

**Key Features:**

**Ports:** Provide 8\*10/100/1000Mbps PoE ports with 4 ports 10/100/1000M RJ45+ 4\*10Gbps SFP+, 1 Console Port

**PoE Standard:** IEEE802.3af/at Power over Ethernet (PoE) Compliant

**Surge protection:** Protect the device from lightning surges and others electrical hazards

**Layer 3 Managed:** Supports IPV4/IPV6 management, static route,RIP, OSPF, security protection mechanisms, complete ACL/QoS policies, and rich VLAN functions. Supports multiple network redundancy protocols STP/RSTP/MSTP (<50ms) and (ITU-T G.8032) ERPS(<20ms) to improve link backup and network reliability

**Industrial Installation:** Din Rail mounting installation

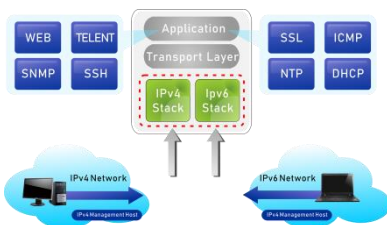
**Wide Application:** Designed for Railway, traffic etc some Industrial environment

**Working Temperature:** -40 to 85 degrees operating temperature

**Considerate Design:** IP40 Industrial design with dual power input

**Environmentally Hardened Design**

With the **IP40** metal industrial case which provides a high level of immunity against electromagnetic interference and heavy electrical surges,Being able to operate under the temperature range from **-40 to 85 degrees C**, ITT-ISWP-L3-12G4S+ can be placed in almost any difficult environment.

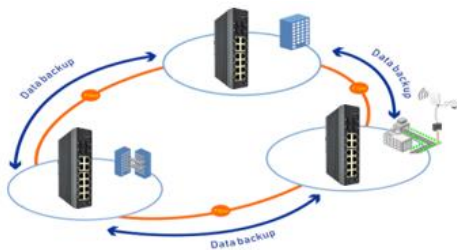


**Cost-effective IPv6 Managed Gigabit PoE Switch Solution**

With layer 3 managed Gigabit PoE Switch, It provides IPv6/IPv4 management and built-in L2/L4 Gigabit Switching engine, and supports high-speed transmission of surveillance images and videos.

## Surge Protection Design

provides contact discharge of  $\pm 8\text{KV}$  DC and air discharge of  $\pm 15\text{KV}$  DC for Ethernet ESD protection. It also supports  $\pm 6\text{KV}$  surge immunity to improve product stability and protects users' networks from devastating ESD attacks, making sure the flow of operation does not fluctuate.



## Comprehensive reliability mechanisms(ERPS)

Besides STP, RSTP, and MSTP, the IES7511-8PGE4GE4TF-DC Managed PoE Switch supports enhanced Ethernet reliability technologies such as Ethernet Ring Protection Switching (ERPS), also referred to as G.8032. ERPS supports various services and allows flexible networking, helping customers build a network with lower OPEX and CAPEX.

## Technical Datasheet

<b>Model</b>	<b>ITT-ISWP-L3-12G4S+</b>	
<b>Hardware Specifications</b>		
Connector	12* 10/100/1000BASE-T RJ45 auto MDI/MDIX ports 4* 10G Base-X SFP+ Slots 1 Console port	
PoE Port	8* 10/100/1000Mbps POE PSE port	
LED Display	Power Indicator: PWR(green).Network Indicator: Link(yellow) PoE Working Indicator: PoE(green)	
Thermal Fan	Fanless Design	
Installation	Din Rail	
Switch Architecture	Store and Forward	
Transmission model	IEEE802.3X full-duplex and Backpressure half-duplex	
Switch Performance	Backplane bandwidth	128Gbps
	Packet forwarding rate	72Mpps
	MAC address	16k
Power requirement	DC 48V~54V	
ESD Protection	6KV ESD	
Dimension(WxDxH)	50mm x145mm x 170mm(1.97in x 5.71in x 6.69in)	

Weight	1.3kg
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**Power over Ethernet (PoE) Specifications**

Network standard	IEEE802.3i 10 BASE-T
	IEEE802.3u 100 BASE-TX
	IEEE802.3ab 1000BASE-T
	IEEE802.3ae 10ASE-X
	IEEE802.3x Flow Control
	IEEE802.3af Power over Ethernet
	IEEE802.3at Power over Ethernet
	IEEE802.3az EEE

PoE Standard	IEEE 802.3af Power over Ethernet/PSE
	IEEE 802.3at Power over Ethernet Plus/PSE

PoE Supply Type	1/2(+), 3/6(-) End-span
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PoE Power Output	Per Port 52V DC, 300mA. max. 15.4 watts (IEEE 802.3af)
	Per Port 52V DC, 600mA. max. 30 watts (IEEE 802.3at)

