

# FIBEROAD

## Web-based Network Management User Manual



## About This Manual

### Introduction

This document chapter includes an introduction to the Fiberroad Industrial Ethernet products family,

### Conventions

This document contains notices, figures, screen captures, and certain text conventions.

### Figures and Screen Captures

This document provides figures and screen captures as example. These examples contain sample data. This data may vary from the actual data on an installed system.

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Units of measurement in this publication conform to SI standards and practices.

Jan 01, 2022

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## Revision History

Version	Date	Author	Reasons of Change	Section(s) Affected
1.0	2022/3/16		Initial Release	All



# Chapter 1 System Configurations

This chapter describes the port configuration in detail, including but not limit to the following:

- ❖ System Information
  - ❖ IP Setting
  - ❖ User Account
  - ❖ Port Setting
- 

## 1. About Web-GUI Management

There is an embedded HTML web site residing in flash memory on CPU board of the switch, which offers advanced management features and allows users to manage the switch from anywhere on the network through a standard browser such as Mozilla Firefox or Chrome. (Note: Window IE is not supported) The Web-Based Management supports Mozilla Firefox 54.X or later, or Chrome 59.X or later. The Web browser is a program that can read hypertext.

### 1.1 Preparing for Web Management

Before using the web management, install the industrial switch on the network and make sure that any one of the PCs on the network can connect with the industrial switch through the web browser.

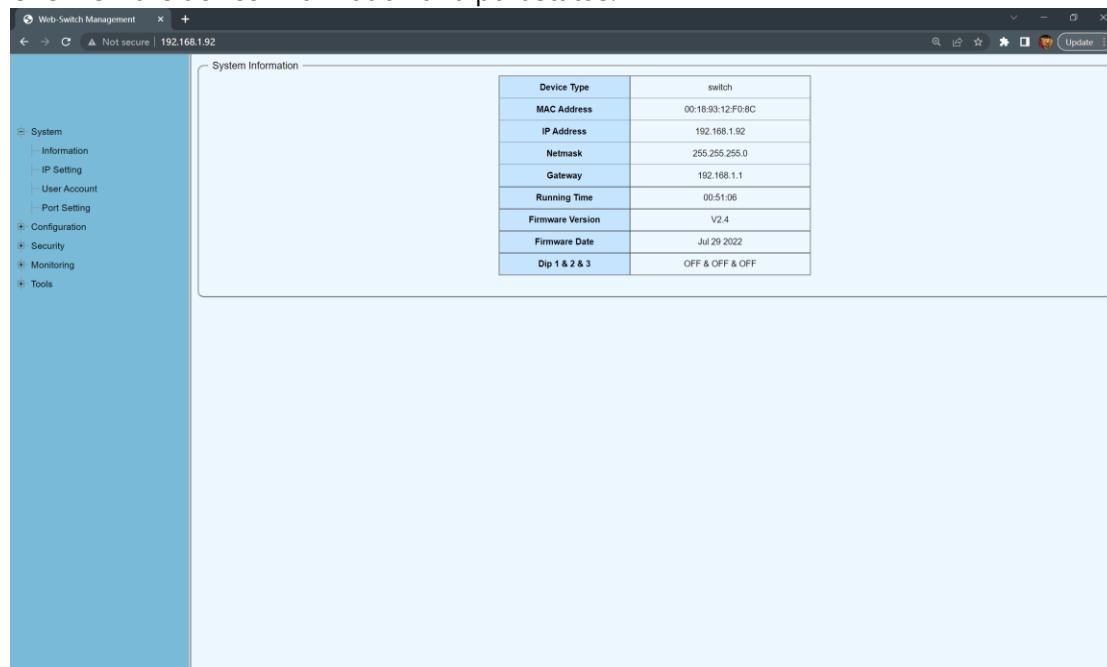
The industrial switch default value of IP, subnet mask, username and password are listed as below:

- ❖ IP Address: 192.168.1.6
- ❖ HTTP service: Enable
- ❖ User Name: admin
- ❖ Password: admin

## 1.2 System

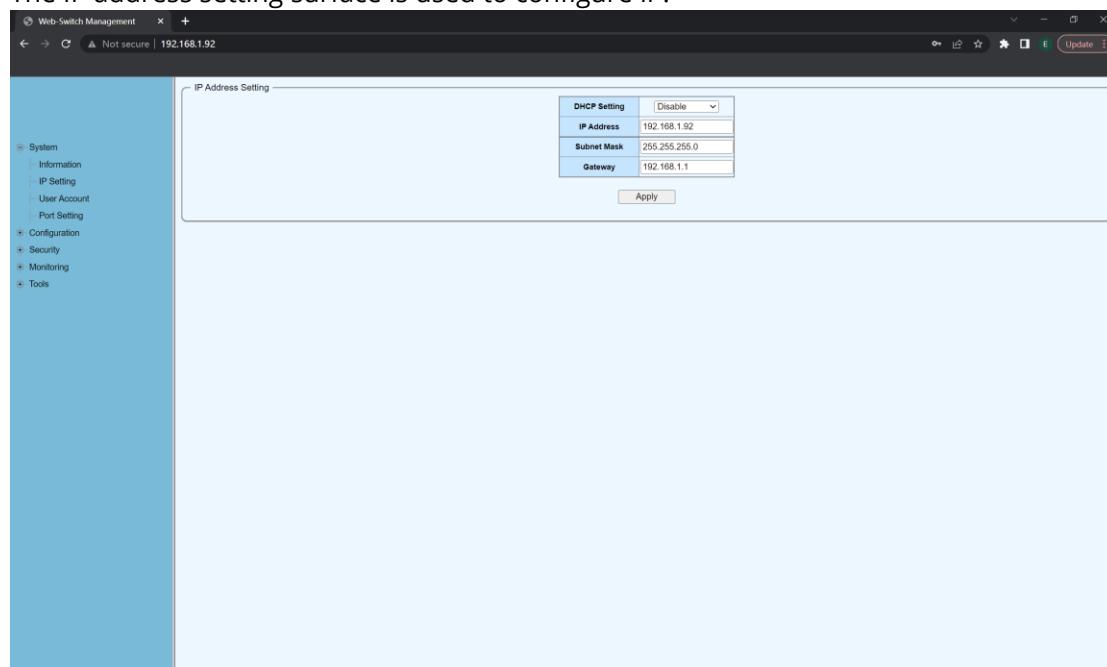
### 1.2.1 System Information

Overview the device information and port status.



### 1.2.2 System-IP Setting

The IP address setting surface is used to configure IP.

