PoE Switch

16 10/100/1000Mpbs(PoE) + 2 Gigabit RJ45 + 2 Gigabit SFP

Managed

Product configuration by default

item	configuration parameter
Default IP	192.168.0.234
default subnet mask	255.255.255.0
Default username	admin(Case sensitive)
Default password	admin(Case sensitive)



Contents

1. Product introduction	4
1. 1 Main features of the product	4
2 Hardware Description	5
2.1 Front Panel	5
2.2 LED Indicators	5
2.3 Rear Panel	6
2.4 Specification	6
3Hardware Installation	6
3.1Package contents	6
3.2Installation attention	7
3. 3Install the switch to the workbench	7
3. 4 Power line connection	7
3. 5 Checking after installationcheck	8
3. 6 Electric boot on the switch	8
4.Web configuration quick Wizard	8
4.1 Login through the Web Page	8
4.2 WEB Configure	8
4.2.1 Equipment maintenance	9
4.2.1.1 Software upgrade	9
4.2.1.2 Reboot	10
4.2.1.3 Fault maintenance	10
4.2.2 Syslog	10
4.2.2.1 Loglist	11
4.2.2.2 Log Setup	11
4.2.3 Configuration	
4.2.3.1 Save configuration	
4.2.3.2 Restore the default configuration	
4.2.4 Port management	
4.2.4.1 Port Setup	
4.2.5 Port Mirroring	
4.2.6 POE	
4.2.6.1 POE Summary	
4.2.6.2 POE Setup	
4.2.7 Users	
4.2.8 VCT	
4.2.9 Flow Interval	
4.2.9.1 Port Traffic Statistics	
4.2.9.2 Traffic Monitoring	
4.3 Network	
4.3.1 VLAN	
4.3.1.1 802.1Q VLAN	
4.3.1.2 Trunk	
4.3.1.3 Hybrid	
4.3.2 VLAN Interface	

4.3.2.1 Summary	19
4.3.2.2 Create	19
4.3.2.3 Modofy	19
4.3.2.4 Remove	20
4.3.3 MAC Filter	20
4.3.3.1 MAC List	20
4.3.3.2 Port MAC List	20
4.3.3.3 Port MAC Filtering	21
4.3.4 MAC Attack Prevention	21
4.3.5 Link Aggregation	22
4.3.6 LLDP	23
4.3.6.1 LLDP Global Summary	23
4.3.6.2 LLDP Port Summary	23
4.3.6.3 LLDP Global Setup	23
4.3.6.4 LLDP Port Setup	24
4.3.7 IGMP Snooping	24
4.3.7.1 Basic	24
4.3.7.2 Advanced	25
4.3.8 QOS	25
4.3.8.1 Ports Rate Limit	25
4.3.8.2 QOS	26
Chapter4 CLI Configuration	27
5.1 CLI logon	27
5.2 Telnet	28
5.3 Command view profile	28
5.3.1 Entering the superuser view	29
5.3.2 Exit current view	29
5.3.3 Return to user view	29
5.3.4 Use the command line to help online	29
5.3.5 Command line error prompt	30
5.3.6 Use history command	30
5.3.7 Quickly view the display information.	30

1. Product introduction

The ethernet switch is a green energy efficient all-gigabit Ethernet switch product with rich features, which is widely used in hotels, hospitals, schools, Internet cafes and other access. On the basis of high performance access, each port provides 30W PoE power supply capability, and provides a comprehensive security access strategy, which is easy to use and is the ideal choice for gigabit access.

1.1 Main features of the product

High performance and flexibly extensibility

The switch supports all port line speed forwarding and meets the user's demand for high bandwidth,At least 2 or 4 port Gigabit uplink is supported.

A rich security strategy

The switch supports unique ARP intrusion detection functions, which can effectively prevent hackers or attackers from implementing the "ARP deception attacks" that are becoming increasingly popular through ARP messages. Support IP Source Guard features to prevent illegal address counterfeiting including MAC spoofing, IP deception, MAC/IP deception, and DoS attacks. In addition, the characteristics of the DHCP Snooping port trust can also effectively prevent the illegal DHCP server, to ensure the authenticity and consistency of the DHCP environment. Support port security features, which can effectively prevent attacks based on MAC addresses.

Enhanced power of Ethernet

The switch support enhancements (PoE+), can provide maximum 30W output power per port for a wireless access point 802.11n, video IP phone, ip cameras and other terminal equipment.

Green energy saving

The use of green energy saving design, including the auto-power-down, if the interface is always downin a period of time, the system automatically stops the power supply interface, automatically enter power-saving mode; support EEE energy function, if the port within a continuous period of time idle, the system will set the port energy saving mode when sending and receiving packets, when a message is sent and received again, the port will restore business.

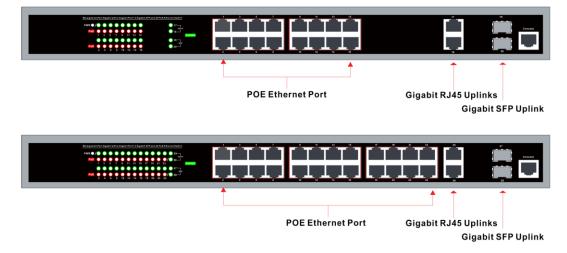
Simple and easy to use network management

The switch supports the CLI command line, the Web network management, and the TELNET, which makes the device management more convenient.

2 Hardware Description

2.1 Front Panel

The front panel consists of LED indications, and 16/24x10/100/1000Mpbs PoE ports + 2x10/100/1000M pbs RJ45 pots+2xGigabit SFP.



2.2 LED Indicators

Power LED: The Power LED lights up when the switch is connected to a power source.

Link/Act LED:

Stable Green : Indicates that the port link succeeded.

Blinking: Indicates that the switch is either sending or receiving data to the port.

Light off: No link.

PoE LED:

Green: Indicates the PoE powered device (PD) is connected and the port supplies power successfully. Light off: Indicates no powered device (PD) connected.

2.3 Rear Panel

The rear panel view of the switch consists of a AC power connector, Power Switch and Fuse.



