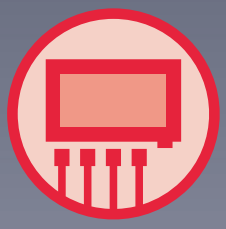
User‘s Guide

8-Port 10/100/ BaseT/TX +

Model: **065-7707**



Active

User‘s Manual

Revision A1

SIGNAMAX™ CONNECTIVITY SYSTEMS

Table of Contents

CHECKLIST

The following contents should be in your box:
One Switch
One AC power cable
One Serial cable
One user's Guide
L-type Brackets
Note: If any of the listed contents are damaged or missig, please contact the retailer from whom you purchased the Switch for assistance.

CHAPTER 1

ABOUT THIS USET'S GUIDE

Thank you for the purchase of 8-Port Fast Ethernet management switch. The switches provide a full range of management capabilities, superior performance, simple to use, is a working group to enhance your performance ideal.

1.1 Usage

This User's Guide tells you how to use 065-7707 management switch.

1.2 Overview of this User's Guide

Chapter 1	About the User's Guide
Chapter 2	Introduction Describes the switch and its features
Chapter 3	Installation Help you to get started with the basic installation of the switch
Chapter 4	General conception of Switch
Chapter 5	WEB Management
Chapter 6	Out-of-Band Management Describes how to management
Chapter 7	Telnet Management

CHAPTER 2

INTRODUCTION

2.1 Overview of the product

065-7707 8-Port Fast Ethernet management switch fully complies with IEEE802.3 Ethernet standard, its intelligent management make it suitable for small, middle and large networks solution.

065-7707 8-Port Fast Ethernet management switch provides powful management functions including the system, port, network, VLAN, Truck, priority and security management etc.

You can manage the switch through WEB browser and you can also check the system configuration, modify IP network parameter, and modify login password through the RS232 serial port.

2.2 Features and Specification

2.2.1 Features

- Fully comply with IEEE 802.3, IEEE 802.3u
- Support IEEE 802.3x flow control for full-duplex mode and collision-based backpressre for half-duplex mode
- 065-7707 support 8 10/100M Auto-Negotiation RJ45 ports
- Support RJ-45 port Auto MDI/MDIX
- Provide one DTE equipment configuration serial port.
- Support 8 Port VLAN, 256 IEEE 802.1 Q Tag VLAN
- Support MTU VLAN group.
- Support MAC address binding
- Support port trunk function
- Support Port Mirror
- Support port priority, TOS priority, IEEE 802.1 p priority protocol mode
- Support IEEE 802.1p priority mapping
- Support broadcast storm control, it can reduce and divide broadcast storm
- support Port-based bandwidth restrictions
- Support WEB management interface, local Xmodem and telnet TFTP upgrade
- Support the passage of the TFTP configuration file import and export
- Support the static IP address setting and from the DHCP server to obtain IP address switch dynamicly
- Support of the Super Terminal, Telnet, and so on a variety of management
- Dynamic LED indicator, provide simple work state indication and malfunction obviation

- Internal excellent power supply, high stability and reliability

2.2.2 Specification

Model		065-7707
Standards and Protocols		IEEE802.3 、IEEE 802.3u、 IEEE 802.3x
Port No.		8
Network Medium		10Base-T：UTP category 3 or above；100Base-TX： UTP category 5；
MAC Address table		4K
Backboard bandwidth		1.6G
Filter and Transfer Rates		10Mbps：14880pps； 100Mbps：148800pps；
LED Indicator	10/100M	Link/Act
	Other	Power
Dimension(L×W×H) (mm)		230×147×44
Environment		Operating Temperature ： 0℃～40℃；Operating Humidity 10％～90％ non-condensing; Storage Temperature： -40℃～70℃；Storage Humidity 5％～90％ non-condensing
Input		Input：180-260VAC，50-60Hz；

Fig 2-1 065-7707 specification table

CHAPTER 3

INSTALLATION GUIDE

3.1 Installation

Follow these steps to install the switch:
The surface must support at least 5kg
The power source must be within 1.5m

- Make sure the power cable has connected to the power socket in the back panel of the switch and the power supply slot.
- Make sure the switch is in a breezy environment and good for cooling the switch. Don't put heavy things on the switch.

3.1.1 Hardware Installation on the desktop

1.Put the switch upside-down on a steady and big enough desk
2.Tear off the protective paste on the 4 pads, and paste them in the 4 circular slots in the underside of the switch.
3.Turn the switch over, and put it on the desktop.

3.1.2 Hardware Installation on the Rack

The dimension of the switch is compliant with the EIA(Electronic Industries Association) standard 19 in rack.
1. Fix up the 2 L-type Brackets on the two lateral side of the switch. (The accessories contain the bolts)
2. Put the switch on the shelf.
3. Fix up the switch (bolts is provided by the user.)

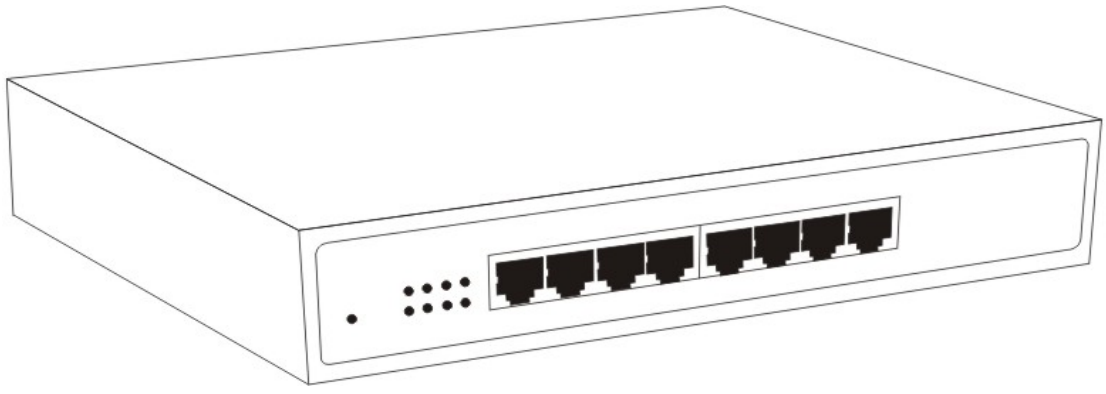


Fig 3-1 L-type Brackets installation

3.1.3 Power Supply

The power supply input of the switch is AC 180-260V(50-60Hz), the internal power system of the switch can auto-regulate the working power according to the actual input power. When

the switch is power on, the Power indicator light on the front panel of the switch shines.

Notice：

When the power supply is off, to make sure the switch won't be damaged by sudden great power, please pull off the power cable from the power supply socket. And plug in when the power supply is well balanced.

3.2 Appearance of the Switch

Describe the front panel and back panel of the switch in details.

3.2.1 Front panel

065-7707 front panel is made up of 8 10／100Mbps ports, 1 Console port （RS232 serial port）and LED indicators, as the following:

Fig 3-2 065-7707 Front Panel

- Serial Port

Serial Port (Console port or RS232 port) is on the right of the front panel. It's the port for connecting to the computer when use the Out-of -band Management. You can configure the system information, network parameter and security management through CLI.

- 8 10Base-T/100Base-TX RJ-45 port

  They support 10Mbps or 100Mbps bandwidth joint equipment, and they all support auto-negotiation. Each port has 2 LED indicators, Link/Act indicator, and Speed indicator.

  Indicators

- System indicator

Indicators are on the left of the panel.

1. Link/Act indicator

   When a port is connected to 100Mbps equipment, the relative LED shines green light, and when there is data transferring, the LED blinks.

2. Speed indicator

   When a port is connected to 100Mbps equipment, the relative LED shines green light.

3. Power indicator

   It's on the left. When the switch power supply is on, the indicator shines red light. If the indicator doesn't shine, check if the power supply is connected.

3.2.2 Back Panel

There is a power supply socket in the back panel of the switch. The power input is :180-260V～50Hz-60Hz。

Fig 3-3 065-7707 Back Panel

Power supply socket

This is a two-circuit three-phase Power supply socket. Plug the cathode pin of the power cable in this socket, and plug the anode pin in the AC power supply.

3.3 Notice

1) When moving the switch, be careful and keep steady. If the switch falls down, it may suffer serious damage.
2) The switch requires normal power supply for working at normal, please check if the power supply is compliant with the power requirement of the switch.
3) To reduce electric shock dangerous, don't open the case of the switch when it's working, and don't try to open it yourself even when power off.
4) If the switch is connected to the workstation, server, HUB or other switch by UTP cable, the UTP cable should be not longer than 100m.
   - For 10Base-T Ethernet, the cable used should be UTP category 3 or above.
   - For 100Bas-TX Ethernet, the cable used should be UTP category 5 or above.
   - You can plug in or pull out the cable when the switch is working. It won't disturb the switch.
   - If you want to clean the switch, please pull out the power pin first, and use wet cloth to clean, don't use liquid.
   - Don't put the switch near water or wet environment, to avoid that the water or moisture gets in the switch.
   - Please avoid the dusty environment and environment with strong Electromagnetic Interference.

CHAPTER 4

WEB MANAGEMENT

4.1 Summarization

This switch supports WEB management, allowing users to manage the Switch through a standard browser; the friendly management interface makes it very easy to configure the switch.

4.2 Connection of WEB Management

4.2.1 Preparation

The first step in getting started in using Web-based management for your Switch is to secure a browser such as Microsoft Internet Explorer (Simply called IE). Furthermore, the browser must support JavaScript Script. For the best effect, we suggest you to use IE5.0 or above version. If you use Netscape browser, make sure it is the newest version.

Before getting start, you must finish some preparing steps. We choose IE 5.0 in Windows XP to be an example.

The First Step:

Choose **Tool** in the IE menu, **Internet options** the following screen

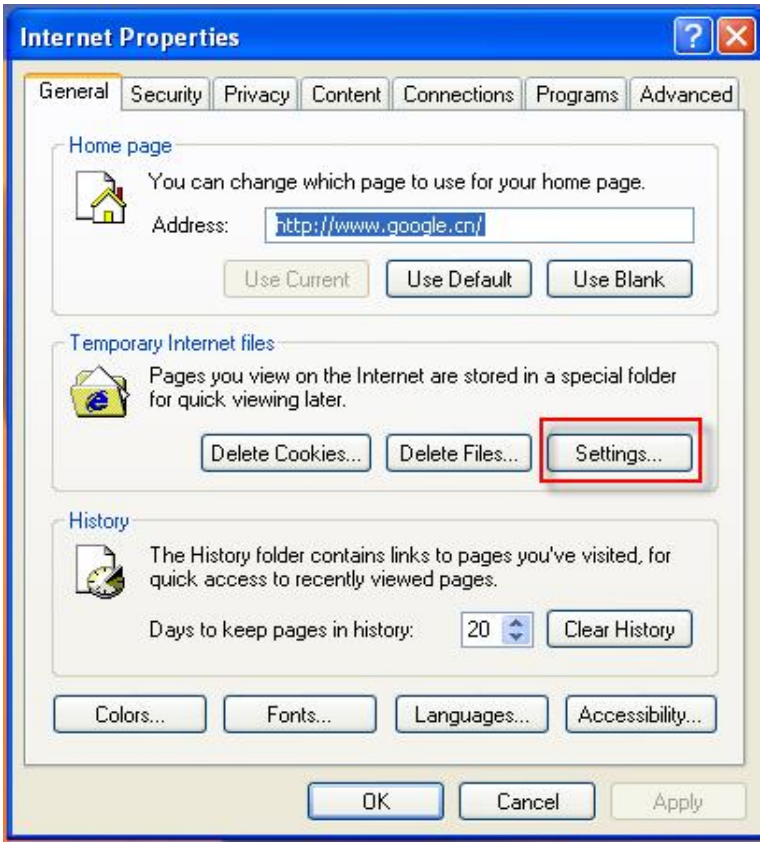


Fig 4-1 **Internet options configuration**

The Second Step: Press **Settings** to the following screen:

Fig 4-2 Settings

If you use Internet Explorer 5.0, make sure to choose **"Every visit to the page"**. Otherwise it may cause some WebPages indicate the switch configuration information mistakes.

