

PoE Switch

**16 10/100/1000Mbps(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)

USER MANUAL

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.....	11
4.2.3.1 Save configuration.....	11
4.2.3.2 Restore the default configuration.....	12
4.2.4 Port management.....	12
4.2.4.1 Port Setup	12
4.2.5 Port Mirroring.....	13
4.2.6 POE	14
4.2.6.1 POE Summary	14
4.2.6.2 POE Setup	14
4.2.7 Users.....	15
4.2.8 VCT	15
4.2.9 Flow Interval	16
4.2.9.1 Port Traffic Statistics	16
4.2.9.2 Traffic Monitoring.....	17
4.3 Network	17
4.3.1 VLAN.....	17
4.3.1.1 802.1Q VLAN	17
4.3.1.2 Trunk	18
4.3.1.3 Hybrid.....	18
4.3.2 VLAN Interface.....	19

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 down in 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.

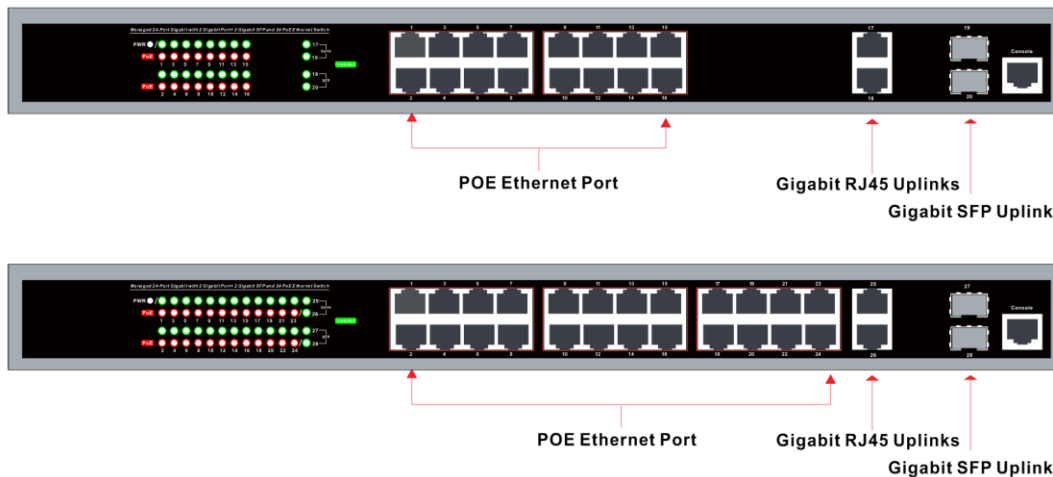
Simple and easy to use network management

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 16/24x10/100/1000Mbps PoE ports + 2x10/100/1000Mbps RJ45 ports + 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.



Power input port

INPUT:100-240VAC

2.4 Specification

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

3 Hardware Installation

3.1 Package contents

Package contents include the following:

- PoE Switch: 16/24x10/100/1000Mbps PoE ports + 2x10/100/1000Mbps 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

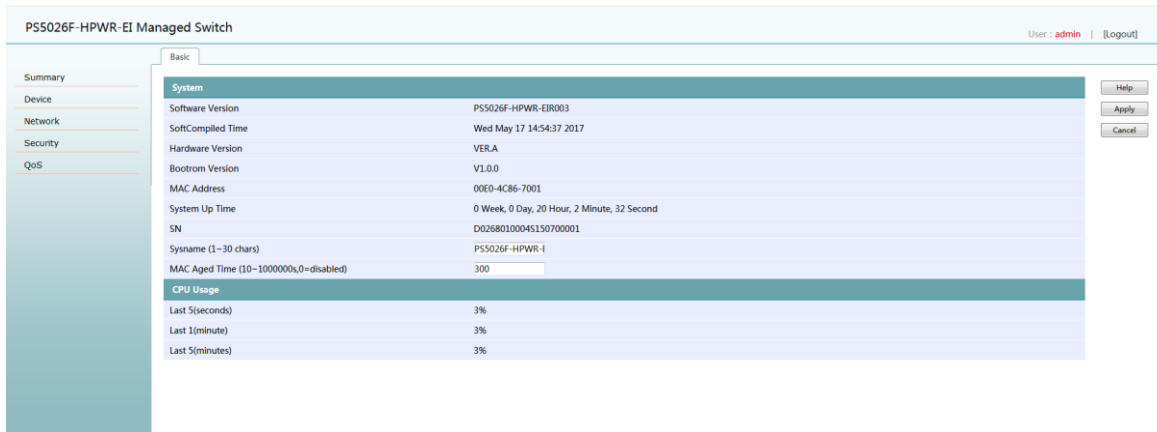
The user can log in to the switch in the following way, configuring and managing the switch,login device via Web page:

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.



