1FX+4TP/2FX+4TP/2FX+6TP/1FX+7TP

Web-Management

User's Manual

Ver 1.0

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Catalog

Chapter 1 Product Introduction

1.1 Items List

- Please make sure the following items included in the packing box.
 Web-management 1FX+4TP/2FX+4TP/2FX+6TP/1FX+7TP ethernet ----

1

1

AC/DC Power Adapter ------

 User`s Manual -1 Please notify your local distributor for a replacement if any aforementioned item is missing or damaged,

1.2 Front Panel Instructions

1.21 1FX+4TP ethernet switch

There are four 10/100Mbps ports and one fiber port on the front panel . See Fig.1.2.1 below:

ſ					ТХ	RX
RJ45						
	1	-,	2	4		

1.22 2FX+4TP ethernet switch

There are four 10/100Mbps ports and two fiber port on the front panel . See Fig.1.2.2 below:

						тх	RX	тх	RX
RJ45									
	1	2	3	4					

1.23 2FX+6TP ethernet switch

There are six 10/100Mbps ports and two fiber port on the front panel . See Fig.1.2.3 below:



Fig.1.2.3

1.24 1FX+7TP ethernet switch

There are seven 10/100Mbps ports and one fiber port on the front panel . See Fig.1.2.4 below:

]	тх	RX
RJ45										
	1	2	3	4	5	6	7			

Fig.1.2.1

1.3 Back Panel Instructions

There are 9 sets of LEDs on the back panel. See fig.1.3.1

EV. DO			_			SPD			_		
5V DC		FEF	7	6	5	4	3	2	1		
		0	0	0	0	0	0	0	0		
	0	0 0	0	0	0	0	0	0	0	0	0
	RST1	PWR FXL				TXL	~ <u> </u>			SYS	RST ₂

Fig.1.3.1

1.4 Side Panel Instructions

There is one DC power interface on the side. See Fig.1.4.1

Fig.1.4.1

1.5 LED Instructions

The LEDs include one LED for power and 8 sets LEDs for seven RJ45 ports and one fiber port. The LEDs on the back panel make it easy to monitor any operation of the switch and diagnose any failures status, please refer to the following table:

LED	Color	Status	Description
PWR	Green	On	When the switch powers on
1 WIX	_	Off	When the switch powers off
FXL/TXL	Green	On	When device is connected to the switch properly.
	Green	Blink	When the data transmission is active.
SPD/FEF	Green	On	When the 100Mbps device connected to the ports or Uplink.
		Off	When the 10Mbps device connected to ports or Uplink.

1.6 Main Features

- Each port support Web-management on the basic of IP address.
- Complies IEEE 802.3, IEEE 802.3u, IEEE 802.3x and IEEE802.1p standard

• Four 10/100M ports and one 100M fiber port/four 10/100M ports and two 100M fiber port/six 10/100M ports and two 100M fiber port/seven 10/100M ports and one 100M fiber port.

- Support four VLAN groups .
- Support flow control (802.3X), ports' security, broad cast storm control, ports monitoring.
- Support bandwidth control.
- All ports can auto-sense the connection speed (10/100M) and working mode (Full-Duplex/ Half-Duplex)
- Support IEEE802.1p Priority Protocol.

1.7 Technical Standard

Ctore 1 and	
Standard	1EEE 802.3, 1EEE 802.3u, 1EEE 802.3x
Port Number	Four 10/100M TP ports +one fiber port
	Four 10/100M TP ports +two fiber port
	Six 10/100M TP ports +two fiber port
	Seven 10/100M TP ports +one fiber port
	<u>10BASE-T:</u>
Network Cable	Category 3,4 or 5 UTP/STP (Max:100m)
	EIA/TIA- 568 100Ω STP (Max:100m)
	<u>100BASE-TX:</u>
	2pairs of category 5 UTP (Max:100m)
	EIA/TIA- 568 100Ω STP (Max:100m)
	<u>100BASE-FX:</u>
	MMF (maximum 2000m)
	SMF (maximum 20~60Km)
Dimension	$100(I) \pm 010(W) \pm 20(II)$
Dimension	180mm (L) *212mm (W) *30mm (H)
Storage/Operation Condition	Operation Temperature: 0° C-70° C;
	Storage Temperature: -40° C-85° C
	Humidity: 15%~95%
Power	Input: DC5V/2A

2.1 Cautions

Please install the switch in a proper operation environment with adequate space. Pay attention to all the following installation requirements:
Power supply: DC5V/2A.
Switch shall work in a ventilating and dry environment. Keep 10cm or more space in the front and back of the switch.