If you use Internet Explorer 6.0, you can choose **"Every visit to the page"** or **"Automatically",** we suggest you choose **Automatically".**

Press **OK.**

Notice：

Choose **“Every visit to the page”,** every time you refresh, Internet Explorer will attain unabridged web page file, instead of attaining temporary files from disk. This ensures that the configuration information is correct. But it also causes that the web page display slowly. If you choose this term, you can change to **“Automatically”** after you finish the switch WEB configuration. Otherwise when you visit other web page, the web page will display slowly. Internet Explorer 6.0 can solve the issue well, you can choose “**Automatically”(**default).

The Third step:

Choose **Security** User-defined.

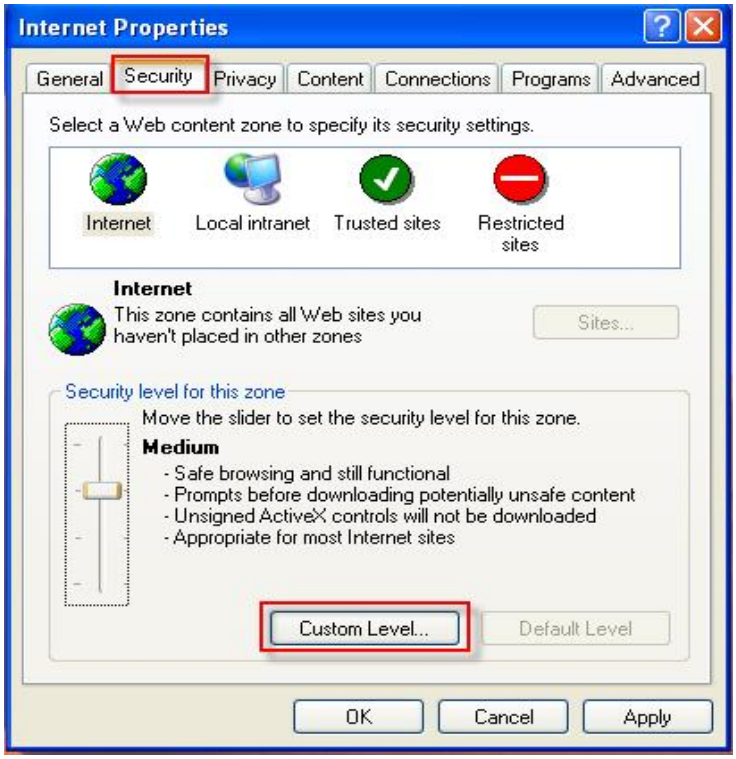


Figure 4-3 Securities

The Forth Step:

Choose Enable in the **Active Scripting** or choose **Reset to Medium**, press **Reset** and press **OK.**

Figure 4-4 Security Settings

The Fifth step:

Press the right button of the mouse; choose Properties in the menu existed. The following screen will exist.

Choose **Settings,** set **1024x768,** press **Apply** or **OK.** If you feel the screen twinkle after you modify the definition. Please click “advanced” button. Adjust display refreshing rate in the pop out window. We ignore the details here.

You can configure switch through WEB via previous setting.

Notice:

There are some requirements of PC hardware device to set screen definition to 1024X768. For those old PCs you may not configure it this way.

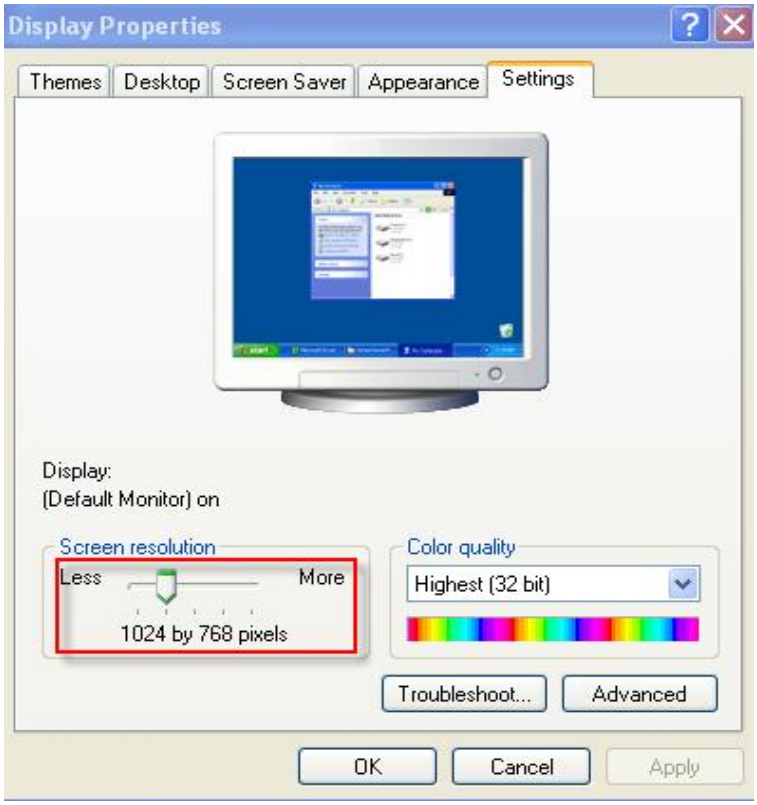


Figure 4-5

4.2.2 Connection

We suppose the IP address of the Switch is 192.168.1.254, you can input http:// 192.168.1.254 in the IE to connect the Switch. Then press **Enter**, the following screen will exist.

Figure 4-6

Enter passwords (the switch default passwords is “admin”). Press “Login”, enter WEB switch

management homepage.

Notice：

The default password is set before leaving the factory. You can modify the password in the switch system password configuration web page. If you reset the switch, the password set by user will be deleted and only the default password remains.

4.3 WEB Management Interface and Operation

The main menu is on the left side, under our company's trademark. It is a tree directory structure. On the right side of the trademark is switch port panel's port status interface; the area under the port status interface is function configuration main window.

065-7707 has 8 100M ports. The port panel state interface shows their work state. Green indicates link up, grey indicates link down, if it shows black slash, it means that this port is disabled.

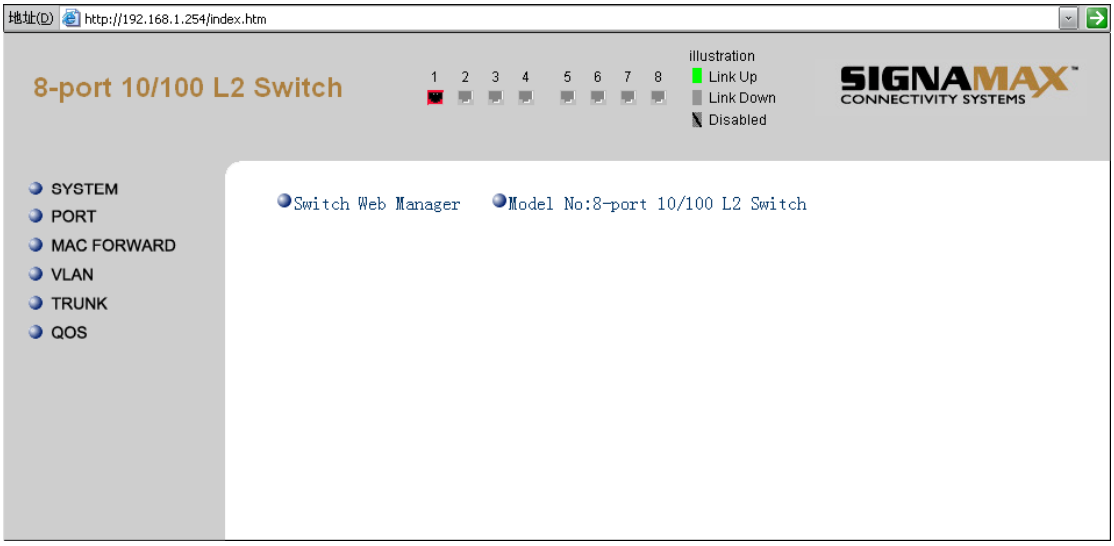


Figure 4-7 065-7707 WEB HOMEPAGE

The main menu is a tree catalog. Clink one main menu item, and the sub menu item exists, and the window shows the configuration web page of the first sub menu item. If you want to configure other item, clink the item and the window will show the web page.

When a main menu item expand, if you click other item, previous expanded item will close and the clicked item will expand. Main window will display the first sub menu configuration page of the expanded item. If you click the opened item, this item will close. There is no opened item, main window will return to figure 4-7 shows. In terms of network speed and switch working load, menu might respond to two short time interval click as one click. You just pay attention to extend the clicking time interval.

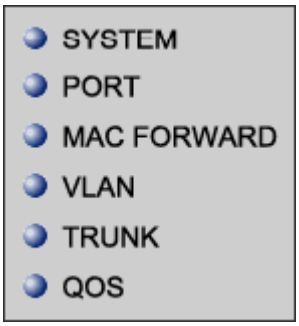


Figure 4-8 Main Menus

The main menu item and the corresponding sub menu item are showed as the following:

- System: System Information, Password Setting, IP Setting,System Upgrade,Save and Reset.
- PORT: Port Setting, Port Monitor, Monitor Mode, Port Description, Port Statist, Port Status, Port Rate, Storm Control.
- MAC FORWARD: Max Age, Dynamic Forward Table, MAC Bind, Ping .
- VLAN: VLAN Mode, VLAN Setting, MTU VLAN ,
- TRUNK
- QoS: QOS Global ,Port-Base Priority , ToS Priority, 802.1p Priority, Priority Remap.

Notice: Modification to switch configuration only will be effective after you click “apply” button. If you want to save the modification to configuration file of switch, you need to click “save” button to make the modification effective and save it to configuration file of switch.

4.3.1 System

- System configuration includes: System Information, Password Setting, IP Setting ,System Upgrade ,Save and Reset.

4.3.1.1 System Information

Show as the Fig:

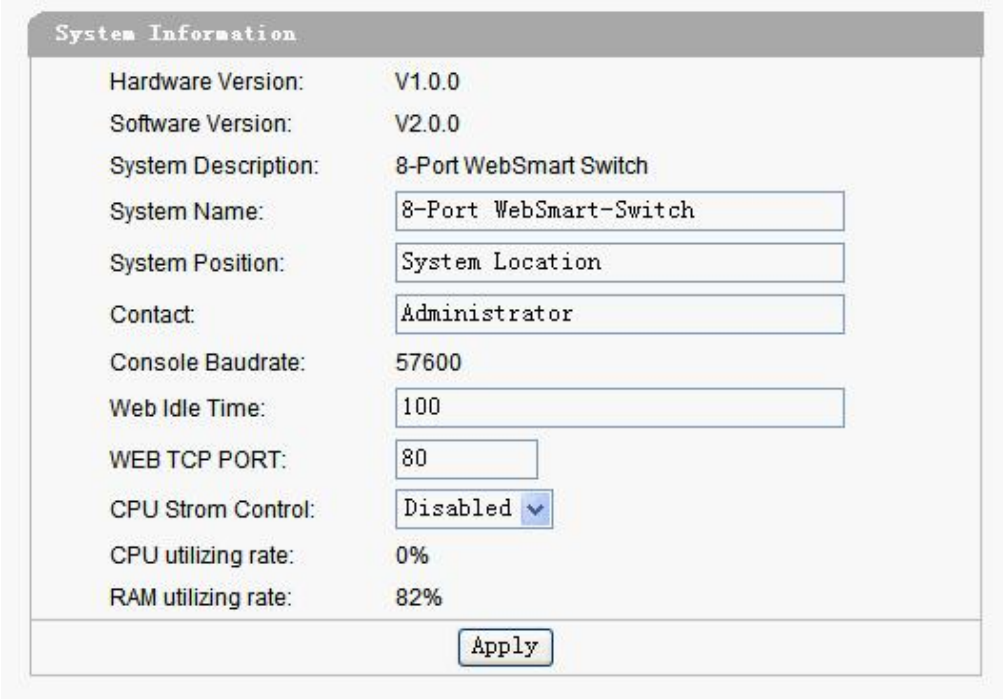


Figure 4-9 System information

- System Name: Use a name to identify the switch.
- System Position : mark the administrator and position.
- Web Idle Time: WEB auto refresh time.
- CPU Storm Control: enable or disable CPU Storm Control.

