

User Manual



EGS5110P
version 1.0

8-Port Gigabit PoE+ Smart Switch
with 2 Gigabit SFP

TABLE OF CONTENTS

Conventions	iv
Copyright	vi

Getting Started

Overview	1-1
EGS5110P	1-1
Management Interface	1-2
Connecting the Device to the Network	1-2
Discovery in a Network with a DHCP Server	1-2
Discovery in a Network without a DHCP Server	1-3
Web Access	1-3

Management

System	2-1
Summary	2-1
IP Setting	2-2
Port Settings	2-3
PoE Management	2-4
PoE Port Configuration	2-5
Cable Diagnostics	2-6
Password	2-7
Zero Configuration	2-8

L2 Feature	2-9
Port Trunking	2-9
IGMP Snooping	2-11
Multicast Group List	2-12
Port Mirroring	2-13
Loopback Detection	2-14
Static MAC Address	2-15
Dynamic Address List	2-16
VLAN	2-17
802.1Q	2-17
Adding, Editing, and Deleting Items in the list	2-18
PVID	2-21
Port-based VLAN	2-22
Adding, Editing, and Deleting Items in the list	2-23
QoS	2-25
802.1p Default Priority	2-25
CoS Priority Class	2-26
Storm Control	2-27
Bandwidth Control	2-28

Maintenance

Maintenance	3-1
Saving Configuration	3-1
Upgrading	3-2
Resetting	3-2
Rebooting	3-3
Logging Out	3-3

Appendix A

Federal Communication Commission Interference Statement	A-4
---	-----

Appendix B

Industry Canada Statement	B-5
---------------------------	-----

Appendix C

WorldWide Technical Support	C-6
-----------------------------	-----

Conventions

The following conventions are used to give the user additional information about specific procedures or content. It is important to pay attention to these conventions as they provide information to prevent damage to\ equipment or personal injury.

General Conventions

The following general conventions are used in this document.



CAUTION!

CAUTIONS APPEAR BEFORE THE TEXT IT REFERENCES. CAUTIONS APPEAR IN CAPITAL LETTERS TO EMPHASIZE THAT THE MESSAGE CONTAINS VITAL HEALTH AND SAFETY INFORMATION.



WARNING!

Warning information appears before the text it references to emphasize that the content may prevent damage to the device or equipment.



Important:

Indicates information that is important to know for the proper completion of a procedure, choice of an option, or completing a task.



Note:

Indicates additional information that is relevant to the current process or procedure.

N/A:

Indicates that a component or a procedure is not applicable to this model.

Prerequisite:

Indicates a requirement that must be addressed before proceeding with the current function or procedure.

Typographical Conventions

The following typographical conventions are used in this document:

Italics

Indicates book titles, directory names, file names, path names, and program/process names.

Constant width

Indicates computer output shown on a computer screen, including menus, prompts, responses to input, and error messages.

Constant width bold

Indicates commands lines as entered on the computer. Variables contained within user input are shown in angle brackets (< >).

Bold

Indicates keyboard keys that are pressed by the user.

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Getting Started

Chapter 1

1.1 Overview

The EGS Smart Switch Series are smart switch devices specially tailored for access points and IP surveillance applications. The Smart Switch Series provide simple, yet, powerful PoE manageability with features such as: Full IEEE802.3AT/AF ports, internal power supply, PoE port management, loopback detection, and IGMP snooping.

The following section provides an overview of the external device views. It also provides a brief description of the ports and LEDs.

1.1.1 EGS5110P

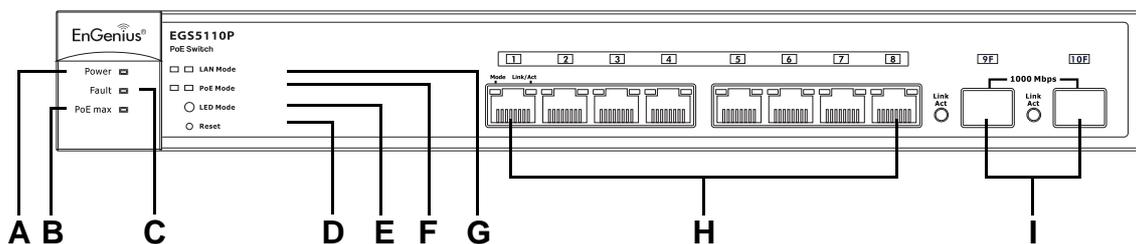


Figure 1-1 Front Panel

FRONT PANEL	DESCRIPTION
A Power LED	OFF = The device is not powered on. ON = The device is receiving power.
B PoE Maximum LED	OFF = The maximum power draw by other devices has not been reached. ON = The maximum power draw by connected devices has been reached.
C System Fault LED	OFF = The device is operating. ON = A system fault is detected.
D Factory Reset	Press this to reset the device to factory default settings
E LED Mode Selector	Press this to change between LAN and PoE mode.
F PoE Mode LED	OFF = The device is not in PoE mode. ON = The device is in PoE mode.
G LAN Mode LED	OFF = The device is not in LAN mode. ON = The device is in LAN mode.
H RJ-45 LAN Ports	10/100/1000Mbps RJ-45 LAN ports.
I SFP Ports	Small form factor pluggable ports.