2.4 Specification

	ltem	Description
	Power Supply	Built-in power supply
Power	Voltage Range	AC100~240V
	Consumption	270W for PoE
	Speed(20port)	1~16 Port:10/100/1000Mbps 17~18:10/100/1000Mbps Ethernet Port 19~20:1000Mbps SFP port (SFP support optical module
Ethernet		rates:1.25Gbps) 1~24 Port:10/100/1000Mbps
	Speed(28port)	25~26:10/100/1000Mbps Ethernet Port 27~28:1000Mbps SFP port (SFP support optical module rates:1.25Gbps)
	Transmission Distanc	100Meter (328ft) for RJ 45 2Km 20Km for SFP Port The optical module is optional
	Ethenet Standard	IEEE 802.3/802.3u /802.3 ab/802.3af /at
	Switching capacity	40G for 16port / 56G for 24port
Network Switch	Transfer Rate	14,880 pps for 10Mbps 148,800 pps for 100Mbps 148,8000 pps for 1000Mbps
	MACAddress	8K MAC address table
	Working Temperature	0°C ~ 40°C
Working Environment	Storage Temperature	-40℃ ~70℃
	Humidity Non Condesing	0~85%
Mechanical	Dimension L*W*H	440*200*44mm
wechanical	Color	Gray

3 Hardware Installation

3.1 Package contents

Package contents include the following:

- PoE Switch: 16/24x10/100/1000Mpbs PoE ports + 2x10/100/1000Mpbs RJ45 pots+2xGigabit SFP
- AC power cord
- Two (2) rack-mount pallet and Six (6) screws
- Four (4) adhesive-backed rubber feet
- User's manual

IMPORTANT: If any piece is missing or damaged, please contact your local dealer or reseller for service.

3.2 Installation attention

- Please do not put the switch on an unstable box or table, and make sure that the cabinet or workbench can support the weight of the switch.
- It is confirmed that the cabinet and the workbench have good ventilation and heat dissipation system. It is confirmed that there is space in the air inlet and vent of the switch for the heat dissipation of the switch.
- The switch can only be installed in the room. Please ensure that the indoor temperature is within the range of 0--40 C, and the humidity is within the range of 10%--90%.
- The switch working place should be far away from the strong power radio launcher, radar emitter, high frequency and large current equipment, and the method of electromagnetic shielding should be taken when necessary.
- Please use a single phase three wire power outlet with neutral joints, or multifunction PC power sockets, and ensure that the neutral point of the power supply is grounded in the building.
- Please confirm that the supply voltage is in line with the voltage indicated by the switch.
- The interface cable is required to walk in the room and prohibit the outdoor line to prevent the damage caused by overvoltage and overcurrent caused by lightning. For a signal line connected to the outdoors, a special lightning arrester can be added to the input end of the signal line.
- In order to enhance the lightning protection effect of the power supply, the power supply arrester can be added to the input front end of the power supply.
- When installing a switch, please pay attention to wearing anti static wrist and make sure that the anti static wrist is in good contact with the skin.
- In order to reduce the danger of electric shock, do not open the shell when the switch is working, and do not open the shell of the switch at will even if it is not charged.
- The switch power plug should be pulled out first in front of the clean switch.

3.3 Install the switch to the workbench

It is suggested that the user first place the mats on the desktop or workbench, and then put the switch on the foot pad so that the switch is not worn.

This method is simple and easy to do, but the following matters should be paid attention to:

- table ensure the stable and well grounded.
- switch dissipation space leaving around 10cm.
- do not place heavy objects on the switch.

3.4 Power line connection

AC power line connection:

The first step is to plug one end of the switch's power line to the power outlet of the back panel of the switch chassis and the other end to the external power supply AC socket.

The second step: check the power indicator light (PWR) of the front panel of the switch to be bright and the light to indicate that the power connection is correct.

Note: Before the switch is charged, a good ground wire must be connected first.

3.5 Checking after installationcheck

- Check whether the power supply is consistent with the sign power of the switch.
- Check whether the ground wire is connected.
- Check whether the connection of the configuration cable and the power input cable is correct.

3.6 Electric boot on the switch

The first step is to confirm the correct connection between the external network connection line and the inner network connection line.

The second step is to plug in AC power.

The third step is to confirm the front panel Power indicator light.

The fourth step is to wait for about 30S, the network port Link/Act light, and the PoE power supply, PoE indicator light will also light.

The switch has been started at this time.

4.Web configuration quick Wizard

4.1 Login through the Web Page

The user can log in to the switch in the following way, configuring and managing the switch, login device via Web page:

By default, the user can log on to the device directly through Web. The device default IP address: 192.168.0.234, the mask is: 255.255.255.0, with annotations on the device product nameplate. If you need to log in in the Web way, you need to complete the following configuration:

- The IP address of PC and the IP address of the switch need to be in the same segment;
- Web login username and password (default username: admin default password: admin);

4.2 WEB Configure

The page will jump directly to the system information page after login page successfully.

			User : admin [Log
	Basic		
Summary	System		н
Device	Software Version	PS5026F-HPWR-EIR003	Ap
Network	SoftCompiled Time	Wed May 17 14:54:37 2017	Ca
Security	Hardware Version	VER.A	
QoS	Bootrom Version	V1.0.0	
	MAC Address	00E0-4C86-7001	
	System Up Time	0 Week, 0 Day, 20 Hour, 2 Minute, 32 Second	
	SN	D0268010004S150700001	
	Sysname (1~30 chars)	PS5026F-HPWR-I	
	MAC Aged Time (10~1000000s,0=disabled)	300	
	CPU Usage		
	Last 5(seconds)	3%	
	Last 1(minute)	3%	
	Last 5(minutes)	3%	

The meaning of the key items in the page is shown in the following table.

operation	illustration
Software version / Hardware version / Bootrom version	Displays the version number of the software, the hardware version number, and the boot version number
MAC address	Display the MAC address of the device
System Up Time	The time to display the continuous operation of a device from power up
Production sequence number	Display the sequence number of the device
System name	Customize the name of the device so that you can quickly locate the device by this name
MAC Aged Time	The aging time of configuring a dynamic MAC address table, default 300 seconds

4.2.1 Equipment maintenance

Equipment maintenance includes equipment software upgrading, reboot and failure maintenance.

4.2.1.1 Software upgrade

Page Wizard: equipment, equipment maintenance, software upgrade, page as shown. Upgrading your software to the latest version can make your device more stable and more functional (click < Browse... > button, select the latest version of the file, click the confirm button to start the upgrade)

Note:Please do not power off the equipment in the process of upgrading.



4.2.1.2 Reboot

Page Wizard: equipment, equipment maintenance, reboot, page as shown. Select "reboot"... > button, click the confirm button to restart the device.

PS5026F-HPWR-EI M	anaged Switch User : admin	[Logout]
	Software Update Rebott Fault Maintenance	
Summary	Device Reboot	
Device	Citick the build below to reboot the switch:	Help
Basic		
Maintenance	Reboot	
 Syslog Configuration 	Note: Rebooting can disconnect the switch.	
 Port Management 		
 Port Mirroring 		
• POE		
Users VCT		
Flow Interval		
NTP		
 SNMP 		
Network		
Security		
QoS		

Note:

Before restarting the device, please save the current configuration. Otherwise, the unsaved configuration information will be lost after reboot.

