

ES1625-31

**16-port 10/100M PoE + 2 Gigabit Copper/SFP Combo Rackmount
Web Smart PoE Switch**

User's Manual



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EVERFOCUS ELECTRONICS CORPORATION

ES1625-31

User's Manual

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FCC Warning

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. It may cause harmful interference to radio communications if the equipment is not installed and used in accordance with the instructions. 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.

CE Mark Warning

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

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Chapter 1

1. Introduction

1.1 Product Overview

This switch provides 16 10/100Mbps RJ-45 ports and can support 2 Combo Gigabit RJ-45/SFP to uplink. This web-smart switch includes auto-MDI/MDIX crossover detection function. 16 of those ports are all built with PoE functionality, providing the ultimate choice in network flexibility. With this added PoE feature, this switch is an ideal solution for building wireless, IP surveillance, and VoIP networks.

It also provides port-based and 802.1Q tag VLAN function to provide better traffic management, reduces latency, improve security and save bandwidth. This is also a cost-saving feature as it reduces the need to add additional hardware to the network.

These 16 10/100Mbps RJ-45 support the IEEE 802.3at PoE protocol. Each port can transmit a maximum power 30 watts. User can also enable or disable power supply on PoE ports from UI..

1.2 Key Features

1.2.1 Web Management Features

- Port Management
 - Port Configuration
 - Port Mirroring
 - Bandwidth Control
 - Broadcast Storm Control
 - PoE On/Off Setting
- VLAN Setting
 - Port-based/ Tag-based
 - VLAN ID: 1~4094
- Trunking
 - Link Aggregation Setting
 - 2 groups (1~4 port for each group)
- QoS Setting
 - Priority Mode

Class of Service Configuration
TCP/UDP Port-based

- Security Setting
MAC address filtering
TCP/UDP Port filtering
- STP/RSTP
- Spanning Tree Protocol
- Backup Recovery Configuration

1.2.2 Specifications

- Standard
IEEE 802.3 10BaseT
IEEE 802.3u 100BaseTX
IEEE 802.3x Full-duplex and Flow Control
IEEE 802.af PoE
IEEE 802.at PoE
IEEE 802.3ad Link Aggregation
IEEE 802.1d Spanning tree protocol
IEEE 802.1w Rapid Spanning tree protocol
IEEE 802.1x Port-based Network Access Control
IEEE 802.1Q VLAN
IEEE 802.1p Class of Service
- Number of Port
16-port 10/100BaseTX with PoE
2-port Combo Gigabit uplink (RJ-45/SFP)

1.2.3 Mechanical

- LED Indicator
Per Port: Link/ Act
PoE Port: Act/Status
Per Unit: Power
- Power Consumption: 250Watts (Max)
- Power Input: 100~240V/AC, 50~60HZ

- Power Output: 53V/DC per Port Output – 30W Max per Port
- Product Dimensions/ Weight
44 × 440 × 331 mm (H × W ×D) / 4.2kg

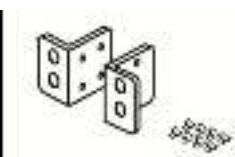
1.2.4 Performance

- MAC Address: 4K
- Buffer Memory: 2.75Mb
- Switching Capacity: 7.2 Gbps
- Jumbo Frame: 10K
- Transmission Method: Store and Forward

1.3 Package

Before you start to install this switch, please verify your package that contains the following items:

1. One Fast Ethernet PoE Switch
2. One EU Power Cord
3. A User Manual CD
4. Rack-mount kit



Chapter 2

2. Hardware Description

This section mainly describes the hardware of the 8 PoE port Ethernet Combo Web-Smart Switch and gives a physical and functional overview on the certain switch.

2.1 Physical Dimensions/ Weight

44 × 440 × 331 mm (H × W × D) / 4.2kg

2.2 Front Panel

The front panel of the web smart switch consists of 16 10/100Base-TX RJ-45 ports and 2 combo gigabit uplink RJ-45/SFP ports. The LED Indicators are also located on the front panel.



2.3 LED Indicators

The LED Indicators present real-time information of systematic operation status. The following table provides description of LED status and their meaning.

LED	Status	Description	No. Of LED
Power	On	Power on	Power

1000M	On	Link 1000Mbps	2 (17~18)
	off	Link 10/100Mbps	
Link/ ACT	On	Link	18 (1~18)
	Flashing	Data activating	18 (1~18)
PoE	On	Port is linked to Power Device	16 (1~16)
	Off	No Power Device is connected	16 (1~16)



2.4 Rear Panel

The 3-pronged power plug is placed at the rear panel of the switch right side shown as below.



2.5 Hardware Installation

Set the switch on a large flat space with a power socket close by. The flat space should be clean, smooth, level and sturdy. Make sure there is enough clearance around the switch to allow attachment of cables, power cord and allow air circulation. The last, use twisted pair cable to connect this switch to your PC then user could start to operate the switch

3. User Log In

This part instructs user how to set up and manage the switch through the web user interface. Please follow the description to understand the procedure.

At the first, open the web browser, and go to 192.168.2.1 site then the user will see the login screen. Key in the password to pass the authentication then clicks the **OK**. The log in process is completed and comes out the sign “Password successfully entered”.

Log in

ID: admin

Password: admin



※Note: It will show error message if you key in wrong user name or password.

Notice
 Invalid User name or Password

OK

[illegible]

4. Administrator

4.1 Authentication Configuration

This page shows authentication configuration information. User can set new Username and Password in this page.

Authentication Configuration

Setting	Value
Username	admin max:15
Password	***** max:15
Confirm	*****
Update	

Note:

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

4.2 System IP Configuration

This page shows system configuration including the current IP address and sub-net mask and gateway.

System IP Configuration

Setting	Value
IP Address	192 168 2 1
Subnet Mask	255 255 255 0
Gateway	192 168 1 X
Update	

User can configure the IP settings, Subnet Mask, Gateway as below:

- IP address: Manually assign the IP address that the network is using. The default IP is 192.168.2.1
- Subnet Mask: Assign the subnet mask to the IP address.
- Gateway: Assign the network gateway for industrial switch.

If you change the IP address of this switch and then press **Update**. It will show “**update successfully**” then press **Reboot** button. It will enter user login screen automatically.

4.3 System Status

This page displays the information about the switch of MAC address, how many ports it has, system version and. Besides, users can also fill in up to 15 characters in the Comment, Contact and Location field for note.

