



# **ALL-SG8310PM**

## **8 Port Gigabit Smart Managed HPoE Switch**



## **USER MANUAL**

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## **Packaging list:**

- 1x ALL-SG8310PM
- 1x Power Cord
- 1x CD/QIG
- 1x Installation accessories kit

Please contact local reseller or distributor if any accessories are missing.

# Part One Hardware Installation Guide

## Chapter 1 Product Instruction

### 1.1 Introduction

ALL-SG8310PM: 8\*10/100/1000M PoE ports, 2\*1000 Base-X SFP; 1\*Console port.

**Switches.**

### 1.2 Front Panel

#### 1. ALL-SG8310PM

8\*10/100/1000M PoE ports, 2\*1000 Base-X SFP; 1\*Console port.



Picture 1.2.1 ALL-SG8310PM Front Panel

### LED Indicator Instruction

Please check the LED indicators on the left of front panel.

#### 1. Power Indicator

The power indicator is on the upper-left side of front panel, it is on when the switch is powered. If the indicator is off, please check the power supply.

#### 2. System Indicator

Over the power indicator is the system indicator, it flashes when switch works normally.

#### 3. 10/100Mbps Link/ACT Indicators

The indicators marked with numbers are **yellow** when the 10/100M ports auto-negotiate connected, and the yellow indicators flash when there are data communications through the ports.

#### 4. 1000Mbps Link/ACT Indicators

The indicators marked with numbers are **green** when the 1000Mbps ports auto-negotiate connected, and the green indicators will flash when there are data communications through the ports.

## 1.3 Rear Panel



Picture 1.3.1 ALL-5G8310PM Rear Panel

**Power Socket: Three-core power socket is adopted, please connect female head of power cord to the socket, and connect the AC power supply with male head.**

## Chapter 2 Preparations before Instruction

### 2.1 Precautions

Please read the following precautions carefully before operation, to avoid damaging the device or causing body injuries.

- 1). Please remove the power socket before cleaning the switch. Don't wipe the switch with wet cloth or wash the switch with liquid.
- 2). Don't stock the device in damp environment or near water, to avoid water or moisture penetrating into the inner device.
- 3). Don't put the device on a unstable box or desk, the device will get damaged from falling.
- 4). Please keep good ventilation indoor, and make sure the heat dissipation function of switch works well.
- 5). The switch only works normally in suitable voltage. Please check the working voltage first.
- 6). Please don't open the switch enclosure randomly, especially when the switch is powered on, there is risk of electric shock.
- 7). Please wear anti-static wrist strap when change the interface board, to avoid the static electricity damage the board.

### 2.2 Check Installation Environment

The switch is for indoor use only, please pay attention to the following problems when install the switch in a cabinet or put the device directly on the desktop.

- 1) The air vents of switch must have enough space to dissipate the heat inside enclosure.
- 2) A good heat dissipation system in the cabinet or on the desktop.
- 3) The cabinet or desktop strong enough to support the weight of switch and

installation accessories.

- 4) Safe ground connection for the cabinet or desktop.

## 2.3 Installation Tools

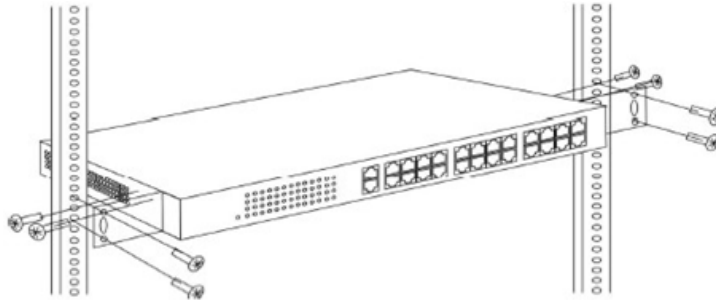
- 1) Flathead screw driver
- 2) Cross screw driver
- 3) Anti-static wrist strap

# Chapter 3 Installation

## 3.1 Install the Switch

### 3.1.1 Install the switch on a 19 inch standard cabinet

- 1) First fix the provided two L-shaped brackets on the two sides of switch.
- 2) Fix the switch on the rack with screws (screws are not provided).



Picture 3.1.1 Cabinet Installation

### 3.1.2 Install the switch on the desktop

When there is no 19 inch standard cabinet, the switch is usually put on clean desktop. The operation is easier, please follow the below instructions:

- 1) Keep the desktop stable and safely grounded.
- 2) Set aside 10cm space around switch for heat dissipation.
- 3) Don't put any heavy device on the switch.

## 3.2 Test after Installation

Make sure the working voltage is the same with the rated voltage of switch.

Check the connection of grounded cord.

Check the connection of configuration cable and power input cord.

If the interface cable is partly deployed outdoor, please check the connection of anti-thunder

AC power strip and interface anti-thunder device.

## Chapter 4 Technical Specifications

### 4.1 Hardware Features:

Item	ALL-SG8310PM
<b>Fixed Ports</b>	8*10/100/1000 Base-T
	2*1000 Base-X SFP
<b>PoE standards</b>	IEEE802.3af/at
<b>Max Output Power(single port)</b>	30W
<b>Total Power Consumption</b>	150W
<b>PoE Pin-out</b>	1/2(+), 3/6(-); Customized 4/5(+),7/8(-)
<b>Switching Capacity</b>	≥16Gbps
<b>Forwarding Mode</b>	Full wire-speed storage and forwarding
<b>Forwarding Rate</b>	10M: 14880pps/port
	100M: 148809pps/port
	1000M: 1488095pps/port
<b>Operation Temperature</b>	-20~50°C
<b>Storage Temperature</b>	-40~70°C
<b>Operation Humidity</b>	10%~90%(non-condensing)
<b>Storage Humidity</b>	5%~95%(non-condensing)
<b>Dimensions</b>	280 (L)*180(W)*44(H)mm
<b>Input Power Supply</b>	AC: 90-264V ~ 50-60Hz/150W
<b>Weight</b>	<2Kg
<b>LED Indicator</b>	Power, Link/Act, PoE Status
<b>Energy Saving</b>	Comply with "EEE" Energy Efficient Ethernet

### 4.2 Software Features:

Item	ALL-SG8310PM
<b>Protocol and Standards</b>	IEEE 802.3, 10 BASE-T Ethernet
	IEEE 802.3ad, Static or Dynamic Link Aggregation
	IEEE 802.3u, 100 BASE-TX
	IEEE 802.3ab, 1000 BASE-T
	IEEE 802.3z, 1000 BASE-X
	IEEE 802.3x, Full-Duplex Flow Control
	IEEE 802.1q, VLAN
	IEEE 802.1p, QoS/CoS
	IEEE 802.1d, Spanning Tree Protocol
	IEEE 802.1w, Rapid Spanning Tree Protocol