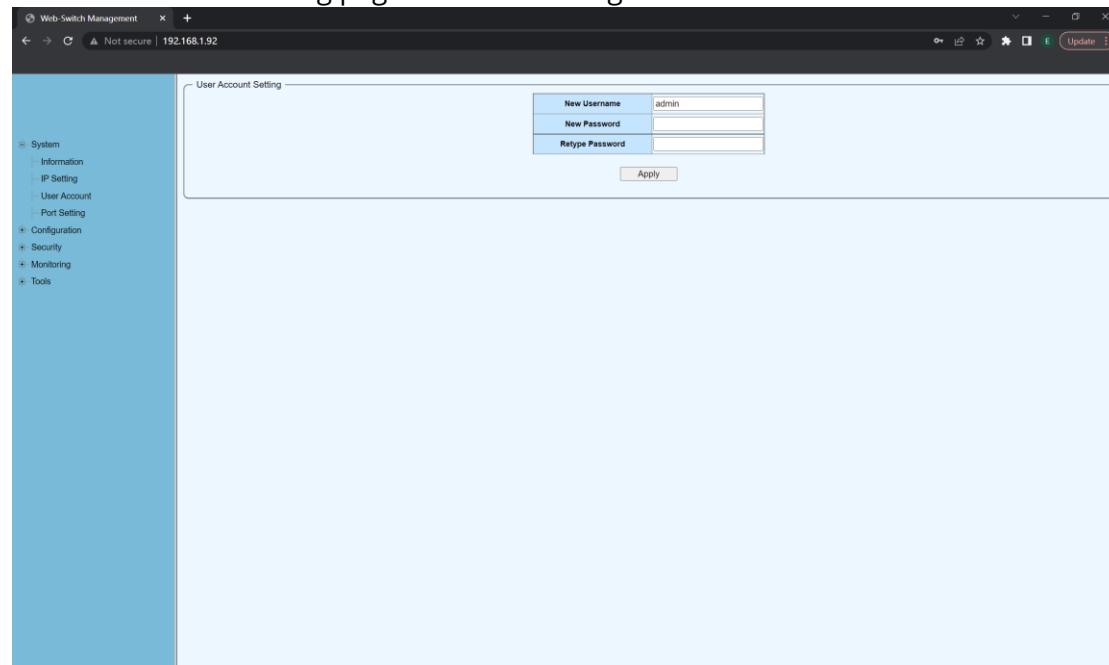


Item	Description	Notes
<b>DHCP</b>	Enable/Disable	When enabled, enable the DHC client to obtain the dynamic IP address. When disabled, use the configured static IP address.

<b>IP Address</b>	Default:192.168.1.6	Static IP Address
<b>Subnet Mask</b>	Default:255.255.255.0	Static IP subnet mask
<b>Gateway</b>	Default:192.168.1.1	Gateway Adress

### 1.2.3 System - User Account

The user account setting page is used to configure user accounts.



Item	Description	Notes
<b>New user name</b>	Add a new user name	
<b>New Password</b>	Add a new user name	
<b>Retype Password</b>	Confirm the password of the new user	

### 1.2.4 System-Port Setting

The port setting page is used to configure ports and display port status.

Port	State	Speed/Duplex	Flow Control
Port 1	Enable	Auto	Off
Port 2			
Port 3			
Port 4			

Port	State	Speed/Duplex	Flow Control
Port 5	Enable	Auto	Off
Port 6			

Port	State	Speed/Duplex		Flow Control	
		Config	Actual	Config	Actual
Port 1	Enabled	Auto	Link Down	On	Off
Port 2	Enabled	Auto	Link Down	On	Off
Port 3	Enabled	Auto	Link Down	On	Off
Port 4	Enabled	Auto	1000M Full	On	On
Port 5	Enabled	Auto	Link Down	N/A	N/A
Port 6	Enabled	Auto	Link Down	N/A	N/A

Item	Description	Notes						
<b>Port 1-4</b>	Lan (RJ45) Port							
<b>Port 5-6</b>	Optical Fiber Port							
<b>State</b>	Port state in enable/disable							
<b>Speed/Duplex</b>	<b>Port Speed or Mode</b>							
	<table border="1"> <thead> <tr><th>Speed/Duplex</th></tr> </thead> <tbody> <tr><td>Auto</td></tr> <tr><td>10M/Half</td></tr> <tr><td>10M/Full</td></tr> <tr><td>100M/Half</td></tr> <tr><td>100M/Full</td></tr> </tbody> </table>	Speed/Duplex	Auto	10M/Half	10M/Full	100M/Half	100M/Full	
Speed/Duplex								
Auto								
10M/Half								
10M/Full								
100M/Half								
100M/Full								
<b>Flow Control</b>	On/Off							



## Chapter 2 Network Configurations

This chapter describes the port configuration in detail, including but not limit to the following:

- ❖ VLAN
- ❖ QoS
- ❖ EEE
- ❖ Security

## 2. Configuration

### 2.1 Configuration-VLAN

#### 2.1.1 Configuration-VLAN-Static VLAN

The static VLAN table setting page is used to add or delete VLANs in the form of tag or untag, and display the port information of VLANs.

VLAN ID	VLAN Name	Member Ports	Tagged Ports	Untagged Ports	Delete
1		1-5,6	-	1-5,6	<input type="button" value="Delete"/>

## 2.1.2 Configuration-VLAN-VLAN Setting

The VLAN side setting page is used to configure the PVID of the port and the type of received frame.

Port	PVID	Accepted Frame Type
Port 1		All
Port 2		All
Port 3		All
Port 4		All
Port 5		All
Port 6		All

Port	PVID	Accepted Frame Type
Port 1	1	All
Port 2	1	All
Port 3	1	All
Port 4	1	All
Port 5	1	All
Port 6	1	All

## 2.2 Configuration-QoS

### 2.2.1 Configuration-QoS-Priority Selection

The priority selection setting page is used to configure the priority source weight. When the received packet is paired with multiple sources, the source with the highest weight will be selected to assign priority.

Priority	Decision
Port	1
1Q	1
ACL	8
DSCP	1
CVLAN	1
SVLAN	1

Priority	Decision
Port	7
1Q	1
ACL	8
DSCP	1
CVLAN	1
SVLAN	1
DA	1
SA	1

## 2.2.2 Configuration-QoS-DSCP Remapping

The DSCP remapping settings page is used to configure the internal priority mapping based on DSCP priority.

DSCP Value	Priority
0	0
1	0
2	0
3	0
4	0
5	0

Apply

DSCP Value	Priority
0	0
1	0
2	0
3	0
4	0
5	0
6	0
7	0
8	0
9	0
10	0
11	0
12	0
13	0
14	0
15	0
16	0
17	0
18	0
19	0

## 2.2.3 Configuration-QoS-Priority To Queue

The priority queue ID setting page is used to configure the internal priority to queue mapping.

Priority	Queue ID
0	1
1	1
2	2
3	2
4	3
5	3

Apply

Priority	Queue ID
0	1
1	1
2	2
3	2
4	3
5	3
6	4
7	4

## 2.2.4 Configuration-QoS-Queue Weight

The queue weight page is used to configure the weight of queue priority algorithm.

Priority Queue	Weight
1(lowest)	Strict priority
2	Strict priority
3	Strict priority
4(highest)	Strict priority

Priority Queue	Weight
1	Strict priority
2	Strict priority
3	Strict priority
4	Strict priority

## 2.3 IGMP

### 2.3.1 IGMP-IGMP

IGMP page, used to configure IGMP enabled or disabled and display IGMP list items. After checking enable, the group broadcast text learned through IGMP protocol is allowed to pass.

The display information includes the IP address, port and VLAN ID learned through IGMP.