4.3.1.2 Password Setting

Setting show as figure below:

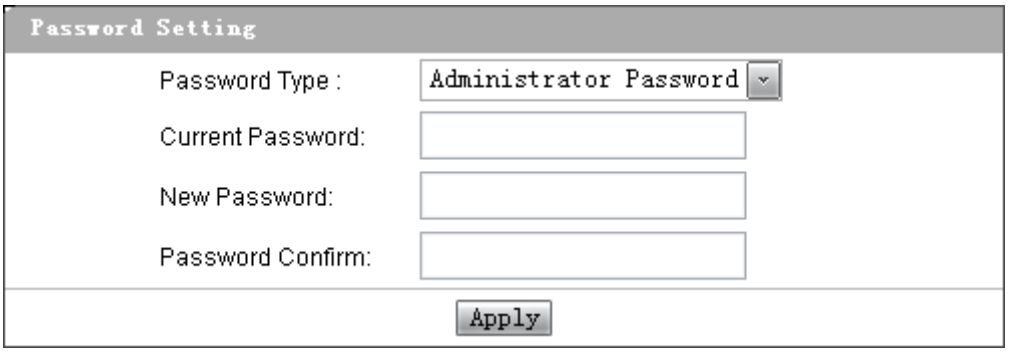


Figure 4-10 System password configuration

- Current Password:the password being used by the user.
- New Password: Password that the user is going to use.
- Password: enter the new password again.

4.3.1.3 IP Setting

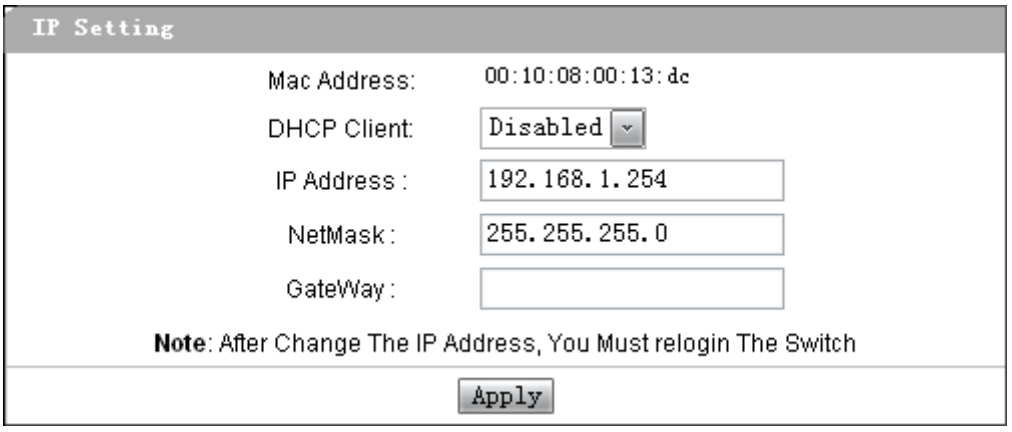


Figure 4-11 Ip Setting

4.3.1.4 File Upgrade

Configurations show as the figure below:

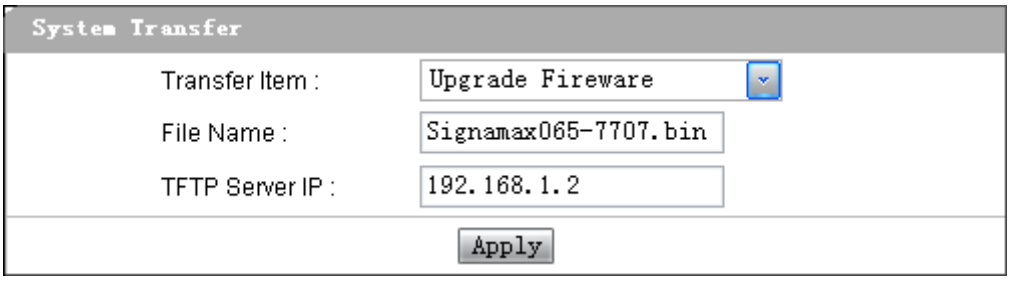


Figure 4-12 File Upgrade

- Transfer Item: there are 3 options.
- File Name: the name should be compliant with DOS 8＋3 file format.
- TFTP Server IP: the IP address of the TFTP server when you use TFTP protocol to upgrade or download file, enter the IP address of the TFTP server.

System Transfer explanation:

Transfer options:

- Upgrade firmware: download file from TFTP server and upgrade system file.
- Backup Configure File: backup the configuration parameters to the TFTP server.
- Upload Configure File: download configure file from TFTP server to the switch and upgrade the configuration parameters.

Notice

1. When download file, make sure the TFTP server contains the file used for upgrade.
2. And make sure the appointed TFTP server is running.
3. When the file is being download using TFTP protocol, you cannot break off the operation, or else the switch may act abnormally.

4.3.1.5 Save and reset

Configurations show as figure below:

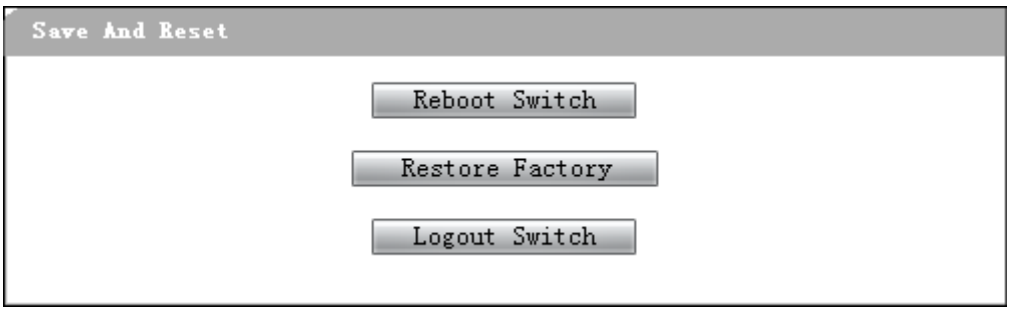


Figure 4-13 Reset

Click the button and the dialog box will exist, for example, click Restore Factory, the following dialog box exists:

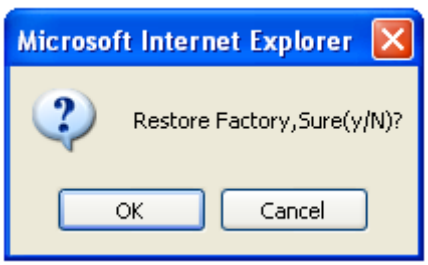


Fig 4-14

Press “OK” to finish the operation, or press “Cancel” to cancel.

* If you restore factory setting, the IP parameters of the switch will also be reset to factory setting.

4.3.2 Port

Port management includes Port Setting, Port Monitor, Monitor Mode, Port Description, Port Statist, Port Status, Port Rate, Storm Control.

4.3.2.1 Port setting

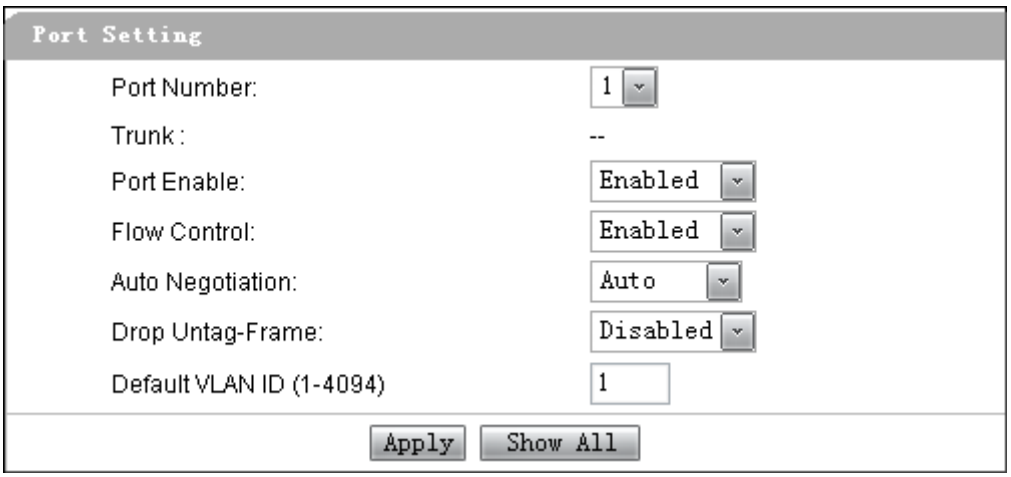


Fig 4-15 Port setting, (IEEE802.1 Q Tag VLAN mode)

- Port Enable: “Enable” denotes the port is useable (default), “ Disable”, denotes the port is unusable. If the port is disabled the switch will discard the packets from this port.
- Flow Control: “Enable” denotes this function is in use, “Disable” denotes this function is not in use.
- Auto Negotiation:

  You can choose:

  Auto：

  10M ／HD：10M Half Duplex

  10M ／FD：10M Full Duplex

  100M ／HD：100M Half Duplex

  100M ／FD：100M Full Duplex
- Drop Untag-Frame: when” Enable”, the frame without Tag header will be dropped. You can set up only in IEEE802.1 Q Tag VLAN mode.
- Default VLAN ID: default VID, you can only set up in IEEE802.1 Q Tag VLAN mode. Default VLAN ID is given to the Untag frame received by the port.

Illumination:

- When you change the port Number, the web page will switch to the port you choose.
- When the switch is working in port-base VLAN mode or VLAN function is disabled, “Drop

Untag-Frame“ and “Default VLAN ID” cannot be used.

- You cannot change port parameters of the port in the Truck group, if you need to change, enter the trunk web page.

4.3.2.2 Port Mirror

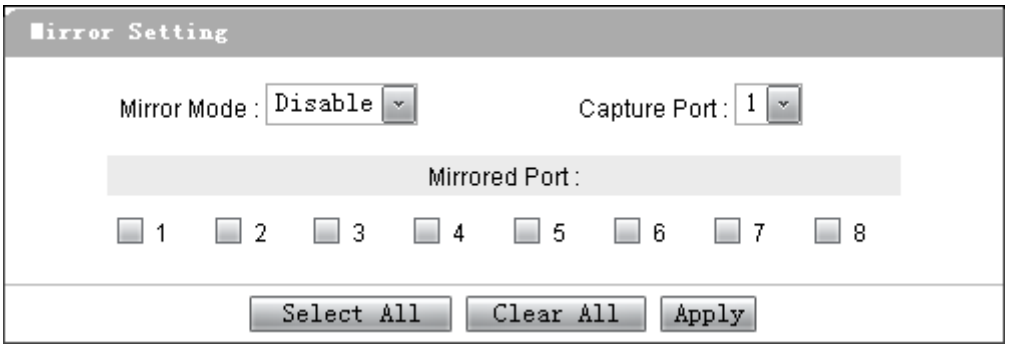


Fig 4-16 Mirror Setting

- Mirror Mode: there are 2 modes, “Enable” and “Disable”,
- Capture Port: Port used to attain mirror information.
- Mirrored Port: Select the port you want to mirror; you can select 1 or more.

Illumination:

- Trunk group member port cannot be the capture port, but it can be the mirrored port.
- The capture port and the mirrored port should be in the same VLAN.
- A port cannot be the capture port and mirrored port at the same time.

