



## User Manual



**16 10/100/1000BaseT(X) UTP/SFP combo ports and  
2 Gigabit SFP Open Slots Management Switch**

**FCC Warning**

**CE Mark Warning**

# Content

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# Introduction

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## Product Overview

### Web Management Features

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### Specifications

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## Mechanical

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## Performance

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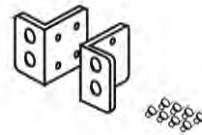
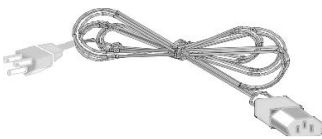
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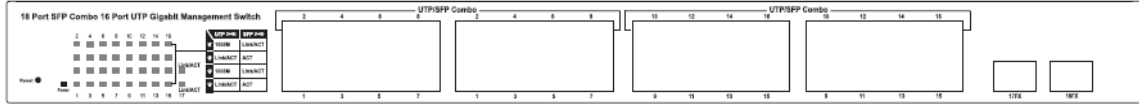
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## Package Contents

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## Rear Panel



## Hardware Installation



# Software Description

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Apply

Please enter password to login

Password:

Apply

Figure 1-1

## Configuration

- System
- Ports
- VLANs
- Aggregation
- LACP
- RSTP
- 802.1X
- IGMP Snooping
- Mirroring
- Quality of Service
- Filter
- Rate Limit
- Storm Control

## Monitoring

- Statistics Overview
- Detailed Statistics
- LACP Status
- RSTP Status
- IGMP Status
- VeriPHY
- Ping

## Maintenance

- Warm Restart
- Factory Default
- Software Upload
- Configuration File
- Transfer
- Logout

Figure 1-2

# Configuration

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## System Configuration

MAC Address	00-03-ce-07-3a-5c
SW Version	G18 V110516
HW Version	1.0
Temperature	0 °C
Active IP Address	192.168.2.1
Active Subnet Mask	255.255.255.0
Active Gateway	192.168.2.254
DHCP Server	0.0.0.0
Lease Time Left	0 secs

DHCP Enabled	<input type="checkbox"/>
Fallback IP Address	<input type="text" value="192.168.2.1"/>
Fallback Subnet Mask	<input type="text" value="255.255.255.0"/>
Fallback Gateway	<input type="text" value="192.168.2.254"/>
Management VLAN	<input type="text" value="1"/>
Name	<input type="text"/>
Password	<input type="text"/>
Inactivity Timeout (secs)	<input type="text" value="0"/>
SNMP enabled	<input checked="" type="checkbox"/>
SNMP Trap destination	<input type="text" value="0.0.0.0"/>
SNMP Read Community	<input type="text" value="public"/>
SNMP Write Community	<input type="text" value="private"/>
SNMP Trap Community	<input type="text" value="public"/>

Figure 2-1





## Port Configuration

Enable Jumbo Frames

PERFECT\_REACH/Power Saving Mode: Disable ▾

Port	Link	Mode	Flow Control
1	Down	Auto Speed ▾	<input type="checkbox"/>
2	Down	Auto Speed ▾	<input type="checkbox"/>
3	Down	Auto Speed ▾	<input type="checkbox"/>
4	Down	Auto Speed ▾	<input type="checkbox"/>
6	Down	Auto Speed ▾	<input type="checkbox"/>
8	100FDX	Auto Speed ▾	<input type="checkbox"/>
7	Down	Auto Speed ▾	<input type="checkbox"/>
8	Down	Auto Speed ▾	<input type="checkbox"/>
9	Down	Auto Speed ▾	<input type="checkbox"/>
10	Down	Auto Speed ▾	<input type="checkbox"/>
11	Down	Auto Speed ▾	<input type="checkbox"/>
12	Down	Auto Speed ▾	<input type="checkbox"/>
13	Down	Auto Speed ▾	<input type="checkbox"/>
14	Down	Auto Speed ▾	<input type="checkbox"/>
16	Down	Auto Speed ▾	<input type="checkbox"/>
16	Down	Auto Speed ▾	<input type="checkbox"/>
17	Down	Auto Speed ▾	<input type="checkbox"/>
18	Down	Auto Speed ▾	<input type="checkbox"/>

Drop frames after excessive collisions

Figure 2-2



### Port Segmentation (VLAN) Configuration

#### Add a VLAN

VLAN ID

#### VLAN Configuration List

No VLANs defined.