- Make sure adequate ventilating ports are left around for heat diffusion. No object is • allowed to be place on the switch. 2.2 Switch Connect to Terminal Network

Terminal Network included the connected 10/100Mbps Network Interface Card of

computer, server, router, or fiber connection, etc. The Switch port can connect to all these kind of terminal network.

Chapter 3 Management

Here, take the Six 10/100M TP ports +two fiber port ethernet switch as an example, all other kinds of ethernet switch operate at the same way.

3.1 Software Introduction

The switch is Web based management basic on IP address. Firstly. Please set an IP address for PC according to switch's default IP address, and make sure the switch and PC must be in the same gateway. Please open web browser, input the switch IP address, for example: http://192.168.2.1, and input the user's name and password (default user's name is "admin", Password is "system"), then you might enter into the management interface.

6 TP + 2 Fiber	Port 10/100Mbps Fast Ethernet Switch	5 7(fiber) 8(fiber)
 Administrator Port Management 	Welcon 8 Ports SmartSwite	me to ch WebController
VLAN Setting	Basic Feature	
QoS Setting	M	lanagement
 Port Security Configuration Backup/Recovery 	 Support CoS Support PortBase VLAN Broadcast storm Protection 	Embedded HTTP web Management Port Status configure
> Logout	Advanced Switch	Port Base VLAN Setting Port Base DataRate Setting Port Locking
	 Support 2 fiber port Auto MDI/MDIX option filter/forward special DA option Support Packet length 1552/1536 	uos Setting Password security TFTP firmware upgradable

Internet Protocol (TCP/IP) Propertie	s 2(\mathbf{x}						
General								
You can get IP settings assigned automatically if your network supports this capability. Otherwise, you need to ask your network administrator for the appropriate IP settings.								
 Obtain an IP address automatically 	Obtain an IP address automatically							
Use the following IP address: ——]							
IP address:	192.168.0.101							
Subnet mask:	255 . 255 . 255 . 0							
Default gateway:	· · ·							
Obtain DNS server address autom	atically							
Use the following DNS server add	resses:							
Preferred DNS server:								
Alternate DNS server:	· · ·							
	Advanced							
	OK Cancel							

3.2 Administrator

The master should login on the user login page. Only after entered the management page, the master can manage IP setup, browse system conditions, reset origin setup and update it's version.

3.2.1 User name and password

The master must use the exact user name and password to login. The master can amend the User name and password after login.

USER LOG IN						
Site:	192.168.2.1					
ID:	admin					
Password:						
	ОК					

3.2.2 System IP setup

It includes the setup of IP address, subnet mask, and gateway. The master may manage the switch after you set the same gateway of PC and the switch.

6 TP + 2 Fiber Port 10/100 Mbps Fast Ethernet Switch

Administrator

System IP Configuration

 Authentication Configuration 					
 System IP Configuration 	Setting	Value			
System Status	IP Address	192 168 2 1			
Load default setting					
Firmware Update	Subnet T ask	255 255 255 0			
Reset Device	Gateway	192 . 168 . 2 . 254			
Port Management VLAN Setting	IP Configure	⊙Static ○DHCP			
QoS Setting		Update			

7 (Fibe

3.2.3 System status

System includes MAC address, number of ports, comment and system Version. You may check the system condition when you enter into the page.

* Administrator	System Status			
 Authentication Configuration 				
 System IP Configuration 	TAC Address	50:80:17:80:13:F0		
System Status	Number of Ports	8		
 Load default setting Firmware Update 	Comment	Switch		
Reset Device	System Version	IP210SDK2_L2.23_ICPlus_IP178_V5.2.6_6T2F		
 Port Management VLAN Setting 		Idle Time: (1~30 Minutes)		
 QoS Setting Port Security Configuration Backup/Recovery 	🗌 Idle Time Security	○Auto Logout(Default). ○Back to the last display.		
Logout		Update		

3.2.4Load default setting

The user may reset the switch original setup if it is required. The switch is with original setup on the first using.

• Administrator	Load Default Setting to EEPROM
 Authentication Configuration 	recover switch default setting excluding the IP Address, User Name and Passwor
 System IP Configuration 	
System Status	Load
 Load default setting Firmware Update 	
Reset Device	
Port Management	
VLAN Setting	

3.2.5 Update version

This function is to update the firmware. The system may update the system software. Please operate exactly like the menu when you update the firmware.the password is "system".

