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#05610 RP-1600W

USER'S MANUAL

Smart Access Web Management Switch

USER'S GUIDE

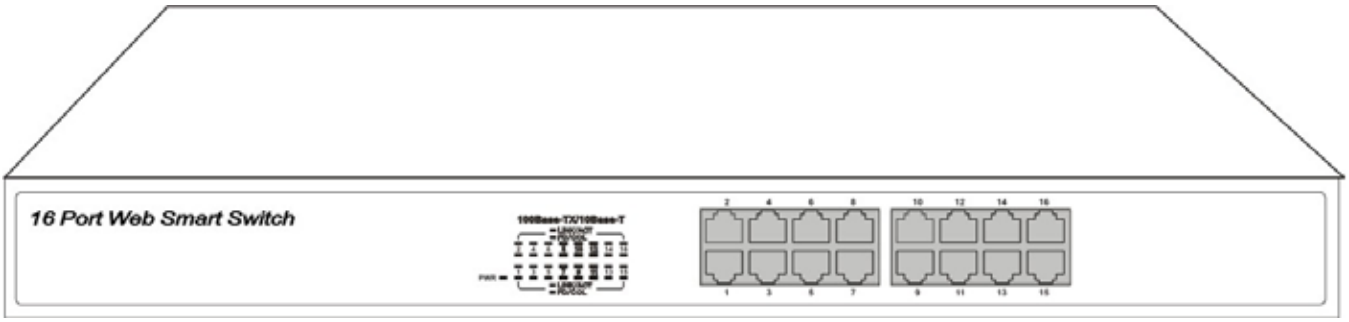
TABLE OF CONTENTS

1 UNPACKING INFORMATION

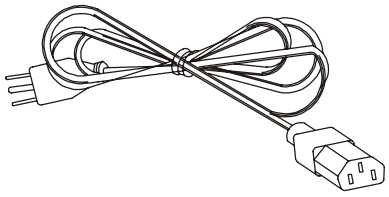
Thank you for purchasing this Switch. Before continuing, please check the contents of the product package. The package should contain the following items:

- One Switch
- One Power Cord
- Four Rubber Feet (for desktop placement)
- One Rack Mount Kit
- CD (Utility and Manual)

If any of the above items is missing, please contact your place of purchase immediately.



Switch (19 inches case)



Power Cord

Rubber Feet

Rack Mount Kit (optional for 19 inches case)

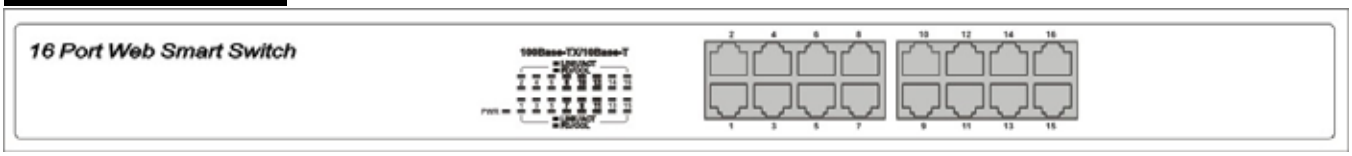
CD (Utility and Manual)

2 PRODUCT INTRODUCTION

Key Features

- Support up to 16 port-based VLAN Groups
- Support Store-and-Forward Technology Filtering/Forwarding to Eliminate Bad Packets
- Support Non-blocking Function
- Support IEEE802.3x Flow-control for Full-duplex and Back Pressure Flow-control for Half-duplex
- All TP Ports Support Auto-MDI/MDI-X and Auto-negotiation Functions

The Front Panel



19 inches case

100BASE-TX Port

Each 100BASE-TX port provides an Auto-negotiation function that senses 10/100Mbps Full-/Half-duplex and an Auto-MDI/MDI-X function that sense for the attached device's maximum operating speed and automatically sets the Switch to operate at that speed. Users only need to connect a network device into any TP port to join the network.

Cabling

Port Type	Cable Type	Connector
10BASE-T	Category 3, 4 or 5 TP	RJ-45
100BASE-TX	Category 5, 5E TP	RJ-45

Status LEDs

This Switch comes with a complete range of LEDs. The table below lists each LED’s name, color and a brief description of its function.

Name	**Color**	**Function**
PWR	Green	Lit: Power "On"
Ports 1~16 LINK/ACT	Green	Lit: When the port has a valid physical connection with another device. Blinks: When the port is sending or receiving data (Activity).
Ports 1~16 FD/COL	Yellow	Lit: When the port is set to Full-Duplex mode. Blinks: When a collision is detected in Half-Duplex mode.

The Rear Panel

19 inches case

Power Socket

The Power Socket is designed to be used with the power cord included in the product package.

- Attach the female end of the power cord to the male power connector on the back panel.
- Attach the male end of the power cord to a grounded power outlet.

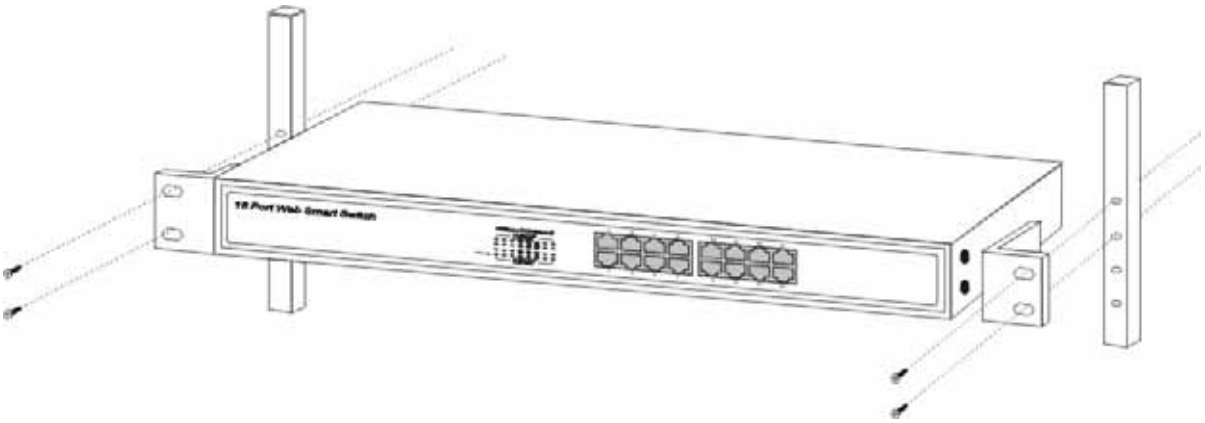
3 INSTALLATION

To locate the Switch on a desktop

- Attach the four rubber feet included in the product package to the bottom of the Switch, one in each corner.
- Place the Switch on a clean, flat desk or tabletop close to a power outlet.
- Plug in all network connections and the power cord.

Rack Mount Placement

- Attach one rack mounting bracket on each side of the Switch's front panel and secure each bracket with the provided screws
- Use the other provided screws to secure each Switch to the rack.



4 SMART FUNCTIONS SETTINGS

Start Smart Function

The Switch has a built-in smart function that can be accessed through a web browser and provides users with more effective management of the local area network (LAN). It can also operate using default settings making it a “dumb” switch.

The switch’s configuration page can be accessed from either the local area network (LAN) side or from the WAN side of the network. (From Internet side, Remote Control Management):

1. To connect to the switch’s configuration page from your LAN, just type the switch’s IP address in IE’s address box to show the page.
2. To connect to the switch’s configuration page from Internet (Remote Control Management), please follow the steps below:

A. Please ask your LAN administrator to map port #8888(or your choice), on the network’s gateway to the IP address of the PC running the management program “vega.exe”.

