

CERIO Corporation

CS-2208G-8P A2

PoE CS-2000 Series - 8 Port 10/100/1000M Gigabit

Web Managed PoE+ with 2 SFP Ports

(180Watt Power)



User Manual

FCC Warning

This device has been tested and found to comply with limits for a Class A digital device, pursuant to Part 2 and 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the user's manual, may cause interference in which case user will be required to correct the interference at his own expense.

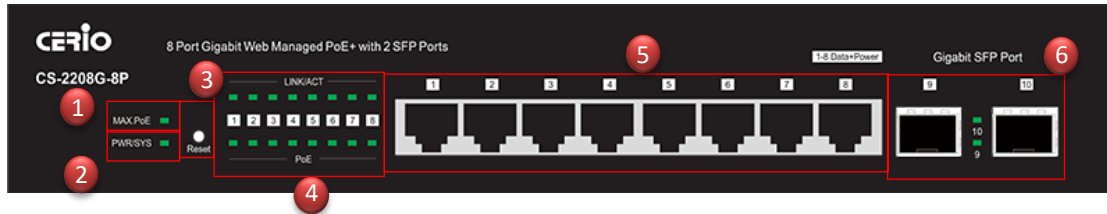
CE Mark Warning

This is a Class A product. In a domestic environment, this product may cause radio interference in which case the user may be required to take adequate measures.

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1. Introduction

1.1 Front Panel



- 1) MAX PoE (budget expended) LED light.
- 2) Power and System status LED light.
- 3) Reset to default button. (Long press the “Reset” button with a pin for 10 seconds, if the LEDs start to flash, the reset process starts.)
- 4) 8 PoE Ports and Ethernet status LED light.
- 5) 8 Gigabit Ethernet Ports(RJ-45).
- 6) 2 Gigabit SFP Ports.

1.2 Rear Panel Layout



- AC input (100-240V/AC, 50-60Hz) UL Safety

LED indicators:

The LED Indicators will allow you to monitor, diagnose and help in troubleshooting any potential problem with the switch, the connection(s) or other attached devices.

Warn when 10W output power load is available

	Color	Status	Description
Max PoE	Green	On	When load below 10W POE power is available
		Off	Output power not exceeded the warning display
PWR/SYS	Green	On	Power on
		Off	Power off or fail
		Blinking	System boot-up
Link/ACT	Green	On	1000Mbps connected
		Blinking	Data transmitting
	Orange	On	10/100Mbps connected
		Blinking	Data transmitting
SFP	Green	On	1000FX connected
		Off	SFP not connected
PoE	Green	Green On	PoE power output on
		Blinking	PoE power output amount not stable
	None	Off	There is no PoE power output

2. Software Configuration

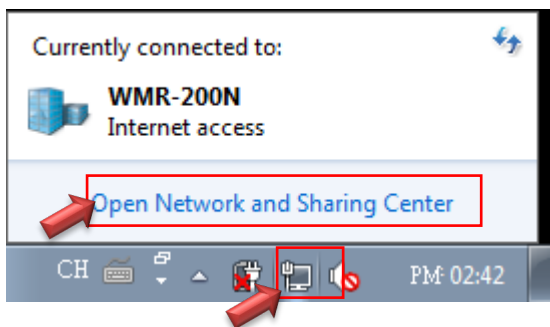
CS-2208G-8P supports web-based configuration. Upon the completion of hardware installation, CS-2208G-8P can be configured through a PC/NB by using its web browser such as Internet Explorer 6.0 or later version, or similar browser.

Set the IP segment of the administrator's computer to be in the same range as CS-2208G-8P for accessing the system. Do not duplicate the IP Address used here with IP Address of CS-2208G-8P or any other device within the network. *Please refer to the following steps:*

2.1 Example of Segment: (Windows 7)

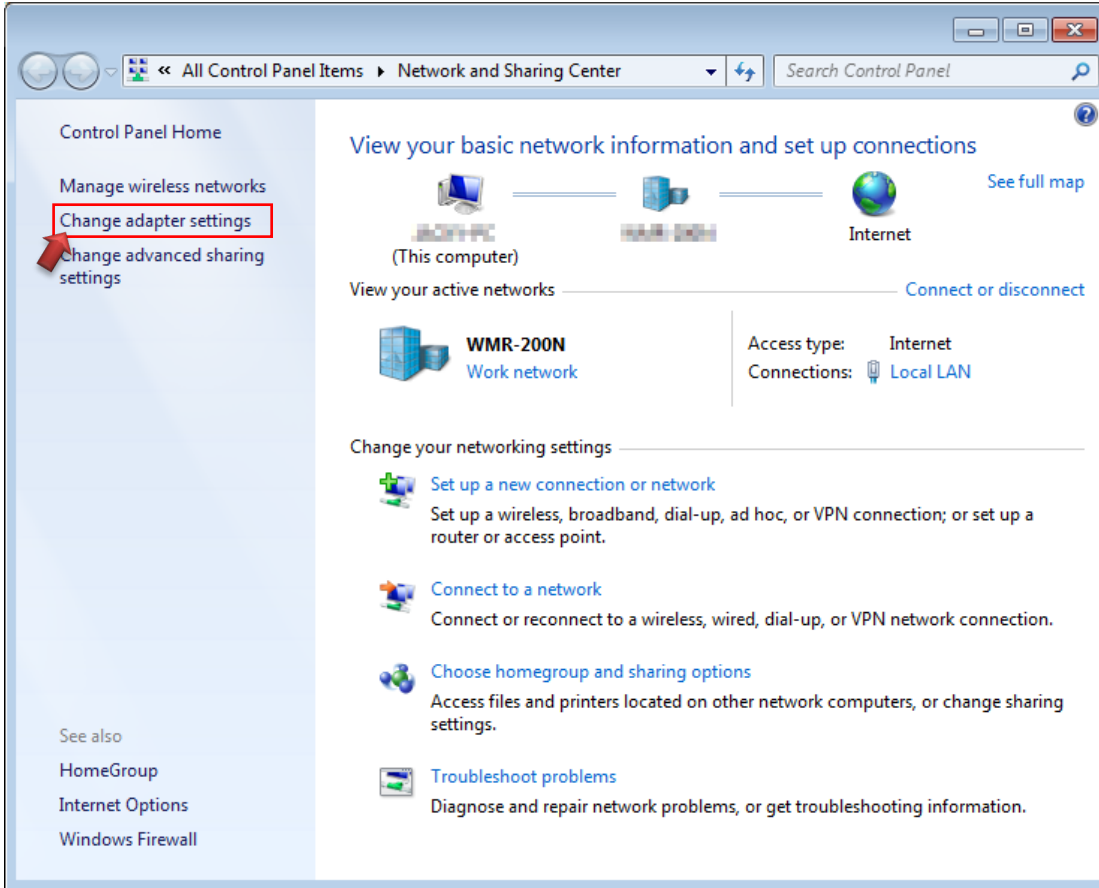
Step 1 :