System Status

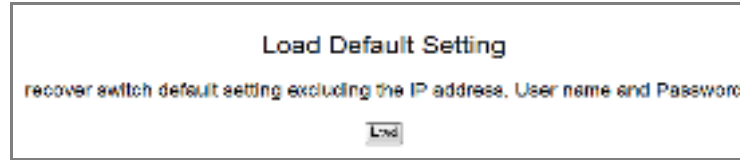
MAC Address	111111111111	
Number of Ports	1648	
Comment	123456789012345	
System Version	V1.0015	
Idle Time Security	☐ Auto Logout (Default) ☐ Auto Logout (15 min) ☐ No Auto Logout	
Update		

- MAC Address: Displays the unique hardware address assigned by manufacturer (default).
- Number of Ports: Displays number of ports in the switch.
- System Version: Displays the switch’s firmware version.
- Idle Time Security: User can set the time security. When user leave the computer for a moment, the software will auto logout or back to the last display.

And then click **Update** button.

4.4 Load Default Setting

Clicking the **Load** button will make the switch being set to the original configuration.



※ Note: It exclude to change user name, password and IP configuration. If you want to restore default setting including IP and user name password, then you can press the reset button for hardware base reset.

More detail information about Load Default Setting - Hardware Base is described as following.

The purpose of this function is to provide a method for the network administrator to restore all configurations to the default value.

(1) To activate this function, the user should follow the following procedures. Press the “Load default” button for 3 seconds until you see the LED blinking.

(2) When LED starts blinking, it means the CPU is executing the “load default” procedure. You can release the button now.

After completing this procedure, all the factory default value will be restored. It includes the IP address, the user name, the password and all switch configurations.

4.5 Firmware Update

Before the firmware update procedure is executed, you should enter the password twice and then press **Update** button. The smart switch will erase the flash memory. There is a self-protection mechanism in the Boot Loader, so the Boot Loader will keep intact. Even though the power is turned off or the cable link fails during the firmware update procedure, the Boot loader will restore the code to firmware update page.



After pressing Update button, the old web code will be erased. Then you can select the image file and press “update” button to update the firmware you need.

Firmware Update by Web

Select the image file:

If the update process somehow goes wrong(Ex: power failure), please connect to <http://192.168.2.1> to restart.(If possible, reset device first.)

Firmware Update by TFTP

(TFTP client)Use MS Windows' Command Prompt window to run tftp client program.
 Syntax: c:\tftp -i 192.168.1.1 put FILE_DIRECTORY\FILENAME.bin

4.6 Reboot Device

Click **Confirm** button to reboot the device.

Reboot Device:

Click "Confirm" to Reboot the Device

※Note: The reboot is for software base instead of hardware base.

Chapter 5

5. Port Management

Port Management includes Port Configuration, Port Mirroring, Bandwidth Control, Broadcast Storm Control and PoE.

5.1 Port Configuration

In Port Configuration, you can set and view the operation mode for each port.

Port Configuration

Port	Auto-negotiation	Speed	Duplex	Pause	Backpressure	TX Capability	Addr. Learning
Port 1	Enable	10/100	Full	Enable	Enable	Enable	Enable
Port 2	Enable	10/100	Full	Enable	Enable	Enable	Enable
Port 3	Enable	10/100	Full	Enable	Enable	Enable	Enable
Port 4	Enable	10/100	Full	Enable	Enable	Enable	Enable
Port 5	Enable	10/100	Full	Enable	Enable	Enable	Enable
Port 6	Enable	10/100	Full	Enable	Enable	Enable	Enable
Port 7	Enable	10/100	Full	Enable	Enable	Enable	Enable
Port 8	Enable	10/100	Full	Enable	Enable	Enable	Enable
Port 9	Enable	10/100	Full	Enable	Enable	Enable	Enable
Port 10	Enable	10/100	Full	Enable	Enable	Enable	Enable
Port 11	Enable	10/100	Full	Enable	Enable	Enable	Enable
Port 12	Enable	10/100	Full	Enable	Enable	Enable	Enable
Port 13	Enable	10/100	Full	Enable	Enable	Enable	Enable
Port 14	Enable	10/100	Full	Enable	Enable	Enable	Enable
Port 15	Enable	10/100	Full	Enable	Enable	Enable	Enable
Port 16	Enable	10/100	Full	Enable	Enable	Enable	Enable
Port 17	Enable	10/100	Full	Enable	Enable	Enable	Enable
Port 18	Enable	10/100	Full	Enable	Enable	Enable	Enable

- Auto-Negotiation: Enable and Disable. Being set as 'Enable', the Speed, Duplex mode, Pause, Backpressure, TX Capability and Address Learning are negotiated automatically. When you set it as 'Disable', you have to assign those items manually.
- Speed: When the Auto-Negotiation column is set as Disable, users have to set the connection speed to the ports ticked.
- Duplex: When the Auto-Negotiation column is set as Disable, users have to set the connection mode in Half/Full to the ports ticked.
- Pause: Flow Control for connection at speed of 10/100Mbps in Full-duplex mode.
- Backpressure: Flow Control for connection at speed of 10/100Mbps in Half-duplex mode.
- TX/RX Capability: When the Auto-Negotiation column is set as Disable, users have to set this column as Enable or Disable.
- Addr. Learning: When the Auto-Negotiation column is set as Disable, users have to set this column as Enable or Disable.
- Select Port No.: Tick the check boxes beside the port numbers being set.
- Click Update to have the configuration take effect.

- Current Status: Displays current port status.
- Setting Status: Displays current status.

Click **Update** to make the configuration effective.

5.2 Port Mirroring

The Port mirroring is a method for monitoring traffic in switched networks. That Traffic through ports can be monitored by any of the ports means traffic goes in or out monitored (source) ports will be duplicated into mirroring (destination) port.

Port Mirroring

Dest Port	1	2	3	4	5	6	7	8	9
	☐	☐	☐	☐	☐	☐	☐	☐	☐
Monitored Packets	☐ 10 ☐ 11 ☐ 12 ☐ 13 ☐ 14 ☐ 15 ☐ 16 ☐ 17 ☐ 18								
	☐ 19 ☐ 20 ☐ 21 ☐ 22 ☐ 23 ☐ 24 ☐ 25 ☐ 26 ☐ 27 ☐ 28								
Source Port	1	2	3	4	5	6	7	8	9
	☐	☐	☐	☐	☐	☐	☐	☐	☐
	10	11	12	13	14	15	16	17	18
	☐	☐	☐	☐	☐	☐	☐	☐	☐
Update									

Click to Move to Other Port

- Destination (mirroring) port for monitoring Rx only, Tx only or both RX and TX traffic which come from the source port. Users can connect the mirroring port to LAN analyzer or Netxray.
- Monitored Packets: Pull down the selection menu to choose what kind of packet is to be monitored.
- Source Port: The ports that the user wants to monitor. All monitored port traffic will be copied to mirroring (destination) port. Users can select multiple source ports by ticking the check boxes beneath the port number label to be monitored.

And then, click **Update** to have the configuration take effect.

5.3 Bandwidth Control

This page allows the setting of the bandwidth for each port. The TX rate and Rx rate can be filled with the number ranging from 1 to 255. This number should be multiplied by the selected bandwidth resolution to get the actual bandwidth.