6 TP + 2 Fiber Port 10/100 Mbps Fast Ethernet Switch								
V Administrator	Firmware Update							
 Authentication Configuration 	Notice:Please input the password to							
 System IP Configuration 	continue the Firmware Update process.							
System Status	Password	E						
Load default setting	ReConfirm							
Firmware Update Beact Device	Update							
 Port Management VLAN Setting 								

	F/W	
Select the image file: UPDATE http://192.168.2.1		[浏览]

3.3 Port management

3.3.1 Port Configuration

This function is to set port rate, full/half duplex, auto-negotiation and data-communication

6 TP+2 Fiber Port 10/100 Mbps Fast Ethernet Switch

Administrator Port Management

- Port Configuration
 Bandwidth Control
- Broadcast Storm Control
- Max. Packet Length
- VLAN Setting
- QoS Setting
- Port Security

> Logout

Configuration Backup/Recove

Port Control Configuration

Port No.	Name	Link Capability	Duplex	Port Tx/Rx Ability
1 🗸		Auto-Nego.(All Capabilities) 🗸	Full 🖌	Enable 🔽
		Update		

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

p/Recovery	Dort	Namo		Current Sta	tus		Setting	Status
	Poli	Name	Link	Speed Duplex		Capability	Duplex	Port Tx/Rx Ability
	1					Auto		enable
	2					Auto		enable
	3					Auto		enable
	4					Auto		enable
	5		•	100Mb	FULL	Auto		enable

3.3.2 Bandwidth control

Administrator Port Management	Bandwidth Contro	I											
 Port Configuration Bandwidth Control 	Port No	TX Rate	Rx Rate										
 Broadcast Storm Control 	1 💌	Full 💌	Full 💌										
Max. Packet Length		Update LoadDefault											
QoS Setting Port Security Configuration Backup/Recovery	If the link speed of selected po as user"s setting.	ort is lower than the rate set by user, t	this system will use the link speed										
Logout	Port No	TX Rate	Rx Rate										
	1	Full	Full										
	2	Full	Full										
	3	Full	Full										
	4	Full	Full										
	5	Full	Full										

3.3.3 Broadcast storm control

It can leach the internet Broadcast Storm. When the function is on, the ports will abandon the broadcast frame when it reqach the maximum rate. If the function is off or the broadcast storm dose not reach the maximum rate, the broadcast frame will be broadcast to the switch ports.

6 TP+2 Fiber	Port 10/100Mbps Fast Ethernet Switch	456	7 (Fiber)	8 (Fiber
Administrator Port Management	Broadcast Storm Control			
Port ConfigurationBandwidth Control	ltem	Setti	ing	
 Broadcast Storm Control 	Broadcast storm protection	Enable		
Max. Packet Length	Update			
VLAN Setting				

3.3.5 Max Packet Length control

This function is for setup max. data packet length, which default rate is 1536 byte.

6 TP+2 Fiber	Port 10/100Mbps Fast Ethernet S	Switch	7(Fiber) 8(Fiber)
 Administrator Port Management 	Max Packet Length		
 Port Configuration Bandwidth Control 	ltem	Setting	
 Broadcast Storm Control 	Packet Length (Bytes)		2
Max. Packet Length VLAN Setting	[(Update	

3.4 VLAN setting

3.4.1 VLAN Groups setting

You can set max. four VLAN groups in one 2008SFW Switch. There are max. 8 member ports in one VLAN group. The member ports of the same VLAN group can be communicated each other.

6 TP+2 Fiber Port 10/100 Mbps Fast Ethernet Switch

Administrator

Port Management

Port Configuration

Bandwidth Control
 Broadcast Storm

Max. Packet Length

Control

VLAN Setting

Port Based VLAN



1 2 3 4 5

6

8 (Fiber)

7 (Fiber)

- manute recting													
Tag Based VLAN	Port	VLAN Member											
Port Based VLAN		1	2	3	4	5	6	7	8				
loS Setting	1	V	V	V	V	V	V	V	V				
onfiguration Backup/Recovery	2	V	V	V	V	V	V	V	V				
ogout	3	V	V	V	V	V	V	V	V				

3.4.2 VLAN Multi to One Mode

This function regards ports as target VLAN, other ports can add into this target VLAN port as a VLAN group. But after this function is active, the original setup of the VLAN group may be replaced or cleared.



3.5 QoS setting

3.5.1 Class of Service Configuration

You may setup the priority of data packet forwarding by port base. The high priority

port might forward the data packet first.

