

Enable-IT 8808F SFP Gigabit Ethernet PoE Fiber Switch Installation Manual Guide



Professional Grade Networking



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PREFACE

The user manual mainly introduces the product shape, product positioning, hardware installation, web management and other related information.

ILLUSTRATION

Format	Description		
< >	"<>" means button name , such as "click <confirm> button" .</confirm>		
[]	"[]" means window name, menu name and data table, such as "pop out [New user] window" .		
/	"/" is used to seperate Multi-level menu. Such as [file/new/folder] multi-level menu [file] menu [new] sub-menu [folder] menu option.		

(2) Various Signs

Caution	Improper operation may damage the device or cause data loss.
	Supplemental instruction for operation contents.



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1 PRODUCT INTRODUCTION

1.1 Overview

The 8808F SFP Gigabit Ethernet & PoE Fiber Switch is a an all-in-one robust solution. Provides (8) 10/100/1000 Base-T RJ-45 ports with built in IEEE 802.3af/at PoE support up to 328ft / 100m allowing you to connect several IP security cameras or PoE devices. Support up to 4 1000 Base-X SFP (Small Form-Factor Pluggable) modules for connecting your fiber network for high speed data computing. The perfect robust Ethernet / Fiber all-in-one solution with web management for easy configuring of VLAN, QoS, RSTP, SNMP. etc.

1.2 Product Features

- Fully supports IEEE 802.3af/at PoE standard up to 328ft / 100m
- PoE output LAN T1: 60W PoE+, LAN T2-8: 30W PoE
- Supports Web-based network management VLAN, QoS, RSTP, SNMP, etc.
- Supports 4K High-Definition (HD) video transmission buffer reaches 4Mbit
- Relay alarm for power off, network down, and PoE off
- 6KV surge immunity, 8KV ESD protection and anti-interference ability
- Supports fast ring, self-healing in 20ms
- Input voltage 48V ~ 57V DC
- Bandwidth 24Gbps backplane
- Supports 40°F to 167°F (-40°C to 75°C) wide range temperature
- Perfect solution for robust IP Surveillance camera networks

1.3 Board Diagram



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1.3 Board Diagram

No-PoE Switch





Caution

- 1) Device must be connected with lightning protection grounding; Otherwise protection level will reduce Connect the wiring to the grounding terminal
- 2) Relay alarm function is off by default. If you want to turn it on your must enter the web management: 192.168.1.200 -> system management -> alarm management

ENABLE-IT ETHERNET EXTENSION EXPERTS

1.4 SPECIFICATIONS

ITEM		HPoE SWITCH	PoE SWITCH	ETHERNET SWITCH
	Power Supply	Power Adapter		
POWER	Voltage Range	48 ~ 57V DC		12 ~ 57V DC
	Consumption	Self consumption < Output	30W; Maximum PoE <150W	Self consumption <30W
	Ethernet Port	T1 ~ T X1	8 RJ-45: 10/100/1000 ~ X4 SFP: 1000 Bas	Base-T e-X
	Distance	RJ-45 Ports: 0 - 328ft (0 - 100m) SFP Ports depend on the SFP modules		100m) 9 modules
PORT	PoE Standard	IEEE 802.3af, IEEE HPoE (60W) T1	802.3at, end-span only supported	N/A
	PoE Output	Port T1 <u><</u> 60W Port T2∼T8 <u><</u> 30W	Each port ≤ 30W	N/A
	Packet Forwarding Rate	18Mpps (Supports Super Jumbo Frames)		
NETWORK SWITCH	Switch Capacity	24Gbps		
	Packet Buffer	4Mb		
	MAC Address	8K		
ALARM	Relay Alarm	Power no-input, Ethernet link off, PoE link off alarm by relay turn over		off alarm by relay turn
MANAGEMENT	Management	Management L2+PoE		<u>-</u>
	Power	2* Red LED		
STATUS INDICATOR	RJ-45 LAN	Link / Acting: Green LED PoE: Yellow LED		D
	SFP	Link: Green LED		
	Surge		6KV, Per: IEC61000-4	-5
PROTECTION	EMC	ESD: RS: EFT: CS:	Class 4 Per: IEC6100 Class 4 Per: IEC6100 Class 4 Per: IEC6100 Class 4 Per: IEC6100	00-4-2 10-4-3 00-4-4 10-4-6

1.4 Specifications

ITEM		HPoE SWITCH	PoE SWITCH	ETHERNET SWITCH
	Operating Temperature	40°F to 167°F (-40°C to 75°C)		
ENVIRONMENT	Storage Temperature	40°F to 167°F (-40°C to 85°C)		
	Humidity	0 ~ 95% (non-condensing)		
	Dimensions	Height: 1.8 inches (46.5mm) Depth: 4.3 inches (110mm) Width: 6.3 inches (169mm)		
MECHANICAL	Material	Aluminum Alloy		
	Color	Black		
	Weight	1.7 lbs (750g)		

2 INSTALLATION



Caution

Anti-counterfeiting label is attached to the 8808F Switches cover. Product damage caused by unauthorized disassembly is not covered under the Enable-IT Limited Lifetime Warranty.

2.1 8808F Package Contents

- (1) 8808F Gigabit Ethernet & PoE Fiber Switch Unit
- (1) Country Specific Power Adapter
- (1) 8808F Gigabit Ethernet & PoE Fiber Switch Quickstart Guide Manual

2.2 Installation Precautions

To avoid damaging the 8808F device or personal injury by improper use, please observe the following precautions.

2.2.1 Safety Precautions

This is a Level A product, which may cause radio disturbance in a living environment. Users may need to take corresponding and effective measures to adjust for this.

- Remove the power plug before cleaning the 8808F switch. Do not use a wet or damp cloth nor liquid solution to wire or wash the device.
- Do not leave the switch near water or in a wet place so as to prevent water or dampness from entering into the switch.
- Make sure the switch is installed in a clean environment. Excessive dust may cause electrostatic adsorption, which will affect the equipment lifespan and cause communication failures.
- The switch will work normally under the correct voltage. Please ensure the voltage indicated on the switch corresponds to the power voltage.
- To avoid the dangers of electric shock, please do not open the switch case.
- Do not open the switch case even if the unit is powered off.
- The accessories (including but not limited to the power cables, etc.) can be used only for the 8808F switch, prohibited use for other applications.

2.2.2 Installation Requirements

The 8808F device should work in indoor or properly housed outdoor environments to avoid electrical damage from adverse weather conditions. It is important to obey the following requirements regardless if installed in a cabinet or on the work bench directly:

- Allow enough space (larger than 4inches / 10cm) for an air outlet to allow proper heat dissipation; a good ventilation system for cabinets and workbench is advised.
- Ensure the cabinet and workbench is sturdy enough to support the switch and it's accessories weight.
- Cabinet and workbench grounded is advised.

2.2.3 The Requirements of Electromagnetic Environment

When the switch is operational, if may be affected by external interference outside the system via radiation and conduction. Please be wary of the following:

- AC power supply is a TN system, so it is necessary to use a single phase power socket (PE) which can protect the ground wire so that the filter circuit can effectively filter out the power grid disturbances.
- The switch should work far away from high-power radio transmitters, radar transmitters, high-frequency devices.
- Use electromagnetic shielding if necessary, such as shielded cabling.
- Interface cables should be arranged indoor rather than outdoor to prevent over-voltage or over-current damage to the signal port.

2.3 Installation Methods

There are 3 ways you can install the 8808F Switch: In a rack, on a workbench or in a wall-hung installation.

Caution

Please pull out the power plug before installing or moving the switch. Grounding and lightning protection can greatly increase the protection level of the switch. Connect the grounding terminal on the device to the earth ground.

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2.3.1 Din-rail Installation

Installation process:

- 1) Install the Din-rail hanger to the switch
- 2) Install the switch to the Din-rail



Figure 2-1 Install Din-rail hangers diagram



2.3.2 Wall-hung Installation

You can install the switch to the clean and stable wall.

Figure 2-2 Install hangers diagram

2.4 Cable Connection

2.4.1 Device Connection

Use cross network cable or cross-over cable to connect your PC or other devices with the 8808F switch's Ethernet port.

2.4.2 Configuration Cable Connection

Use a network cable to connect the switch to a PC or other LAN device via the Ethernet port, not the console port. (Note: The VLAN ID of the 8808F Ethernet port must 1) Switch must be connected to the Management PC and use that PC to configure the 8808F Switch.)