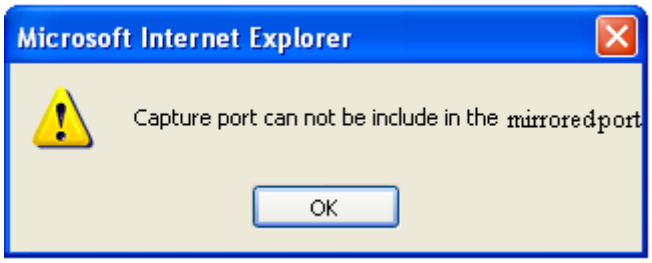


Fig 4-17 Mistake information

4.3.2.3 Mirror Mode

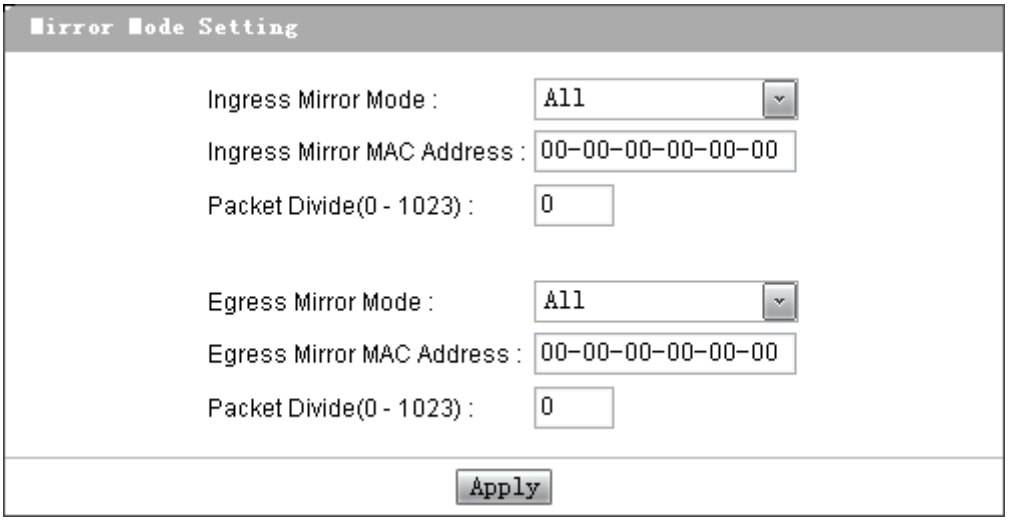


Fig 4-18 Mirror Mode Setting

- Ingress Mirror Mode: select Mirror mode, there are 3 modes,
  1. All: all the input data of the mirrored port will be mirrored.
  2. "Destination Mac": you need to enter the Mac address in the "Ingress Mirror Mac Address", and only the data send to this destination address is mirrored.
  3. "Source Mac", you need to enter the Mac address in the "Ingress Mirror Mac Address", and only the data send out from this source address is mirrored.

- Ingress Mirror Mac Address: If you haven't select "All" in the Ingress Mirror Mode item, you need enter the Mac address you want to mirror.
- Packet Divide: enter a number ranged from 0 to 1023, to denote the number of interval packets between two successive sampling.
- For egress mirror, "Egress Mirror Mode", "Egress Mirror Mac Address", "Packet Divide" is similar to the above.

4.3.2.4 Port Description

This web page is used to set description information for all the ports, so the administrator can know purpose of each port well.

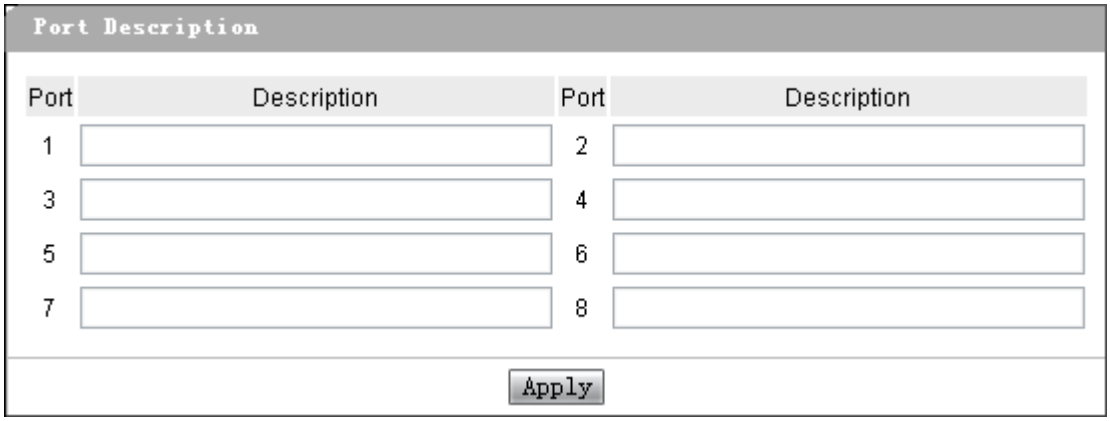


Fig 4-19 Port Description

- Port: Indicates the port number.

- Description: Enter the description words here; you can input max 15 Chinese characters or 30 English letters or numerals.

4.3.2.5 Port Statistic

This web page shows the port statistic information.

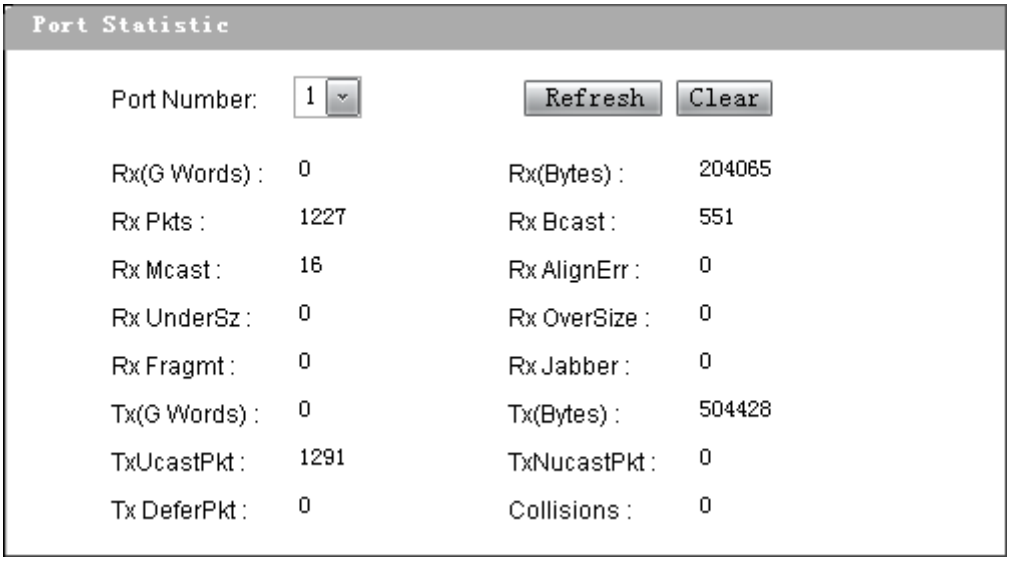


Fig 4-20 Port Statistic

Illumination for each item:

- Rx(G words)：The number of received G words.
- Rx(Bytes)：The number of received bytes
- Rx Pkts：the number of received packets.
- Rx Bcast：the number of received broadcast packets.
- Rx Mcast：the number of received multicast packets
- Rx AlignErr：the number of received frames with frame align error
- Rx UnderSz：the number of received frames under the size of 64 bytes(total length) .
- Rx OverSz：the number of received frames over the size of 1518 bytes (total length).
- Rx Fragmt：the number of received fragmentation (frame check error) under the size of 64 bytes.
- Rx Jabber：the number of received Jabber Frames (frame check error) over the size of 1518 bytes.
- Tx(G words)：the number of transmitted G words.
- Tx(Bytes)：the number of transmitted bytes.
- Tx UcastPkt：the number of transmitted single address packets (not include the error packets.)
- Tx NucastPkt：the number of transmitted broadcast and multicast packets (not include error packets).
- Tx DeferPkt：the number of defer transmit packets.
- Collisions：Collision times.

4.3.2.6 Port Status

This page shows the status of the Physical Linked ports.

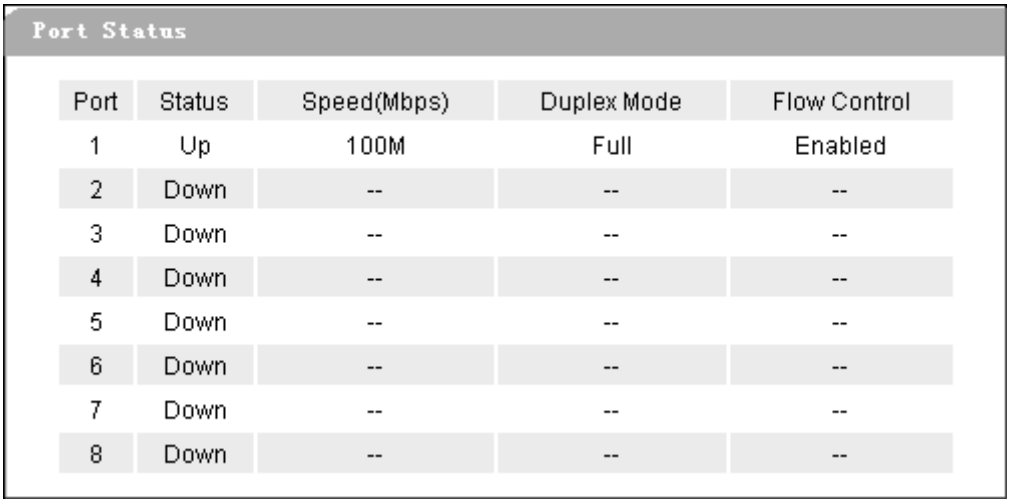


Fig 4-21 Port Status

- Status:"Up"indicates the port is Physical Linked,"Down" indicates the port is not Linked
- Speed: it shows "10" or "100", (Unit:Mbps). If the port is not linked, it shows "--".
- Duplex Mode: it shows "Full" (full duplex) or "Half" (half duplex).
- Flow Control: "Enable" indicates the flow control function is in use, "Disable" indicates the flow control function is not used.

4.3.2.7 Port Rate

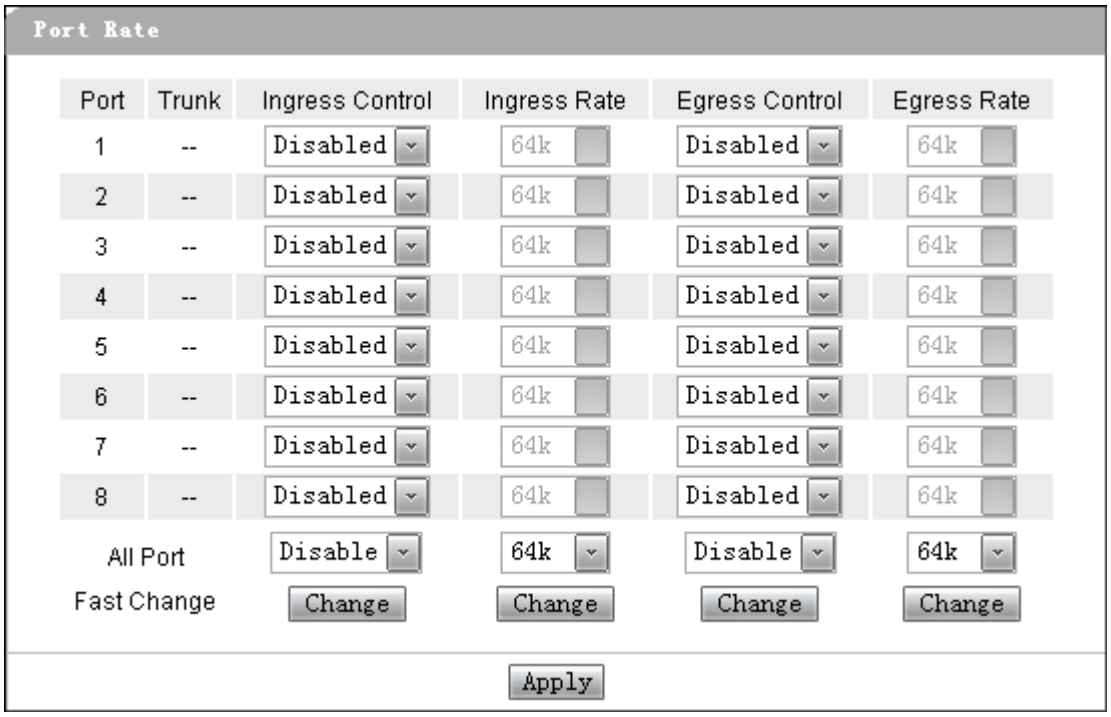


Figure 4-22 Bandwith of the Port setting（part of the port ）

- Ingress Control: "Enable"denotes to control the ingress port rate of the port,"Disable"

denotes not to control the ingress port rate of the port.