	IEEE 802.3az,EEE(Energy Efficient Ethernet)
	IEEE 802.1s,Multiple Spanning Tree Protocol
<b>MAC Address</b>	8K MAC addresses
	Support auto-update, two-way learning
<b>VLAN</b>	Supports VLAN based on ports, protocols and ACL
	Maximum 4K VLANs
	VLANs based on IEEE 802.1q
<b>Spanning Tree</b>	STP Spanning Tree Protocol
	RSTP Rapid Spanning Tree Protocol
	MSTP Multiple Spanning Tree Protocol
<b>Port Aggregation</b>	8 aggregation groups,each containing up to 8 ports;
<b>Port Mirroring</b>	Many-to-one mirroring(that is, multiple mirroring ports, and one monitor port)
<b>Loop Protection</b>	Ring protection, real-time detection/quick alarm/accurate location/intelligent blocking/auto-recovery
<b>Port Isolation</b>	Isolate the communication between ports, only uplink permitted
<b>Traffic Control</b>	Back-pressure traffic control under Half-Duplex mode
	IEEE 802.3x traffic control under Full-Duplex mode
<b>Flow Rate Limitation</b>	Port-based ingress or egress rate limiting
<b>Multicast</b>	IGMPv1/v2/v3 and MLDv1/2 Snooping
<b>Storm Suppression</b>	Supports multiple storm suppression:UC,MC,unknown cast and broadcast.
	Storm suppression based on bandwidth adjustment,storm filtering and ACL
	Supports attack against strategy, against Land attack,Blat attack,Ping attack and TCL controued Flag attack.
	Binding of user port ,IP address and MAC address
	Security limitation based on port MAC address quantity
<b>QOS</b>	SP (Strict Priority)
	WFQ (Weighted Fair Queuing)
	WRR (Weighted Round Robin)
	Random Early Detect(RED)
	Weighted Random Early Detection(WRED)
	Head of Line
	802.1p (Port Queuing Priority)
	DSCP Priority(Differentiated Service Code Point)
<b>Standard Wiring</b>	Support Auto-MDIX
<b>Negotiation Mode</b>	Auto-negotiation
<b>System Maintenance</b>	Check the connectivity of network cables
	Upload/Download configuration files
	Upload upgrade patch
	View system log

	Supports factory reset
<b>Management</b>	Visual web interface management
	CLI management
	Telnet management
	SNMP management

# Part Two WEB Configuration Guide

## Chapter 1 User Login

Switch adopt Web-based interface management, the default IP is 192.168.2.1. Please make sure the IP address of PC is in the same network segment with that of switch, or the PC can't access to manage the switch. After the setting of IP address, please input 192.168.2.1 in the browser to access the configuration interface of switch.

The Web management interface consists of five parts, which are switch status, basic configuration, advanced configuration, network security, system maintenance.



Picture 1.1.1 Login Page

Enter username and password in the above login page, the default username and password is admin. The system only support single user login, other logins will be refused until the user logs out.

If IP address conflict occurs, it suggests the latest user didn't log out successfully. Please reboot the device or try to log in again 180s later.

It is advised to reset the IP address and password in first login, and make sure the switch is not configured in the same network segment with DHCP server or Internet Gateway device.

## Chapter 2 Switch Status

### 2.1 System Information

System Information	
System Information	
Information Name	Information Value
Device ID	ALL-SG8310PM
HW Version	V1.2.0
MAC Address	AC:31:9D:03:5E:78
Series Number	A208026201450072
Firmware Version	V1.0.7
Compiling Time	Fri Sep 18 19:09:23 CST 2015
Running Time	0 days, 0 hours, 36 mins, 20 secs

Picture 2.1.1 System Information

Device status can be checked in the above page, which contains: Device Model number(equipment type), PCB/HW Version, MAC Address,Serial Number(System Object ID), Firmware Version, Firmware Updated Date, System Running Time(System Up Time).

### 2.2 Logging Message

Logging Message				
Logging Filter Select				
Target buffered ▾	Severity Select Levels ▾	Category Select Categories ▾		
<a href="#">View</a>				
Logging Information				
Information Name	Information Value			
Target	buffered			
Severity	emerg, alert, crit, error, warning, notice			
Category	ACL, CABLE_DIAG, IGMP_SNOOPING, L2, LLDP, Mirror, Platform, PM, Port, QoS, Rate, SNMP, STP, Security-suite, System, Trunk, VLAN			
Total Entries	0			
Logging Messages				
<a href="#">Clear buffered messages</a> <a href="#">Refresh</a>				
<div> <a href="#">1</a> <a href="#">2</a> <a href="#">3</a> <a href="#">4</a> </div>				
No.	Timestamp	Category	Severity	Message

Picture 2.2.1 Logging Message

System log can be checked in above page. Maintenance technicians can check the history system log.

## 2.3 Port Counters

Port Counters

Port MIB Counters Settings

Port

GE1

GE1 mib Counters

Clear

Refresh

Rmon mib Counter Name	mib Counter Value
etherStatsDropEvents	0
etherStatsOctets	874
etherStatsPkts	7
etherStatsBroadcastPkts	0
etherStatsMulticastPkts	0
etherStatsCRCAlignErrors	0
etherStatsUnderSizePkts	0
etherStatsOverSizePkts	0
etherStatsFragments	0
etherStatsJabbers	0
etherStatsCollisions	0
etherStatsPkts64Octets	6
etherStatsPkts65to127Octets	0
etherStatsPkts128to255Octets	0
etherStatsPkts256to511Octets	1
etherStatsPkts512to1023Octets	0
etherStatsPkts1024to1518Octets	0

Picture 2.3.1 Port Counters

The above picture shows switch port statistics. Users can check the sent/received bytes, sent/received packets, wrongly sent/received packets. If there are too many wrong packets, it suggests the port has very poor working performance, the user need to examine the connection of network cable or the partner network card.

The current software version doesn't support real-time statistics refresh, please click "Refresh" button to get new statistics.