Figure 2-3

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### Aggregation/Trunking Configuration

Group\Port	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
Normal	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>
Group 1	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Group 2																		
Group 3																		
Group 4																		
Group 5																		
Group 6																		
Group 7																		
Group 8																		

Figure 2-4



### LACP Port Configuration

Port	Protocol Enabled	Key Value
1	<input type="checkbox"/>	auto
2	<input type="checkbox"/>	auto
3	<input type="checkbox"/>	auto
4	<input type="checkbox"/>	auto
5	<input type="checkbox"/>	auto
6	<input type="checkbox"/>	auto
7	<input type="checkbox"/>	auto
8	<input type="checkbox"/>	auto
9	<input type="checkbox"/>	auto
10	<input type="checkbox"/>	auto
11	<input type="checkbox"/>	auto
12	<input type="checkbox"/>	auto
13	<input type="checkbox"/>	auto
14	<input type="checkbox"/>	auto
15	<input type="checkbox"/>	auto
16	<input type="checkbox"/>	auto
17	<input type="checkbox"/>	auto
18	<input type="checkbox"/>	auto

Figure 2-5

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**RSTP System Configuration**

System Priority	32768	▼
Hello Time	2	
Max Age	20	
Forward Delay	15	
Force version	Normal	▼

**Figure 2-6-1**

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### RSTP Port Configuration

Port	Protocol Enabled	Edge	Path Cost
Aggregations	<input type="checkbox"/>		
1	<input type="checkbox"/>	<input checked="" type="checkbox"/>	auto
2	<input type="checkbox"/>	<input checked="" type="checkbox"/>	auto
3	<input type="checkbox"/>	<input checked="" type="checkbox"/>	auto
4	<input type="checkbox"/>	<input checked="" type="checkbox"/>	auto
5	<input type="checkbox"/>	<input checked="" type="checkbox"/>	auto
6	<input type="checkbox"/>	<input checked="" type="checkbox"/>	auto
7	<input type="checkbox"/>	<input checked="" type="checkbox"/>	auto
8	<input type="checkbox"/>	<input checked="" type="checkbox"/>	auto
9	<input type="checkbox"/>	<input checked="" type="checkbox"/>	auto
10	<input type="checkbox"/>	<input checked="" type="checkbox"/>	auto
11	<input type="checkbox"/>	<input checked="" type="checkbox"/>	auto
12	<input type="checkbox"/>	<input checked="" type="checkbox"/>	auto
13	<input type="checkbox"/>	<input checked="" type="checkbox"/>	auto
14	<input type="checkbox"/>	<input checked="" type="checkbox"/>	auto
15	<input type="checkbox"/>	<input checked="" type="checkbox"/>	auto
16	<input type="checkbox"/>	<input checked="" type="checkbox"/>	auto
17	<input type="checkbox"/>	<input checked="" type="checkbox"/>	auto
18	<input type="checkbox"/>	<input checked="" type="checkbox"/>	auto

Figure 2-6-2



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### 802.1X Configuration

Mode:  ▼

RADIUS IP:

RADIUS UDP Port:

RADIUS Secret:

Port	Admin State	Port State			
1	Force Authorized ▼	802.1X Disabled	<a href="#">Re-authenticate</a>	<a href="#">Force Reinitialize</a>	<a href="#">Statistics</a>
2	Force Authorized ▼	802.1X Disabled	<a href="#">Re-authenticate</a>	<a href="#">Force Reinitialize</a>	<a href="#">Statistics</a>
3	Force Authorized ▼	802.1X Disabled	<a href="#">Re-authenticate</a>	<a href="#">Force Reinitialize</a>	<a href="#">Statistics</a>
4	Force Authorized ▼	802.1X Disabled	<a href="#">Re-authenticate</a>	<a href="#">Force Reinitialize</a>	<a href="#">Statistics</a>
5	Force Authorized ▼	802.1X Disabled	<a href="#">Re-authenticate</a>	<a href="#">Force Reinitialize</a>	<a href="#">Statistics</a>
6	Force Authorized ▼	802.1X Disabled	<a href="#">Re-authenticate</a>	<a href="#">Force Reinitialize</a>	<a href="#">Statistics</a>
7	Force Authorized ▼	802.1X Disabled	<a href="#">Re-authenticate</a>	<a href="#">Force Reinitialize</a>	<a href="#">Statistics</a>
8	Force Authorized ▼	802.1X Disabled	<a href="#">Re-authenticate</a>	<a href="#">Force Reinitialize</a>	<a href="#">Statistics</a>
9	Force Authorized ▼	802.1X Disabled	<a href="#">Re-authenticate</a>	<a href="#">Force Reinitialize</a>	<a href="#">Statistics</a>
10	Force Authorized ▼	802.1X Disabled	<a href="#">Re-authenticate</a>	<a href="#">Force Reinitialize</a>	<a href="#">Statistics</a>
11	Force Authorized ▼	802.1X Disabled	<a href="#">Re-authenticate</a>	<a href="#">Force Reinitialize</a>	<a href="#">Statistics</a>
12	Force Authorized ▼	802.1X Disabled	<a href="#">Re-authenticate</a>	<a href="#">Force Reinitialize</a>	<a href="#">Statistics</a>

