



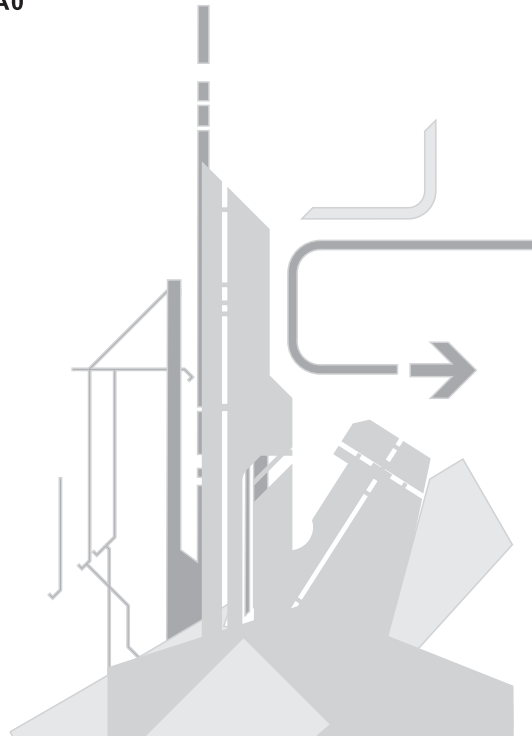
OT-2310SIW/UX

8 Ports 10/100M +2 Port 1000M Advanced Version

Smart Switch

User Manual

Ver.A0



Chapter 1 Product Specification

1.1 Product Characteristics

- Complies with IEEE802.3, IEEE802.3U, IEEE802.3z, IEEE802.3ab standards;
- Stream control: Full Duplex applies IEEE802.3X standard, Half Duplex applies Back-pressure standard
- 8 10/100M Auto-Negotiation RJ45 Ports and 2 10/100/1000M Auto-Negotiation RJ45 Ports, all ports support Auto MDI/MDIX
- Support Port VLAN and 802.1Q Tag Vlan;
- Support RSTP (Rapid Spanning Tree Protocol);
- Support Port Trunking
- Support QoS function
- Support Dynamic MAC address management function
- Support broadcast storm control
- Support port mirroring
- Provide fixed MAC address configuration, DHCP automatic IP address acquisition
- External DC7.5V Power Adaptor, with standard 11inch steel case design

1.2 Product Specifications

| | |
|---------------------|--|
| Standards | IEEE802.3, 802.3u |
| Basic Function | Wire-speed Performance MAC Address Auto-Learning and Auto-aging IEEE802.3x flow control for Full-Duplex Mode and backpressure for Half-Duplex Mode |
| Backbound Bandwidth | 4.49Gbps |
| MAC Address Table | 4k |
| Forwarding Rate | 10BASE-T: 14880pps/port 100BASE-TX: 148800pps/port 1000BASE-T: 1488000pps/port |
| Transmission Method | Store-and-Forward |
| Ports | 8 10/100Mbps Auto-Negotiation RJ45 ports (Auto MDI/MDIX) 2 1000Mbps Auto-Negotiation RJ45 Ports(Auto MDI/MDIX) |
| Network Media | 10Base-T: UTP category 3, 4, 5 cable (maximum 100m) EIA/TIA-568 100Ω STP (maximum 100m) 100Base-Tx: UTP category 5, 5e cable (maximum 100m) EIA/TIA-568 100Ω STP (maximum 100m) 1000Base-T: UTP category 5, 5e cable (maximum 100m) EIA/TIA-568 100Ω STP (maximum 100m) |
| LED Indicators | Power, Link/Act |
| Dimensions (W*D*H) | 250.00mm × 150.00mm × 44.00mm |
| Environment | Operating Temperature: 0°C~40°C(32°F~104°F) Storage Temperature: -40°C~70°C(-40°F~158°F) Operating Humidity: 10%~90% non-condensing Storage Humidity: 5%~90% non-condensing |
| Input | Power: External Power Adapter |
| Consumption | Max:15W |

1.3 Package Contents

- 1 piece of 10-port Ethernet Switch
- 1 piece of external power adapter
- 4 pieces of rubber padding
- User's manual (or in CD disc)

Chapter 2 Hardware Installation

2.1 Quick Installation Guide

Choose a proper place for the rack mountable switch, considering the surroundings such as power source, space, keep it away from strong sunlight, heat source, and electromagnetism interference.