1.2 Management Interface

The company name EGS5110P features an embedded web and management interface for the monitoring of your device. The interface is designed to help you configure basic and advanced features to help you improve switch efficiency and overall network performance.

Through the Web interface you can monitor, configure, and control your switch remotely using a browser

1.3 Connecting the Device to the Network

1.3.1 Discovery in a Network with a DHCP Server

Use this procedure to setup the device within a network using the DHCP function.

1. Connect one end of an Ethernet cable (RJ-45) to the LAN port of your PC and the other end to the device.
2. Connect the power cable to the device and turn it on.
3. On the PC connected to the device, change the PC's IP settings with those of the device: 192.168.0.0/24 subnet.
4. Open a Web browser on the PC and enter the following address (default): `http://192.168.0.239`.
5. On the login screen, use the following information.
Password: password
6. Once logged in, click **System** -> **IP Setting** and select **DHCP**.
7. Click **Apply** to save the settings.
8. Connect the device to your network (DHCP enabled).
9. On the DHCP server, find and write down the IP address allocated to the device. Use this IP address to access the management interface.

1.3.2 Discovery in a Network without a DHCP Server

Use this procedure to setup the device within a network requiring a static IP address.

1. Connect one end of an Ethernet cable (RJ-45) to the LAN port of your PC and the other end to the device.
2. Connect the power cable to the device and turn it on.
3. On the PC connected to the device, change the PC's IP settings with those of the device: 192.168.0.0/24 subnet.
4. Open a Web browser on the PC and enter the following address (default): `http://192.168.0.239`.
5. On the login screen, use the following information.
Password: password
6. Once logged in, click **System** -> **IP Setting** and select **Static IP** under the System Setting menu to configure the IP settings of the management interface.
7. Enter the IP address, subnet mask and gateway as given by your system administrator.
8. Click **Apply**.
9. Connect the device to your network.

1.4 Web Access

Use this procedure to access the management interface through a Web browser for device configuration.

1. Open a Web browser on your PC and enter the following address (default): `http://192.168.0.239`.
2. On the login screen, use the following information.
Password: password

Management

Chapter 2

2.1 System

The System menu enables management IP address and password to be configured and individual port speed and Power over Ethernet (PoE) configuration and cable diagnostics to be performed. This chapter describes these functions.

2.1.1 Summary

Click the Summary link under the System menu to see important system information such as firmware version and chassis MAC address.

Summary

Device Name:	EGS5110P
FW Version:	v0.15.08
Serial Number:	N/A
Base MAC address:	00:10:18:55:44:4B
IP Address:	192.168.1.154
Gateway:	192.168.1.1
System Up Time:	8 hours, 23 mins

LABEL	DESCRIPTION
Name	This shows the model number.
FW version	This shows the currently running.
Serial Number	This shows the serial number.
Base MAC address	This shows the chassis MAC address.
IP address	This shows the IP address of the management interface.
Gateway	This shows the IP address of the gateway to other subnets or networks.
System up time	This shows the elapsed time since the last reboot.

2.1.2 IP Setting

Click the IP Setting link under the System menu to configure the IP settings of your device. This IP address is also the address for the management Web interface.

To access the page, click **System -> IP Setting**.

System Setting

IP address

Type: Static IP DHCP

IP address:

Subnet mask:

Gateway:

LABEL	DESCRIPTION
Type	Use this to configure the device to use static IP settings or get its settings via Dynamic Host Configuration Protocol (DHCP).
IP address	Use this to configure the IP address of the management interface.
Subnet mask	Use this to configure the subnet mask of the management interface.
Gateway	Use this to configure the IP address of a router on the same subnet as the management interface that connects to other subnets.
Apply	Click this to apply settings.

2.1.3 Port Settings

Click the Port Setting link under the System menu to configure the speed and duplex settings of each port.

To access the page, click **System -> Port Setting**.

Port Setting

	Port	Trunk	Link	Speed
<input type="checkbox"/>				Auto
<input type="checkbox"/>	1		Down	Auto
<input type="checkbox"/>	2		Down	Auto
<input type="checkbox"/>	3		Down	Auto
<input type="checkbox"/>	4		Up	Auto (1G)
<input type="checkbox"/>	5		Down	Auto
<input type="checkbox"/>	6		Down	Auto
<input type="checkbox"/>	7		Up	Auto (100M Full)
<input type="checkbox"/>	8		Down	Auto
<input type="checkbox"/>	9		Down	1G
<input type="checkbox"/>	10		Down	1G

Apply

LABEL	DESCRIPTION
Port	This shows the port number.
Trunk	This show which trunk the port belongs to. For details on configuring a trunk, refer to "Port Trunking" on page 2-9.
Link	This shows whether the port is up or down at the physical layer.
Speed	Select one or more ports, select the speed and duplex settings from the drop-down box and click apply to configure port speed and duplex settings.
Apply	Click this to apply settings.

2.1.4 PoE Management

Ports 1~8 on the EGS5110P are IEEE802.3at compliant ports. Each port is capable of delivering up to 30W and a power budget of 124W for uninterrupted PoE use.

To access the page, click **System** -> **PoE Management**.

PoE Management

Setting

Total Power Budget: Watt. (6~130 Watt)

Current Power used: Watt.

Apply

LABEL	DESCRIPTION
Total Power Budget	Use this to configure the total power that can be supplied over all Ethernet ports.
Current Power Used	This shows how much power is being used by connected devices.
Apply	Click this to apply settings.