Bandwidth Control

Port No.	To Rate	For Rate	Limit	To Rate	For Rate	Limit
1	Full Speed	Full Speed	10	Full Speed	Full Speed	10
2	Full Speed	Full Speed	10	Full Speed	Full Speed	10
3	Full Speed	Full Speed	10	Full Speed	Full Speed	10
4	Full Speed	Full Speed	10	Full Speed	Full Speed	10
5	Full Speed	Full Speed	10	Full Speed	Full Speed	10
6	Full Speed	Full Speed	10	Full Speed	Full Speed	10
7	Full Speed	Full Speed	10	Full Speed	Full Speed	10
8	Full Speed	Full Speed	10	Full Speed	Full Speed	10
9	Full Speed	Full Speed	10	Full Speed	Full Speed	10

5.4 Broadcast Storm Control

The switch implements a broadcast storm control mechanism. Tick the check boxes to have them beginning to drop incoming broadcast packets if the received broadcast packet counts reach the threshold defined. Each port's broadcast storm protection function can be enabled individually by ticking the check boxes.

Broadcast Storm Control

Port No.	1	2	3	4	5	6	7	8	9
Enable Port	☐	☐	☐	☐	☐	☐	☐	☐	☐
Threshold	10	11	12	13	14	15	16	17	18

The broadcast packet is only checked at the selected port and the number of broadcast packets is counted in every time unit. One time unit is 500 us for 10Mbps speed and 5ms for 100Mbps. The excessive broadcast packet will be discarded. For those broadcast packets incoming from the un-selected port, the switch treats it as the normal traffic.

- **Threshold:** Type in the threshold in the range between 1 and 63 to limit the maximum byte counts, which a port can send or receive in a period of time.
- **Enable Port:** Having ticked the boxes, the port will stop transmitting or receiving data when their sending byte counts or receiving byte counts reach the defined threshold.

Click **Update** to have the configuration take effect.

User could know per PoE port out power status in this page and also enable or disable per port.

[illegible]

Chapter 6

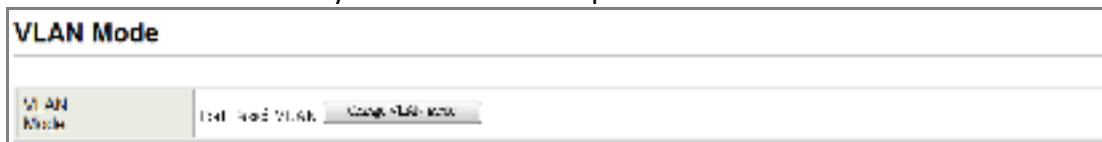
6. VLAN Setting

A Virtual LAN (VLAN) is a logical network grouping that limits the broadcast domain, which would allow you to isolate network traffic, so only the members of the same VLAN will receive traffic from the ones of the same VLAN. Basically, creating a VLAN from a switch is logically equivalent of reconnecting a group of network devices to another Layer 2 switch. However, all the network devices are still plugged into the same switch physically.

6.1 VLAN Mode

You may select the VLAN Mode of the switch. Port-based VLAN is for separating traffic only on this single switch. There is no handover of network traffic within VLAN groups to other switches. For the handover to other switches use Tag Based VLAN. In VLAN Mode you can switch from Tag to Port Based VLAN. Port Based VLAN is the default mode.

After having switched to Tag Based VLAN Mode, the screen changes. On this screen you can now define and configure your Up- and Downlink ports. These are important since here the handover between the switches of your network takes place.



- VLAN Mode: Displays VLAN mode: port based/Tag based VLAN. Here you can also switch back to Port Based VLAN Mode
- Add tag means the outgoing packet of the selected port will be inserted a 802.1Q tag. Use this

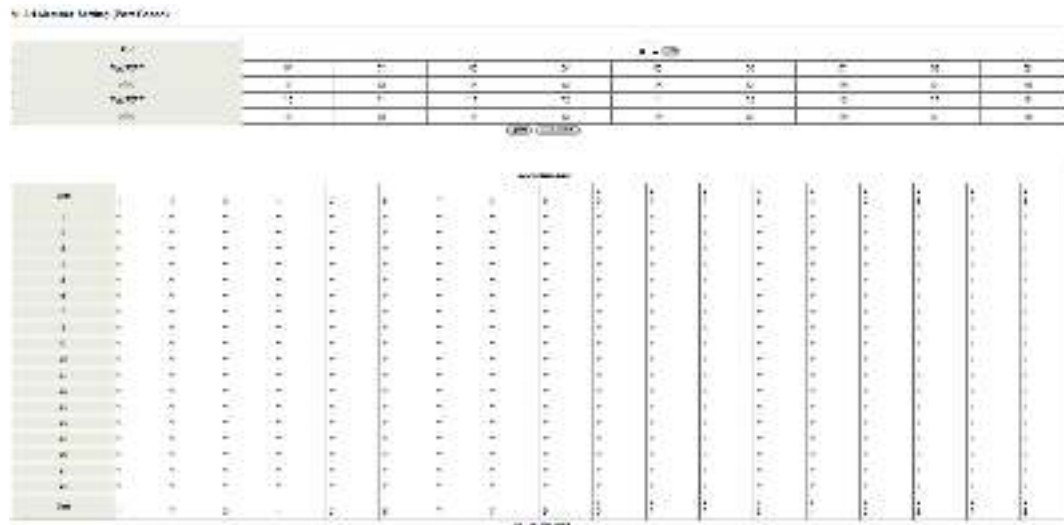
setting for your Up- and Downlink Ports in your VLAN Tagged Network.

- Don't care means the outgoing packet of the selected port keep the original packet received at the source port. This is the default setting when starting VLAN configuration. You should change to either Add or Remove Tag.
- Remove tag means the 802.1Q tag of the outgoing packet of the selected port will not be sent. Use this setting for your Network Connections to PCs. Only packets of the VLAN Group the Port is member of will be sent.

6.2 VLAN Member

The ports need to be made member of your VLAN groups. This is for Tag Based and Port Based VLAN Mode. The screen here looks different whether you run Tag Based or Port Based Mode.

VLAN Member in Port Based Mode



In Port Based Mode you see a matrix of your 8 Ports. Simply select the port on top screen you want to configure, click on Read, and then select or deselect the ports that are on the same VLAN group. In this configuration mode you do not need to worry about defining VLAN groups and VLAN IDs.

VLAN Member in Tag Based Mode

In Tag Based Mode you need to define and configure your VLAN groups. Since you want the handover to other switches take place smoothly, the VLAN IDs (Numbers) need to be like on the rest of your network. On other switches you may have the chance to configure names. These are just for your reference. Only the numbers are important!

There firstly add your VLAN Groups (identified throughout your network by unique and constant numbers). Start with IDs from 100 and up. Keep in mind that some switches use “1” as the default, while others use “4095” or “4096” as default. Starting with 100 gives you enough free room and less compatibility issues.