Please click on the computer icon in the right bottom of window, and click “**Open Network and Sharing Center**”



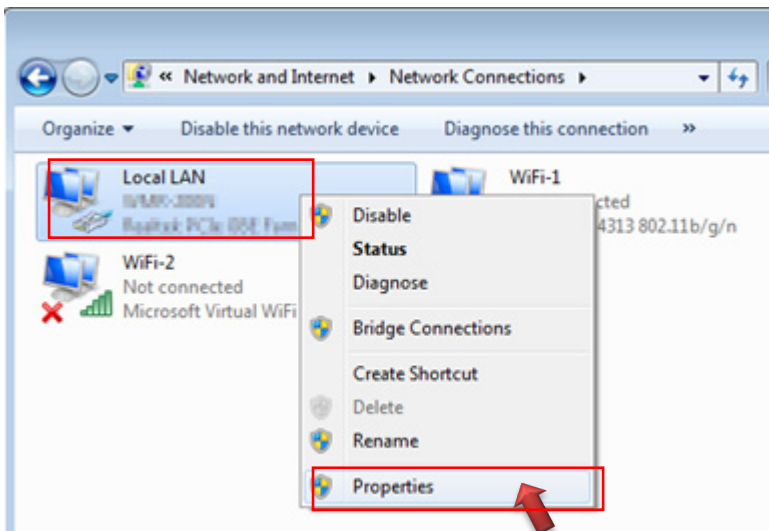
Step 2 :

In the Network and Sharing Center page, click on the left side of “**Change adapter setting**” button.



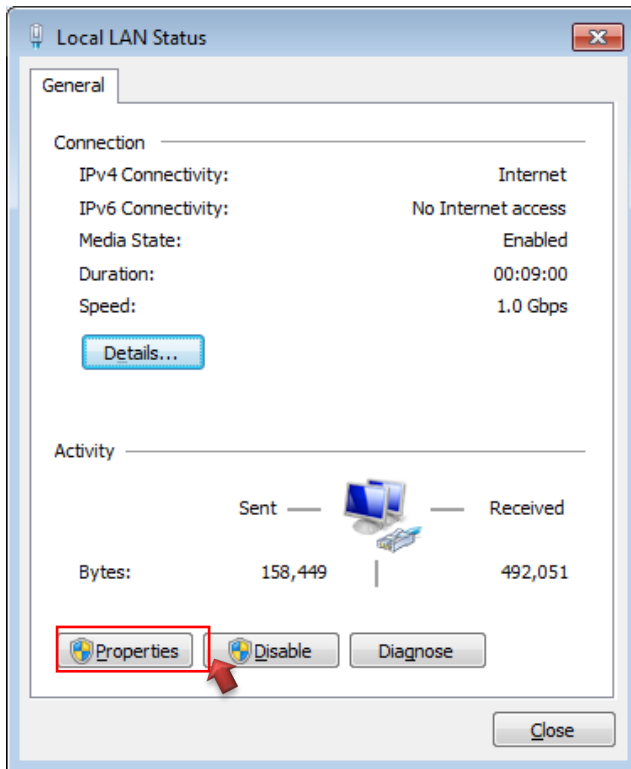
Step 3 :

In “**Change adapter setting**” Page, right click on Local LAN then select “**Properties**”



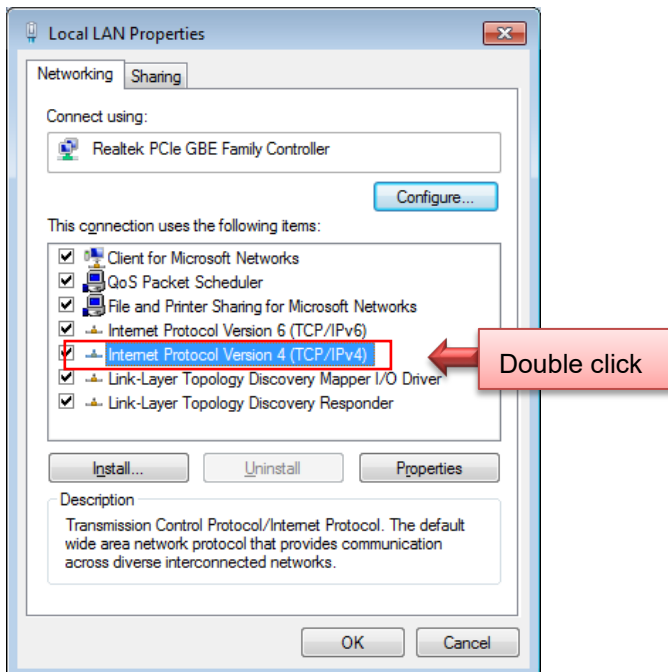
Step 4 :

In the “**Properties**” page, click the “**Properties**” button to open TCP/IP setting.