Installation & Connection method:

1. Stick rubber paddings onto the bottom side of the switch.
2. Connect the switch to power source with offered power adapter, turn it on, the switch will test itself, all its indication lights are on at the same time, test is done when the lights go off .
3. Connect the switch to network devices, including Lan cards, switches etc. with Cat 3,4,5 cable(Cat5 recommended); related indication lights flash when attached network devices are working. ALL ports support Uplink.

Note: Please not plug a phone line into a RJ45 port, otherwise it may cause damage.

2.2 LED Indications

| LED | Status | Indication |
|----------|--------|-----------------------------------|
| Power | ON/OFF | Power on/off |
| Link/Act | ON/OFF | Ports connected/Ports unconnected |
| | Flash | Data frames running |

- After cables are connected, the indicator of a port does not work
 1. Check all the connection ports
 2. Check if the switch and network device are on, and both ends of the cable are properly connected.
 3. Check if right cables are used, and connectors are good.
 4. Check if max. transmission cable length within 100-meter.
- The indicator of power does not work
 1. Check the power is on, properly connected, and if voltage is stable.

Chapter 3 Configuration Guide

3.1 Fast Log on

Notice: You may have to configure a new IP for a managing computer, because default switch IP is 192.168.2.1. You can log on as following steps:

1. Connect the switch with the managing computer Lan card;

2. Turn on the switch;
3. Make sure the managing computer IP address belongs to 192.168.2.2~254, e.g:192.168.2.100
4. Open IE browser , input http://192.168.2.1 and 'Enter', you will see login window as below:

5. Input User Name admin, Password system, and click“OK”, configuration window comes as below:

Remarks

1. One user is allowed to log on at one time.
2. Re-entry to the management Web interface is required if no action within 5 minutes.

3.2 Administrator

Here provides authentication/system IP configuration, system status, load default setting, firmware update and reboot device options.

1. Authentication Configuration:

8 Port 10/100 + 2Port Giga WebSwitch

1 3 5 7
G1 G2 2 4 6 8

Administrator

- Authentication Configuration
- System IP Configuration
- System Status
- Load default setting
- Firmware Update
- Reboot Device
- Port Management
- VLAN Setting
- Per Port Counter
- QoS Setting
- Security
- Spanning Tree
- Trunking
- Backup/Recovery
- Miscellaneous
- Logout

Authentication Configuration

| Setting | Value |
|------------------|--------------|
| Username | admin max:15 |
| Password Confirm | max:15 |

Note:
Username & Password can only use "a-z", "A-Z", "0-9", "_", "+", "-", "=", ".".

2. System IP Configuration:

8 Port 10/100 + 2Port Giga WebSwitch

1 3 5 7
G1 G2 2 4 6 8

Administrator

- Authentication Configuration
- System IP Configuration
- System Status
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- Firmware Update
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- Logout

System IP Configuration

| Setting | Value |
|--------------|--|
| IP Address | 192 . 168 . 2 . 1 |
| Subnet Mask | 255 . 255 . 255 . 0 |
| Gateway | 192 . 168 . 2 . 254 |
| IP Configure | <input checked="" type="radio"/> Static <input type="radio"/> DHCP |

3. System status:

8 Port 10/100 + 2Port Giga WebSwitch

System Status

| | |
|-----------------|---|
| MAC Address | 10:10:13:f0:18:26 |
| Number of Ports | 8+2G |
| Comment | switch <input type="text"/> MAX:15 |
| Contact | OVERTEK <input type="text"/> MAX:15 |
| Location | BRASIL <input type="text"/> MAX:15 |
| System Version | OVERTEK_8+2G_IP1826_WebCtrl_IP210SDK2_L3.4_V104 |

Note:
Comment name only can use "a-z","A-Z","_","-","+","." "0-9"

4. Load default setting:

8 Port 10/100 + 2Port Giga WebSwitch

Load Default Setting

recover switch default setting excluding the IP address, User name and Password

5. Firmware update:

8 Port 10/100 + 2Port Giga WebSwitch

Firmware Update

Please input the password to continue the Firmware Update process.