Figure 2-7

### IGMP Snooping

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### IGMP Configuration

IGMP Enabled

Router Ports

1  2  3  4  5  6  7  8

9  10  11  12  13  14  15  16

17  18

Unregistered IPMC Flooding enabled

VLAN ID	IGMP Snooping Enabled	IGMP Querying Enabled
1	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Apply

Refresh

Figure 2-8

### Mirroring

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### Mirroring Configuration

Port	Mirror Source
1	<input type="checkbox"/>
2	<input type="checkbox"/>
3	<input type="checkbox"/>
4	<input type="checkbox"/>
5	<input type="checkbox"/>
6	<input type="checkbox"/>
7	<input type="checkbox"/>
8	<input type="checkbox"/>
9	<input type="checkbox"/>
10	<input type="checkbox"/>
11	<input type="checkbox"/>
12	<input type="checkbox"/>
13	<input type="checkbox"/>
14	<input type="checkbox"/>
15	<input type="checkbox"/>
16	<input type="checkbox"/>
17	<input type="checkbox"/>
18	<input type="checkbox"/>

Mirror Port

Figure 2-9

### Quality of Service (QoS)

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### QoS Configuration

QoS Mode

Figure 2-10-1

### QoS Configuration

QoS Mode    
Prioritize Traffic

802.1p Configuration

802.1p Value	Priority	802.1p Value	Priority	802.1p Value	Priority	802.1p Value	Priority
0	<input type="text" value="normal"/> <input type="button" value="v"/>	1	<input type="text" value="low"/> <input type="button" value="v"/>	2	<input type="text" value="low"/> <input type="button" value="v"/>	3	<input type="text" value="normal"/> <input type="button" value="v"/>
4	<input type="text" value="medium"/> <input type="button" value="v"/>	5	<input type="text" value="medium"/> <input type="button" value="v"/>	6	<input type="text" value="high"/> <input type="button" value="v"/>	7	<input type="text" value="high"/> <input type="button" value="v"/>

Figure 2-10-2

### QoS Configuration

QoS Mode	DSCP
Prioritize Traffic	All High Priority
	Custom
	All Low Priority
	All Normal Priority
	All Medium Priority
DSCP Configuration	All High Priority
DSCP Value(0..63)	Priority
	high
	high
	high
	high
	high
	high
	high
	high
All others	high

APPLY CANCEL

Figure 2-10-3

### Filter Configuration

### Filter Configuration

Port	Source IP Filter		DHCP Server Allowed
	Mode	IP Address	
1	Disabled		<input checked="" type="checkbox"/>
2	Disabled		<input checked="" type="checkbox"/>
3	Disabled		<input checked="" type="checkbox"/>
4	Disabled		<input checked="" type="checkbox"/>
5	Disabled		<input checked="" type="checkbox"/>
6	Disabled		<input checked="" type="checkbox"/>
7	Disabled		<input checked="" type="checkbox"/>
8	Disabled		<input checked="" type="checkbox"/>
9	Disabled		<input checked="" type="checkbox"/>
10	Disabled		<input checked="" type="checkbox"/>
11	Disabled		<input checked="" type="checkbox"/>
12	Disabled		<input checked="" type="checkbox"/>
13	Disabled		<input checked="" type="checkbox"/>
14	Disabled		<input checked="" type="checkbox"/>
15	Disabled		<input checked="" type="checkbox"/>
16	Disabled		<input checked="" type="checkbox"/>
17	Disabled		<input checked="" type="checkbox"/>
18	Disabled		<input checked="" type="checkbox"/>

Apply Refresh

Figure 2-11

**Note:** In this mode, the received packets are filtered except the IP packets with configured source network address.

**For examples:**

- 1. IP Address: 192.168.3.2, IP Mask: 255.255.255.0 Network address 192.168.3.x ( 254 IP Addresses) can be forwarded on the port.**
- 2. IP Address: 192.168.3.2, IP Mask: 255.255.255.255 Only IP 192.168.3.2 can be forwarded on the port.**