- Ingress rate：there are 12 different rates from “64K” to “80M” for 100M port,.You can choose the rate only when the “Ingress Control” is “Enable”.
- Egress Control: “Enable”denotes to control the Egress port rate of the port,“Disable” denotes not to control the Egress port rate of the port.
- Egress rate：there are 12 different rates from “64K” to “68M” for 100M port. You can choose the rate only when the “Egress Control” is “Enable”.

Illumination：

- This page provides quick-change function for 100M ports. Select “Enable”, and select the rate, then press “Change”, all the port rates of the ports that are enabled the control function will be changed.
- All changes will come effective only after you press “Apply” or “Save”.
- You cannot set port rate control for ports in the Trunk group.

4.3.2.8 Storm Control

Fig 4-23 Broadcast Storm Control (part of ports)

- Multicast Storm Control: Control storms caused by group broadcast. Select“Enable”to enable this control function.
- Broadcast Storm Control: Control storms caused by general broadcast. Select“Enable”to enable this control function.
- UL Storm Control：the switch broadcasts the packets that it cannot learn the address, you can enable this function to control such unlearnt address storm.

4.3.3 Mac Forward

Include Max Aging ,Dynamic Forward table, MAC Bind, Ping .

4.3.3.1 Max Age

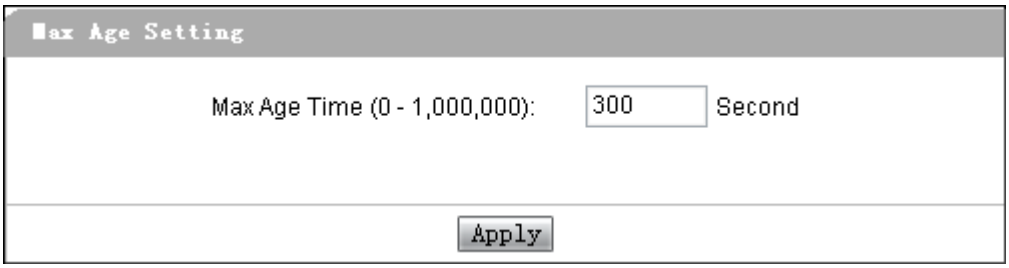


Fig 4-24 Max Aging Setting

- Max Aging (0—1，000，000)：to set the aging time for dynamic address.

Illustration:

1. Max Aging is a parameter affects switch auto learning. A dynamic address will be deleted if it hasn't been used during the max aging period.

2. Max Aging time is 0 to 1，000，000 seconds. Overlong will lead switch's improper filter/ forward due to dynamic MAC address is overtime. If too short, the addresses will refresh too frequently, and many packets will not be correctly located in the Mac addresses, the switch will broadcast the data to all ports, thus decrease the switch perfromace.

3. Both Static Mac Address and static security address are not affected by max aging time.

4.3.3.2 Dynamic Forward Table

The following settings (below):

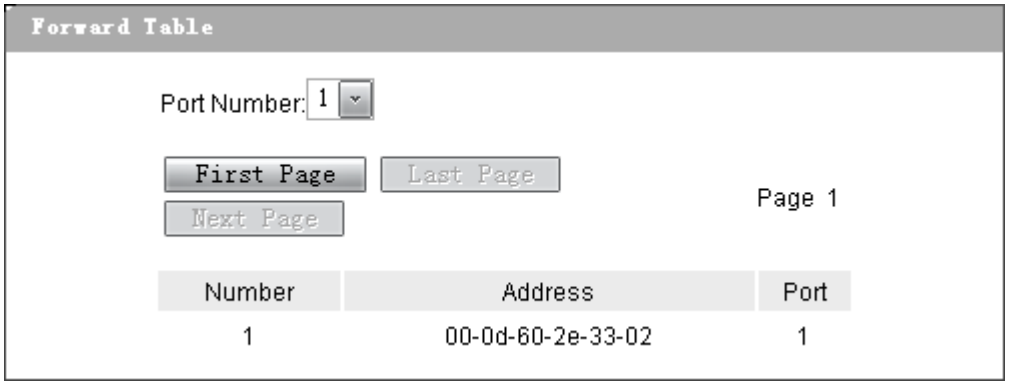


Figure 4-25 Dynamic Address Table

4.3.3.3 MAC

Bound address is non-aging address, but it's different from static address, this provides filtration for data source. The bound address is also static, it will be effective until it's deleted, and it's not restricted by max aging time. When MAC address is bound, the ingress frames will be transmitted only when its source address exists in the bound address table, otherwise, it will be discard.

This page provides operations for adding or deleting bound address in the bound MAC address table. The bound address can be set in all the ports, and the max bound MAC address can be up to 416 pieces.

The bound address is divided into groups according to ports. Select the port NO., the page will show the bound address of this port. Enter the MAC address in the "Mac" column, and press "Add" or "Delete" to add or delete.

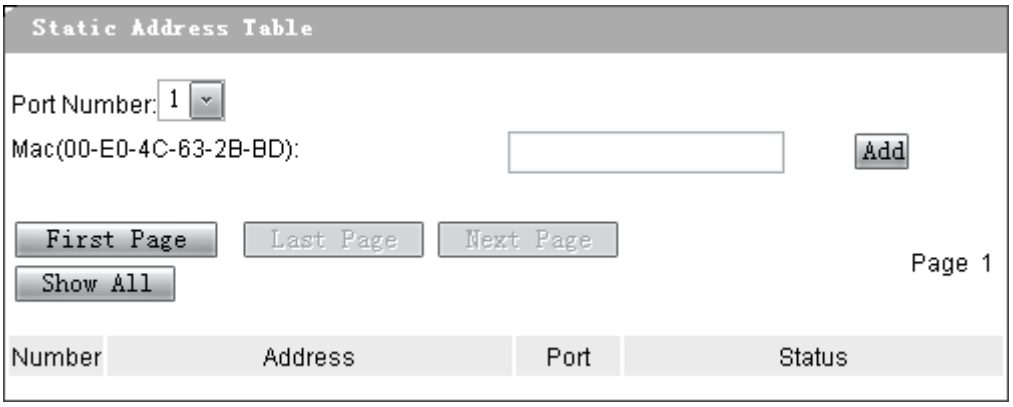


Figure 4-26 MAC Binding

- Number：Show the table position of the address.
- Port：the corresponding port of the MAC address.

4.3.3.4 Ping

When using the switch, the user often wants to know if the switch is connected to a certain node of the network. Ping test is used to detect the connection

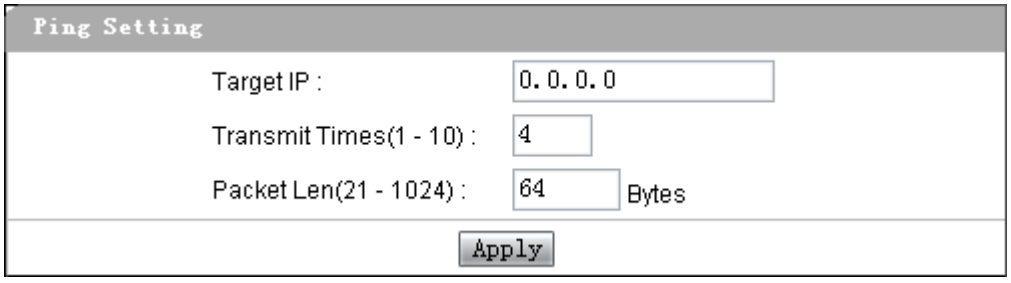


图 4-27 Ping 检测

Target IP ： Remote host IP address.

Transmit Times: Ping packets transmit times.

Packet Len: The length of the data in the Ping packet.

4.3.4 VLAN

VLAN management includes: VLAN Mode , VLAN Setting, MTU VLAN.

4.3.4.1 VLAN Mode

There are 3 options for VLAN Mode： IEEE802.1 Q Tag VLAN, Port-Based VLAN and VLAN disable.

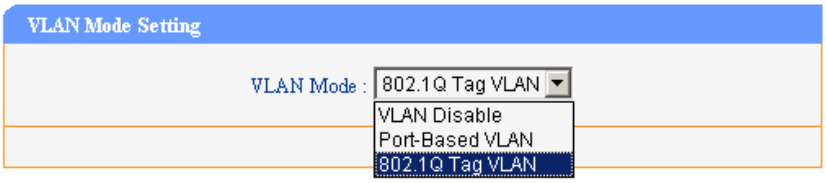


Fig4-28 VLAN Mode

Illumination:

The default mode is IEEE802.1 Q Tag VLAN.

Notice：

You can apply successfully only after you change the VLAN mode, and this operation will cause restart of the switch.

4.3.4.2 VLAN Setting

VLAN setting is different when the switch is in different VLAN mode. In IEEE802.1 Q Tag VLAN mode，the setting is as the following:

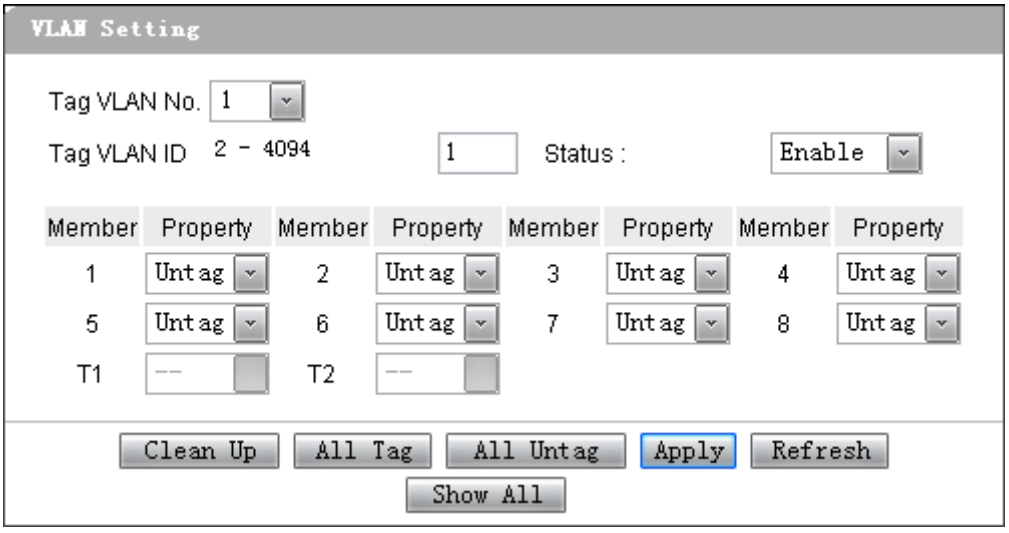


Fig4-29 VLAN Setting (in IEEE802.1 Q VLAN mode)

- Tag VLAN No.：VLAN number，non-reduplicate，for the administrator to mark the VLAN.
- Tag VLAN ID：VLAN mark，non-reduplicate.
- Status：you can select “Enable”, “Disable” or “Delete”.
- Property: “Untag” denotes the port belongs to the VLAN，and the frames send out from this port are without Tag field. “Tag” denotes the port belongs to the VLAN, and the frames send out from this port are with Tag field. Blank denotes the port doesn’t belong to the VLAN.
- Clear Up：If you press this button, all the ports will not in the appointed VLAN.
- All Untag：All ports are set with “Untag” egress rule.

➢ All Tag：All ports are set with “Tag” egress rule.

4.3.4.3 MTU VLAN

This page is used to set MTU VLAN Uplink port number.

