary on SFP |
| Launch Power (dBm) | ISW-514PT: Max.: -14 Min.: -20 ISW-514PT15: Max.: 0 Min.: -20 ISW-514PTF: Vary on SFP |
| Receive Sensitivity (dBm) | ISW-514PT: -32 ISW-514PT15: -32 ISW-514PTF: Vary on SFP |
| IEEE 802.3af PoE ports | 4 |
| Dimensions (D x W x H) | 135 x 87.8 x 56 mm |
| Weight | 842g |
| Power LED | Power1, Power2 and Fault Port 1~4: PoE In-Use, LNK/ACT Port 5: LNK/ACT |
| Power Requirements | 24 or 48 VDC, redundant power with polarity reverse protection function |
| Installation | DIN rail kit and wall mount ear |
| Alarm | Provides 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 |

| | |
|--------------------------------|--|
| Address Table | 2K entries |
| Flow Control | Back pressure for half duplex IEEE 802.3x pause frame for full duplex |
| Switch Fabric | 1Gbps |
| Throughput (packet per second) | 0.74Mpps |
| Network cables | 10/100Base-TX: Cat. 3, 4, 5, 5e and 6 UTP cable (100meters max.) EIA/TIA-568 100-ohm STP (100meters, max.) |
| Standards Conformance | |
| Standards Compliance | IEEE 802.3 Ethernet IEEE 802.3u Fast Ethernet IEEE 802.3x Flow Control IEEE 802.3af Power over Ethernet |
| Regulation Compliance | FCC Part 15 Class A, CE |
| Stability Testing | IEC60068-2-32 (Free Fall) IEC60068-2-27 (Shock) IEC60068-2-6 (Vibration) |
| Environment | |
| Temperature | Operating: -40~75 degrees C Storage: -40~85 degrees C |
| Humidity | Operating: 5~90% Storage: 5~90% (non-condensing) |

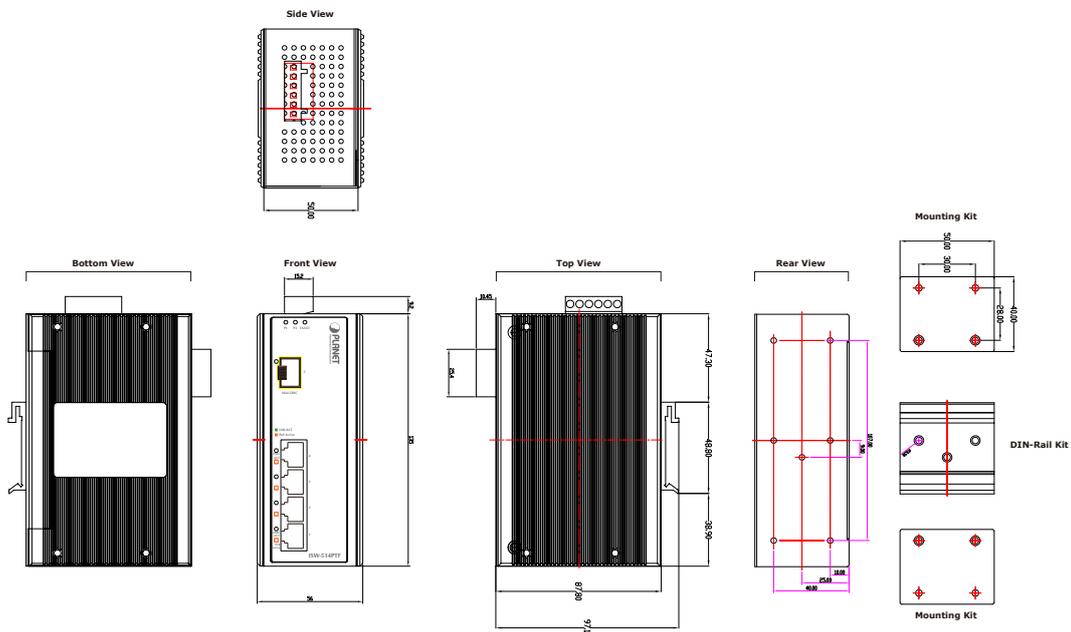
Diagram:

ISW-514PT / ISW-514PTS15



Dimensions (unit = mm)

ISW-514PT / ISW-514PTS15



Dimensions (unit = mm)

Ordering Information

| | |
|-------------|--|
| ISW-514PT | 4-Port 10/100Mbps with PoE +1-Port 100FX(MM, SC) Industrial Ethernet Switch - 2km (-40~75 degrees C) |
| ISW-514PT15 | 4-Port 10/100Mbps with PoE +1-Port 100FX(SM, SC) Industrial Ethernet Switch - 15km (-40~75 degrees C) |
| ISW-514PTF | 4-Port 10/100Mbps with PoE +1-Port 100FX(SFP) Industrial Ethernet Switch - (-40~75 degrees C) |
| ISW-504PT | 5-Port 10/100Mbps with 4-Port PoE Industrial Ethernet Switch (-40~75 degrees C) |
| 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) |

Accessories

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|----------|--|
| MFB-TFX | SFP-Port 100Base-FX Transceiver (1310nm) -2km (-40~75 degrees C) |
| MFB-TF20 | SFP-Port 100Base-FX Transceiver (1310nm) - 20km (-40~75 degrees C) |

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 |
| 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 |