## **Rate Limit Configuration**

### Rate Limit Configuration

Port	Policer	Shaper
1	No Limit <input type="button" value="v"/>	No Limit <input type="button" value="v"/>
2	No Limit <input type="button" value="v"/>	No Limit <input type="button" value="v"/>
3	No Limit <input type="button" value="v"/>	No Limit <input type="button" value="v"/>
4	No Limit <input type="button" value="v"/>	No Limit <input type="button" value="v"/>
5	No Limit <input type="button" value="v"/>	No Limit <input type="button" value="v"/>
6	No Limit <input type="button" value="v"/>	No Limit <input type="button" value="v"/>
7	No Limit <input type="button" value="v"/>	No Limit <input type="button" value="v"/>
8	No Limit <input type="button" value="v"/>	No Limit <input type="button" value="v"/>
9	No Limit <input type="button" value="v"/>	No Limit <input type="button" value="v"/>
10	No Limit <input type="button" value="v"/>	No Limit <input type="button" value="v"/>
11	No Limit <input type="button" value="v"/>	No Limit <input type="button" value="v"/>
12	No Limit <input type="button" value="v"/>	No Limit <input type="button" value="v"/>
13	No Limit <input type="button" value="v"/>	No Limit <input type="button" value="v"/>
14	No Limit <input type="button" value="v"/>	No Limit <input type="button" value="v"/>
15	No Limit <input type="button" value="v"/>	No Limit <input type="button" value="v"/>
16	No Limit <input type="button" value="v"/>	No Limit <input type="button" value="v"/>
17	No Limit <input type="button" value="v"/>	No Limit <input type="button" value="v"/>
18	No Limit <input type="button" value="v"/>	No Limit <input type="button" value="v"/>

Figure 2-12

### Storm Control

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**Storm Control Configuration**

Storm Control Number of frames per second	
ICMP Rate	No Limit
Learn Frames Rate	No Limit
Broadcast Rate	No Limit
Multicast Rate	No Limit
Flooded unicast Rate	No Limit

- 1k
- 2k
- 4k
- 8k
- 16k
- 32k
- 64k
- 128k
- 256k
- 512k
- 1024k
- 2048k
- 4096k
- 8192k
- 16384k
- 32768k**
- No Limit

**Figure 2-13**

**Apply**

**Monitoring**

**Statistics Overview**

### Statistics Overview for all ports

Clear Refresh

Port	Tx Bytes	Tx Frames	Rx Bytes	Rx Frames	Tx Errors	Rx Errors
1	0	0	0	0	0	0
2	0	0	0	0	0	0
3	0	0	0	0	0	0
4	0	0	0	0	0	0
5	0	0	0	0	0	0
6	92493	157	27674	234	0	0
7	0	0	0	0	0	0
8	0	0	0	0	0	0
9	0	0	0	0	0	0
10	0	0	0	0	0	0
11	0	0	0	0	0	0
12	0	0	0	0	0	0
13	0	0	0	0	0	0
14	0	0	0	0	0	0
15	0	0	0	0	0	0
16	0	0	0	0	0	0
17	0	0	0	0	0	0
18	0	0	0	0	0	0

Figure 3-1

## Detailed Statistics

### Statistics for Port 1

Clear Refresh

- [Port 1](#)
- [Port 2](#)
- [Port 3](#)
- [Port 4](#)
- [Port 5](#)
- [Port 6](#)
- [Port 7](#)
- [Port 8](#)
- [Port 9](#)
- [Port 10](#)
- [Port 11](#)
- [Port 12](#)
- [Port 13](#)
- [Port 14](#)
- [Port 15](#)
- [Port 16](#)
- [Port 17](#)
- [Port 18](#)

Receive Total		Transmit Total	
Rx Packets	0	Tx Packets	0
Rx Octets	0	Tx Octets	0
Rx High Priority Packets	-	Tx High Priority Packets	-
Rx Low Priority Packets	-	Tx Low Priority Packets	-
Rx Broadcast	-	Tx Broadcast	-
Rx Multicast	-	Tx Multicast	-
Rx Broad- and Multicast	0	Tx Broad- and Multicast	0
Rx Error Packets	0	Tx Error Packets	0
Receive Size Counters		Transmit Size Counters	
Rx 64 Bytes	-	Tx 64 Bytes	-
Rx 65-127 Bytes	-	Tx 65-127 Bytes	-
Rx 128-255 Bytes	-	Tx 128-255 Bytes	-
Rx 256-511 Bytes	-	Tx 256-511 Bytes	-
Rx 512-1023 Bytes	-	Tx 512-1023 Bytes	-
Rx 1024+ Bytes	-	Tx 1024+ Bytes	-
Receive Error Counters		Transmit Error Counters	
Rx CRC/Alignment	-	Tx Collisions	-
Rx Undersize	-	Tx Drops	-
Rx Oversize	-	Tx Overflow	-
Rx Fragments	-		-
Rx Jabber	-		-
Rx Drops	-		-