Router Port	1	2	3	4	5	Port 6
Static	<input type="checkbox"/>					
Dynamic	<input type="checkbox"/>					

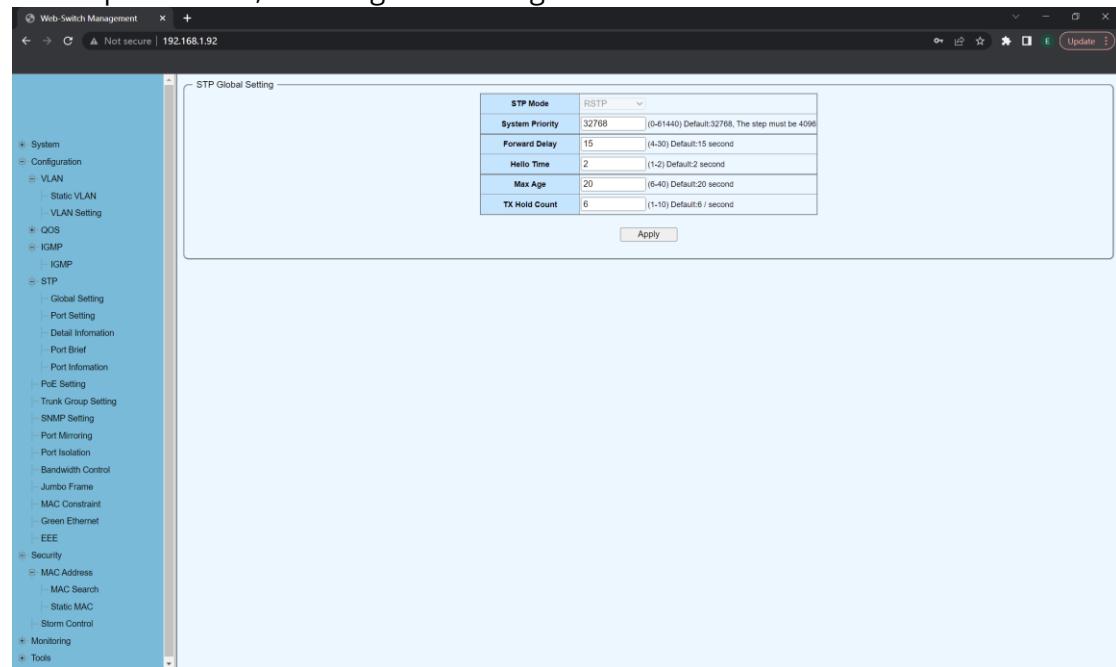
  

IP Address	Ports	Vid
------------	-------	-----

## 2.4 STP

### 2.4.1 STP-Global Setting

Global parameters, STP for global settings.



Item	Description	Notes
<b>STP Mode</b>	RSTP Only	
<b>System Priority</b>	0-61140, The Step must be 4096 Default:32768	
<b>Forward Delay</b>	4-30 Default:15 second	
<b>Hello Time</b>	1-2 Default:2second	
<b>Max Age</b>	6-40 Default: 20 second	
<b>Tx Hold Count</b>	1-10 Default: 6 second	

## 2.4.2 STP-Port Setting

STP port summary page is used to display port STP summary information, including port, STP enable, role and status.

Port	STP Enable	Priority	Path Cost Mode	Path Cost
Port 1	Enable	0	Auto	(0-200000000)
Port 2				
Port 3				
Port 4				
Port 5				
Port 6				

Port	STP Enable	Priority	Path Cost Mode	Path Cost
Port 1	Enabled	128	Auto	0
Port 2	Enabled	128	Auto	0
Port 3	Enabled	128	Auto	0
Port 4	Enabled	128	Auto	0
Port 5	Enabled	128	Auto	0
Port 6	Enabled	128	Auto	0

Item	Description	Notes
<b>Port</b>	Port 1-6	
<b>STP Enable</b>	Enable/Disable	
<b>Priority</b>	0-240	
<b>Path Cost Mode</b>	Auto/Admin	
<b>Path Cost</b>	0-200000000	

### 2.4.3 STP-Detail Information

STP port information page is used to display the detailed information of STP port.

The screenshot shows the 'Web-Switch Management' interface at address 192.168.1.92. The left sidebar contains navigation links for System, Configuration, VLAN, QoS, IGMP, STP, Security, Monitoring, and Tools. The main content area displays three tables under the 'STP Information' section:

- STP Information:**

Current Bridge	00189312f08c/32768
Root Port	N/A
Designated Port	4
BackUp/Alter Port	
Disabled Port	1,2,3,5,6
- Root Priority Vector:**

Root Bridge	Root Path Cost	Designated Bridge	Designated Port	Received Port
00189312f08c/32768	0	00189312f08c/32768	N/A/0	N/A/0
- Root Times:**

Forward Delay	Hello Time	Max Age	Message Age
15	2	20	0

### 2.4.4 STP-Port Brief

The screenshot shows the 'Web-Switch Management' interface at address 192.168.1.92. The left sidebar contains navigation links for System, Configuration, VLAN, QoS, IGMP, STP, Security, Monitoring, and Tools. The main content area displays a table under the 'STP Port Brief' section:

Port	STP Enable	Role	State
Port 1	Enabled	Disabled	Discarding
Port 2	Enabled	Disabled	Discarding
Port 3	Enabled	Disabled	Discarding
Port 4	Enabled	Designated	Forwarding
Port 5	Enabled	Disabled	Discarding
Port 6	Enabled	Disabled	Discarding

## 2.4.5 STP-Port Information

STP details page, used to display STP details

STP Port Information | Port Priority Vector | Port Times | Port Message Priority Vector

The screenshot shows the 'STP Port Information' page with the following sections:

- STP Port Information:** A table with columns: Port, Priority, STP Enable, Point To Point, Path Cost, Role, Link Status, State, and Send RSTP. Data:
 

Port	Priority	STP Enable	Point To Point	Path Cost	Role	Link Status	State	Send RSTP
Port 1	128	Enabled	No	20000000	Disabled	Link Down	Discarding	True
Port 2	128	Enabled	No	20000000	Disabled	Link Down	Discarding	True
Port 3	128	Enabled	No	20000000	Disabled	Link Down	Discarding	True
Port 4	128	Enabled	Yes	20000	Designated	Link Up	Forwarding	True
Port 5	128	Enabled	No	20000000	Disabled	Link Down	Discarding	True
Port 6	128	Enabled	No	20000000	Disabled	Link Down	Discarding	True
- Port Priority Vector:** A table with columns: Port, Root Bridge, Root Path Cost, Designated Bridge, Designated Port, and Received Port. Data:
 

Port	Root Bridge	Root Path Cost	Designated Bridge	Designated Port	Received Port
Port 1	0000000000:0	0	0000000000:0	N/A:0	N/A:0
Port 2	0000000000:0	0	0000000000:0	N/A:0	N/A:0
Port 3	0000000000:0	0	0000000000:0	N/A:0	N/A:0
Port 4	0018931208c:32768	0	0018931208c:32768	Port 4:128	Port 4:128
Port 5	0000000000:0	0	0000000000:0	N/A:0	N/A:0
Port 6	0000000000:0	0	0000000000:0	N/A:0	N/A:0
- Port Times:** A table with columns: Port, Forward Delay, Hello Time, Max Age, and Message Age. Data:
 

Port	Forward Delay	Hello Time	Max Age	Message Age
Port 1	0	0	0	0
Port 2	0	0	0	0
Port 3	0	0	0	0
Port 4	15	2	20	0
Port 5	0	0	0	0
Port 6	0	0	0	0
- Port Message Priority Vector:** A table with columns: Port, Root Bridge, Root Path Cost, Designated Bridge, Designated Port, and Received Port. Data:
 

Port	Root Bridge	Root Path Cost	Designated Bridge	Designated Port	Received Port
Port 1	0000000000:0	0	0000000000:0	N/A:0	N/A:0
Port 2	0000000000:0	0	0000000000:0	N/A:0	N/A:0
Port 3	0000000000:0	0	0000000000:0	N/A:0	N/A:0
Port 4	0018931208c:32768	20000	244c07331764:32768	Port 1:128	Port 4:128
Port 5	0000000000:0	0	0000000000:0	N/A:0	N/A:0
Port 6	0000000000:0	0	0000000000:0	N/A:0	N/A:0

## 2.5 PoE Setting

PoE settings page, which is used to configure and show PoE State.