PoE Power budget	120/240W optional
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**Layer 3 Functions**

Network Management Type	Layer 3
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Layer 3 Features	Support ARP protocol, maximum 1024 pcs
	Support static route/default route, maximum 128 pcs
	Support L3 network management function,
	Support IPV4/IPV6 dual stack management
	Support L3 routing at full wire-speed forwarding,
	Support communication between different network segments and different VLANs

Port Mirroring	TX / RX / both Many-to-1 monitor
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Vlan	802.1Q tagged-based VLAN
	Up to 256 VLAN groups, out of 4094 VLAN IDs
	802.1ad Q-in-Q tunneling
	Voice VLAN;Protocol VLAN;Private VLAN (Protected port),GVRP

Link Aggregation	IEEE 802.3ad LACP and static trunk
	Supports 8 groups of 8-port trunk

Spanning Tree Protocol	STP, IEEE 802.1D Spanning Tree Protocol
	RSTP, IEEE 802.1w Rapid Spanning Tree Protocol
	MSTP, IEEE 802.1s Multiple Spanning Tree Protocol

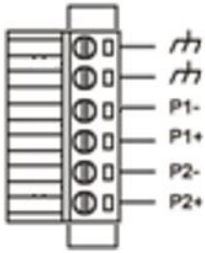
Industrial Ring	G.8032 (ERPS),Recovery time less than 20ms
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250 Ring at most, Max 1024 devices per ring

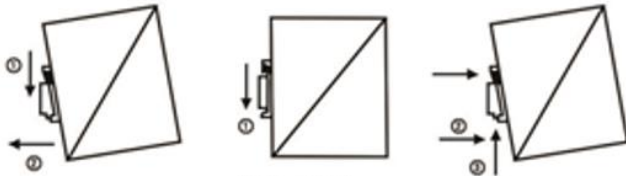
IGMP Snooping	IGMP (v2/v3) snooping
	IGMP querier
	Up to 256 multicast groups
MLD Snooping	MLD (v1/v2) snooping, up to 256 multicast groups
Access Control List	IPv4/IPv6 IP-based ACL / MAC-based ACL
PoE Management	Open or close port
	Standard POE scheduling management Power and current display
	Automatic restarting function of equipment dead machine Timing
QoS	Support IP bindings restarting
	8 mapping ID to 8 level priority queues
	--- Port number --- 802.1p priority --- 802.1Q VLAN tag --- DSCP field in IP packet Traffic classification based, strict priority and WRR
Security	IEEE 802.1X port-based authentication
	Built-in RADIUS client to co-operate with RADIUS server
	RADIUS / TACACS+ user access authentication
	IP-MAC port binding ; MAC filtering ; Static MAC address
	DHCP Snooping and DHCP Option82 ; STP BPDU guard, BPDU filtering and BPDU forwarding ; DoS attack prevention ; ARP inspection ; IP source guard
<b>Management Function</b>	
Basic Management Interfaces	Web browser / Telnet / SNMP v1, v2c, V3 Firmware upgrade by HTTP / TFTP protocol through Ethernet network Remote / Local Syslog, System log, LLDP protocol ,SNTP
Secure Management Interfaces	SSH, SSL, SNMP
SNMP MIBs	RFC 1213 MIB-II ; RFC 1215 Generic Traps ; RFC 1493 Bridge MIB RFC 2674 Bridge MIB Extensions ; RFC 2737 Entity MIB (Version 2) RFC 2819 RMON (1, 2, 3, 9) ; RFC 2863 Interface Group MIB RFC 3635 Ethernet-like MIB

## Installation Models

### Power Terminal

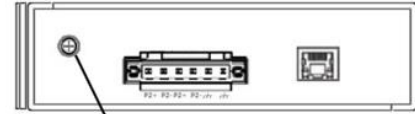


6pin 3.81mm-spacing plug-in terminal  
 48V-54VDC wide voltage input  
 P1&P2 dual power input  
 Reverse protection

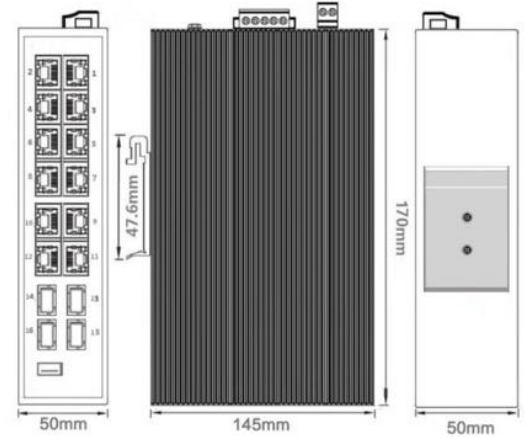


Din-Rail

### Earth Protection



Ground screw



## Applications

