4-Port 10/100Base-TX + 1-Port 100Base-FX Industrial Ethernet Switch with Wide Operating Temperature

KEY FEATURES

PHYSICAL PORT

- 4-Port 10/100Base-TX RJ-45 with auto MDI/MDI-X function for ISW-511T series

- 1-Port 100Base-FX interface on ISW-511T for up to 2km (Multi-mode fiber 62.5/125μm, 50/125μm) transmission distance

- 1-Port 100Base-FX interface on ISW-511TS15 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): 1Gbps

- Integrated address look-up engine, supports 2K absolute MAC addresses

- 1Mbit on-chip frame buffer

- Automatic address learning and address aging
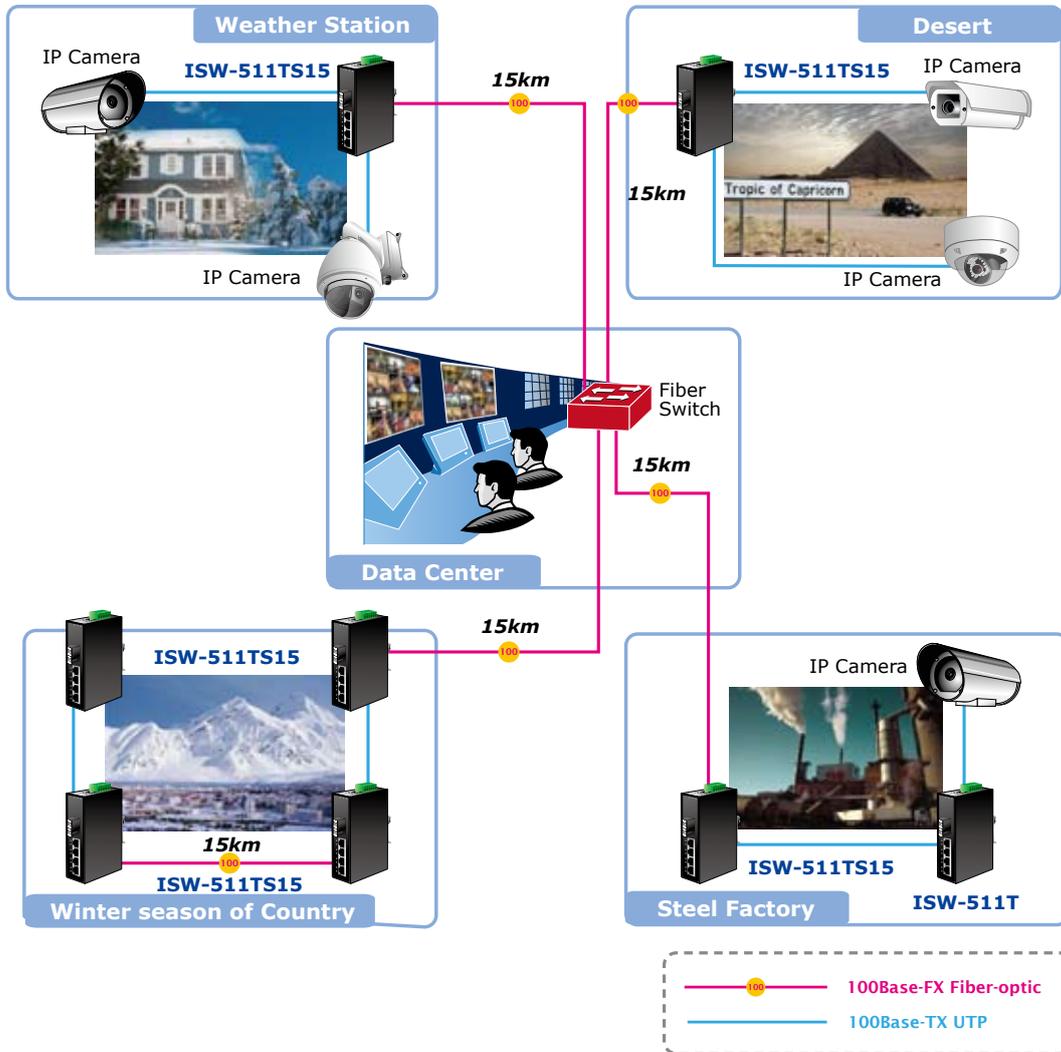
- CSMA/CD Protocol

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

Highly Convenient and Feasible Industrial Robust Switch

In the PLANET ISW-511 series Industrial Ethernet Switch, PLANET nowadays has upgraded and provided two new models named ISW-511T and ISW-511TS15 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 Degree C**. As we know the temperature in many places and countries of the world are lower than -10 Degree C, these two new models, ISW-511T and ISW-511TS15, will be the right products for Transportation, Manufactory, Security and Surveillance network deployment in those harsh environments. The ISW-511T / ISW-511TS15 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-511T / ISW-511TS15 includes four 10/100Base-TX Auto-Negotiation ports and one 100Base-FX port. The ISW-511T equips 100Base-FX multi-mode SC interfaces for transmission distance up to 2km and ISW-511TS15 equips 100Base-FX single-mode SC interfaces for transmission distance up to 15km. Users can choose the suitable model for network deployment either for long distance (ISW-511TS15) or short distance (ISW-511T) transmission.

Easy Installation and Wide Range of Power Usage

The ISW-511T and ISW-511TS15 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.

APPLICATIONS

Industrial Switch for High Performance Data Collect and Forward

The ISW-511T and ISW-511TS15 both equip with four 10/100Mbps ports offering auto MDI / MDIX feature and one 100Base-FX optic-fiber SC interface providing 1Gps 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-511T / ISW-511TS15 with the slim type IP 30 metal shape are ideal for most Heavy Industrial demanding environments.

SPECIFICATION

Product	4-Port 10/100Base-TX + 1-Port 100Base-FX Industrial Ethernet Switch with Wide Operating Temperature	
Model	ISW-511T	ISW-511TS15
Hardware Specification		
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	1 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	436g	
Power Requirement	12~48V DC, Redundant power with polarity reverse protection	
Power Consumption / Dissipation	13.7 Watts / 46 BTU	
Installation	DIN Rail Kit and Wall Mount Ear	
Alarm	Provides one relay output for power fail Alarm Relay current carry ability: 1A @ DC 24V	
Switch Specification		
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	1Gbps	
Throughput (Packet Per Second)	0.74Mpps @ 64Bytes	
Standard Conformance		
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-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)

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

C-ISW-511T / ISW-511TS15