The screenshot shows the 'PoE Port Setting' page with the following sections:

- PoE Port Setting:** A configuration section with a dropdown menu for PoE Mode (Port 1, Port 2, Port 3, Port 4) and an 'Apply' button.
- PoE Port Status:** A table with columns: Port, PoE Mode, State, Current(mA), Power(W), and Temperature(°C). Data:
 

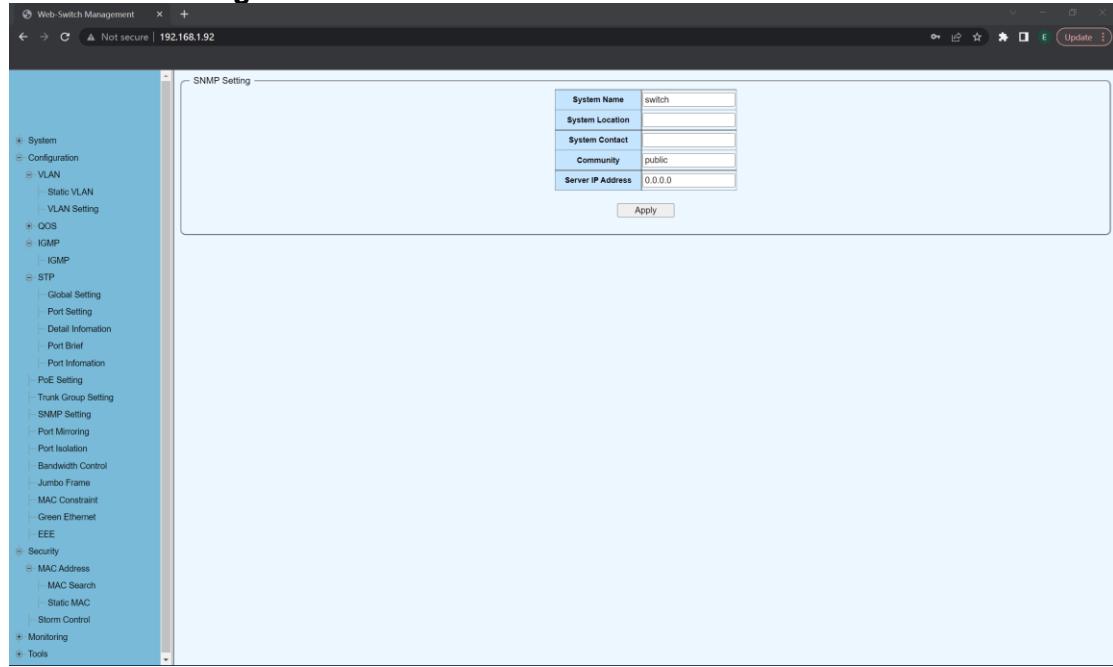
Port	PoE Mode	State	Current(mA)	Power(W)	Temperature(°C)
Port 1	Disabled	Off	0	0.0	0
Port 2	Disabled	Off	0	0.0	0
Port 3	Disabled	Off	0	0.0	0
Port 4	Disabled	Off	0	0.0	0

## 2.6 Trunk Group Setting

Trunk group settings page, which is used to configure and show port aggregation.

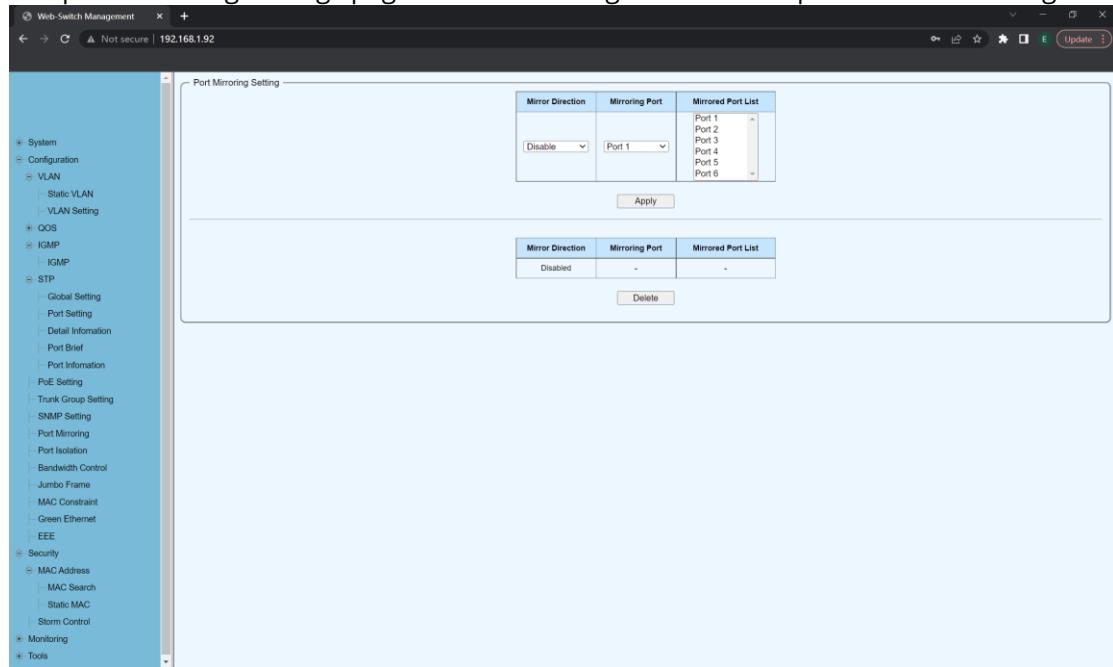
The screenshot shows the 'Web-Switch Management' interface with the URL '192.168.1.92'. The left sidebar contains a navigation tree with categories like System, Configuration, VLAN, QoS, IGMP, STP, Security, MAC Address, Monitoring, and Tools. The 'VLAN' section is expanded, showing Static VLAN and VLAN Setting. The 'Configuration' section is also expanded, showing Trunk Group Setting. The main content area is titled 'Trunk Group Setting'. It displays a table with one row for 'Trunk1'. The table has two columns: 'Group ID' and 'Ports'. The 'Group ID' column contains 'Trunk1' with a dropdown arrow. The 'Ports' column lists 'Port 1', 'Port 2', 'Port 3', 'Port 4', 'Port 5', and 'Port 6'. Below the table are buttons for 'Add / Modify', 'Delete', and 'Select All'. At the bottom of the page are links for 'Group ID', 'Ports', and 'Select'.

## 2.7 SNMP Setting



## 2.8 Port Mirroring

The port mirroring settings page is used to configure and show port based mirroring.



Item	Description	Notes
<b>Mirror Direction</b>	Disable/Rx/Tx/Both	
<b>Mirroring Port</b>	Port 1 - 6	
<b>Mirrored Port List</b>	Port 1 - 6	

## 2.9 Port Isolation

The port isolation setting page is used to configure and show port isolation.

Port	Port Isolation List
Port 1	Port 1-6
Port 2	Port 2-6
Port 3	Port 3-6
Port 4	Port 4-6
Port 5	Port 5-6
Port 6	Port 6

Port	Port Isolation List
Port 1	1-5,6
Port 2	1-5,6
Port 3	1-5,6
Port 4	1-5,6
Port 5	1-5,6
Port 6	1-5,6

## 2.10 Bandwidth Control

The bandwidth control setting page is used to configure the message bandwidth in and out of the port, also show the configuration information.