Password

ReConfirm

Notice:
After clicking the "UPDATE" button, If the firmware update webpage is not redirected correctly or is shown as "Webpage not found".
Please connect to http://192.168.2.1

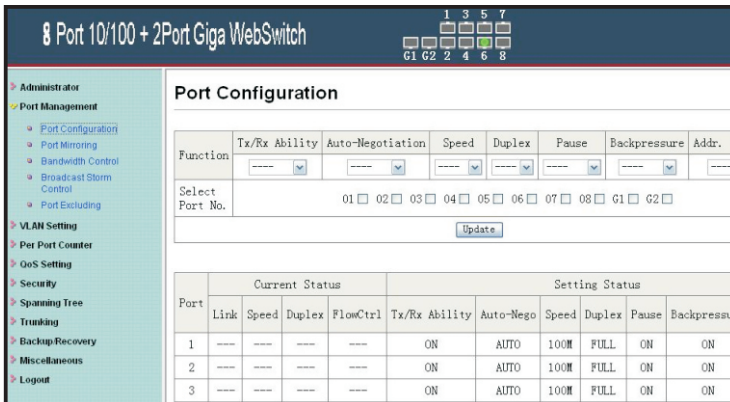
6. Reboot device:



3.3 Port Management

Here provides port configuration, port mirroring, bandwidth, broadcast storm control and port Excluding option

1. Port Configuration:



2. Port Mirroring:

8 Port 10/100 + 2Port Giga WebSwitch

1 3 5 7
 2 4 6 8
 G1 G2

Administrator

- Port Management
 - Port Configuration
 - Port Mirroring
 - Bandwidth Control
 - Broadcast Storm Control
 - Port Excluding
- VLAN Setting
- Per Port Counter
- QoS Setting
- Security
- Spanning Tree
- Trunking
- Backup/Recovery
- Miscellaneous
- Logout

Port Mirroring

| | | | | | | | | | | |
|-------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| Dest Port | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | G1 | G2 |
| | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Monitored Packets | Disable | | | | | | | | | |
| Source Port | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | G1 | G2 |
| | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

[Update](#)

Multi to Multi Sniffer function

Port mirror allows user to define a destination port and a target port , all the packet on the target port will be copy and resend to destination port , it make user can monitor the packet and won't effect the bandwidth of target port.

3. bandwidth control:

8 Port 10/100 + 2Port Giga WebSwitch

1 3 5 7
 2 4 6 8
 G1 G2

Administrator

- Port Management
 - Port Configuration
 - Port Mirroring
 - Bandwidth Control
 - Broadcast Storm Control
 - Port Excluding
- VLAN Setting
- Per Port Counter
- QoS Setting
- Security
- Spanning Tree
- Trunking
- Backup/Recovery
- Miscellaneous
- Logout

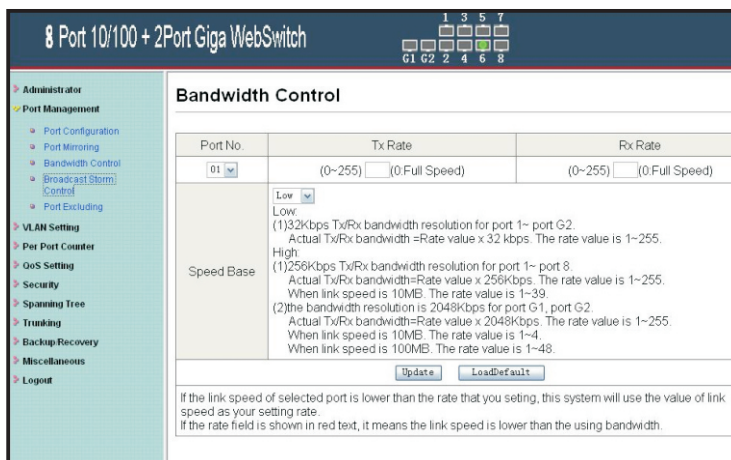
Bandwidth Control

| Port No. | Tx Rate | Rx Rate |
|------------|---|------------------------|
| 01 | (0-255) (0 Full Speed) | (0-255) (0 Full Speed) |
| Speed Base | Low (1)32Kbps Tx/Rx bandwidth resolution for port 1~ port G2. Actual Tx/Rx bandwidth =Rate value x 32 kbps. The rate value is 1~255. High (1)256Kbps Tx/Rx bandwidth resolution for port 1~ port 8. Actual Tx/Rx bandwidth=Rate value x 256Kbps. The rate value is 1~255. When link speed is 10MB. The rate value is 1~39. (2)the bandwidth resolution is 2048Kbps for port G1 ,port G2. Actual Tx/Rx bandwidth=Rate value x 2048Kbps. The rate value is 1~255. When link speed is 10MB. The rate value is 1~4. When link speed is 100MB. The rate value is 1~48. | |

