

## 4-Port 10/100BASE-TX + 2-Port 100BASE-FX Industrial Ethernet Switch with Wide Operating Temperature (-40~75 degrees C)



### Highly Convenient and Feasible Industrial Robust Switch

PLANET has upgraded two models named ISW-621T and ISW-621TS15 for use in environments with wide-ranging temperatures. The capital 'T' (ISW-621T and ISW-621TS15) shown in the model names means that they can be operated under a WIDE-TEMPERATURE environment ranging from -40 to 75 degrees C. As we know the temperatures in many places and countries of the world are lower than -10 degrees C, these two new models, ISW-621T and ISW-621TS15, are definitely suitable for Transportation, Manufacturing, Security and Surveillance network deployments in 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.

### Flexibly Extendable Distance

They (the ISW-621T and ISW-621TS15) each include four 10/100BASE-TX auto-negotiation ports and two 100BASE-FX ports. The ISW-621T is equipped with 100BASE-FX multi-mode SC interfaces for transmission distance up to 2km while the ISW-621TS15 is equipped with 100BASE-FX single-mode SC interfaces for transmission distance up to 20km. The two 100BASE-FX ports provide more flexibility for Transportation, Manufacturing, Security and Surveillance when it comes to distance extension, making the ISW-621T / ISW-621TS15 suitable either for long distance (ISW-621TS15) or short distance (ISW-621T) network deployment.

### Easy Installation and Wide Range of Power Usages

The ISW-621T and ISW-621TS15 are designed with a compact case that allows either DIN-rail or panel mounting for the 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.

### Physical Port

- 4-port 10/100BASE-TX RJ-45 with auto MDI/MDI-X function for ISW-621T series
- Two 100BASE-FX interfaces on ISW-621T for up to 2km (multi-mode fiber 62.5/125µm, 50/125µm) transmission distance
- Two 100BASE-FX interfaces on ISW-621TS15 for up to 20km (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, and runt/CRC filtering to eliminate 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, supporting 2K absolute MAC addresses
- 1Mbit on-chip frame buffer
- Automatic address learning and address aging
- CSMA/CD Protocol