So enter “100” in the field right of VID Setting, then select or deselect which ports are member of that group. Your up- and downlink ports need to member of every existing group! Then click on add. The new group with its setting will be displayed at the bottom of the screen.

With the PVID Setting you define to which VLAN group incoming traffic belongs. Consider the example that Port 1 is member of group 100 and 101. A simple PC is connected to Port 1. If that PC is now sending out data, with PVID you define if that data is for group 100 or 101.

VLAN Member Setting (Top View)

VID:

Tab:

Default Member:

VLAN Member	1	2	3	4	5	6	7	8	9	10
VID 100	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
VLAN Member	10	11	12	13	14	15	16	17	18	19
VID 101	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

Tab:

VLAN Member	20	21	22	23	24	25	26	27	28	29
VID 102	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
VLAN Member	30	31	32	33	34	35	36	37	38	39
VID 103	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

VLAN Member	40	41	42	43	44	45	46	47	48	49
VID 104	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
VLAN Member	50	51	52	53	54	55	56	57	58	59
VID 105	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

VLAN Member	60	61	62	63	64	65	66	67	68	69
VID 106	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
VLAN Member	70	71	72	73	74	75	76	77	78	79
VID 107	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

VLAN Member	80	81	82	83	84	85	86	87	88	89
VID 108	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
VLAN Member	90	91	92	93	94	95	96	97	98	99
VID 109	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

6.3 Multi to 1 Setting

Multi to 1 VLAN is used in CPE side of Ethernet-to-the-Home and is exclusive to VLAN setting on **VLAN Member Setting**. When VLAN member Setting is updated, multi to 1 setting will be void and vice versa. The disable port means the port which will be excluded in this setting. All ports excluded in this setting are treated as the same VLAN group. In a normal Tag Based VLAN network you will not need this configuration option.

Multi to 1 Setting

Destination Port	Source Port	Port	Port	Port	Port	Port	Port	Port	Port
1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20

Note: The ports are not necessarily in the same group and can be different.

1. Select the ports to be added.

2. Select the ports to be excluded.

3. The selected ports will be added to the group and the selected ports will be excluded from the group.

4. The selected ports will be added to the group and the selected ports will be excluded from the group.

5. The selected ports will be added to the group and the selected ports will be excluded from the group.

6. The selected ports will be added to the group and the selected ports will be excluded from the group.

7. The selected ports will be added to the group and the selected ports will be excluded from the group.

8. The selected ports will be added to the group and the selected ports will be excluded from the group.

9. The selected ports will be added to the group and the selected ports will be excluded from the group.

10. The selected ports will be added to the group and the selected ports will be excluded from the group.

11. The selected ports will be added to the group and the selected ports will be excluded from the group.

12. The selected ports will be added to the group and the selected ports will be excluded from the group.

13. The selected ports will be added to the group and the selected ports will be excluded from the group.

14. The selected ports will be added to the group and the selected ports will be excluded from the group.

15. The selected ports will be added to the group and the selected ports will be excluded from the group.

16. The selected ports will be added to the group and the selected ports will be excluded from the group.

17. The selected ports will be added to the group and the selected ports will be excluded from the group.

18. The selected ports will be added to the group and the selected ports will be excluded from the group.

19. The selected ports will be added to the group and the selected ports will be excluded from the group.

20. The selected ports will be added to the group and the selected ports will be excluded from the group.

Chapter 7

7. Per Port Counter

7.1 Port Counter

This page provides port counter of each port. There are 4 categories: Receive Packet & Transmit Packet/ Transmit & Collision / Receive Packet & Drop /Receive & CRC error. Once you change the counter category, the counter will be cleared automatically.

Counter Category

Counter Category			
Port	Receive Packet	Transmit Packet	Transmit & Collision
0	0	0	0
1	0	0	0
2	0	0	0
3	0	0	0
4	0	0	0
5	0	0	0
6	0	0	0
7	0	0	0
8	0	0	0
9	0	0	0
10	0	0	0
11	0	0	0
12	0	0	0
13	0	0	0
14	0	0	0
15	0	0	0
16	0	0	0
17	0	0	0
18	0	0	0
19	0	0	0
20	0	0	0
21	0	0	0
22	0	0	0
23	0	0	0
24	0	0	0
25	0	0	0
26	0	0	0
27	0	0	0
28	0	0	0
29	0	0	0
30	0	0	0
31	0	0	0
32	0	0	0
33	0	0	0
34	0	0	0
35	0	0	0
36	0	0	0
37	0	0	0
38	0	0	0
39	0	0	0
40	0	0	0
41	0	0	0
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52	0	0	0
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235	0	0	0
236	0	0	0
237	0	0	0
238	0	0	0
239	0	0	0
240	0	0	0
241	0	0	0
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274	0	0	0
275	0	0	0
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277	0	0	0
278	0	0	0
279	0	0	0
280	0	0	0
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297	0	0	0
298	0	0	0
299	0	0	0
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378	0	0	0
379	0	0	0
380	0	0	0
381	0	0	0
382	0	0	0
383	0	0	0
384	0	0	0
385	0	0	0
386	0	0	0
387	0	0	0

7.2 QoS Setting

Here you can configure QoS policy priority mode and CoS (Class of Service) configuration. QoS (Quality of Service) refers to mechanisms in the network software that make the actual determination of which packets have priority. CoS refers to feature sets, or groups of services, that are assigned to users based on company policy. If a feature set includes priority transmission, then CoS winds up being implemented in QoS functions within the routers and switches in the network. In an enterprise network, class of service (CoS) differentiates high-priority traffic from lower-priority traffic. Tags may be added to the packets to identify such classes, but they do not guarantee delivery as do quality of service (QoS) functions, which are implemented in the network devices.

7.3 Priority Mode

There are three priority modes available to specify the priority of packets being serviced. Those include First-In-First-Out, All-High-Before-Low, and Weight-Round-Robin.

Priority Mode

Priority Mode	
Mode	☒ First-In-First-Out ☐ All-High-before-Low ☐ Weight Round Robin
	Low weight: 0 ~ High weight: 0
[Apply]	
Note: When the queue weight is set to 0, it will be treated as 1. 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 10 and 20, the ratio of the transmit packet for the low priority to high priority is 20%.	

- First-In-First-Out: Packets are placed into the queue and serviced in the order they were received.
- All-high-before-low(Strict priority) : All packets will be assigned to either high priority queue (Queue 2) or low priority queue (Queue 1). The packet on the low priority queue will not be forwarded until the high priority queue is empty.
- WRR mode: There are 4 priority queues for Weighted-and-round-robin (WRR) mode. When this mode is selected, the traffic will be forwarded according to the number set in each queue.