4.2.1.3 Fault maintenance

Page Wizard: equipment, equipment maintenance, fault maintenance, page as shown. Select < fault collecting... > button, all fault maintenance information will be backed up on your device.

S5026F-HPWR-EI M	anaged Switch	User : admin [Logout
	Software Update Reboot Fault Maintenance	
ummary	Fault Maintenance	
evice		Help
Basic	Click <fault collecting_=""> button to back up all fault information to a local file.</fault>	Fault Collecting
Maintenance		
 Syslog 		
 Configuration 		
 Port Management 		
 Port Mirroring 		
• PoE		
Users		
 VCT 		
 Flow Interval 		
 NTP 		
 SNMP 		
etwork		
ecurity		
oS		

4.2.2 Syslog

System log is a record of system hardware, software and system problems. It can also monitor events in the

system. It provides strong support for network administrators to monitor network operation and diagnose network failures.

4.2.2.1 Loglist

Page Wizard: device, syslog, loglist

Summary	Refresh Rate: 30 Sec • Sear	ch Item : Time/Date • Key :	Select - Search Show All		Help
Device					ASC
Basic	Time/Date	Source	Level	Description	
 Maintenance 	Jan 2 04:42:06 2000	WEB	Notice	LOGIN: User 'admin' logged in from 192.168.0.233.	Downloa
 Syslog 	Jan 2 04:41:59 2000	WEB	Notice	LOGOUT: User 'admin' logged out from 192.168.0.233.	Refresh
 Configuration Port Management 	Jan 2 04:32:56 2000	WEB	Notice	LOGIN: User 'admin' logged in from 192.168.0.233.	Clear
Port Mirroring	Jan 2 04:31:44 2000	WEB	Notice	LOGOUT: User 'admin' logged out from 192.168.0.233.	
• POE	Jan 2 04:19:32 2000	WEB	Notice	LOGIN: User 'admin' logged in from 192.168.0.233.	
Users	Jan 2 04:12:55 2000	WEB	Notice	LOGOUT: User 'admin' logged out from 192.168.0.233.	
VCT Flow Interval	Jan 2 04:07:50 2000	WEB	Notice	LOGIN: User 'admin' logged in from 192.168.0.233.	
NTP	Jan 2 04:07:36 2000	WEB	Notice	LOGOUT: User 'admin' logged out from 192.168.0.233.	
SNMP	Jan 1 23:51:43 2000	WEB	Notice	LOGIN: User 'admin' logged in from 192.168.0.233.	
Network	Jan 1 23:51:33 2000	IFNET	Notice	LINEPROTO_UPDOWN: Line protocol on the interface Vlan-Interface1 turned into UP state.	
Security	Jan 1 23:51:32 2000	L2INF	Notice	LINK_UPDOWN: Link state of port GigabitEthernet1/0/24 is UP.	
QoS	Jan 1 09:33:46 2000	CMD	Notice	LOGOUT: Console user logout.	
	Jan 1 09:28:43 2000	CMD	Notice	LOGIN: Login from Console.	
	Jan 1 08:13:40 2000	CMD	Notice	LOGOUT: Console user logout.	
	Jan 1 08:08:40 2000	CMD	Notice	LOGIN: Login from Console.	
	TotalCount: 17, Pages: 2, 15 / Page	1 15		12 • • 1 Go	

4.2.2.2 Log Setup

Page Wizard: device, syslog, log setup

	Loglist Log Setup		
mmary			
vice	Log Setup		
Basic	Log Enable	2	•
Maintenance	Note: This configuration item controls the output	of all system information.	A
Syslog	Loghost Setup		C.
Configuration	Logs level	Informational(6) •	
Port Management Port Mirroring	IP 1		
POE	IP 2		
Users	IP 3		
VCT	IP 4		
Flow Interval			
NTP SNMP twork			

4.2.3 Configuration

QoS

4.2.3.1 Save configuration

Page Wizard: equipment, configuration, save configuration

PS5026F-HPWR-EI M	anaged Switch	User : admin	[Logout]
	Save Configuration Restore Default Configuration		
Summary	Save current configuration		Help
Device	Save the configuration	Save	neip
Basic	sare are comparation of the to avoid the loss of comparation	Sanc.	
Maintenance	Backup system configuration		
Syslog Configuration	Click "Backup" to backup system configuration	Backup	
 Port Management 	Restore configuration		
Port Mirroring PoE	Upload a file to restore configuration		
Users	浏览 。 未過用文件。	Restore	
• VCT			
 Flow Interval 			
NTP SNMP			
etwork			
ecurity			
2oS			

Note:

When you have configured all the items on the configuration page, be sure to save the configuration, or the unsaved configuration information will be lost because of reboot and other operations.

4.2.3.2 Restore the default configuration

Page Wizard: device - Configuration - restore default configuration

Note:

In the process of restoring the factory default configuration, please do not carry out other operations on the equipment, otherwise the equipment may not work properly.



4.2.4 Port management

4.2.4.1 Port Setup

The port setup page displays the property status of the current port. Page Wizard: device, port management, port setup

	Port Setup								
ummary	Port	Link Status	Speed / duplex	Priority	Flow Control	Enable/Disable	Isolation State	Energy Saving	EEE
Basic	1	=	AUTO/AUTO	0	Disable	Enable	Disable	Disable	Disable
Maintenance	2	-	AUTO/AUTO	0	Disable	Enable	Disable	Disable	Disable
Syslog	3		AUTO/AUTO	0	Disable	Enable	Disable	Disable	Disable
 Configuration 	4		AUTO/AUTO	0	Disable	Enable	Disable	Disable	Disable
Port Management	5		AUTO/AUTO	0	Disable	Enable	Disable	Disable	Disable
Port Mirroring PoE	6		AUTO/AUTO	0	Disable	Enable	Disable	Disable	Disable
Users	7		AUTO/AUTO	0	Disable	Enable	Disable	Disable	Disable
• VCT	8		AUTO/AUTO	0	Disable	Enable	Disable	Disable	Disable
Flow Interval									
NTP SNMP	9		AUTO/AUTO	0	Disable	Enable	Disable	Disable	Disable
letwork	10		AUTO/AUTO	0	Disable	Enable	Disable	Disable	Disable
	11		AUTO/AUTO	0	Disable	Enable	Disable	Disable	Disable
ecurity	12		AUTO/AUTO	0	Disable	Enable	Disable	Disable	Disable
05	13		AUTO/AUTO	0	Disable	Enable	Disable	Disable	Disable
	14	100/FULL	AUTO/AUTO	0	Disable	Enable	Disable	Disable	Disable
	15		AUTO/AUTO	0	Disable	Enable	Disable	Disable	Disable
	16		AUTO/AUTO	0	Disable	Enable	Disable	Disable	Disable
	17		AUTO/AUTO	0	Disable	Enable	Disable	Disable	Disable
	18		AUTO/AUTO	0	Disable	Enable	Disable	Disable	Disable
	19		AUTO/AUTO	0	Disable	Enable	Disable	Disable	Disable
	20		AUTO/AUTO	0	Disable	Enable	Disable	Disable	Disable
	21		AUTO/AUTO	0	Disable	Enable	Disable	Disable	Disable
	22		AUTO/AUTO	0	Disable	Enable	Disable	Disable	Disable
	23		AUTO/AUTO	0	Disable	Enable	Disable	Disable	Disable

