

# 4-Port 10/100Base-TX + 2-Port 100Base-FX Industrial Ethernet Switch with Wide Operating Temperature



## Highly Convenient and Feasible Industrial Robust Switch

In the PLANET ISW-621 series Industrial Ethernet Switch, PLANET nowadays has upgraded and provided two new models named ISW-621T and ISW-621TS15 for wide temperature operation environment. The capital 'T' means that it can support and operate under **WIDE-TEMPERATURE** environment ranging from **-40 up to 75 Degrees C**. As we know the temperature in many places and countries of the world are lower than -10 Degrees C, these two new models, ISW-621T and ISW-621TS15, will be the right products for Transportation, Manufactory, Security and Surveillance network deployment on those harsh environments. The ISW-621T / ISW-621TS15 also 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.

## Distance Extendable and Flexibility

Each of ISW-621T and ISW-621TS15 includes four 10/100Base-TX Auto-Negotiation ports and two 100Base-FX ports. The ISW-621T equips 100Base-FX multi-mode SC interfaces for transmission distance up to 2km and ISW-621TS15 equips 100Base-FX single-mode SC interfaces for transmission distance up to 15km. The two 100Base-FX ports provide more flexibility for Transportation, Manufactory, Security and Surveillance with distance extension without any limitation, making the ISW-621T / ISW-621TS15 suitable model either for long distance (ISW-621TS15) or short distance (ISW-621T) network deployment.

## Easy Installation and Wide Range of Power Usage

The ISW-621T and ISW-621TS15 are designed with a compact case that allows either DIN rail or panel mounting for efficient usage of cabinet space. It provides an integrated power supply with a wide range of voltages for worldwide operation. It also offers dual-redundant, reversible polarity 12V DC to 48V DC power supply inputs for high availability applications requiring dual or backup power inputs.

## KEY FEATURES

### PHYSICAL PORT

- 4-Port 10/100Base-TX RJ-45 with auto MDI/MDI-X function for ISW-621T series
- 2-Port 100Base-FX interface on ISW-621T for up to 2km (Multi-mode fiber 62.5/125µm, 50/125µm) transmission distance
- 2-Port 100Base-FX interface on ISW-621TS15 for up to 15km (Single-mode fiber 9/125µm) transmission distance

### LAYER 2 FEATURES

- Complies with IEEE 802.3, IEEE 802.3u 10/100Base-TX, 100Base-FX Ethernet standard
- Supports Auto-Negotiation and 10/100Mbps half / full duplex mode for each copper port
- High performance Store and Forward architecture, broadcast storm control, 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)
- Backplane (Switching Fabric): 1.2Gbps
- Integrated address look-up engine, supports 2K absolute MAC addresses
- 1Mbit on-chip frame buffer
- Automatic address learning and address aging
- CSMA/CD Protocol