7.4 Port, 802.1p, IP/DS based

Class of Service Configuration

In-Cable High Priority							
Port No./Mode	Port State	VLAN tag	IP/DS	Port No./Mode	VLAN tag	VLAN tag	IP/DS
1	0	0	0	10	0	0	0
2	0	0	0	11	0	0	0
3	0	0	0	12	0	0	0
4	0	0	0	13	0	0	0
5	0	0	0	14	0	0	0
6	0	0	0	15	0	0	0
7	0	0	0	16	0	0	0
8	0	0	0	17	0	0	0
9	0	0	0	18	0	0	0

As long as any of these QoS schemes (802.1p, IP/DS, or Port Class) is mapped to "high", the data packet will be treated as the high priority.
 VLAN Tag priority: high priority < 4, low priority < 0-3.
 IP/DS and Port Class priority: 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 127, 128, 129, 130, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141, 142, 143, 144, 145, 146, 147, 148, 149, 150, 151, 152, 153, 154, 155, 156, 157, 158, 159, 160, 161, 162, 163, 164, 165, 166, 167, 168, 169, 170, 171, 172, 173, 174, 175, 176, 177, 178, 179, 180, 181, 182, 183, 184, 185, 186, 187, 188, 189, 190, 191, 192, 193, 194, 195, 196, 197, 198, 199, 200, 201, 202, 203, 204, 205, 206, 207, 208, 209, 210, 211, 212, 213, 214, 215, 216, 217, 218, 219, 220, 221, 222, 223, 224, 225, 226, 227, 228, 229, 230, 231, 232, 233, 234, 235, 236, 237, 238, 239, 240, 241, 242, 243, 244, 245, 246, 247, 248, 249, 250, 251, 252, 253, 254, 255, 256, 257, 258, 259, 260, 261, 262, 263, 264, 265, 266, 267, 268, 269, 270, 271, 272, 273, 274, 275, 276, 277, 278, 279, 280, 281, 282, 283, 284, 285, 286, 287, 288, 289, 290, 291, 292, 293, 294, 295, 296, 297, 298, 299, 300, 301, 302, 303, 304, 305, 306, 307, 308, 309, 310, 311, 312, 313, 314, 315, 316, 317, 318, 319, 320, 321, 322, 323, 324, 325, 326, 327, 328, 329, 330, 331, 332, 333, 334, 335, 336, 337, 338, 339, 340, 341, 342, 343, 344, 345, 346, 347, 348, 349, 350, 351, 352, 353, 354, 355, 356, 357, 358, 359, 360, 361, 362, 363, 364, 365, 366, 367, 368, 369, 370, 371, 372, 373, 374, 375, 376, 377, 378, 379, 380, 381, 382, 383, 384, 385, 386, 387, 388, 389, 390, 391, 392, 393, 394, 395, 396, 397, 398, 399, 400, 401, 402, 403, 404, 405, 406, 407, 408, 409, 410, 411, 412, 413, 414, 415, 416, 417, 418, 419, 420, 421, 422, 423, 424, 425, 426, 427, 428, 429, 430, 431, 432, 433, 434, 435, 436, 437, 438, 439, 440, 441, 442, 443, 444, 445, 446, 447, 448, 449, 450, 451, 452, 453, 454, 455, 456, 457, 458, 459, 460, 461, 462, 463, 464, 465, 466, 467, 468, 469, 470, 471, 472, 473, 474, 475, 476, 477, 478, 479, 480, 481, 482, 483, 484, 485, 486, 487, 488, 489, 490, 491, 492, 493, 494, 495, 496, 497, 498, 499, 500, 501, 502, 503, 504, 505, 506, 507, 508, 509, 510, 511, 512, 513, 514, 515, 516, 517, 518, 519, 520, 521, 522, 523, 524, 525, 526, 527, 528, 529, 530, 531, 532, 533, 534, 535, 536, 537, 538, 539, 540, 541, 542, 543, 544, 545, 546, 547, 548, 549, 550, 551, 552, 553, 554, 555, 556, 557, 558, 559, 560, 561, 562, 563, 564, 565, 566, 567, 568, 569, 570, 571, 572, 573, 574, 575, 576, 577, 578, 579, 580, 581, 582, 583, 584, 585, 586, 587, 588, 589, 590, 591, 592, 593, 594, 595, 596, 597, 598, 599, 600, 601, 602, 603, 604, 605, 606, 607, 608, 609, 610, 611, 612, 613, 614, 615, 616, 617, 618, 619, 620, 621, 622, 623, 624, 625, 626, 627, 628, 629, 630, 631, 632, 633, 634, 635, 636, 637, 638, 639, 640, 641, 642, 643, 644, 645, 646, 647, 648, 649, 650, 651, 652, 653, 654, 655, 656, 657, 658, 659, 660, 661, 662, 663, 664, 665, 666, 667, 668, 669, 670, 671, 672, 673, 674, 675, 676, 677, 678, 679, 680, 681, 682, 683, 684, 685, 686, 687, 688, 689, 690, 691, 692, 693, 694, 695, 696, 697, 698, 699, 700, 701, 702, 703, 704, 705, 706, 707, 708, 709, 710, 711, 712, 713, 714, 715, 716, 717, 718, 719, 720, 721, 722, 723, 724, 725, 726, 727, 728, 729, 730, 731, 732, 733, 734, 735, 736, 737, 738, 739, 740, 741, 742, 743, 744, 745, 746, 747, 748, 749, 750, 751, 752, 753, 754, 755, 756, 757, 758, 759, 760, 761, 762, 763, 764, 765, 766, 767, 768, 769, 770, 771, 772, 773, 774, 775, 776, 777, 778, 779, 780, 781, 782, 783, 784, 785, 786, 787, 788, 789, 790, 791, 792, 793, 794, 795, 796, 797, 798, 799, 800, 801, 802, 803, 804, 805, 806, 807, 808, 809, 810, 811, 812, 813, 814, 815, 816, 817, 818, 819, 820, 821, 822, 823, 824, 825, 826, 827, 828, 829, 830, 831, 832, 833, 834, 835, 836, 837, 838, 839, 840, 841, 842, 843, 844, 845, 846, 847, 848, 849, 850, 851, 852, 853, 854, 855, 856, 857, 858, 859, 860, 861, 862, 863, 864, 865, 866, 867, 868, 869, 870, 871, 872, 873, 874, 875, 876, 877, 878, 879, 880, 881, 882, 883, 884, 885, 886, 887, 888, 889, 890, 891, 892, 893, 894, 895, 896, 897, 898, 899, 900, 901, 902, 903, 904, 905, 906, 907, 908, 909, 910, 911, 912, 913, 914, 915, 916, 917, 918, 919, 920, 921, 922, 923, 924, 925, 926, 927, 928, 929, 930, 931, 932, 933, 934, 935, 936, 937, 938, 939, 940, 941, 942, 943, 944, 945, 946, 947, 948, 949, 950, 951, 952, 953, 954, 955, 956, 957, 958, 959, 960, 961, 962, 963, 964, 965, 966, 967, 968, 969, 970, 971, 972, 973, 974, 975, 976, 977, 978, 979, 980, 981, 982, 983, 984, 985, 986, 987, 988, 989, 990, 991, 992, 993, 994, 995, 996, 997, 998, 999, 1000.