2.1.5 PoE Port Configuration

You can use the PoE Port Configuration page to view PoE power information and to configure the power settings.

To access the page, click **System -> PoE Port Configuration**.

PoE Port Configuration

	Port	Priority	Class	User Powerlimit(W)	State	Status
<input type="checkbox"/>		---	---		---	
<input type="checkbox"/>	1	Low	Auto	15	Enabled	Searching
<input type="checkbox"/>	2	Low	Auto	15	Enabled	Searching
<input type="checkbox"/>	3	Low	Auto	15	Enabled	Searching
<input type="checkbox"/>	4	Low	Auto	15	Enabled	Searching
<input type="checkbox"/>	5	Low	Auto	15	Enabled	Searching
<input type="checkbox"/>	6	Low	Auto	15	Enabled	Searching
<input type="checkbox"/>	7	Low	Auto	15	Enabled	Searching
<input type="checkbox"/>	8	Low	Auto	15	Enabled	Searching

Apply

LABEL	DESCRIPTION
Port	This shows the port number.
Priority	Use this to configure which ports get power first.
Class	Use this to configure whether the power class is negotiated within a user-defined power limit or not.
User Power Limit	Use this to configure the maximum power that is supplied over a port. Note: The user power limit can only be implemented when the Class value is set to User-Defined.
State	Use this to enable or disable power over Ethernet on a port.
Status	
Apply	Click this to apply settings.

2.1.6 Cable Diagnostics

You can use the Cable Diagnostics page to perform a diagnostic on each cable connected to the device ports.

The cable status and length are displayed after a test is performed.

To access the page, click **System** -> **Cable Diagnostics**.

Cable Diagnostics

Port	Status	Cable length (meter)
Port 1 <input type="button" value="v"/>		

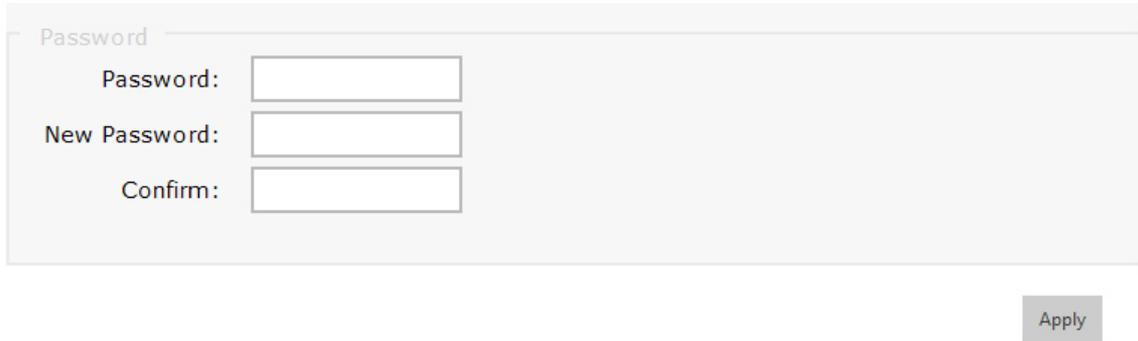
LABEL	DESCRIPTION
Port	Use this to select the port number.
Status	This shows the state of the cable.
Cable Length	This shows the cable length in meters.
Test	Click this to start the test.

2.1.7 Password

Use the Password page to change your current login password.

To access the page, click **System** -> **Password**.

Password



The screenshot shows a form titled "Password" with three input fields and an "Apply" button. The fields are labeled "Password:", "New Password:", and "Confirm:". The "Apply" button is located at the bottom right of the form area.

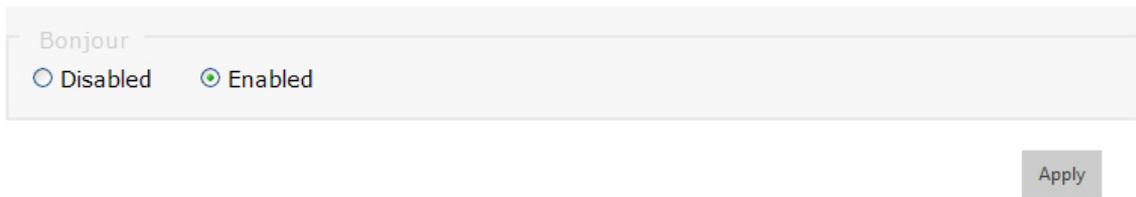
LABEL	DESCRIPTION
Password	This shows the current password.
New Password	Enter a new password here.
Confirm	Enter the new password again here.
Apply	Click this to apply settings.

2.1.8 Zero Configuration

Use the Zero Configuration page to enable devices on your network to automatically configure themselves and be discovered without further configuration. The Bonjour service is enabled or disabled through the Zero Configuration page.

To access the page, click **System -> Zero configuration**.

Zero configuration



The screenshot shows a configuration page for the Bonjour service. At the top, the word "Bonjour" is displayed. Below it, there are two radio button options: "Disabled" and "Enabled". The "Enabled" option is selected, indicated by a filled circle. To the right of these options is a grey "Apply" button.

LABEL	DESCRIPTION
Bonjour	Use this to enable or disable auto configuration through the Bonjour protocol.
Apply	Click this to apply settings.