Figure 2-3 Connect configuration cable

2.4.3 Power Cable Connection

- 1) Connect the DC red and black cable separately to the + and power terminal on the 8808F Switch using a screwdriver as seen in the image below.
- 2) Turn on the power, check that the switches power LED is on, this signifies power is connected properly.



3 FUNCTION CONFIGURATION GUIDE

3.1 Computer Requirements

- Make sure the management PC has already been installed with an Ethernet adapter
- Use a network cable to connect the Ethernet ports between the 8808F switch and Ethernet network card of the PC (not the console port).

3.2 Set Up Network Connection

- 1) You need to set the IP address of the PC and the 8808F switch in the same network segment. The default IP address of the switch is 192.168.1.200, and the network gate is 255.255.255.0.
- You must connect the management PC for configuring the 8808F settings to LAN port T1 which is the management VLAN. By default, management VLAN is VLAN1, and each port of the switch is VLAN1.
- 3) If you need to connect the remote network, please make sure the management PC and the router can do the above tasks.
- 4) The 8808F switch can't assign the IP address for the management PC, you need to set the management static IP manually.

3.2.1 Set Static IP for the Management Computer

Operation steps (Example Images are using Windows XP):

1) Click <Start> to enter the [Start] menu, select "control panel." Double click "network connection" icon, double click the "local connection" icon, pop out "local connection status" window.

🕹 Local Area Co	nnection Status	? 🔀
General Support		
Connection		
Status:		Connected
Duration:		00:04:10
Speed:		100.0 Mbps
Activity	Sent —	- Received
Bytes:	7,146	7,917
	Disable	
		Close

2) Click <Properties> button, enter "local connection properties" window.

🔟 Local Area Connection Properties 🛛 🔹 🔀
General Advanced
Connect using:
Intel 21140-Based PCI Fast Ethernet / Configure
This connection uses the following items:
Client for Microsoft Networks File and Printer Sharing for Microsoft Networks GoS Packet Scheduler Thermet Protocol (TCP/IP)
Install Uninstall Properties
Transmission Control Protocol/Internet Protocol. The default wide area network protocol that provides communication across diverse interconnected networks.
 ✓ Show icon in notification area when connected ✓ Notify me when this connection has limited or no connectivity
OK Cancel

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Select "Internet Protocol (TCP/IP)," click <Properties> button, enter "Internet Protocol (TCP/IP) Properties" window. Select "Use the following IP address" button, input IP address (use arbitrary value between 192.168.1.1 ~ 192.168.1.254, except 192.168.1.200) and the subnet mask (255.255.255.0). Click "OK" to finish the configuration.

eneral You can get IP settings assigned his capability. Otherwise, you ne he appropriate IP settings.	d automatically if your network supports sed to ask your network administrator for
Obtain an IP address autor	natically
Use the following IP address	35.
IP address:	192.168.1.92
Subnet mask:	255 . 255 . 255 . 0
Default gateway:	192.168.1.1
Obtain DNS server address	automatically
O Use the following DNS service	ver addresses:
Preferred DNS server:	192.168.1.2
Alternate DNS server:	202 . 96 . 128 . 86
	Advanced

The DNS server address can be empty or be filled in with the real server address.

3.2.2 Confirm the Network Connection by Ping Command

Operation steps below:

1) Click <Start> button to enter [Start] menu, select [Run], pop out the dialog.

Run	? 🛛	
	Type the name of a program, folder, document, or Internet resource, and Windows will open it for you.	
Open:	EMD 💌	-
	OK Cancel Browse	

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 Input "ping 192.168.1.200," click <Confirm> button. If there is equipment response that shows up in the pop out dialog, that means the network connection succeeded. Otherwise, please check if the network connection is correct.

C:\>ping 192.168.1.200	
Pinging 192.168.1.200 with 32 bytes of data:	
Reply from 192.168.1.200: bytes=32 time<1ms TTL=64	
Reply from 192.168.1.200: bytes=32 time<1ms TTL=64	
Reply from 192.168.1.200: bytes=32 time<1ms TTL=64	
Reply from 192.168.1.200: bytes=32 time<1ms TTL=64	
Ping statistics for 192.168.1.200:	
Packets: Sent = 4, Received = 4, Lost = 0 (0%	loss),
Approximate round trip times in milli-seconds:	
Minimum = Oms, Maximum = Oms, Average = Oms	
c: \>_	

3.2.3 Cancel the Proxy Server

If the management PC uses proxy server to visit the Internet, then you must prohibit the proxy service by following these operations:

1) In your Internet Browser, select [Tool/Internet Options] enter [Internet Options] window.

Internet Opinions			? ×		
Connections General	Pr Security	ograms Privacy	Advanced Content		
Home page					
To creat	e home page tabs hao.360.cn/?safe	, type each addres	s on its own line.		
L .	Use gurrent	Use de <u>f</u> ault	Use <u>b</u> lank		
Browsing history					
Delete to and web	emporary files, his form information.	tory, cookies, save	d passwords,		
T Dele	te bro <u>w</u> sing histor	y on exit			
		Delete	Settings		
Search					
Change	search defaults.		Settings		
Tabs					
Change tabs.	how webpages an	e displayed in	Settings		
Appearance					
Colors	Languages	Fonts	Accessibility		



2) Select "connections" tab in [Internet Options] window, and click [LAN Settings] button.

Local Area Network (LAN) Settings	×
Automatic configuration Automatic configuration may override manual settings. To ensure the use of manual settings, disable automatic configuration.	
Automatically detect settings	
Use automatic configuration script	
Address	
Proxy server	
use a proxy server for your LAN (These settings will not apply to gial-up or VPN connections).	
Address: Port: 80 Advanced	
Bypass proxy server for local addresses	
OK Cancel	

 Make sure the "Use a proxy server for your LAN" option is not selected. If selected, please cancel it and click <Yes> button.

The Menu bar has the following options: [System Status], [Port Configuration], [PoE], [VLAN Settings], [QoS Management], [Link Management]. [Port Security], [Network Management], [Network Statistics], [System Management], [Exit] and a drop-down menu bar of the "language switching function." Click an option to make the corresponding settings go live.

3.3 Web Page Configuration Guide

The Browser versions recommended: IE7 and later, Firefox browser, Chrome, 360 browser (IE7 and later).

3.3.1 Start and Login	Authentication Required	×
The 8808F Gigabit Ethernet & PoE Fiber Switch Login Defaults:	The server http://192.168.1.184:80 requires a username and password. The server says: Managed Switch.	
Default IP address: 192.168.1.200 Subnet Mask: 255.255.255.0 User Name: admin Password: admin	User Name: Password:	
	Log In Cancel]
After installing the equipment correctly and setting	up the computer, open the browser, put the 8008F	

After installing the equipment correctly and setting up the computer, open the browser, put the 8008switch default address in the browser address bar: <u>http://192.168.1.200</u> then press the <Enter> key, the user login page will show in front of you as seen above:

Caution

Please follow the steps to check if the 8808F switch is installed correctly:

- Check whether the physical connection of the equipment is correct.

 Use the network cable to connect the product's Ethernet port (except console port) with the managed computer network card and ensure the link LED of the 8808F port is on.
- Check whether the computer TCP/IP agreement setting is correct.

 Your computer's IP address must be 192.168.1.x (x range is 1 ~ 254, excluding 200, otherwise it will conflict with the 8808F product's IP address (192.168.1.200, subnet mask: 255.255.255.0).
- 3) Check whether the computer's port VLAN ID is 1?
 By default, the management VLAN is VLAN 1, same as each port of the 8808F switch.

After inputting the correct password, click <Login>, the browser will display the 8808F web management page as seen in the screenshot below:



3.3.2 Change Language

As shown below, in the upper right corner of the web page, click on the drop-down menu bar, select [English] to complete the web language switching.



3.3.3 Common Buttons Introduction

BUTTON	FUNCTION
HELP	Open the online help page on the Settings page to display the help information for the current page.
CONFIRM	Submit the input information and confirm that information in the current system provided.
CANCEL	Cancel the current configuration input
RETURN	Return to the previous page
NEW PAGE	Create a new project from the current page
SELECT ALL	Select all the ports from the current page
REFRESH	Refresh the current configuration page
DELETE ALL	Delete all the configuration item from the selected section

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3.3.4 The Default Configuration

The following table lists some import default configuration settings of the 8808F SFP Switch. All of the features will be described in detail in the following chapters. The default configuration is set for most cases. Please configure your settings to the appropriate application requirements and settings.

