# 4 Ports + 3 SFP Gigabit Smart Switch Use Manual

Ver.A0

# **Chapter 1 Product Specification**

#### **1.1 Product Characteristics**

- Complies with IEEE802.3, IEEE802.3u, IEEE802.3ab standards;
- 4 10/100/1000Mbps Auto-Negotiation RJ45 ports supporting Auto-MDI/MDIX and 3 SFP independent expansion slots supporting Mini GBIC module;
- Supports Web Smart and console managements ;
- Support IEEE802.3x flow control for half/full-duplex;
- Store and forward, integrated 8K MAC address table;
- Supports Port-Based /Tag VLAN Configuration;
- Supports rapid spanning tree(RSTP) Configuration ;
- Supports Port Trunking;
- Supports port bandwidth control;
- Supports QoS function;
- Supports port mirror;
- Supports IGMP Snooping Configuration ;
- Supports SNMP Configuration ;
- Supports broadcast storm control;
- Supports HTTP software update, backup and reseting;
- Supports source IP filter through ports to block unwanted access;
- Supports dynamic flow statistics of ports;
- Supports circuit diagnoses;
- Standard 11-inch rack-mountable steel case;
- External power adapter supply;

#### **1.2 Product Specifications**

Standards	IEEE802.3, 802.3u, 802.3ab, 802.3x
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	32Gbps
MAC Address Table	8k

Forwarding Rate	10BASE-T: 14880pps/port 100BASE-TX: 148800pps/port 1000BASE-T: 1488000pps/port
Transmission Method	Store-and-Forward
Ports	4 10/100/1000Mbps Auto-Negotiation RJ45 ports (Auto MDI/MDIX) and 3 SFP independence expansion slots supporting MiniGBIC modules
Network Media	10Base-T: UTP category 3, 4, 5 cable (maximum 100m) EIA/TIA-568 100Ù STP (maximum 100m) 100Base-Tx: UTP category 5, 5e cable (maximum 100m) EIA/TIA-568 100Ù STP (maximum 100m) 1000Base-T: UTP category 5, 5e cable (maximum 100m)
LED Indicators	Power, 10/100M, 1000M
Dimensions (W*D*H)	250mm × 150mm × 44mm
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 Consumption	Power: 100-240VAC 50-60Hz Max:13W

#### **1.3 Package Contents**

- 1 piece of 7-port Ethernet Switch
- 1 piece of external power adapter
- 1 piece of console cable
- 4 pieces of rubber padding
- User's manual

# **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 after 5 seconds.

3.Connect the switch to network devices, including Lan cards, switches etc. with Cat3,4,5 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
Speed	ON/OFF	Maximum transmission rate 1000Mbps;
		Maximum transmission rate 10/100 Mbps.

# **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 <u>http://192.168.2.1</u> and 'Enter', you will see login window as below:

#### Please enter password to login

5. Input Password (no password in default), and click "Apply", configuration window comes as below:

🗐 4 Ports + 3 SFP	? Gigabit Smart Switch - Microsoft Internet Explorer	
文件(E) 编辑(E) 查看	看 (Y) 收藏 (k) 工具 (I) 帮助 (K)	
⑤后退 - ⑤ - [	🖹 🙆 🏠 🔎 搜索 🥎 收藏夹 🤣 🔗 - 🌺 🔟 -	
地址 @ 🍓 http://192.1	168.2.1/	✓ → 转到 链接
	4 Ports + 3 SFP Gigabit Smart Switch	
Configuration	Please enter password to login	
System Ports VLANs Aggregation	Password:	
RSTP 802.1X IGMP Snooping Mirroring	[Apply]	
Rate Limit Storm Control		
Monitoring		
Statistics Overview Detailed Statistics LACP Status RSTP Status IGMP Status VeriPHY Ping		
Maintenance		
Warm Restart		
Factory Default		
Configuration File		
Transfer		
A 完毕		nternet
🛃 开始 🛛 🧐 🗯	〇 Ø 4 Ports + 3 SFP 資素命名 - 画図	10:49

# 3.2 System Configuration

Here provides current switch status and you can set them according to your demands.