## 2.4 Link Aggregation

LAG Status					
LAG Status					
LAG	Name	Type	Link State	Active Member	Standby Member
LAG1		---	Not Present	-	-
LAG2		---	Not Present	-	-
LAG3		---	Not Present	-	-
LAG4		---	Not Present	-	-
LAG5		---	Not Present	-	-
LAG6		---	Not Present	-	-
LAG7		---	Not Present	-	-
LAG8		---	Not Present	-	-

Picture 2.5.1 Link Aggregation

In above Link Aggregation page, user can check the port aggregation information. Like aggregator group (LAG), link state, aggregator group member state (active/standby).

## 2.5 LLDP Statistics

**LLDP Statistics**

LLDP Global Statistics

Clear

Refresh

Insertions	0
Deletions	0
Drops	0
Age Outs	0

LLDP Port Statistics

Port	TX Frames	RX Frames			RX TLVS		RX Ageouts
	Total	Total	Discarded	Errors	Discarded	Unrecognized	Total
GE1	0	0	0	0	0	0	0
GE2	0	0	0	0	0	0	0
GE3	0	0	0	0	0	0	0
GE4	0	0	0	0	0	0	0
GE5	0	0	0	0	0	0	0
GE6	0	0	0	0	0	0	0
GE7	0	0	0	0	0	0	0
GE8	0	0	0	0	0	0	0
GE9	0	0	0	0	0	0	0
GE10	0	0	0	0	0	0	0

Picture 2.6.1 LLDP Statistics

LLDP information can be checked in above page. When enable the LLDP(Link Layer Discovery Protocol ) function, LLDP information of switch ports can be checked here.

## 2.6 IGMP Statistics

**IGMP Snooping Statistics**

Clear

Refresh

Statistics Packets	Counter
Total RX	0
Valid RX	0
Invalid RX	0
Other RX	0
Leave RX	0
Report RX	0
General Query RX	0
Special Group Query RX	0
Special Group & Source Query RX	0
Leave TX	0
Report TX	0
General Query TX	0
Special Group Query TX	0
Special Group & Source Query TX	0

Picture 2.7.1 IGMP Statistics

When the IGMP snooping function is enabled, IGMP information can be checked in above page.

## 2.7 STP Statistics

STP Statistics				
Port	Configuration BPDU Received	TCN BPDU Received	Configuration BPDU Transmitted	TCN BPDU Transmitted
GE1	0	0	0	0
GE2	0	0	0	0
GE3	0	0	0	0
GE4	0	0	0	0
GE5	0	0	0	0
GE6	0	0	0	0
GE7	0	0	0	0
GE8	0	0	0	0
GE9	0	0	0	0
GE10	0	0	0	0
LAG1	0	0	0	0
LAG2	0	0	0	0
LAG3	0	0	0	0
LAG4	0	0	0	0
LAG5	0	0	0	0
LAG6	0	0	0	0
LAG7	0	0	0	0
LAG8	0	0	0	0

Picture 2.8.1 STP Statistics

In above STP statistics page, users can check the BPDU packets of every port and every link aggregation STP.

## 2.8 MAC Address Table

Static MAC				
Static MAC Setting				
MAC Address	VLAN	Port		
<input type="text" value="00:00:00:00:00:00"/>	<input type="text" value="default"/>	<input type="text" value="GE1"/>		
<input type="button" value="Add"/>				
Static MAC Status				
No.	MAC Address	VLAN	Port	Delete
1	AC:31:9D:03:5E:78	default(1)	CPU	

Picture 2.9.1 MAC Address Table

MAC address table and configuration can be checked in above page, users can add the showed dynamic MAC addresses to static MAC table.

## Chapter 3 Basic Configuration

### 3.1 IP Configuration

IP Address

IP Address Setting

Mode	<input checked="" type="radio"/> Static <input type="radio"/> DHCP
IP Address	192.168.1.110
Subnet Mask	255.255.255.0
Gateway	192.168.1.99
DNS Server 1	8.8.8.8
DNS Server 2	8.8.4.4

Apply

IP Information

Information Name	Information Value
DHCP State	Disabled
Static IP Address	192.168.1.110
Static Subnet Mask	255.255.255.0
Static Gateway	192.168.1.99
Static DNS Server 1	8.8.8.8
Static DNS Server 2	8.8.4.4

Picture 3.1.1 IP configuration

The above IP address configuration page can be used to configure the IP address of device management interface "Interface Vlan 1". The default IP address, subnet mask and gateway will be showed in the page. When revise the configuration, please press "save" to confirm new configuration. Press "reset" to back to original configuration.

Above configuration need to be done under default "Static" state, if switch the IP address mode to DHCP, IP address will be get dynamically. Please record the new IP address for future login.

**Notice: Don't modify the subnet mask unless exceptional case, login problem will be caused by improper modification.**



## 3.2 Account Configuration

The screenshot displays the 'Local User Information' section with a 'New User' form. The form has five fields: 'User Name' (text input), 'Password Type' (dropdown menu showing 'Clear Text'), 'Password' (text input), 'Retype Password' (text input), and 'Privilege Type' (dropdown menu showing 'Admin'). Below the form is an 'Apply' button. The 'Local Users' section below shows a table with the following data:

User Name	Password Type	Privilege Type	Modify
admin	Encrypted	Admin	

Picture 3.2.1 Account configuration

Login password can be revised in this page, please remember the new password for future login.

## 3.3 Logging Setting

The screenshot displays the 'Logging Settings' section. It includes a 'Logging Service' label and two radio buttons: 'Enabled' (selected) and 'Disabled'. Below this is an 'Apply' button. The 'Logging Information' section below shows a table with the following data:

Information Name	Information Value
Logging Service	enabled

Picture 3.3.1 Logging Setting

System log configuration is checked in above page. Remote log server can be configured, system log can be saved on the remote server as backup use. Enable or disable the remote backup function in this page, "server IP address" need to be entered manually.