	OPTIONS	DEFAULT CONFIGURATION			
	Username / Password	admin / admin			
SYSTEM	IP Address	IP address: 192. 168.1.200 Subnet Mask: 255.255.255.0			
	MAC Address Table Aging Time	300 Seconds			
	Port Status	Enable			
	Port Speed Rate	Auto-negotiation			
	Port Duplex Mode	Auto-negotiation			
PORT	Flow Control	Open			
	Trunking	Port does not converge			
	Port Speed Limitation	No limitation for speed			
	Port Link Type	Access			
VI AN	Management VLAN	VLAN1			
VLAN	VLAN Function Mode	Port-based VLAN			

3.3.5 Web User Timeout

MAC	BINDING	Nn Binding
RSTP	RSTP Function	Close
NETWORK MANAGEMENT	SNMP	Close

When you leave the web setting page for 5 minutes, the system will log out and return to the web dialog box due to a system time-out. Please log in again if you want to proceed with operation.

3.3.6 Backup System Configuration Information

Click the <Backup> button to select the configuration file backup path, click the <OK> button to save the current configuration for the computer. The configuration can be restored throughout the document [* .cfg].

3.3.7 Restoring the Configuration Information

Click the <Browse> button, select previous backup file [* .cfg], click the <Recover> button. The configuration information stored in the backup file will be restored to the device, this configuration will take effect after the device automatically restarts.

3.3.8 Quit

Click the [Exit] menu item in the the navigation bar, return to the system status page, the login box will be popped out automatically until the next click on the page.

4 WEB MANAGEMENT GUIDE

4.1 System Status

The specification meaning are shown in the chart below.

SPECIFICATIONS	DESCRIPTION
WORLD TIME ZONE	Displays the different time zones around the world. For example, select "Automatically Adjust Daylight Savings Time" in the daylight savings time zone.
TIME CONFIGURATION	You can select local time or use NTP
NTP SERVER	NTP is used when all the equipment clocks in the network have to be kept the same so as to ensure the accuracy of the clocks. Enter the correct NTP server's IP Address to start the setup.
SYSTEM TIME	The current time of the device, if you did not get the NTP updated time, then it will start to count from 0:00, 1970.
PC TIME	Computer's current time
DEVICE NAME	Network identification device used to facilitate the integrated management tools such as SNMP to judge different equipment.
CONTACTS	Equipment maintenance personnel's contact information
CONTACT ADDRESS	Equipment maintenance personnel's contact information
MAC ADDRESS	Hardware address of the device is unique since it is determined by the length of 48 bits (6 bytes), Hexadecimal digits.
HARDWARE, SOFTWARE VERSION	Pay attention to software release limit for the hardware version. There are more functions in the updated software version, some of which have new requirements about hardware version.
RUNNING TIME	The time period equipment has been running since. When the device is restarted, the time is recalculated.

4.2 Port Configuration

4.2.1 Port Setting

8808F SFP 8 PORT SWITCH							
WEB PORT	1	3	5	7	9	11	
SILKSCREEN PORT (UP)	T1	Т3	Τ5	T7	X1	X3	
WEB PORT	2	4	6	8	10	12	
SILKSCREEN PORT (DOWN)	T2	T4	Т6	Т8	X2	X4	

The Panel silkscreen port and web port corresponding table:

On the [Port Security / Port Settings] page, you can observe all the current switch port status information and can set [Port Enabled], [Port Rate], [Flow Control], and [Port Range] as shown below in figure 4-1.

	System sta	tus Port setting PoE VLAN QoS LACF) Port security Net	work managemen	t Network statistics Sy	Eng stem manage	glish 💌 ment Exit
Port setting>>	Port setting						
Port setting							
Port enable		Enable 💌					
Port rate		Auto negotiation 🐱 Duplex	mode Auto negotiation	~			
Flow control		Enable 💌					
Port range		ОК	Refresh				
			Current status	Port status			
	Port	Port mark(Double-click to modify)	(speed/duplex)	Port property	Port rate(speed/duplex)	Flow control	Port enable
	1	port1	no link	Copper	100M/Auto	enable	enable
	2	port2	no link	Copper	Auto/Auto	enable	disable
	3	port3	no link	Copper	Auto/Auto	enable	disable
	4	port4	no link	Copper	Auto/Auto	enable	enable
	5	port5	no link	Copper	Auto/Auto	enable	enable
	6	port6	no link	Copper	Auto/Auto	enable	enable

Figure 4-1 Port configuration

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SPECIFICATIONS	DESCRIPTION
PORT ENABLE / DISABLE	Displays the data forwarding of the port. If a port is off, you can not forward the data. Default: Enabled
PORT SPEED RATE	Display the port configuration's speed rate, including 10M, 100M, 1000M, auto- negotiation. Default: Auto-negotiation , which means the port can automatically and directly connect to the device on the other side to negotiate the port speed.
DUPLEX MODE	NTP is used when all the equipment clocks in the network have to be kept the same so as to ensure the accuracy of the clocks. Enter the correct NTP server's IP Address to start the setup.
SYSTEM TIME	The current time of the device, if you did not get the NTP updated time, then it will start to count from 0:00,1970. Displays the port configuration's duplex status, including full-duplex mode, half-duplex mode, and auto-negotiation mode. Default: Auto-negotiation
FLOW CONTROL	Choose whether to enable the function of flow control. When two switches have enabled the function of flow control, if one of the two switches has to be congested, it will send the message to the other switch to notify it to temporarily stop sending messages or slow down the sending speed. After receiving the message, the other switch will stop sending or slow down the sending speed of messages so as to avoid packet loss and ensure normal operation of network services. Default: The flow control function of the port is enabled.

The specification meanings in the above screen are shown below: Configuration direction:

To set the ports 1-10 to 100Mbps half-duplex, and distance the flow control function, please follow these steps:

- Enter 1-10 (or click on the box in front of the port) in the range of ports;
- · Click the port speed drop-down menu to select 100Mbps;
- · Click dual-duplex mode on the drop down menu to select half-duplex;
- · Click flow control on the drop-down menu and select Disable;
- · Click Edit;
- Operation ends.

Please note: Ports 1-8 port rate have a rate of 10/100/1000Mbps adaptive for ports 11-12 for fiber optical uplink at a fixed rate of 1000Mbps. Ports 9-12 are fixed uplink Ethernet ports at a rate of of 10/100/1000Mbps adaptive.

4.2.2 Port Speed Limit

The 8808F Switch provides port-based entry speed limitations. Users can restrict ports traffic flow or cancel port flow restrictions. Users can also choose a fixed rate which is: downlink ports 1 ~ 1000Mbps, uplink ports 1 ~ 1000Mbps, accuracy is 1Mbps. Port restrictions include: Unicast packets, Multicast packets, and Broadcast packets. In the [Port Settings / Port Speed Limit] page you can modify the [Port Speed Limit] function setting as seen below:

Configuration directions for example:

Set the control rate of ports 1-5 to 50Mbps, limited type to Broadcast Packet.

- Turn on the ports rate
- Input 1-5 in the port range, input rate is 50Mbps, limited type is Broadcast Packet
- Click Save
- · Operation finished

						English	
	System status P	ort setting PoE VL	AN QoS LACP	Port security Network mana	gement Network s	tatistics System manage	ment Ex
Dent cottines > Co							
Port setting>>Sp	eed limit						
Bandwidth settin	g	🔍 Enable 🗢 Disable					
Port range							
Input speed			Mbps				
Limited type		Broadcast packet	The unknown m	ulticast 🔲 Unknown Unicast	C Known multicast	Known item on Ed	lit
	Port	P	ort mark	Input speed		Limited type	
(1771)	1		port1	50Mbps	Broadcas	t UknMcast UknUcast Mcast U	Jcast
	2	aa	aaaport2	50Mbps	Broadcas	t UknMcast UknUcast Mcast U	Jcast
	3		port3	50Mbps	Broadcas	t UknMcast UknUcast Mcast U	Jcast
	4	p	ort4ssss	50Mbps	Broadcas	t UknMcast UknUcast Mcast U	Jcast
	5		port5	50Mbps	Broadcas	t UknMcast UknUcast Mcast U	Jcast
	6	SS	SSSSport6	50Mbps	Broadcas	t UknMcast UknUcast Mcast U	Jcast
	7		port7	50Mbps	Broadcas	t UknMcast UknUcast Mcast U	Jcast
	8	DI	DDDDDD	50Mbps	Broadcas	t UknMcast UknUcast Mcast U	Jcast
E**	9	DDD	DDDDDDD	50Mbps	Broadcas	t UknMcast UknUcast Mcast U	Jcast
	10		port10	50Mbns	Broadcas	t LiknMcast LiknLicast Mcast I	Icast

Here is a list of the meanings of the different parameters for the Port Speed Limit:

SPECIFICATIONS	DESCRIPTION
BANDWIDTH SETTINGS ON / OFF	Turn on or turn off the port speed limit. Default: OFF
PORT RANGE	The range at which the port's speed is limited to
INPUT RANGE	The max input rate of each port
LIMITED TYPE	Ports are limited to: Unicast Packets, Multicast Packets, Broadcast Packets

4.3 VLAN Settings

The 8808F Switch supports 2 VLAN modes:

- Port-based VLAN Mode: Defines VLAN members according to the devices ports. After you specify the port or ports to a VLAN, the specified VLAN Packets can be forwarded by the port.
- 802.1Q VLAN Mode: Defined by IEEE 802.1Q protocol. Processes the packets by defining the packets tags.