MAC address :

Software Version :

Hardware Version :

Active IP Address : 192.168.2.1 ( in default )

Active Subnet Mask: 255.255.255.0 ( in default )

DHCP Server : 0 ( in default )

Lease Time Left : 0 ( default )

🗿 4 Ports + 3 SFP	Gigabit Smart Switch -	Licrosoft Internet Explorer		
文件(王) 编辑(王) 查希	₣(⊻) 收藏(⊌) 工具(亚) 帮助(±	Ð		
🕞 后退 🔹 🕥 🕤	👔 💈 🏠 🔎 搜索 🤺 ଏ	奴藏夹 🧭 🔗 🍓 💌 🔹		
地址 (1) 🕘 http://192.1	68.2.1/			▼ ▶ 转到 链接
		4 Dorto + 2 SE	D Cigobit Smort Switch	
		4 FUILS + 3 3F	P Gigabit Smart Switch	
				~
Configuration	System Configuration			
System	MAC Address	00-01-c1-00-00-01		
VLANs	S/W Version	Rev.A0		
LACP	H/W Version	Ver.A0		
802.1X	Active IP Address	192.168.2.1		
IGMP Snooping Mirroring	Active Subnet Mask	255.255.255.0		
Quality of Service	Active Gateway	192.168.2.10		
Rate Limit	DHCP Server	0.0.0.0		
Storm Control	Lease Time Left	0 secs		
Monitoring				
Statistics Overview				
Detailed Statistics LACP Status	DHCP Enabled			
RSTP Status IGMP Status	Fallback IP Address	192.168.2.1		
Ping	Fallback Subnet Mask	255.255.255.0		
Maintenance	Fallback Gateway	192.168.2.10		
Warm Postat	Management VLAN	1		
Factory Default	Name			
Configuration File	Password			
Logout	Inactivity Timeout (secs)	0		×
🕘 完毕				Internet
🛃 开始 🔰 🧐 😂	🞯 🧧 4 Ports + 3 SFP	🦉 1. bep - 🗉 🖾	i i i i i i i i i i i i i i i i i i i	💼 🦻 🛐 🥑 10:50

# 3.3 Port Configuration

Here provides port status and available to set speed and flow control; options to 10M half-duplex, 10M full-duplex, 100M half-duplex,100M full-duplex, 1000M full-duplex, auto-negotiation(in default) and disable.

🗿 4 Ports + 3 SFP	Gigabit Sma	rt Switch - I	licrosoft Internet	Explorer			- 7 🛛
文件(图) 编辑(图) 查看	(⊻) 收藏(と)	工具(II) 帮助(H	)				
🔇 后退 🔹 🕥 🕤	، 🖒 🖻 🕯	🔎 搜索 🤸 🧒	藏夹 🔗 🔗 🌺	36 -			
地址 (1) 🙆 http://192.16	58.2.1/						✓ → 转到 链接
			4 Ports	+ 3 SFP Gigabi	it Smart Switch		
							~
Configuration	Port Conf	iguration					
System Ports VLANs Aggregation LACP RSTP	Enable Ju	mbo Frames 🗌	1				
802.1X IGMP Snooping Mirroring Quality of Service Filter Rate Limit Storm Control	PERFECT	_REACH/Powe	r Saving Mode:	Disable 💌			
Monitoring	Port	Link	Mode	Flow Control			
j	1	100FDX	Auto Speed 💌				
Detailed Statistics	2	Down	Auto Speed 💌				
RSTP Status	3	Down	Auto Speed 🔽				
VeriPHY	4	Down	Auto Speed 💌				
i ing	5	Down	Auto Speed 🛩				
Maintenance	6	Down	Auto Speed 💌				
Warm Restart	7	Down	Auto Speed 💌				
Factory Default Software Upload Configuration File Transfer	Drop frame	s after excessive	e collisions		1		
) こうgo un						🔮 Inte	rnet
🛃 开始 🛛 😵 😂	🕑 🏼 🕘 4 Por	ts + 3 SFP	🦉 2. bnp - 🗐 🛃				🗊 🚫 🧐 10:50