TCP/UDP Port

Based

Class of Service Configuration

Protocol	Port	Port	Port	Port
HTTP/80	80	80	80	80
HTTPS/443	443	443	443	443
TFTP/69	69	69	69	69
FTP/20	20	20	20	20
FTP/30	30	30	30	30
HTTP/8080	8080	8080	8080	8080
HTTP/81	81	81	81	81
HTTP/82	82	82	82	82
HTTP/83	83	83	83	83
HTTP/84	84	84	84	84
HTTP/85	85	85	85	85
HTTP/86	86	86	86	86
HTTP/87	87	87	87	87
HTTP/88	88	88	88	88
HTTP/89	89	89	89	89
HTTP/90	90	90	90	90
HTTP/91	91	91	91	91
HTTP/92	92	92	92	92
HTTP/93	93	93	93	93
HTTP/94	94	94	94	94
HTTP/95	95	95	95	95
HTTP/96	96	96	96	96
HTTP/97	97	97	97	97
HTTP/98	98	98	98	98
HTTP/99	99	99	99	99
HTTP/100	100	100	100	100
HTTP/101	101	101	101	101
HTTP/102	102	102	102	102
HTTP/103	103	103	103	103
HTTP/104	104	104	104	104
HTTP/105	105	105	105	105
HTTP/106	106	106	106	106
HTTP/107	107	107	107	107
HTTP/108	108	108	108	108
HTTP/109	109	109	109	109
HTTP/110	110	110	110	110
HTTP/111	111	111	111	111
HTTP/112	112	112	112	112
HTTP/113	113	113	113	113
HTTP/114	114	114	114	114
HTTP/115	115	115	115	115
HTTP/116	116	116	116	116
HTTP/117	117	117	117	117
HTTP/118	118	118	118	118
HTTP/119	119	119	119	119
HTTP/120	120	120	120	120
HTTP/121	121	121	121	121
HTTP/122	122	122	122	122
HTTP/123	123	123	123	123
HTTP/124	124	124	124	124
HTTP/125	125	125	125	125
HTTP/126	126	126	126	126
HTTP/127	127	127	127	127
HTTP/128	128	128	128	128
HTTP/129	129	129	129	129
HTTP/130	130	130	130	130
HTTP/131	131	131	131	131
HTTP/132	132	132	132	132
HTTP/133	133	133	133	133
HTTP/134	134	134	134	134
HTTP/135	135	135	135	135
HTTP/136	136	136	136	136
HTTP/137	137	137	137	137
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HTTP/140	140	140	140	140
HTTP/141	141	141	141	141
HTTP/142	142	142	142	142
HTTP/143	143	143	143	143
HTTP/144	144	144	144	144
HTTP/145	145	145	145	145
HTTP/146	146	146	146	146
HTTP/147	147	147	147	147
HTTP/148	148	148	148	148
HTTP/149	149	149	149	149
HTTP/150	150	150	150	150
HTTP/151	151	151	151	151
HTTP/152	152	152	152	152
HTTP/153	153	153	153	153
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HTTP/157	157	157	157	157
HTTP/158	158	158	158	158
HTTP/159	159	159	159	159
HTTP/160	160	160	160	160
HTTP/161	161	161	161	161
HTTP/162	162	162	162	162
HTTP/163	163	163	163	163
HTTP/164	164	164	164	164
HTTP/165	165	165	165	165
HTTP/166	166	166	166	166
HTTP/167	167	167	167	167
HTTP/168	168	168	168	168
HTTP/169	169	169	169	169
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HTTP/177	177	177	177	177
HTTP/178	178	178	178	178
HTTP/179	179	179	179	179
HTTP/180	180	180	180	180
HTTP/181	181	181	181	181
HTTP/182	182	182	182	182
HTTP/183	183	183	183	183
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HTTP/185	185	185	185	185
HTTP/186	186	186	186	186
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HTTP/188	188	188	188	188
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HTTP/192	192	192	192	192
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HTTP/195	195	195	195	195
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HTTP/198	198	198	198	198
HTTP/199	199	199	199	199
HTTP/200	200	200	200	200
HTTP/201	201	201	201	201
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HTTP/205	205	205	205	205
HTTP/206	206	206	206	206
HTTP/207	207	207	207	207
HTTP/208	208	208	208	208
HTTP/209	209	209	209	209
HTTP/210	210	210	210	210
HTTP/211	211	211	211	211
HTTP/212	212	212	212	212
HTTP/213	213	213	213	213
HTTP/214	214	214	214	214
HTTP/215	215	215	215	215
HTTP/216	216	216	216	216
HTTP/217	217	217	217	217
HTTP/218	218	218	218	218
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HTTP/223	223	223	223	223
HTTP/224	224	224	224	224
HTTP/225	225	225	225	225
HTTP/226	226	226	226	226
HTTP/227	227	227	227	227
HTTP/228	228	228	228	228
HTTP/229	229	229	229	229
HTTP/230	230	230	230	230
HTTP/231	231	231	231	231
HTTP/232	232	232	232	232
HTTP/233	233	233	233	233
HTTP/234	234	234	234	234
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HTTP/237	237	237	237	237
HTTP/238	238	238	238	238
HTTP/239	239	239	239	239
HTTP/240	240	240	240	240
HTTP/241	241	241	241	241
HTTP/242	242	242	242	242
HTTP/243	243	243	243	243
HTTP/244	244	244	244	244
HTTP/245	245	245	245	245
HTTP/246	246	246	246	246
HTTP/247	247	247	247	247
HTTP/248	248	248	248	248
HTTP/249	249	249	249	249
HTTP/250	250	250	250	250
HTTP/251	251	251	251	251
HTTP/252	252	252	252	252
HTTP/253	253	253	253	253
HTTP/254	254	254	254	254
HTTP/255	255	255	255	255
HTTP/256	256	256	256	256
HTTP/257	257	257	257	257
HTTP/258	258	258	258	258
HTTP/259	259	259	259	259
HTTP/260	260	260	260	260
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HTTP/262	262	262	262	262
HTTP/263	263	263	263	263
HTTP/264	264	264	264	264
HTTP/265	265	265	265	265
HTTP/266	266	266	266	266
HTTP/267	267	267	267	267
HTTP/268	268	268	268	268
HTTP/269	269	269	269	269
HTTP/270	270	270	270	270
HTTP/271	271	271	271	271
HTTP/272	272	272	272	272
HTTP/273	273	273	273	273
HTTP/274	274	274	274	274
HTTP/275	275	275	275	275
HTTP/276	276	276	276	276
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HTTP/281	281	281	281	281
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HTTP/283	283	283	283	283
HTTP/284	284	284	284	284
HTTP/285	285	285	285	285
HTTP/286	286	286	286	286
HTTP/287	287	287	287	287
HTTP/288	288	288	288	288
HTTP/289	289	289	289	289
HTTP/290	290	290	290	290
HTTP/291	291	291	291	291
HTTP/292	292	292	292	292
HTTP/293	293	293	293	293
HTTP/294	294	294	294	294
HTTP/295	295	295	295	295
HTTP/296	296	296	296	296
HTTP/297	297	297	297	297
HTTP/298	298	298	298	298
HTTP/299	299	299	299	299
HTTP/300	300	300	300	300
HTTP/301	301	301	301	301
HTTP/302	302	302	302	302
HTTP/303	303	303	303	303
HTTP/304	304	304	304	304
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HTTP/307	307	307	307	307
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HTTP/311	311	311	311	311
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HTTP/338	338	338	338	338
HTTP/339	339	339	339	339
HTTP/340	340	340	340	340
HTTP/341	341	341	341	341
HTTP/342	342	342	342	342
HTTP/343	343	343	343	343
HTTP/344	344	344	344	344
HTTP/345	345	345	345	