4.3.1 VLAN Configuration

On the [VLAN / Port VLAN] page, you can observe the VLAN settings of all the current ports on the 8808F switch and can set several functions such as [Port Range], [Link Type], [VLAN Forwarding List], [VLAN-untagged Mark List] as shown in the figure below:

							English	-
	System st	atus Port setting PoE V	LAN QoS	LACP Port security	Network management	Network statistics	System management Ex	cit
VLAN>>Port	VLAN							
Port range		1						
Link type		Direct connect terminal 💌						
Default VLAN	ID	1]					
VLAN forward	ling list							
Vlan-untagge	d mark list		OK					
	Port	Port mark	Link type	Default VLAN ID	VLAN forwarding lis	st V	lan-untagged mark list	
	1	port1	Access	123				
	2	port2	Access	123				
	3	port3	Access	123				
	4	port4	Access	123				
	5	port5	Access	123				

The meaning of the parameters on the VLAN settings are shown in the chart below:

PARAMETER	DESCRIPTION
LINK TYPE	Access: The port which is normally used for connecting devices, only belongs to 1 VLAN. Default: All ports are Access Ports
DEFAULT VLAN ID	Enter the ID # which is needed to be divided (generally 1 - 4044)
VLAN FORWARDING LIST	VLAN packets can be transferred, others will be discarded.
VLAN UNTAGGED MARK LIST	Port forwarded packets can be set in VLAN. Untagged without a tag but others can not.

Configuration directions for example:

If ports 1-10 are connected to the switch respectively, it is necessary to divide ports 1-10 into VLAN 20.

- Enter 1-10 within the port range (or click on the box in front of the ports);
- Choose <Trunk> on the menu (the 8808F switch's connection is generally used with Trunk Mode);
- Enter 20 for the default VLAN ID;
- Enter 1-10 for the VLAN Forwarding;
- Enter the VLAN Flag List based on the actual relationship (the receiving and sending of packets for the ports shown in table below)
- Press <Set> to save the settings;
- Operation finished.

PORT TYPE	RECEIVED MESSAGE WITHOUT TAG	RECEIVED MESSAGE WITH TAG	PROCESS
ACCESS	The default VLAN ID port for the packet with corresponding VLAN Tag.	When the VLAN ID and default VLAN ID is the the same, receive the packet. Otherwise discard the packet.	Delete message TAG before transferring it.
TRUNK	Compare port default VLAN ID to check whether it is allowed by. the VLAN ID, if yes, the default message with port VLAN ID corresponding VLAN Tag; if No, discard the packet.	When VLAN ID is allowed to pass through in the VLAN ID, then receive the packet. Otherwise discard the packet.	When the VLAN ID and default ID are the same, remove the tag and send the message. When the VLAN ID and default VLAN ID are different, and is allowed to pass through the port, maintain the original tag and send the message.



4.3.2 VLAN Forwarding

On the [VLAN / VLAN Forwarding] page, you can observe the current port VLAN Forwarding information shown below:

						English	*
	System stat	tus Port setting	PoE VLAN QoS LACP Port secu	urity Network management	Network statistics System	m management	Exit
VLAN>>VLAN	N forward list						
VLAN forwar	d setting						
VLAN ID							
VLAN name							
			Add Moo	tify Delete			
Selete	No.	VID	VLAN name		VLAN member		
	1	1	Default		7-28		
	2	123	123		1-6		
			Refresh	Help			

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PARAMETER	DESCRIPTION
VLAN ID	VLAN ID needed to be changed
VLAN NAME	Change the VLAN name that needs configuration

Configuration directions for example:

Rename VLAN 20 name from "Enable-IT" to "Orange Coast Manila"

- Enter 10 to VLAN ID (or click on the box in from of the VID 10);
- Enter "Orange Coast Manila" to the VLAN Name;
- Press <Modify> to save the setting;
- End.

4.4 Trunk Management

4.4.1 Trunk

Trunk means port convergence, configure the software settings and connect two or more physical ports to become a logical path to increase the bandwidth between switches and network nodes. The bandwidth merge of several ports provides an exclusive high bandwidth several times than an independent port.

On the [LACP / TRUNK] page, you can observe the current port link convergence information shown in the figure below:

				Er
	System status Port setting PoE	VLAN QoS LACP Port securi	ity Network management Network statistics	System man
Network mar	agement>>LACP			
LACP Setting				
Load Balance	SRC MAC	•		
Trunk Group	Trunk-			
Trunk Mode	Manual LACP 📼			
Port Range		Add Del		
📃 Inde	C Trunk Group Mode	Port Range	Port Status	
		Refresh Save	Help	

Configuration directions for example:

Connect switch A's ports 1 - 2 with switch B's ports 1 - 2

- Enable a convergence group in switch A
- Select ports 1 and 2
- Click <Save>
- · Switch B and switch A are in consistent procedure
- End

Please note: Each convergence group supports up to 8 ports. Ports with the following cases can not be added to a convergence group:

- 1) Ports with the 802.1X function
- 2) The mirror port
- 3) Port with MAC Address binding

Caution

In the same convergence group: the port speed, duplex mode, and basic configuration must be consistent. STP consistent configuration: including STP ports ON / OFF, STP priority, STP cost, whether to open loop guard and root guard, or edge ports. QoS configuration is consistent. VLAN consistent configuration, including permitted VLAN and the default port of VLAN ID. Link type of the ports is consistent.

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4.4.2 RSTP

4.4.2.1 RSTP Uses

STP (Spanning Tree Protocol) is established in accordance with the IEEE 802.1D standard. It is developed for the elimination of the data link layer loops in the LAN protocol. Devices running this protocol exchange packets with each other to find loops in the networks, and choose to block some certain ports. This will eventually make the loop network structure into a loop-free tree pruning network structure. Thus, preventing packet proliferation and infinite cycling in loop network, avoiding declined processing capacity and receiving same messages repeatedly.

STP has 2 meanings: narrow meaning of STP is defined in IEEE 802.1D, the broad meaning of STP includes IEEE 802.1D defined STP and various enhanced spanning tree protocol produced on the basis of STP (such as RSTP protocol).

4.4.2.2 STP Basic Concept

1) The Root Bridge

Network structure tree must have a root, then STP introduces the concept of root bridge in. Only one root bridge and the root bridge will change when the network topology changes, so the root bridge is not fixed.

2) The Path Cost

Path cost is a reference value for STP to select a link. By calculating the path cost of STP, STP chooses stronger links to block redundant links and cut the network into a loop-free tree topology.

3) The Port Role

Root Port: responsible for forwarding data to the root port.

Designated Port: responsible for forwarding data to the downstream of network segment or switch port.

Block Port: port suppressed by other specific ports.

4) Port Status

Forwarding: Forwarding user traffic, only the root port or designated port have this condition. **Learning**: The switch builds the MAC address table according to user traffic received (but not forwarding traffic).

Listening: the completion of the root bridge, select the root port and designated ports. **Blocking**: Only BPDU is received and processed, no user traffic forwarded.

Disabled: consider blocking or link disconnection.

5) The Designated Bridges and Designated Ports

The meaning of designated bridges and ports is shown in the table below:

CLASSIFICATION	DESIGNATED BRIDGE	DESIGNATED PORT
FOR EQUIPMENT	Equipment connecting directly with switch and responsible to transfer BPDU message to switch	Port used by designated bridge to transfer BPDU message to switch
FOR LAN	Responsible for transferring BPDU message to local network segment equipment	Port use by designated bridge to transfer BPDU message to local network segment

4.4.2.3 RSTP Introduction

RSTP (Rapid Spanning Tree Protocol) is an optimized version of STP. It is "fast" because the delay is shortened under certain conditions when a port is selected as the root port and designated port to enter the forwarding state. Thus, the time to reach topology stability is greatly reduced.