#### **3.4 VLANs Configuration**

Can set 16 VLAN groups for 802.1q VLAN



# 3.5 Aggregation/Trunking Configuration

d Ports + 3 SEP Gigs	abit Smar	+ 5	wite	ch -	- 16	iero	soft	i Ta
文件 (E) 编辑 (E) 查看 (V)	收藏(6)	「具」	(T)	帮助	(H)			
🔾 er - 🔊 - 🛐 🛛	a 🔥 🗌	<b>⊘</b> ∦	史索	4	收福	観夹	Ø	C
			~~~	~~			0	
BAL (2) 166.2.	17							
								41
Configuration A	aareaati	on/"	Trur	nkin		Cont	Figure	ratio
	ggrogua				.9.0		gu	
Ports C	Group\Port	1	2	3	4	5	6	7
Aggregation	Normal	۲	۲	۲	۲	۲	۲	۲
RSTP	Group 1	0	0	0	0	0	0	0
GMP Snooping	Group 2							
Quality of Service	Group 3							
Rate Limit Storm Control	Group 5							
	Group 4							
wonitoring	Group 5							
Statistics Overview Detailed Statistics	Group 6							
LACP Status RSTP Status	Group 7							
IGMP Status VeriPHY	Group 8							
Ping	Group o							
Maintenance	Apply R	efres	sh					
Warm Restart			_					
Factory Default								
Configuration File								
Transfer								
Logout								
完毕								
🛃 开始 🔰 🧐 😂 🥑	🕘 4 Por	ts +	3 SF	P		¥	ł. bmp	- 0

# **3.6 LACP Configuration**

LACP(IEEE 802.3ad Link Aggregation Protocol) provides a way to set up aggregation between switches automatically.

🗿 4 Ports + 3 SF	P Gigabit	Smart Switch	- Ticros	oft Internet I	Explorer					
文件(E) 编辑(E) 看	€看(⊻) 收藏	(A) 工具(T) 帮!	ታ (ዘ)							
🔇 后退 🔹 🌍 🕤	🖹 🗐 (	🏠 🔎 搜索 🚽	▼ 收藏夹 🖌	🔗 🙈 · 🍇	× ×					
地址 (1) @ http://192	2. 168. 2. 1/		•							✓ → 转到 链接
				4 Ports	+ 3 SFP	Gigabit	Smart	Switch		
Configuration	LACE	Port Configu	ation							
System	Port	Protocol Enabled	Key Value							
VLANs Aggregation	1		auto	1						
LĂĊP	2		auto	1						
802.1X IGMP Snooping	3		auto	Í						
Mirroring Quality of Service	4		auto	Í						
Rate Limit	5		auto	ĺ						
Storm Control	6		auto	1						
Monitoring	7		auto	1						
Statistics Overview Detailed Statistics			duto	_						
LACP Status RSTP Status	Apply	/ Refresh								
IGMP Status VeriPHY										
Ping										
Maintenance										
Warm Restart										
Software Upload										
Configuration File Transfer										
Logout										
	~ @ [=		10.0	h					🥑 Inte	rnet
	S 🖉 🌾	4 Ports + 3 SFP .	· 🛛 🖞 5.	omp – enter						<b>9 9 9</b> 10:52

# 3.7 RSTP Configuration

RSTP is a protocol that prevents loops in a network and dynamically it reconfigures

to forward frames.

	P Gigabit Smart	Switch - Micro	soft	Internet Exp	lorer			
て件(で) 編辑(で) 査	著(⊻) 收藏(a) 工具	具(L) 帮助(H)						
🔾 后退 🔹 🕥 🕤	🗵 🛃 🏠 🔎	搜索 🥎 收藏夹	0	🔗 · 🎍 🔳	•			
急址 @) 🍯 http://192	. 168. 2. 1/							🖌 🔁 转到
			4	Ports +	3 SFP Gig	abit Smart	Switch	
Configuration	RSTP Syste	m Configuratio	n					
System Ports	System Priority	/ 32768 💌						
VLANs Aggregation	Hello Time	2						
RSTP 302.1X	Max Age	20						
GMP Snooping Mirroring	Forward Delay	15						
Quality of Service Filter	Force version	Normal 💌						
Storm Control								
Monitoring								
Statistics Overview	RSTP Port C	Configuration						
Detailed Statistics .ACP Status								
DCTD Status	Port	Protocol Enabled	Edge	Path Cost				
GMP Status	Port Aggregations	Protocol Enabled	Edge	Path Cost				
GMP Status VeriPHY Ping	Port Aggregations 1	Protocol Enabled	Edge	Path Cost auto				
GMP Status VeriPHY Ping Maintenance	Port Aggregations 1 2	Protocol Enabled	Edge v	Path Cost auto auto				
VeriPHY Maintenance	Port Aggregations 1 2 3	Protocol Enabled	Edge v v v	Path Cost auto auto				
GMP Status VeriPHY Ping Maintenance Warm Restart Factory Default	Port Aggregations 1 2 3 4	Protocol Enabled	Edge V V V	Path Cost auto auto auto auto				
GMP Status VeriPHY Ping Maintenance Warm Restart Factory Default Software Upload Configuration File	Port Aggregations 1 2 3 4 5	Protocol Enabled	Edge V V V V	Path Cost auto auto auto auto auto auto auto				