Step 5 :

In Properties page for setting IP addresses, find “**Internet Protocol Version 4 (TCP/IPv4)**” and double click to open TCP/IPv4 Properties window.



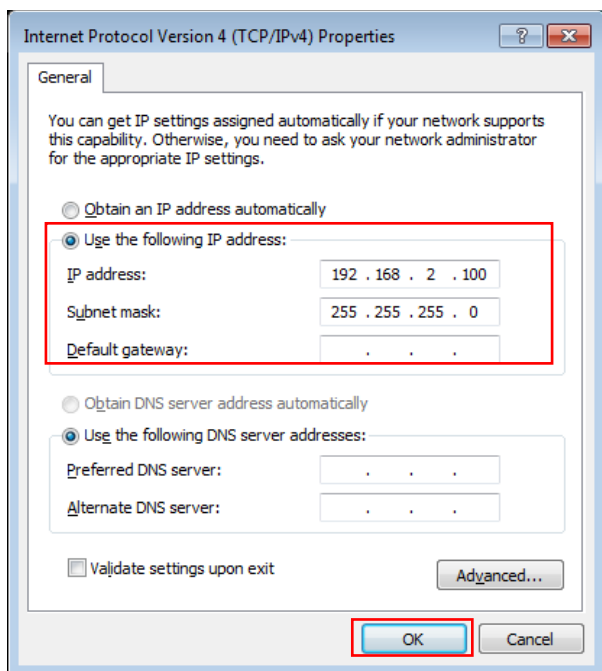
Step 6 :

Select **“Use the following IP address”**, and fill in IP Address to: 192.168.2.X

ex: The X may be set as any number from 1 to 253

Subnet mask: 255.255.255.0

And Click **“OK”** to complete the computer IP settings.

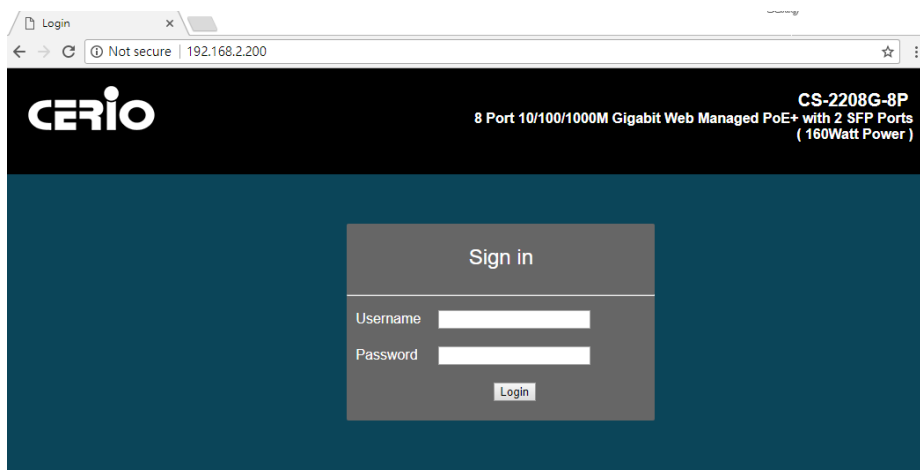


Step 7 :

Open Web Browser

The **CS-2208G-8P** web switch default IP is 192.168.2.20

System login Overview page will appear after successful login.



Note : Without a valid certificate, users may encounter the following problem: in using IE7, when they try to access system's WMI (<http://192.168.2.200>), there will be a “Certificate Error,” because the browser treats the system as an illegal website.

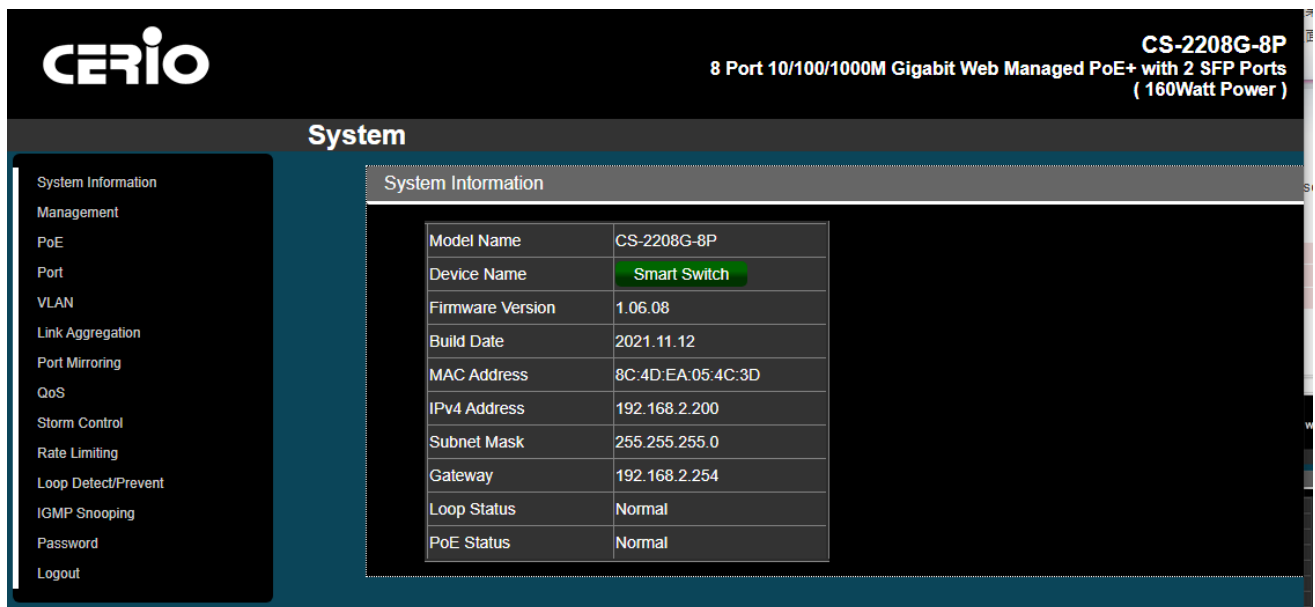
2.2 System login

Login to the management page as follows, please enter Username, and Password

- **Default IP Address:** 192.168.2.200
- **Default Username and Password**

Management Account	Root Account
User Name	root
Password	default

After Login, the page will display system information.