Configure the properties of a single port (click the table item corresponding to the port on the main page and enter the corresponding configuration page)

	Port Setup		
Summary	Port Setup		
Device	Port	1	Help
Basic			Apply
Maintenance	Speed	Auto •	Back
Syslog	Duplex	Auto 👻	
Configuration	Enable/Disable	Enable -	
Port Management Port Mirroring	Priority	0 -	
• PoE	Flow Control	Disable	
Users	Isolation	Disable	
• VCT	Energy Saving	Disable	
 Flow Interval NTP 	EEE	- Disable	
SNMP			
Network			
Security			
QoS			

4.2.5 Port Mirroring

Port mirror will be mirror ports message a copy to the monitor, monitor port will be connected to the data monitoring equipment, users make use of these data is copied to the monitor port monitoring equipment to analysis message, for network monitoring and troubleshooting.

Page Wizard: Device - Port Mirroring, Click the "<Cancel> button" to quickly monitor the port Configured as "no", the mirror image direction of all ports is configured as "non mirroring".

	Port Mirroring			
Summary	Monitor Port			
Device	Port	None -		
Basic	Port	None •		
Maintenance	Note: Monitoring port might be co	engested if large traffic go through mirrored ports.		
 Syslog 	Port	Mirroring Direction	Port	Mirroring Direction
 Configuration Port Management 	1	None -	14	None -
Port Mirroring	2	None •	15	None -
• PoE	3	None	16	None -
Users	4	None -	17	None -
VCT Flow Interval	5	None -	18	None -
NTP	6	None 👻	19	None 👻
SNMP	7	None -	20	None 👻
Network	8	None -	21	None -
Security	9	None -	22	None -
QoS	10	None 👻	23	None •
	11	None -	24	None -
	12	None	25	None -
	13	None -	26	None -

4.2.6 POE

POE technology can ensure the safety of existing structured cabling, while ensuring the normal operation of the existing network, and minimize the cost.

4.2.6.1 POE Summary

Page Wizard: Device, POE , POE Summary, the POE Summary page can see if the port is powered, and you can select the all ports or select one port to see the power supply status, power level, maximum power and used power.

	PoE Summary PoE Setup				
Summary	Devices				
Device	Status	Max Power(W)	Used Power(W)	Residual Power(W)	Help
Basic Maintenance	Power Enabled	720	1.6	718.4	Refresh
Syslog	Port				
 Configuration Port Management 	136791				
Port Mirroring		14 16 18 20 22 24 25 26			
PoE Users		Power Enabled Power Disabled	Innort Dower Prover Front		
• VCT					
Flow Interval NTP	Check all Cancel				
SNMP	Ports				
Network	Port Status 9 Enabled	Friority Non-standard dete low Disable			
Security					
QoS					

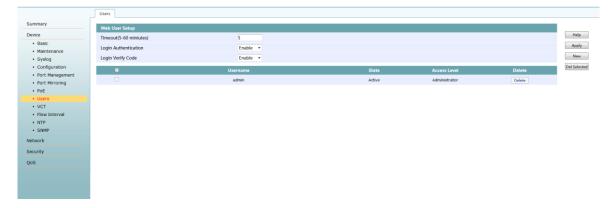
4.2.6.2 POE Setup

Page Wizard: Device, POE, POE Setup.In the POE Setup page, you can enble or disable the port power supply, Priority and non-standard detection.



4.2.7 Users

Page Wizard: Device, Users, you can configure the user timeout, turn on/off the WEB authentication function, turn on/off the WEB authentication code function, create new user, Modifying user information.



4.2.8 VCT

When the line fails, you can diagnose the cable connected to the port so that you can check the working condition of the cable in the network.

Page Wizard: Device, VCT.在Enter the port number that needs to be diagnosed in the "port" text box, and click "Apply" button to complete the cable diagnosis of this port.

	VCT			
nary	vст			
8	Port (1~24)	9		
3asic 4aintenance	Diagnostic Result			
Syslog Configuration	Wire Pair1	Status:Normal		
ntiguration rt Management	Wire Pair2	Status:Normal		
rt Mirroring	Wire Pair3	Status:Normal		
'oE Jsers	Wire Pair4	Status:Normal		
T	Note: Diagnosis results are	for reference only.		
v Interval				
P MP				
P				
k				
k y				

Notice:

- During cable diagnosis, please do not plug the port network line, and the diagnosis port cannot be shutdown state.
- Cable diagnosis is valid only if the other end of the network is not connected to the device or the network line is abnormal. The diagnosis may not be valid when there is a device connection at both ends of the network line.For the quality inspection of normal calbe, please use professional cable test equipment.

4.2.9 Flow Interval

4.2.9.1 Port Traffic Statistics

Page Wizard: Device, Flow Interval, Port Traffic Statistics. The port traffic statistics page can see the number of packets received/sent from each port of the device.

	Port Traffic Statistics Traffic Monitor	ng			
	Refresh Rate 30 Sec -				
Basic	Note: Click a port to see detailed statisti	сь.			
Maintenance					
Syslog	Port	Received Packets	Received Bytes	Sent Packets	Sent Bytes
Configuration	1	0	0	0	0
Port Management	2	0	0	0	0
Port Mirroring	3	0	0	0	0
PoE Users	4	0	0	0	0
VCT	5	0	0	0	0
Flow Interval	6	0	0	0	0
NTP	7	0	0	0	0
SNMP	8	0	0	0	0
ork	9	1030	215128	29393	2441367
ity	10	0	0	0	0
	11	0	0	0	0
	12	0	0	0	0
	13	<u>•</u>	2	0	2
		0	0	0	0
	14	0	0	0	U
	15	0	0	0	0
	16	0	0	0	0
	17	0	0	0	0
	18	0	0	0	0
	19	0	0	0	0
	20	0	0	0	0
	21	0	0	0	0