### 3.4 Port Setting

Port Setting

Port settings

Port Select	Enabled	Speed	Duplex	Flow Control
Select Ports	<input checked="" type="radio"/> Enabled <input type="radio"/> Disabled	Auto	Auto	<input type="radio"/> Enabled <input checked="" type="radio"/> Disabled
Fiber Ports	<input checked="" type="radio"/> Enabled <input type="radio"/> Disabled	Auto-1000M	Full	<input type="radio"/> Enabled <input checked="" type="radio"/> Disabled

Apply

Port Status

Port	Description	Enable State	Link Status	Speed	Duplex	FlowCtrl Config	FlowCtrl Status
GE1	<a href="#">Edit</a>	Enabled	UP	A-1000M	A-Full	Disabled	Disabled
GE2	<a href="#">Edit</a>	Enabled	DOWN	Auto	Auto	Disabled	Disabled
GE3	<a href="#">Edit</a>	Enabled	DOWN	Auto	Auto	Disabled	Disabled
GE4	<a href="#">Edit</a>	Enabled	DOWN	Auto	Auto	Disabled	Disabled
GE5	<a href="#">Edit</a>	Enabled	DOWN	Auto	Auto	Disabled	Disabled
GE6	<a href="#">Edit</a>	Enabled	DOWN	Auto	Auto	Disabled	Disabled
GE7	<a href="#">Edit</a>	Enabled	DOWN	Auto	Auto	Disabled	Disabled
GE8	<a href="#">Edit</a>	Enabled	DOWN	Auto	Auto	Disabled	Disabled
GE9	<a href="#">Edit</a>	Enabled	DOWN	Auto	Auto	Disabled	Disabled
GE10	<a href="#">Edit</a>	Enabled	DOWN	Auto	Auto	Disabled	Disabled

Picture 3.5.1 Port Setting

**Port Status:** The user can enable or disable a port in this page. Click "Enable" to open the port, click "Disable" to close the port, the default setting is "Enable".

**Port Mode:** 6 modes can be configured: Auto-negotiation,10 Half,10 Full,100 Half, 100 Full and1000 Full. Default mode is Auto-negotiation, can be changed in pull-down list.

**Flow Control:** This function is defaulted closed, open it when needed.

**Loop Detection:** The function is defaulted closed, open it when needed. A port will be blocked to cut the loop when loop is detected.( Notice: the port link indicator in front panel will be still on when the port is blocked, for the physic connection is existed; while the link indicator on the top of web management pages will be off.)

# Chapter 4    Advanced Configuration

## 4.1 Port Mirror Configuration

Mirror Setting

Destination Port

Disable

Source Port

Port	Mode
*	Disabled
GE1	Disabled
GE2	Disabled
GE3	Disabled
GE4	Disabled
GE5	Disabled
GE6	Disabled
GE7	Disabled
GE8	Disabled
GE9	Disabled
GE10	Disabled
LAG1	Disabled
LAG2	Disabled
LAG3	Disabled
LAG4	Disabled
LAG5	Disabled
LAG6	Disabled
LAG7	Disabled
LAG8	Disabled

ApplyReset

Picture 4.1.1    Port Mirror Configuration

Users can do Port Mirror Configuration in above page. Port mirroring is used on a network switch to send a copy of network packets or data traffic from some ports (or an entire VLAN) to a network monitoring connection on specified switch port. The original port is called Source Port, and the specified port is Mirroring Port. This is commonly used for network appliances that require monitoring of network traffic without influencing the normal working of every port, it's a convenient online-monitoring function.

All ports have mirroring function, but only one port can be configured as Mirroring Port. In the same system, there is only one mirroring port, while more than one Source Ports can be existed. When a port is configured as mirroring port, its corresponding port can't be configured as source port.

## 4.2 Port Aggregation

### 4.2.1 Static Aggregation

Static Management

Load Balance IP/MAC Address ▾

Port	GE1	GE2	GE3	GE4	GE5	GE6	GE7	GE8	GE9	GE10
Unaggregation	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>
LAG1	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
LAG2	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
LAG3	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
LAG4	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
LAG5	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
LAG6	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
LAG7	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
LAG8	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

(Tip: Select multiple ports polymerization, the rate of change of the port end trunk 1000M , static configuration will delete all lacp configuration!)

Apply Reset

Picture 4.2.1 Static Aggregation

Switches support 8 aggregation groups, each group contains maximum 8 ports. The members in the same aggregation group should have same configuration for port forwarding rate mode and VLAN distribution.

If LACP function applied for some ports, then static aggregation can't be configured.

**Notice: Static aggregation can't be configured when LACP function enabled.**

### 4.2.2 LACP Setting

Lacp Management

Port	GE1	GE2	GE3	GE4	GE5	GE6	GE7	GE8	GE9	GE10
Unaggregation	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>
LAG1	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
LAG2	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
LAG3	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
LAG4	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
LAG5	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
LAG6	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
LAG7	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
LAG8	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

(Tip: Select multiple ports polymerization, the rate of change of the port end trunk 1000M , lacp configuration will delete all static configuration!!)

Apply Reset

Picture 4.2.2 LACP Setting

When the LACP protocol is on, the aggregated devices interactively gather information

through LACP. According to the parameters and status of each device, automatically receive and dispatch Data of matchable link aggregation. When the Aggregation is formed, switches keep in an aggregation link status, switches automatically adjusts link aggregation or dissolve when configuration changes.

If the port is configured as static aggregation, the dynamic LACP will be not available.

**Notice: Static aggregation LACP function can't be used together.**

## 4.3 VLAN Management

### 4.3.1 VLAN Setting

Create VLAN

VLAN Setting

VLAN LIST	VLAN Action	VLAN Name Prefix
<input type="text"/>	<input checked="" type="radio"/> Add <input type="radio"/> Delete	<input type="text"/>

Maximum VLAN:64

Apply

VLAN Table

1

VLAN ID	VLAN Name	VLAN Type	Modify
1	default	Default	<input type="button" value="Edit"/>
4	VLAN0004	Static	<input type="button" value="Edit"/> <input type="button" value="Delete"/>
102	VLAN0102	Static	<input type="button" value="Edit"/> <input type="button" value="Delete"/>

Picture 4.3.1 VLAN Setting

VLAN can be created or deleted in above page. Users can create a new VLAN and give a name to the VLAN.

### 4.3.2 VLAN Port Status

Interface Settings

Edit Interface Setting

Port Select	Interface VLAN Mode	PVID	Accepted Type	Ingress Filtering
<input type="button" value="Select Ports"/>	<input checked="" type="radio"/> Hybrid <input type="radio"/> Access <input type="radio"/> Trunk	<input type="text" value="1"/> (1 - 4094)	<input checked="" type="radio"/> All <input type="radio"/> Tag Only <input type="radio"/> Untag Only	<input checked="" type="radio"/> Enabled <input type="radio"/> Disabled

Apply

Port VLAN Status

Port	Interface VLAN Mode	PVID	Accept Frame Type	Ingress Filtering
GE1	Trunk	1	ALL	Enabled
GE2	Trunk	1	ALL	Enabled
GE3	Trunk	1	ALL	Enabled
GE4	Trunk	1	ALL	Enabled
GE5	Trunk	1	ALL	Enabled
GE6	Trunk	1	ALL	Enabled
GE7	Trunk	1	ALL	Enabled
GE8	Trunk	1	ALL	Enabled
GE9	Trunk	1	ALL	Enabled
GE10	Trunk	1	ALL	Enabled
LAG1	Trunk	1	ALL	Enabled
LAG2	Trunk	1	ALL	Enabled

Picture 4.3.1 VLAN Port Status

Port features can be configured in above page. Users can create a VLAN and add ports to the VLAN list with specified mode. VLAN features and port parameters can be configured.