The screenshot shows the CERIO web management interface. At the top right, the device model is identified as **CS-2208G-8P**, described as an **8 Port 10/100/1000M Gigabit Web Managed PoE+ with 2 SFP Ports (160Watt Power)**. The main navigation menu on the left includes System Information, Management, PoE, Port, VLAN, Link Aggregation, Port Mirroring, QoS, Storm Control, Rate Limiting, Loop Detect/Prevent, IGMP Snooping, Password, and Logout. The 'System Information' page is active, displaying a table of system details:

System Information	
Model Name	CS-2208G-8P
Device Name	Smart Switch
Firmware Version	1.06.08
Build Date	2021.11.12
MAC Address	8C:4D:EA:05:4C:3D
IPv4 Address	192.168.2.200
Subnet Mask	255.255.255.0
Gateway	192.168.2.254
Loop Status	Normal
PoE Status	Normal

Function Menu

- System Information
- Management
- PoE
- Port
- VLAN
- Link Aggregation
- Port Mirroring
- QoS
- Storm Control
- Rate Limiting
- Loop Detect/Prevent
- IGMP Snooping
- Password
- Logout

The PoE smart switch software provides layer 2 rich functionality for switches in your network. This chapter describes how to use the web-based management interface (Web UI) to configure the switch's features.

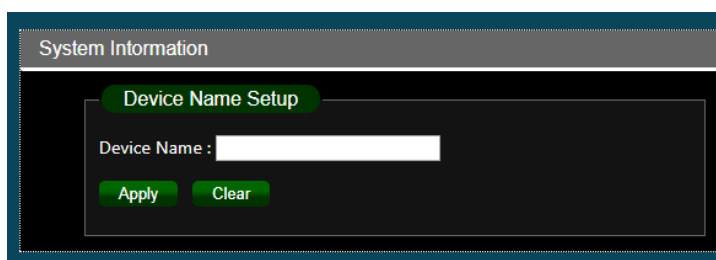
Name	Function
System Information	This link displays device information and allows you to configure device name.
Management	You can perform functional maintenance such as firmware or configuration files, as well as system reset or restart.
PoE	You can configure PoE.
Port	You can check the link status, TX/RX counter, loop status and loop reset.
VLAN	You can configure port-based VLAN or 802.1Q VLAN.
Link Aggregation	You can logically aggregate links to form a logical, higher bandwidth link.
Port Mirroring	This link can mirror Ingress/Egress traffic, the packet can mirror to Destination port and for analysis
QoS	You can enable Port-Based QoS or IEEE 802.1p QoS
Rate Limiting	The rate limiting function can be configured to limit the rate of traffic received on a particular interface.
Storm Control	You can set up broadcast rate limit on every port.
Loop Detect/Prevent	You can check Loop Detection and Loop Prevention.
IGMP Snooping	You can configure IGMP Snooping.
Password	Change the system login password.
Logout	Logout from system.

3. System

The page administrator can monitor switch information and modify network IP / mask.

System Information	
Model Name	CS-2208G-8P
Device Name	Smart Switch
Firmware Version	1.06.08
Build Date	2021.11.12
MAC Address	8C:4D:EA:05:4C:3D
IPv4 Address	192.168.2.200
Subnet Mask	255.255.255.0
Gateway	192.168.2.254
Loop Status	Normal
PoE Status	Normal

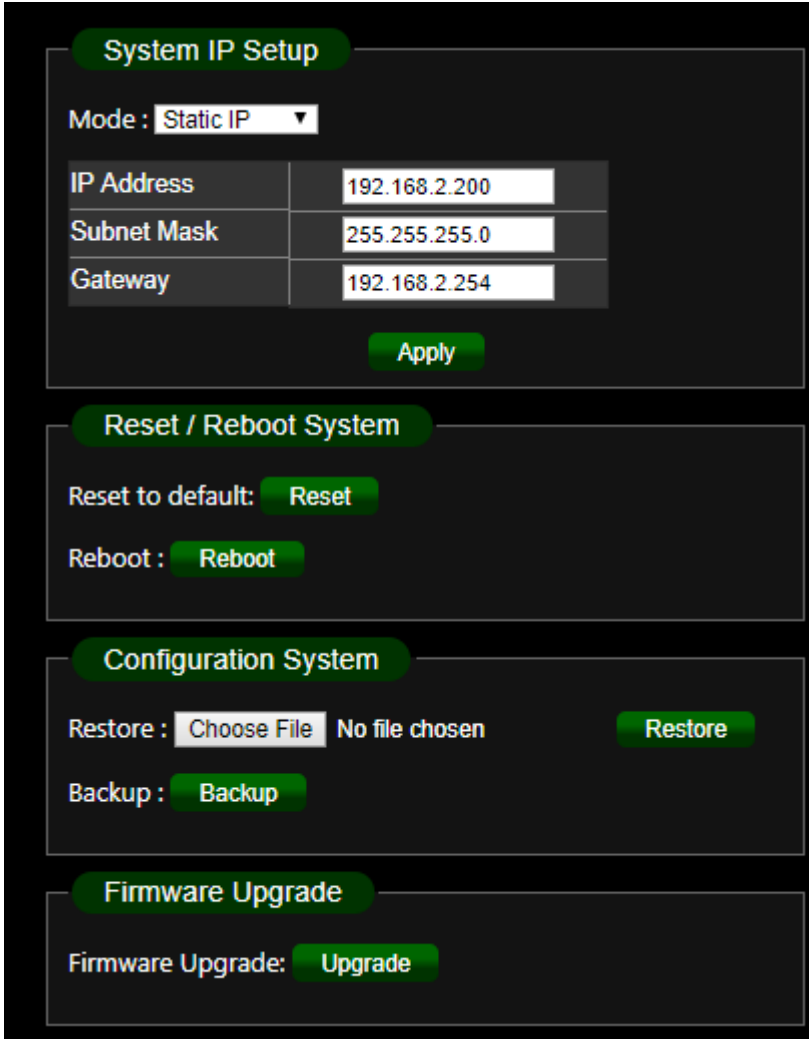
- **Model Name:** Display switch model name.
- **Device Name:** Administrator can modify the system name. Default system name is "Smart Switch"