If you need to check the number of errors packets received/sent by the device specified port (click the table entry corresponding to the port on the main page, you can enter the corresponding statistics page)

	Port Traffic Statistics Traffic Monitoring		
Summary	Refresh Rate 30 Sec -		
Device	Refresh Rate 30 Sec +		Help
Basic	Clear	Refresh	Back
Maintenance			
 Syslog 	Received Statistics		
Configuration	Total Packets	1061	
 Port Management Port Mirroring 	Total Bytes	225160	
PoE	Broadcast Packets	491	
Users	Multicast Packets	3	
• VCT	Pause Frame	0	
Flow Interval	Received Packet Errors	32	
NTP	Runts Packet Errors	32	
SNMP	Giants Packet Errors		
etwork			
ecurity	CRC Packet Errors	0	
DS	Frame Packet Errors	0	
	Aborts Packet Errors	0	
	Ignored Packet Errors	0	
	Sent Statistics		
	Total Packets	30048	
	Total Bytes	2492823	
	Broadcast Packets	25723	
	Multicast Packets	3922	
	Pause Frame	0	
	Received Packet Errors	0	
	Aborts Packet Errors	0	

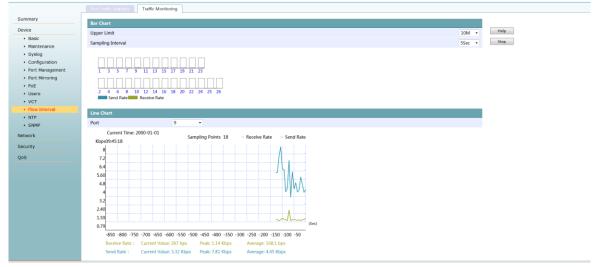
4.2.9.2 Traffic Monitoring

The user can monitor the current flow of each port in a graphical manner through port traffic monitoring and the change of traffic flow in the specified port for a period of time.

Traffic monitoring is composed of traffic monitoring bar chart and traffic monitoring line diagram:

- traffic monitoring bar chart: a bar chart is used to show the current receiving rate and sending rate of each port.
- traffic monitoring line diagram: the traffic of a specified port is changed by a polyline wave in a period of time.





4.3 Network

4.3.1 VLAN

VLAN(Virtual Local Area Network), This technique can divide a physical LAN into multiple logical lans -- vlans.Hosts in the same VLAN can be directly interlinked, while hosts in different vlans cannot communicate directly.In this way, the broadcast message is limited to the same VLAN, that is, each VLAN is a broadcast domain.

4.3.1.1 802.1Q VLAN

Page Wizard:Network,VLAN,802.1Q VLAN.This page can display and query the device's VLAN information and its included ports .VLAN 1 contains all ports by default



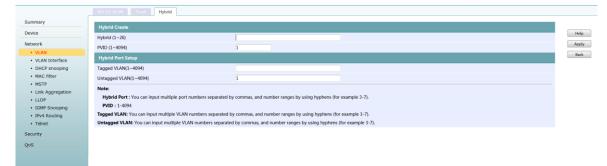
4.3.1.2 Trunk

Page Wizard:Network,VLAN,Trunk.

	802.1Q VLAN Trunk H						
Summary	Trunk Add						
Device	Trunk Port (1~26)						Help
Network	PVID (1~4094)	1					Apply
VLAN VLAN Interface	Trunk						Back
DHCP snooping	VLAN ALL						
MAC Filter MSTP	VLAN (1~4094)	1					
Link Aggregation	Note:						
LLDP	Trunk : You can input multip PVID : 1-4094.	le port numbers separated by cor	nmas, and number ranges by	using hyphens (for example 3-7).	L.		
 IGMP Snooping IPv4 Routing 		le VLAN numbers separated by co	mmas, and number ranges I	y using hyphens (for example 3-7	7).		
Teinet							
Security							
QoS							

4.3.1.3 Hybrid

Page Wizard:Network,VLAN,Hybrid



4.3.2 VLAN Interface

4.3.2.1 Summary

Page Wizard:Network,VLAN Interface,Summary.The user can query the existing interface, interface status

and interface information of the current device through this

	Summary	reate Modify	Remove			
Summary	VLAN ID	Physical State	Protocol State	Method	IPv4 Address/Mask	Description
Device	VEAN ID	Physical state	State			
Network	1	up	up	Manual	192.168.0.234/24	Vian-Interface1 Interface
VLAN						
 VLAN Interface 						
 DHCP snooping 						
 MAC Filter 						
 MSTP 						
 Link Aggregation 						
LLDP						
 IGMP Snooping 						
 IPv4 Routing 						
Telnet						
Security						
QoS						
e.						

4.3.2.2 Create

Page Wizard:Network,VLAN Interface,Create

Summary Create VLAN Interface Device VLAN ID (1-4094) Network Method	Help
Device VLAN ID (1-4094) Network Method	
Network Method @Manual OHCP	
	Apply
VLAN IPv4 Address	Cancel
VLAN Interface	
DHCP snooping Mask Length (0-32)	
• MAC Filter Description (0–80 chan) • MSTP	
- Unix Aggregation	
• LLDP	
IGMP Snooping	
IPv4 Routing	
Teinet	
Security	
QoS	

4.3.2.3 Modofy

Page Wizard:Network,VLAN Interface,Modofy

	Summary Create Modify Remo		
Summary	Modify VLAN Interface		
Device	Select VLAN Interface	1.	Hel
Network	Method	Manual DHCP	Арр
VLAN	IPv4 Address	192168.0.234	Can
 VLAN Interface 			
 DHCP snooping 	Mask Length (0~32)	24	
 MAC Filter 	Physical State	Up •	
 MSTP 	Description (0~80 chars)	Vlan-Interface1 Interface	
 Link Aggregation 			
LLDP			
 IGMP Snooping 			
IPv4 Routing			
Telnet			
Security			
QoS			

4.3.2.4 Remove

ummary	-			Protocol				
levice	-	VLAN ID	Physical State	State	Method	IPv4 Address/Mask	Description	He
letwork		1	up	up	Manual	192.168.0.234/24	Vian-Interface1 Interface	Ren
VLAN								
VLAN Interface								
 DHCP snooping 								
MAC Filter								
 MSTP 								
 Link Aggregation 								
LLDP								
 IGMP Snooping 								
 IPv4 Routing 								
 Telnet 								
ecurity								
05								

Page Wizard:Network,VLAN Interface,Remove

4.3.3 MAC Filter

4.3.3.1 MAC List

Page Wizard:Network,MAC Filter,MAC List.You can bind the specified MAC address table item by displaying and querying all MAC address table items on the current page.