Port	Type	State	Rate (Kbit/sec)
Port 1			
Port 2			
Port 3			
Port 4	Ingress	Disable	Unlimited (0-1000000, multiple of 8)
Port 5			
Port 6			

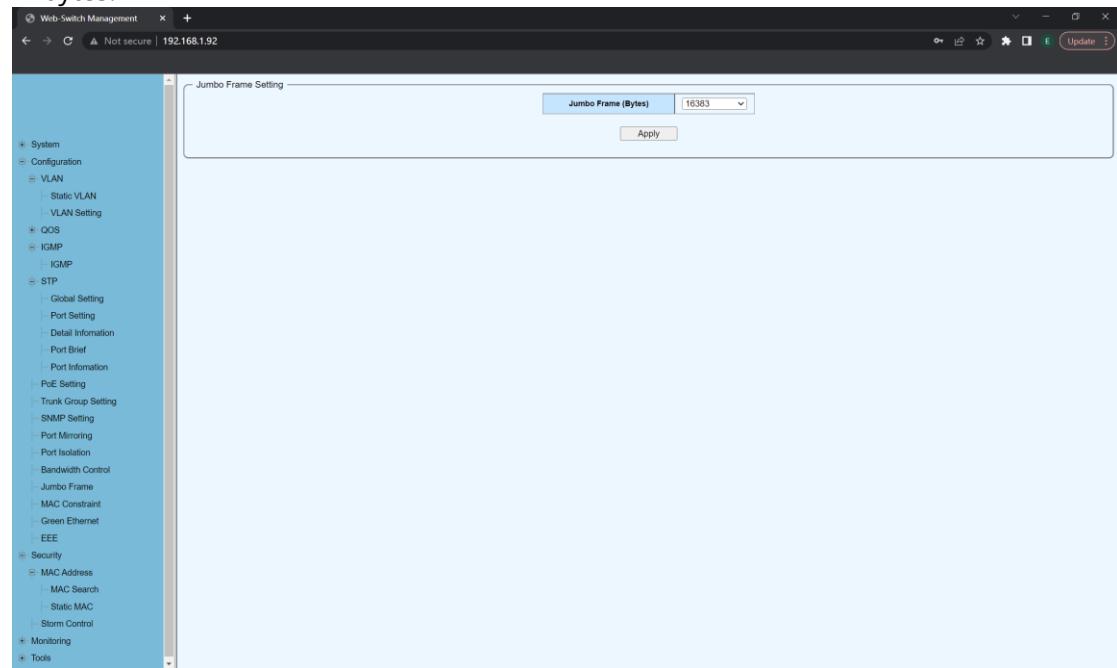
  

Port	Ingress Rate (Kbit/sec)	Egress Rate (Kbit/sec)
Port 1	Unlimited	Unlimited
Port 2	Unlimited	Unlimited
Port 3	Unlimited	Unlimited
Port 4	Unlimited	Unlimited
Port 5	Unlimited	Unlimited
Port 6	Unlimited	Unlimited

Item	Description	Notes
<b>Port</b>	Port 1 - 6	
<b>Type</b>	Ingress/Egress	
<b>State</b>	Enable/Disable	Default:Disable
<b>Rate</b>	Configuration when state in enable 0-100000Kbit/sec	Multiple of 8

## 2.11 Jumbo Frame

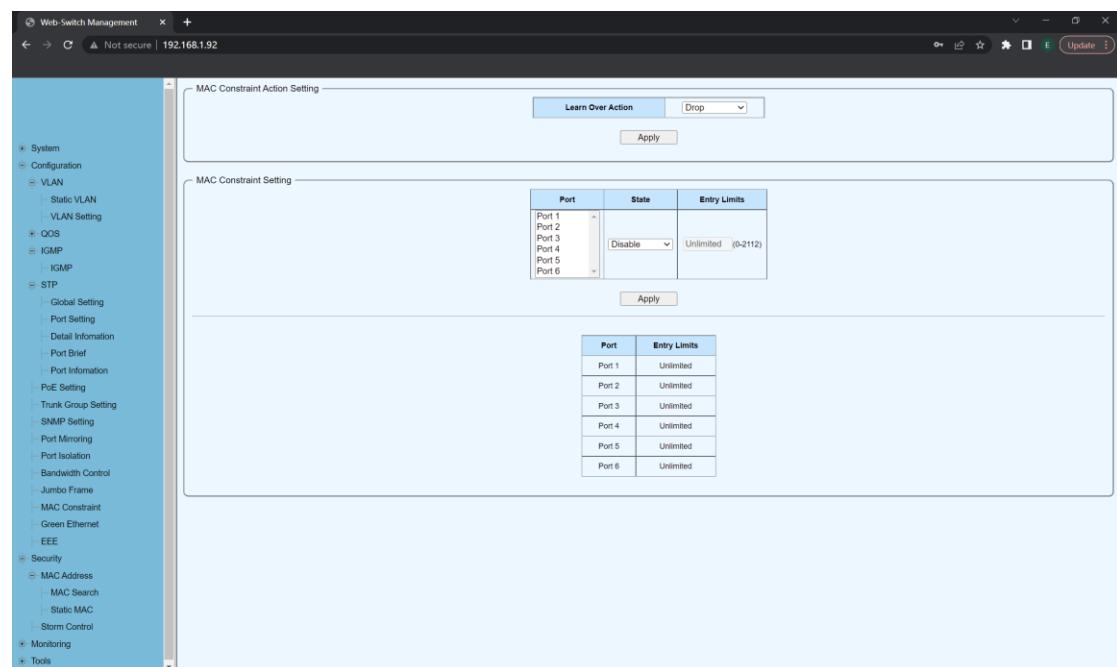
Giant frame setting page, which is used to configure the maximum frame length allowed, in bytes.



Item	Description	Notes
Jumbo Frame (Bytes)	1522/1536/1552/16383	Unit:Bytes

## 2.12 Mac Constraint

The MAC constraint behavior page is used to configure the number of MAC allowed to be learned by the port and the processing behavior of the MAC address learned by the port.



## Mac Constraint Action Setting

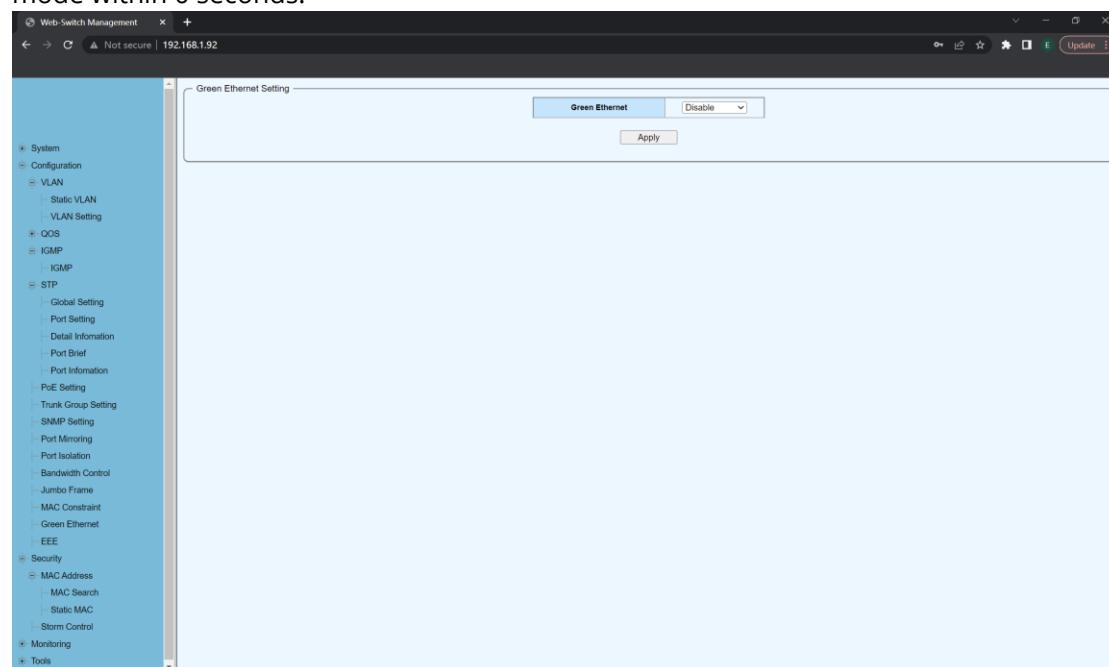
Item	Description	Notes
Learn Over Action	Drop / Flooding	