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

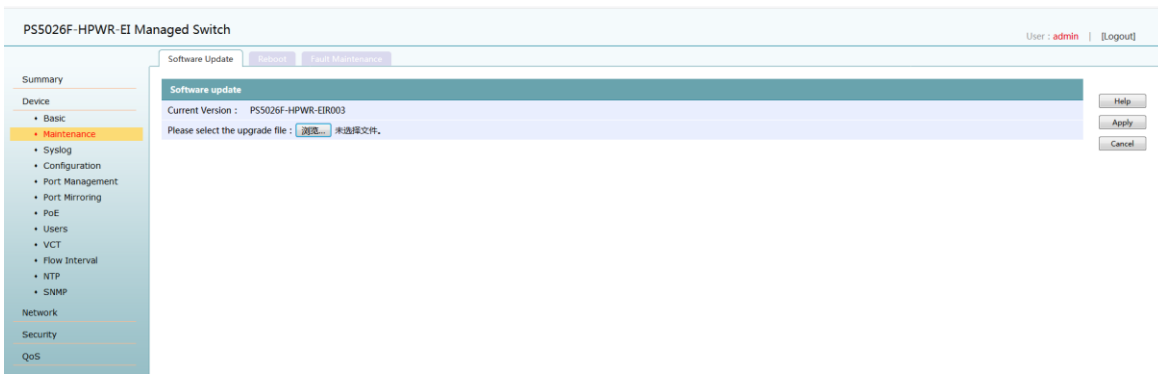
4.2.1 Equipment maintenance

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

4.2.1.1 Software upgrade

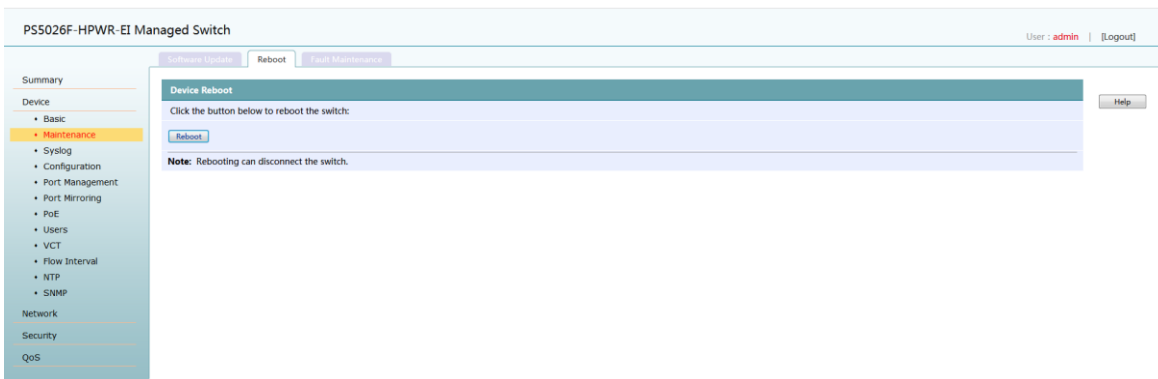
Page Wizard: equipment, equipment maintenance, software upgrade, page as shown. Upgrading your software to the latest version can make your device more stable and more functional (click < Browse... > button, select the latest version of the file, click the confirm button to start the upgrade)

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.

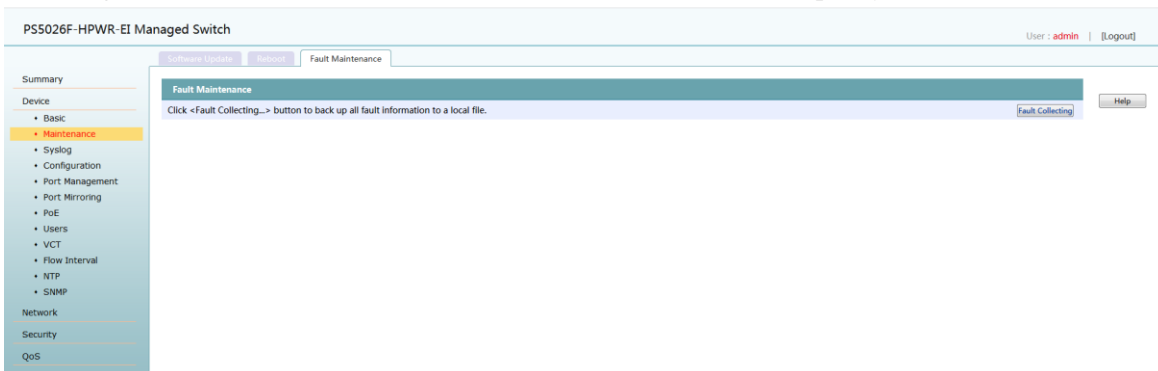


Note:

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.



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

Time/Date	Source	Level	Description
Jan 2 04:42:06 2000	WEB	Notice	LOGIN: User 'admin' logged in from 192.168.0.233.
Jan 2 04:41:59 2000	WEB	Notice	LOGOUT: User 'admin' logged out from 192.168.0.233.
Jan 2 04:32:56 2000	WEB	Notice	LOGIN: User 'admin' logged in from 192.168.0.233.
Jan 2 04:31:44 2000	WEB	Notice	LOGOUT: User 'admin' logged out from 192.168.0.233.
Jan 2 04:19:32 2000	WEB	Notice	LOGIN: User 'admin' logged in from 192.168.0.233.
Jan 2 04:12:55 2000	WEB	Notice	LOGOUT: User 'admin' logged out from 192.168.0.233.
Jan 2 04:07:50 2000	WEB	Notice	LOGIN: User 'admin' logged in from 192.168.0.233.
Jan 2 04:07:36 2000	WEB	Notice	LOGOUT: User 'admin' logged out from 192.168.0.233.
Jan 1 23:51:43 2000	WEB	Notice	LOGIN: User 'admin' logged in from 192.168.0.233.
Jan 1 23:51:33 2000	IFNET	Notice	LINEPROTO_UPDOWN: Line protocol on the interface Vlan-interface1 turned into UP state.
Jan 1 23:51:32 2000	L2INF	Notice	LINK_UPDOWN: Link state of port GigabitEthernet1/0/24 is UP.
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

4.2.2.2 Log Setup

Page Wizard: device, syslog, log setup

PSS026F-HPWR-EI Managed Switch User : admin | [Logout]

Log Setup

Log Enable

Note: This configuration item controls the output of all system information.

Loghost Setup

Logs level: Informational(6)

IP 1:

IP 2:

IP 3:

IP 4:

4.2.3 Configuration

4.2.3.1 Save configuration

Page Wizard: equipment, configuration, save configuration



Note:

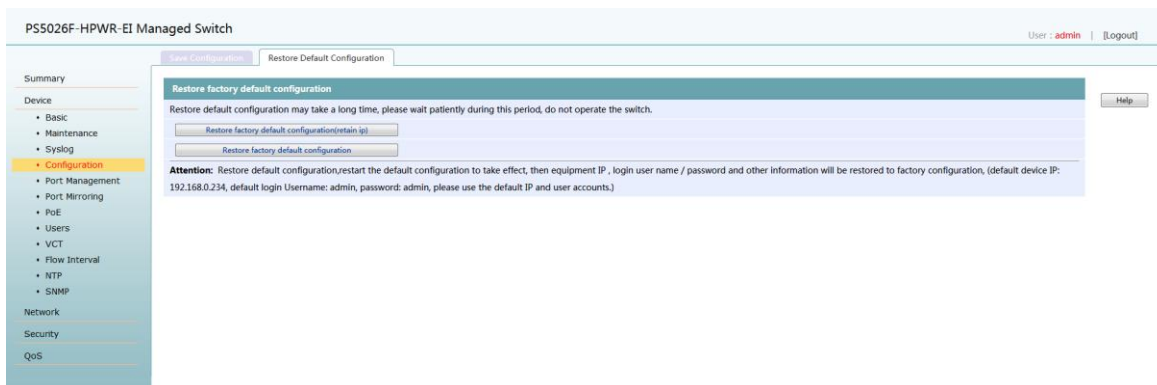
When you have configured all the items on the configuration page, be sure to save the configuration, or the unsaved configuration information will be lost because of reboot and other operations.