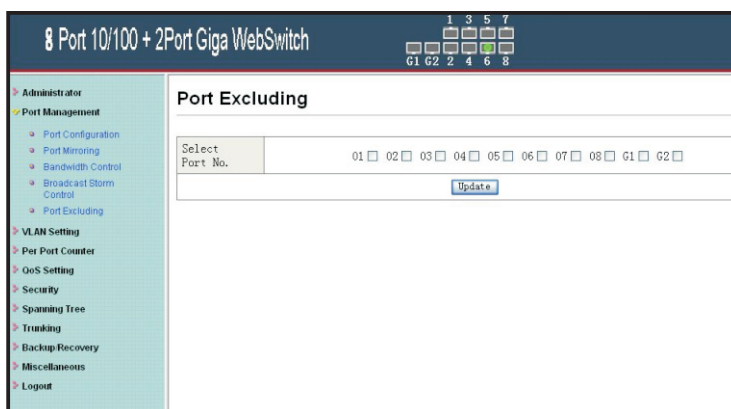
[Update](#) [LoadDefault](#)

If the link speed of selected port is lower than the rate that you setting, this system will use the value of link speed as your setting rate.
 If the rate field is shown in red text, it means the link speed is lower than the using bandwidth.

4. Broadcast Storm control:



5.Port Excluding:



3.4 VLANs Configuration

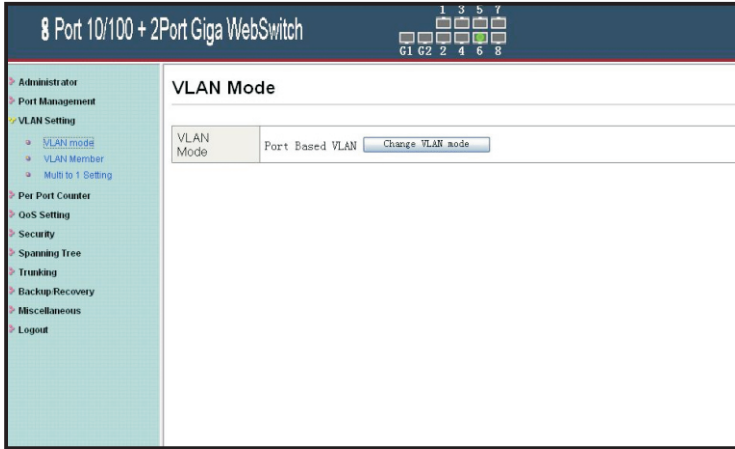
A VLAN is a group of switch ports designated by the switch as belonging to the same broadcast domain.

This feature allows workgroups to be defined on the basis of their logical function instead of their physical location, and does not require recabling. It also enables you to configure port-based VLANs to help isolate broadcast traffic and increase security, so as to increase bandwidth to each station.

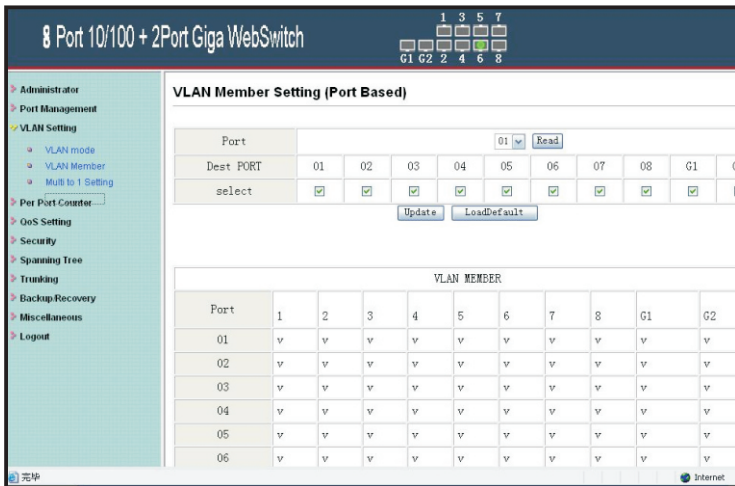
VLAN also helps you create limited broadcast domains, to prevent traffic from being forwarded to stations where it is not needed.