## Mac Constraint Setting

Item	Description	Notes
Port	Port 1 - 6	
State	Enable/Disable	
Entry Limits	0-2112	Default:Unlimited

## 2.13 Green Ethernet Setting

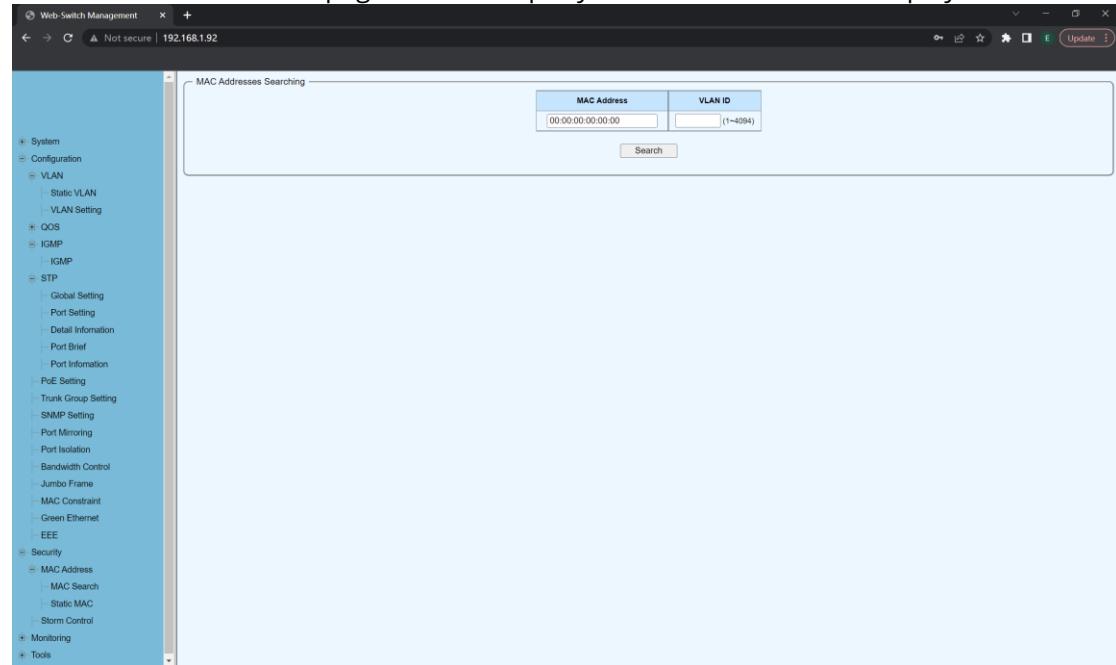
The green Ethernet setting page is used to enable or disable the green Ethernet function. Reduce energy consumption by setting green Ethernet function. When the Green function is enabled, the system will automatically detect the cable length and select different power modes to obtain the best performance and minimum power consumption. If the connection is disconnected, the port will enter the power saving mode within 0 seconds.



## 2.14 Security

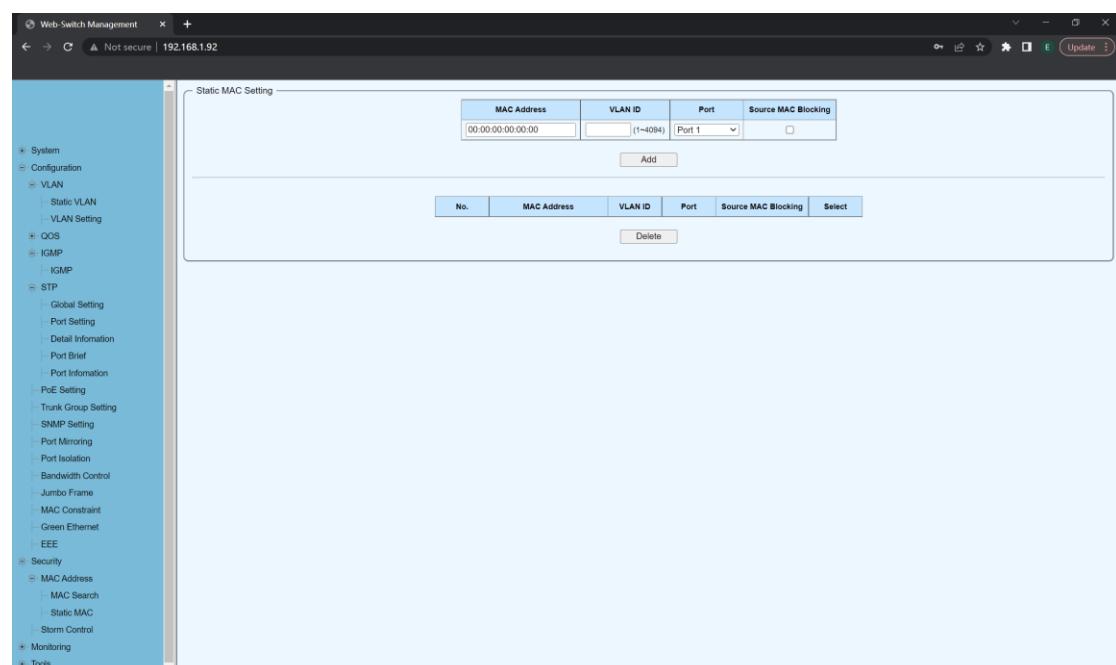
### 2.14.1 Security MAC Address – Mac Search

The MAC address search page is used to query the MAC address and display the VLAN ID.



### 2.14.2 Security MAC Address – Static Mac

The static MAC page is used to add, display and delete the static MAC address of the port.

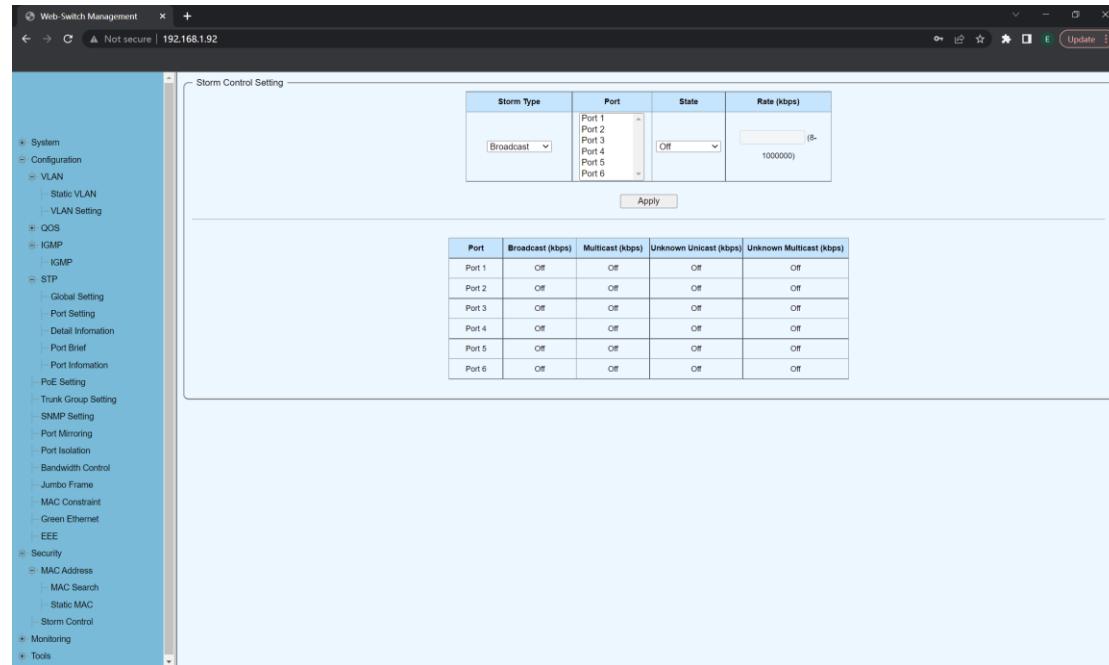


Item	Description	Notes
<b>MAC Address</b>	Added Static Mac Address	
<b>VLAN ID</b>	The VLAN to which the added static MAC belongs	

<b>Port</b>	The port to which the added static MAC belongs
<b>Source Mac Blocking</b>	If this option is checked, the message carrying this MAC is not allowed to pass

## 2.15 Storm Control

The storm suppression page is used to suppress the flood message.