B. Execute vega.exe which is on the CD accompanied by the switch on a PC located **in the same local area network**.(Fig 4-1)

Fig 4-1

C. The program will show.(Fig 4-2)

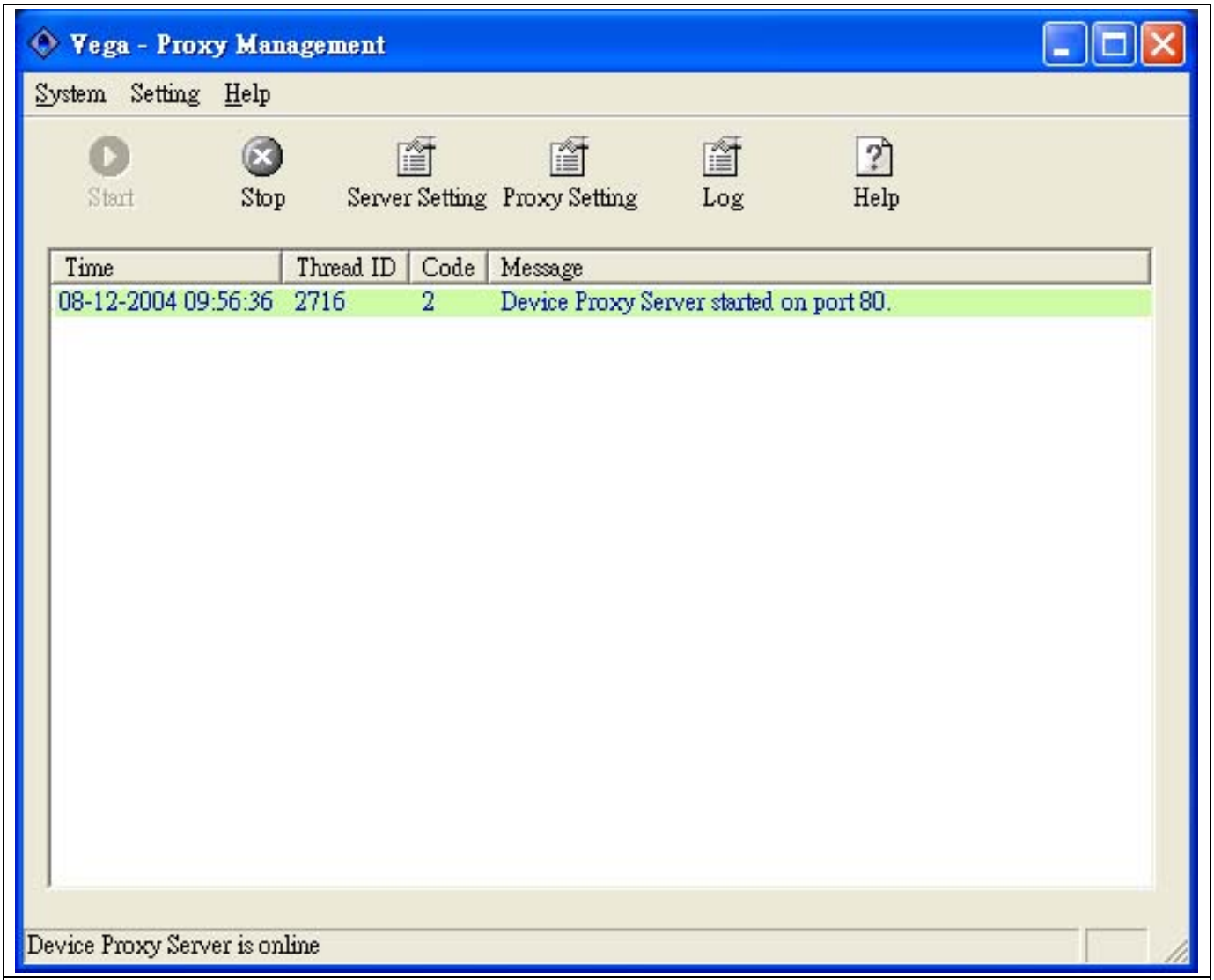


Fig 4-2

Note: In the above window, there are 6 function icons that you can use to control the program:

1. **Start**: Start the program.
2. **Stop**: Stop the program.
3. **Server Setting**: Setting the server's parameters. (Fig 4-3)

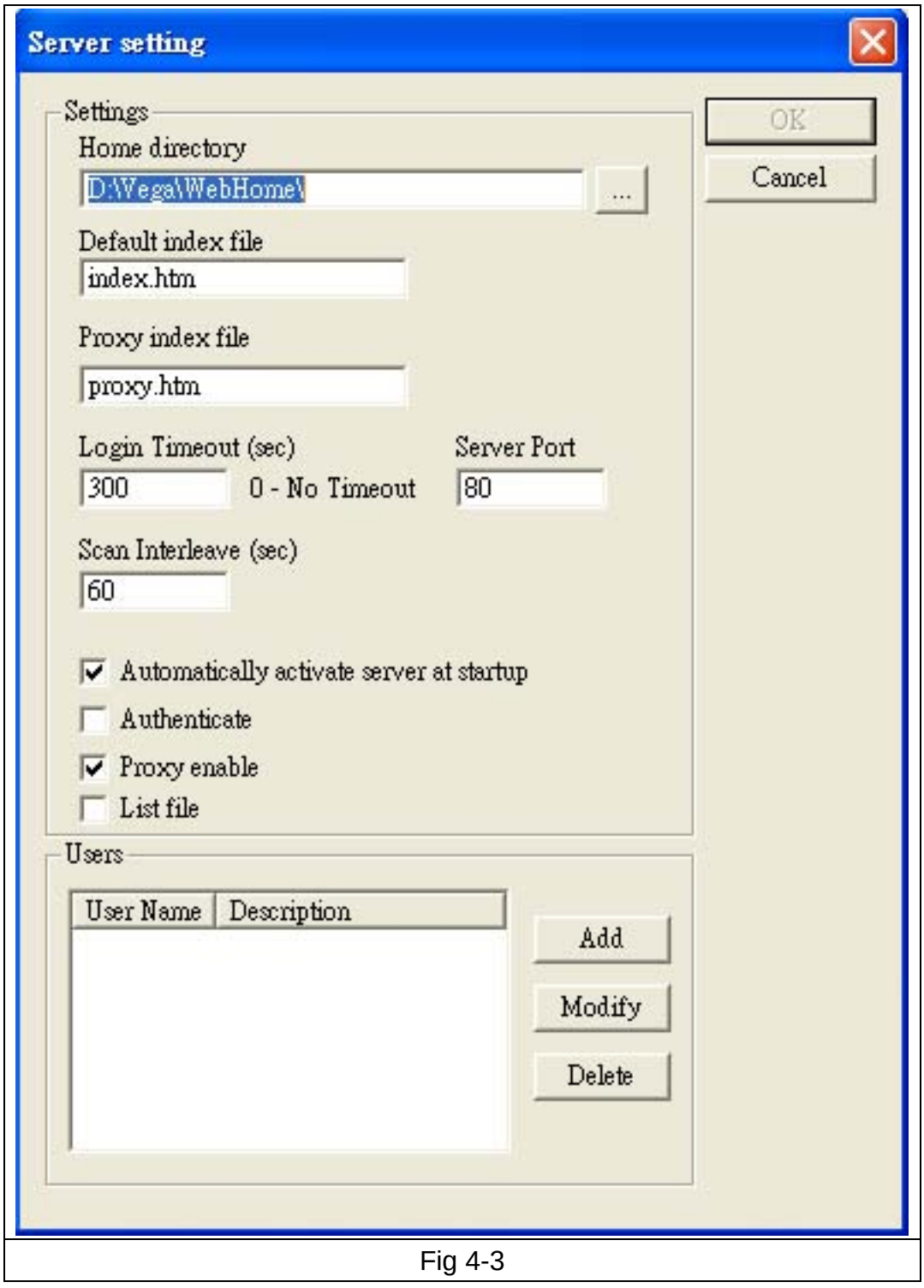


Fig 4-3

4. **Proxy Setting**: View the existing switches in this LAN, and also add/delete/modify any switch in the LAN for configuration convenience. (Fig 4-4)