802.1Q VLAN and port-based VLAN are available by clicking 'VLAN mode' option. (Former VLAN configuration will be cancelled, if the switch VLAN mode is changed.)

1. VLAN Mode setting



2. VLAN Member:



3. Multi to 1 Setting:

8 Port 10/100 + 2Port Giga WebSwitch

1 3 5 7
G1 G2 2 4 6 8

Administrator
Port Management
VLAN Setting
 o VLAN mode
 o VLAN Member
 o Multi to 1 Setting
Per Port Counter
QoS Setting
Security
Spanning Tree
Trunking
Backup/Recovery
Miscellaneous
Logout

Multi to 1 Setting

Destination PortNo.

Current Setting

| Disable Port | 01 | 02 | 03 | 04 | 05 | 06 | 07 |
|--------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

Note: "Disabled port" defines the switch physical port which is disabled.

1. A example for Multi-to-1 structure

| Ports | VLAN Groups |
|-------|-------------|
| 01 | 1 |
| 02 | 2 |
| : | : |
| 08 | |

Destination Port/
Current Setting

3.5 Port Statistics

Here provides statistics of current forwarding and receiving data.

8 Port 10/100 + 2Port Giga WebSwitch

1 3 5 7
G1 G2 2 4 6 8

Administrator
Port Management
VLAN Setting
Per Port Counter
 o Port Counter
QoS Setting
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Miscellaneous
Logout

Counter Category

Counter Mode Selection:

| Port | Transmit Packet | Receive Packet |
|------|-----------------|----------------|
| 01 | 0 | 0 |
| 02 | 0 | 0 |
| 03 | 0 | 0 |
| 04 | 0 | 0 |
| 05 | 0 | 0 |
| 06 | 3462 | 5204 |
| 07 | 22 | 23 |
| 08 | 15 | 18 |
| G1 | 0 | 0 |
| G2 | 0 | 0 |

3.6 QoS Setting

1. Priority Mode:

8 Port 10/100 + 2Port Giga WebSwitch

1 3 5 7
G1 G2 2 4 6 8

Priority Mode

Priority Mode

Mode

First-In-First-Out
 All-High-before-Low
 Weight-Round-Robin. Low weight: High weight:

Note: When the queue weight is set to "0", it will be treated as "8".
 The "low weight" and "high weight" means the ratio of the packet in the transmit queue. For example, If "low weight" and "high weight" are set to "3" and "5", the ratio of the transmit packet for the low priority to high priority is 3/5.

2. Port 802.1p,IP/DS based:

8 Port 10/100 + 2Port Giga WebSwitch

1 3 5 7
G1 G2 2 4 6 8

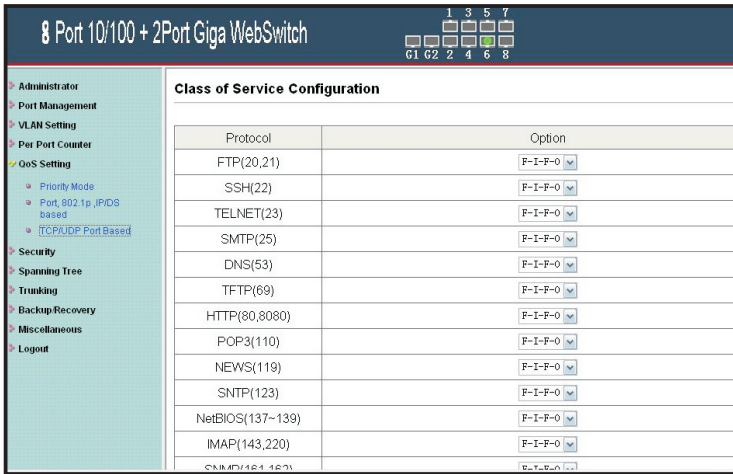
Class of Service Configuration

Enable High Priority

| Port No./Mode | Port Base | VLAN Tag | IP / DS | Port No./Mode | Port Base | VLAN Tag | IP / DS |
|---------------|--------------------------|--------------------------|--------------------------|---------------|--------------------------|--------------------------|--------------------------|
| 1 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 6 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 2 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 7 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 3 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 8 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 4 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | G1 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 5 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | G2 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