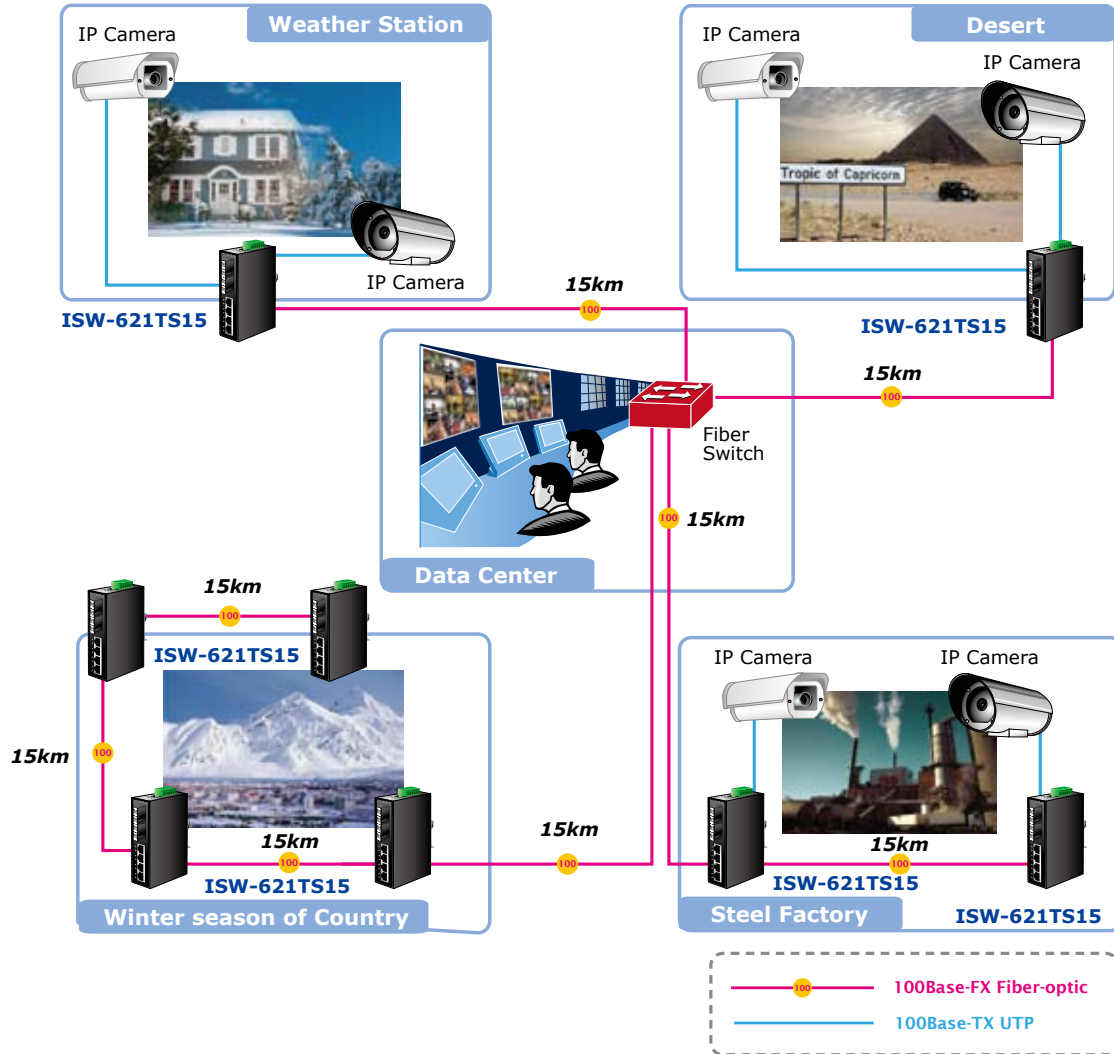
### INDUSTRIAL CASE / INSTALLATION

- IP-30 Metal case / Protection
- DIN Rail and Wall Mount Design
- 12 to 48V DC, redundant power with polarity reverse protection and connective removable terminal block for master and slave power
- Supports EFT protection 6KV DC for power line
- Supports 6KV DC Ethernet ESD protection
- -40 to 75 Degree C wide operating temperature

**APPLICATIONS**

*Industrial Switch for High Performance Data Collect and Forward*

The ISW-621T and ISW-621TS15 equip with four 10/100Mbps ports offering auto MDI / MDIX feature, and two 100Base-FX optic-fiber SC interfaces providing 1.2Gbps non-blocking switch fabric and the 2K MAC Address table so that they can perform wire-speed packets transfer without risk of packet loss. The ISW-621T / ISW-621TS15 with the slim type IP 30 metal shape are ideal for most Heavy Industrial demanding environments.



**SPECIFICATION**

Product	4-Port 10/100Base-TX + 2-Port 100Base-FX Industrial Ethernet Switch with Wide Operating Temperature		
Model	ISW-621T	ISW-621TS15	
<b>Hardware Specification</b>			
Copper	Ports	4 x 10/100Base-TX, Auto-Negotiation, Auto-MDI/MDI-X	
	Ports	10Base-T : 2-pair UTP Cat. 3, 4, 5 cable (100meters, max.) 100Base-TX : 2-pair UTP Cat. 5, 5e, 6 cable (100meters, max.)	
Optical	Port	2 x 100Base-FX	
	Cable	50/125µm and 62.5/125µm fiber	9/125µm fiber
	Mode	Multi-mode	Single-mode
	Distance	2km	15km
	Frequency	1310nm	1310nm
	Launch Power	Max. -14dBm, Min. -20dBm	Max. 0dBm, Min. -20dBm
	Receive Sensitivity	-32dBm	-32dBm
Max. Input Power	-14dBm	0dBm	
Dimension (W x D x H)	135 x 97 x 32 mm		
Weight	442g		
Power Requirement	12~48V DC, Redundant power with polarity reverse protection		
Power Consumption / Dissipation	Max. 16 Watts / 54 BTU		
Installation	DIN Rail Kit / Wall Mount Ear		
Alarm	Provides one relay output for power fail Alarm Relay current carry ability: 1A @ DC 24V		
<b>Switch Specification</b>			
Switch Processing Scheme	Store-and-Forward		
Address Table	2K entries		
Buffer	1Mbit		
Flow Control	Back pressure for half duplex IEEE 802.3x Pause Frame for full duplex		
Switch Fabric	1.2Gbps		
Throughput (Packet Per Second)	0.89Mpps @ 64Bytes		
<b>Standard Conformance</b>			
Standards Compliance	IEEE 802.3 Ethernet, 10Base-T IEEE 802.3u Fast Ethernet, 100Base-TX, 100Base-FX IEEE 802.3x Full-Duplex flow control		
Temperature	Operating: -40~75 Degree C Storage: -40~85 Degree C		
Humidity	Operating: 5~90% Storage: 5~90% (Non-condensing)		
Regulation Compliance	FCC Part 15 Class A, CE		
Stability Testing	IEC60068-2-32(Free fall) IEC60068-2-27(Shock) IEC60068-2-6(Vibration)		

**ORDERING INFORMATION**

ISW-621T	4+2 100FX Port Multi-mode Industrial Ethernet Switch - 2km (-40 ~ 75 Degree C operate temperature)
ISW-621TS15	4+2 100FX Port Single-mode Industrial Ethernet Switch - 15km (-40 ~ 75 Degree C operate temperature)

**RELATED PRODUCTS**

ISW-511	4+1 100FX Port Multi-mode Industrial Ethernet Switch - 2km (-10~60 Degree C operate temperature)
ISW-511S15	4+1 100FX Port Single-mode Industrial Ethernet Switch - 15km (-10~60 Degree C operate temperature)
ISW-511T	4+1 100FX Port Multi-mode Industrial Ethernet Switch - 2km (-40~75 Degree C operate temperature)
ISW-511TS15	4+1 100FX Port Single-mode Industrial Ethernet Switch - 15km (-40~75 Degree C operate temperature)
ISW-621	4+2 100FX Port Multi-mode Industrial Ethernet Switch - 2km (-10~60 Degree C operate temperature)
ISW-621S15	4+2 100FX Port Single-mode Industrial Ethernet Switch - 15km (-10~60 Degree C operate temperature)