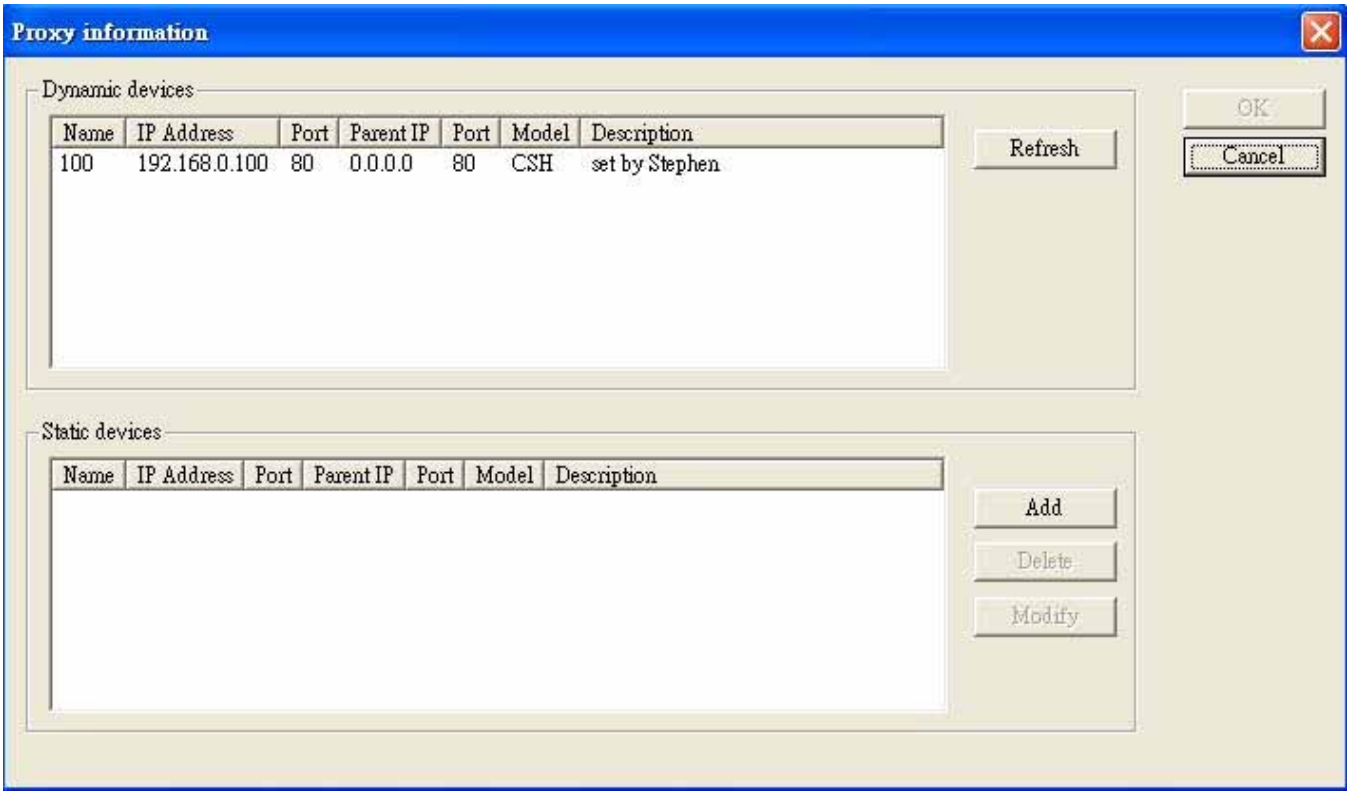


Fig 4-4

5. **Log**: log the server's activity messages into a log file.

6. **Help**: view the help file.

D. Click the **Server Setting** icon, the following window will show.(Fig 4-5)

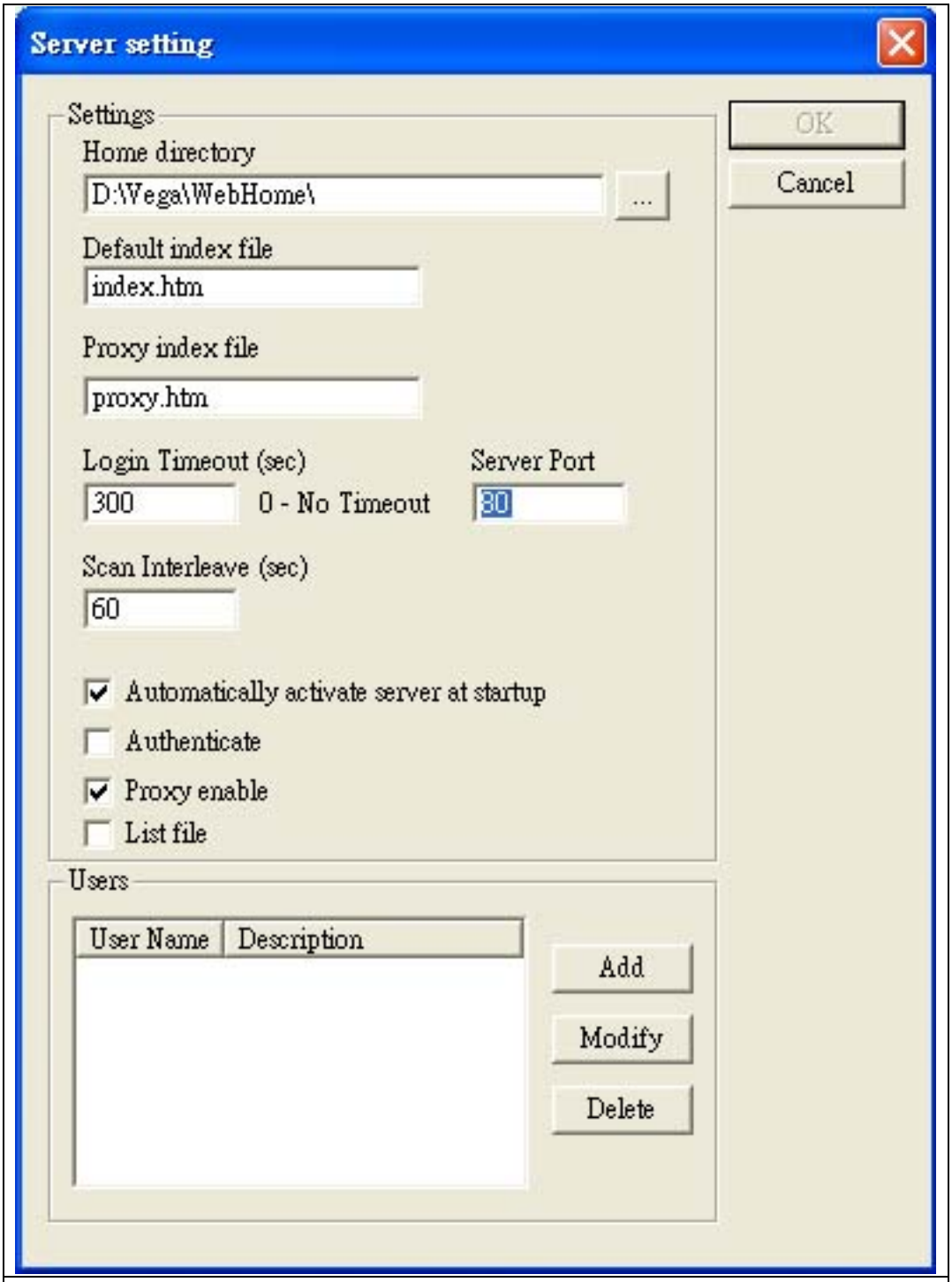


Fig 4-5

E. Please change the **Server Port** from “80” to “8888”, and press **OK** for it to take effect. The next window shows that it runs using port 8888.(Fig 4-6)

