ALL-SG8245PM

5 port Gigabit Ethernet Smart-lite Switch with 4 PoE+ ports

User Manual

Default-IP

192.168.2.1

Username & Password:

admin

Table of Contents

Chapter 1 Introduction to the Web Smart PoE Switch

1.1 General Description

1.2 The Front Panel

The following figure shows the front panel of the switch.

The following table describes the port labels on the front panel.

LABEL	DESCRIPTON
5x 10/100/1000 RJ-45 Ethernet Ports	Connect these ports to a computer, a hub, an ethernet switch or router.

1.3 LEDs Definition

This device provides extensive LEDs to show the activities on power, system and ports.
See the following description for your reference:

LED	Status	Operation
PWR/SYS	Steady Green	Power on.
	Blinking Green	System booting up.
	Off	Power off or fail.
PoE/Max	Steady Green	Over PoE max power budget (50W)
	Off	No over PoE max power budget (50W)
LINK/ACT	Steady Green	1000Mbps connected.
	Steady Amber	10/100Mbps connected
	Blinking	Sending or receiving data.
	Off	Port disconnected or link fail.
PoE	Steady Green	PoE power output on.
	Off	PoE power output off.

The Reset Button

Reset the switch to its factory default configuration via the RESET button. Press the RESET button for 10 seconds and release. The switch automatically reboots and reloads its factory configuration file. The RESET button is on the front panel of the switch.

1.4 The Rear Panel

The following figure shows the rear panel of the switch:

Power Receptacle

To be compatible with the electric service standards around the world, the switch is designed to afford the power supply in the range from 100 to 240 VAC, 50/60 Hz. Please make sure that your outlet standard to be within this range.

To power on the switch, please plug the female end of the power cord firmly into the receptacle of the switch, the other end into an electric service outlet, and use the **POWER ON/OFF** switch to have the Switch power on or off. After the switch powered on, please check if the PWR/SYS LED is lit for a normal power status.

1.5 Installation

This switch can be placed on your desktop directly, or mounted on the wall. Please refer to the instructions for installation.

Before installing the switch, we recommend:

1. The switch is placed with appropriate ventilation environment. A minimum 25 mm space around the unit is recommended.
2. The switch and the relevant components are away from sources of electrical noise such as radios, transmitters and broadband amplifiers
3. The switch is away from environments beyond recommend moisture

Desktop Installation

1. Install the switch on a level surface that can support the weight of the unit and the relevant components.

2. Plug the switch with the power cable of adaptor and plug the power adaptor to the power outlet.

Wall-mount Installation

The switch may be standalone, or mounted on wall. Wall mounting facilitate to an orderly installation when you are going to install series of networking devices.

Procedures to Wall-mount the switch:

1. Screw the two screws provided with your Switch into the wall. Use screws with 6 mm ~ 8 mm (0.24" ~ 0.31") wide heads. Do not screw the screws all the way in to the wall; leave a small gap between the head of the screw and the wall.
2. Align the holes on the back of the Switch with the screws on the wall. Hang the Switch on the screws.

Note:

The Switch should be wall-mounted horizontally. The Switch's side panels with ventilation slots should not be facing up or down as this position is less safe.

Installing Network Cables

1. Crossover or straight-through cable: All the ports on the switch support Auto-MDI/MDI-X functionality. Both straight-through or crossover cables can be used as the media to connect the switch with PCs as well as other devices like switches, hubs or router.

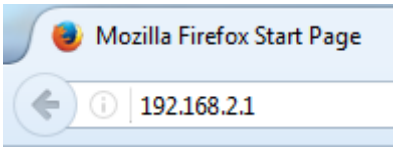
2. Category 3, 4, 5 or 5e, 6 UTP/STP cable: To make a valid connection and obtain the optimal performance, an appropriate cable that corresponds to different transmitting/receiving speed is required. To choose a suitable cable, please refer to the following table.

Media	Speed	Wiring
10/100/1000 Mbps copper	10 Mbps	Category 3,4,5 UTP/STP
	100 Mbps	Category 5 UTP/STP
	1000 Mbps	Category 5e, 6 UTP/STP

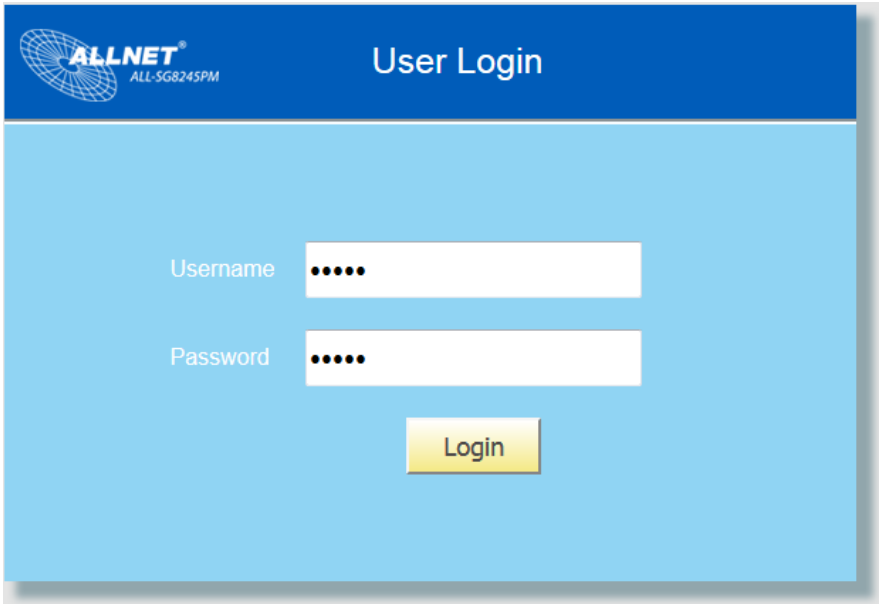
Chapter 2 Basic Web Management Information

2.1 System login

1. Start your web browser.
2. Type "http://"and the IP address of the switch (for example, the default management IP address is 192.168.2.1) in the Location or Address field. Press **[ENTER]**.