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

PSS026F-HPWR-EI Managed Switch User: admin | [Logout]

Summary

- Device
- Basic
- Maintenance
- Syslog
- Configuration
- **Port Management**
- Port Mirroring
- PoE
- Users
- VCT
- Flow Interval
- NTP
- SNMP
- Network
- Security
- QoS

Port	Link Status	Speed / duplex	Priority	Flow Control	Enable/Disable	Isolation State	Energy Saving	EEE
1	--	AUTO/AUTO	0	Disable	Enable	Disable	Disable	Disable
2	--	AUTO/AUTO	0	Disable	Enable	Disable	Disable	Disable
3	--	AUTO/AUTO	0	Disable	Enable	Disable	Disable	Disable
4	--	AUTO/AUTO	0	Disable	Enable	Disable	Disable	Disable
5	--	AUTO/AUTO	0	Disable	Enable	Disable	Disable	Disable
6	--	AUTO/AUTO	0	Disable	Enable	Disable	Disable	Disable
7	--	AUTO/AUTO	0	Disable	Enable	Disable	Disable	Disable
8	--	AUTO/AUTO	0	Disable	Enable	Disable	Disable	Disable
9	--	AUTO/AUTO	0	Disable	Enable	Disable	Disable	Disable
10	--	AUTO/AUTO	0	Disable	Enable	Disable	Disable	Disable
11	--	AUTO/AUTO	0	Disable	Enable	Disable	Disable	Disable
12	--	AUTO/AUTO	0	Disable	Enable	Disable	Disable	Disable
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)

Summary

- Device
- Basic
- Maintenance
- Syslog
- Configuration
- **Port Management**
- Port Mirroring
- PoE
- Users
- VCT
- Flow Interval
- NTP
- SNMP
- Network
- Security
- QoS

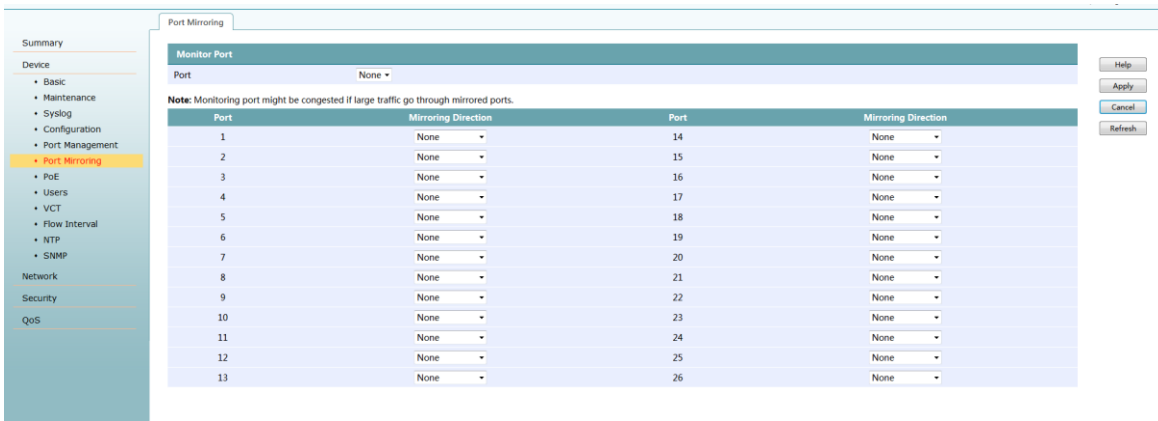
Port Setup

Port	1
Speed	Auto
Duplex	Auto
Enable/Disable	Enable
Priority	0
Flow Control	Disable
Isolation	Disable
Energy Saving	Disable
EEE	Disable

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".

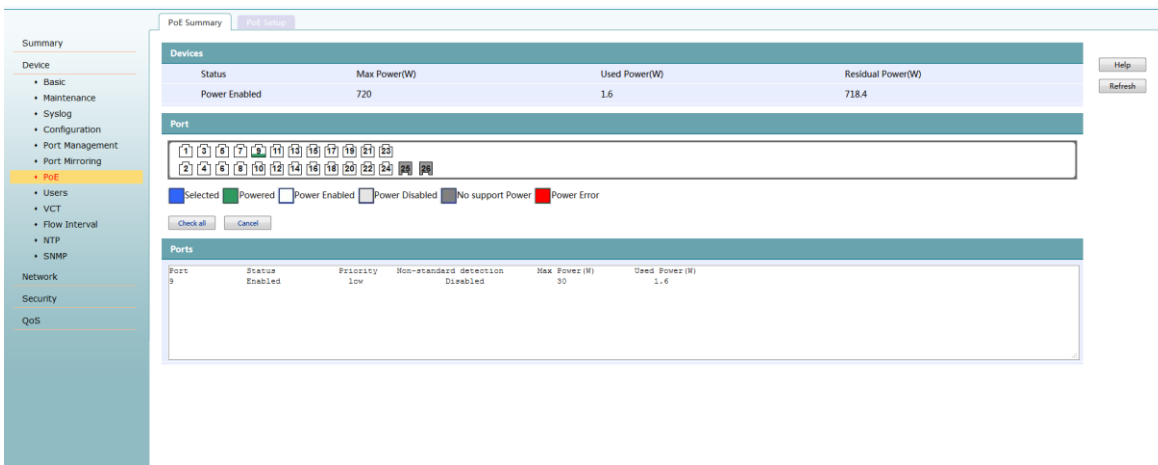


4.2.6 POE

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.