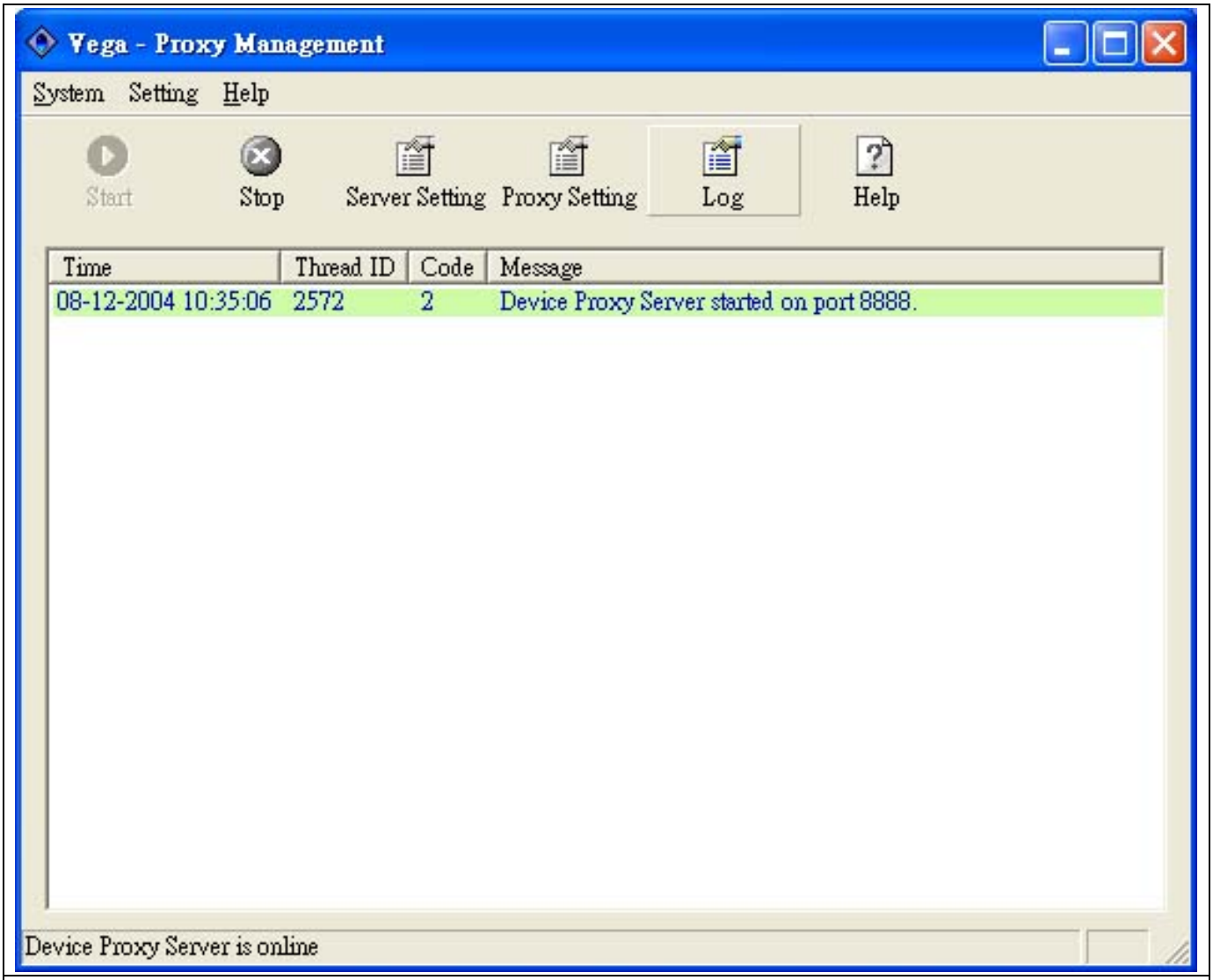


Fig 4-6

F. **From internet side**, connect to the WAN IP of your LAN gateway with port 8888 as below: http://XXX.XXX.XXX.XXX:8888/proxy.htm . Then the web page will show. (Fig 4-7)

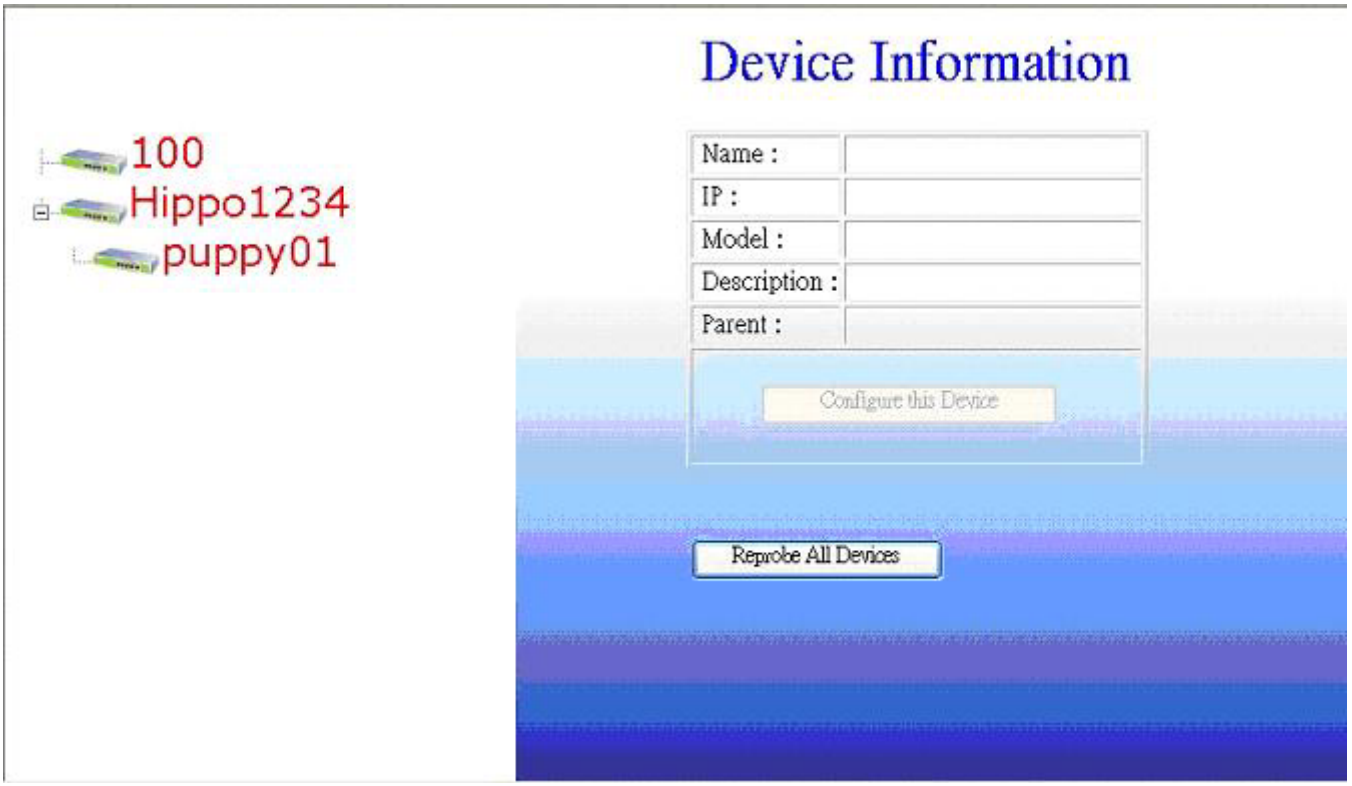


Fig 4-7

G. Select the switch to be configured from the left side and the device information will be shown on the right. (Fig 4-8).

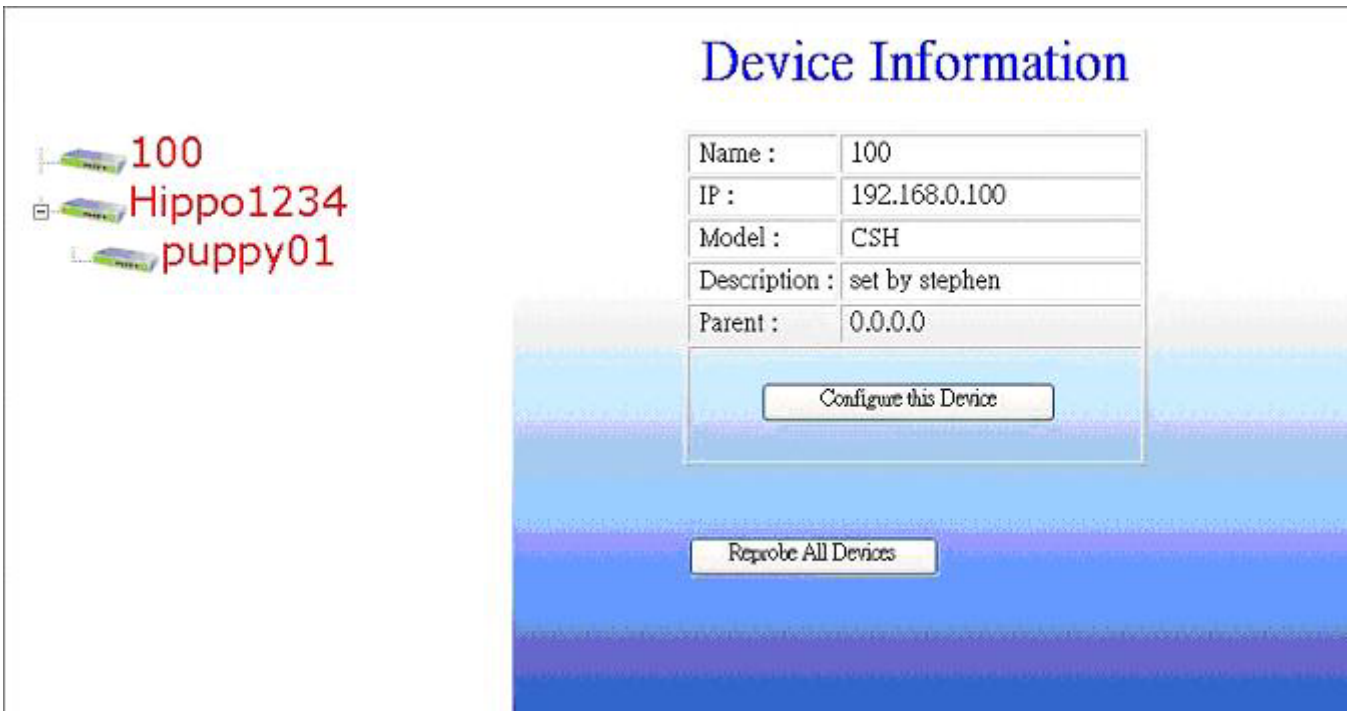


Fig 4-8

Click on **Configure this Device** to start the configuration of the selected switch.(Fig 4-9)