2.2 L2 Feature

The L2 Feature menu enables port trunking, control of multicast traffic flooding, port mirroring, cabling loop detection and MAC address table management. This chapter describes these functions.

2.2.1 Port Trunking

Use the Port Trunking page to link multiple cables/ports in a parallel connection to increase the throughput beyond that of a single connection. The linked cables/ports can also act to create link redundancy.



Note:

You must enable trunk mode before you can add a port to a trunk group.

To access the page, click **L2 Feature -> Port Trunking**.

Port Trunking

Group	Member Ports	Mode	
1		Disabled	
2		Disabled	
3		Disabled	
4		Disabled	

LABEL	DESCRIPTION
Group	This shows the trunk number.

Port Trunking

Group	Member Ports	Mode	
1	<input type="text"/>	<div style="border: 1px solid black; padding: 2px;"> Disabled <ul style="list-style-type: none"> Disabled Enabled </div>	<input type="checkbox"/> <input type="checkbox"/>
2			
3		Disabled	
4		Disabled	

LABEL	DESCRIPTION
Mode	Click  and then click here to enable or disable a trunk. You set the mode to Enabled before you can edit the member ports.

Port Trunking

Group	Member Ports	Mode																						
1	<div data-bbox="416 595 1217 797" style="border: 1px solid gray; padding: 5px;"> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 5%;">Port</th> <th style="width: 5%;">1</th> <th style="width: 5%;">2</th> <th style="width: 5%;">3</th> <th style="width: 5%;">4</th> <th style="width: 5%;">5</th> <th style="width: 5%;">6</th> <th style="width: 5%;">7</th> <th style="width: 5%;">8</th> <th style="width: 5%;">9</th> <th style="width: 5%;">10</th> </tr> </thead> <tbody> <tr> <td></td> <td><input type="checkbox"/></td> </tr> </tbody> </table> <div style="text-align: center; margin-top: 10px;"> Confirm Cancel </div> </div>	Port	1	2	3	4	5	6	7	8	9	10		<input type="checkbox"/>										
Port		1	2	3	4	5	6	7	8	9	10													
		<input type="checkbox"/>																						
2																								
3																								
4																								

LABEL	DESCRIPTION
Member Ports	Click  and then click here to define which ports are members of a trunk.

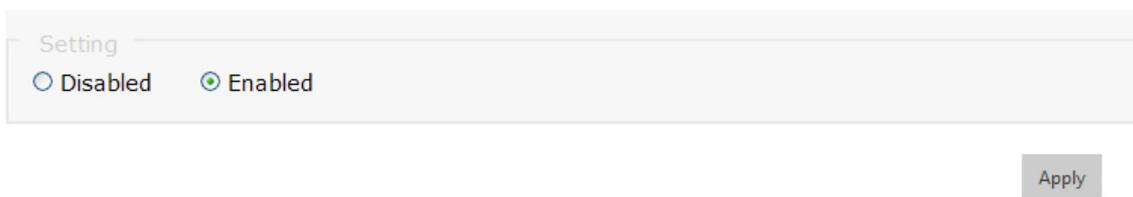
Click the Apply button  to accept the changes or the Cancel button  to discard them.

2.2.2 IGMP Snooping

Use the IGMP Snooping page to enable or disable this function. This feature allows the device to listen in on the Internet Group Management Protocol (IGMP) conversations between hosts and routers to map out IP multicast streams. The device can limit flooding of traffic to IGMP designated ports.

To access the page, click **L2 Feature** -> **IGMP Snooping**.

IGMP Snooping



Setting

Disabled Enabled

Apply

LABEL	DESCRIPTION
Setting	Use this to enable or disable IGMP snooping.
Apply	Click this to apply settings.

2.2.3 Multicast Group List

The Multicast Group List page displays a list of ports with the Multicast designation.

To access the page, click **L2 Feature** -> **Multicast Group List**.

Multicast Group List

Group IP	VID	Member Ports
----------	-----	--------------

LABEL	DESCRIPTION
Group IP	This shows the multicast IP address of the group.
VID	This shows the VLAN ID that the multicast group is operating over.
Member Ports	This shows which ports have IGMP members on them.

2.2.4 Port Mirroring

You can use the Port Mirroring page to view and configure source and destination ports to define port mirroring sessions. In this way, network packets from one port can be copied and sent to a monitoring connection on a different port. Both inbound or outbound traffic (or both) can be mirrored on the device.

To access the page, click **L2 Feature -> Port Mirroring**.

Port Mirroring

Port mirroring

Direction:

Source Port:

↓

Destination Port:

LABEL	DESCRIPTION
Direction	Use this to select whether received, transmitted or bidirectional traffic is mirrored.
Source Port	Click this to select the ports from which traffic is mirrored.
Destination Port	Use this to select the port to which traffic is mirrored.
Apply	Click this to apply settings.

2.2.5 Loopback Detection

When Spanning Tree Protocol (STP) is not enabled in the network, the Loopback Detection function can be used to detect the loop created by a specific port. Click the Loopback Detection link under the L2 Feature menu to configure loop detection for loops created by a specified port. For users connecting hubs or unmanaged switches, the Loopback Detection function shuts a port when packets are sent and received from the same port--a loopback effect. The port is automatically unlocked after the recovery period times out.