Item	Description	Notes
<b>Storm Type</b>	Broadcast, Multicast, Unknown Unicast and Unknown multicast	
<b>Port</b>	Configure the port where storm suppression takes effect.	
<b>State</b>	Off/On	
<b>Rate</b>	8-1000000 kbps	

## 2.16 Monitoring

### 2.16.1 Monitoring-Port Statistics

The display letter includes the status of the port, the connection status, the correct data packet sent, the wrong data packet sent, the correct data packet received and the wrong data packet received.

Port	State	Link Status	TxGoodPkt	TxBadPkt	RxGoodPkt	RxBadPkt
Port 1	Enabled	Link Down	0	0	0	0
Port 2	Enabled	Link Down	0	0	0	0
Port 3	Enabled	Link Down	0	0	0	0
Port 4	Enabled	Link Up	2679	0	56081	0
Port 5	Enabled	Link Down	0	0	0	0
Port 6	Enabled	Link Down	0	0	0	0

### 2.16.2 Monitoring-Cable Diagnostic

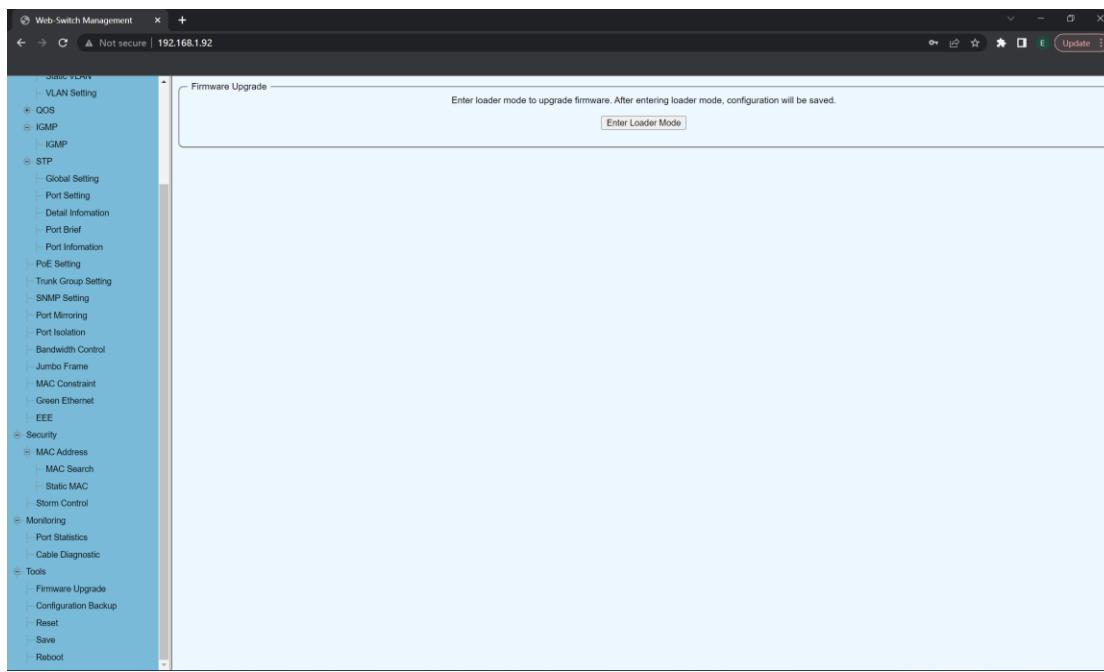
The cable diagnosis page is used to diagnose whether the network line is normal.

Check	Port	Test Result	Cable Fault Distance
1	1	-	-
2	2	+	-
3	3	+	-
4	4	-	-
5	5	+	-

## 2.17 Tools

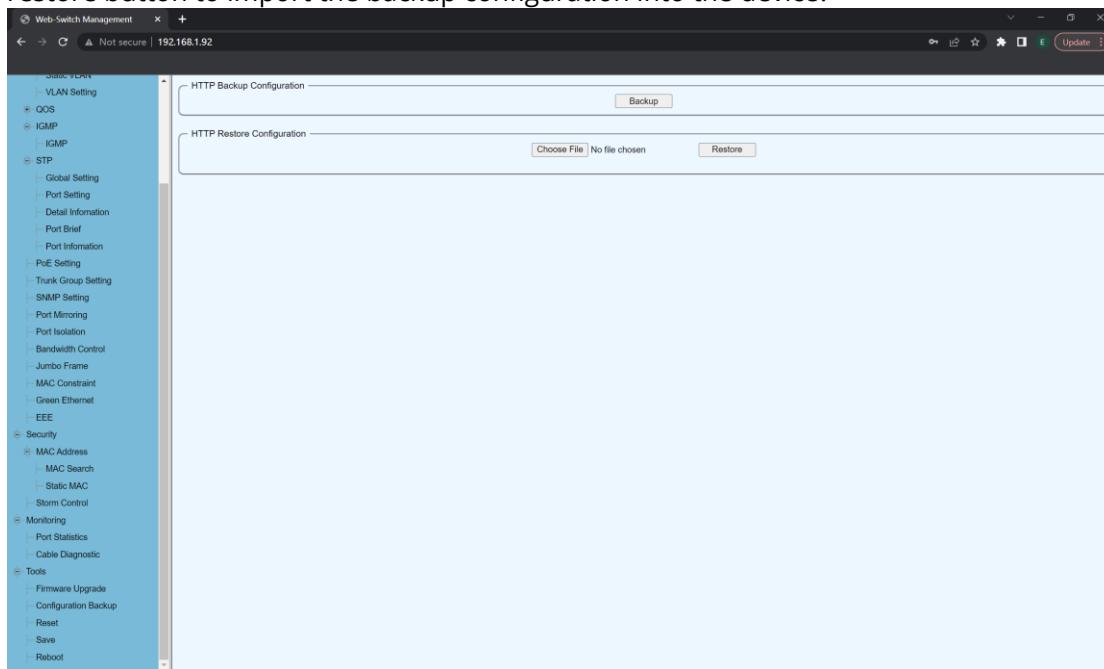
### 2.17.1 Tools-Firmware Upgrade

The firmware upgrade page is used to enter the loading mode and upgrade in the loading mode.