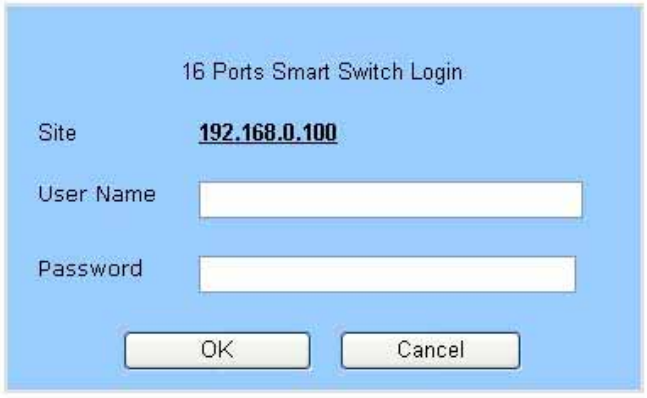


Fig 4-9

5 Configuring the Switch

5.1 How to login to the switch

1. When a switch is selected for configuration, the login window for that switch will pop up. (Fig 5-1)

The default user name and password are:

User name: **admin**

Password: **1234**

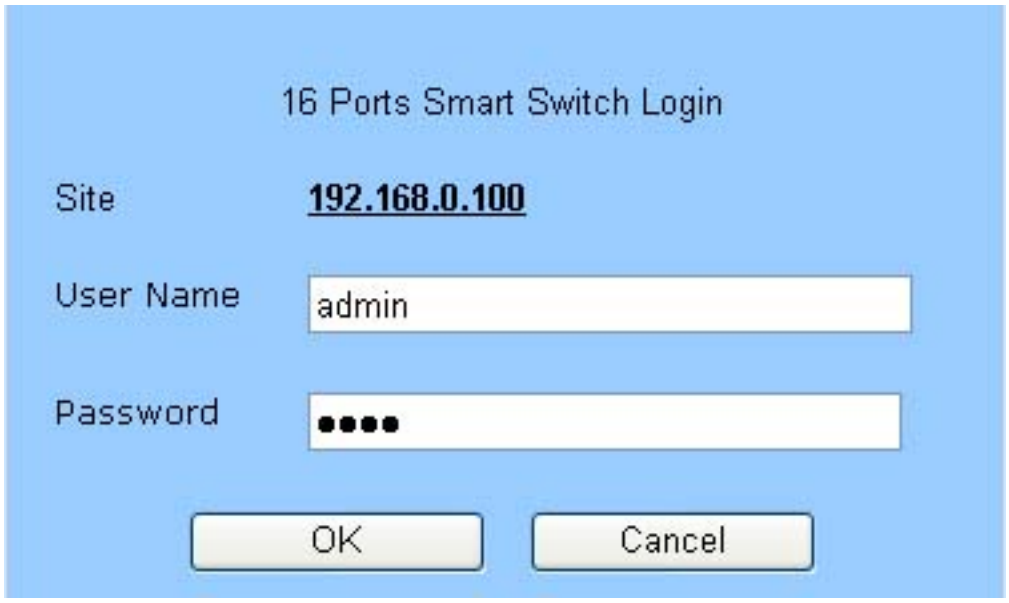


Fig 5-1

2. After login, the Smart Switch Configuration page will come up. (Fig 5-2)

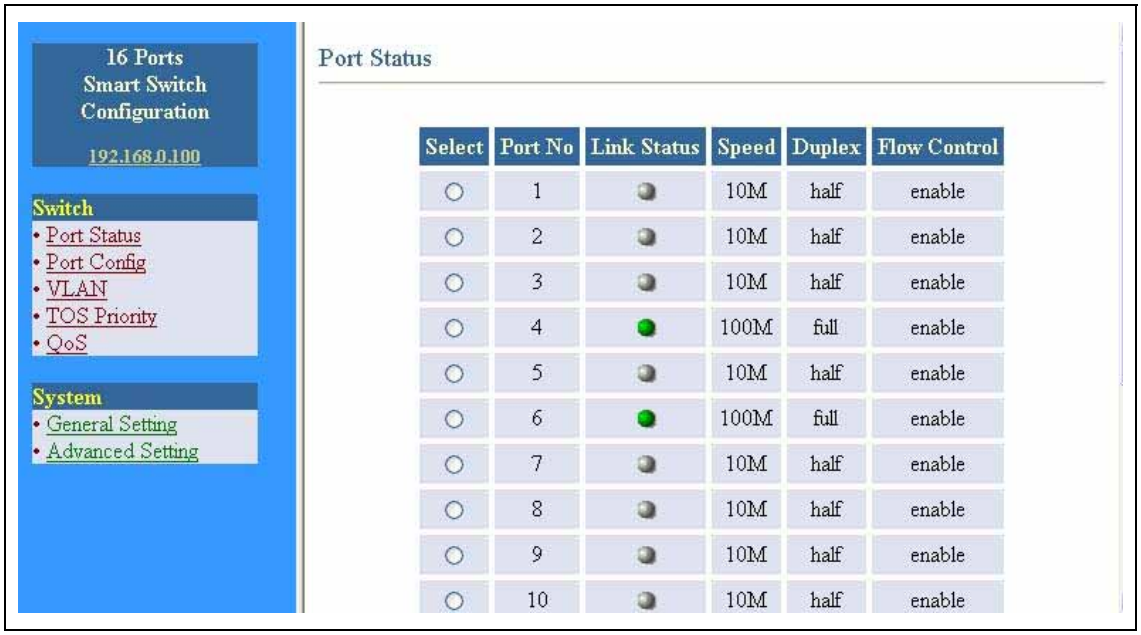


Fig 5-2

5.2 Configuration Items

The configurable features of the web smart switch are listed in (Fig 5-3). Upon selecting any item from the list, a page with detail information on that item will come up.

Fig 5-3

5.2.1 Port Status

When “Port Status” is clicked, Fig 5-4, containing all ports information comes up.

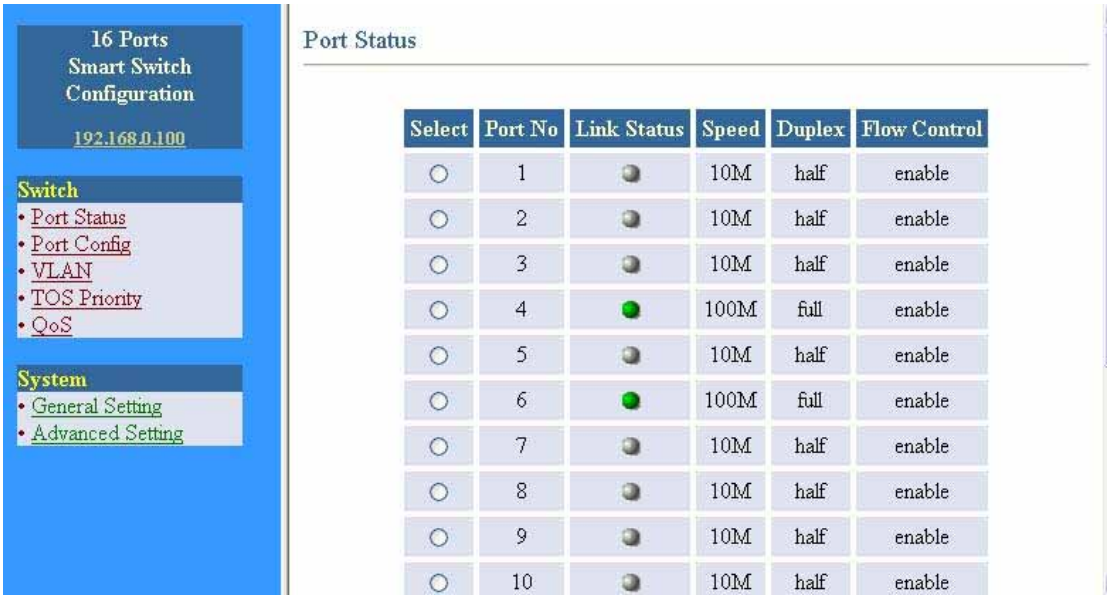


Fig 5-4

Link Status – Indicates the link status of each port ON/OFF.

Speed –Indicates Link Speed of each port 10/100.

Duplex –Indicates Half duplex or Full duplex connection on each port

Flow Control –Indicates Flow Control status of each port enable/disable.