In RSTP, to ensure the root port moves fast - the old root port of the device has to stop forwarding data and the upstream designated port has to start forwarding data.

In RSTP, to ensure the designated port moves fast - the designated port should be an edge port or a port connected to a point to point link. If the designated port is an edge port, then the designated port can enter the forwarding state. If the designated port is connected to a point to point link, the device can handshake with the downstream device to give immediate response to enter the forwarding state.

On the [LACP / RSTP] page you can observe the current port RSTP information on the switch shown in the figure below:

								English	~
l, 4	System sta	tus Port setting PoE V	LAN QoS LACP Port s	ecurity Netwo	rk managemen	t Network statistics	System man	agement	Exit
LACP>>RSTP						Flow statistics MAC table			
RSTP setting		Enable Oisable				Section 100			
Device priority									
Sending messa	ge interval	2	second (1-10)						
Maximum mess	age lifetime	6	second (6-40)						
Changing port st	atus delay	4	second (4-30)						
Network bridge i	nformation	RSTP							
		Path expenditure	Port priority Point to p		point port	point port Edge		e port	
Modify conlig	urabon	0							
Port ran	ge		Modify						
	Port	Por mark	Path expenditure	Port pr	iority	Point to point port	E	dge port	
	1	port1	automatic detection	12	8	NO		YES	
	2	port2	automatic detection	12	8	NO		YES	
	3	port3	automatic detection	12	8	NO		YES	
	4	port4	automatic detection	12	8	NO		YES	
	5	port5	automatic detection	12	8	NO		YES	

Configuration directions for example:

Enable RSTP function to avoid broadcast storm caused by looped network structure among Switch A, Switch B and Switch C 1-10 port.

- Enable Switch A, B, C RSTP function
- Enter 1-10 within the Port Range (or click the box in front of each port) Equipment Priority, cycle of sending message, maximum lifetime of information, default port status migration delay
- Path Cost, enter "0" automatically detected
- Port Priority, choose 128
- Point to Point (P2P), choose "yes"
- Edge Port, choose "no"
- Click <Save>, operation finished.

After setting RSTP, click "RSTP information" to check root bridge and port information. The port recover time is around 30s by default, click right key to refresh current status.

The meanings of the main parameters of RSTP are seen below:

PARAMETER	DESCRIPTION
DEVICE PRIORITY	As the network bridge priority, network bridge and network bridge MAC address combined as bridge ID, of which the minimum bridge ID will become the network root.
SENDING MESSAGE INTERVAL	The interval needed send a BPDU data packet.
MAXIMUM MESSAGE LIFETIME	Means the validity of a BPDU data package of a switch received from another switch.
CHANGING PORT STATUS DELAY	The forward delay of a switch port status in transition status (listening and learning).
PATH EXPENDITURE	Setting port path cost, only setting only set when port default path cost on "OFF" status. Port link cost, with port priority and port ID form port ID to compare value range 1 ~ 200000000 "0" means automatic check.
PORT PRIORITY	The priority of the port in the network bridge, with port priority and port ID form port ID to compare. Default Port Priority: 128.
POINT TO POINT PORT	Switch port and switch connected directly - Then this port is P2P port. RSTP adopts negotiation mechanism for P2P port so as to achieve quick transformation of port status.
EDGE PORT	The network edge switch generally connects with terminal equipment such as: a PC or workstation. To configure these terminal ports to Edge Ports you can achieve status of transformation port without discarding Learning and Forwarding Transformation Course.
RSTP INFORMATION	Check RSTP information and port information

4.5 Port Security

4.5.1 Static Address Latch

Static MAC address is to limit computer operation, the computer with binding computer MAC and ports can not communicate with other ports, while other computers can.

On the [Port Security / Static Address Lock] page it displays switch information of static address latch, as shown below:

					English 👻
System status F	Port setting PoE VLAN	QoS LACP Port security	Network management	Network statistics	System management Exit
Port security>>Stastic address lo	ck			Flow statistics MAC table	
Stastic address lock	Enable Oisable	3			
MAC address					
VLAN ID]			
Port]			
		OK Ca			
No.		MAC		VLAN ID	Port
		Refresh Save	Help		

Configuration Guidelines:

For example, when binding the port 10 of Switch A with Switch B, port 1 belongs to VLAN20.

- · Enable static address latch function of Switch B
- Enter the MAC address of Switch B
- Enter VLAN ID as 20
- Enter port with 20
- Click <Save>
- Operation finished.



Caution

This feature is a security mechanism which requires high attention to the settings:

- 1) Do not use a multicast address as an entered address
- 2) Do not enter the reserved MAC address, such as the local MAC address
- 3) Port which has already been added to an aggregation group is not allowed to set binding function between port and MAC address

PARAMETER	DESCRIPTION
MAC ADDRESS	Static MAC address differs from the general dynamic MAC address. Once a static address is added, the address will remain in effect until it is deleted and free the maximum aging time limit.
VLAN ID	Port-corresponding VLAN ID number
PORT	Select a status MAC address to forward port, you can only specify one forwarding port.

4.5.2 802.1X Certificates

IEEE 802.1X certification system adopted the "controllable port" and "uncontrolled ports" logic functions. It can recognize the separation of business and certification. After passing certification, the business flow and the certification flow separation have no special requirement for the following subsequent packets. Business can be flexible, especially in developed broadband multicast business with a lot of advantages. Business is not restricted by authentication.

802.1X Three Main Parts:

- 1) Application supplicant: User and Client who was to get the certification
- 2) Authentication Server: A typical example for the RADIUS server
- 3) Certification System Authenticator: Between the end devices, such as wireless access points, switches, etc. - we can play equipment system at the same time as the authentication servers two characters. You can also use the additional authentication server at the same time supporting the billing system.

In the [Port Security / 802.1X Authentication] page, you can modify the 802.1X Authentication Function Set, as shown below:

s	ystern status I	Port setting PoE VLAN QoS LACP	Port security Network mana	ngement Network s	English 💽	
Port security>>8	1.x certification					
Global setting		🛛 Enable 💭 Disable				
Timing update cer	tification	3600 Second [60 - 40,000,000]]			
Radius server		Local Remote				
Radius server set	ting	IP address Share secret key				
Server port setting	i.	Billing server port [0 - 65535] Certification server port [0 - 65535]				
Best colling		Control mode	Port control m	ethod	Maximum user quantity	
Port setting		Authorized-force	MAC Based	•		
Port range		Edit				
_				Setting status		
-	Port	Port mark	Control mode	Control met	hod Maximum user quantity	
	1	port1	Authorized-force	MAC Base	d 4096	
	2	aaaaaport2	Authorized-force	MAC Base	d 4096	
	3	port3	Authorized-force	MAC Base	d 4096	
	4	port4ssss	Authorized-force	MAC Base	d 4096	
	5	port5	Authorized-force	MAC Base	d 4096	
	6	SSSSSSport6	Authorized-force	MAC Base	d 4096	
	7	port7	Authorized-force	MAC Base	d 4096	

Configuration Guidelines:

For example, Setting port 1-10 to compulsory licensing model, the maximum number of users to 10.

- Start using 802.1X Certification
- Ports Scope choose 1-10, Control Mode select compulsory licensing, maximum number of users input 10
- Click the setting and save, operation finished.

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Please note:

- 1) Between the applicant and the authentication system using MD5 inquiry, does not support others
- If the network connection properties without the "authentication" option, please select "attachment" -> "management tools" -> "component services" -> "service," set "Wired AutoConfig" to "automatic"
- 3) Billing server setup error will not allow the application to be authenticated. Billing server does not need to be setup
- 4) All uplink or downlink ports must be forced through the authentication or prohibit the use of certification. Otherwise you can't use the remote server unless you use the internal authenticated server
- 5) When using the remote server, the administrator can access the remote server. Be sure to confirm equipment is displaying the device address of the gateway is setup correctly. The domain name DNS must be set correctly as well.

