



## IES6316-8GT8GS-2P48

DIN-Rail Mounting

16-Port Gigabit Layer 2 Managed Industrial Ethernet Switch

- Support 8 Gigabit copper ports and 8 Gigabit SFP slots
- Adopt SW-Ring patented technology, support single ring, coupling ring, chain, Dual-homing, automatic recovery time of network failure < 20ms
- Support ERPS and loop detection, which can eliminate loop effectively and prevent broadcast storm caused by data loop
- Support dual DC power redundancy, input voltage: 12~48VDC
- Support -40~75°C wide operating temperature range



Industrial Grade



Fanless Desig



RPS

# Introduction

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IES6316-8GT8GS-2P48 are 16-port Gigabit layer 2 managed industrial Ethernet switches. This product provides Gigabit SFP slots and Gigabit copper ports. It adopts DIN-Rail mounting, which can meet the application requirements of large-scale industrial networks.

Network management system supports a variety of network protocols and industry standards, such as ARP, ERPS, STP/ RSTP/MSTP, 802.1Q VLAN, QoS function, IGMP static multicast function, LLDP, port trunking, port mirroring, etc. It has perfect management functions, supporting port configuration, port statistics, 802.1X authentication, network diagnosis, rapid configuration, online upgrade, etc. CLI, WEB, Telnet, SSH, SNMP and other access methods can be supported. Network management system could bring you great user experience through its friendly interface design and easy and convenient operation.

The product supports dual DC power redundancy, and the power input is two independent power supply circuits to ensure the normal operation of the equipment in case of power failure in one circuit. When power supply or port has link failure, ALM alarm indicator will be bright and send out alarm, meanwhile, alarm device connected to the relay will send out alarm for rapid scene troubleshooting. Hardware adopts fanless, low power consumption, wide temperature and voltage design and has passed rigorous industrial standard tests, which can suit for the industrial scene environment with harsh requirements for EMC. It can be widely used in smart grid, rail transit, smart city, safety city, new energy, intelligent manufacturing and other industrial fields.

## Features and Benefits

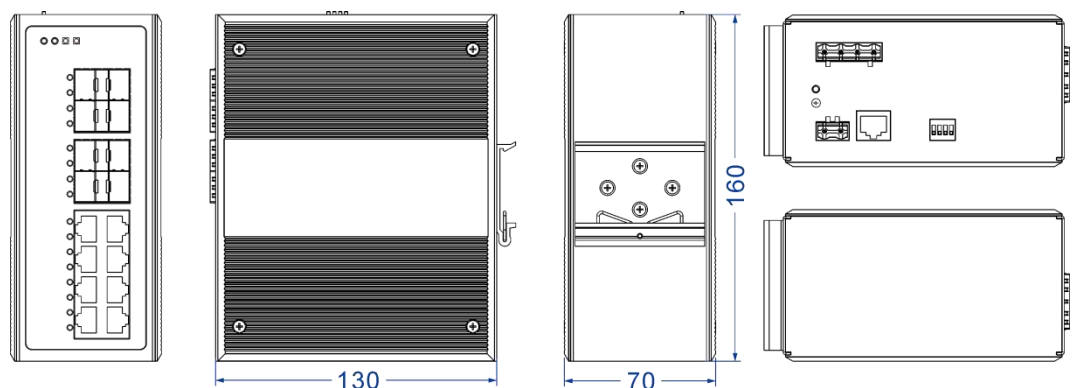
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- ⊙ SNMPv1/v2c/v3 is used for network management of various levels
- ⊙ RMON can be used for efficient and flexible network monitoring
- ⊙ Port mirroring can conduct data analysis and monitoring, which is convenient for online debugging
- ⊙ QoS supports real-time traffic classification and priority setting
- ⊙ LLDP can achieve automatic topology discovery, which is convenient for visual management
- ⊙ DHCP server can be used for distributing IP address with different strategies
- ⊙ DHCP relay function can realize IP address, gateway, DNS configuration cross network segment
- ⊙ File management is convenient for the device rapid configuration and online upgrading
- ⊙ Log management records the information of booting, operation and connection
- ⊙ Bandwidth management can reasonably distribute network bandwidth, preventing unpredictable network status
- ⊙ Port statistics can be used for the port real time traffic statistics
- ⊙ ARP could be used for MAC address resolution

- User password can conduct user hierarchical management to improve the device management security
- ACL can enhance network flexibility and security
- Relay alarm is convenient for troubleshooting of construction site
- Storm suppression can restrain broadcast, unknown multicast and unicast
- TELNET configuration and SSH configuration guarantee secure access to data
- VLAN is used for simplifying network planning
- Port Trunking can increase network bandwidth and enhance the reliability of network connection to achieve optimum bandwidth utilization
- IGMP Snooping and static multicast can be used to filter multicast data to save network bandwidth
- Bandwidth management and flow control can reasonably distribute network bandwidth, preventing unpredictable network status
- Port isolation could achieve port isolation in the same VLAN and save VLAN resources
- Ring and STP/RSTP/MSTP can achieve network redundancy, preventing network storm
- Ping, Traceroute, Port Loopback and SFP Digital Diagnosis could achieve network diagnosis and troubleshooting
- With high reliability and stability, ERPS could avoid broadcast storm caused by data loopback
- Loop detection could efficiently eliminate the influence caused by port loopback by detecting the existence of loopback