**Ingress Filtering:** enable ingress filtering function to abandon or forward unmatched VLAN packets. This function is default disable, the unmatched packet will be received. **Membership type:** tag refers to the port will receive tagged packets (and the VLAN ID in for tagged packet is not "0"); untag refers to the port receive untagged packets only.

## 4.4 Voice VLAN

### 4.4.1 Voice VLAN

Properties	
Properties	
Voice VLAN State	<input type="radio"/> Enabled <input checked="" type="radio"/> Disabled
Voice VLAN Id	VLAN0004(4) <input type="checkbox"/> Enable
Remark Cos/802.1p	6
1p remark	<input type="radio"/> Enabled <input checked="" type="radio"/> Disabled
Aging Time(30-65536 min)	1440

Apply

Voice VLAN State	
Information Name	Information Value
Voice VLAN State	disabled
Voice VLAN ID	none (disable)
Remark Cos/802.1p	6
1p Remark State	disabled
Aging Time	1440

Picture 4.4.1 Voice Vlan

Voice VLAN is the VLAN for voice data flow. Create a Voice VLAN and add the ports connected with voice devices to Voice VLAN, Voice data flow can be centrally transmitted in Voice VLAN. Users can configure special QoS(Quality of Service) for the voice data flow, like configure a higher transmitting priority class to ensure a high quality connection.

## 4.4.2 Voice VLAN OUI

Telephony OUI Mac setting

Voice VLAN OUI Setting

OUI Address	00:00:00
Description	

Add

Voice VLAN OUI Group

OUI Address	Description	Modify
00:E0:BB	3COM	<a>Edit</a> <a>Delete</a>
00:03:6B	Cisco	<a>Edit</a> <a>Delete</a>
00:E0:75	Veritel	<a>Edit</a> <a>Delete</a>
00:D0:1E	Pingtel	<a>Edit</a> <a>Delete</a>
00:01:E3	Siemens	<a>Edit</a> <a>Delete</a>
00:60:B9	NEC/Philips	<a>Edit</a> <a>Delete</a>
00:0F:E2	H3C	<a>Edit</a> <a>Delete</a>
00:09:6E	Avaya	<a>Edit</a> <a>Delete</a>

Picture 4.4.2 Voice Vlan OUI

Voice VLAN signify mode can be configured in this page, like Siemens AG phones、Cisco phones、H3C phones.....

## 4.5 Multicast Configuration

Properties

PropertiesSetting

Unknown Multicast Action	<input type="radio"/> Drop <input checked="" type="radio"/> Flood <input type="radio"/> Router Port
IPv4 Forward Method	<input checked="" type="radio"/> MAC <input type="radio"/> Src-Dst-Ip

Apply

Properties Informations

Information Name	Information Value
Unknown Multicast Action	Flood
Forwarding Method For IPv4	MAC

Picture 4.5.1 Multicast Configuration

MLD Snooping is short for Multicast Listener Discovery Snooping, which is IPv6 multicast control mechanism for Layer 2 devices. The function is used to manage and control IPv6 multicast.

Multicast snooping configuration can be made in above page, enable or disable multicast snooping and define multicast snooping address range.

## 4.6 IGMP Snooping Configuration

IGMP Snooping

IGMP Snooping

IGMP Snooping Status	<input checked="" type="radio"/> Enable <input type="radio"/> Disable
IGMP Snooping Version	<input type="radio"/> v2 <input checked="" type="radio"/> v3
IGMP Snooping Report Suppression	<input checked="" type="radio"/> Enable <input type="radio"/> Disable

Apply

IGMP Snooping Informations

Information Name	Information Value
IGMP Snooping Status	Enable
IGMP Snooping Version	v3
IGMP Snooping V2 Report Suppression	Enable

IGMP Snooping Table

Entry No.	VLAN ID	IGMP Snooping Operation Status	Router Ports Auto Learn	Query Robustness	Query Interval(sec.)	Query Max Response Interval(sec.)	Last Member Query count	Last Member Query Interval(sec)	Immediate Leave	Modify
1	1	disabled	enabled	2	125	10	2	1	disabled	Edit
2	4	disabled	enabled	2	125	10	2	1	disabled	Edit
3	102	disabled	enabled	2	125	10	2	1	disabled	Edit

Picture 4.6.1 IGMP Snooping

IGMP snooping configuration can be made in above page, enable or disable IGMP snooping and define IGMP snooping address range.

## 4.7 Jumbo Frame Configuration

Jumbo Frame

Jumbo Frame Setting

Jumbo Frame (Bytes)	1522 (1522-9216)
---------------------	------------------

Apply

Jumbo Frame Config

Information Name	Information Value
Jumbo Frame (Bytes)	1522

Picture 4.7.1 Jumbo Frame Configuration

Generally, the max frame size for packet is 1518 Bytes, when packet is larger than this size, it will be processed in batch, 1518 Bytes as a unit. And users can also set a Jumbo Frame limitation in this page(from 1522 to 9216 Bytes), enable Jumbo Frames transmitted smoothly, reduce the load.



## 4.8 Static MAC Address Table

Static MAC

Static MAC Setting

MAC Address	VLAN	Port
<input type="text" value="00:00:00:00:00:00"/>	<input type="text" value="default"/>	<input type="text" value="GE1"/>

Add

Static MAC Status

No.	MAC Address	VLAN	Port	Delete
1	AC:31:9D:03:5E:78	default(1)	CPU	

Picture 4.8.1 Static ARP Table

Static MAC address configuration can be manually made in this page. MAC items can be added according "port", "VLAN ID", "MAC address" and "IP address".

## 4.9 Dynamic MAC Address Configuration

Dynamic Address Setting

Dynamic Address Setting

Aging Time

(Range: 10 - 630)

Apply

Dynamic Address Status

Information Name	Information Value
Aging time	300

Picture 4.9.1 Dynamic MAC Address Configuration

In above dynamic address setting page, users can check the aging time of MAC address.