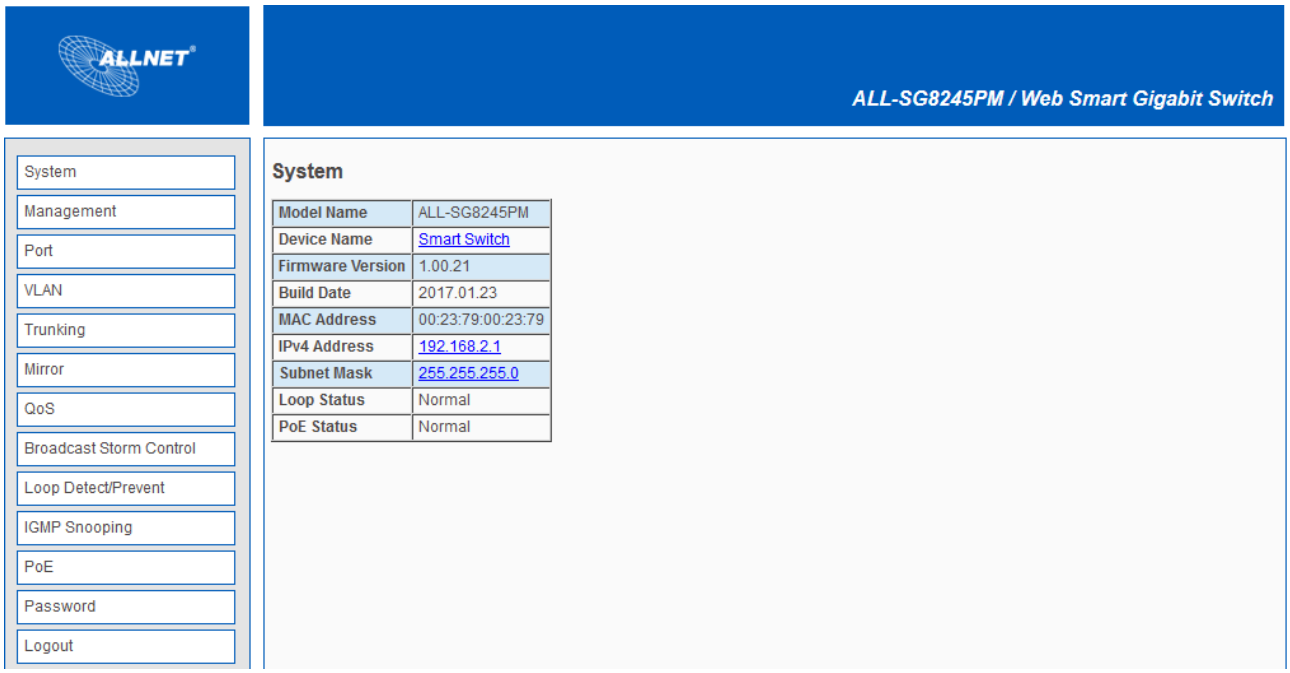


3. The login screen appears. The default username and password are "**admin**", so you can click **Login** and go to the web configuration screen directly.



2.2 The Graphic User Interface

After the password authorization, the System page shows up. You may click on each folder on the left column of each page to get access to each configuration page. The Graphic User Interface is as follows:



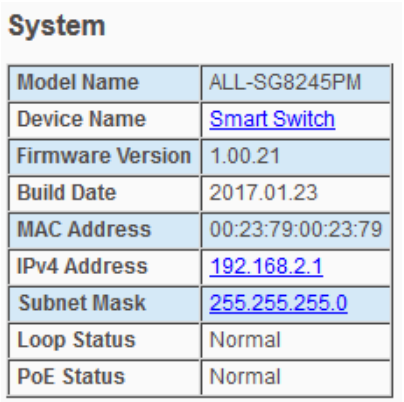
A –Click the menu items to open the screen in the main window.

B –Displays system information such as MAC address and firmware version and so on.

Chapter 3 Web Management Configuration

3.1 System

System page allow user to configure and browse some system information such as Model Name, Device Name, Firmware Version, MAC address, IP address, Loop status and PoE status.