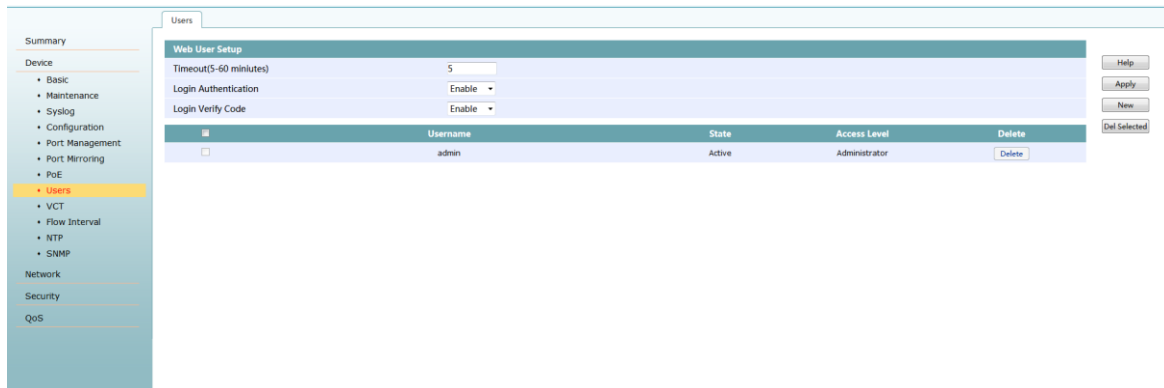
4.2.6.2 POE Setup

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



4.2.7 Users

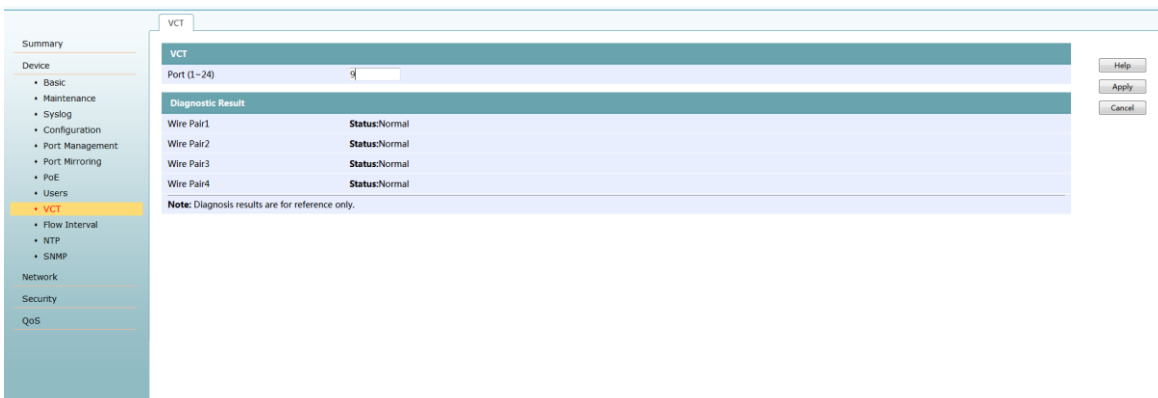
Page Wizard: Device,Users. you can configure the user timeout, turn on/off the WEB authentication function, turn on/off the WEB authentication code function,create new user,Modifying user information.



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.



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 cable, 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	Received Packets	Received Bytes	Sent Packets	Sent Bytes
1	0	0	0	0
2	0	0	0	0
3	0	0	0	0
4	0	0	0	0
5	0	0	0	0
6	0	0	0	0
7	0	0	0	0
8	0	0	0	0
9	1030	215128	29393	2441367
10	0	0	0	0
11	0	0	0	0
12	0	0	0	0
13	0	0	0	0
14	0	0	0	0
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)

Received Statistics	
Total Packets	1061
Total Bytes	225160
Broadcast Packets	491
Multicast Packets	3
Pause Frame	0
Received Packet Errors	32
Runt Packet Errors	32
Giants Packet Errors	-
CRC Packet Errors	0
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

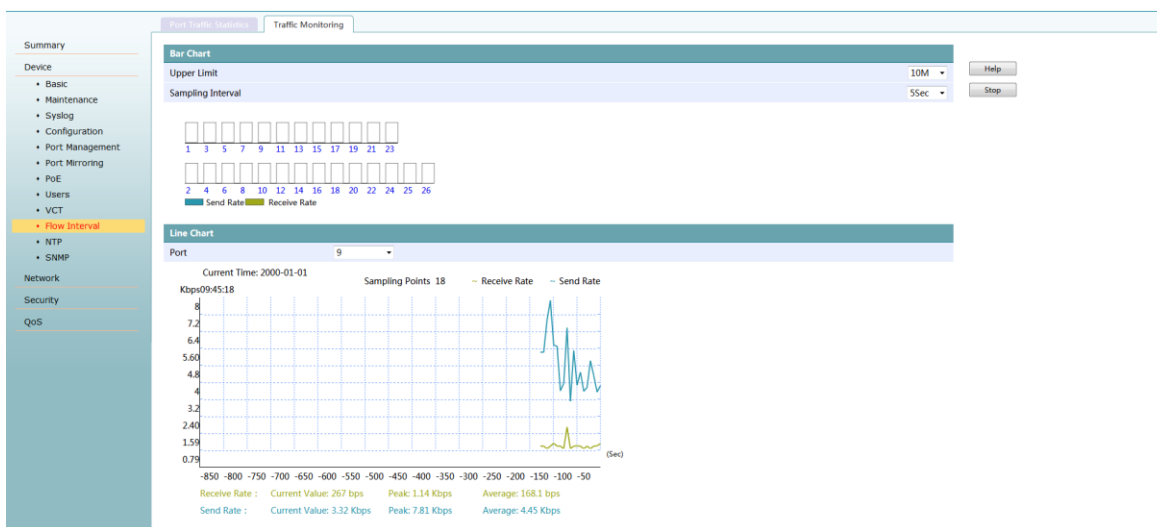
4.2.9.2 Traffic Monitoring

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.

Page Wizard: Device, Flow Interval, Traffic Monitoring.



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.

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

VLAN ID	Physical State	Protocol State	Method	IPv4 Address/Mask	Description
1	up	up	Manual	192.168.0.234/24	Vlan-Interface1 Interface

page.

4.3.2.2 Create

Page Wizard:Network,VLAN Interface,Create

Create VLAN Interface

VLAN ID (1-4094)

Method Manual DHCP

IPv4 Address

Mask Length (0-32)

Description (0-80 chars)