Summary	MAC Address						
Device	MAG	Address (HH-HH-HH)		VLAN (1~4	094)	Search	
Network							
VLAN		entries are valid only when MAC filtering	•				
 VLAN Interface DHCP snooping 	-	MAC Address	Туре	VLAN	Port	State	Operation
MAC Filter	15	54B1-2148-7BFD	Dynamic	1	25	Not Bound	Delete
MSTP		B06E-BFD1-CCB0	Dynamic	1	25	Not Bound	Delete
 Link Aggregation 		00E0-4C63-E1A0	Dynamic	1	25	Not Bound	Delete
LLDP		0012-1745-9423	Dynamic	1	9	Not Bound	Delete
IGMP Snooping		0862-6631-635B	Dynamic	1	25	Not Bound	Delete
 IPv4 Routing Telnet 		EC26-CA37-DA99	Dynamic	1	25	Not Bound	Delete
Security		000A-4394-E6FE	Dynamic	1	25	Not Bound	Delete
QoS		0066-5D9D-BF82	Dynamic	1	25	Not Bound	Delete
405		D0FF-9858-8C74	Dynamic	1	25	Not Bound	Delete
		0862-6631-6186	Dynamic	1	25	Not Bound	Delete
		10F0-13F0-1826	Dynamic	1	25	Not Bound	Delete
		38D5-47B7-45D9	Dynamic	1	25	Not Bound	Delete
	8	00E0-705A-64A7	Dynamic	1	25	Not Bound	Delete
		001A-2B3C-4D5E	Dynamic	1	25	Not Bound	Delete
	8	0063-570E-6A1E	Dynamic	1	25	Not Bound	Delete
	1 - 15 of 22 re	cords on total 2 pages				12	Goto 1 Go

4.3.3.2 Port MAC List

Page Wizard:Network,MAC Filter,Port MAC List.This page mainly provides the following functions:

- Displays the MAC address table item information under the specified port.
- Bind the unbound MAC address table item on the port



4.3.3.3 Port MAC Filtering

Page Wizard:Network,MAC Filter,Port MAC Filtering.Displays the MAC address filtering status of each port

Summary	Port	MAC Filtering	Port	MAC Filtering	
Device	1	Disable	14	Disable	Help
Network	2	Disable	15	Disable	
• VLAN	3	Disable	16	Disable	
VLAN Interface DHCP snooping	4	Disable	17	Disable	
MAC Filter	5	Disable	18	Disable	
• MSTP	6	Disable	19	Disable	
Link Aggregation	7	Disable	20	Disable	
LLDP IGMP Snooping	8	Disable	21	Disable	
* IPv4 Routing	9	Disable	22	Disable	
Telnet	10	Disable	23	Disable	
Security	11	Disable	24	Disable	
QoS	12	Disable	25	Disable	
	13	Disable	26	Disable	
Not	e:Click a port to enter the MAC filtering config	uration page.			

1. Enble the MAC address filtering function of the specified port.

MAC List Port Mac Li	st Port MAC Filtering MAC Attack Pre	vention			
Port 9 MAC Filtering S	etting (Whitelist)				
MAC Filtering					
Note: The bound entries	are valid only after you enable MAC filtering a	nd confirm. The hosts those do not ma	ch any entry are filtered out.		
	MAC Address	Туре	VLAN ID	Port	Operation

2. creat a static MAC address table entry for the specified port.

Add MAC Whitelist		
MAC Address (HH-HH-HH)		
VLAN (1~4094)		
Note: Only static unicast MAC addresses are supported.		

4.3.4 MAC Attack Prevention

Page Wizard:Network,MAC Filter,MAC Attack Prevention.

Summary	Port	Upper Limit	Unknown Source MAC Packets Discard	Port	Upper Limit	Unknown Source MAC Packets Discard	
Device	1		Disable	14		Disable	Hel
Network	2		Disable	15		Disable	Batch C
VLAN	3		Disable	16		Disable	
 VLAN Interface DHCP snooping 	4		Disable	17		Disable	
MAC Filter	5		Disable	18		Disable	
 MSTP 	6		Disable	19		Disable	
 Link Aggregation LLDP 	7		Disable	20		Disable	
IGMP Snooping	8		Disable	21		Disable	
IPv4 Routing	9		Disable	22	-	Disable	
Telnet	10		Disable	23		Disable	
Security	11		Disable	24		Disable	
QoS	12		Disable	25		Disable	
	13		Disable	26	-	Disable	

The number of MAC addresses can be learned by one port

		t MAC Filtering MAC Attack Prevention	
Summary	Port		
Device	Port	9	Help
Network	Upper Limit Setting	7	Submit
VLAN VLAN Interface DHCP snooping	Upper Limit	*No Limit (0-8192)	Back
MAC Filter MSTP	Unknown Source MAC	Disable •	
 Link Aggregation 	Note: Enter an integer from 0 to 81	92. A value of 0 means MAC address learning is disabled. If No Limit is selected, up to 8192 MAC addresses can be learned.	
LLDP			
 IGMP Snooping 			
IPv4 Routing			
Telnet			
Security			
QoS			

Batch configuration the number of MAC addresses that can be learned



4.3.5 Link Aggregation

Page Wizard:Network,Link Aggregation.

	Unk Aggregation	
Summary		
Device	Load-Sharing Mode	Help
Network	Source-IP + Destination-IP •	Create
VLAN	a Aggregation Type Port	Modify
 VLAN Interface 		Delete
 DHCP snooping 		Devele
MAC Filter		
MSTP		
Link Aggregation		
LLDP		
 IGMP Snooping IPv4 Routing 		
Telnet		
Security		
QoS		
Qo5		

Notice:

in the following situations, the aggregation group cannot be added:

- Mirroring Ports
- A port enble the MAC address filtering
- A port with a MAC address learning limit

4.3.6 **LLDP**

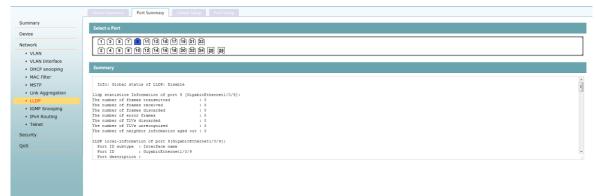
4.3.6.1 LLDP Global Summary

Page Wizard:Network,LLDP,Global Summary.

	Global Summary Port Sun	mary Global Setup Port Setu	p.		
Summary	Global Information				
Device	Added Neighbor:		0		
Network					
VLAN	Deleted Neighbor:		0		
 VLAN Interface 	Discarded LLDP's Packet:		0		
 DHCP snooping 	Aged Neighbor:		0		
MAC Filter					
MSTP Link Aggregation	ID Local Port Cha	ssis Type Chassis ID	Port ID Type	Port ID	System Capabilities Enabled
+ LLDP					
 IGMP Snooping 					
 IPv4 Routing 					
Telnet					
Security					
QoS					

4.3.6.2 LLDP Port Summary

Page Wizard:Network,LLDP,Port Summary.