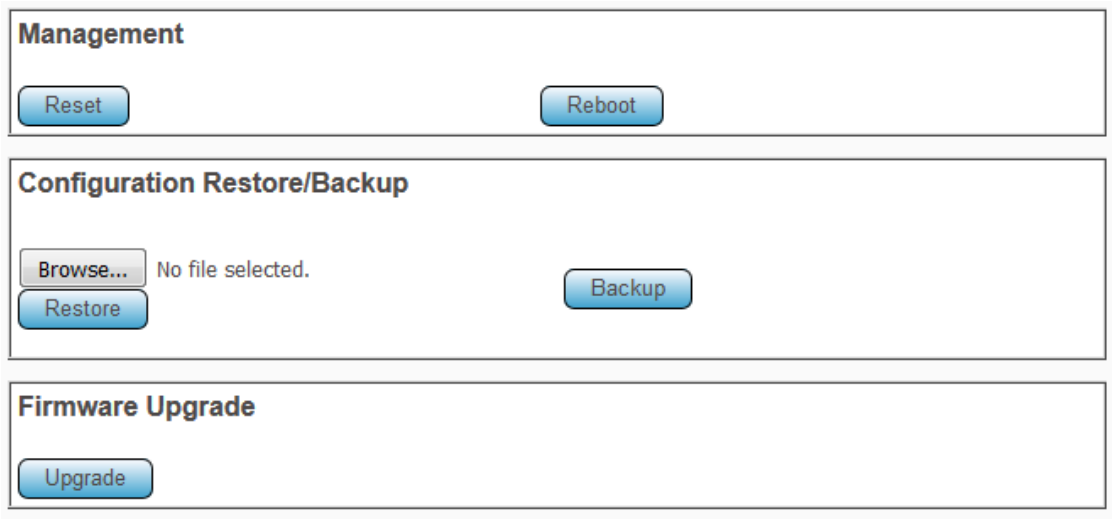


User could configure Device Name and IP address in System page.

LABEL	DESCRIPTION
Device Name	Device name of the switch.
IPv4 Address / Subnet Mask	The IP address of the switch.

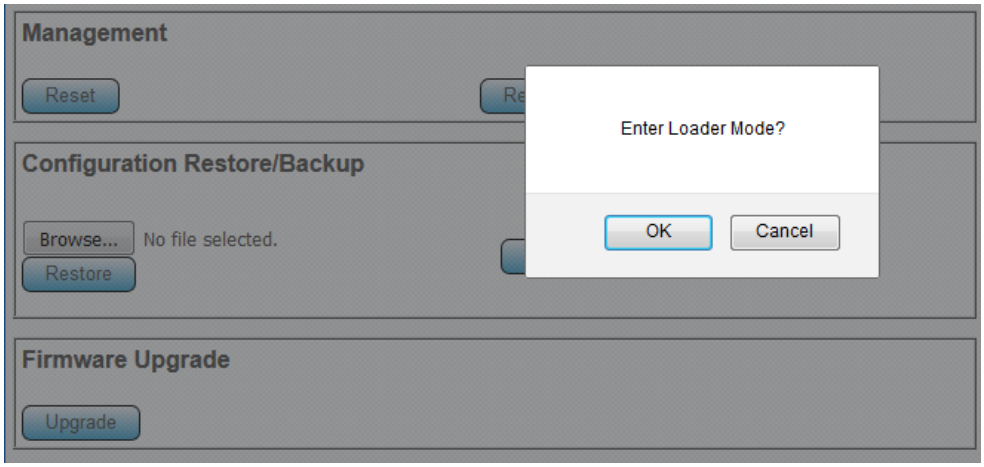
3.2 Management

In Management page, "**Reset**" / "**Reboot**" button can restore default and reboot system. System also can backup and restore configuration file via "**Restore**" / "**Backup**" button. Firmware can be upgraded via "**Upgrade**" button.

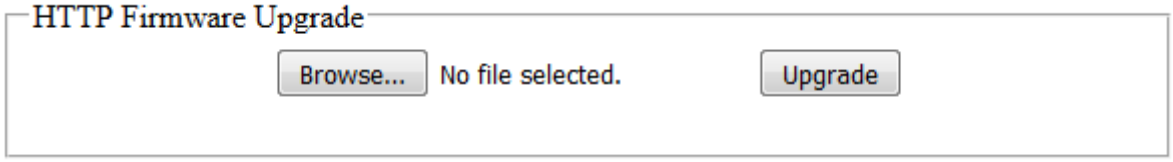


3.2.1 Firmware Upgrade

User has to enter Loader Mode to upgrade firmware. Click "Upgrade", it will pop up this warning message, and then click "OK" to enter Loader Mode.



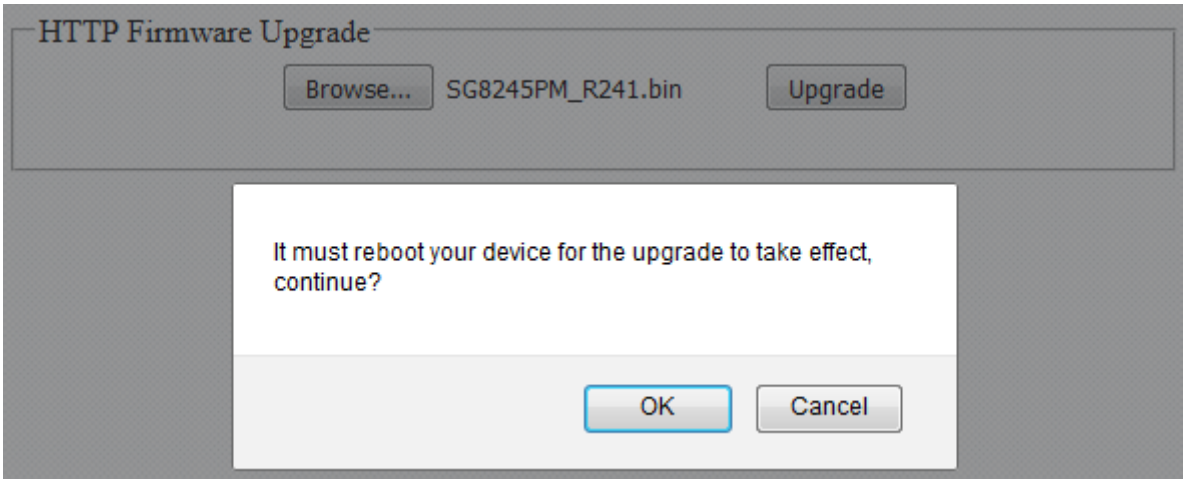
In Loader Mode, click "Browse…" and navigate to the location of the firmware upgrade file.



