hasivo®

Manual for S5800W-48G-4S+

Full Gigabit managed switch

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01 Product introduction

Product overview

hasivo S5800W-48G-4S+ L3 multi-functional network management switch independently developed by hasivo adopts Realtek's new generation high-performance platform and new self-developed switch system, and supports flexible network management functions such as 802.1Q VLAN, IGMP, port monitoring, port aggregation, bandwidth control, ring application, etc. This series of switches is specially designed for the construction of high-performance complex network requirements, providing a comprehensive security protection system, perfect qo5 strategy and rich VLAN functions, simple management and maintenance, and can be applied to the core layer of small and medium-sized enterprises, communities and schools.

Port performance

- Supply 48*10/ 100/1000M RJ45 adaptive ports, all of which can realize line speed forwarding.
- Supply 4*10000M SFP uplink optical ports are provided for high-speed uplink transmission.
- It supports the combined use of multiple types of ports to facilitate the flexible networking of users and meet the networking requirements of various scenarios
- Each port supports MDI / mdix auto flip and duplex / rate self negotiation.
- Support IEEE 802.3x full duplex flow control and backpressure half duplex flow control.

Functional features

- Add a variety of new applications based on IPv6, easily adapt to modern complex network management applications
- Support IEEE 802.1Q VLAN, users can divide VLAN flexibly according to their needs.
- Support voice VLAN, configure QoS parameters for voice data stream, improve the transmission priority of voice data stream and ensure the call quality.
- It supports QoS, supports port based, 802.1p and DSCP based priority modes to optimize the bandwidth configuration.
- It supports ACL, achieves packet filtering by configuring matching rules, processing operations and time permissions, and provides flexible security access control policies
- Support IGMP V1 / V2 multicast protocol, support IGMP snooping, meet the requirements of multi terminal HD video monitoring and video conference access.
- Support multicast VLAN, multicast filtering, efficient data transmission, save network bandwidth, reduce network load.
- Support port monitoring, copy the data package of monitored port to the monitoring port to realize network monitoring.
- Support the management and maintenance of equipment through web interface.
- It supports port convergence, effectively increases link bandwidth, realizes link backup and improves link reliability.
- Support static routing.

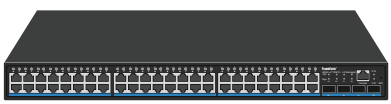
Security & Protection

- STP / RSTP / MSTP spanning tree protocol is supported to eliminate layer-2 loops and realize link backup.
- Support tree security function, prevent devices in tree network from being attacked by various forms of malicious.
- It supports static aggregation and dynamic aggregation, effectively increases link bandwidth, realizes load balancing, link backup, and improves link reliability.

Running and Maintenance

- Support web management, CLI command line (console, telnet), SNMP (v1/v2/v3) and other diversified management and maintenance methods.
- It supports HTTPS, SSL V3, tlsv1, sshv1/v2 and other encryption methods, and makes management more secure.
- It supports RMON, system log and port traffic statistics to facilitate network optimization and transformation.
- Users can know the working status of the switch through the power indicator (PWR), port status indicator and system status indicator (sys).

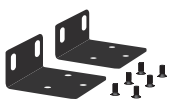
02 Spare parts list



Switch

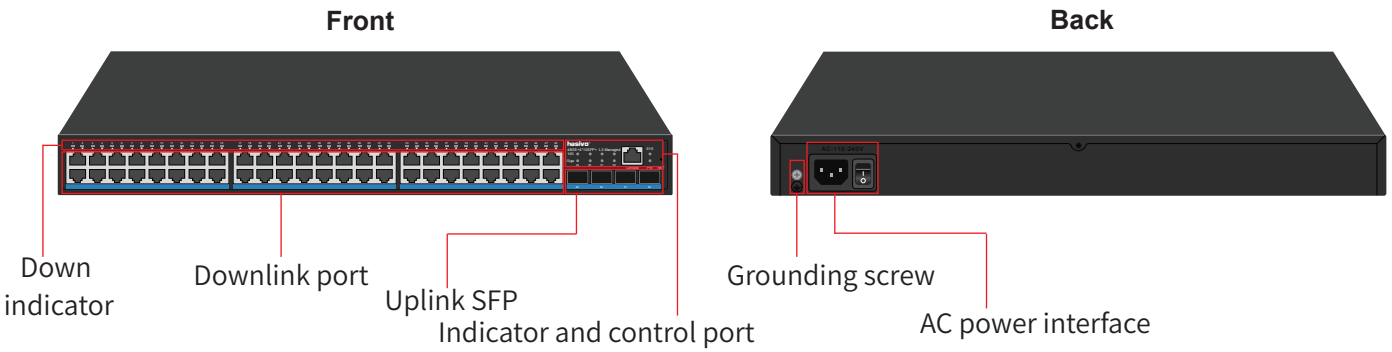
DC adapter

User manual+Warranty Card



Optional rack lug

03 Product display



Indicator definition:

Indicator light	State	Description
Power indicator：PW	Green light is always on	Normal power on
	Constant extinction	Not powered on
Optical port connection indicator：49~52【10G】	Light on	The corresponding optical port works at the rate of 10 / 100 / 1000M
Optical port connection indicator：49~52【Giga】	Light on	The corresponding optical port operates at a rate of 10000M
Network connection indicator：1~48	Green light is on	The corresponding port operates at the rate of 10 / 100 / 1000M
	Yellow light is on	The corresponding port operates at the rate of 10000M
System indicator：SYS	1S Slow flash	The system operates normally

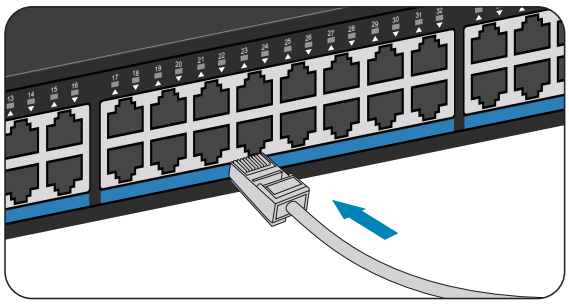
04 Installation&Points of attention

Checking before installation

1.Check whether the accessories are complete. If there is any omission, please contact us.
2.Check whether the power supply voltage is consistent with the working voltage of the switch,so as to avoid the equipment burning out due to high voltage.
3.Ensure that the installation position of the switch has certain ventilation and heat dissipation conditions.
4.Please keep the power off during installation to avoid potential safety hazards.
5.Please install the switch on a stable plane to avoid falling and damage.

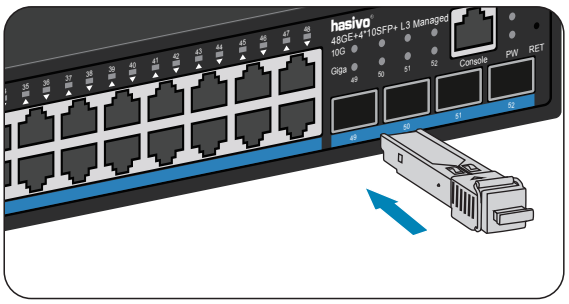
Port installation and connection

Insert data line



As shown in the figure, insert the crystal head of the data line into the network port. When you hear a crisp click, it indicates that the crystal head is successfully connected with the network port of the switch. Just plug in all the network cables of the network equipment in this way.
(Note: the downlink port needs to be connected with network equipment; the uplink port needs to be connected with optical fiber convergence switch, server and other equipment.)

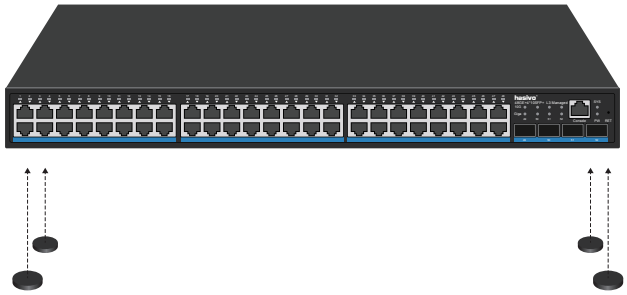
Install the fiber optic module



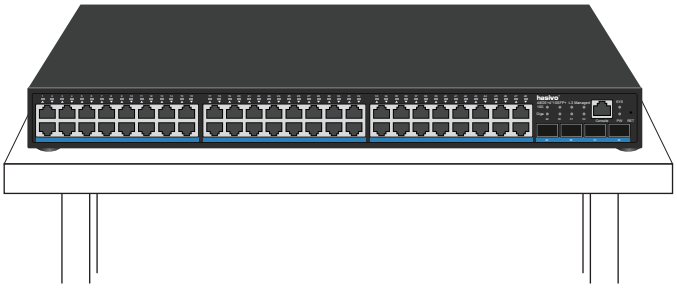
As shown in the figure, align the optical fiber module with the SFP optical port and insert it smoothly and forcefully. When you hear a crisp click, it indicates that the optical fiber module is installed successfully. Install the two optical fiber modules in this way.
(Note: the single fiber optical module needs 1310nm at the a end and 1550nm at the B end to be used in pairs. Please purchase and check before installation)