- **Firmware Version:** Display system firmware version.
- **Build Date:** Display firmware release date.
- **MAC Address:** Display the system MAC Address.
- **IPv4 Address:** Display system IP address of the recent system
- **Subnet Mask:** Display network Mask.
- **Gateway:** Display Gateway IP Address.
- **Loop Status:** Display network infrastructure whether there is loop. (reference 11 Loop function)
- **PoE Status:** Display whether the PoE devices are normal; Error is displayed otherwise.

4. Management

This page administrator can set system IP address and reboot the system or reset the system to default settings. Users can also backup or restore device configuration settings, and also upgrade firmware from this page.



The screenshot displays a management interface with four main sections:

- System IP Setup:** Includes a dropdown menu for 'Mode' set to 'Static IP', and input fields for 'IP Address' (192.168.2.200), 'Subnet Mask' (255.255.255.0), and 'Gateway' (192.168.2.254). An 'Apply' button is located below the fields.
- Reset / Reboot System:** Contains two buttons: 'Reset' (labeled 'Reset to default:') and 'Reboot'.
- Configuration System:** Features a 'Restore' section with a 'Choose File' button, the text 'No file chosen', and a 'Restore' button. Below it is a 'Backup' section with a 'Backup' button.
- Firmware Upgrade:** Contains a 'Firmware Upgrade:' label and an 'Upgrade' button.

System IP Setup

- **Mode:**
 - **Static IP:** Administrator can manually set IP Address of the System
 - **Dynamic IP:** Administrator can select DHCP Client type.
 - **Click “Apply” to save the setting.** Please note that changing IP will lose the recent connection. Administrator will have to login with the newly set IP address.

Reset / Reboot System

- **Reset to default:** Administrator can click the button to reset system settings as default.
- **Reboot system:** Administrator can click the button to reboot the system.

Configuration System

- **Restore:** Display path for the restore configuration file.
- **Choose file:** Administrator can click the button to find the configuration file in the PC, then click “Restore” button to run the configuration file.
- **Backup system Profile:** Administrator can click the “Backup” button to backup system profile, the recent running configuration or system profile will be saved in the “Download” files of PC.

Firmware Upgrade

- **Firmware Upgrade:** By clicking “Upgrade” button, it will lead to firmware upgrade mode.
- **Select firmware file:** Administrator can click the button to find the firmware file in the PC.
- **Upgrade:** Please click the “Upgrade” button to upgrade the firmware.
- **Reboot:** Administrator will have to “Reboot” the system to complete firmware upgrade.
- **Please be noted that rebooting process must not be interrupted.**

5. PoE

PSE Status

PSE Total Power	140W
PSE MAX LED Power	130W
PSE IC MAX Temperature	150°C
PSE voltage	54.5V

Port Status / POE Global Settings

Port	Power Supply	Power consumption(W)	Real Temperature(°C)
1	Turn on ▼	0	41
2	Turn on ▼	0	42
3	Turn on ▼	0	41
4	Turn on ▼	0	44
5	Turn on ▼	0	41
6	Turn on ▼	0	42
7	Turn on ▼	0	42
8	Turn on ▼	0	41

Apply

PSE Status:

This table shows:

PSE Total Power or power budget 140 Wattage.

PSE MAX LED Power: PoE power output over 90% budget power i.e., 130 Wattage.

PSE IC MAX Temperature: Maximum Temperature IC can stand.

PSE voltage: Voltage of the PSE.

Port Status / POE Global Settings

Administrators can control PoE usage per port through **Turn On/Turn Off** option.

If port number status color is green, then port POE is turned on, if it's not green, then it expresses port's POE is turned off. Administrator has to click the **"Apply"** button to refresh the PoE setting.

"Power consumption" shows the power output per port in Watt.

"Real Temperature(°C)" shows the IC real time temperature of each port in degree Celsius.

6. PORT

PORT

Port Setting & Status

Port Status

Port	Speed	Connection	TX(Pkts)	RX(Pkts)
1	Auto	1000 Mbps	1209	5470
2	Auto	Down	0	0
3	10M Half	Down	0	0
4	10M Full	Down	0	0
5	100M Half	Down	0	0
6	100M Full	Down	0	0
7	Auto	1000 Mbps	2085	40
8	Auto	Down	0	0
9	N/A	Down	0	0
10	N/A	Down	0	0

Clear Counters
Apply

- **“Port Setting & Status:”** In this page, administrator can set the speed per port, and can clear the ingress or **TX** packet and egress **RX** packet counts.
- **“Port Status:”** Administrator can set the **“Speed”** of each **“Port”** as Auto, or **10M Half**, or **10M Full**, or **100M Half**, or **100M Full**. Click on **“Apply”** to refresh the settings. Because port number **9** and **10** are of SFE ports, it is not applicable to set the speed of the ports.
- **“Connection”** displays the connection speed per port.
- **“Clear Counters”** button can clear the **TX(Pkts)** and **RX(Pkts)** counts and return them to 0 and restart counters.