4.3.6.3 LLDP Global Setup

Page Wizard:Network,LLDP,Global Setup.

Device LLD		Disabled •	Apply
Ital			
• 1/LAN	nsmit Interval	30 (5-32768 Sec)	Cancel
TTL	Hold Multiplier	4 (2-10)	
VLAN Interface DHCP snooping Fast	t Count	3 (1-10)	
	ialization Delay	2 (1-10 Sec)	
	nd Packet Delay	2 (1-8192 Sec)	
Link Aggregation Trap	p Interval	5 (5-3600 Sec)	
IGMP Snooping			
IPv4 Routing			
Telnet			
Security			
QoS			

4.3.6.4 LLDP Port Setup

Page Wizard:Network,LLDP,Port Setup.

		Port Setup			
Summary	Port Basic Settings				
Device	LLDP	Enabled •			App
Network	Administration Status	No Change -			Cano
VLAN VLAN Interface	Notification Remote Change	No Change 👻			
DHCP snooping	Frame Format	No Change 👻			
MAC Filter	Polling Interval (1-30 Sec)	30			
 MSTP Link Aggregation 	TLV Settings				
LLDP	Port management address				
IGMP Snooping	All Basic Information				
 IPv4 Routing Telnet 	Port Description	System Name	System Description	System Capacity	
Security	AII IEEE802.1				
205	Port Vlan ID	Protocol Vlan ID	1 (1-4094)	Vlan Name 1 (1-4094)	
	✓ All IEEE802.3				
	MAC/PHY	PoE Power	Link Aggregation	Max Frame Size Image: State Size Image: State Size	
	All LLDP-MED				
	Capability	Network Policy	Power Over Ethernet	☑ Inventory	
	Select Ports				
	13679136798 24691246822	25 26			
	Select All Select None				

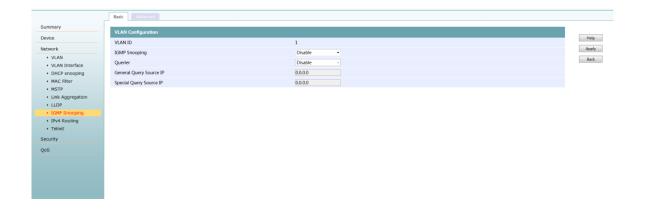
4.3.7 IGMP Snooping

4.3.7.1 **Basic**

Page Wizard:Network,IGMP Snooping,Basic.

	Basic Advanced					
Summary	IGMP Snooping Global Confi	auration				
Device	IGMP Snooping		Disable -			-
Network	Drop Unknown		Disable			۵
VLAN	Version		2 -			0
VLAN Interface	version		2			
 DHCP snooping MAC Filter 	VLAN ID	IGMP Snooping	Querier	General Query Source IP	Special Query Source IP	
MSTP	1	Disable	Disable	0.0.0.0	0.0.0.0	
 Link Aggregation LLDP 	1 - 1 of 1 records on total 1 pa	ges				
IGMP Snooping						
IPv4 Routing						
Telnet						
Security						
QoS						

VLAN Configuration



4.3.7.2 Advanced

Page Wizard:Network,IGMP Snooping,Advanced.

Summary	Port	Fast Leave	Multicast Group Limit	
evice	1	Disable	256	Help
etwork	2	Disable	256	Batch Config
VLAN VLAN Interface	3	Disable	256	
VLAN Interface DHCP snooping	4	Disable	256	
MAC Filter	5	Disable	256	
MSTP	6	Disable	256	
 Link Aggregation LLDP 	7	Disable	256	
IGMP Snooping	8	Disable	256	
IPv4 Routing	9	Disable	256	
Telnet	10	Disable	256	
Security	11	Disable	256	
205	12	Disable	256	
	13	Disable	256	
	14	Disable	256	
	15	Disable	256	
	16	Disable	256	
	17	Disable	256	
	18	Disable	256	
	19	Disable	256	
	20	Disable	256	
	21	Disable	256	
	22	Disable	256	
	23	Disable	256	

4.3.8 **QOS**

4.3.8.1 Ports Rate Limit

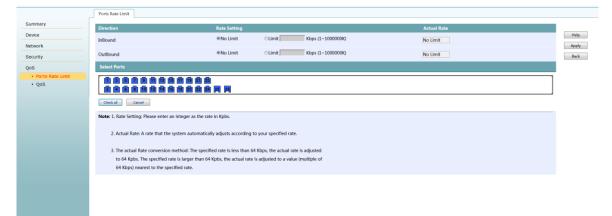
Page Wizard:QOS,Ports Rate Limit

	Ports Rate Limit						
Summary	Port	Inbound	Outbound	Port	Inbound	Outbound	
Device	1			14			Hel
Network	2			15			Bacth C
Security	3			16			
QoS	4			17			
Ports Rate Limit	5			18			
• QoS	6			19			
	7			20			
	8			21			
	9			22			
	10			23	=	=	
	11			24			
	12			25			
	13			26			