SPECIFICATION	DESCRIPTION
802.1X CONFIG	ON / OFF 802.1C Certification. Default is OFF
REGULARLY UPDATE THE CERTIFICATION	802.1X certification cycle time used to enhance the security of authentication.
RADIUS SERVER	Equipment built in the Radius server, if you choose Radius for your service. Applications will only be used inside the Radius database of users and passwords. If the use of the external Radius server needs to fill in the authentication server IP address and ports #. If you need to use the AAA billing system, fill in the sever settings IP address and port #. Or server setting IP address is blank.
AUTHENTICATION SERVER IP ADDRESS	Radius remote access authentication server - namely certification authorization use. Set the IP address / domain that the device can access. Default port is 1812.
SHARED KEY	The devices access authentication server shared password string.
SERVICE PORT SETTINGS	Server implementation is the function of billing - the IP address / domain equipment can access. Default port is 1813.
CONTROL MODE	Compulsory licensing model respectively, automatic mode, and mandatory unauthorized mode.
PORT CONTROL MODE	MAC based
MAX ID LIST	Scope: 1 ~ 4096

The meaning of the main parameters of the 802.1X Certificates are shown below:

4.6 Web Management

4.6.1 SNMP Settings

SNMP is used to ensure the management information transferred between any two points so that the network administrators can easily retrieve information on any node on the network to modify information, fault search, troubleshooting, capacity planning and report generation.

SNMP contains NMS and Agent. NMS is a workstation running the server-side program. Agent is the client software running on the network device. NMS can send a request message to Agent, which Agent receives the request from NMS and starts to read or write and generate response packets and send the response packets back to the NMS.

On the [Network Management / SNMP Settings] page, you can enable / disable the SNMP service and set the community name as shown below:

					English 💌		
System status P	Port setting PoE VLAN Q	oS LACP Port security	Network management	Network statistics Syste	m management Exit		
Network management>>SNMP set	letwork management>>SNMP setting						
SNMP setting	Enable Disable						
SNMP gateway							
SNMP version							
Read-only community name	public						
Read-write community name	private						
SNMP V3							
User name		Read-	write method	Read only			
Identify authentication		Verify	password	8			
Encryption protocol		Encryp	oted password				
Add Delete							
No. User nam	e Identify authenticat	ion Verify password	Encryption protocol	Encryption password	Read-write method		
Refresh Save Help							

The meaning of the main parameters of the SNMP Config are shown below:

PARAMETERS	DESCRIPTION
SNMP GATEWAY	Agent sends the network IP address from the receiver who sends the abnormal alert.
SNMP VERSION	Supports V1 / V2 / V3 versions
READ-ONLY COMMUNITY NAME	A SNMP community named after a string. The group only has permission to operate.
READ-WRITE COMMUNITY NAME	A SNMP community named after a string. The group has permission to get and set operations.



Caution

Community name: used to define the relationship between the SNMP manager and an SNMP agent. If the community name SNMP packets have not been recognized by the device, the packet is discarded. You can use the standard community name (public or private) or a user-defined group name.

4.6.2 Email Alarm

The 8808F switch, if running an event supervision, the supervision will send an alert message to defined mail recipients when something is wrong about defining time and if some abnormal event occurs. Supervision is also periodically sends all log messages to predefined recipients.

On the [Network Management / Email Alarm] page, you can turn ON / OFF the Email Alarm Service shown below:

	English 💌
System	status Port setting PoE VLAN QoS LACP Port security Network management Network statistics System management Exit
Network management>	>Email alarm
Email alarm	Enable Disable
Mail server	
Mail accountant	
Mail password	
Receiver address	
Mail reply address	
Mail interval	12 hour V Send system test mail

Configuration Guidelines:

If a switch can not send a message out, it should send alarm messages to the specified mailbox.

- Enable Email Alarm function
- Enter your server smtp.gmail.com in the mail server (for example)
- Enter the account ***@gmail.com in your email account to log in the email server
- Enter email password
- Recipient email address should input email address of the email receiver ***@gmail.com
- Enter recipient or webmaster email in email address, the address is ***@gmail.com
- Mail intervals is 12 hours
- Click <Save>, operation finished

The meaning of the main parameters of the Email Alarm are shown below:

PARAMETERS	DESCRIPTION
MAIL SERVER	The host computer's IP address or the host computer that provide POP3 mail delivery service to your devices.
EMAIL ACCOUNTS	The account name for login into the mail server.
EMAIL PASSWORD	The password to the account name for logging not the email server.
RECIPIENT ADDRESS	The email address used to inform recipients of abnormal events.
EMAIL REPLY ADDRESS	The email address that can help solve abnormal events.
MAIL INTERVAL	The interval time that regularly sends log and weekly reports.

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Caution

Some email service systems require that the "email reply address" should match the "email account;" when sending system test email, the password should be in plain text. The test mail can not be sent if the password is "*."

4.6.3 Port Mirror

Port Mirroring refers to copying the monitor port data to a designated monitoring port. For data analysis and monitoring, the 8808F Switch supports multiple mirroring to one mirroring - copy packets from multiple ports to a monitor port. User can also specify the direction of monitored packets, such as: only monitor designated ports messaging. Equipment using port mirroring group to configure port mirroring. Every port mirror includes monitoring port and can be monitored.

In the [Network Management / Port Mirror] page, you can modify the [Port Mirror] function settings as shown below:

			English 💌
5	System status Port setting PoE VLAN QoS LACP F	Port security Network management Network statistic	s System management Exit
Network manage	ement>>Port mirror		
Port mirror	🔍 Enable 🔍 Disable		
Monitor port			
Mirror port			
Data collection	All data O Input data O Output data	Edit	
No.	Monitor port	Mirror port	Data collection
1			Input data
2			Output data
	Refresh	Save Help	

Configuration Guidelines:

For example, port 3 monitor port 2 import data traffic.

- Open Port Mirror
- Input 3 on monitor port, input 2 on mirror port; Data collection selected from the import data
- Press <Save> after setting
- Operation finished

Please note:

- 1) This feature must be turned off in normal use, otherwise, all advanced management capabilities can be used on the port such as RSTP, IGMP SNOOP, etc.
- Mirroring only handles normal packet FCS, can not handle various kinds of erroneous data frames.
- 3) To replace the mirror port or monitor port, directly input monitoring port # or mirror port # and then click <Setting>.

The meaning of the main parameters of the Port Mirror are shown below:

PARAMETERS	DESCRIPTION
PORT MIRROR ON / OFF	Turn ON / OFF Port Mirror function. Default is OFF
MONITOR PORT	Port for monitoring, the port display data is designated direction
MIRROR PORT	Ports that are monitored, these ports collect designated direction data from the monitored ports.
DATA COLLECTION	Specifies the monitor port data direction divided into "all data," "data import," and "export data" options.

4.6.4 IGMP Snooping

Switch IGMP membership report message to the router IGMP membership through intercepting mainframe. Form a corresponding relationship between group members and switch interfaces. Switch transfer multicast packets can be received by member group ports according to correspondence.

The [Network Management / IGMP Snooping] page can be modified and set based off the below information:

							English	-
System status P	ort settin	g PoE VLAN	QoS LACP	Port security	Network management	Network statistics	System managemen	t Exit
Network management>>IGMP Sno	Network management>>IGMP Snooping							
IGMP snooping function	O Enabl	e 🔘 Disable						
IGMP inquiry	Enabl	e 🔿 Disable						
IGMP inquiry interval	125 Second (60-1000)							
Group members life time	300 Second (120-5000)							
Stastic multicast table configurati	on							
Stastic multicast MAC address VLAN ID								
Portrange			Add	Delete]			
No.		multica	ist address		VLAN ID	Port numbe	r Typ	е
			Refres	h Save	Help			

The meaning of the multicast snooping parameters are shown below:

PARAMETERS	DESCRIPTION				
IGMP SNOOPING ON / OFF	Opening and closing multicast snooping function. Default is Closed				
IGMP INQUIRY	Open IGMP multicast inquiry function				
IGMP QUERY INTERVAL	The longest time of equipment existing multicast member survival time				
UNKNOWN MULTICAST GROUP FORWARDING TABLE	How to transfer these ports when the received multicast address does not exist in the address table				

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Please note:

- 1) PC's Ethernet port should be allocated, only 1 IP address is recommended
- 2) Network is best not to have multiple IGMP inquiries
- 3) Please choose all the ports if you are unsure of the forwarding relationship to unknown multicast group