Karr Sudaus GMP Status VenPHY Ping Vaintenance Nam Restart factory Default Software Upload Jonfiguration File ransfer Jogout	Port Aggregations 1 2 3 4 5 6	Protocol Enabled	Edge V V V V	Path Cost auto auto auto auto auto auto auto				

# 3.8 802.1X Configuration

Here provides 802.1X process and available to set for each port of the switch.

🗿 4 Ports + 3 SFP	Gigabit Sm	art Switch - Micros	soft Internet I	ixplorer			
文件(图) 编辑(图) 查看	(V) 收藏(A)	工具(E) 帮助(H)					At 1997
🔇 后退 🔹 🕥 🕤 🕨	1 🗟 🏠	🔎 搜索 🤺 收藏夹	🚱 🍰	× •			
地址 @) 🥘 http://192.16	38.2.1/						▼ ラ 转到 链接
			4 Ports	+ 3 SFP G	igabit Sma	rt Switch	
Configuration	802.1X (	Configuration					
System Ports	Mode:	Disabled 😽					
VLANs Aggregation	RADIUS I	P 0.0.0.0					
LĂČP RSIP	RADIUS L	JDP Port 1812					
802.1X IGMP Snooping Mirroring Quality of Service	RADIUS	Secret					
Filter Rate Limit	Port	Admin State	Port State				
Storm Control	1	Force Authorized 💌	802.1X Disabled	Re-authenticate	Force Reinitialize	Statistics	
Monitoring	2	Force Authorized 💌	802.1X Disabled	Re-authenticate	Force Reinitialize	Statistics	
Statistics Overview	3	Force Authorized 🔽	802.1X Disabled	Re-authenticate	Force Reinitialize	Statistics	
Detailed Statistics LACP Status	4	Force Authorized 💌	802.1X Disabled	Re-authenticate	Force Reinitialize	Statistics	
RSTP Status IGMP Status	5	Force Authorized 💌	802.1X Disabled	Re-authenticate	Force Reinitialize	Statistics	
Ping	6	Force Authorized	802.1X Disabled	Re-authenticate	Force Reinitialize	Statistics	
Maintenance	7	Force Authorized 💌	802.1X Disabled	Re-authenticate	Force Reinitialize	Statistics	
				Re-authenticate All	Force Reinitialize Al	1	
Warm Restart Factory Default Software Upload Configuration File	Parame	ters					
Transfer Logout	Apply	Refresh					
2 完毕							💣 Internet
🐉 开始 🔰 🧐 😂	🞯 🖉 4 P	orts + 3 SFP 🦉 7	bnp - 🗐 🕅				10:53 💕 🚺 🖉 🖮

# 3.9 IGMP Configuration

🚰 4 Ports + 3 SFP	Gigabit Smart Switch - Microsoft Internet Explorer	- 7 🛛
文件(王) 編輯(王) 查看	昏 (Y) 收藏 (A) 工具 (I) 帮助 (B)	At 1
G rae 🔹 🕥 - [	👔 🛃 🏠 🔎 搜索 🧙 收藏夹 🚱 🔗 + 🌺 🗷 🔹	
地址 @) 🍓 http://192.1	168.2.1/	✓ → 转到 链接
	4 Ports + 3 SFP Gigabit Smart Switch	
Configuration	IGMP Configuration	
System		
VLANs		
Aggregation LACP	Unregistered IPMC Flooding enabled	
RSTP 802.1X		
IGMP Snooping Mirroring	VLAN ID IGMP Snooping Enabled IGMP Querying Enabled	
Quality of Service	1 🔍 🗸	
Rate Limit		
Storm Control	Apply Refresh	
Monitoring		
Statistics Overview		
Detailed Statistics		
RSTP Status		
VeriPHY		
l' "'y		
Maintenance		
Warm Restart		
Factory Default		
Software Upload Configuration File		
Transfer		
Logout 参) 会比		Takunak
		mainternet

3.10 Mirroring Configuration

Bandwidth of mirror port should be larger or equal to that of mirror source.

🗿 4 Ports + 3 SFP	Gigabit Smart Su	ritch - Ticrosoft	Internet	Explorer						<b>-</b> 7 <b>X</b>
文件(E) 编辑(E) 查?	看(2) 收藏(4) 工具(	[) 帮助(出)								<b>A</b> *
🔇 后退 🔹 💮 🕤	🖹 🔁 🚮 🔎 🕱	嗦 숲 收藏夹 🧭	🙈 - 🚵	-						
地址(0) 圖 http://192	168 2 1/	~~~~~	1 30							林朝
neep.)) roe.	100.2.1)		4 Dorto	1 2 65		hit Cm	ort Suui	tob		
			4 Ports	+ 3 SF	-P Giya	bit Sill		ten		
Configuration	Mirroring Con	figuration								
System Ports	Port	Mirror Source								
VLANs	1									
LACP	2									
802.1X IGMP Snooping	3									
Mirroring Quality of Service	4									
Filter Rate Limit	5									
Storm Control	6									
Monitoring	7									
Statistics Overview Detailed Statistics LACP Status RSTP Status	Mirror Port	1 💌								
IGMP Status VeriPHY Ping	Apply Refresh									
Maintenance										
Warm Restart Factory Default Software Upload Configuration File Transfer Logout										
ど 完毕									🌍 Inte	rnet
🛃 开始 🔰 😵 🥴	🖇 🧭 🛛 🕹 4 Ports + :	3 SFP 🦉 9. bmp	- 画图						<u> </u>	🗾 🚫 🥝 10:53

# 3.11 Quality of Service Configuration



# 3.12 Filter Configuration

Set source IP filter through ports to block unwanted access.