Select the firmware upgrade file. Its name will appear in the Upgrade File field and then click

the “Upgrade” button to commence the firmware upgrade.

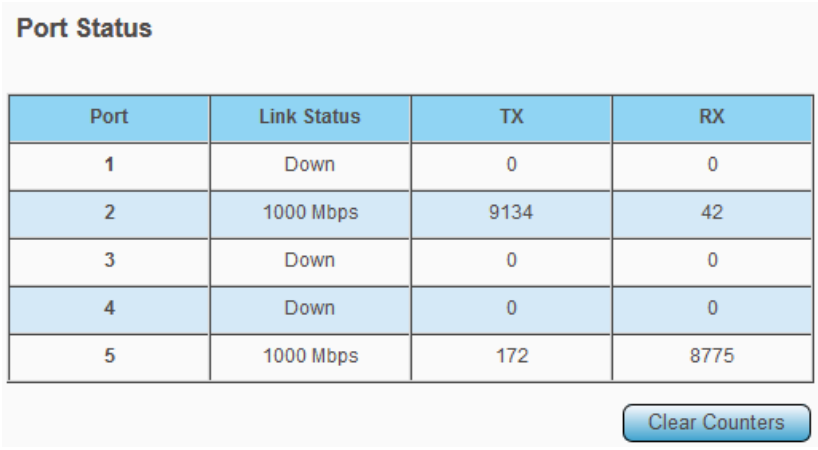
Click OK to upgrade the firmware.



Wait for 30 seconds. When the upgrading process is done, it will redirect to Login page.

3.3 Port Status

In Port page, you can see the Link Status and TX/RX counts of all ports. You also can click “Clear Counters” to reset the TX/RX counts.

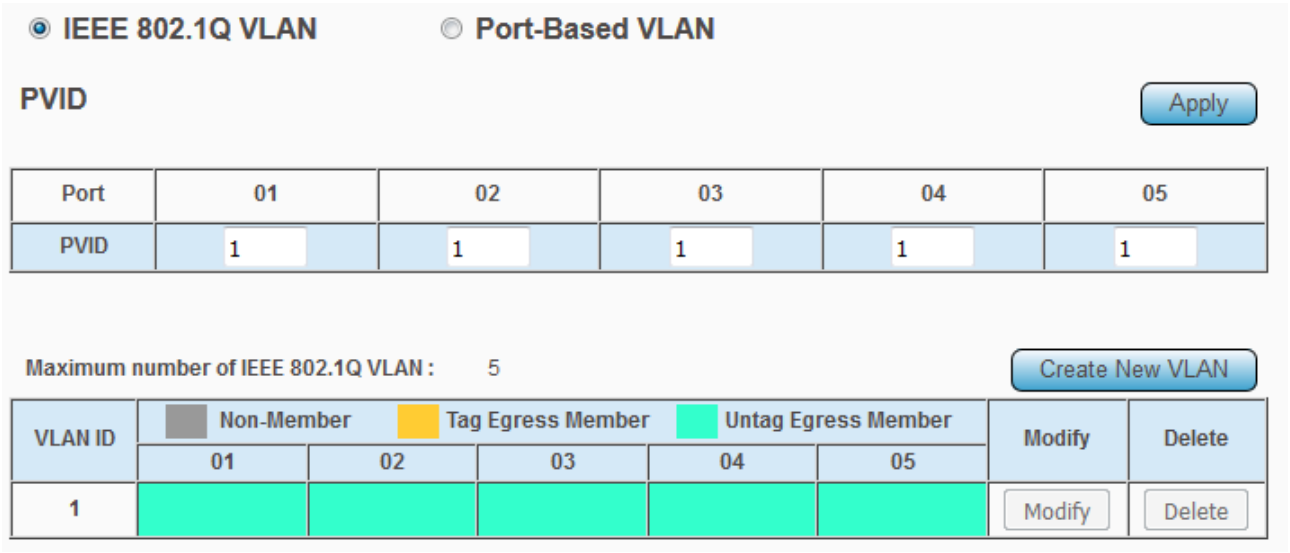


3.4 VLAN

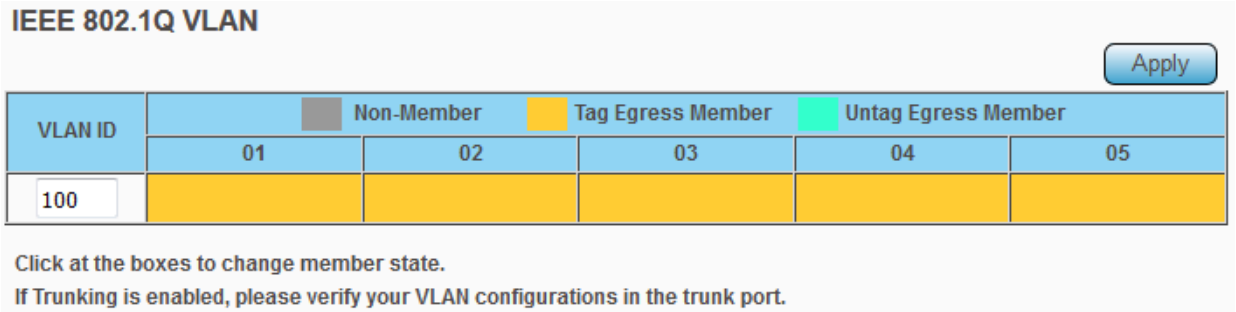
A virtual local area network, virtual LAN or VLAN, is a group of hosts with a common set of requirements that communicate as if they were attached to the same broadcast domain, regardless of their physical location. A VLAN has the same attributes as a physical local area network (LAN), but it allows for end stations to be grouped together even if they are not located on the same network switch. VLAN membership can be configured through software instead of physically relocating devices or connections.