For example, if we want to know the number of packets received or transmitted on port 4:

1. Select Port 4. (Fig 5-5)

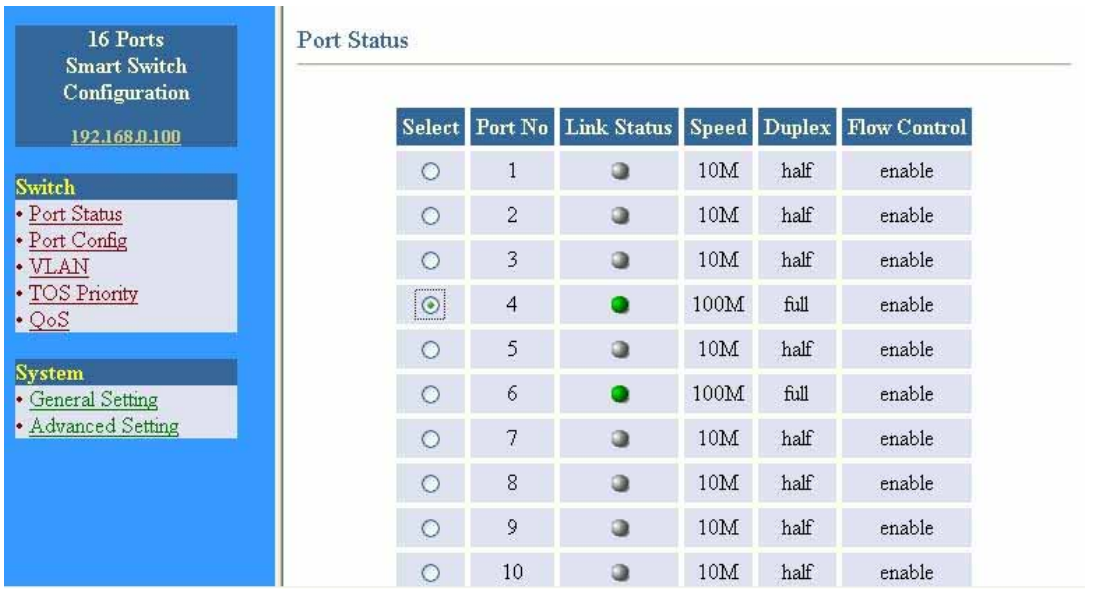


Fig 5-5

2. Click the “Counters” button (Fig 5-6), and the information we are looking for will be seen on Fig 5-7.

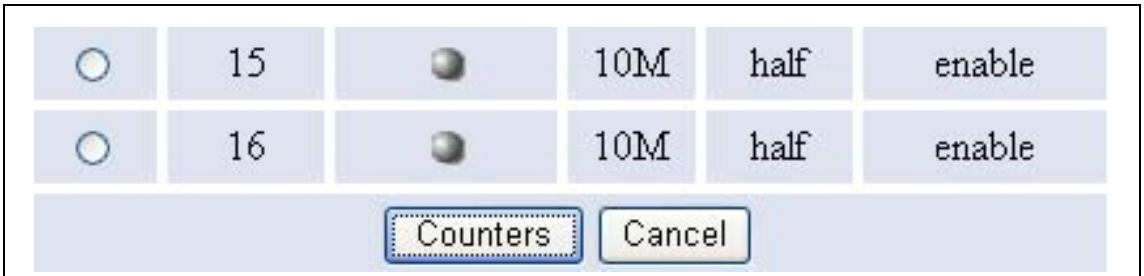


Fig 5-6

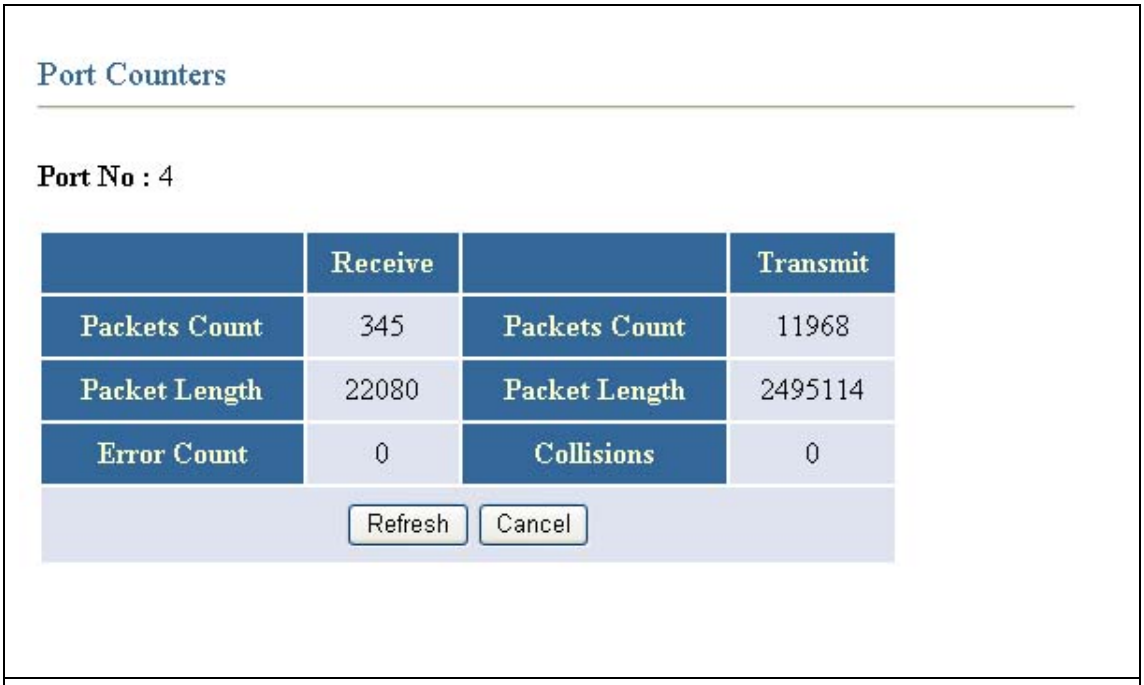


Fig 5-7

5.2.2 Port Config

1. Select Port number to be configured. (Fig 5-8)
2. To enable this port, select **"Turn on"**, otherwise select **"Turn off"**.
3. To enable **Port-base Priority**, select **"Enable"**, otherwise select **"Disable"**.
4. To set the **Port Priority Mapping** to "High Queue", select **"High Queue"**, otherwise select **"Low Queue"**.
5. Click "Apply" to save the configuration changes.

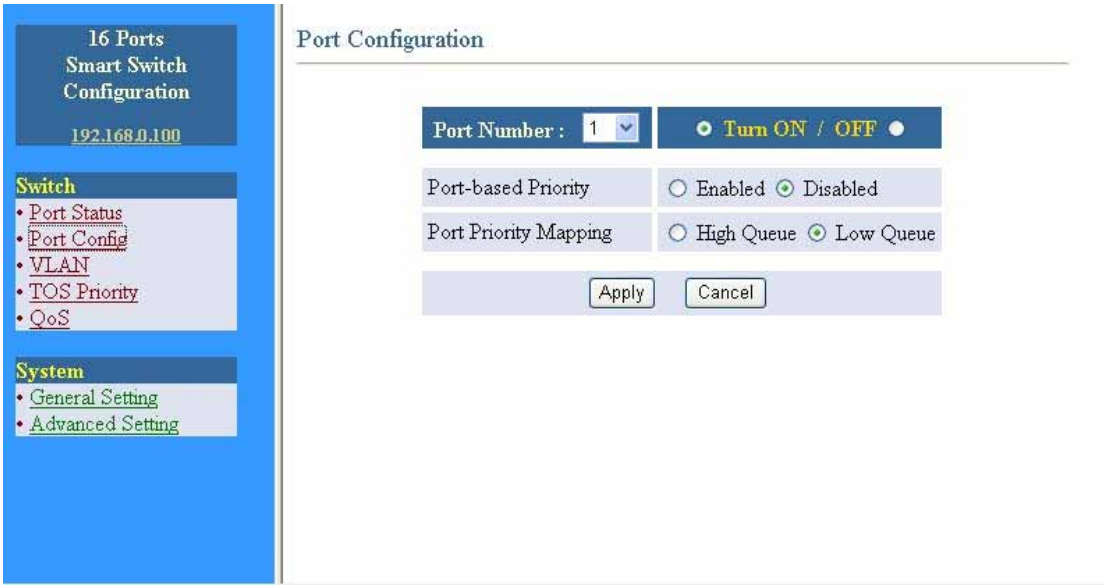


Fig 5-8

5.2.3 VLAN

1. Select VLAN group number. It supports 16 VLAN Groups. (Fig 5-9).
2. Select VLAN Group Members (ports that are members of this VLAN).
3. Click “Apply” to save the configuration.