7.VLAN

In the **VLAN** function, administrator can set IEEE 802.1q i.e., Tag Based **VLAN** settings. **VLAN** or virtual local area network is any broadcast of the same domain, regardless of the real physical location, that is partitioned and isolated in a computer network at the data link layer. **VLAN** has the same attributes as local area network, but **VLAN** can group the end stations together even they are not located in the same network.

“**Configuration VLAN**” let users to set up **PVID**, **802.1Q VLAN**, and to **create new VLAN**.

PVID Setup

Port	01	02	03	04	05	06	07	08	09	10
PVID	1	1	1	1	1	1	1	1	1	1

Apply

802.1Q VLAN Setup

DHCP : Maximum number of IEEE 802.1Q VLAN : 10

VLAN ID	Non-Member			Tag Egress Member						Untag Egress Member		Modify	Delete
	1	2	3	4	5	6	7	8	9	10			
1												Modify	Delete

Create New VLAN

PVID: Administrator can set **Port tag VLAN ID**. “**PVID**” let exiting data packages or **Egress** with the set tag(s).

PVID must be one of the values set as **VLAN IDs**.

The default values of both **VLAN ID** and **PVID** are set as 1.

Click the “**Apply**” button to refresh the setting.

802.1Q VLAN: Administrator can set tag number for **802.1Q VLAN**. IEEE 802.1Q standard defines a system of VLAN tagging for Ethernet frames and the accompanying procedures to be used by switches in handling such frames. The standard also contains provisions for a QoS prioritization scheme.

“**802.1Q VLAN Setup**” can let the admin to **Tag/Untag Egress Member** for exiting data packages per port. The port can also be set as **Non-Member port**.

“**Modify**” let users to modify ports.

“**Delete**” button let users to delete whole set of the same **VLAN ID** ports. But, please be noted that administrator cannot delete the **VLAN ID** group with the set **PVID** value or **VLAN**

ID. So, the Administrator has to change the **PVID** to the default setting, 1, then, delete the **VLAN ID** group.

To “**Create New VLAN**”

VLAN

Configuration VALN

802.1Q VLAN Setup
Apply

VLAN ID	Non-Member			Tag Egress Member			Untag Egress Member			
	01	02	03	04	05	06	07	08	09	10
1										

Click on box to change member state.
If Trunking enable, Please verify VLAN configurations in trunk port.

Please be noted that **VLAN ID** must be within the value 1 ~ 4094.

VLAN ID: Please enter a value 1 ~ 4094.

Port Numbers: Can be set as “**Non-Member**,” or “**Tag Egress Member**,” or “**Untag Egress Member**” by just clicking on the rectangle beneath the port numbers.

Click “**Apply**” to refresh the settings.

PVID values, then, can be chosen from one of the values set as **VLAN IDs**.

8. Link Aggregation

The function supports **802.3ad LACP**, Link Aggregation Control Protocol.

Link Aggregation Control Protocol (LACP) can aggregate multiple Ethernet ports together to form a logical aggregation group. To upper layer entities, all the physical links in an aggregation group are a single logical link.

IEEE802.3ad LACP Setup				
LACP Global State	Disable ▼		Disable ▼	
Link Aggregation Algorithm	MAC SA & DA ▼			
Link Group Activity	Passive ▼		Passive ▼	
Link Group Member	Port 7	Port 8	Port 9	Port 10
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Apply				

- **LACP Global State:** Administrator can **Enable/Disable** the function. To “**Enable**” the function, the previous settings of the ports of the same group must be set in the same way.
- **Link Aggregation Algorithm:** Administrator can select **SA** or **DA** or **SA+DA** for the MAC Frame.

MAC DA: Destination Address



MAC SA: Source Address

Layer2 Packet Frame : The following example

Preamble	SFD	DA	SA	Ether type	Payload
----------	-----	----	----	------------	---------	-------

- **Link Group Activity:** Administrator can select “**Active**” or “**Passive**” of the “**Link Group Activity.**”

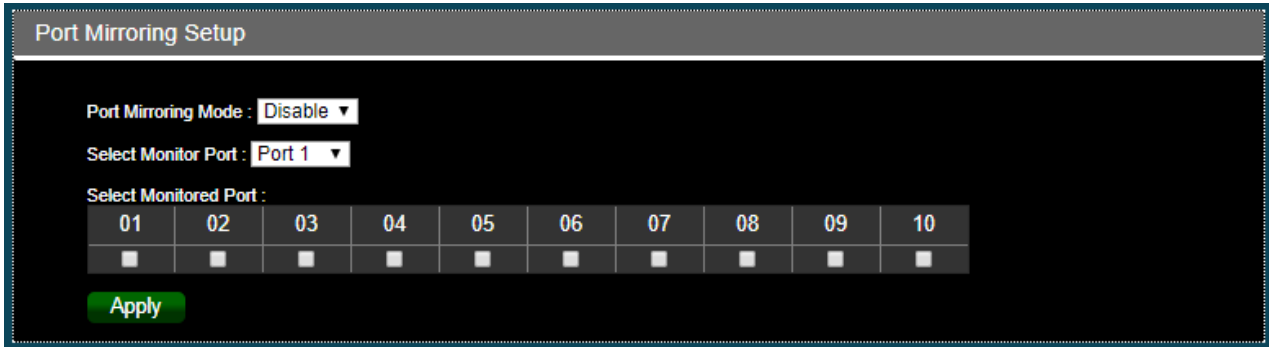


To properly use LACP, the two switches must have one switch enable “**Active**” function or both enable “**Active**”, Administrator cannot set “**Passive**” in the two switches.

- **Link Group Member:** If LACP function is enabled, the Link Group member will be auto-displayed. In this model, Port 7 & 8, and Port 9 & 10 are set as groups.

9. Port Mirror

Port mirroring function can mirror the traffic of Ingress/Egress packets, and so can mirror the destination port for analyzing. Port mirroring is used on a switch to send a copy of network packets of a port or ports to a network monitoring connection on another port.



Port Mirroring Setup

Port Mirroring Mode : **Disable** ▼

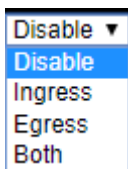
Select Monitor Port : **Port 1** ▼

Select Monitored Port :

01	02	03	04	05	06	07	08	09	10
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Apply

- **Port Mirror Mode:** Administrator can Select Ingress or Egress or Both for Mirror.



Disable ▼

Disable

Ingress

Egress

Both

- **Select Monitor Port:** Administrator can select monitoring port.
- **Selected Monitored Port:** Administrator can set the selected port(s) to be monitored.

10. QoS

Quality of Service (**QoS**) prioritizes network traffic and manages available bandwidth so that the most important traffic goes first. QoS is implemented as rules or policies that prioritize packets, optionally change information in the packet header, and assign them to outbound port queues based on their priority.

Administrator can select disable service or 802.1p/Port-Based QoS function. The default is Disables QoS.

Mode Setup

Disable QoS
 Port-Based QoS
 IEEE 802.1p QoS

QoS Setup

Schedule Method : WFQ Apply

Port	1	2	3	4	5	6	7	8	9	10	weight
Queue0	<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"/>	1 ▼
Queue1	<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"/>	2 ▼
Queue2	<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"/>	4 ▼
Queue3	<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"/>	8 ▼

Queue0 :Low Priority
 Queue1 :Normal Priority
 Queue2 :Medium Priority
 Queue3 :High Priority

Select QoS Type

- **Disable QoS:** Administrator can disable QoS function.
- **Port-Based QoS:** Administrator can use Port-Based mode to traffic management.
- **IEEE 802.1q QoS:** Administrator can use IEEE 802.1q mode to traffic management.

Port-Based QoS:

Schedule Method : Strict Priority Apply

WFQ

Port	1	2	3	4	5	6	7	8
	<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"/>	<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"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Administrator can select WFQ or Strict Priority type.

Schedule Method : **WFQ** Apply

Port	1	2	3	4	5	6	7	8	9	10	weight
Queue0	<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"/>	1
Queue1	<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"/>	2
Queue2	<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"/>	4
Queue3	<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"/>	8

Notice Queue0 is Low Priority, Queue3 is High Priority.

IEEE 802.1q QoS

Administrator can set Queue (weight) QoS by Tag VLAN.

Schedule Method : **Strict Priority** Apply

Strict Priority
 WFQ
 Strict Priority

Port	1	2	3	4	5	6	7	8
Queue0	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Queue1	<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"/>
Queue2	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Queue3	<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"/>

Administrator can select WFQ or Strict Priority type.

Port	1	2	3	4	5	6	7	8	weight
Queue0	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	1
Queue1	<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"/>	2
Queue2	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	4
Queue3	<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"/>	8

Notice Queue0 is Low Priority, Queue3 is High Priority.

11. Storm Control

Administrator can setup storm control of **Broadcast** / **Multicast** / **Unicast** by limiting the rates. Click “**Apply**” to refresh the rate settings.

Storm Control	
Broadcast	Unlimited ▼
Multicast	Unlimited ▼
Unicast	Unlimited ▼
Apply	

12. Rate Limiting

The rate limiting function can be configured to limit the rate of traffic received on a particular interface. Administrator can select

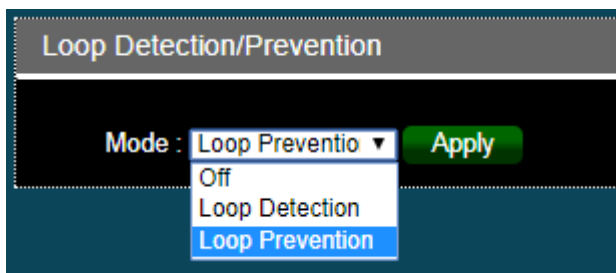
Port	Ingress rate	Egress rate	Port	Ingress rate	Egress rate	Port	Ingress rate	Egress rate
1	Unlimited ▼	Unlimited ▼	5	Unlimited ▼	Unlimited ▼	9	Unlimited ▼	Unlimited ▼
2	Unlimited ▼	Unlimited ▼	6	Unlimited ▼	Unlimited ▼	10	Unlimited ▼	Unlimited ▼
3	Unlimited ▼	Unlimited ▼	7	Unlimited ▼	Unlimited ▼			
4	Unlimited ▼	Unlimited ▼	8	Unlimited ▼	Unlimited ▼			
Apply								

- **Port:** Display Port list.
- **Ingress/ Egress rate:** Administrator can set Ingress or Egress for rate limits. Administrator can select Unlimited or 512Kb ~ 512 Mb

- Unlimited ▼
- Unlimited
- 512Kbps
- 1Mbps
- 2Mbps
- 4Mbps
- 8Mbps
- 16Mbps
- 32Mbps
- 64Mbps
- 128Mbps
- 256Mbps
- 512Mbps

13. Loop Detection / Prevention

Loop detection / Prevention can be used in a network topology to prevent or detect Layer 2 loops that occurs due to misconfigurations. When a loop occurs, administrator can go to user manual “**System**” (section 3.) to monitor loop status, and tick **Off** Loop to unlock for desired ports.

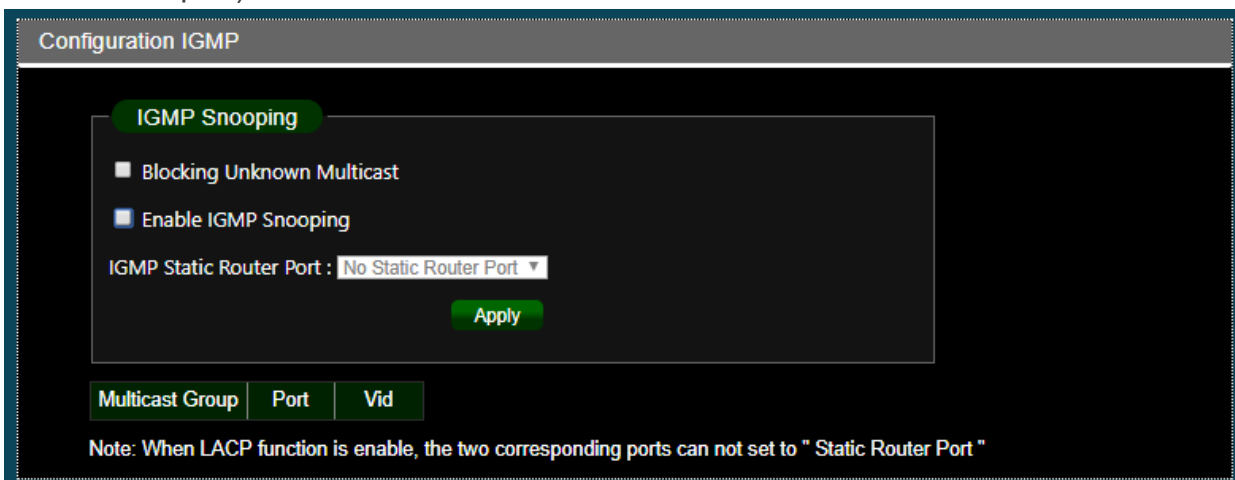


- **Off:** Administrator can disable loop detection or prevention function.
- **Loop Detection:** Administrator can select used loop detection mode to detect network situation. (2 Port LDE is off from looping Ports)
- **Loop Prevention:** Administrator can select used loop Prevention mode to prevent network looping. When Loop Prevention function is used, administrator can prevent loop from happening in the “**3. System**” Page.

Apply					
Port	Link Status	TX	RX	Loop Status	Loop Unlock
1	Down	626686	623371	1	<input checked="" type="checkbox"/>
2	1000 Mbps	1254009	1048	0	<input type="checkbox"/>
3	Down	830481	1053	0	<input type="checkbox"/>
4	Down	643022	640956	1	<input type="checkbox"/>
5	Down	0	0	0	<input type="checkbox"/>
6	Down	0	0	0	<input type="checkbox"/>
7	1000 Mbps	1269733	15967	0	<input type="checkbox"/>
8	Down	0	0	0	<input type="checkbox"/>
Clear Counters					

14. 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 routers. 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. Administrator can enable "Blocking Unknown Multicast" or IGMP Snooping by port (use static router port)



The screenshot shows the "Configuration IGMP" window. It features a "IGMP Snooping" section with two checkboxes: "Blocking Unknown Multicast" (unchecked) and "Enable IGMP Snooping" (checked). Below these is a dropdown menu for "IGMP Static Router Port" set to "No Static Router Port". An "Apply" button is located below the dropdown. At the bottom of the window, there are three tabs: "Multicast Group", "Port", and "Vid". A note at the bottom states: "Note: When LACP function is enable, the two corresponding ports can not set to " Static Router Port ""

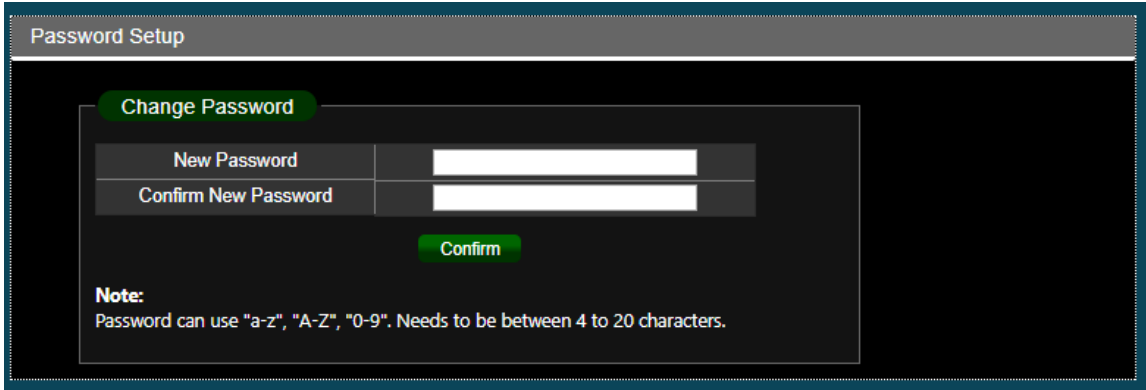
- **Blocking Unknown Multicast:** Administrator can start Blocking unknown multicast addresses.
- **Enable IGMP Snooping:** To alleviate the burden of IGMP queries.



When LACP function is enable, the last two port (7 & 8) can't set to " Static Router Port ".

15. Password

Administrator can change the Switch login password on this page. The default login password is default.



The screenshot shows a web interface titled "Password Setup". Inside, there is a "Change Password" section with two input fields: "New Password" and "Confirm New Password". Below these fields is a green "Confirm" button. A "Note:" section below the button states: "Password can use 'a-z', 'A-Z', '0-9'. Needs to be between 4 to 20 characters."

Please be noted that the Password needs to be between 4 to 20 characters long, and the characters used can be "a-z," "A-Z," and "0-9."

16. Logout

Clicking the logout button will log the administrator out of the management page.