Install to desktop

Stick the anti-skid rubber foot pad on the four corners of the bottom of the switch

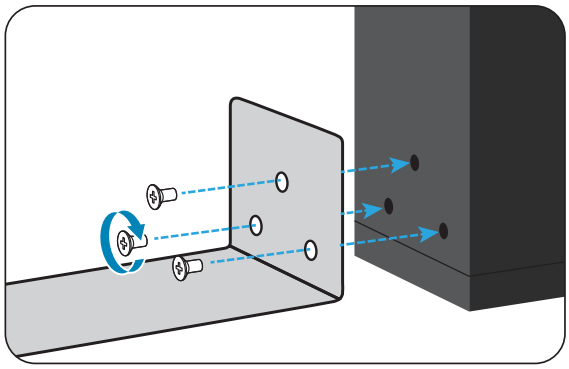


Place the switch on a well ventilated desktop

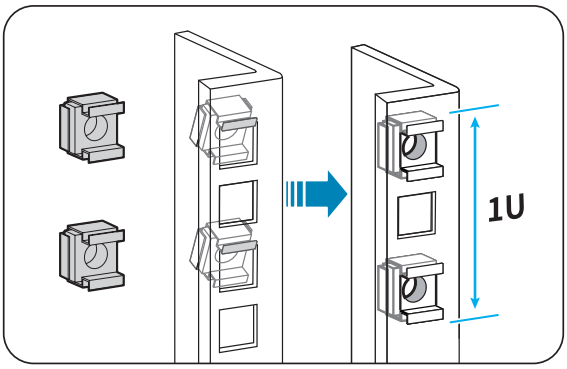


Mounting to cabinet / rack

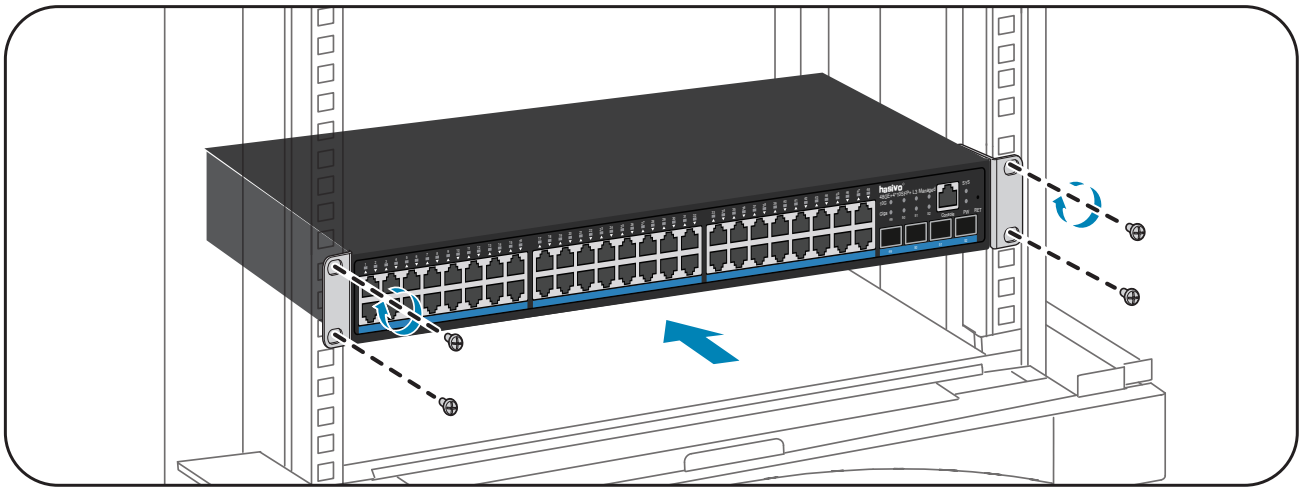
1.Install the rack lugs attached to the equipment on both sides of the switch with screws