single port rate limit

ummary Ime Rate Setting excerds Fort 9 excurds Direction Rate Setting Actual Rate os Inflound *No Limit Limit KEps (1-100000K) No Limit • Ports Rate Limit • QoS Wo Limit CLimit KEps (1-100000K) No Limit • QoS • No Limit • Limit KEps (1-100000K) No Limit No Limit • QoS • Actual Rate: Arate that the system automatically adjusts according to your specified rate. 2. Actual Rate: Conversion method: The system didusts according to your specified rate. 1. The actual Rate Conversion method: The system of KEps, the actual rate is adjusted • Dot Kebs The accutal Rate Conversion method: The specified rate is sets than 64 KEps, the actual rate is adjusted - bot Kebs - bot Kebs		Ports Rate Limit	
Ceck Port 9 Indexing Rate Setting Actual Rate Ports Rate Limit * No Limit * Limit * Kops (1-1000000k) No Limit Ports Rate Limit OutBound * No Limit * Limit * Kops (1-1000000k) No Limit Ports Rate Limit OutBound * No Limit * Limit * Kops (1-1000000k) No Limit Ports Rate Limit * * * * * QoS * * * * Ports Rate Limit * * * * QoS * * * * QoS * * * * Ports Rate Limit * * * QoS * * * QoS * * * Ports Rate Limit * * * QoS * * * Ports Rate Limit * * * QoS * * * Ports Rate Limit * * * QoS * * * QoS * * * Ports Rate Limit * * <t< th=""><th>nmary</th><th>- Line Rate Catting</th><th></th></t<>	nmary	- Line Rate Catting	
Circlion Rate Setting Actual Rate SS InBound Wo Limit Climit No Limit • Ports Rate Limit • QoS OutBound W No Limit Climit No Limit • QoS • Limit = Rate Setting: Please enter an integer as the rate in Kpbs. - Actual Rate: A rate that the system automatically adjusts according to your specified rate. - Actual Rate conversion method: The specified rate is less than 64 Kbps, the actual rate is adjusted	evice		
ecurity o S	etwork		
OS Income Income • Ports Rate Lunk OutBound • No Linit • Kbps (1 - 10000000) • No Linit • QoS • Rate Setting: Please enter an integer as the rate in Kpbs. • Actual Rate: A rate that the system automatically adjusts according to your specified rate. • Actual Rate: Conversion method: The specified rate is less than 64 Kbps, the actual rate is adjusted • No Linit	ecurity		Actual Rate
QoS Uutbound Uutbound Vote that the system automatically adjusts according to your specified rate. 2. Actual Rate: A rate that the system automatically adjusts according to your specified rate. 3. The actual Rate conversion method: The specified rate is ises than 64 Kbps, the actual rate is adjusted	oS	InBound No Limit Limit Kbps (1~1000000K)	No Limit
Note: 1. Rate Setting: Please enter an integer as the rate in Kpbs. 2. Actual Rate: A rate that the system automatically adjusts according to your specified rate. 3. The actual Rate conversion method: The specified rate is less than 64 Kbps, the actual rate is adjusted		OutBound No Limit CLimit Kbps (1~1000000K)	No Limit
64 Kbps) nearest to the specified rate.		 Actual Rate: A rate that the system automatically adjusts according to your specified rate. The actual Rate conversion method: The specified rate is less than 64 Kpps, the actual rate is adjusted to 64 Kpbs. The specified rate is larger than 64 Kpbs, the actual rate is adjusted to a value (multiple of 	

batch configuration ports rate limit



4.3.8.2 **QOS**

Page Wizard:QOS, QOS.This page can configure priority trust mode and configure queue scheduling mode.

	QoS									
ummary	Select Priority Type									
evice	COS •									
etwork	Scheduling Mode									
ecurity	OHQ-WRR®WRROWFQ									
s	Priority	0	1	2	3	4	5	6	7	Weight
Ports Rate Limit	Q1(lowest)	0	۲	0	0	0	0	٥	0	1 .
• QoS	Q2(low)									2 -
	Q3(high)					۲	۲			4 -
	Q4(highest)							۲	۲	8 -
		elations are as follows: (Ities 4 and 5), and (Queq	Queque 1: prioritio ue 4: priorities 6 a	es 1 and 2), (Queue						

Chapter4 CLI Configuration

5.1 CLI logon

- 1. Connection mode: using serial port configuration cable, usually DB9 connecting user PC, RJ45 connect to the console port of switch;
- 2. The user can use the super terminal, SecureCRT and other tools to log in, serial port rate is115200bps ;

Quick Connect			— ×-
Protocol: Port: Baud rate: Data bits: Parity: Stop bits:	Serial COM2 115200 8 None 1	Flow Control DTR/DSR RTS/CTS XON/XOFF	
Show quick co	onnect on startup	 ✓ Save session ✓ Open in a tai Connect 	

- 3. By default, the user logs into the device via the Console, and the authentication mode is None (no user name and password is required).
- 4. After login, as shown below:

5.2 Telnet

The user logs into the device via telnet, password is admin by default. After telnet, the Configuration and commands are the same as the Console port.

Telnet 192.168.0.234		×
		~
***************************************	*****	=
* Copyright (c) 2017	*	
* All rights Reserved.	*	
 Compiled Time is Tue Jul 11 17:23:14 2017. 	×	
Only free to use with the owner's permission.	×	
***************************************	XXXXX	
User access via Telnet		
Login authentication		
Password: ****		
PS5026-HPWR-EI>		

5.3 Command view profile

The device provides a large number of functions, as well as corresponding configuration and query commands. To facilitate your use of these commands, the device organizes the commands by function. The function of the classification corresponds to the command view, and when you want to configure a command of a function, you need to enter the view of the command.

The command view is hierarchical, and there is a connection and distinction between them

- After the user logs in the device, enter the user view. The prompt on the screen is: < device name >. The operations that can be performed under the user view mainly include the operation of view operation, debug operation, file management operation, restart device, etc.
- From the user view, you can enter the super user view, which can configure the device running parameters under the super user view.
- Under the super user view type in different orders, you can enter the corresponding functional view, complete the configuration of various functions, such as: enter the interface view configuration interface parameters, create vlans and enter VLAN view, enter the user interface view configuration the logged in user's attributes, to create local user and into the local user view configure the local user's password and level, etc.

5.3.1 Entering the superuser view

When the user logs in to the device, the user view is entered, and the screen display prompt is: < default device name >.

operation	command	illustrate
Entering the superuser view	super	Execute in user view

5.3.2 Exit current view

operation	command	illustrate
Exit the current view and go back to the previous level view	quit	Can be executed in any view

5.3.3 Return to user view

Execution of this command can be returned from any non-user view to the user view, or you can use the shortcut key."ctrl+z"

operation	command	illustrate
Return to the user view	return	Execute in any non user-view

5.3.4 Use the command line to help online

In the command line input process, you can enter "?" to get detailed online help.

- In any view, you can enter "?" to get an operation that can be performed in the current view and its simple description.
- Enter a key word for a command, and then enter "?", all the keywords and their descriptions will be listed.

Enter a command with an incomplete keyword, and enter "? "after its character, or press the Tab key, the full keyword appears.

5.3.5 Command line error prompt

All commands you enter, through a grammar check, will be executed correctly, and the error message will be reported to you.Common error tips are as follows:

Error Display
% Unrecognized command found at '^'position.
% Incomplete command found at '^' position.
% Ambiguous command found at '^' position.
% Too many parameters found at '^' position.
% Wrong parameter found at '^' position.

5.3.6 Use history command

When you want to display the last command, you can enter"↑"or enter a shortcut"Ctrl+p".If you want to display the next command, you can enter"↓"or enter a shortcut"Ctrl+n". Notice:

- The historical command saved by the device is the same with the user input command format, and if you use an incomplete form of the command, the saved historical command is also incomplete.
- If you execute the same command several times, the device's history command only holds the first one.But if the type of input is different, it will be treated as a different command.

5.3.7 Quickly view the display information

When there is too much information, you can enter "Pageup" to see the information of previous page, or enter "Pagedown" to see the information of next page.