In "VLAN" page, IEEE 802.1Q VLAN and Port-Based VLAN are supported as follows.

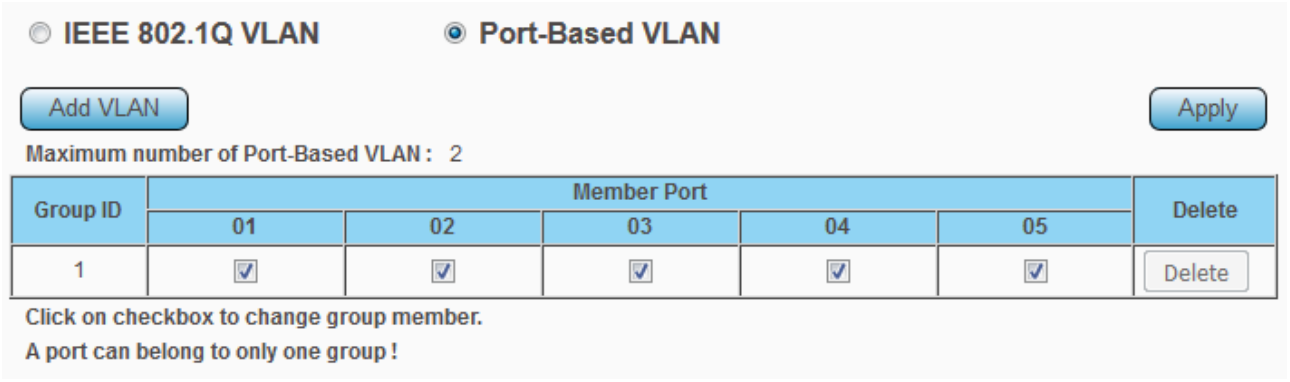
3.4.1 IEEE 802.1Q VLAN



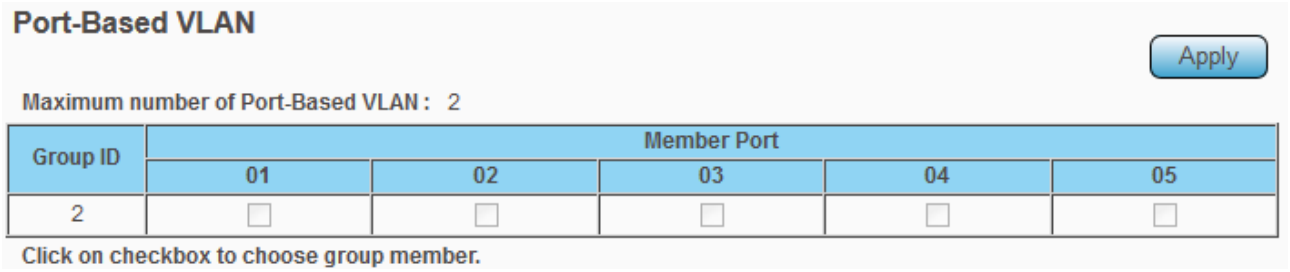
Click **Create New VLAN** to add a VLAN tag, and it will show as below. Enter the VLAN ID and select the VLAN member.



3.4.2 Port-Based VLAN



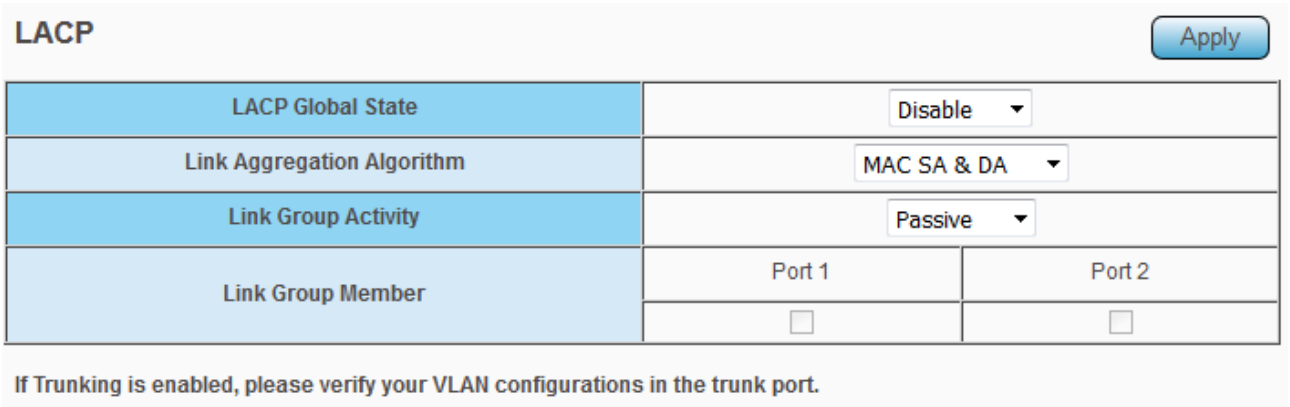
Click **Add VLAN**, and it will show as below. Select the VLAN member port.