4.3.2.3 Modify

Page Wizard:Network,VLAN Interface,Modify

Modify VLAN Interface

Select VLAN Interface 1

Method Manual DHCP

IPv4 Address 192.168.0.234

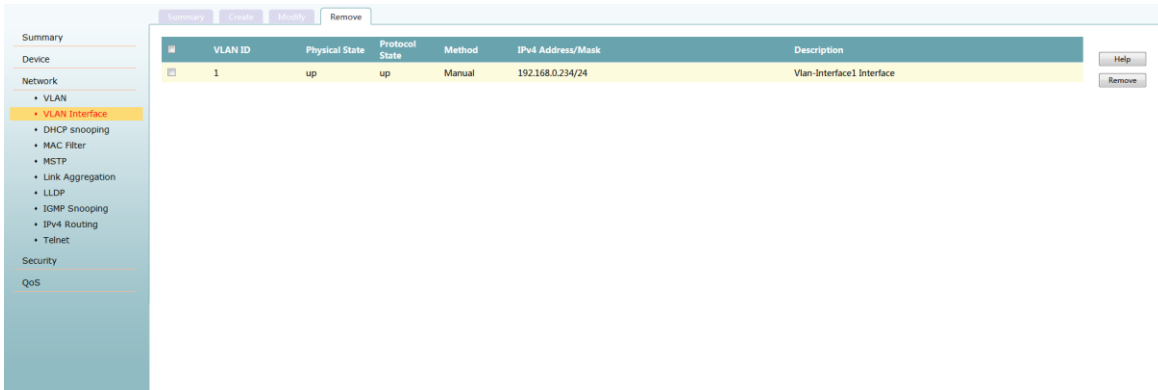
Mask Length (0-32) 24

Physical State Up

Description (0-80 chars) Vlan-Interface1 Interface

4.3.2.4 Remove

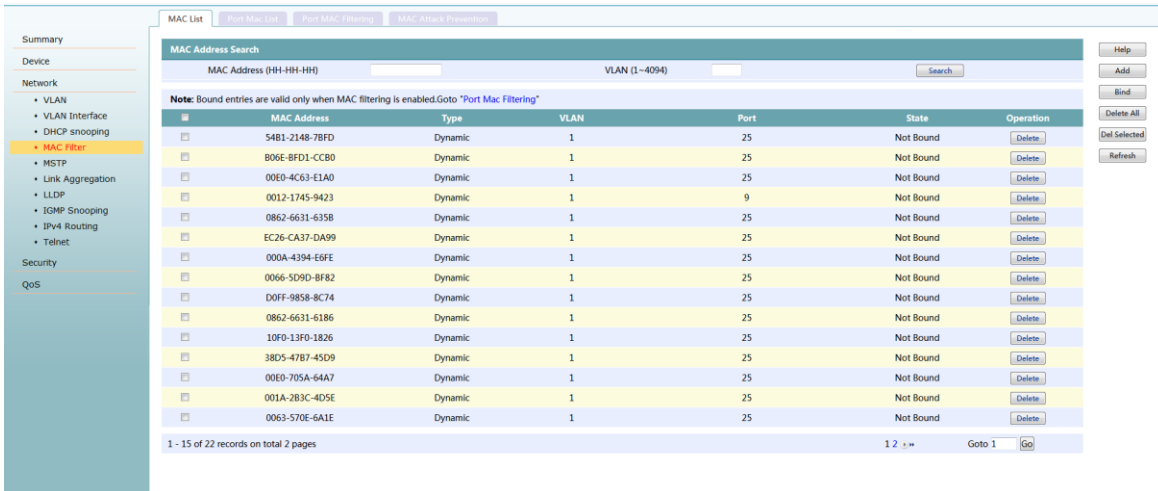
Page Wizard:Network,VLAN Interface,Remove



4.3.3 MAC Filter

4.3.3.1 MAC List

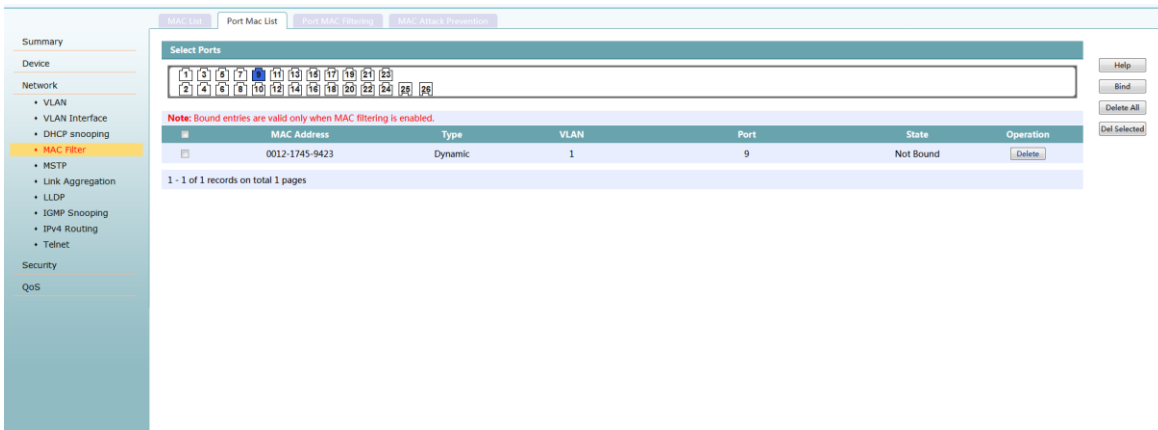
Page Wizard:Network,MAC Filter,MAC List. You can bind the specified MAC address table item by displaying and querying all MAC address table items on the current page.



4.3.3.2 Port MAC List

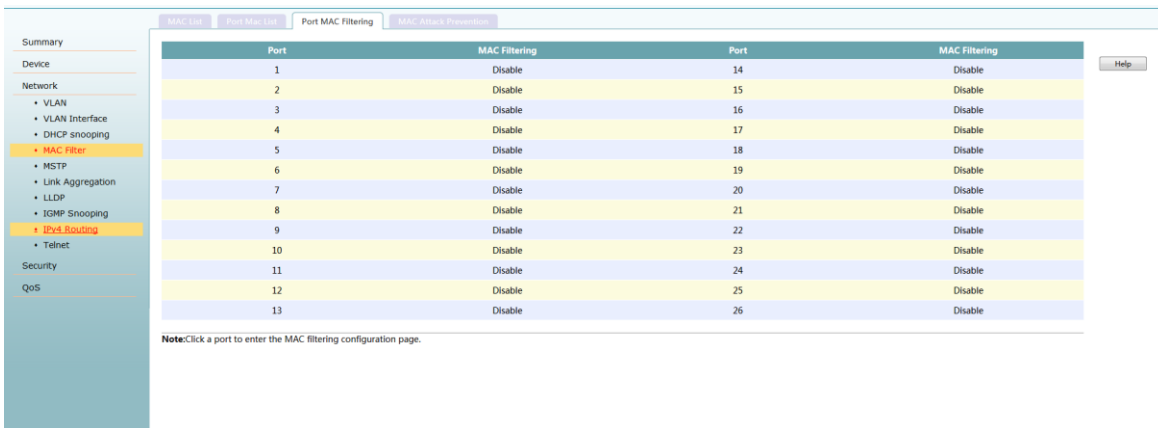
Page Wizard:Network,MAC Filter,Port MAC List. This page mainly provides the following functions:

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

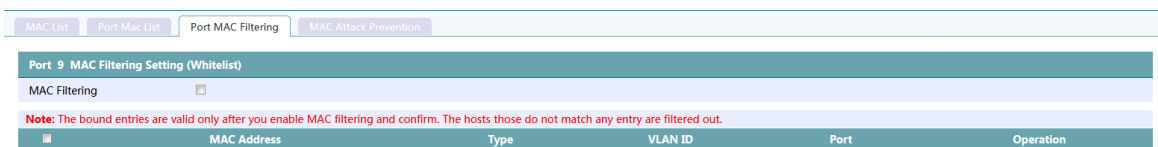


4.3.3.3 Port MAC Filtering

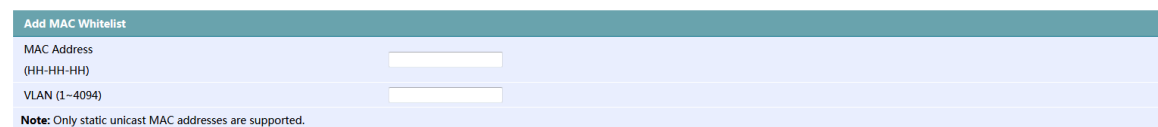
Page Wizard:Network,MAC Filter,Port MAC Fitering.Displays the MAC address filtering status of each port



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



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



4.3.4 MAC Attack Prevention

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

Port	Upper Limit	Unknown Source MAC Packets Discard	Port	Upper Limit	Unknown Source MAC Packets Discard
1	--	Disable	14	--	Disable
2	--	Disable	15	--	Disable
3	--	Disable	16	--	Disable
4	--	Disable	17	--	Disable
5	--	Disable	18	--	Disable
6	--	Disable	19	--	Disable
7	--	Disable	20	--	Disable
8	--	Disable	21	--	Disable
9	--	Disable	22	--	Disable
10	--	Disable	23	--	Disable
11	--	Disable	24	--	Disable
12	--	Disable	25	--	Disable
13	--	Disable	26	--	Disable

The number of MAC addresses can be learned by one port

Port: 9

Upper Limit Setting

Upper Limit: No Limit Limit (0-8192)

Unknown Source MAC: Disable

Note: Enter an integer from 0 to 8192. A value of 0 means MAC address learning is disabled. If No Limit is selected, up to 8192 MAC addresses can be learned.