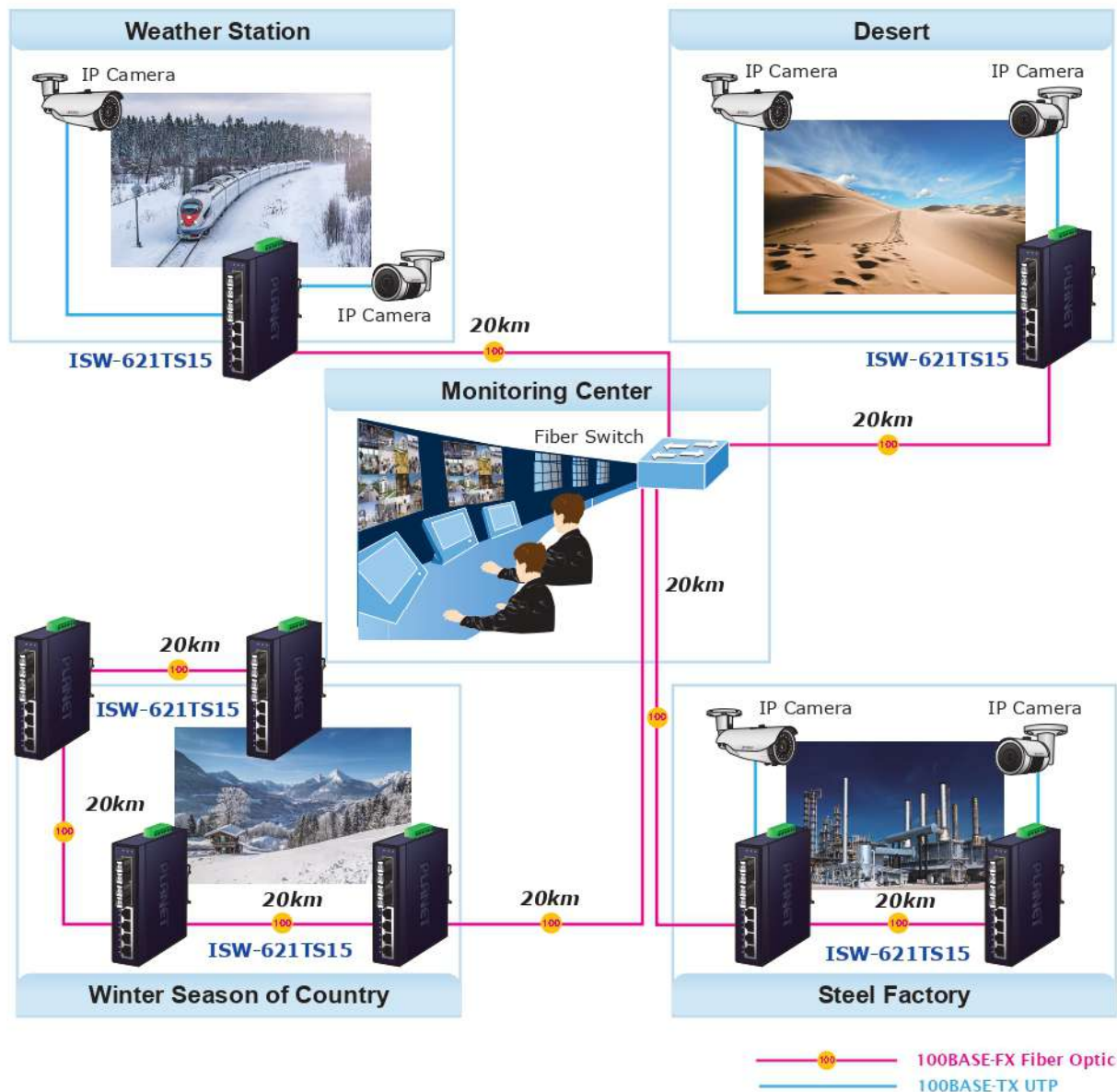
### Industrial Case and Installation

- IP30 metal case protection
- DIN-rail and wall mount designs
- 12 to 48V DC, redundant power with reverse polarity protection
- Connective removable terminal block for master and slave power
- Supports EFT 6KV DC protection for power line
- Supports 6KV DC Ethernet ESD protection
- -40 to 75 degrees C wide operating temperature

## Applications

### Industrial Switch for High Performance Data Collection and Forwarding

The ISW-621T and ISW-621TS15 are equipped with four 10/100Mbps ports offering auto MDI / MDIX feature, and two 100BASE-FX optical 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 the risk of packet loss. The ISW-621T / ISW-621TS15, which comes in the slim-type IP30 metal case, is ideal for the most Heavy Industrial demanding environments.



## Specifications

Model		ISW-621T / ISW-621TS15
Hardware Specifications		
Copper Interface	Ports	4 x 10/100BASE-TX, auto negotiation, auto-MDI / MDI-X
	Cable	10BASE-T : 2-pair UTP Cat. 3, 4, 5 cable (100 meters, max.) 100BASE-TX : 2-pair UTP Cat. 5 cable (100 meters, max.)
Optical Interface	Port	2 x 100BASE-FX
	Cable	ISW-621T: 50/125µm / 62.5/125µm fiber ISW-621TS15: 9/125µm fiber
	Mode	ISW-621T: Multi-mode ISW-621TS15: Single-mode
	Distance	ISW-621T: 2km ISW-621TS15: 20km
	Wavelength	ISW-621T: 1310nm ISW-621TS15: 1310nm
	Launch Power	ISW-621T: Max. -14dBm, Min. -20dBm ISW-621TS15: Max. 0dBm, Min. -20dBm
	Receive Sensitivity	ISW-621T: -32dBm ISW-621TS15: -32dBm
	Max. Input Power	ISW-621T: -14dBm ISW-621TS15: 0dBm
Dimensions (W x D x H)		135 x 97 x 32 mm
Weight		442g
Power Requirements		12~48V DC Redundant power with reverse polarity protection
Power Consumption / Dissipation		Max. 16 watts / 54 BTU
Installation		DIN-rail kit and wall-mount ear
Alarm		Provides one relay output for power failure Alarm relay current carry ability: 1A @ DC 24V
Switching Specifications		
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
Standards Conformance		
Standards Compliance		IEEE 802.3 Ethernet, 10BASE-T IEEE 802.3u Fast Ethernet, 100BASE-TX, 100BASE-FX IEEE 802.3x Flow Control
Temperature		Operating: -40~75 degrees C Storage: -40~85 degrees C
Operating Humidity		Operating: 5~90% Storage: 5~90% (Non-condensing)
Regulatory 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 degrees C operating temperature)
ISW-621TS15	4+2 100FX Port Single-mode Industrial Ethernet Switch -- 20km (-40 ~ 75 degrees C operating temperature)

## Related Products

ISW-511T / ISW-511TS15	4-Port 10/100BASE-TX + 1-Port 100BASE-FX Industrial Ethernet Switch with Wide Operating Temperature (-40~75 degrees C)
ISW-621TF	4-Port 10/100BASE-TX + 2-Port 100BASE-FX Industrial Ethernet Switch with Wide Operating Temperature (-40~75 degrees C)

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### ISW-621T/ISW-621TS15

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