🗿 4 Ports + 3 SFP	Gigabit	Smart Switch	- Ticrosoft Inte	rnet Explorer					
文件(F) 编辑(E) 查?	昏(V) 收藏	(A) 工具(T) 帮	<b>ት</b> ዊ)						
🔇 后退 🔹 🕥 🕤	😋 后退 · 🐑 · 🗷 😰 🏠 🔎 撥集 🧙 收藏美 🤣 🔗 - 🌺 🖼 ·								
地址 @) 🙋 http://192.	168.2.1/								✓ → 转到 链接
			4 Po	orts + 3 S	FP Gigabit	Smart	Switch		
Configuration	Filter	Configuration							
System Ports	stem Source IP Filter DHCP Serve				DHCP Server				
VLANs	Ροπ	Mode	IP Address	IP Mask	Allowed				
LACP RSTP	1	Disabled 💌							
802.1X IGMP Snooping	2	Disabled 💌 📔	(						
Quality of Service	3	Disabled 💌	í						
Rate Limit Storm Control	4	Disabled 🖌	i						
Monitoring	5	Disabled 🖌 📔	i						
Statistics Oveniew	6	Disabled 🖌 📔	i						
Detailed Statistics LACP Status	7	Disabled 🔽							
RSTP Status IGMP Status VeriPHY Ping			· · · · · · · · · · · · · · · · · · ·						
Maintenance	Apply	Refresh							
Warm Restart Factory Default Software Upload Configuration File Transfer Logout									
🕘 完毕								🥑 Inte	rnet
🛃 开始 🔵 🧐 🏼	) 🕑 🛛 🧕	4 Ports + 3 SFP .						<u>iiii</u>	🛃 🚫 🤣 10:54

# 3.13 Rate Limit Configuration

Policer/ShaperSpeed(options):128kbps, 256kbps, 384kbps, 512kbps, 640kbps, 768kbps, 836kbps, 896kbps, 1024Mbps, 1152kbps, 1280kbps, 1408kbps, 1536kbps, 1664kbps, 1792kbps, 1920kbps, 2048kbps, 2176kbps, 2304kbps, 2432kbps, 2560kbps, 2688kbps, 2816kbps,,2944kbps, 3072kbps, 3200kbps, 3328 kbps, 3456 kbps, 3584kbps, 3712kbps, 3840kbps and 3968 kbps.

🗿 4 Ports + 3 SFP	Gigabit Smart	Switch - Microsof	't Internet Explorer			- 7 X
文件(F) 编辑(E) 查看	F(V) 收藏(A) 工具	l(T) 帮助(H)				
🔇 后退 🔹 🕥 🕤	🖹 🖻 🏠 🔎	搜索 🥎 收藏夹 🧭	) 🔗 · 🌺 📧 ·			
地址 @ 🍓 http://192.1	.68. 2. 1/					✓ → 转到 链接
			4 Ports + 3 SFP	<b>Gigabit Smart Swite</b>	ch	
Configuration	Rate Limit C	onfiguration				
System Ports	Port	Policer	Shaper			
VLANs Aggregation	1	No Limit 💌	No Limit 💌			
LĂĊP RSTP	2	No Limit 💌	No Limit 💌			
802.1X IGMP Snooping	3	No Limit 🔽	No Limit 💌			
Mirroring Quality of Service	4	No Limit 💌	No Limit 💌			
Rate Limit	5	No Limit 💌	No Limit 💌			
Storm Control	6	No Limit 💌	No Limit 💌			
Monitoring	7	No Limit 🔽	No Limit 💌			
Statistics Overview			,			
LACP Status	Apply Refre	sh				
IGMP Status VeriPHY						
Ping						
Maintenance						
Warm Restart						
Factory Default						
Configuration File						
Transfer						
Logout 参1 字比					A	
		14			Jnte	rnet
	🖉 🦉 🖉 4 Ports	F 3 SFP 🦉 12. b	np - 0020			10:54

#### 3.14 Storm Control Configuration

Broadcast Control speed(options): 1kfps, 2fps, 4fps, 8fps, 16fps,32fps, 64fps, 128fps,256fps, 512fps, 1024fps, 2048fps, 4096fps, 8192fps, 16384fps, 32768fps.

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 ▼

Apply Refresh

# **Chapter 4 Monitoring Guide**

#### 4.1 Statistics Overview

Here provides statistics of current forwarding and receiving data.

4 Ports + 3 SFI	9 Gigabit Smar	rt Switch - Licros	oft Internet Expl	lorer			
2件(2)编辑(2) 査	看(Y) 收藏(A)	工具① 帮助化)					
🔆 🜔 • 🔁 🤆	🖹 🖹 🏠 🖌	🔎 搜索 🥎 收藏夹 ,	છ 🍰 😫	•			
址 @) 🍓 http://192.	168.2.1/						🖌 🔁 转到
			4 Ports +	3 SFP Giga	bit Smart Sw	/itch	
			Statistic	s Overview fo	r all ports		
onfiguration	Clear	Refresh					
ystem orts	Port	Tx Bytes	Tx Frames	Rx Bytes	Rx Frames	Tx Frrors	Rx Erro
ANs	1	92881	144	43823	389	0	TOT LITO
CP	2	0	0	0	0	0	
2.1X	3	0	0	0	0	0	
VP Snooping	4	0	0	0	0	0	
roring ality of Service	5	0	0	0	0	0	
ter	6	0	0	0	0	0	
orm Control	7	0	0	0	0	0	
onitoring atistics Overview stailed Statistics VCP Status STP Status MP Status eriPHY ng							
aintenance							
arm Restart ictory Default iftware Upload infiguration File ansfer igout							
cta Liz							
元毕						Inte	rnet

#### **4.2 Detailed Statistics**

Here provides detailed statistics of current forwarding and receiving data.

🗿 4 Ports + 3 SFP	Gigabit Smart Switch - Microsof	t Internet Explorer			- 6		