Batch configuration the number of MAC addresses that can be learned

Upper Limit Setting

Upper Limit: No Limit Limit (0-8192)

Unknown Source MAC: Disable

Note: Enter an integer from 0 to 8192. A value of 0 means MAC address learning is disabled. If No Limit is selected, up to 8192 MAC addresses can be learned.

Select Ports

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26

4.3.5 Link Aggregation

Page Wizard: Network, Link Aggregation.

Link Aggregation

Load-Sharing Mode: Source-IP + Destination-IP

Aggregation Interface	Type	Port

Notice:

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

- Mirroring Ports
- A port enable 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.

The screenshot shows the 'Global Summary' page for LLDP. On the left is a navigation menu with categories: Summary, Device, Network (including VLAN, VLAN Interface, DHCP snooping, MAC Filter, MSTP, Link Aggregation, LLDP, IGMP Snooping, IPv4 Routing, Telnet), Security, and QoS. The 'LLDP' item is selected. The main content area has tabs for 'Global Summary', 'Port Summary', 'Global Setup', and 'Port Setup'. The 'Global Summary' tab is active, displaying 'Global Information' with the following data:

Added Neighbor:	0
Deleted Neighbor:	0
Discarded LLDP's Packet:	0
Aged Neighbor:	0

Below this is a table with the following columns: ID, Local Port, Chassis Type, Chassis ID, Port ID Type, Port ID, and System Capabilities Enabled. The table is currently empty.

4.3.6.2 LLDP Port Summary

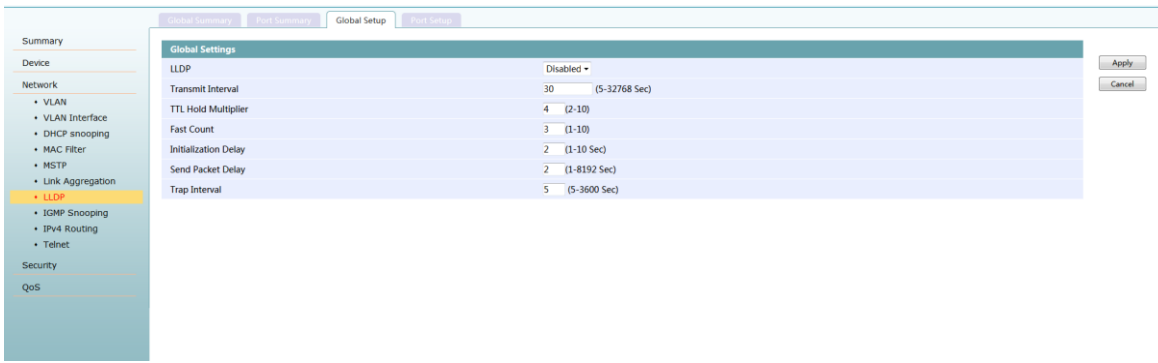
Page Wizard:Network,LLDP,Port Summary.

The screenshot shows the 'Port Summary' page for LLDP. The navigation menu is the same as in the previous screenshot. The 'LLDP' item is selected. The main content area has tabs for 'Global Summary', 'Port Summary', 'Global Setup', and 'Port Setup'. The 'Port Summary' tab is active, displaying a 'Select a Port' section with a grid of port icons (1-24) and a search box. Below this is a 'Summary' section with the following text:

```
Info: Global status of LLDP: Disable
lldp statistics information of port 9 [GigabitEthernet1/0/9]:
The number of frames transmitted : 0
The number of frames received : 0
The number of frames discarded : 0
The number of error frames : 0
The number of TLV discarded : 0
The number of TLV unrecognized : 0
The number of neighbor information aged out : 0
lldp local-information of port 9[GigabitEthernet1/0/9]:
Port ID subtype : Interface name
Port ID : GigabitEthernet1/0/9
Port description :
```

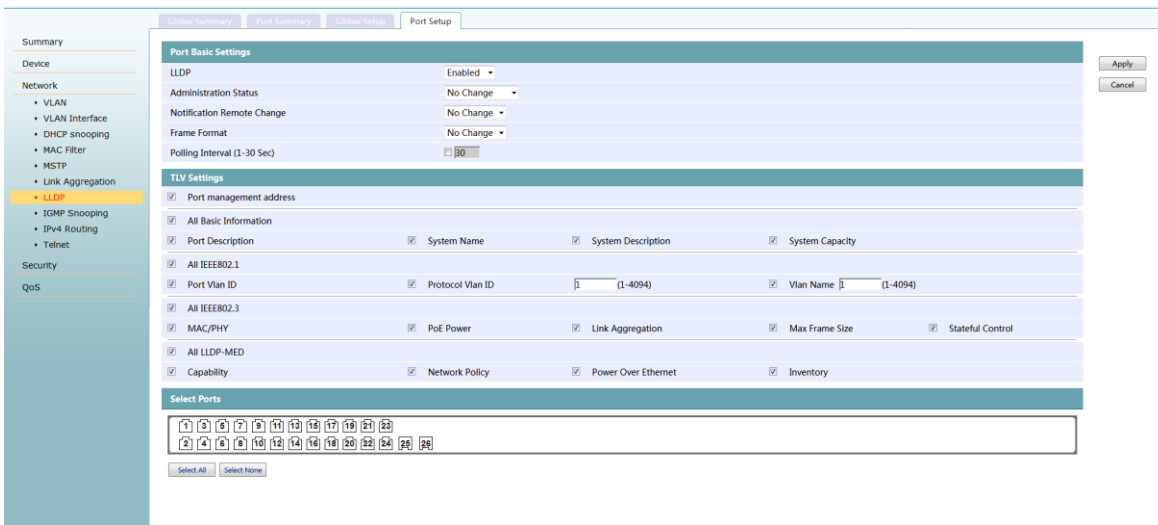
4.3.6.3 LLDP Global Setup

Page Wizard:Network,LLDP,Global Setup.