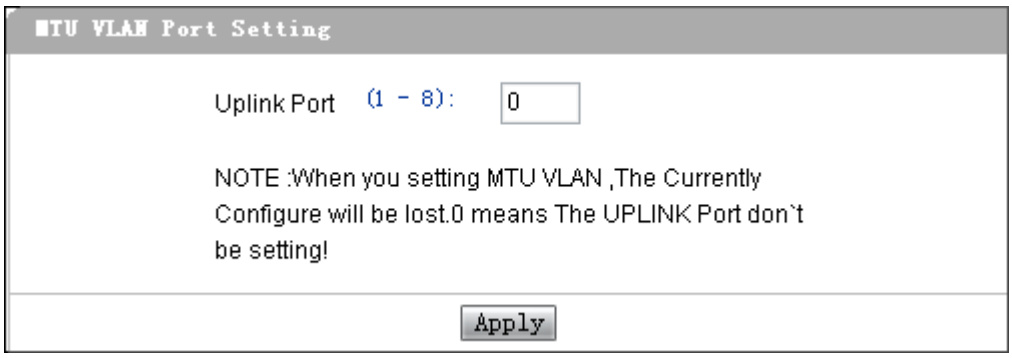


Fig 4-30 MTU VLAN

Illumination：

When you set a certain port as Uplink Port, it will buildup a VLAN in turn with one of the other 7ports, and create 7 VLANs, each of the VLAN includes two ports: the Uplink Port and one of the other 7 ports. In IEEE802.1Q Tag VLANmode, there will be an extra VLAN contains all the ports. You can enter the VLAN management menu and view the VLAN setting.

Notice：

After you set MTU VLAN and apply, all the VLAN and Trunk you set before will be repealed.

4.3.5 Trunk

For **this switch,** you can set max 2 Trunk.

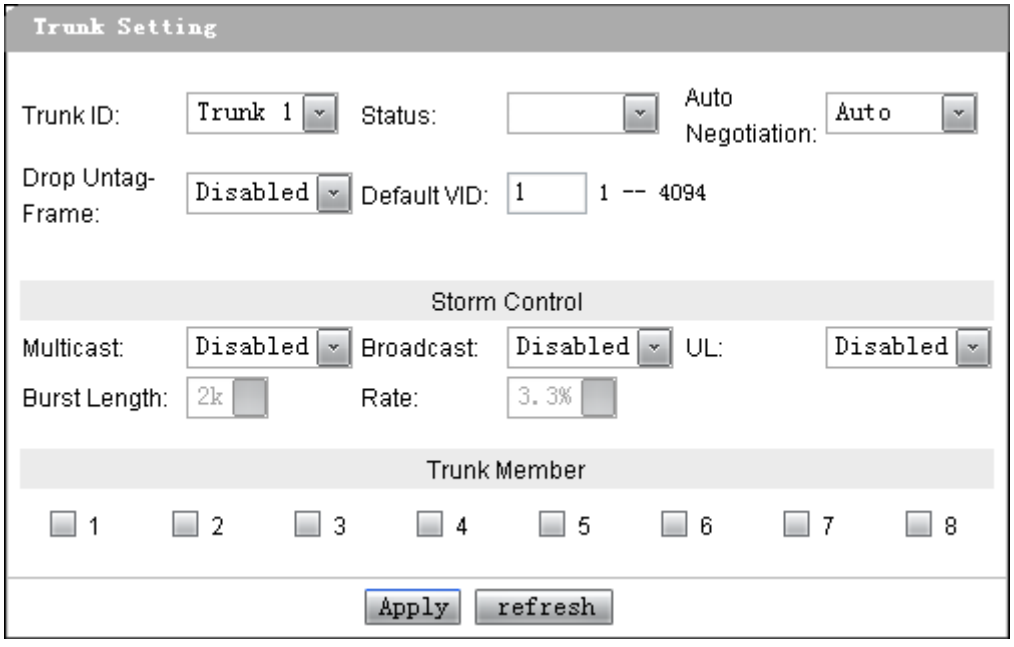


Fig4-31 Trunk Configuration

- Trunk ID：you can set max 2 Trunk.
- Status：you can select operation “Enable”, “Disable” or “Delete”.
- Auto Negotiation： Set working mode for Trunk member.
- Drop UnTag-Frame：If you select “Enable”, the UnTag frames will be dropped. You can set this item when the switch is in 802.1 Q Tag VLAN mode.
- Default VID: the default VID of Trunk Logic port in Untag. You can set this item when the switch is in 802.1 Q Tag VLAN mode.
- Storm Control：Set broadcast storm control for Trunk.
- Trunk member：select ports to add in Trunk.

Trunk setting rules：

1. This switch support max 2 Trunk，and the maximum number of Trunk members can be 2-4.
2. A port can only be member of one trunk.
3. When a trunk is set, the whole members in the Trunk are consider as a logic port.中的

4.3.6 QoS

Include Qos Global, Port-Base Priority,Tos Priority,8021.p Priority, Priority Remap.

4.3.6.1 Qos Global

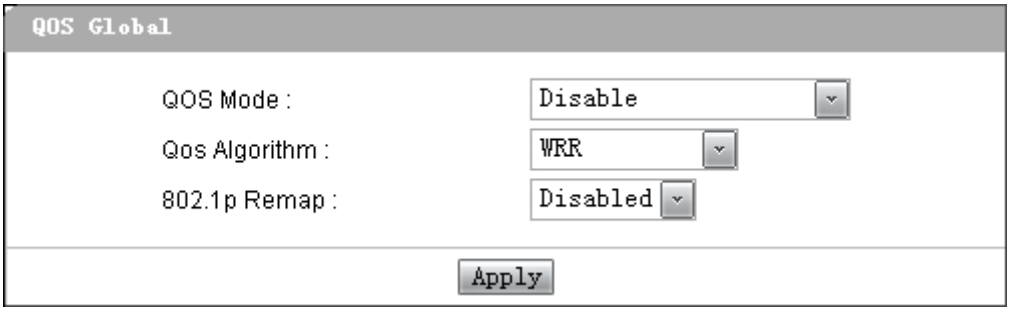


Fig4-32 QoS Global

- QOS Mode：there are 4 options: Disable, Port-Based Priority, ToS Priority and 802.1 p Priority. 802.1p Priority goes into effect 802.1 Q Tag VLAN mode.
- QoS Algorithm ：there are 2 options, WRR and Preempt+WRR. When you select “WRR”, the switch transmits frames by certain proportion according to the priority (Low, High, Higher, Highest). When you select Preempt+WRR，the switch will transmit the frames with Highest priority, and then transmit other frames by certain proportion.
- 802.1 p Remap：you can only enable this function in 802.1 p Priority mode. The switch will remap the Tag of the received frames to the new priority set by the user, so you can change the priority of local transmission without changing the priority Tag of the frames.

4.3.6.2 Port-Base Priority

This page is based in Port-Based Priority mode.

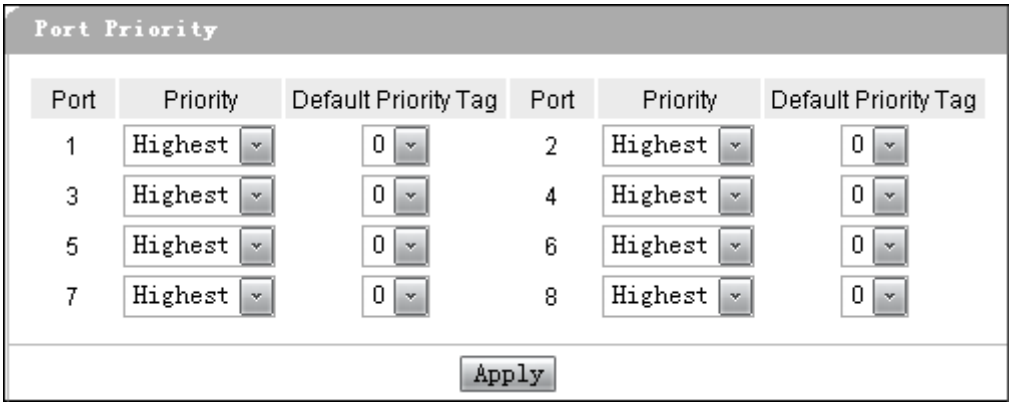


Fig4-33 Prot Priority Table

- Port：show the port number.
- Priority：there are 2 options, “Low” and “Highest”. When priority mode is Port-Based Priority, you can appoint the frames received from this port the “Low” or “Highest” priority.
- Default Priority Tag：if the switch is in 802.1 Q Tag VLAN ，and the priority mode is 802.1 p Priority，the untagged frames received from this port will be endued with Default Priority Tag value.

Illumination：the transmission ratio of the two priority“Low” and“Highest” is 1：8. Bandwidth will be distributed according to the transmission ratio when transmitting.

4.3.6.3 ToS Priority

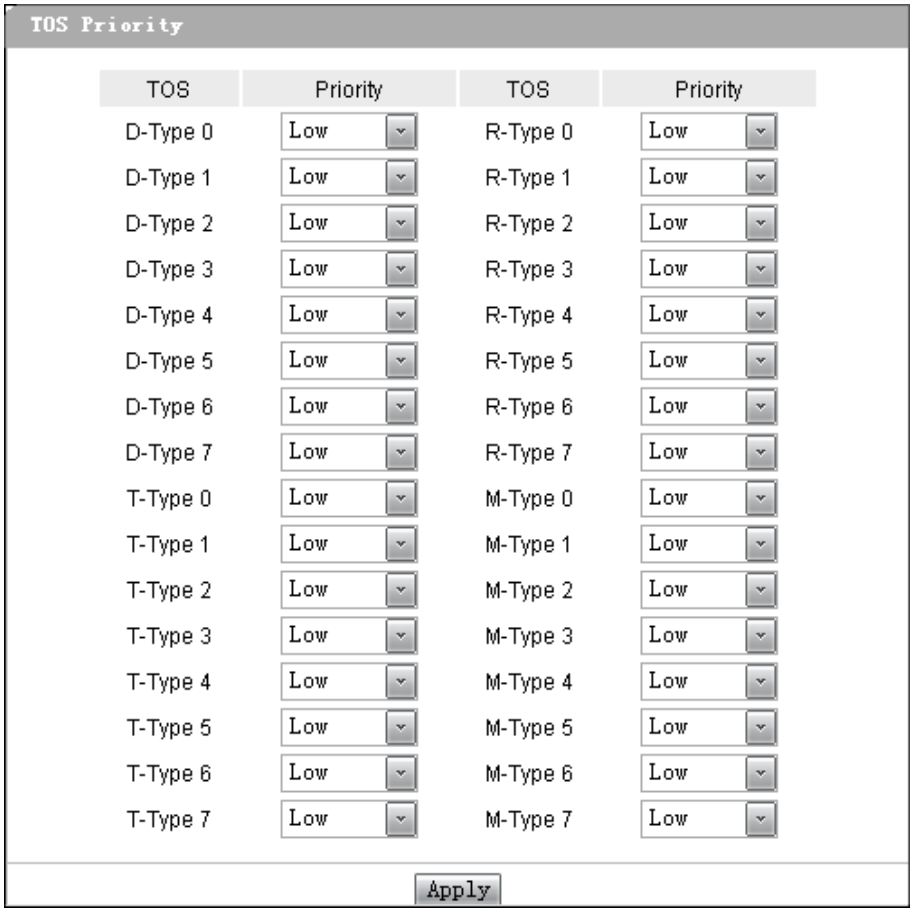


Fig5-34 ToSPriority

- ToS：Description of the received packets' IP head ToS field value. "D-Type" denotes minimum delay, "T-Type"denotes maximum throughput,"R-Type"denotes highest reliability, "M-Type" denotes least expense. The latter 0-7 denotes the priority value of the first 3 bit in the ToS field.
- Priority：transmission priority. there 4 options, "Low","High","Higher"and "Highest". The transmission ratio is 1：2：4：8. Bandwidth will be distributed according to the transmission ratio when transmitting.

4.3.6.4 802.1p Priority

The setting of this page is based on 802.1 p Priority mode.