Figure 3-2

## LACP Status

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LACP Aggregation Overview

Group/Port	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	
Normal	Red	Red	Red	Red	Red	Green	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red

Legend

Red	Down	Port link down
Red 0	Blocked	Port Blocked by RSTP. Number is Partner port number if other switch has LACP enabled
Yellow 0	Learning	Port Learning by RSTP
Green	Forwarding	Port link up and forwarding frames
Green 0	Forwarding	Port link up and forwarding by RSTP. Number is Partner port number if other switch has LACP enabled

Refresh

Figure 3-3-1

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LACP Port Status

Port	Protocol Active	Partner Port Number	Operational Port Key
1	no		
2	no		
3	no		
4	no		
5	no		
6	no		
7	no		
8	no		
9	no		
10	no		
11	no		
12	no		
13	no		
14	no		
15	no		
16	no		
17	no		
18	no		

Figure 3-3-2

## RSTP Status

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### RSTP VLAN Bridge Overview

VLAN Id	Bridge Id	Hello Time	Max Age	Fwd Delay	Topology	Root Id
1	32769:00-03-ce-07-3a-5d	2	20	15	Steady	This switch is Root!

Refresh

Figure 3-4-1



### RSTP Port Status

Port/Group	Vlan Id	Path Cost	Edge Port	P2p Port	Protocol	Port State
Port 1						Non-STP
Port 2						Non-STP
Port 3						Non-STP
Port 4						Non-STP
Port 5						Non-STP
Port 6						Non-STP
Port 7						Non-STP
Port 8						Non-STP
Port 9						Non-STP
Port 10						Non-STP
Port 11						Non-STP
Port 12						Non-STP
Port 13						Non-STP
Port 14						Non-STP
Port 15						Non-STP
Port 16						Non-STP
Port 17						Non-STP
Port 18						Non-STP

Figure 3-4-2



## IGMP Status

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### IGMP Status

VLAN ID	Querier	Queries transmitted	Queries received	v1 Reports	v2 Reports	v3 Reports	v2 Leaves
12	Active	1	0	0	0	0	0

Refresh

Figure 3-5

## VeriPHY

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## VeriPHY Cable Diagnostics

Port	Port 1 ▾
Mode	Full ▾
	Full
	Anomaly
	Anomaly w/o X-pair

Apply

Cable Status		
Pair	Length [m]	Status
A	-	-
B	-	-
C	-	-
D	-	-

Figure 3-6

## Ping

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ping



### Ping Parameters

Target IP address	<input type="text"/>
Count	1 <input type="button" value="v"/>
Time Out (in secs)	1 <input type="button" value="v"/>

- 1
- 5
- 10
- 30

Ping Results	
Target IP address	0.0.0.0
Status	Test complete
Received replies	0
Request timeouts	0
Average Response Time (in ms)	0

Figure 3-7

## Maintenance

### Warm Restart

#### Warm Restart

Are you sure you want to perform a Warm Restart?

Figure 4-1



## Factory Default

### Factory Default

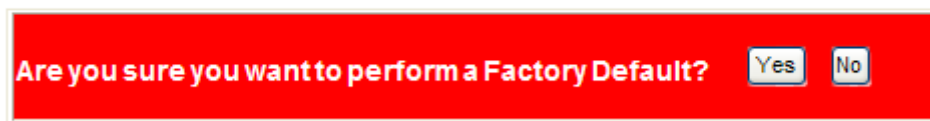


Figure 4-2

## Software upload

### Software Upload

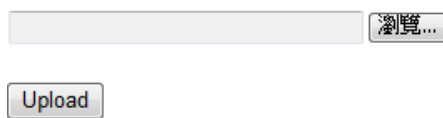


Figure 4-3

## Configuration File Transfer

### Configuration Upload

 瀏覽...

Upload

### Configuration Download

Download

Figure4-4

Logout

### Please enter password to login

Password:

Apply

Figure 4-5