4.3.6.4 LLDP Port Setup

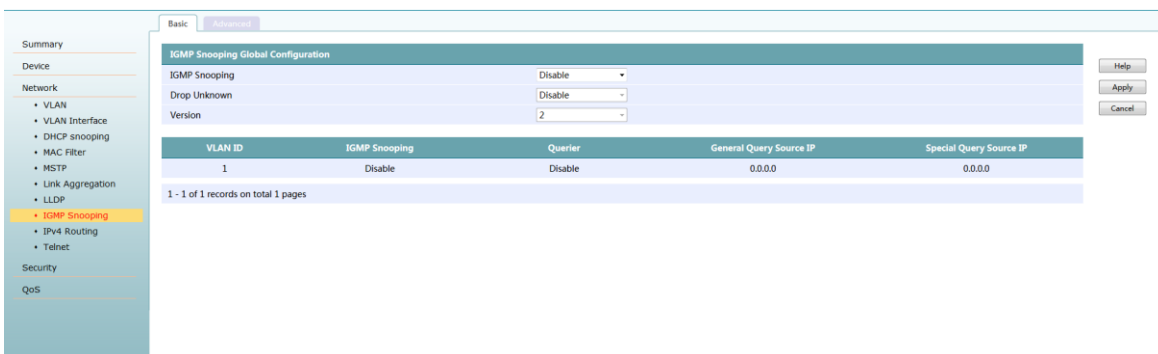
Page Wizard:Network,LLDP,Port Setup.



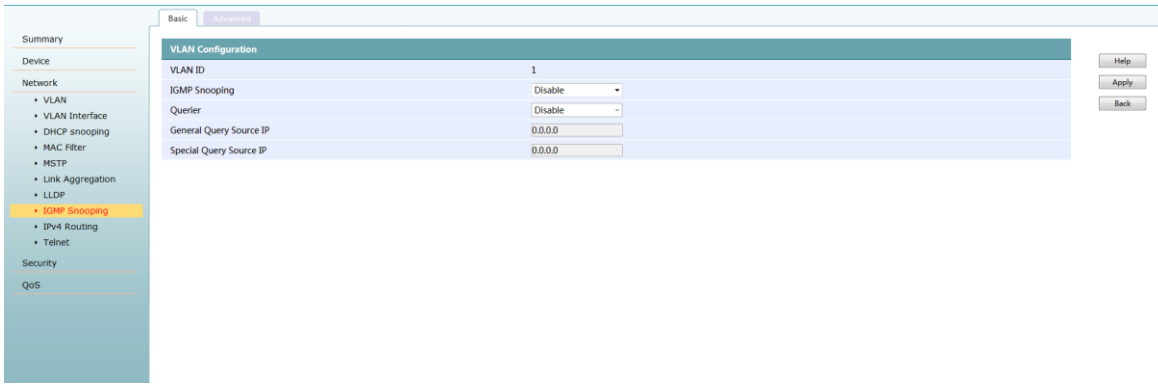
4.3.7 IGMP Snooping

4.3.7.1 Basic

Page Wizard:Network,IGMP Snooping,Basic.

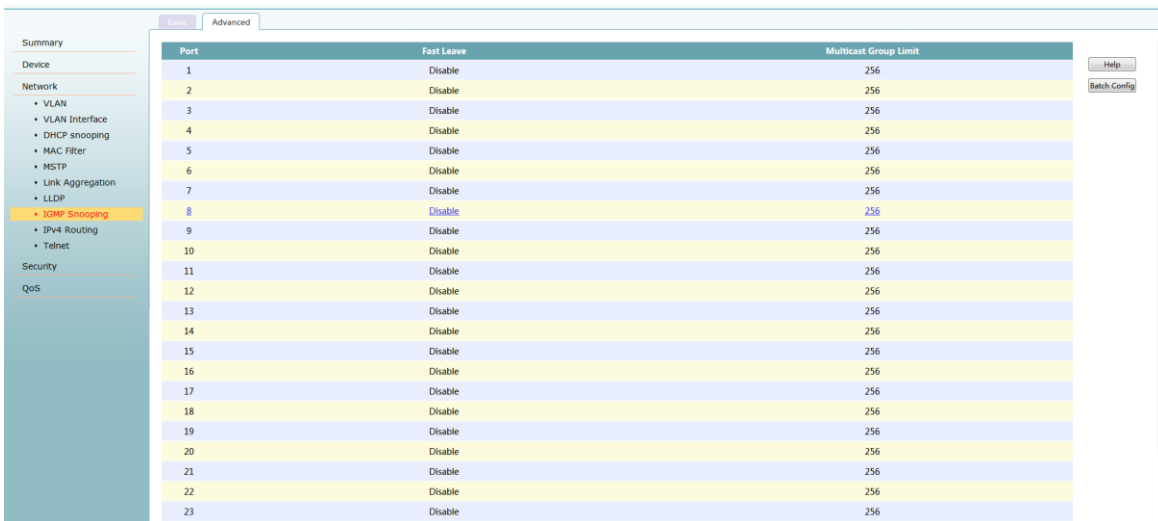


VLAN Configuration



4.3.7.2 Advanced

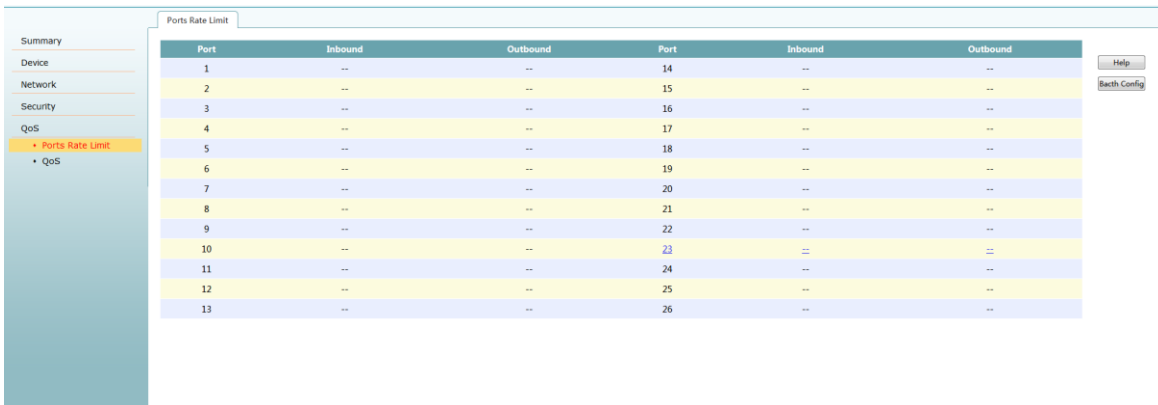
Page Wizard:Network,IGMP Snooping,Advanced.



4.3.8 QOS

4.3.8.1 Ports Rate Limit

Page Wizard:QoS,Ports Rate Limit



single port rate limit

Summary

- Device
- Network
- Security
- QoS
 - Ports Rate Limit
 - QoS

Ports Rate Limit

Line Rate Setting

Port: 9

Direction	Rate Setting	Actual Rate
InBound	<input checked="" type="radio"/> No Limit <input type="radio"/> Limit <input type="text" value=""/> Kbps (1-1000000K)	No Limit
OutBound	<input checked="" type="radio"/> No Limit <input type="radio"/> Limit <input type="text" value=""/> 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 Kpbs, 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 64 Kpbs) nearest to the specified rate.