Chapter 8

8. Security

8.1 MAC Address Binding

MAC Address Binding

Port No.	Binding Status	Port No.	Binding Status
1	Enable	10	Disable
2	Enable	11	Disable
3	Enable	12	Disable
4	Enable	13	Disable
5	Enable	14	Disable
6	Enable	15	Disable
7	Enable	16	Disable
8	Enable	17	Disable
9	Enable	18	Disable
10	Enable	19	Disable

Read

Select Port: 1 - Binding Status: Enable

- Port No: Displays the port number being assigned the MAC addresses.
- MAC Address: Users can assign up to 3 MAC addresses to the port.
- Read: Pull down the selection bar to choose a port number and click the read button to show the MAC addresses bound with the port or modify the MAC addresses.
- Select Port: Pull down the selection menu bar to choose a port number to be set.
- Binding: Enable or disable the binding function.

Click **Update** to have the configuration take effect.

8.2 TCP/UDP Filter

Protocol	Action	Port	Action
TCP	Allow	1	Allow
TCP	Deny	2	Deny
TCP	Allow	3	Allow
TCP	Deny	4	Deny
TCP	Allow	5	Allow
TCP	Deny	6	Deny
TCP	Allow	7	Allow
TCP	Deny	8	Deny
TCP	Allow	9	Allow
TCP	Deny	10	Deny

Read

Select Port: 1 - Action: Allow

Chapter 9

9. Spanning Tree

9.1 STP Bridge Settings

STP Bridge Settings

Spanning Tree Settings				
STP Mode	Bridge Priority	Hello Time	Max Age	Forward Delay
	(0-61440)	(1-10 Sec)	(6-40 Sec)	(4-30 Sec)
Submit				
Note: $2 * (\text{Forward Delay} - 1) \geq \text{Max Age}$ $\text{Max Age} \geq 2 * (\text{Hello Time} + 1)$ Bridge Priority must be multiple of 4096				

Note: If you enable the MAC address binding function, the address learning function will be disabled automatically. Then both RSTP/STP and address learning will be affected.

Bridge Status				
STP Mode	Bridge ID	Hello Time	Max Age	Forward Delay
RSTP	32768.000F C9.05 BB.37	2	20	15

Root Status			
Root ID	Hello Time	Max Age	Forward Delay
In the root bridge	2	20	15

- Bridge Priority: This parameter configures the spanning tree priority globally for this switch. The device with the highest priority becomes the STP root device. However, if all devices have the same priority, the device with the lowest MAC address will then become the root device. Number between 0 - 61440 in increments of 4096. Therefore, there are 16 distinct values.
- Hello Time: Interval (in seconds) at which the root device transmits a configuration message (BPDU frame). Number between 1-10 (default is 2).
- Max Age – The maximum time (in seconds) a device can wait without receiving a configuration message before attempting to reconfigure. That also means the maximum life time for a BPDU frame. Number between 6-40 (default is 20).
- Forward Delay: The maximum time (in seconds) the root device will wait before changing states (i.e., discarding to learning to forwarding). Number between 4 – 30 (default is 15).

9.2 STP Port Settings

STP Port Settings

STP Port Settings		
Port No.	Priority (1-240)	RPC (1-200000000) 0=AUTO
Submit		
Priority should be a multiple of 16		

STP Port Status						
Port No	RPC	Priority	State	Status	Designated Bridge	Designated Port
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	—	—
6	Auto 0	0x80	—	Disable	—	—
7	Auto 0	0x80	—	Disable	—	—
8	Auto 0	0x80	—	Disable	—	—
9	Auto 0	0x80	—	Disable	—	—
10	Auto 0	0x80	—	Disable	—	—
11	Auto 0	0x80	—	Disable	—	—
12	Auto 0	0x80	—	Disable	—	—
13	Auto 0	0x80	—	Disable	—	—
14	Auto 0	0x80	—	Disable	—	—
15	Auto 0	0x80	—	Disable	—	—
16	Auto 0	0x80	—	Disable	—	—
17	Auto 0	0x80	—	Disable	—	—
18	Auto 0	0x80	—	Disable	—	—

- Port No: The port ID. It cannot be changed. Aggregations mean any configured trunk group.
- Root Path Cost: This parameter is used by the STP to determine the best path between devices. Therefore, lower values should be assigned to ports attached to faster media, and higher values assigned to ports with slower media. Set the RSTP path cost on the port. Number between 0 - 200000000. 0 means auto generated path cost.
- State: Show the current port state includes designated port, root port or blocked port.
Status: Show the current port status includes forwarding, disable etc...

9.3 Loopback Detection Settings

Loopback Detection Settings

Loopback Detect Function	Disable ▼
Auto Wake Up	Disable ▼
Wake-Up Time Interval	10 sec ▼
Submit	

Port No.	Status
1	--
2	--
3	--
4	--
5	--
6	--
7	--
8	--

Chapter 10

10. Trunking

Port trunk allows multiple links to be bundled together and act as a single physical link for increased throughput. It provides load balancing, and redundancy of links in a switched inter-network. Actually, the link does not have an inherent total bandwidth equal to the sum of its component physical links. Traffic in a trunk is distributed across an individual link within the trunk in a deterministic method that called a hash algorithm. The hash algorithm automatically applies load balancing to the ports in the trunk. A port failure within the trunk group causes the network traffic to be directed to the remaining ports. Load balancing is maintained whenever a link in a trunk is lost or returned to service. This switch may use Port ID, Source MAC Address, Destination MAC Address, or a combination of Source MAC Address and Destination MAC Address to be the selection for Trunk Hash Algorithm. Traffic pattern on the network should be considered carefully before applying it. When a proper hash algorithm is used, traffic is kind of randomly decided to be transmitted across either link within the trunk and load balancing will be seen.