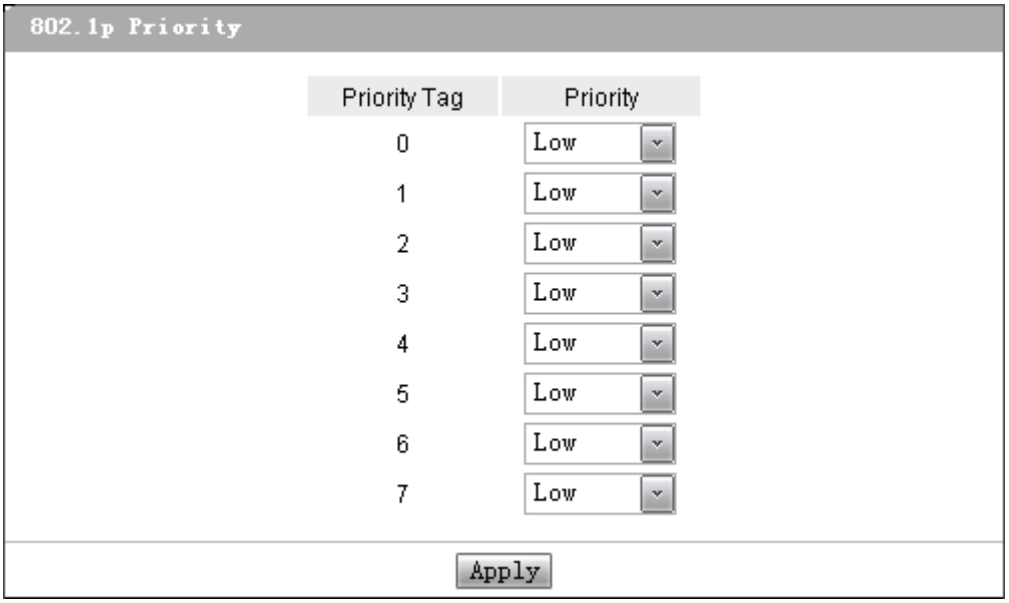


Fig4-35 802.1 p Priority

- Priority Tag：Tag priority of the frames. If you enable 802.1 p Priority Remap, it denotes the remapped new Tag priority.
- Priority：transmission priority. there 4 options, "Low","High","Higher"and "Highest". The transmission ratio is 1：2：4：8. Bandwidth will be distributed according to the transmission ratio when transmitting.

Illumination：If the switch receives untagged frame，it will endue the frame with the default priority Tag of the port.

4. 3. 6. 5 Priority Remap

Fig4-36 Priority Table

- Old Priority Tag：the priority value (0-7) in the Tag field of the received packets.
- New Priority Tag：the new priority value set by the user. The switch will remap the Tag of the received frames to the new priority set by the user, so you can change the priority of local transmission without changing the priority Tag of the frames.

CHAPTER 5

OUT-OF-BAND MANAGEMENT

5.1 Introduction

Out-of-Band Management manages the Swith locally through the comsole port,without occupying the bandwidth.

5.2 Out-of-Band Connection

Out-of-Band Management needs a terminal or a Hyper terminal, Windows system just have the Hyper Terminal.

First,connect the swith's cinsole port (at the left of the swith's backboard) with the PC's cinsole port by the cinsole card. Then run the Hyper Terminal.Refer to the following figure to configure the Hyper Terminal.

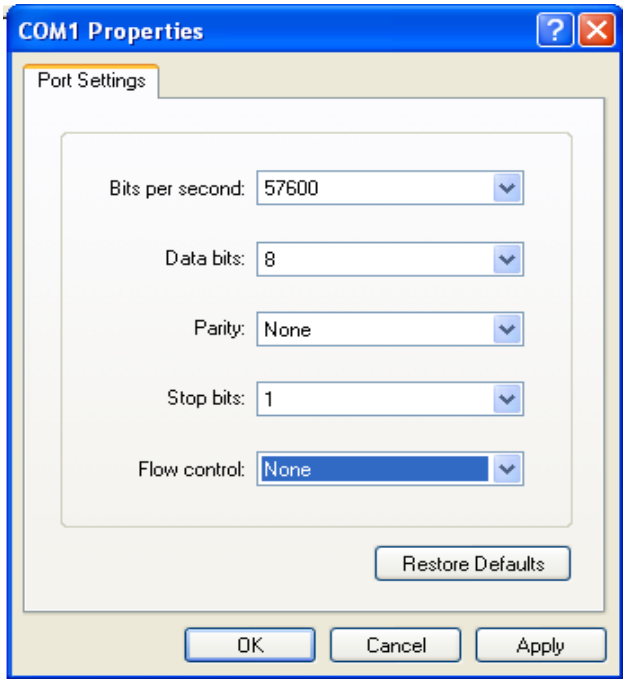


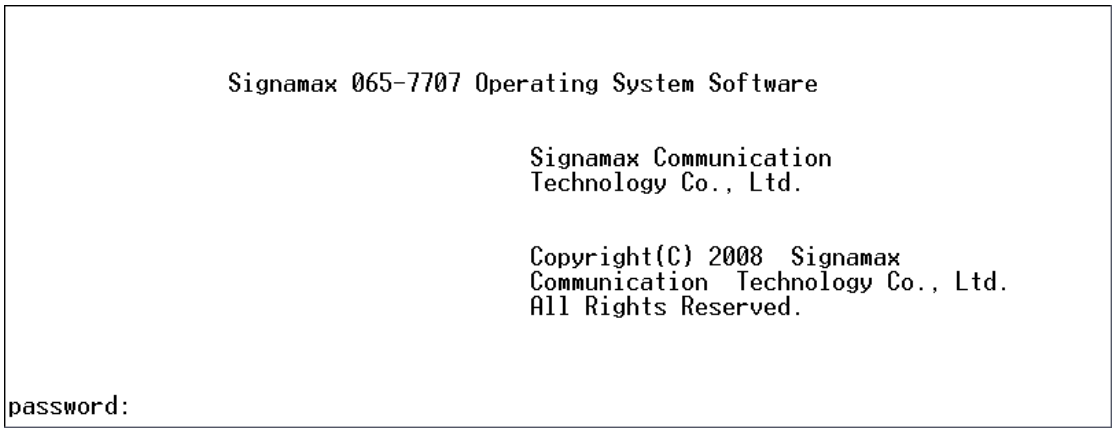
Figure5-1 Hyper Terminal Configuration

You can see ,

The speed of the console port is 57600bpS,The data bit is 8 bit,There is no parity test and flow control.The stop bit is 1.

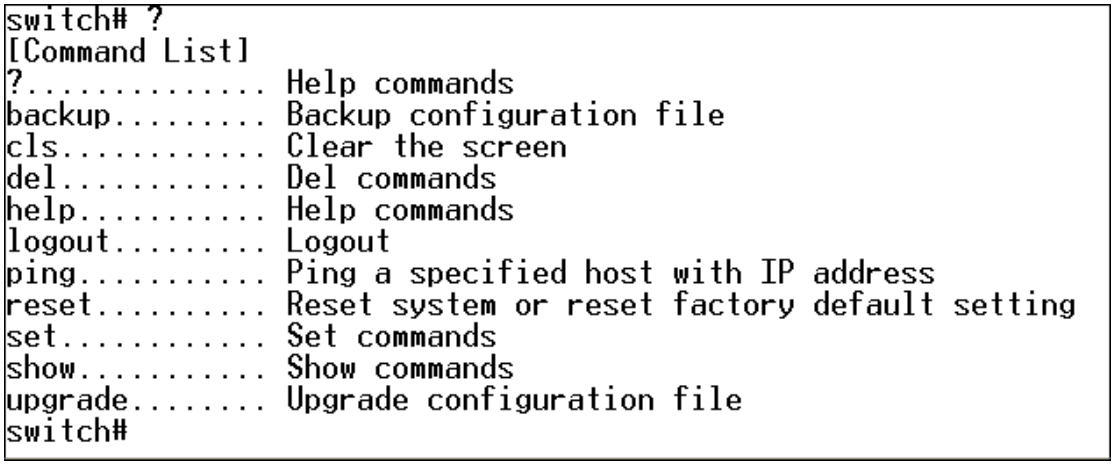
If there is no Hyper Terminal in the system, you can setup the Hyper Terminal software from the the system setup disk or download from the website such as Hyper Terminal Private Edition.Attention: the configuration way is similar with that on windows.

5.3 The interface and operating way of TELNET/Out-of-Band



After you use the correct user's name and password(the dafult psaaword are admin),you will log on the interface of TELNET/Out-of-Band Management.

Management interface is based on command line. After log in, input "?" and you will see command lines as below:



5.4 Cli command and assist of use

5.4.1 Phrase Help

There is help information set at the command list interface. If you are not so sure about a command phrase, please input the initial words you can remember and then input "?" or space following "? ". The command will suggest the possible command list. And you can input the command phrase according to this suggestion, and press "Enter" button to run this command.

【For instance】

Switch#set ip

After "set ip" you type "?", the following contend will show up:

[Syntax] : set ip [IP ADDRESS] [NETMASK]

It suggests the complete command phrase should be input IP ADDRESS or NETMASK after ip.

5.4.2 Command Usage Illumination

For the command phrase below, the command and parameter are distinguished, the bold letter for command and the common letter for parameter.

The system distinguish the capital letter and small letter, so when input the command phrase the capital letter and small letter should be strictly in accordance with the command list, otherwise the system will remind you a wrong phrase is input.

5.4.3 General command

5.4.3.1 help commands

The user can use the help commands to get the help information from the system.

【Operation guide】065-7707 provides an on line help, the user can input "？"

Anytime to get an on line help.

【For instance】

Switch#**help**

[Command List]

?..... Help commands

backup..... Backup configuration file

cls..... Clear the screen

del..... Del commands

help..... Help commands

logout..... Logout

Ping..... Ping a specified host with IP address

reset..... Reset system or reset factory default setting

set..... Set commands

show..... Show commands

upgrade..... Upgrade configuration file

switch#

5.4.3.2 Configure *tftp server*

Input "**upgrade**" or "**backup**" after the configuration prompt, this command is used for configure

IP address of the tftp server, and set up a connection with the TFTP server.

【Command format】1. upgrade <A.B.C.D> <filename>

2. backup <A.B.C.D> <filename>

【Usage guide】1. tftp server to download file

2. tftp server to upload file

【Parameter Illumination】<A.B.C.D> is IP address of the tftp server. Filename is the

file name to upload or download.

【For instance】

Switch(config)#**backup** 192.168.1.133 065-7707.bin

Successfully set TFTP address.

Switch(config)#

5.4.3.3 cls command

This command is used for clear the screen.

【Command format】**cls**

【For instance】

Switch# **cls**

Switch#

5.4.3.4 del command

This command is used for clear the configuration data in the flash of the switch.

【Command format】**del config**

【For instance】

Switch# **del config**

Delete the config file successfully， Reboot the switch now!

switch#

5.4.3.5 logout command

Exit from the present dialogue promptly.

【Command format】logout

【For instance】

Switch#**logout**

password:

5.4.3.6 Ping command

This command is equal to Ping command under DOS.

【Command format】Ping <A.B.C.D>

【Parameter Illumination】<A.B.C.D> is the target IP address

【For instance】

Switch#**Ping** 192.168.1.198

Reply from 192.168.1.198： bytes=32 time<5ms TTL=64

Reply from 192.168.1.198： bytes=32 time<5ms TTL=64

Reply from 192.168.1.198： bytes=32 time<5ms TTL=64

Switch#

5.4.3.7 reset command

This command is used for restart the device

- 【Command format】reset configuration

  【Usage guide】Restore the default factory configuration and restart the switch.

  【For intstance】Switch#**reset configuration**

  Load default factory setting....

  Restore factory successfully， Reboot the switch now!

- 【Command format】reset system

【Usage guide】Restart the switch

【For instance】Switch#reset system

Reset system.....

5.4.3.8 *set* command

This command is used for setting the log password, IP address, netmask and gateway of the switch.

- 【Command format】set pswd

  【Usage guide】Set the user log password

  【For instance】Switch#**set pswd**

  old password:

  new password:

  Retype new password:

  Switch#

- 【Command format】1. set ip <A.B.C.D> <mask>

  2. set gw <A.B.C.D>

  【Usage guide】1. Set the IP address of the switch

  2. Set the gateway of the switch

  【For instance】Switch#**set ip** 192.168.1.254 255.255.255.0

  Switch#**set gw** 192.168.1.1

  Switch#show net

  [Network Configuration]

  MAC address : 00: 11: 22: 33: 44: 55

  IP address : 192.168.1.254

  Subnet Mask : 255.255.255.0

5.4.3.9 *show* command

This command is used for list the system information of the switch

- 【Command format】set pswd

  【Usage guide】Show the manufacturer, model, hardware and software version and date.