3.5 Trunking

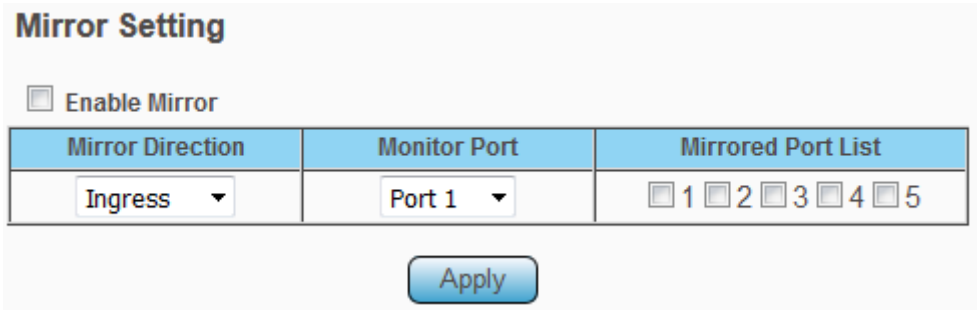
Link Aggregation Control Protocol (LACP) that allows you to bundle several physical ports together to form a single logical channel. LACP allows a switch to negotiate an automatic bundle by sending LACP packets to the peer.

Select **Enable** to enable LACP function and connect Port 1 and Port 2 to another switch that supports LACP function.



3.6 Mirror

The Mirror function copies all the packets that are transmitted by the source port to the destination port. It allows administrators to analyze and monitor the traffic of the monitored ports.

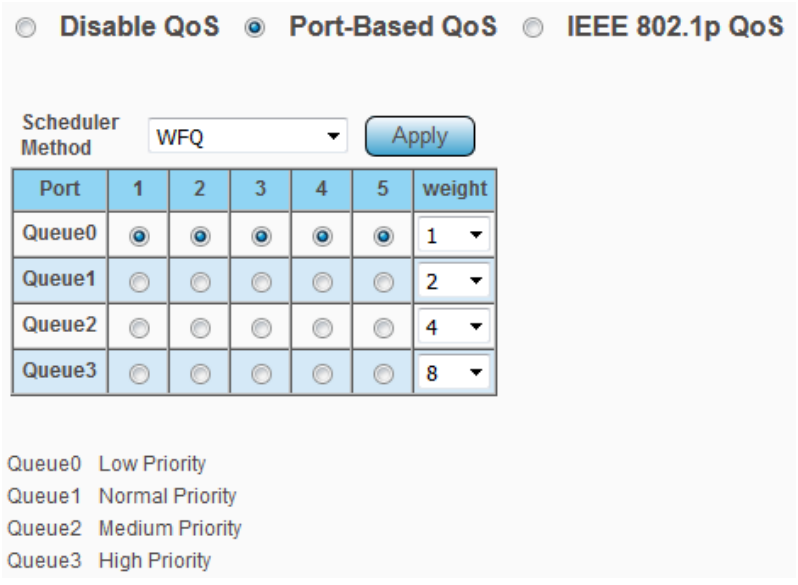


LABEL	DESCRIPTION
Enable Mirror	Check to enable Mirror function.
Mirror Direction	Select mirror direction: Ingress, Egress or Both
Monitor Port	Select monitor port : Port1 ~ Port 5
Mirrored Port List	Select mirrored port.
Apply	Click **Apply** to save your changes to the switch.

3.7 QoS

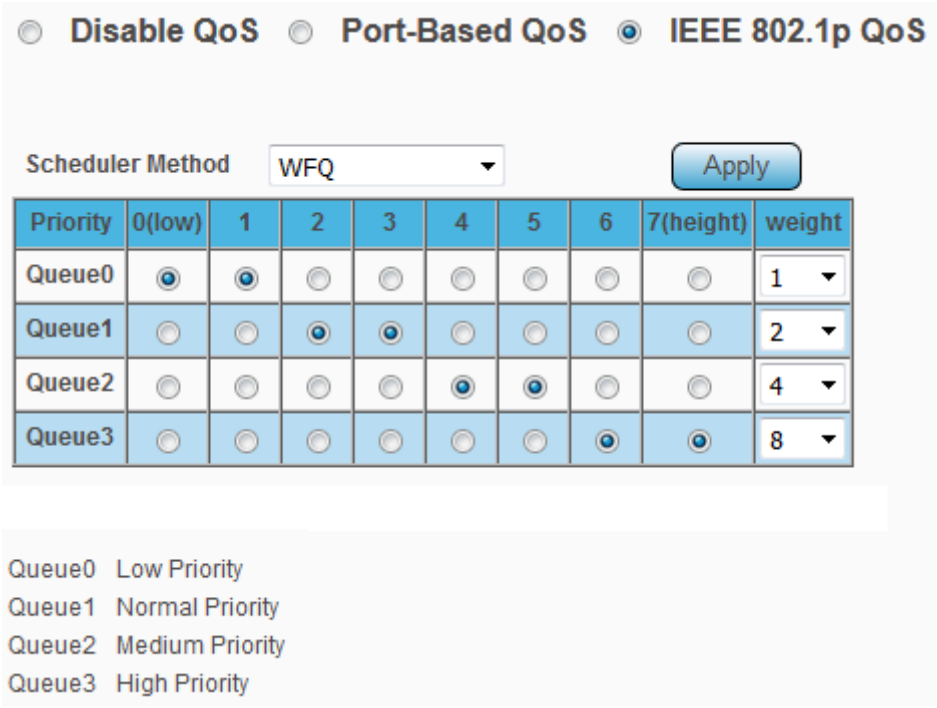
Quality of Service (QoS) features are used to prioritize the use of bandwidth in a switch. When QoS features are enabled, traffic is classified as it arrives at the switch, and processed through on the basis of configured priorities.

3.7.1 Port-Based QoS



LABEL	DESCRIPTION
Scheduler Method	Select WFQ(Weighted Fair Queuing) or Strict Priority
Port	Queue ID to configure for each port
Weight	If the queue type is WFQ, set the queue weight for the queue.
Apply	Click **Apply** to save your changes to the switch.

3.7.2 IEEE 802.1p QoS



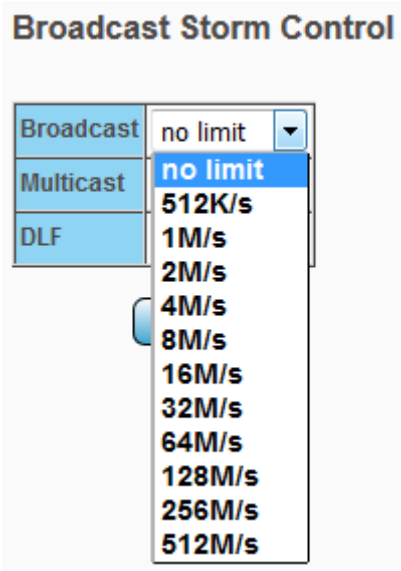
LABEL	DESCRIPTION
Scheduler Method	Select WFQ(Weighted Fair Queuing) or Strict Priority
Priority	Queue ID to configure
Weight	If the queue type is WFQ, set the queue weight for the queue.
Apply	Click **Apply** to save your changes to the switch.

3.8 Broadcast Storm Control

Broadcast storm control limits the number of broadcast frames that can be stored in the switch buffer or sent from the switch. Broadcast frames that arrive when the buffer is full are discarded. Select the limitation to reduce broadcast traffic coming into you network.

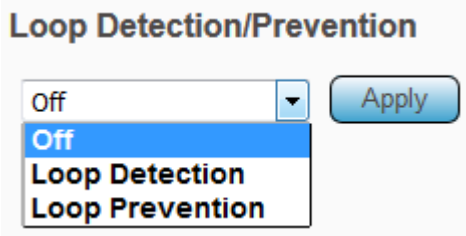
The types of storm control include Broadcast, Multicast and DLF (Destination Lookup Failure).

Limits are as follows: no limit, 512K/s, 1M/s, 2M/s, 4M/s, 8M/s, 16M/s, 32M/s, 64M/s, 128M/s, 256M/s and 512M/s.



3.9 Loop Detect / Prevent

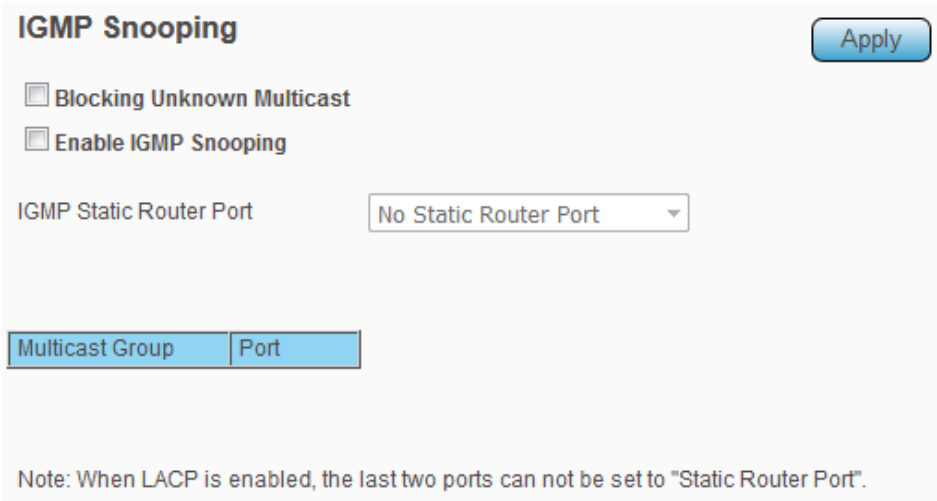
In “Loop Detect/Prevent” page, system will detect/prevent loop automatically based on your selection.



Loop Detection: the LINK/ACT LED will blink in a regular time (about 1s).
Loop Prevention: One Ethernet port will be disabled and then up again.

3.10 IGMP Snooping

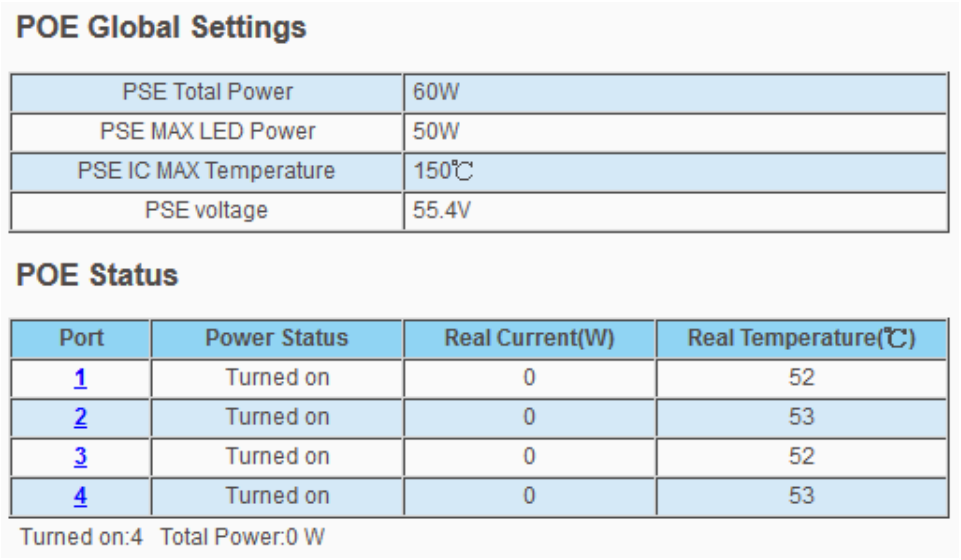
IGMP snooping is the process of listening to Internet Group Management Protocol (IGMP) network traffic. The feature allows a network switch to listen in on the IGMP conversation between hosts and switch. By listening to these conversations the switch maintains a map of which links need which IP multicast streams. Multicasts may be filtered from the links which do not need them and thus controls which ports receive specific multicast traffic.
Check "**Blocking Unknown Multicast**" and "**Enable IGMP Snooping**" to avoid the Multicast flood.