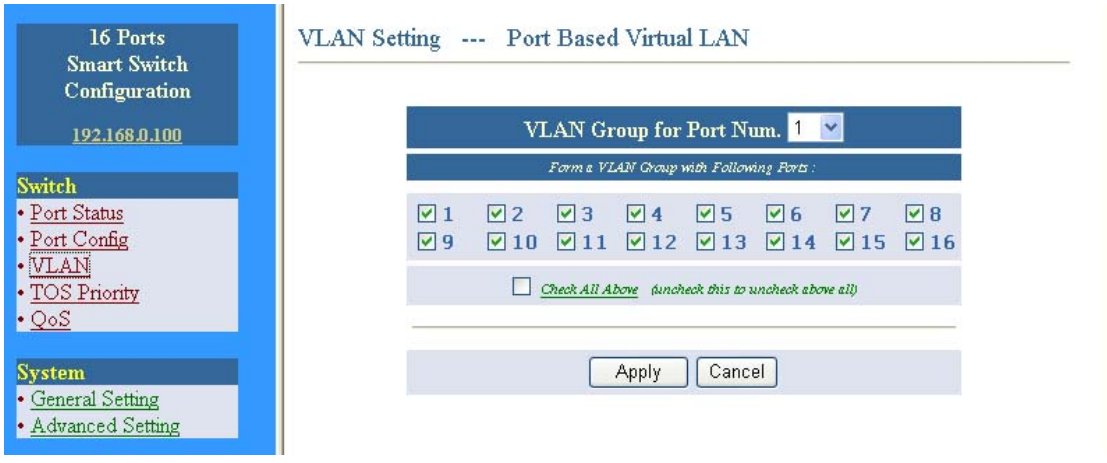


Fig 5-9

5.2.4 TOS Priority

1. Select the TOS Value.
2. Select Priority.
3. Click “Apply” to save the configuration.

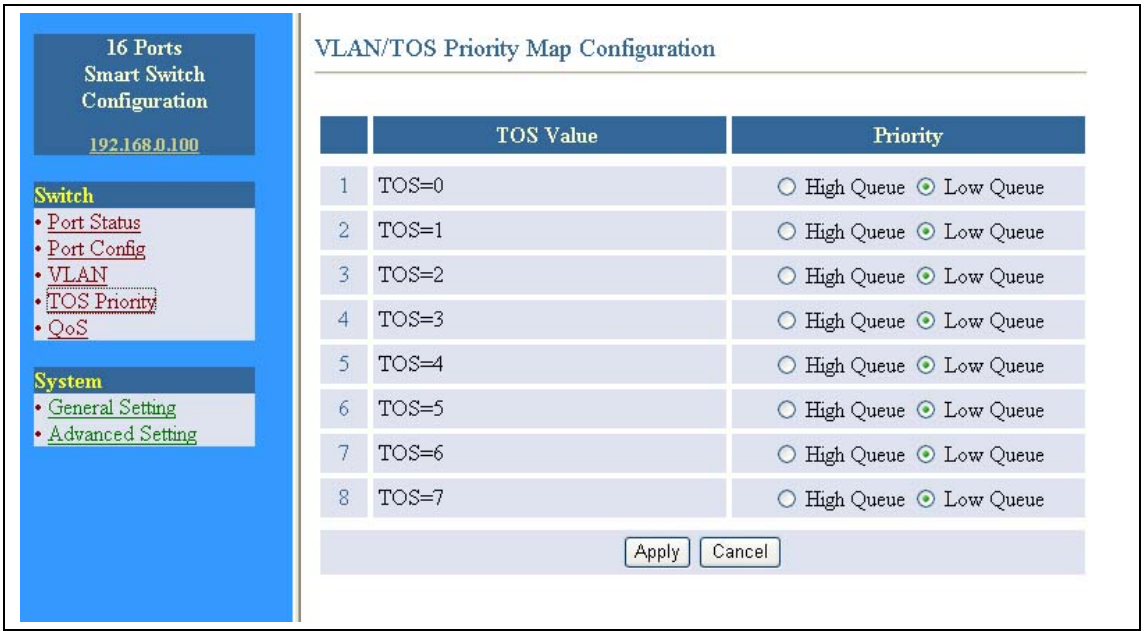


Fig 5-10

5.2.5 QoS

1. Select the Priority Ratio. (“High Queues & Low Queue” Ratio) (Fig 5-11)
2. Click “Apply” to save the configuration.

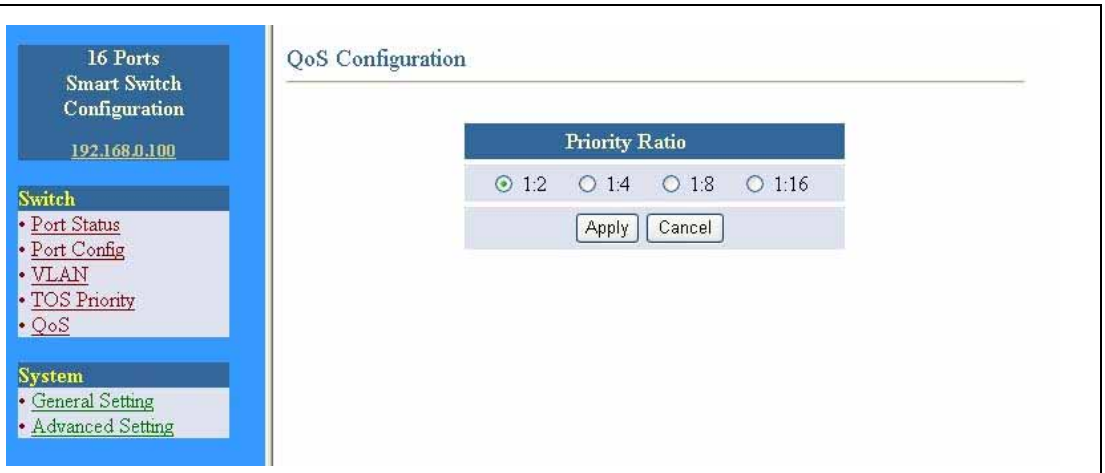


Fig 5-11

5.2.6 General Setting

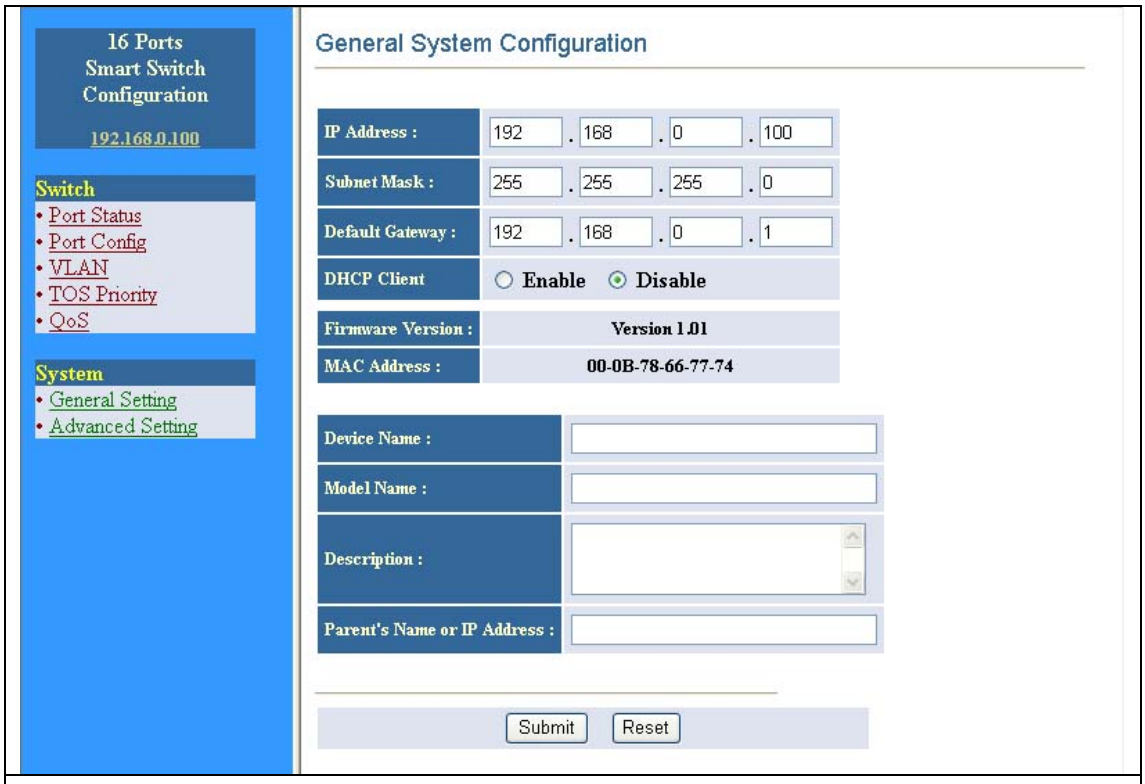


Fig 5-12

A. **IP address**:

If the Switch is not a DHCP Client, select **"Disable"** for **DHCP Client** and fill the IP Address, Subnet Mask and Default Gateway information fields. Otherwise, select "**Enable"** in DHCP Client item.