2.Install the floating nut on the cabinet / rack

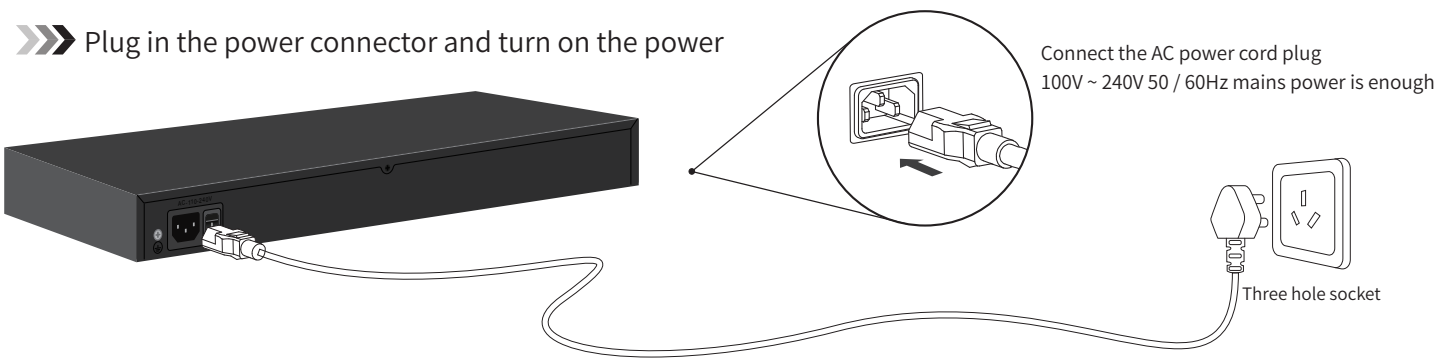


3.Put the switch with the lug installed into the cabinet and screw in the screw to complete the installation.