  【For instance】switch# **show version**

  [System Configuration]

  Switch Name : 8-port 10/100 L2 Switch

  Software version : 2.0.0

  Hardware version : 1.0.0

  Create Date : 2008-7-12

  Switch#

- 【Command format】show net

  【Usage guide】Show the network information of the switch

  【For instance】Switch#show net

  [Network Configuration]

  MAC address : 00: 11: 22: 33: 44: 55

  IP address : 192.168.1.254

  Subnet Mask : 255.255.255.0

CHAPTER 6

TELNET MANAGEMENT

6.1 Summarization

Telnet management is to manage the switch on line through the RJ45 port, and it will occupy some bandwidth.

Notice：

Since it is more direct and convenient to use web management, so 065-7707 provide a complete solution of WEB management, and Telnet management just provide configuration for network setting, file transmission, save, reset and Ping ect.

6.2 Telnet connection method

Telnet management needs one terminal PC with TCP/IP protocol

First，connect the 10/100M RJ45 port of the switch and the networking adapter port of the PC with networking cable, then setting the adapter to be in the same IP segment.

Take WINDOWS XP as example:

Step 1：click the right button on the “network neighbor” at the desktop，choose the “property”, and you can see the following window:

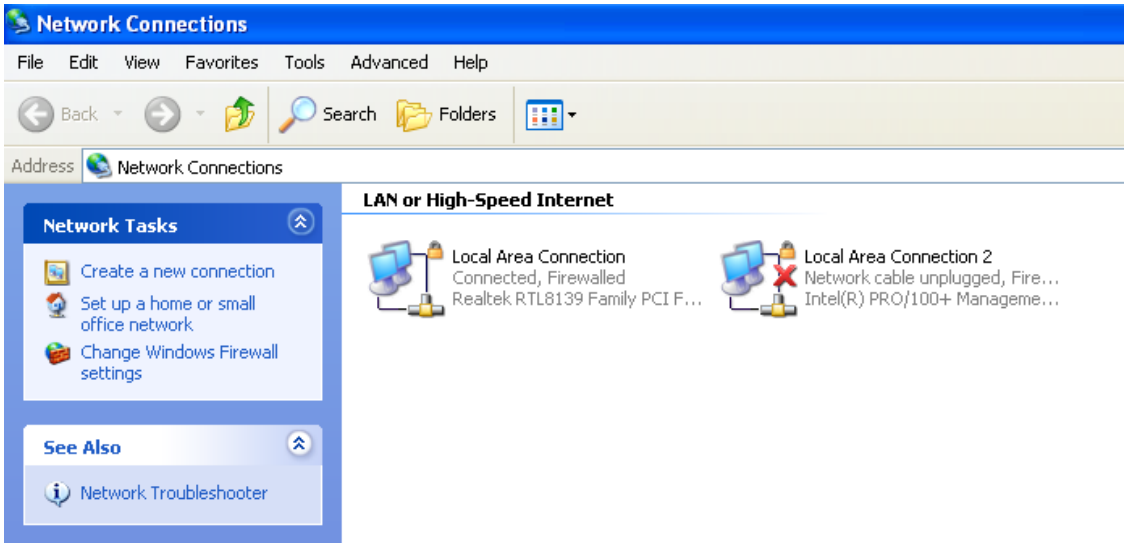


Fig 6-1 Network connection

Step 2：Click right button of the mouse on the network connection you use to connect the switch, choose the option “Property”, the following window will show up：

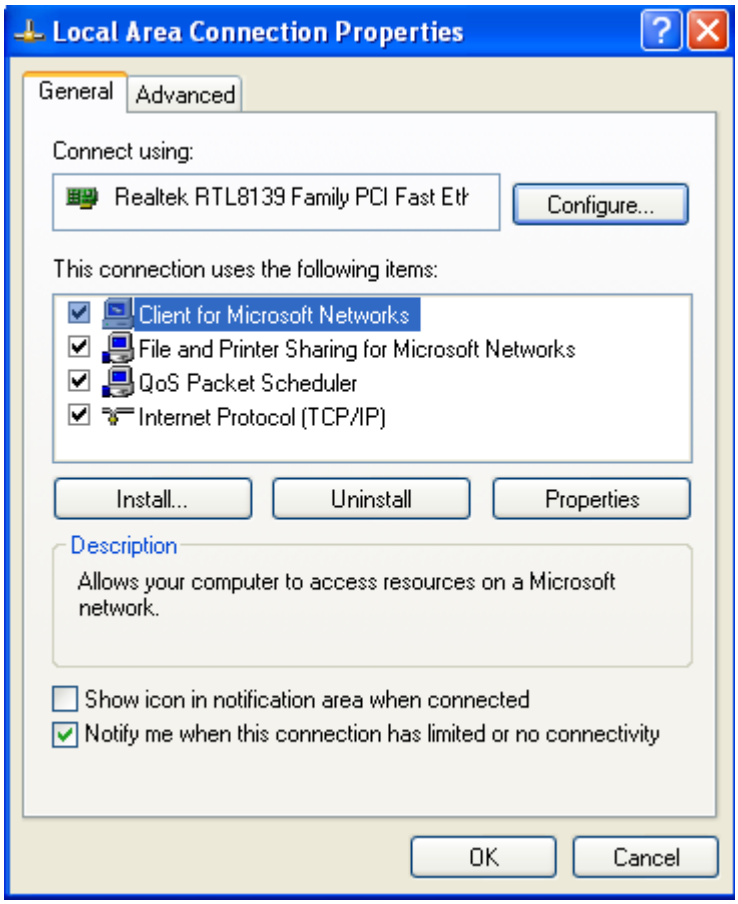


Fig 6-2 Network connection property

Step 3：Double click on “Internet Protocol (TCP/IP)”, and you will see the Internet Protocol (TCP/IP) dialogue as below：

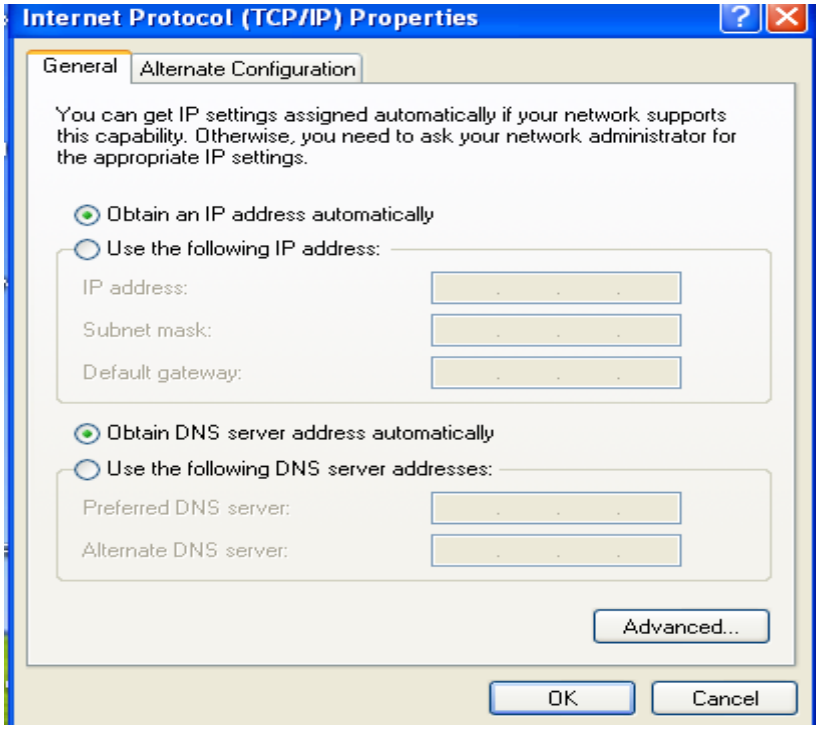


Fig 6-3 TCP/IP Property

Step 4：click“use appointed IP address” option，input the IP 192.168.1.X(X can be number 2-254)，Subnet mask 255.255.255.0。

Note：

The IP address input above should be in the same IP network range.（The default IP of the switch is 192.168.1.254）

Step 5：Click“OK”button，and return to the network connection property dialogue. Click “OK” button.

And then you can start to configure the switch through Telnet.

6.3 Connection

Click the “RUN” button at the “Start menu” on the desktop，input “cmd” in the open dialogue window as below:

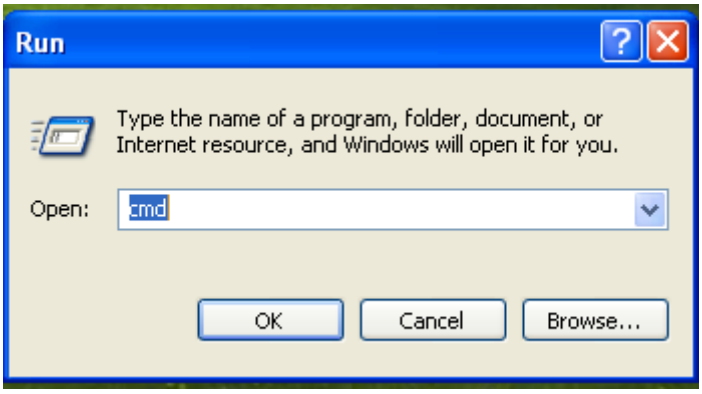


Fig 6-4 RUN

Click “OK”button，you can see the following dialogue window:

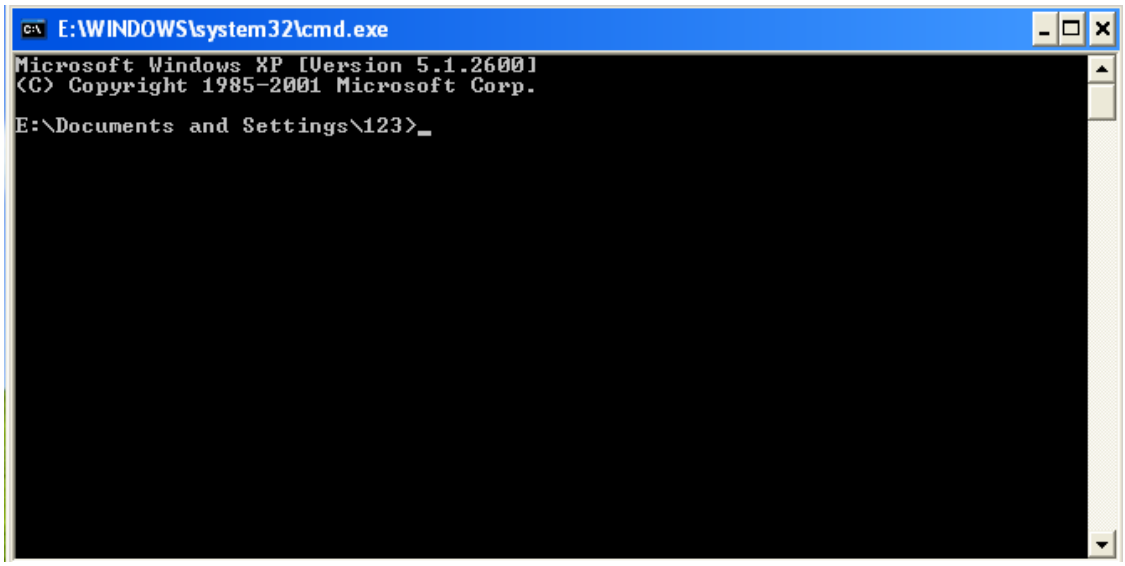


Fig 6-5 MS-DOS

Input “Telnet 192.168.1.254”at the dialogue window and click“enter”button，you will enter into the Telnet management interface.

Fig6-6 Telnet Management Interface

Illumination:

Telnet configuration for 065-7707 is similar with Out-of-band management.

FCC WARNING

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

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

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

NOTE: The manufacturer is not responsible for and radio or TV interference caused by unauthorized modifications to this equipment. Such modifications could void the user’s authority to operate the equipment.