## 4.10 LLDP Configuration

LLDP Global Setting

Global Settings

Enabled	<input type="radio"/> Enabled <input checked="" type="radio"/> Disabled
LLDP PDU Disable Action	<input type="radio"/> Filtering <input type="radio"/> Bridging <input checked="" type="radio"/> Flooding
Transmission Interval	30 (5-32768)
Holdtime Multiplier	4 (2-10)
Reinitialization Delay	2 (1-10)
Transmit Delay	2 (1-8192)

Apply

LLDP Global Config

Config Name	Config Value
LLDP Enabled	Disabled
LLDP PDU Disable Action	Flooding
Transmission Interval	30 Secs
Holdtime Multiplier	4
Reinitialization Delay	2 Secs
Transmit Delay	2 Secs

Picture 4.10.1 LLDP Configuration

Switches support LLDP(Link Layer Discovery Protocol), which can define switch capacity, management address, device tags and port tags as different(TLV(type/length/value) and save them in LLDPDU (Link Layer Discovery Protocol Data Unit). These information will be released to the direct-connected neighbor device, neighbor devices will save these information based on MIB(Management Information Base) . These information will be used for network management system examination or judge link communication condition.

LLDP information can be configured in above page, including transmission interval, hold time Multiplier, retransmission delay and transmission delay.

Enable LLDP or Disable LLDP can be configured. Users can also configure the information transmitted to neighbor devices, like port description, system name, system description, system property and management address.

## 4.11 SNMP Configuration

### 4.11.1 SNMP system configuration

SNMP Setting

SNMP Global Setting

State	<input checked="" type="radio"/> Disabled <input type="radio"/> Enabled
-------	---

Apply

SNMP Informations

Information Name	Information Value
SNMP	Disabled

Picture 4.11.1 SNMP System Configuration

SNMP (Simple Network Management Protocol) is Internet-standard protocol for managing devices on IP networks. It consists of a set of standards for network management, including an application layer protocol, a database schema, and a set of data objects. SNMP is used mostly in network management systems to monitor network-attached devices for conditions that warrant administrative attention.

#### 4.11.2 SNMP Community configuration

**SNMP Community**

**Community Setting**

Community Name	Access Right
<input type="text"/>	<input checked="" type="radio"/> read-only <input type="radio"/> read-write

**Add**

**Community Status**

No.	Community Name	Access Right	Action
-----	----------------	--------------	--------

Picture 4.11.2 SNMP Community Configuration

Configure SNMP common identifiers, switches with same community identifier can make unified management.

#### 4.11.3 Trap Configuration

**SNMP Trap Host**

**Trap Host Setting**

IP Address	Community Name	Version
<input type="text"/>	<input type="text"/>	v1

**Add**

**Trap Host Status**

No.	IP Address	Community Name	Version	Action
-----	------------	----------------	---------	--------

Picture 4.12 Trap Configuration

SNMP trap is a message used in SNMP protocol, the device can send a trap message to SNMP manager when they experience a problem, rather than waiting for the polling of SNMP manager.

## 4.12 PoE Management

POE Port Config							
Port	Status	Class	Electric Current(mA)	Voltage(V)	Power(W)	Enable	Priority
*	-	-	-	-	-	<>	<>
1	Disconnect	0	0.0	0	0.0	Enable	Low
2	Disconnect	0	0.0	0	0.0	Enable	Low
3	Disconnect	0	0.0	0	0.0	Enable	Low
4	Disconnect	0	0.0	0	0.0	Enable	Low
5	Disconnect	0	0.0	0	0.0	Enable	Low
6	Disconnect	0	0.0	0	0.0	Enable	Low
7	Disconnect	0	0.0	0	0.0	Enable	Low
8	Disconnect	0	0.0	0	0.0	Enable	Low

### Trap Configuration

From above interface 4.9.1, you can find "Enable/disable" to enable or disable PoE supply power to powered device.

From the Priority, you can find Low, Middle and High to ensure power output of the port with the highest priority. You can check current currency from column "(mA)", Voltage from column " (V) "

and power from column "(W)" and PoE output grade from column "(Class)"

The default setting is "0" for 0-13W PD, "1" for less than 4W PD, "2" for 4-7W PD.

"3" for 7-13W PD, "4" for IEEE802.3at PD, "5,6" kept as potential grade.

You can find PoE supply power normally or not from "Status" column or LED indicators status from Front panel of the Switch.

# Chapter 5 Network Security

## 5.1 Port Limit Configuration

Ingress Bandwidth Control

Ingress Bandwidth Control Settings

Port	State	Rate(Kbps)
<div>Select Ports</div>	<div><input checked="" type="radio"/> Disable <input type="radio"/> Enable</div>	<div></div> (0-1000000, must a multiple of 16)

Apply

Ingress Bandwidth Control Status

Port	Ingress RateLimit (Kbps)
GE1	off
GE2	off
GE3	off
GE4	off
GE5	off
GE6	off
GE7	off
GE8	off
GE9	off
GE10	off
LAG1	off
LAG2	off
LAG3	off
LAG4	off
LAG5	off
LAG6	off
LAG7	off
LAG8	off

Picture 5.1.1 Ingress Bandwidth Control

Egress Bandwidth Control

Egress Bandwidth Control Settings

Port	State	Rate(Kbps)
Select Ports	<input checked="" type="radio"/> Disable <input type="radio"/> Enable	<input type="text"/> (0-1000000, must a multiple of 16)

Apply

Egress Bandwidth Control Status

Port	Egress RateLimit (Kbps)
GE1	off
GE2	off
GE3	off
GE4	off
GE5	off
GE6	off
GE7	off
GE8	off
GE9	off
GE10	off
LAG1	off
LAG2	off
LAG3	off
LAG4	off
LAG5	off
LAG6	off
LAG7	off
LAG8	off

Picture 5.1.2 Egress Bandwidth Control

Egress Queue Bandwidth Control

Egress Queue Bandwidth Control Settings

Port	Queue	State	CIR(Kbps)
GE1	1	<input checked="" type="radio"/> Disable <input type="radio"/> Enable	<input type="text"/> (0-1000000, must a multiple of 16)

Apply

GE1 Egress Per Queue Status

Queue Id	Rate Limit (Kbps)
1	off
2	off
3	off
4	off
5	off
6	off
7	off
8	off

Picture 5.1.3 Egress Queue Bandwidth

Switch Bandwidth can be configured in above pages. Configurations include ingress/egress flow control, flow control priority class.

## 5.2 Storm Control

Storm Control Global

Storm Control Global Setting

Unit	<input type="radio"/> pps <input checked="" type="radio"/> bps
Preamble & IFG	<input checked="" type="radio"/> Excluded <input type="radio"/> Included

Apply

Storm Control Global Information

Information Name	Information Value
Unit	bps
Preamble & IFG	Excluded

Picture 5.2.1 Storm control

Storm Control

Storm Control Setting

Port	Port State	Action	Type Enable	Rate (Kbps)
<div>Select Ports</div>	<input checked="" type="radio"/> Disable <input type="radio"/> Enable	<div>drop</div>	<input type="checkbox"/> Broadcast	<div>10000</div>
			<input type="checkbox"/> Unknown Multicast	<div>10000</div>
			<input type="checkbox"/> Unknown Unicast	<div>10000</div>

Apply

Storm Control Information

Port	Port State	Broadcast (Kbps)	Unknown Multicast (Kbps)	Unknown Unicast (Kbps)	Action
GE1	disabled	Off (10000)	Off (10000)	Off (10000)	Drop
GE2	disabled	Off (10000)	Off (10000)	Off (10000)	Drop
GE3	disabled	Off (10000)	Off (10000)	Off (10000)	Drop
GE4	disabled	Off (10000)	Off (10000)	Off (10000)	Drop
GE5	disabled	Off (10000)	Off (10000)	Off (10000)	Drop
GE6	disabled	Off (10000)	Off (10000)	Off (10000)	Drop
GE7	disabled	Off (10000)	Off (10000)	Off (10000)	Drop
GE8	disabled	Off (10000)	Off (10000)	Off (10000)	Drop
GE9	disabled	Off (10000)	Off (10000)	Off (10000)	Drop
GE10	disabled	Off (10000)	Off (10000)	Off (10000)	Drop

Picture 5.2.2 Storm control Port Configuration

After enable the global situation storm control, please continue with function configuration. The switch supports multiple storm control modes, like broadcast storm control, unknown multicast storm control and unknown unitcast storm control.

## 5.3 Port Isolation

Ports Isolate

Ports Isolate Settings

Port List	Port Type
Select Isolate port	<input checked="" type="radio"/> Non-Isolated <input type="radio"/> Isolate

Apply

Isolate ports Status

Isolate Type	Port List
Isolate Ports	
Non-Isolated Ports	all

Picture 5.3.1 Port Isolation Configuration

In above port isolation page, isolated ports can be configured. Applying port isolation function to ensure port security.

## 5.4 DoS configuration

DoS Global Setting

Global DoS Setting

DMAC = SMAC	<input checked="" type="radio"/> Enabled <input type="radio"/> Disabled
Land	<input checked="" type="radio"/> Enabled <input type="radio"/> Disabled
UDP Blat	<input checked="" type="radio"/> Enabled <input type="radio"/> Disabled
TCP Blat	<input checked="" type="radio"/> Enabled <input type="radio"/> Disabled
POD	<input checked="" type="radio"/> Enabled <input type="radio"/> Disabled
IPv6 Min Fragment	<input checked="" type="radio"/> Enabled <input type="radio"/> Disabled Byte: 1240
ICMP Fragments	<input checked="" type="radio"/> Enabled <input type="radio"/> Disabled
IPv4 Ping Max Size	<input checked="" type="radio"/> Enabled <input type="radio"/> Disabled
IPv6 Ping Max Size	<input checked="" type="radio"/> Enabled <input type="radio"/> Disabled
Ping Max Size Setting	Byte: 512
Smurf Attack	<input checked="" type="radio"/> Enabled <input type="radio"/> Disabled Netmask Length: 0
TCP Min Hdr Size	<input checked="" type="radio"/> Enabled <input type="radio"/> Disabled Bytes: 20
TCP-SYN(SPORT<1024)	<input checked="" type="radio"/> Enabled <input type="radio"/> Disabled
Null Scan Attack	<input checked="" type="radio"/> Enabled <input type="radio"/> Disabled
X-Mas Scan Attack	<input checked="" type="radio"/> Enabled <input type="radio"/> Disabled
TCP SYN-FIN Attack	<input checked="" type="radio"/> Enabled <input type="radio"/> Disabled
TCP SYN-RST Attack	<input checked="" type="radio"/> Enabled <input type="radio"/> Disabled
TCP Fragment (Offset = 1)	<input checked="" type="radio"/> Enabled <input type="radio"/> Disabled

Apply

Picture 5.4.1 Global Dos Configuration



DoS Port Setting

DoS Port Setting

Port Select

Select Ports

DoS Protection

☒ Enabled ☐ Disabled

Apply

DoS Port Status

Port	DoS Protection
GE1	Disable
GE2	Disable
GE3	Disable
GE4	Disable
GE5	Disable
GE6	Disable
GE7	Disable
GE8	Disable

Picture 5.4.2 Dos Port Configuration

Dos is short for Denial of Service, what causes DoS problem is DoS attacks, which will block the normal network service. The most common DoS attacks are computer network bandwidth attack and connectivity attack. Please configure DoS information in above pages.

## 5.5 STP Configuration

STP Global Setting

Global Setting

Enabled

☐ Enabled ☒ Disabled

BPDU Forward

☒ flooding ☐ filtering

PathCost Method

☐ short ☒ long

Force Version

RSTP-Operation

Apply

STP Informations

Information Name	Information Value
STP	Disabled
BPDU Forward	flooding
Cost Method	long
Force Version	RSTP-Operation

Picture 5.5.1 STP Global configuration

STP Port Setting

STP Port Setting

Port Select	Path Cost(0 = Auto)	Edge Port	P2P MAC	Migrate
Select Ports	0	No	Yes	<input type="checkbox"/>

Apply

CIST Port Status

Port	Admin Enable	Path Cost	Edge Port	P2P MAC
GE1	Enable	0	No	Yes
GE2	Enable	0	No	Yes
GE3	Enable	0	No	Yes
GE4	Enable	0	No	Yes
GE5	Enable	0	No	Yes
GE6	Enable	0	No	Yes
GE7	Enable	0	No	Yes
GE8	Enable	0	No	Yes
GE9	Enable	0	No	Yes
GE10	Enable	0	No	Yes

Picture 5.5.2 STP Port configuration

STP Bridge Setting

STP Bridge Setting

Priority	32768
Max Hops	20 (1-40)
Forward Delay	15 (4-30)
Max Age	20 (6-40)
Tx Hold Count	6 (1-10)
Hello Time	1 (1-10)

Apply

STP Bridge Information

Information Name	Information Value
Priority	32768
Max Hops	20
Forward Delay	15
Max Age	20
Tx Hold Count	6
Hello Time	1

STP Bridge Status

Information Name	Information Value
Bridge Identifier	32768/ 0/AC:31:9D:03:5E:78
Designated Root Bridge	0/ 0/00:00:00:00:00:00
Root Path Cost	0
Designated Bridge	0/ 0/00:00:00:00:00:00
Root Port	0 / 0
Remainging Hops	0
Last Topology Change	0

Picture 5.5.3 STP Bridge Configuration

STP configurations can be made in above pages. Users can choose from STP and

RSTP modes according to different network requirements.

## Chapter 6 System Maintenance

### 6.1 Reboot Switch



Picture 6.1.1 Reboot Switch

Above page is used to reboot switch. When manage the switch, some configurations need to reboot the switch to take effect.

### 6.2 Factory Reset



Picture 6.2.1 Factory Reset

The switch supports factory reset, press "restore" button to set all configurations back to factory default settings, except ip address.

#### Factory Reset via serial console or Telnet:

Username: admin

Password: \*\*\*\*\* (default-PW is admin)

Switch# restore-defaults

Restore Default Success. Do you want to reboot now? (y/n)y

Rebooting now...

Serial Console:

115.2Kbps, 8Bit, N, 1, no handshake

#### Pin assignment serial Console-Cable

RJ-45            DB9 female

Pin            Pin

3 ----- 2

5 ----- 5

6 ----- 3

→ **The switch will set all configurations back to default settings!**

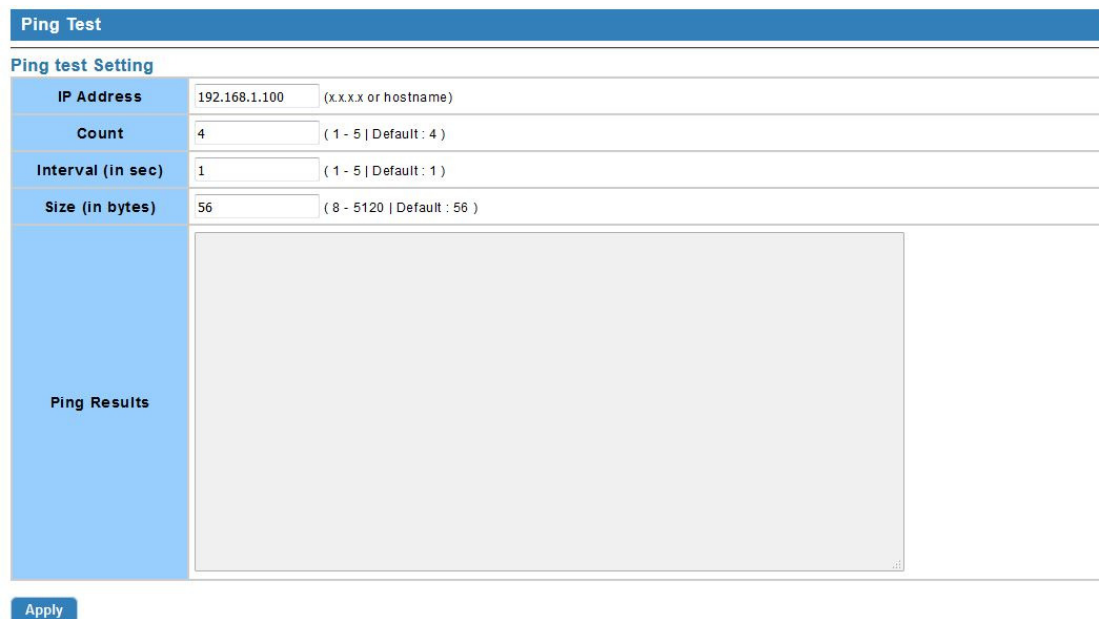
## 6.3 Firmware Upgrading



Picture 6.3.1 Firmware Upgrading

Current system software version can be checked in this page, and new software upgrade can be made.

## 6.4 Ping Test



Picture 6.4.1 Ping Test Configuration

Ping test is to check if a specified Client can be reached, the function is the same with ping command under windows command lines. The IP addresses of switch and PC must be in same network segment.

## 6.5 Network Cable Test



Picture 6.6.1 Network Cable Test

Users can test the twisted pair cable working status. Please select test ports then press "cooper test" to check the working status.

## Appendix    Trouble shooting

Problems	Reasons	Solutions
All LEDs are off when power on the switch	Power cord connection error or power supply failure	Check power cord connection and the power socket.
The LINK LED is unlit.	1. Network cable is damaged or the connection is not firm. 2. Wrong network cable type or the cable is longer than 100m.	Change the network cable.
Slower data transmitting and packets loss.	The communication pattern of switch and PDs are not matched.	Changed to matched pattern or configure to auto-negotiation pattern.
The network cable works in one port ,doesn't work in another new port.	There is no data transmitting from PD and the switch can't learn a new address to do communication.	Waiting for 120s, the switch will get auto-updated address or transmitting data from the PD, the switch will get address then.
All the "ACT" LEDs flash and the network rate slow down	Caused by broadcast storm.	1. Check if there is a loop problem, reasonably configure the network. 2. Check if there are large numbers of broadcast packets from specific sites.
Stop to work after working for a while.	1. Abnormal power supply. 2. Overheating.	1. Check power connection and the working voltage; 2. Check the working environment, including air hole and switch fan.
"PoE" LED indicators flash	1. PoE port doesn't work 2. PD is overloaded 3. The network cable is damaged.	Check the network cable, port connection or reduce the load of PDs.

ALLNET GmbH Computersysteme declares that the device **ALL-SG8310PM** is in compliance with the essential requirements and other relevant provisions of Directive 2004/108/EC. The Declaration of conformity can be found under this link: [www.allnet.de/downloads.html](http://www.allnet.de/downloads.html).

### **Safety Warnings**

For your safety, be sure to read and follow all warning notices and instructions.

- Do not open the device. Opening or removing the device cover can expose you to dangerous high voltage points or other risks. Only qualified service personnel can service the device. Please contact your vendor for further information.
- Do not use your device during a thunderstorm. There may be a risk of electric shock brought about by lightning.
- Do not expose your device to dust or corrosive liquids.
- Do not use this product near water sources.
- Make sure to connect the cables to the correct ports.
- Do not obstruct the ventilation slots on the device.

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