文件(12) 编辑(12) 查看	昏忪) 收藏(a) 工具(1) 帮助(b)				A		
Ġ riz 🔹 🕥 - [	🛓 💈 🏠 🔎 搜索 🤺 收藏夹 🤗	) 🔗 · 🌺 🛛 ·					
也址 (D) 🍓 http://192. :	址 ① 🍘 http://192.168.2.1/						
		4 Ports + 3 SFP	Gigabit Smart Sw	vitch			
		Statistics	for Port 1				
Configuration	Clear Refresh	Port 1 Port 2	Port 3 Port 4 Port 5 Po	ort 6 Port 7			
System	Receive T	otal	Trans	smit Total			
orts /LANs	Rx Packets	396	Tx Packets		149		
Aggregation	Rx Octets	44505	Tx Octets		94670		
RSTP	Rx High Priority Packets		Tx High Priority Packets				
02.1X	Rx Low Priority Packets		Tx Low Priority Packets				
JiviP Shooping Airroring	Rx Broadcast		Tx Broadcast				
Juality of Service	Rx Multicest		Tx Multicest				
liter late Limit	Rx Broad- and Multicast	77	Tx Broad- and Multicast		0		
Storm Control	Rx Error Packets	0	Tx Error Packets		0		
	Receive Size	Counters	Transmit	Size Counters			
Aonitoring	Rx 64 Bytes		Tx 64 Bytes				
	Rx 65-127 Bytes		Tx 65-127 Bytes				
etailed Statistics	Rx 128-255 Bytes		Tx 128-255 Bytes				
ACP Status	Rx 258-511 Bytes		Tx 250-511 Bytes				
GMP Status	Rx 512-1023 Bytes		Tx 512-1023 Bytes				
eriPHY	Rx 1024- Bytes		Tx 1024- Bytes				
ing	Receive Error	Counters	Transmit	Error Counters			
laintenance	Rx CRC/Aligment		Tx Collisions				
antonanco	Rx Undersize		Tx Drops				
/arm Restart	Rx Oversize		Tx Overflow				
actory Default	Rx Fragments						
oftware Upload	2.111						
configuration File	nx sapper						
onout	Rx Drops	-					
1 完毕				Internet			
				- Incerne			

#### 4.3 LACP Status

Here provides LACP port Status.

🗿 4 Ports + 3 SFF	Gigabit Smart Switch - Microsoft Internet Explorer	
文件(12) 編輯(12) 查	看 (Y) 收藏 (a) 工具 (I) 帮助 (B)	<b>A</b> *
🕝 后退 🔹 💮 🕤	🖹 🛃 🏠 🔎 搜索 🧙 收藏夹 🤣 🔗 - 🌺 📧 -	
地址 @) 🕘 http://192.	168. 2. 1/	✓ → 转到 链接
	4 Ports + 3 SFP Gigabit Smart Switch	
		~
Configuration	LACP Aggregation Overview	
System Ports VLANs	Group/Port 1 2 3 4 5 6 7	
Aggregation LACP RSTP	Normal	
802.1X IGMP Snooping Mirroring Quality of Service		
Filter Rate Limit	Local	
Storm Control	Legenu	_
Monitoring	Down Port link down	
Statistics Overview	0 Blocked Port Blocked by RSTP. Number is Partner port number if other switch has LACP enabled	
LACP Status	0 Learning Port Learning by RSTP	_
IGMP Status VeriPHY	Forwarding Port link up and forwarding frames	_
Maintonanaa	0 Forwarding Port link up and forwarding by RSTP. Number is Partner port number if other switch has LACP enable	ed .
Maintenance		
Warm Restart Factory Default	Refresh	
Software Upload	LACP Port Status	
Transfer		
Logout	Part Protocol Active Partner Part Number Anerational Part Key	<u>~</u>
		ernet
	2 2 4 Ports + 3 SFP 😗 16. bmp - 🗏 😂	<b>9 9 10:55</b>

4.4 RSTP Port Status

Here provides RSTP port Status.

	168.2.17	_	_							💙 🔁 转到
				4	Ports +	+ 3 SFI	P Gigat	oit Sm	art Switch	
onfiguration	RSTP VLA	N Bridg	e Overviev	v						
ystem orts	VLAN Id	В	ridge Id	1	Hello Time	Max Age	Fwd Delay	Topology	Root Id	
LANs ggregation	1 3	2769:00-	01-c1-00-0	0-02	2	20	15	Steady	This switch is Root!	
STP										
MP Snooping	Refresh									
uality of Service Iter ate Limit	RSTP Port	Status								
torm Control	Port/Group	Vlan Id	Path Cost	Edge	Port P2p P	ort Protoc	ol Port Stat	е		
onitoring	Port 1						Non-STP			
	Port 2						Non-STP			
atistics Overview							Non-STP			
atistics Overview tailed Statistics CP Status	Port 3						1101-011			
atistics Overview tailed Statistics CP Status TP Status MP Status	Port 3 Port 4						Non-STP			
atistics Overview ttailed Statistics <u>CP Status</u> STP Status MP Status mPHY ng	Port 3 Port 4 Port 5						Non-STP Non-STP			
atistics Overview etailed Statistics <u>CP Status</u> <u>TP Status</u> MP Status mPHY ng <b>aintenance</b>	Port 3 Port 4 Port 5 Port 6						Non-STP Non-STP Non-STP			