4.7 Network Statistics

4.7.1 Network Statistics

On the [Network Statistics / Flow Statistics] page, you can view the number of data packets and bytes transferred for each port shown below:

	system status i Port	setting PoE VLA		ort security I N	etwork manageme	nt i Network statis	tics System mana	inglish 💌
Network statistic	etwork statistics>>Flow statistics							
Port	Port Sent frame					Received	frame	
Port	Singlecast package	Multicast package	Broadcast package	Error package	Singlecast package	Multicast package	Broadcast package	Error package
1	0	0	0	0	0	0	0	0
2	0	0	0	0	0	0	0	0
3	0	0	0	0	0	0	0	0
4	0	0	0	0	0	0	0	0
5	0	0	0	0	0	0	0	0
6	0	0	0	0	0	0	0	0
7	0	0	0	0	0	0	0	0
8	0	0	0	0	0	0	0	0
9	0	0	0	0	0	0	0	0
10	0	0	0	0	0	0	0	0

The meaning of the parameters for the network statistics page are shown below:

PARAMETERS	DESCRIPTION
RECEIVED FRAME SINGLECAST PACKAGE	The received address is the number of packets in the unicast address.
RECEIVED FRAME MULTICAST PACKAGE	The received address is the number of packets in the multicast address.
RECEIVED FRAME BROADCAST PACKAGE	The received address is the number of packets in the broadcast address.
RECEIVED FRAME ERROR PACKAGE	Error package numbers due to various errors sent and received by ports.
SENT FRAME SINGLECAST PACKAGE	The sent address is the number of packets in the unicast address.
SENT FRAME MULTICAST PACKAGE	The sent address is the number of packets in the multicast address.
SENT FRAME BROADCAST PACKAGE	The sent address is the number of packets in the broadcast address.
SENT FRAME ERROR PACKAGE	Error package numbers due to various errors sent and received by ports.

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4.7.2 MAC Address

MAC (Media Access Control) address is the hardware identification of network equipment. Switches transfer messages according to MAC address. MAC addresses are unique, this ensures the correct message is sent. Every switch maintain a MAC address table, in which the MAC address corresponds to switch ports.

The switch could decide to filter this data frame or transfer data frames to corresponding ports according to the MAC address table when the switch receives the data frame. MAC address is the basic premise for data frame fast forwarding.

On the [Network Statistics / MAC Table] page, you can check the MAC address of each port as shown below:

							English 💌
I second	System status	Port setting PoE VL	AN QoS LACP	P Port security	Network management	Network statistics	System management Exit
Natwork	etatistice>>MAC table	()				Flow statistics	
Network	staustics##INAC table					MAC table	
MAC tab	le inqury						
Inquiry b	y physical port						
Inquiry b	y MAC address type	All type	~				
				Inquiry]		
No.		Source address		VLAN ID	Туре	Port	Process mode
1		20:4E:7F:89:DB:97		1	Dynamic	28	forward
2		00:24:8C:95:AD:4C		1	Dynamic	28	forward
3		50:E5:49:AF:46:97		1	Dynamic	28	forward
4		54:04:A6:D5:BB:6F		1	Dynamic	28	forward
5		14:DA:E9:93:02:64		1	Dynamic	28	forward
6		00:0C:29:29:D2:60		1	Dynamic	28	forward
7		00:1F:29:9A:88:E6		1	Dynamic	28	forward

The meaning of the parameters for the MAC Address Table page are shown below:

PARAMETERS	DESCRIPTION		
INQUIRY BY PHYSICAL PORT	Enter detailed physical MAC address to check		
INQUIRY BY MAC ADDRESS TYPE	MAC Address type consists of states MAC addresses and dynamic MAC addresses.		



Caution

Multicast MAC address table is displayed in IGMP snooping table. All these address tables are unicast addresses. The permanent static address is configured in states MAC address port table. You need to modify corresponding entries when the port changes. The aging time of MAC address is 300 seconds, after which is the port is disconnected. The upper port operation procedures clear all corresponding port entries.

4.8 System Management

4.8.1 IP Address

IP address is a 32 bit length address connected to Internet equipment. IP addresses consist of 2 parts: Network-ID and Host-ID.

On the [System Management / IP Address] page you can check the IP Addresses for the 8808F device shown below:

Syste	em status Port setting PoE VL/	English AN QoS LACP Port security Network management Network statistics System management Exit
System management	t>>IP address	
Access	Static IP Opnamic IP	
IP address	192.168.1.184	
Subnet mask	255.255.255.0	
Default gateway	192.168.1.1	
DNS address	202.96.134.133	
		Refresh Save Help



Caution

You can set the IP Address range as 192.168.x.x., 172.[16-31].x.x or 10.x.x.x Make sure to fill in the correct DNS address when using it for NTP and Email.

4.8.2 User Management

On the [System Management / User Management] page, you can modify or add one user with a password as seen below:

										English	Y
Syst	iem status Port se	etting PoE VL/	AN QoS LACP	Port security	Network n	nanagement	Network	statistics	System m	anagemen	t Exit
System managemen	nt>>User manageme	ent									
User index	1	*									
Visit level	Administrator	~									
User name	admin										
Input password											
Confirm password	******										
			Refre	sh Save	Help						

The meaning of the parameters for the User Management page are shown below:

PARAMETERS	DESCRIPTION
USER INDEX	User index indicates the group of users. There are 3 user indexes in the drop down table.
VISIT I EVEI	Administrator: view and set all configurations
	User: some functionality
USER NAME	The identification of visitors
INPUT PASSWORD	Visitor password
CONFIRM PASSWORD	Password confirmed

Please note:

Users enjoy the permission rights of all functions except for "power configuration," "delete all logs," "update software," and "restore factory settings."



Caution

- 1) If you forget the username and password, please contact technical support for assistance.
- 2) If you set the same username, only the top user / password will work.
- 3) Web supports up to 1 administrator and 2 ordinary users, administrators can not be deleted.

4.8.3 Log Information

The log function allows users to access system operations. When this function is enabled, corresponding events are recorded to the log:

- 1) System Restart
- 2) Port Link Down / Up
- 3) Power Supply Status
- 4) Login Information
- 5) Broadcast Storm
- 6) System Action and Operation Record
- 7) NTP Time Synchronization Information
- 8) Other System Information

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On the [System Management / Log Information] page, you can check the time and type of event as shown below:

s	ystem status P	ort setting PoE VLAN QoS L	English M ACP Port security Network management Network statistics System management Exit
System managen	ment>>Log inform	ation	
Remote log serve	er 🗢 Enal	ble Olisable	
Log server addres	155		Record lowest grade notifications
Information proce	essing Dov	vnload Delete	
No.	Туре	Time	Event
1	LINK	2014-11-06 13:21:30	Port G0/28 Link Up!
2	CONFIG	2014-11-07 16:30:45	User login successful - IP:217.23.89.110 Name:admin
3	CONFIG	2014-11-07 16:28:25	System time is changed as Local - IP:217.23.89.110 Name:admin
4	CONFIG	2014-11-10 11:24:20	User login successful - IP:192.168.1.16 Name:admin
5	CONFIG	2014-11-11 10:12:46	User login successful - IP:192.168.1.16 Name:admin
6	CONFIG	2014-11-11 10:37:51	User login successful - IP:192.168.1.16 Name:admin
7	CONFIG	2014-11-11 16:38:06	User login successful - IP:192.168.1.16 Name:admin
8	CONFIG	2014-11-19 09:30:46	User login successful - IP:192.168.1.16 Name:admin
9	CONFIG	2014-11-19 09:47:51	User login successful - IP:192.168.1.16 Name:admin
		Previous	Current page / Total pages 1/1 Next Refresh Save Help

The received frame statistics and transmit frame statistics are shown below:

PARAMETERS	DESCRIPTION
LOG SERVER ADDRESS	The server address receiving log information
RECORD LOWEST GRADE	There are 8 optional levels: error information, notification information to be logged, information in need of quick attention, serious information, information that can not be used in the system, normal but important information, information in debug, and warning information.
DOWNLOAD ALL INFORMATION	Download all information (Format .cfg)
DELETE ALL INFORMATION	Delete all information

4.8.4 File Management

On the [System Management / File Management] page, you can configure the documents, do a software upgrade, restore factory settings and reboot the system as shown below:

Syste	English status Port setting PoE VLAN QoS LACP Port security Network management Network statistics System management	t Exit
System management	File management	
Configuration files		
Configuration backup	Backup	
Configuration recover	Recover	
Software update		
Select update file	Update	
Restore factory defau		
Restore factory defaul	ОК	
System reboot		
System reboot	ОК	
	Help	

The meaning of the parameters for the Document Management page are shown below:

PARAMETERS	DESCRIPTION
CONFIGURATION FILE	Backup switch configuration (File format .cfg) Select configuration file you want to restore and restore all configurations of the switch (File format .cfg)
SOFTWARE UPDATE	Select the software you want to upgrade
RESTORE FACTORY DEFAULTS	Recover all configurations except for IP address, username, and password
SYSTEM REBOOT	Restart system and return to system status page



Caution

- 1) Please keep the switch energized during the upgrade process and do not turn off the power.
- 2) Please save the configuration before rebooting. Otherwise the unsaved configuration information will be lost.