Loopback Detection

Setting

Disabled Enabled

Time interval: secs. (2~32767)

Recover time: secs. (0 or 60~1000000)

Blocked ports: none

[Apply](#)

LABEL	DESCRIPTION
Time Interval	Enter how long traffic is allowed to flow over a cabling loop before the looped ports are shut down.
Recovery Time	Enter how long after ports are shut down before they are automatically re-enabled.
Apply	Click this to apply the settings to all ports.

2.2.6 Static MAC Address

Click the Static MAC Address link under the L2 Feature menu to edit the MAC address table.

Static MAC Address

Index	Port	VID	MAC Address	+ Add
-------	------	-----	-------------	-------

LABEL	DESCRIPTION
Index	This shows the internal index for this MAC address table entry.
Port	Click this to select the port from which traffic to a destination MAC address will be sent.
VID	Click this to select the VLAN ID that traffic to a destination MAC address will be sent.
MAC Address	Click this select the destination MAC address that will be matched to traffic.
Add	Click this to add a new entry to the MAC address table.
Edit	Click this to edit an existing entry listed in the MAC address table.
Delete	Click this to delete an existing entry listed in the MAC address table.

2.2.7 Dynamic Address List

Click the Dynamic Address List link under the L2 Feature menu to show the MAC address table.

Dynamic Address List

Index	Port	VID	MAC Address
1	1	1	1C:6F:65:28:35:AE

LABEL	DESCRIPTION
Index	This shows the internal index for this MAC address table entry.
Port	This shows the port from which traffic to a destination MAC address is sent.
VID	This shows the VLAN ID that traffic to a destination MAC address is sent.
MAC Address	This shows the destination MAC address that is matched to traffic.

2.3 VLAN

The VLAN menu enables configuration of 802.1Q VLANs or port-based VLANs. This chapter describes these functions.

2.3.1 802.1Q

Click the 802.1Q link under the VLAN menu to configure which egress ports add 802.1Q tags to traffic.



Important:

Port-based VLAN and 802.1Q VLAN are mutually exclusive. If you enable port-based VLAN, then 802.1Q VLAN is disabled.



Note:

All ports with a VID of 1 are assigned to the default VLAN.

802.1Q

VID	Name	Tagged Ports	Untagged Ports	
1	default		1-10	<div style="text-align: right;"> + Add </div>

LABEL	DESCRIPTION
VID	This shows the 802.1Q tag that is added to egress traffic on these ports.
Name	Defines the name of the VLAN.
Tagged Ports	Shows the egress ports that tag traffic. Selecting tagged ports removes them from the Untagged Ports field.
Untagged Ports	Shows the egress ports that don't tag traffic. Selecting untagged ports removes them from the Tagged Ports field.

802.1Q

VID	Name	Tagged Ports	Untagged Ports	Enabled
-----	------	--------------	----------------	---------

LABEL	DESCRIPTION
Enabled	Click this to enable 802.1Q VLANs. This feature is enabled by default.

Adding, Editing, and Deleting Items in the list

802.1Q

VID	Name	Tagged Ports	Untagged Ports	+ Add
1	default		1-10	

To add an item to the 802.1Q list, follow these steps:

1. Click the Add button .
2. Enter the VID and name values in the VID and Name text boxes.

802.1Q

VID	Name	Tagged Ports	Untagged Ports	
1	default		1-10	
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="checkbox"/> <input type="checkbox"/>

3. Click the Tagged Ports text box to show the tagged ports dialog box.
4. Click a radio button in the tagged ports row to select a port.

Port	1	2	3	4	5	6	7	8	9	10
tagged	<input checked="" 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"/>
untagged	<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"/>
none	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>							

5. Click the Untagged Ports text box to show the untagged ports dialog box.
6. Click a radio button in the untagged ports row to select a port.

7. Click **Confirm** to accept the changes or **Cancel** discard them.

802.1Q

VID	Name	Tagged Ports	Untagged Ports	
1	default		1-10	<div style="text-align: right;"> + Add </div>

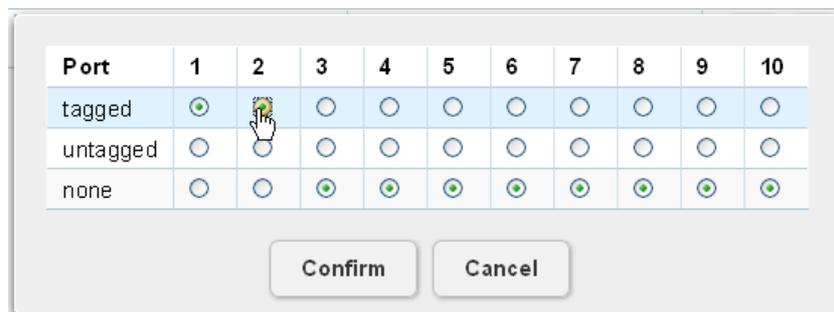
To edit an item in the 802.1Q list, follow these steps:

1. Click the edit button .
2. Enter the VID and name values in the VID and Name text boxes.

802.1Q

VID	Name	Tagged Ports	Untagged Ports	
1	default		1-10	
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<div style="text-align: right;"> <input type="checkbox"/> <input type="checkbox"/> </div>

3. Click the **Tagged Ports** text box to show the tagged ports dialog box.
4. Click a radio button in the **tagged ports** row to select a port.



5. Click the **Untagged Ports** text box to show the untagged ports dialog box.
6. Click a radio button in the **untagged ports** row to select a port.
7. Click **Confirm** to accept the changes or **Cancel** discard them.

802.1Q

VID	Name	Tagged Ports	Untagged Ports	 Add
1	default		1-10	
2	test	1	2-4	 

 Delete

To delete an item in the 802.1Q list, follow these steps:

1. Click the delete button  in the row you want to remove. A confirmation dialog is displayed.
2. Click **OK** to continue or **Cancel** to abort the changes.

2.3.2 PVID

Click the PVID link under the VLAN menu to tag outgoing, untagged packets and to filter incoming packets.



Note:

To enable PVID functionality the following requirements must be met:

- All ports must have a defined PVID.
- If no other value is specified, the default VLAN PVID is used.
- If you want to change the port's default PVID, you must first create a VLAN that includes the port as a member.

PVID

	Port	Trunk	PVID
<input type="checkbox"/>			<input type="text"/>
<input type="checkbox"/>	1		1
<input type="checkbox"/>	2		1
<input type="checkbox"/>	3		1
<input type="checkbox"/>	4		1
<input type="checkbox"/>	5		1
<input type="checkbox"/>	6		1
<input type="checkbox"/>	7		1
<input type="checkbox"/>	8		1
<input type="checkbox"/>	9		1
<input type="checkbox"/>	10		1

Apply

LABEL	DESCRIPTION
Port	This shows the port number.
Trunk	This shows the trunk number (if any are defined for this port).
PVID	Select one or more ports and then click here to select a PVID.
Apply	Click this to apply settings.

2.3.3 Port-based VLAN

Click the Port-based VLAN link under the VLAN menu to enable and show port-based VLANs.



Important:

Port-based VLAN and 802.1Q VLAN are mutually exclusive. If you enable port-based VLAN, then 802.1Q VLAN is disabled.

Port-base VLAN

VID	Name	Member Ports	+ Add
1	default	1-10	

LABEL	DESCRIPTION
VID	This shows the VLAN ID of the port-based VLAN.
Name	This shows the name of the port-based VLAN.
Member Ports	This shows which ports belong to this port-based VLAN.

Port-base VLAN

VID	Name	Member Ports	Enabled

LABEL	DESCRIPTION
Enabled	Click this to enable port-based VLANs. This feature must be enabled to configure a port-based VLAN.

Adding, Editing, and Deleting Items in the list

Port-based VLAN

VID	Name	Member Ports	
1	default	1-10	

To add an item to the 802.1Q list, follow these steps:

1. Click the Add button .
2. Enter the VID and name values in the VID and Name text boxes.

Port-based VLAN

VID	Name	Member Ports	
1	default	1-10	
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="checkbox"/> <input type="checkbox"/>

3. Click the Member Ports text box to show the ports dialog box.

Port	1	2	3	4	5	6	7	8	9	10
	<input type="checkbox"/>									

4. Click a check box in the member ports row to select a port.
5. Click Confirm to accept the changes or Cancel discard them.

Port-base VLAN

VID	Name	Member Ports	 Add
1	default	1-10	

To edit an item in the 802.1Q list, follow these steps:

1. Click the edit button .
2. Enter the VID and name values in the VID and Name text boxes.

Port-base VLAN

VID	Name	Member Ports	<input type="checkbox"/>	<input type="checkbox"/>
1	default	1-10	<input type="checkbox"/>	<input type="checkbox"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>

3. Click the Member Ports text box to show the member ports dialog box.

Port	1	2	3	4	5	6	7	8	9	10
	<input type="checkbox"/>									

4. Click a check box in the member ports row to select a port.
5. Click Confirm to accept the changes or Cancel discard them.

Port-base VLAN

VID	Name	Member Ports	 Add
1	default	2-10	
2	group1	1	 

To delete an item in the 802.1Q list, follow these steps:

1. Click the delete button  in the row you want to remove. A confirmation dialog is displayed.
2. Click OK to continue or Cancel to abort the changes.

2.4 QoS

The QoS menu enables traffic to be prioritized, excessive broadcast and multicast traffic to be avoided and overall bandwidth to be limited on a port-by-port basis. This chapter describes these functions.

2.4.1 802.1p Default Priority

Click the 802.1p Default Priority link under the QoS menu to define which 802.1p/Q priority is applied to untagged ingress traffic. The priority level is from 0 to 7. EGS5110P supports four class quality levels: low, normal, medium, and high. To find out how to map the priority value to one of the four classes, refer to “CoS Priority Class” on page 2-26.

802.1p Default Priority

	Port	Trunk	Priority
<input type="checkbox"/>			0 (Normal) ▼
<input type="checkbox"/>	1		7 (High)
<input type="checkbox"/>	2	1	5 (Medium)
<input type="checkbox"/>	3	2	0 (Normal)
<input type="checkbox"/>	4		2 (Low)
<input type="checkbox"/>	5		7 (High)
<input type="checkbox"/>	6	1	5 (Medium)
<input type="checkbox"/>	7	2	0 (Normal)
<input type="checkbox"/>	8		2 (Low)
<input type="checkbox"/>	9		7 (High)
<input type="checkbox"/>	10		5 (Medium)

LABEL	DESCRIPTION
Port	This shows the port number.
Trunk	This shows the trunk number (if any are defined for this port). Ports assigned to the same trunk group are assigned the same priority level.
Priority	Select the priority for untagged traffic arriving on this port.
Apply	Click this to apply settings.

2.4.2 CoS Priority Class

Click the CoS Priority Class link under the QoS menu to define which 802.1p/Q priority class (low, normal, medium, or high) is applied to untagged ingress traffic.

Cos Prority Class

	Priority	Class
<input type="checkbox"/>		Low <input type="button" value="v"/>
<input type="checkbox"/>	0	Normal
<input type="checkbox"/>	1	Low
<input type="checkbox"/>	2	Low
<input type="checkbox"/>	3	Normal
<input type="checkbox"/>	4	Medium
<input type="checkbox"/>	5	Medium
<input type="checkbox"/>	6	High
<input type="checkbox"/>	7	High

LABEL	DESCRIPTION
Priority	This shows the Priority Code Point (PCP) that matches ingress traffic.
Class	Select the Class of Service (CoS) that is applied to traffic. Traffic classified as High CoS are sent first.
Apply	Click this to apply settings.

2.4.3 Storm Control

The Storm Control feature provides the ability to control the receive rate of broadcast, multicast, and unknown unicast packets. Click the Storm Control link under the QoS menu to limit excessive flooding caused by a packet storm.

Storm Control

Storm control

Disabled
 Enabled

Type:

Threshold: pps

LABEL	DESCRIPTION
Port	<p>Type Use this to select which type of traffic will be limited.</p> <div style="border: 1px solid black; padding: 5px; margin: 10px 0;"> <p>Multicast + Broadcast + Unknown Unicast</p> <p>Broadcast Only</p> <p>Multicast + Broadcast</p> <p>Multicast + Broadcast + Unknown Unicast</p> </div> <ul style="list-style-type: none"> ● Unknown Unicast: If the rate of unknown L2 unicast (destination lookup failure) traffic ingressing on an interface increases beyond the configured threshold, the traffic will be dropped. ● Multicast: If the rate of L2 multicast traffic ingressing on an interface increases beyond the configured threshold, the traffic will be dropped. ● Broadcast: If the rate of L2 broadcast traffic ingressing on an interface increases beyond the configured threshold, the traffic will be dropped.
Threshold	Use this to configure how many packets per second are allowed to flood.

2.4.4 Bandwidth Control

Click the Bandwidth Control link under the QoS menu to define how much traffic can pass through a port.

Bandwidth Control

	Port	Trunk	Tx	Rx
<input type="checkbox"/>			<input type="text" value="*64K"/>	<input type="text" value="*64K"/>
<input type="checkbox"/>	1			
<input type="checkbox"/>	2			
<input type="checkbox"/>	3			
<input type="checkbox"/>	4			
<input type="checkbox"/>	5			
<input type="checkbox"/>	6			
<input type="checkbox"/>	7			
<input type="checkbox"/>	8			
<input type="checkbox"/>	9			
<input type="checkbox"/>	10			

Apply

LABEL	DESCRIPTION
Port	This shows the port number.
Trunk	This shows the trunk number (if any are defined for this port).
Tx	Use this to configure the maximum bandwidth this port sends out.
Rx	Use this to configure the maximum bandwidth this port accepts.
Apply	Click this to apply settings.

Maintenance

Chapter 3

3.1 Maintenance

Maintenance functions are available from the maintenance bar. Maintenance functions include: Saving Configuration settings, Upgrading firmware, Resetting the configuration to factory defaults, Rebooting the device, and Logging Out of the interface.

The following is the Maintenance menu bar.



Figure 3-1 Maintenance Bar

3.1.1 Saving Configuration



Important:

You must save any setting changes before rebooting. Failing to save results in loss of new configuration changes.

Follow this procedure to save the configuration, so it will survive a reboot.

1. Click  to begin saving the configuration settings.
2. Click OK.



3.1.2 Upgrading



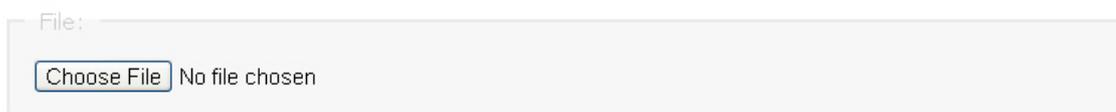
WARNING!

Backup your configuration information before upgrading to prevent loss of setting information.

Follow this procedure to upgrade the firmware.

1. Click  to start upgrading.
2. Click Choose File. A window opens, browse to the location of your new firmware.
3. Select the new firmware file and click OK.

Firmware Upgrade



4. A prompt displays to confirm the firmware upgrade. Click OK and follow the on-screen instructions to complete the firmware upgrade.



Note:

The Upgrade process may require a few minutes to complete.

3.1.3 Resetting

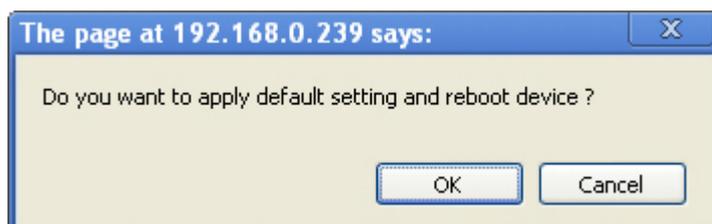


WARNING!

The Reset function will delete all configuration information from the current device. Backup your information before starting this procedure.

Follow this procedure to reset the device to factory default settings.

1. Click  to start the rest process.
2. A prompt displays, click OK to confirm the reset or Cancel to quit the procedure.



3.1.4 Rebooting

Follow this procedure to reboot the device.

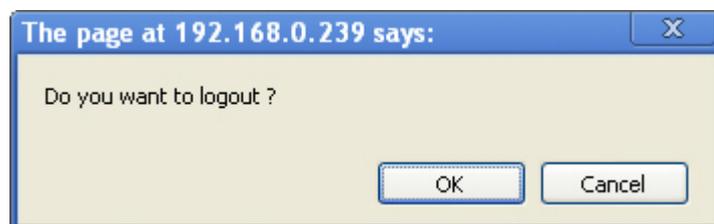
1. Click  to start the reboot process.
2. A prompt displays, click OK to confirm the reboot or Cancel to quite the procedure.



3.1.5 Logging Out

Follow this procedure to log out the current profile from the user interface.

1. Click  to log out of the menu.
2. A prompt displays, click OK to confirm the logout or Cancel to quit the procedure.



Appendix A

Federal Communication Commis- sion Interference Statement

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.



WARNING!

Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

FCC Radiation Exposure Statement



Important:

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment.

This device complies with FCC RF Exposure limits set forth for an uncontrolled environment, under 47 CFR 2.1093 paragraph (d)(2).

This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

Appendix B

Industry Canada Statement

This device complies with RSS-210 of the Industry Canada Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Ce dispositif est conforme à la norme CNR-210 d'Industrie Canada applicable aux appareils radio exempts de licence. Son fonctionnement est sujet aux deux conditions suivantes: (1) le dispositif ne doit pas produire de brouillage préjudiciable, et (2) ce dispositif doit accepter tout brouillage reçu, y compris un brouillage susceptible de provoquer un fonctionnement indésirable.



Important:

Radiation Exposure Statement:

This equipment complies with IC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator & your body.

Déclaration d'exposition aux radiations:

Cet équipement est conforme aux limites d'exposition aux rayonnements IC établies pour un environnement non contrôlé. Cet équipement doit être installé et utilisé avec un minimum de 20 cm de distance entre la source de rayonnement et votre corps.

Appendix C

WorldWide Technical Support

REGION/COUNTRY OF PURCHASE	SERVICE CENTRE	SERVICE INFORMATION	
Canada	CANADA	web site	www.engeniuscanada.com
		email	rma@engeniuscanada.com
		contact numbers	Toll Free: (+1) 888-397-2788 Local: (+1) 905-940-8181
		hours of operation	Monday - Friday 9:00AM to 5:30PM EST (GMT-5)
USA	LOS ANGELES, USA	web site	www.engeniustech.com
		email	support@engeniustech.com
		contact numbers	Toll Free: (+1) 888-735-7888 Local: (+1) 714-432-8668
		hours of operation	Monday - Friday 8:00 AM to 4:30 PM PST (GMT-8)
Mexico, Central and Southern America	MIAMI, USA	web site	[ES] es.engeniustech.com [PT] pg.engeniustech.com
		email	miamisupport@engeniustech.com
		contact numbers	Miami: (+1) 305-887-7378 Sao Paulo, Brazil: (+55)11-3957-0303 D.F., Mexico:(+52)55-1163-8894
		hours of operation	Monday - Friday 8:00 AM to 5:30PM EST (GMT-5)
Europe	NETHERLANDS	web site	www.engeniusnetworks.eu
		email	support@engeniusnetworks.eu
		contact numbers	(+31) 40-8200-887
		hours of operation	Monday - Friday 9:00 AM - 5:00 PM (GMT+1)

REGION/COUNTRY OF PURCHASE	SERVICE CENTRE	SERVICE INFORMATION	
Africa, Middle East, Russia, CIS/ Armenia, Azerbaijan, Belarus, Georgia, Kazakhstan, Kyrgyzstan, Moldova, Tajikistan, Turkmenistan, Ukraine, Uzbekistan, Turkey, Afghanistan, Pakistan, Bangladesh, Maldives, Nepal, Bhutan, Sri Lanka	DUBAI, UAE	web site	www.engenius-me.com
		email	support@engenius-me.com
		contact numbers	Toll Free: U.A.E.: 800-EnGenius 800-364-364-87 General: (+971) 4357-5599
		hours of operation	Sunday - Thursday 9:00 AM - 6:00 PM (GMT+4)
Singapore, Cambodia, Indonesia, Malaysia, Thailand, Philippines, Vietnam, China, Hong Kong, Korea, India, South Africa, Oceania	SINGAPORE	web site	www.engeniustech.com.sg/ e_warranty_form
		email	techsupport@engeniustech.com.sg
		contact numbers	Toll Free: Singapore: 1800-364-3648
		hours of operation	Monday - Friday 9:00 AM - 6:00 PM (GMT+8)
Others	TAIWAN, R.O.C.	web site	www.engeniusnetworks.com
		email	technology@senao.com

Note:

* Service hours are based on the local time of the service center.

* Please visit the website for the latest information about customer service.