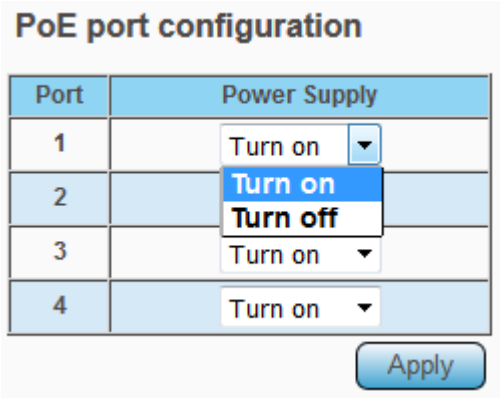
The Switch is only compatible to IGMPv3.

3.11 PoE

In "PoE" page, PoE power budget, port status, etc. are shown below.

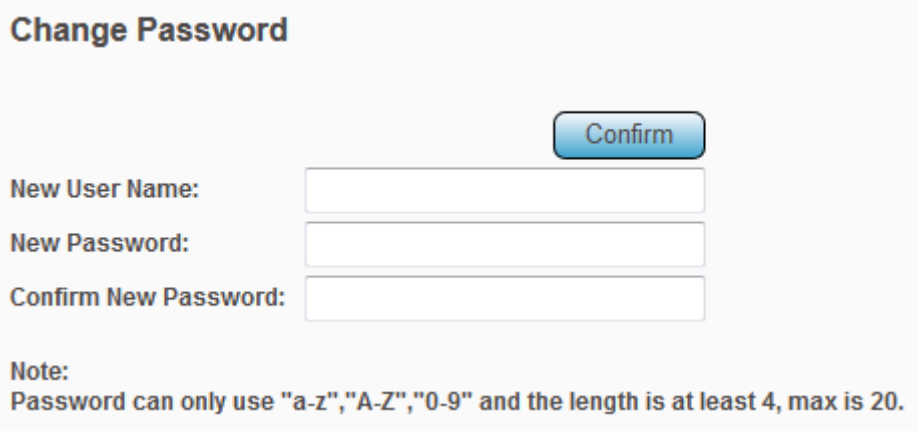


Click port number above, you can turn on/off PoE port on PoE port configuration page as below.



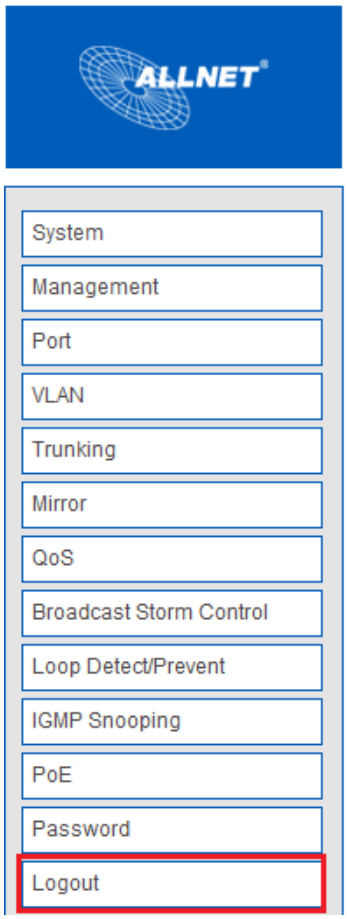
3.12 Password

In "Password" page, you can change user name and password for security.



3.13 Logout

Click “Logout” to logout the switch. After logout, Web UI will be redirect to login page immediately.



Product Specifications

Standard	IEEE802.3, IEEE802.3u, and IEEE802.3ab IEEE 802.3x flow control IEEE 802.1p class of service, priority protocols IEEE 802.1Q VLAN tagging IEEE 802.3ad LACP aggregation IEEE 802.3az Energy Efficient Ethernet(EEE) IEEE 802.3af PoE IEEE 802.3at PoE+
Interface	5* 10/100/1000Mbps ports 4* PoE ports (support IEEE 802.3af and IEEE802.3at)
Transmission Mode	10/100Mbps: Full-duplex, Half-duplex 1000Mbps: Full-duplex
MAC Address Table	2K
Jumbo Frame	9216 Bytes
Buffer Memory	1Mbits
Temperature	Operating: 0 ~ 50℃ Storage : -40 ~ 70℃
Humidity	Operating: 10% ~ 90% RH (non-condensing) Storage: 5% ~ 90% RH (non-condensing)
LED Indications	1*PWR/SYS LED (Green) 1*PoE Max LED (Green) 5*Gigabit port LEDs (Link/Act: Green/Amber) 4*PoE port LEDs (Green)
Power Supply	AC-to-DC external power adapter Input: 100-240V AC Output: 55V DC/1.3A
Max. Power Budget	60W; 2x PoE+ (30W, IEEE802.3at) or 4x PoE (15,4W, IEEE802.3af)
Dimensions	193 x 84 x 26 mm
Case Material	Metal, Fan-less
Certification	CE / FCC

CE

ALLNET GmbH Computersysteme declares that the device **ALL-SG8245PM** is in compliance with the essential requirements and other relevant provisions of Directive 2004/108/EC or 2014/30/EU. The Declaration of conformity can be found under this link: www.allnet.de/downloads.html

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