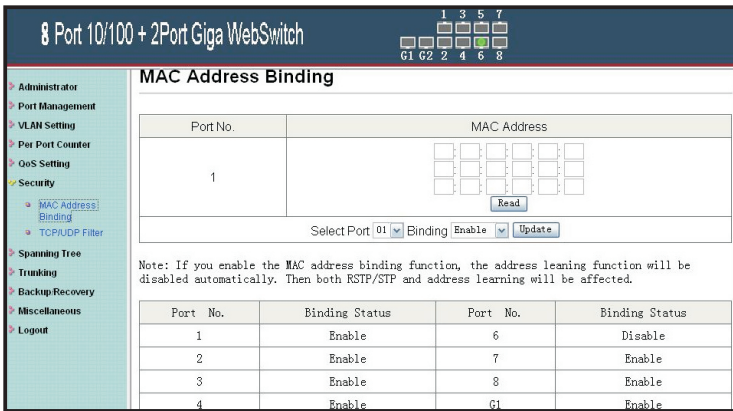
As long as any of three COS schemes(802.1p,IP TOS/DS or Port Base) is mapped to "high", the data packet will be treated as the high priority.

3. TCP/UDP Port Based:



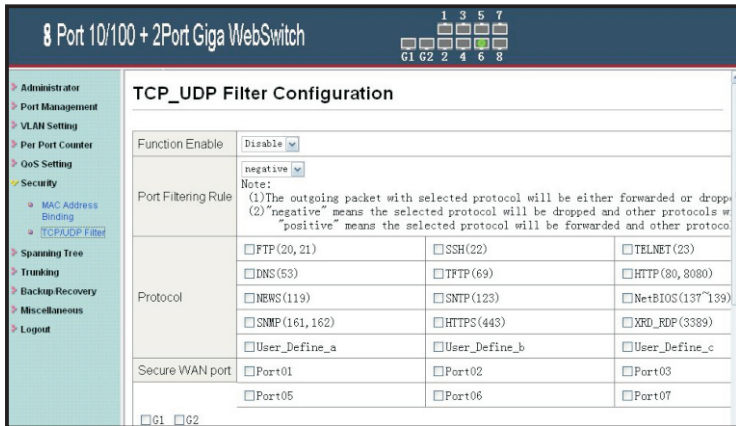
3.7 Security Setting

1. Mac Address Binding(3 addresses)



2. TCP_UDP Port Filtering

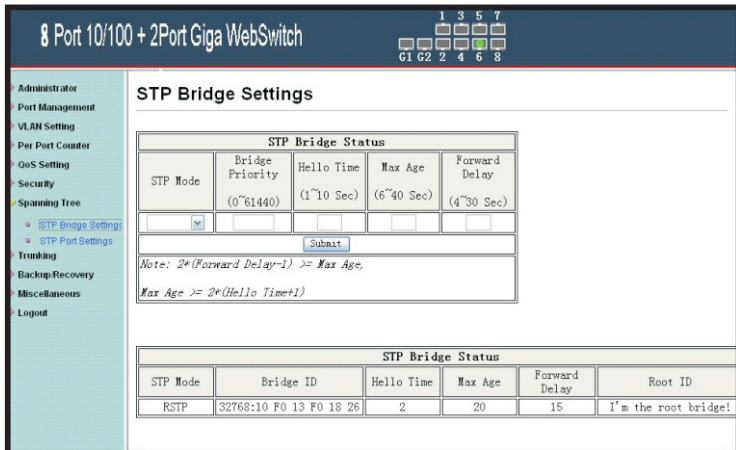
- disable- Data complies with chosen protocols is filtered, the other is forwarded.
- enable- Data complies with chosen protocols is forwarded, the other is filtered.



3.8 Spanning Tree

Spanning Tree Protocol (STP) is an industry standard that prevents loops configurations in switched networks. The Spanning Tree algorithm creates a single path through network by making sure that if more than one path exists between parts of a network, only one of those paths is used.

This also permits multiple interswitch links to remain active for data transport while operating in conjunction with the Spanning Tree algorithm. The IEEE 802.1d Spanning Tree Protocol support for redundant backbone connections and loop-free networks simplifies network configuration and improves fault tolerance.