Turn on electricity

Plug in the power connector and turn on the power

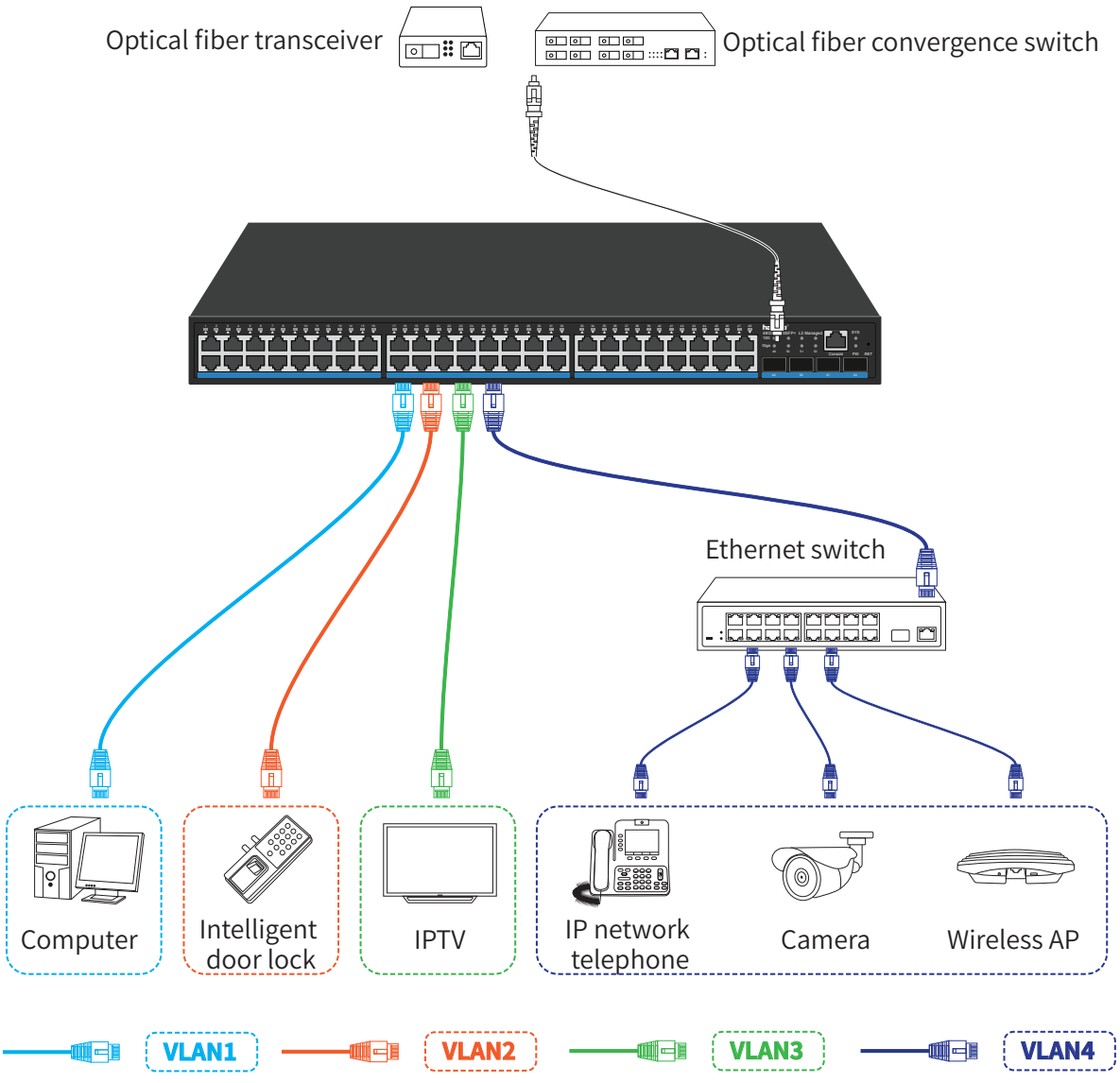


Points of attention

1.Do not stack heavy objects on the switch to avoid danger.
2.In order to avoid the risk of electric shock, please do not open the machine box when the switch is working, even if it is not powered on, please contact us in case of any problem.
3.Before cleaning the switch, pull out the power plug of the switch. Do not wipe it with wet fabric or clean it with liquid.
4.If the power adapter is damaged, do not replace it with other power adapters. This switch should be equipped with original power adapter.

05 Application

VLAN application



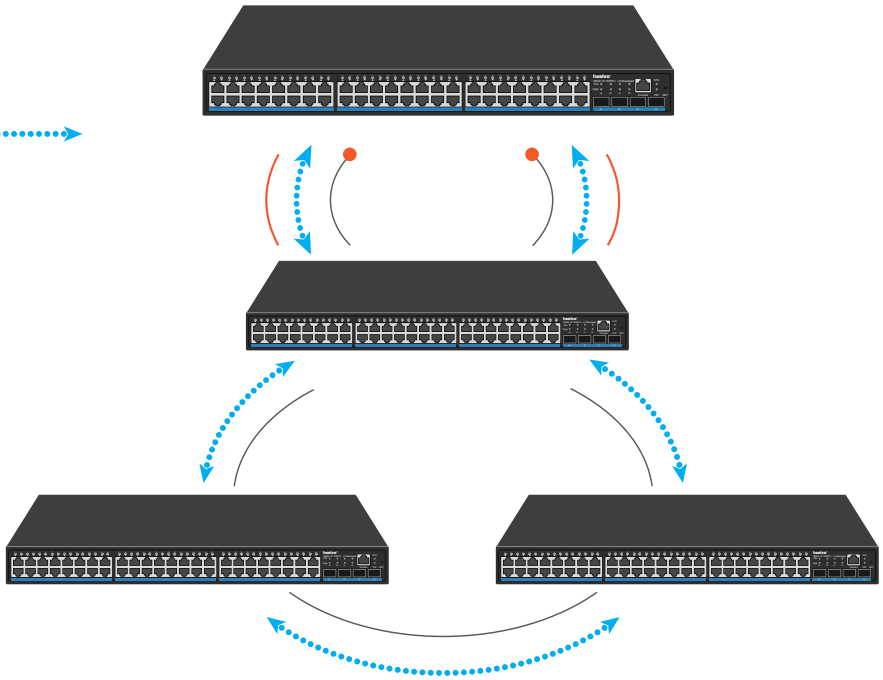
The uplink port can connect optical fiber convergence switch, server and other equipment. The downlink port can be connected to the switch or directly connected to the network equipment. It also supports port based VLAN, which can be divided into up to 4096 VLANs at most.

Application of ring network

RPL Owner

RPL

Data stream



06 Common troubleshooting

⚠ *The PWR indicator is not on after the power is connected → Check whether the power adapter and plug are connected correctly, whether the power cord is damaged, and whether the power adapter is damaged.*

⚠ *Switch cannot communicate after power up → Check whether the switch indicator is on. If the indicator is off, the network cable is not connected. If the indicator is on, the communication fault is indicated.*

⚠ *Switch network speed suddenly become very slow → Take off the plug and restart the switch.*

[If the above problems or other switch problems can not be solved, please contact us for technical support]