B. **Firmware Version** and **MAC Address** of the Switch.

C. **Device Name, Model Name,** and **Description** for the switch (needs to be filled out by user).

D. **Parent's Name or IP Address** (if more than one S.A.W.M. switch connects together, you can show the root by this setting) -Needs to be filled out.

5.2.7 Advanced Settings

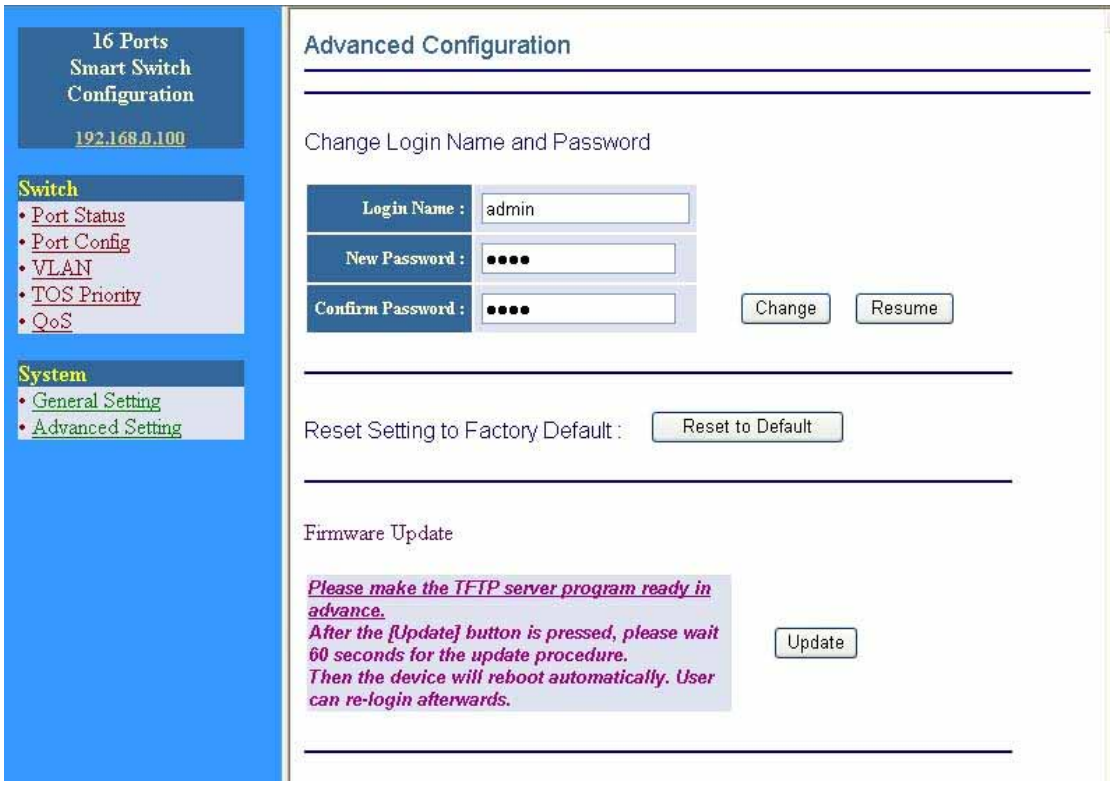


Fig 5-13

To change Login Name and Password:

1. Type in the Login Name. The default Login Name is **admin**.
2. Enter a new password. The default password is **1234**.
3. Confirm your password in the Confirm Password field.
4. Click **"Change"** to save your changes.

To restore the factory default settings:

1. Click "Reset to Default". A warning dialog box appears. (Fig 5-14)

Fig 5-14

2. Click **OK**. All your switch's settings will be restored to its factory default values.

To upgrade the switch’s firmware:

Please visit our website for available firmware upgrades on **this switch**.

6. HELPFUL SUGGESTIONS

6.1 Prior to Installation

Before installing the Switch and connecting network devices, it is important to plan the network's layout. Things you should consider include:

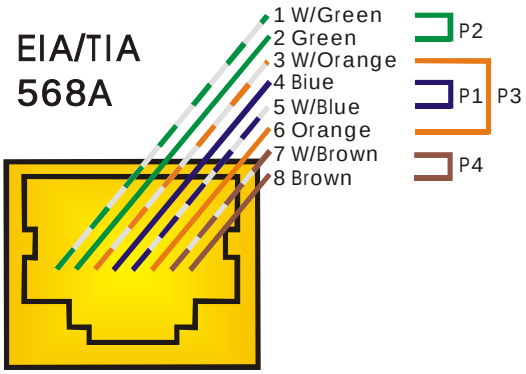
- **Dedicated Bandwidth:** File servers and other high-traffic hardware improve their performance if they have their own dedicated 10Mbps, 100Mbps bandwidth.
- **Full-duplex:** Determine which devices support Full-duplex connections.
- **Fast Ethernet:** Make sure rules for cable lengths and categories are followed.
- **Auto-negotiation:** Devices with different speeds may be easily swapped when the other end of the cable is fixed to a port with Auto-negotiation.

6.2 Fast Ethernet

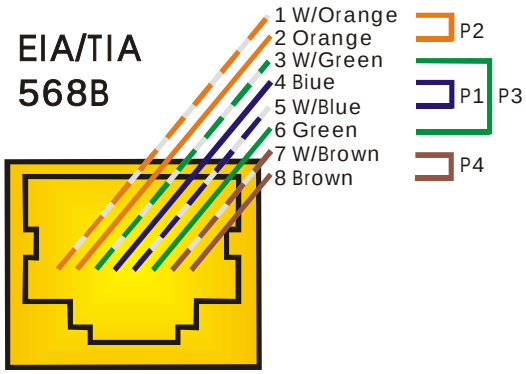
100BASE-TX is called "Fast Ethernet". In Fast Ethernet, data travels ten times faster (100Mbps) than in traditional Ethernet (10Mbps).

Note: If your 10BASE-T network currently uses Category 5 TP cabling, you can instantly upgrade the network to a 100BASE-TX network by changing network devices.

Note: 100BASE-TX use Category 5 TP cabling. The standard Category 5 TP cabling pin-out as the following figures:



RJ-45 Jack Front View



RJ-45 Jack Front View

6.3 MAC Address Table

Every Ethernet data packet includes both source and destination addresses. This six (6) bytes ID is called the MAC (Media Access Control) Address.

The Switch can automatically learn and store MAC addresses. However, the MAC address table is volatile: it disappears when the Switch is powered “OFF” or reset.

Note: When the network needs reconfiguration, we recommend you to turn off the power first. After all nodes have been moved, turn the Switch back "ON" to rebuild the internal MAC address table.

7. Product specifications

Models	16-Port 10/100Mbps Smart Web Aceess Management Switch
Standards	· IEEE 802.3: 10BASE-T · IEEE 802.3u: 100BASE-TX · IEEE 802.3x: Flow-control for Full-duplex operation
Ports	· 16 100BASE-TX/10BASE-T
Media Support	· 10BASE-T: Category 3, 4 or 5 TP · 100BASE-TX: Category 5 TP
Bandwidth	· 100BASE-TX: 100/200Mbps · 10BASE-T: 10/20Mbps
Forwarding/Filtering Rate	· 148810 packets/second per port @ 100Mbps, maximum · 14881 packets/second per port @ 10Mbps, maximum
MAC Addresses	· 4K
Buffer Memory	· 1 M bits
Duplex Modes	· Support Auto-negotiation and Auto-MDI/MDI-X functions
LED Indicators	· One LED displays Power status · One LED per port displays Link/ACT status · One LED per port displays Full-duplex/Collision (Half-duplex) status
Power Supply	· Internal full range switching power supply · Input Voltage: 100 ~ 240 +/-10%V AC, 50/60 Hz
Power Consumption	· 15 watt maximum
Environment	· Operating Temperature: 0° ~ 45°C (32° ~ 113°F) · Storage Temperature: -20° ~ 70°C (-4° ~ 158°F) · Humidity: 10% ~ 90% Non-Condensing
Certifications	· CE, FCC
Dimensions	· 442 x 185 x 44mm (17.40 x 7.28 x 1.73inches)

FCC WARNING

This equipment has been tested and found to comply with the limits for a Class A computing device pursuant to Part 15 of FCC Rules, which are designed to provide reasonable protection against electromagnetic interference in a commercial environment.

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

CE MARK WARNING

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