The spanning tree feature is enabled in default

STP Port Settings

| Port No. | Priority | RPC |
|----------|----------|------------|
| 1 | 0~240 | 1~20000000 |
| 2 | | 0=AUTO |

STP Port Status

| Port No. | RPC | Priority | State | Status | Designated Bridge |
|----------|--------|----------|-------|---------|-------------------|
| 1 | Auto:0 | 0x80 | -- | Disable | -- |
| 2 | Auto:0 | 0x80 | -- | Disable | -- |
| 3 | Auto:0 | 0x80 | -- | Disable | -- |
| 4 | Auto:0 | 0x80 | -- | Disable | -- |
| 5 | Auto:0 | 0x80 | -- | Disable | -- |

3.9 Trunking Configuration

Trunking

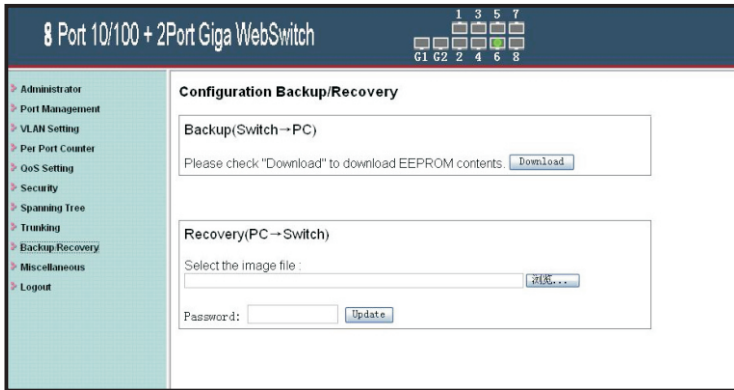
System Priority: 1 (1~65535)

Link Aggregation Algorithm: MAC Stc/Dst

Refresh

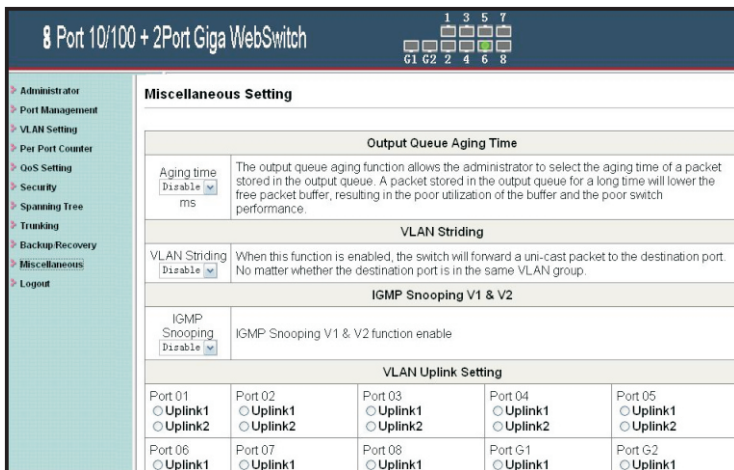
| Member | Link Group 1 | | | | Link Group 2 | | | | Link Group 3 | |
|---------------|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|
| | P1 | P2 | P3 | P4 | P5 | P6 | P7 | P8 | G1 | G2 |
| | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
| State | Disable | | | | Disable | | | | Disable | |
| Type | LACP | | | | LACP | | | | LACP | |
| Operation Key | 1 (1~65535) | | | | 2 (1~65535) | | | | 3 (1~65535) | |
| Time Out | Short Time Out | | | | Short Time Out | | | | Short Time Out | |
| Activity | Passive | | | | Passive | | | | Passive | |

3.10 Configuration backup/recovery



3.11 Other configuration

Here provides Miscellaneous setting, including aging time, VLAN striding, IGMP snooping and VLAN uplink settings.



Here you can logout web



Chapter 4 Maintenance & Troubleshooting

4.1 Password Lost

1. Press Reset button of the switch for 5-10 seconds to recover to factory default setting;
2. Use default User ' admin ' and Password ' system ' to log on to web interfaces.

4.2 Power system failure

Power indicator is on when the switch works. Check following, if the Power indicator is off.

1. Correct connection
2. Required power supply for the switch is used.

4.3 Unable to access to WEB interfaces

Check following, if unable to access to WEB interfaces.

1. Whether more than one administrators are logging on to WEB interface at the time. Please try it again later
2. Whether cable connection is correct, or the port is prohibited by administration.
3. Whether the port belongs to VLAN of administration;
4. Whether the computer IP is in the same subnet with switch IP in a local network, or access by a router device for remote administration.
5. To check connection between the computer and switch by MS-DOS ping command, using 192.168.2.1 in default.