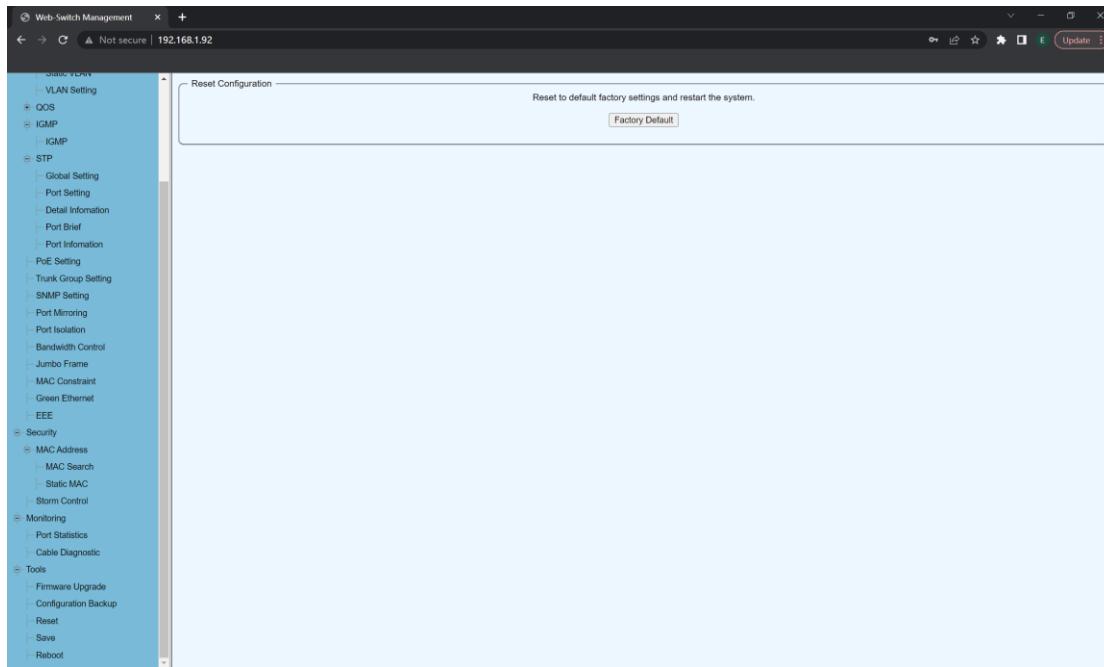
### 2.17.2 Tools-Configuraion Backup

The configuration backup page is used for configuration import and export. Click the Backup button to export the configuration to PC backup. Click the select File button to restore the configuration, select the configuration of PC backup, and then click the restore button to import the backup configuration into the device.



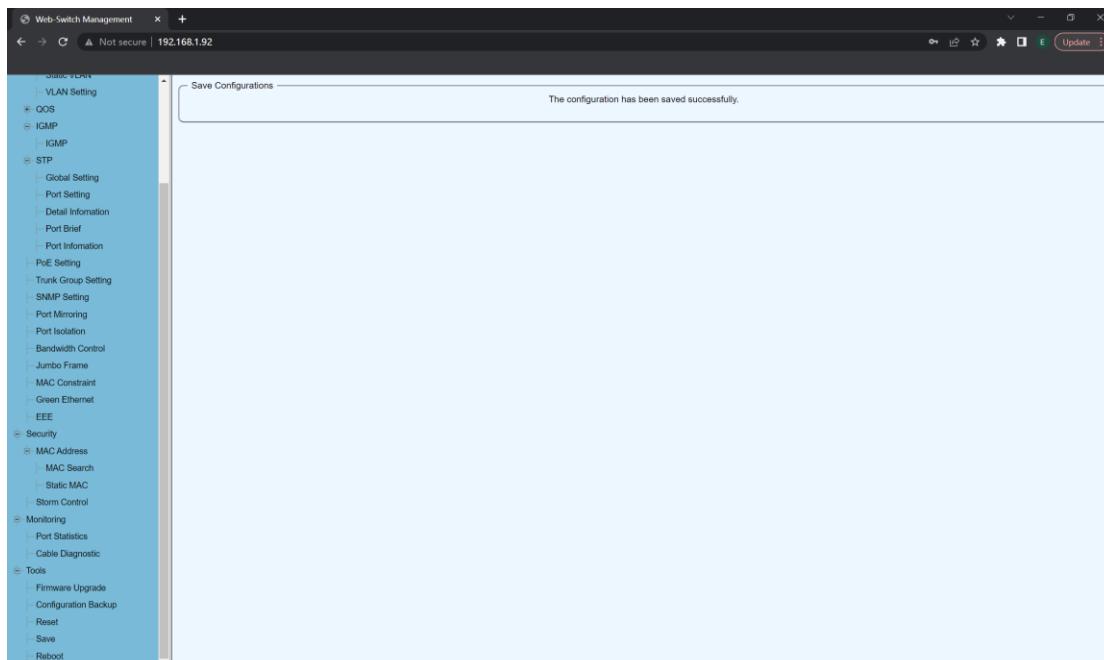
### 2.17.3 Tools-Reset

The restore configuration page is used to restore the factory settings. Enter the reset page and click the restore factory default button. The system will restart and restore to the factory default configuration at the same time.



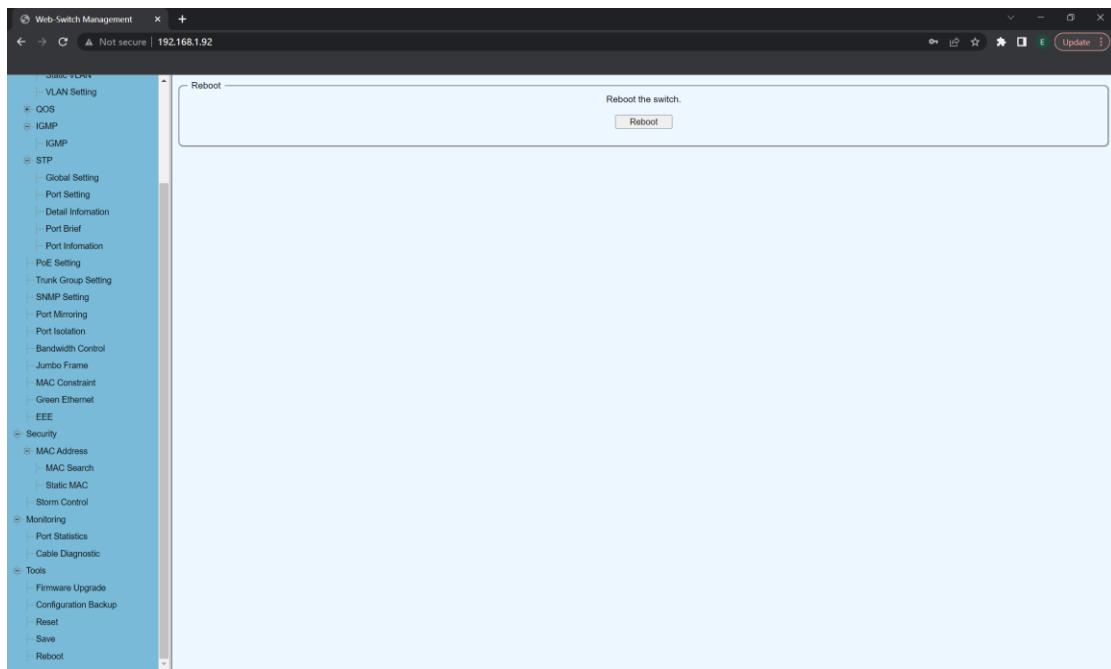
### 2.17.4 Tools-Save

The save page is used to save the configuration. After clicking the save page, the system configuration will be saved immediately, and the configuration saving page will show that the configuration has been saved successfully.



## 2.17.5 Tools-Reboot

Reboot paged used to reboot the device.



The information in this document is subject to change without notice. Fiberroad has made all efforts to ensure the accuracy of the information, but all information in this document does not constitute any kind of warranty. If you have any questions please feel free to contact us.

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