Help, Apply, Back

batch configuration ports rate limit

Summary

- Device
- Network
- Security
- QoS
 - Ports Rate Limit
 - QoS

Ports Rate Limit

Direction	Rate Setting	Actual Rate
InBound	<input checked="" type="radio"/> No Limit <input type="radio"/> Limit <input type="text" value=""/> Kbps (1-1000000K)	No Limit
OutBound	<input checked="" type="radio"/> No Limit <input type="radio"/> Limit <input type="text" value=""/> Kbps (1-1000000K)	No Limit

Select Ports

Check all, Cancel

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 Kpbs, 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 64 Kpbs) nearest to the specified rate.

Help, Apply, Back

4.3.8.2 QOS

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

Summary

- Device
- Network
- Security
- QoS
 - Ports Rate Limit
 - QoS

QoS

Select Priority Type

COS

Scheduling Mode

HQ-WRR WRR WFQ

Priority	0	1	2	3	4	5	6	7	Weight
Q1(lowest)	<input type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	1
Q2(low)	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	2
Q3(high)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	4
Q4(highest)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	8

Explain : 1. Eight COS priorities are divided into 4 groups. Each group has two priorities and corresponds to a queue. The mapping relations are as follows: (Queue 1: priorities 1 and 2), (Queue 2: priorities 0 and 3), (Queue 3: priorities 4 and 5), and (Queue 4: priorities 6 and 7).

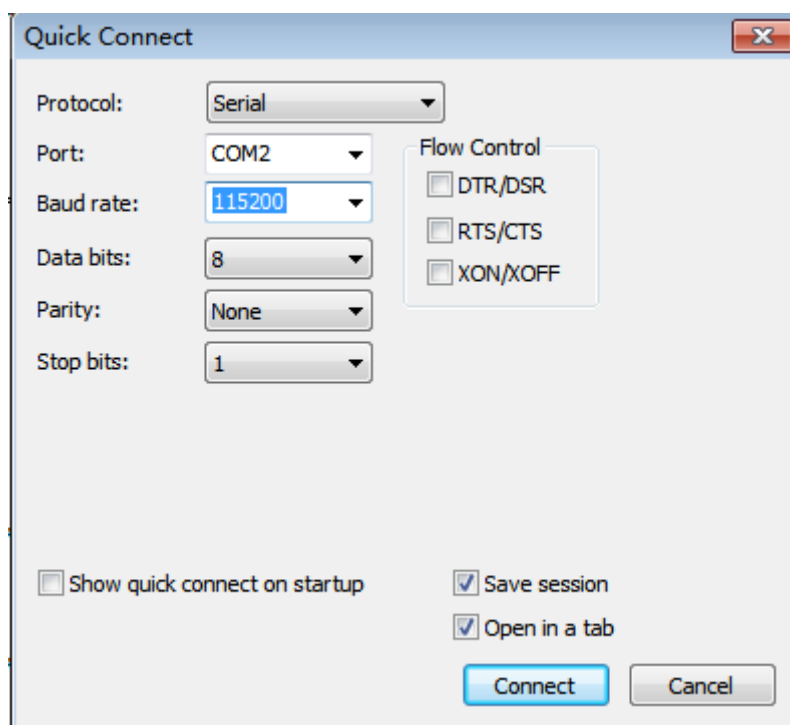
2. The four queues can be assigned weights, which can be classified into 31 levels.

Help, Apply, Cancel

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 ;

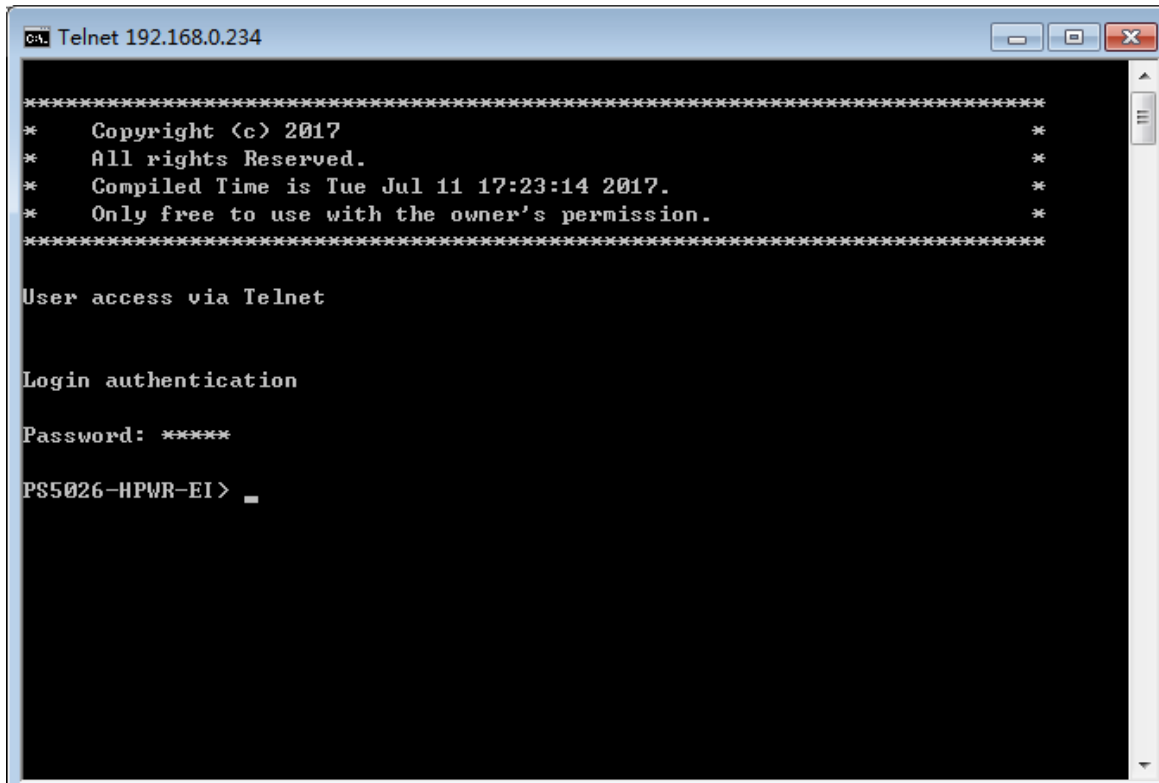


3. By default, the user logs into the device via the Console, and the authentication mode is None (no user name and password is required).
4. After login, as shown below:

```
Bootrom 1.0.8
Creation date: Aug  4 2016, 11:53:06
*****
* 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. *
*****
User access via Console
Please press ENTER to continue.
PS5026-HPWR-EI> %Jan  1 08:07:52 2000 PS5026-HPWR-EI CMD/5/LOGIN: Login from Console.
PS5026-HPWR-EI>
```

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.



```
Ca 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.    *
*****

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.