4.9 PoE Management

On the [PoE Management] page, you can turn ON / OFF the PoE function, set input power, maximum overload, reservation power, etc. shown below:

	System st	atus Port setting PoF VI AN OoS I ACP	I Port security I Network manageme	nt Network statistics	Engl System mana	sh •
	System au	ans Frontsening Front Annual 403 France	[For security [network manageme	in I network addance [System manag	Jennenn I CXII
PoE						
Power settin	g (Be careful					
Power provid	ed 135 V	V Overload limit 5 %	Reserved rate 15 %	ОК		
Power status	5					
Consumed	0 W	Remaining 114.8 W	Reserved 20.3 W	Provided	135 W	
Port status a	ind control					
Port range		Priority Low -	Power limit W (0-60	W) ON	OFF	ОК
_	Deut	Ded must	Comment 818	Setting		
_	Port	PORTIMARK	Consumed (vv)	Power limit (W)	Priority	Port status
	1	port1	0	60	Low	open
	2	port2	0	30	Low	open
	3	port3	0	30	Low	open
	4	port4	0	30	Low	open
	5	port5	0	30	Low	open
	6	port6	0	30	Low	open
	7	port7	0	30	Low	open
	8	port8	0	30	Low	open
			Refresh Help			



Caution

- 1) Please do not modify the input power. If the setting value is more than the actual power of the built-in power transformer, there will be a risk of overloading the unit and burning it out. if the setting value is less than the actual power for the built-in power supply, it can not be fully allocated out of the ports.
- 2) Each port on the 8808F switch will provide a maximum output power of 30W even if the user sets it beyond 30W, it will still only output a max of 30W.

The meaning of the parameters for the PoE Management page are shown below:

PARAMETERS	DESCRIPTION
POWER PROVIDED	Determined by the built-in power supply module and can not exceed the maximum power supply.
OVERLOAD LIMIT	 Built-in power supply allows an overload rate. Setting ranges from 0% ~ 10% Default: 5% if the actual output power is overloaded, it will cause the built-in power supply to shut down power to ports with lower priority.
RESERVED RATE	Reservation power can not be used for distribution, but can be used for PD power consumption caused by overload change. The default is 15% of the total power. The larger the number is, the smaller the risk of system overload. So as the usable power for distribution and PD quantity become less, the more the amount of PD access and greater the risk of system overload.

PARAMETERS	DESCRIPTION
CONSUMED	Actual output total power
	Means power that could be used for redistribution.
	Input - Actual Input - Reservation = Surplus
REMAINING	Please note that when you insert a new PD device, the power will be distributed based on the detected PD power level instead of the actual power of the inserted PD. For example: when surplus power is 20W, the system still can not distribute power nor supply power if the inserted power level of the PD is 25.5W and the actual power only requires 10W.
RESERVED	Used for PD consumption with overload changes. It stems from the set menu "Input Power Rate X Reserve Power"
PROVIDED	Total power for system settings. It sets from the set menu "Input Power."
PRIORITY	There are 2 levels for port power supply priority: "Low," "Middle," "High." When the system is overloaded, the power supply of the port with low priority will be turned off first.
POWER LIMIT	The set output power limit for a single port. The power will power off if the actual output power exceeds the limit.
ON / OFF	Power ON the ports PoE function / Power OFF the ports PoE function.
SETTINGS	Set the ports priority and maximum power consumption

4.10 QoS Management

4.10.1 QoS Settings

On the [QoS Management / QoS Settings] page, you can modify the 802.1P QoS function settings as shown below:

							English 💌
Syster	m status Port s	etting PoE VLAN	QoS LACP Port see	curity Network ma	anagement Network	statistics Systen	n management Exit
QoS>>QoS setting							
QoS setting	0	inable 🔎 Disable					
802.1p QoS setting	0	nable 🔎 Disable					
802.1p mark range							
Priority	0	▼ 0ł	<				
802.1pMark	Priority	802.1pMark	Priority	802.1pMark	Priority	802.1pMark	Priority
0	0	1	1	2	2	3	3
4	4	5	5	6	6	7	7
Refresh Save Help							

The meaning of the parameters for the 802.1P QoS Settings are shown in the table below:

PARAMETERS	DESCRIPTION
QoS SETTINGS ON / OFF	QoS ON / QoS OFF. Default is OFF
802.1P QoS CONFIG	Traffic Priority - 802.1P QoS is defined by 8 levels, the Highest Priority is level 7. 7 ~ 0, 0 being the lowest priority.
802.1P SCOPE	There are a total of 8 scope IDs. 0 ~ 8. Default is 0. The absence of other priority values set is automatically enabled.
PRIORITY	Priority for 0 queue ~ 7, 7 queue is the highest priority.

Configuration Guidelines:

For example, setting the scope ID 6 ~ 7 to the lowest queue being 0.

- Turn on QoS Setting & 802.1P QoS Setting
- 802.1P IP Scope Input 6-7, Priority set line 0
- · Click Settings, then <Save> after setting
- · Operation finished

Please note:

The arrangement of the equipment used for the WRR queue scheduling mode of relative priority: Equipment in default setting priority 0 and 1 is mapped to the first priority queue. Namely the lowest priority queue.

Priority 2 and 3 mapped to the second priority queue.

4 and 5 priority mapping to the third queue.

6 and 7 mapped to the highest priority queue.

4.10.2 DSCP / TOS QoS

On the [QoS Settings / DSCO / TOS QoS] interface page, you can modify the [DSCP / TOS QoS] settings as shown below:

							English 💌	
Sy	stem status Port set	ting PoE VLAN	QoS LACP Port se	curity Network m	anagement Network	statistics Systen	n management Exit	
QoS>>DSCP/TOS (20S							
DSCP/TOS QoS setting		O Enable 🔍 Disable						
DSCP mark range]					
DSCP priority	0	 Se 	et					
DSCPMark	Priority	DSCPMark	Priority	DSCPMark	Priority	DSCPMark	Priority	
0	0	1	0	2	0	3	0	
4	0	5	0	6	0	7	0	
8	1	9	1	10	1	11	1	
12	1	13	1	14	1	15	1	
16	2	17	2	18	2	19	2	
20	2	21	2	22	2	23	2	
24	3	25	3	26	3	27	3	

The meaning of the parameters for the 802.1P QoS Settings are shown in the table below:

PARAMETERS	DESCRIPTION		
DSCP / TOS QoS	DSCP / TOS QoS ON / DSCP / TOS QoS OFF. Default is OFF.		
DSCP SCOPE	TOS Identifies scope. Scope range is 0 ~ 63.		
DSCP Priority	TOS Priority: Priority queue is 7. Lower priority is 0. range is $0 \sim 7$.		

Configuration Guidelines:

For example, setting the scope ID $0 \sim 16$ to the highest queue.

- Start using DSCP / TOS QoS configuration
- In DSCP IP scope input 1-10, DSCP Priority choose the 7th queue priority
- Click Settings, then <Save> after setting
- Operation finished

Please note:

When you being using 802.1P & DSCP / TOS QoS at the same time, the DSCP / TOS QoS priority comes first above the 802.1P settings.

TECHNICAL SUPPORT

Enable-IT, Inc.'s Customer Care Team support is available directly to customers and distributors. All support requests are processed through the online support portal. This allows us to provide assigned support ticket numbers in order to bring closure to any technical issues.

Online Technical Services

The Enable-IT Support Portal is available 24/7 to open a ticket or check the status of one. Please use this support website as your first source for help as it contains an on-line knowledge base of articles, documentation, FAQ's and other problem-solving resources. This web-based support resource provides the quickest solution to the most common technical support issues.

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RMA Warranty Repair Processing Facility 16027 Brookhurst Street, Ste i 272 Fountain Valley, CA 92708-1551

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CONTACT US

Sales and Customer Care:

Toll Free US and Canada	888 309-0910		
	866 389-8605 Fax		

Other International

+1 702 924-0402 +1 702 800-2711 Fax

E Mail

sales@enableit.com support@enableit.com

RMA Support: