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 operating temperature. The capital 'T' (ISW-621T and ISW-621TS15) shown in the model names means that they 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, 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 15km. The two 100Base-FX ports provide more flexibility for Transportation, Manufacturing, Security and Surveillance with distance extension without any limitation, 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
- 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, supporting 2K absolute MAC addresses
- 1Mbit on-chip frame buffer
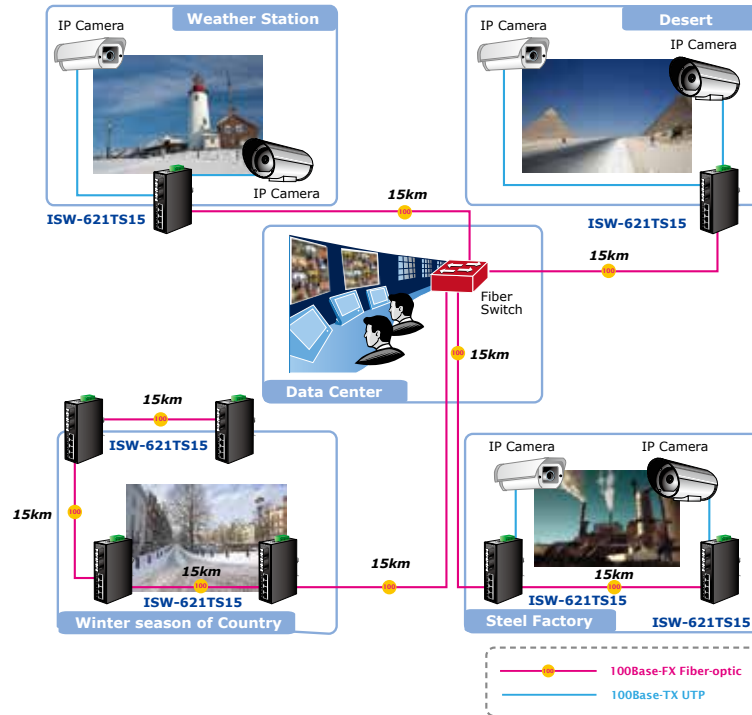- Automatic address learning and address aging
- CSMA/CD Protocol

Industrial Case / Installation

- IP30 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 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 optic-fiber SC interfaces providing 1.2Gps 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, which come in the slim type IP30 metal case, is ideal for the most Heavy Industrial demanding environments.
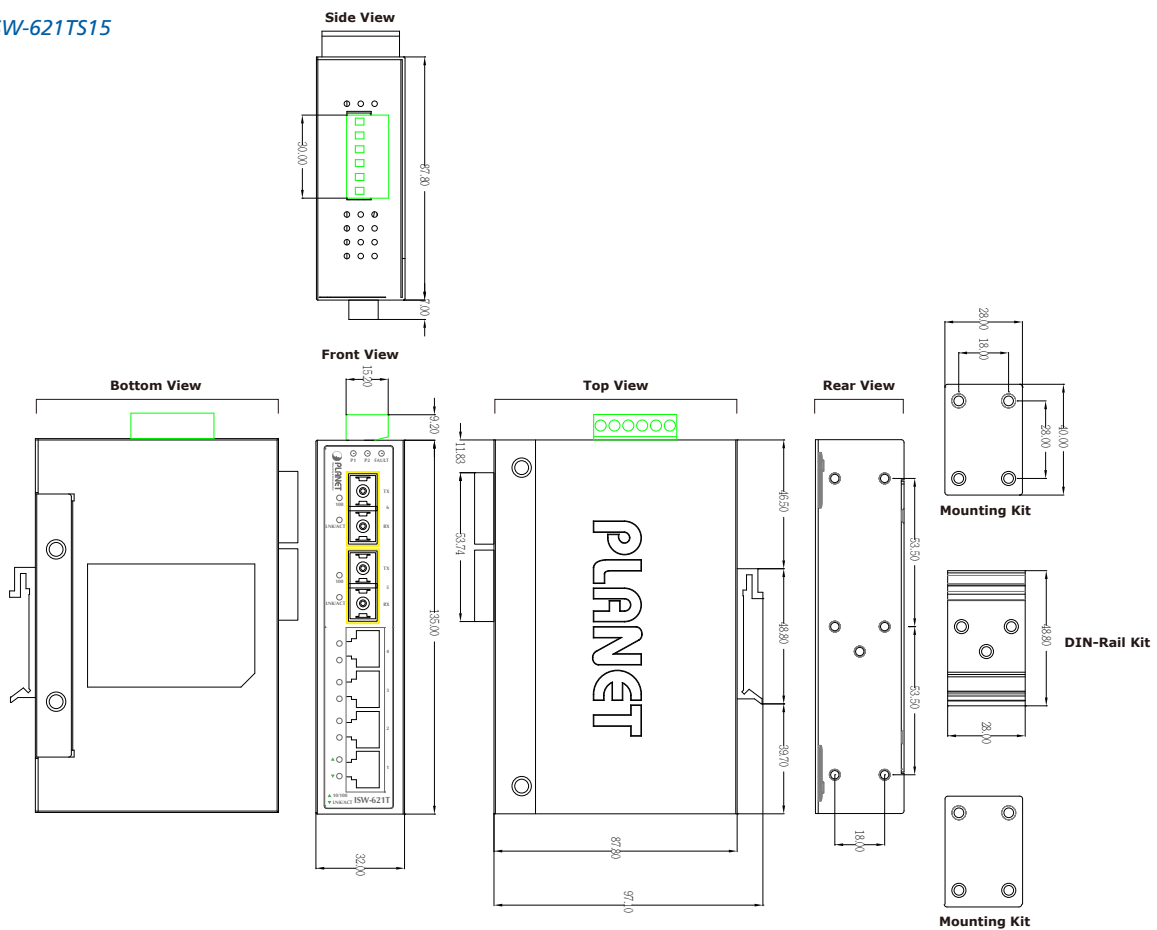

Specifications

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: 15km	
	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 polarity reverse protection function	
Power Consumption / Dissipation		Max. 16 watts / 54 BTU	
Installation		DIN rail kit and wall mount ear	
Alarm		12~48V DC Redundant power with polarity reverse protection function	
Switch Specifications			
Switch Processing Scheme		Store-and-Forward	
Address Table		2K entries	
Buffer		1Mbit	
Flow Control		Provides one relay output for power failure Alarm relay current carry ability: 1A @ DC 24V	

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)
Regulation Compliance	FCC Part 15 Class A, CE
Stability Testing	IEC60068-2-32(Free fall) IEC60068-2-27(Shock) IEC60068-2-6(Vibration)

Dimensions

ISW-621T / ISW-621TS15

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 - 15km (-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)

C-ISW-621T / ISW-621TS15