atistics Overview tailed Statistics <u>CP. Status</u> <u>TP. Status</u> MP Status riPHY 19 aintenance	Port 3 Port 4 Port 5 Port 6 Port 7						Non-STP Non-STP Non-STP Non-STP			
atistics Overview tailed Statistics CP_Status MP Status niPHY rg aintenance arm Restart ctory Default	Port 3 Port 4 Port 5 Port 6 Port 7						Non-STP Non-STP Non-STP Non-STP			

#### 4.5 IGMP Status

Here provides IGMP Status.

#### **IGMP Status**

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

Refresh

#### 4.6 VeriPHY

#### VeriPHY Cable Diagnostics

Port	Port 1 💌	
Mode	Full	•

Apply

Cable Status	Cable Status						
Pair	Length [m]	Status					
A	-	-					
В	-	-					
С	-	-					
D	-	-					

# 4.7 Ping

Ping function is used to test connection between the switch and destination.

#### **Ping Parameters**

Target IP address	
Count	1 💌
Time Out (in secs)	1 -
Apply	

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

Refresh

# Chapter 5 Maintenance Guide

#### 5.1 Warm Restart

Warm Restart : click "Yes" to start restart the switch.



#### **5.2 Factory Default**

Restore Factory Configuration: click "Yes" to default factory configuration.

NOTICE: Please do login the switch window again after this configuration. please use a new IP address as you set, if you changed its default IP address before.



#### 5.3 Software Upload

Update process takes about 1 minute, the switch reboots automatically after software being updated, and re-login is required.

Software	Upload
----------	--------

Upload

浏览

#### **5.4 Configuration File Transfer**

Configuration File upload and download

Configuration Upload			
浏览			
Upload			
Configuration Download			
Download			
make sure system security.			
Please enter password to login			
Password:			

#### 5.5 Logout

Please finally logout to

# **Chapter 6 Command Line Interface**

Apply

# 6.1 Com Port Set-up

To use the command line interface you may connect a PC COM port to the RS-232 connector and activate a terminal program, e.g. HyperTerminal under Windows. The COM port must be set up to run 8 data bits, 1 stop bit, no parity, 115200 baud and without flow control.

#### 6.2 Command Hierarchy

The CLI is hierarchical with two levels: a top level and a group level. The group level consists of the following Groups: System ,Console, Port, MAC, VLAN, Aggregation, LACP, RSTP, User Group, QoS, Mirror, IP, Dot1X, Debug.

At top level you may enter a command by giving the full command string, including group, or you may change context into a group by entering the name of the group.

At group level you may enter commands for a particular group you have chosen without specifying the group name or you may return to the top level by entering the up command.

The current level and group is indicated by the prompt. If you are at the top level, the prompt will be: >If you are at group level, the prompt will display the actual group, e.g. System

>At group level you also have the option of using the slash (/) key to refer to a context relative to the top level. E.g. you may be in the system group and enter a /console/configuration command or change context into the console group by entering /console.

# 6.3 Login/Logout Procedures

To get access to CLI you must login by entering a password. You will automatically be queried about the password. The password is configurable. The password check may be disabled by setting the password to an empty string "", in which case any password entered during login will be accepted.

You may logout at any time and at any context level using the "exit" command.

# 6.4 Help Utility

You may get help by pressing the ? key or entering "help". The help info depends on the context:

At top level, a list of command groups is displayed.

At group level, a list of the command syntaxes for the current group is displayed.

If the help command is issued for a specific command, the command syntax and a description of the command are shown.

# 6.5 Example

The command hierarchy and the help utility is demonstrated in the following example:

#### > ? <enter>

Commands at top level:

System	<ul> <li>System commands</li> </ul>		
Console	- Console commands		
Port	- Port commands		
MAC	- MAC table commands		
VLAN	– VLAN commands		
Aggregation	<ul> <li>Aggregation/Trunking commands</li> </ul>		
LACP	<ul> <li>– IEEE802.3ad Link aggregation commands</li> </ul>		
RSTP	<ul> <li>– IEEE802.1w Rapid Spanning Tree commands</li> </ul>		
User Group	<ul> <li>User Group commands</li> </ul>		
QoS	<ul> <li>– QoS commands</li> </ul>		
Mirror	- Mirror commands		
IP	– IP commands		
Dot1x	- Dot1x commands		
Debug	- Debug commands		

> console <enter>
Console> ? <enter>
Commands at Console level:
Console Configuration
Console Password [<password>]
Console Password [<password>]
Console Prompt [<prompt string>]
Console> password ?
Syntax:
Console Password [<password>]
Description:
Set or display console password. The empty string ("") disables the password
check.
[<password>]: Password string of up to 16 characters.
Console>

# Chapter 7 Small Form Pluggable (SFP)

#### 7.1 Specifications

Optical transceivers support gigabit single/multi-mode, and transfer as far as 80 kms distance; original SFP modules are recommended to be used. Supportable optical transceivers are listed as following :

SFP-GIG-SX	Gigabit Ethernet optical transceiver(supports 850nm wavelength multi-mode, LC connector). Up to 550 meters through 50/125µm multi-mode fiber, and up to 275 meters through 62.5/125µm multi-mode fiber.		
SFP-GIG-LX	Gigabit Ethernet optical transceiver(LC connector). Up to 10 kms through 1310nm wavelength single-mode fiber.		
SFP-GIG-LH40	Gigabit Ethernet optical transceiver(LC connector). Up to 40 kms through 1310nm wavelength single-mode fiber.		
SFP-GIG-LH80	Gigabit Ethernet optical transceiver(LC connector). Up to 80 kms through 1550nm wavelength single-mode fiber.		

#### 7.2 SFP fiber optic module components description



1	SFP fiber optic module specification label	4	Protective sliding rod
2	Incoming optical signal jack	5	Protective shield
3	Outgoing optical signal jack		

# 7.3 SFP fiber optic transceiver module installation



Step 1 Remove protective package and its protective shield



Step 2 With the correct way to hold the SFP optical module, and insert it into a slot and in place



**Step 3** Insert it with right fiber optic cable. Matching fiber optic cables according to spec label are required to avoid of possible damage, and to get maximum effective transmission distance of optical signal.



Step 4 Connect to network clients and insure correct working status by checking indication lights.

#### 7.4 How to plug out SFP optical modules?



#### 7.5 Notes on SFP optical module use

Right fiber cables with LC connector to be adopted, and 1000M standard SFP module used.

#### 7.6 Specification on fiber optic connection



#### 7.6 Notes on optical used

Please do not directly look at optical interface when no optical connectors or dust covers fixed on, because invisible rays from it may hurt eyes.

Fix it with a dust cover when no optical connectors connected.

Right connectors and optical cables are chosen before connection

#### 7.7 Notes on optical connection

Do not excessively bend optical cables.

Be sure of that Tx of interface is connected to Rx of its opposite end, and Rx to Tx of its opposite end.

Be sure of cleanliness of optical interfaces