## Dimension

Unit: mm



## Specification

Standard & Protocol

IEEE 802.3 for 10Base-T

	<p>IEEE 802.3u for 100Base-TX  IEEE 802.3ab for 1000Base-T  IEEE 802.3z for 1000Base-X  IEEE 802.3x for Flow Control  IEEE 802.1D for Spanning Tree Protocol  IEEE 802.1w for Rapid Spanning Tree Protocol  IEEE 802.1s for Multiple Spanning Tree Protocol  IEEE 802.1Q for VLAN  IEEE802.1p for CoS  IEEE 802.1X for port access control  IEEE 802.1AB for LLDP</p>
<b>Management</b>	<p>SNMP v1/v2c/v3 Centralized Management Devices, RMON, Port Mirroring, QoS, LLDP, DHCP Server, File Management, Log Management, Port Statistics, ARP</p>
<b>Security</b>	<p>User permission rating, ACL, 802.1X authentication, port alarm, power alarm, storm suppression, Telnet configuration, SSH configuration, link flapping protection, loop detection, aggregation protection</p>
<b>Switch Function</b>	<p>802.1Q VLAN, Port Trunking, Bandwidth Management, Flow Control, Port Isolation</p>
<b>Unicast / Multicast</b>	<p>Static Multicast, IGMP-Snooping</p>
<b>Redundancy Technology</b>	<p>Ring, STP/RSTP/MSTP, ERPS</p>
<b>Troubleshooting</b>	<p>Ping, Traceroute, Port Loopback, SFP Digital Diagnosis</p>
<b>Time Management</b>	<p>NTP Client, RTC</p>
<b>Interface</b>	<p>Gigabit copper port: 10/100/1000Base-T(X) self-adaptive RJ45, automatic flow control, support full/half duplex mode, MDI/MDI-X self-adaption  Gigabit SFP: 1000Base-X SFP slot  Console port: CLI command line management port(RS-232), RJ45  Alarm port: 2-pin 7.62mm pitch terminal blocks, supports 1 relay alarm output, and the current load capacity is 1A@24VDC or 0.5A@120VAC</p>
<b>Indicator</b>	<p>Running Indicator, Port Indicator, Power Supply Indicator,</p>

## Alarm Indicator

<b>Switch Property</b>	Transmission mode: store and forward MAC address: 16K Packet buffer size: 12Mbit Backplane bandwidth: 56G Switch time delay: <5 $\mu$ s
<b>Power Supply</b>	Input voltage: 12~48VDC Redundant power supply: support dual power supply redundancy Connection protection: non-polarity Access terminal: 4-PIN 7.62mm pitch terminal blocks
<b>Power Consumption</b>	No-load: 10.99W@24VDC Full-load: 20.69W@24VDC
<b>Working Environment</b>	Operating temperature: -40~75 $^{\circ}$ C Storage temperature: -40~75 $^{\circ}$ C Relative humidity: 5%~95% (no condensation)
<b>Physical Characteristic</b>	Housing: IP40 protection, high-strength corrugated metal Installation: DIN-Rail mounting Weight: 1.1kg Dimension (W x H x D): 70mm $\times$ 160mm $\times$ 130mm
<b>Industrial Standard</b>	IEC 61000-4-2 (ESD, electrostatic discharge), Level 4 <ul style="list-style-type: none"><li>• Air discharge: <math>\pm</math> 15kV</li><li>• Contact discharge: <math>\pm</math>8kV</li></ul> IEC 61000-4-4 (EFT, electrical fast transient), Level 4 <ul style="list-style-type: none"><li>• Power supply: <math>\pm</math>4kV</li><li>• Signal: <math>\pm</math>2kV</li></ul> IEC 61000-4-5 (Surge), Level 4 <ul style="list-style-type: none"><li>• Power supply: differential mode<math>\pm</math>2kV, common mode<math>\pm</math>4kV</li><li>• Signal: differential mode<math>\pm</math>2kV, common mode<math>\pm</math>4kV</li></ul> Shock: IEC 60068-2-27 Free fall: IEC 60068-2-32 Vibration: IEC 60068-2-6
<b>Authentication</b>	CE, FCC, RoHS



Warranty

5 years

## Ordering Information

Available Models	Gigabit Copper Port	Gigabit SFP Slot	Power Supply
IES6316-8GT8GS-2P48-N	8	8	12~48VDC, dual power supply redundancy