07 Technical parameter

Product model	**S5800W-48G-4S+**
Product name	**Full Gigabit 4 optical 48 electrical management switch**
Fixed port	48*10/100/1000Base-TX RJ45 Port (Data) 4*1000M Smooth mouth
Management port	1
Reset key	1
Network protocol	IEEE 802.3 IEEE 802.3u 100BASE-TX IEEE 802.3ab1000BASE-T IEEE 802.3x IEEE 802.3z 1000BASE-X IEEE 802.3ad IEEE 802.3q、IEEE 802.3q/p IEEE 802.1w、IEEE 802.1d、IEEE 802.1S STP(Spanning Tree Protocol) RSTP/MSTP(Rapid Spanning Tree Protocol) EPPS ring network protocol EAPS ring network protocol
Port Specification	10/100/1000BaseT（X） Auto
Transmission Mode	Store and Forward(full wirespeed)
Bandwidth	104/256Gbps (no blocking)
Packet Forwarding	74.88Mpps
MAC Address	16K
Buffer	12M
Transmission Distance	10BASE-T：Cat3,4,5 UTP(≤250 meter) 100BASE-TX：Cat5 or later UTP(≤100 meter) 1000BASE-TX：Cat6 or later UTP(≤1000 meter) 1000BASE-SX:62.5μm/50μm MMF(2m~550m) 1000BASE-LX:62.5μm/50μm MM(2m~550m) or 10μm SMF(2m~5000m)
FLASH	128M
RAM	256M
Watt	Full load power consumption：≤35W
LED Indicator	PWR:Power indicator SYS:(System indicator) 1~48: (Network connection indicator, green / 100M + Yellow / 1000M) 49~52:(Optical port connection indicator)
Power	Built in switching power supplyAC 100~240V 50/60HZ
Operating Temperature/Humidity	-20～+55°C；5%～90% RH No condensation
Storage Temperature/Humidity	-40～+75°C；5%～95% RH No condensation
Product size/ package size（L*W*H）	440mm*360mm*45mm 515mm*375mm*95mm

N.W/G.W（kg）	2.1kg/2.8kg
Installation	Rack type (distribution rack lug)
Lightning protection / protection level	3KV 8/20us； IP30
Certificate	3C； CE mark, commercial；CE/LVD EN60950； FCC Part 15 Class B；RoHS；
Warranty	Whole device for 1 year(Accessories not included)

Software Function

The followings are main functions not included in all the functions.Please contact with us for more other information! (We support software development for customization requirement)

Network Protocol	IEEE 802.3x IEEE 802.3、IEEE 802.3u、IEEE 802.3ab、IEEE 802.3z IEEE 802.3ad IEEE 802.3q、IEEE 802.3q/p IEEE 802.1w、IEEE 802.1d、IEEE 802.1S、IEEE 802.1X
MAC	Support 16K MAC address,auto aging and learning
VLAN Configuration	Support port-based VLAN Up to 4096 VLANs Support Voice VLAN, can configure Qos for voice data 802.1Q
Spanning Tree	STP(Spanning tree protocol) RSTP(Rapid spanning tree protocol) MSTP(Rapid spanning tree protocol) EPPS(Ring network protocol) EAPS(Ring network protocol) 802.1x
Port Aggregation	Support 8 groups of aggregation, each group support up to 8 ports
Port Mirroring	Support many-to-one port mirroring
Loop Guard	Support loop protection, real-time detection, quick alram, concise location, Intelligent blocking, automatic recovery
Port Isolation	Support downlink ports isolate from each other and communicate with uplink port as well
Flow Control	Half duplex based on Back pressure; Full duplex based on PAUSE frame
Speed Limitation	Bandwidth management based on port input and output
Multicast Control	IGMPv1/2/3 and MLDv1/2 Snooping GMRP protocol registration Multicast address management, multicast VLAN, multicast routing port, static multicast address
DHCP	DHCP Snooping
Storm Suppression	Support unknown unicast, multicast , unknown multicast, broadcast type storm suppression; Storm suppression based on bandwidth adjustment and storm filtering

Security	Support User port+IP address+MAC address ACL based on IP, MAC Support security properties of number of MAC address based on port
QOS	802.1p port queue priority algorithm Cos/Tos,QOS remark WRR(Weighted Round Robin), weighted priority rotation algorithm WRR、SP、WFQ priority scheduling modes
Cable Sequence	Auto-MDIX; auto detection on straight-through and cross-over cable
Negotiation Mode	Port support auto negotiation function(self-negotiation transmission rate and duplex mode)
System maintenance	Upgrade package upload System log viewing WEB recovery factory configuration
Network Management	WEB interface management CLI management based on Telnet、TFTIP、Console SNMP V1/V2/V3 management RMONV1/V2 management RMON management

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