This managed switch supports two trunk group, each trunk consists of 2~4 ports. Trunk hash algorithm can be selected according to 4 different methods.

Trunking

System Priority	10-255
Link Aggregation Algorithm	MAC Source
Apply	

Link

Member	Link Group	
	P1	P2
Port	10	11
Speed	100	100
Type	Ethernet	Ethernet
Operational Key	0	0
Trunk Group	1	1
Active	Yes	Yes
Apply		

Note: If you enable Link Aggregation, ports will be added to the same port group. If you enable Link Aggregation, ports will be added to the same port group. If you enable Link Aggregation, ports will be added to the same port group.

Chapter 11

11. Backup /Recovery

This function provides the user with a method to backup/recovery the switch configuration. The user can save configuration file to a specified file. If the user wants to recover the original configuration, which is saved at the specified path, just enter the password and then press the “upload” button. Finally the original configuration of the switch will be recovered.

Configuration Backup/Recovery

Backup(Switch→PC)

Please check "Download" to download EEPROM contents.

Recovery(PC→Switch)

Select the image file :

Password:

Chapter 12

12. Miscellaneous

Miscellaneous setting is used to configure output queue aging time, VLAN stride and IGMP snooping.

Miscellaneous Setting

Output Queue Aging Time								
Aging Time Default: 30 min	This output queue aging function is used to avoid the poor utilization of the switch. When a packet is stored in the switch for a long time, it will expire from the allowable time defined by the protocol and become a useless packet. To prevent these packets from wasting the bandwidth, this switch provides an option for the administrator to enable the queue aging function.							
VLAN Striding								
VLAN Striding Default: Disabled	When this function is selected, the switch will forward uni-cast packets to the destination port, no matter whether the destination port is in the same VLAN or not.							
IGMP Snooping V1 & V2								
IGMP Snooping Default: Enabled	IGMP Snooping V1 & V2 function enables							
IGMP Filter Default: Disabled	IGMP Filter function enables							
VLAN Uplink Setting								
Port 31 to Uplink1 to Uplink2	Port 32 to Uplink1 to Uplink2	Port 33 to Uplink1 to Uplink2	Port 34 to Uplink1 to Uplink2	Port 35 to Uplink1 to Uplink2	Port 36 to Uplink1 to Uplink2	Port 37 to Uplink1 to Uplink2	Port 38 to Uplink1 to Uplink2	Port 39 to Uplink1 to Uplink2
Port 40 to Uplink1 to Uplink2	Port 41 to Uplink1 to Uplink2	Port 42 to Uplink1 to Uplink2	Port 43 to Uplink1 to Uplink2	Port 44 to Uplink1 to Uplink2	Port 45 to Uplink1 to Uplink2	Port 46 to Uplink1 to Uplink2	Port 47 to Uplink1 to Uplink2	Port 48 to Uplink1 to Uplink2
to Common Uplink to Common Uplink2								
OK Cancel								

- Output queue aging: This function is used to avoid the poor utilization of the switch. When a packet is stored in a switch for a long time, it will expire from the allowable time defined by the protocol and become a useless packet. To prevent these packets from wasting the bandwidth, this switch provides an option for the administrator to enable the queue aging function.
- VLAN Striding: By selecting this function, the switch will forward uni-cast packets to the destination port, no matter whether destination port is in the same VLAN.

IGMP Snooping: When this function is enabled, the switch will execute IGMP snooping version 1 and version 2 without the intervention of CPU. The IGMP report and leave packets are automatically handled by the switch.

Chapter 13

13. Logout

The administrator has write access for all parameters governing the onboard agent. User should therefore assign a new administrator password as soon as possible, and store it in a safe place.

When you forgot your IP or password, please use the reset button for the factory default setting?

Please take the following steps to reset the Web Smart Switch back to the original default:

Step 1:

Turn on the Web Smart Switch

Step 2:

Press and hold the reset button continuously for 5 seconds and release the reset button.

Step 3:

The switch will reboot for 20 seconds and the configuration of switch will back to the default setting.



A screenshot of a 'User Login' dialog box. The title bar is blue with the text 'User Login' in white. The dialog box has a white background and a blue border. It contains three labels: 'Site:' with the value '192.168.2.1', 'ID:' with a text box containing 'admin', and 'Password:' with a text box containing six asterisks. Below the text boxes is a blue 'OK' button.

Key in the user ID and the password to pass the authentication; the user ID and the password are "admin"

IP: 192.168.2.1

ID: admin

Password: admin

Chapter 14

14. Specification

Model Name	ES1325-31
Standards	Ethernet: IEEE 802.3 10BaseT, IEEE 802.3u 100BaseTX, IEEE 802.ab 1000BaseT, IEEE 802.3z 1000BaseSX/LX IEEE 802.3x Flow Control IEEE 802.3ad Link Aggregation Control Protocol IEEE 802.1Q VLAN IEEE 802.1p Class of Service IEEE 802.1D Spanning Tree Protocol IEEE 802.1w Rapid Spanning Tree Protocol IEEE 802.3at Power Over Ethernet (PoE+)
Features	Number of Ports: 18 10/100BaseTX with RJ-45 Connectors: 16 port with PoE+ Gigabit Uplink: 2x 10/100/1000BaseT RJ-45 / Gigabit SFP Combo Port MAC Address: 4K Buffer Memory: 2.75Mb Switching Capacity: 7.2 Gbps Jumbo Frame: 10K Transmission Method: Store and Forward
Smart Features	Port Based VLAN: 18 Tagged Based VLAN: 32, VID = 1~4094 STP/RSTP IGMP Snooping V1&V2 Link Aggregation: 1, Gigabit Ports Quality of Service(QoS): High & Low queues, 802.1p Security: Port & MAC binding, 3 MAC per port Port: Port State, Speed/Duplex, Flow Control Port Mirroring Bandwidth Control

	Broadcast Storm Control PoE Control: PoE Port Enable/Disable, PoE Status Management: Web Management, password protected access, Configuration backup/restore, TFTP firmware upgrade
Filtering/Forwarding Rates	1000Mbps port – 1,488,000pps 100Mbps port - 148,800pps, 10Mbps port - 14,880pps
Transmission Media	10/100BaseTX Cat. 5 UTP/STP 1000BaseT Cat. 5 / Cat. 5E UTP/STP
LED Indicators	Per Port: Link/Act, PoE : Act / Status, Per Unit: Power
Power Input	100~240 V/AC, 50~60Hz
Power Output	53V DC Per Port Output
Power Consumption	250 Watts
Dimensions	44 × 440 × 331 mm (H x W x D)
Operating Temperature	0 to 40°C
Storage Temperature	-20 to 90°C
Humidity	10 to 90% RH (non-condensing)
Certifications	FCC Class B, CE
Weight	4.2kg

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