6 TP+2 Fibe	r Port 10/100Mbps Fast	Ether	net Sv	witch		3 4	56	7	(Fiber)	8(Fiber)			
Administrator Port Management	Class of Service Co	Class of Service Configuration											
Port Configuration										_			
 Bandwidth Control Broadcast Storm 	Mode\Port	1	2	3	4	5	6	7	8				
Control Max Packet Length	PortBase												
* VLAN Setting	VLAN Tag/IP/DS												
5 • Multi to 1 Setting			Γ	Jpdate									
 Tag Based VLAN Bott Based VLAN 													
V QoS Setting	Note:												
Class of Service	⊠means Enable High Priority	у											
Configuration	When both PortBase mode and	VLAN T	ag/IP/DS	mode a	re chose	n, pack	ets of	VLAN Ta	g/IP/DS	mode have			
Configuration	high priority .												

3.5.2 High Priority Queue Configuration

This function is for priority queue configuration of switch for Weight-Round-Robin low weight 1/4 and 1/8.

	6 TP+2 Fib	er Port 10/10	00MbpsFastEthernet Switch	7 (Fiber)	8 (Fiber)			
Adr	ministrator rt Management	High Pri	ority Queue Configuration					
9	Port Configuration Bandwidth Control				_			
9	Broadcast Storm	Weight-Rour	Weight-Round-Robin Low weight					
9	Control Max. Packet Length	Mode	Weight-Round-Robin Low weight 1/4 Weight-Round-Robin Low weight 1/8					
* VL/	AN Setting		(Trates)		-			
, •	Multi to 1 Setting		Update					
9	Tag Based VLAN							
9	Port Based VLAN							
🤣 Qo	S Setting							
9	Class of Service Configuration							
9	High Priority Queue Configuration							

3.5.3 Customization differentiate serving setting

Activating this function may differentiate PRI through some certain bits of package received. After activating a certain serial number, the switch will distinguish each received data package with this serial number to see if this data package is high priority package, if yes, it will be switched as priority.

6 TP+2 Fibe	er Pol	rt 10/	100	Mbps	sFas	st Eth	erne	et Sw	vitch	1	2	34	5	6	7 (гањ	r) 8(Fib
Administrator Port Management	Cu	istor	niza	tion	Dif	fser	v									
 Port Configuration Bandwidth Control Broadcast Storm Control 		Index	t		00 🗸]			Enable				[Disable		
 Max. Packet Length VLAN Setting 	V:	Enable	e,	: Disa	able		24		20		40		40	u	56	U
Multi to 1 Setting Tag Based VLAN	1		9		10		24		33		40		40	ч 	50	
Port Based VLAN VOS Setting	2		10 11	V 	18 19	V 	26 27	V 	34 35	V 	42 43		50 51		58 59	
 Class of Service Configuration 	4		12		20		28		36		44		52		60	
 High Priority Queue Configuration Customization 	5		13		21		29		37		45	 V	53 54		61	
Diffserv Port Security	7		14		22		31		39		47	,	55		63	

3.6 Port security setting

After power on reset,, each port will record the first receiving data packet's source MAC address as "security MAC address". A security port only allows that data packet which has the" security MAC address" to active on.

Administrator Port Management	Port Securi	ty							
Port Configuration									
Bandwidth Control	-					-		-	
Broadcast Storm	Port	1	2	3	4	5	6	Ĩ.	8
Max Packet Length	Enable								
	Update							110	
VLAN Setting				Up	date				
VLAN Setting	After power on	reset, ead	h port w	Up ill recor	date d the fir	st receiv	ing packe	et's sourc	ce MAC
VLAN Setting Multi to 1 Setting Tag Based VLAN	After power on address as a "	reset, ead Security J	ch port w IAC addre	Up ill recor ss ".	date d the fir	st receiv	ing packe	et's sourc	ce MAC
VLAN Setting Multi to 1 Setting Tag Based VLAN Port Based VLAN	After power on address as a " A security port	reset, ead Security J only allo	ch port w NAC addre wws that p	Up ill recor ss ". packet wh	date d the fir ich has t	st receiv he ″Secu	ing packe rity NAC	et's sourc	ce MAC ″to
VLAN Setting Multi to 1 Setting Tag Based VLAN Port Based VLAN VQoS Setting	After power on address as a " A security port active on. Note:Please dow	reset, ead Security J only allo n't enable	ch port w IAC addre wws that p port sec	Up ill recor ss ". packet wh curity on	date d the fir ich has t your Con	st receiv he ″Secu trol port	ing packe rity MAC	et's sourc address '	ce MAC ″to
VLAN Setting Multi to 1 Setting Tag Based VLAN Port Based VLAN VOoS Setting Class of Service Configuration	After power on address as a " A security port active on. Note: Please do	reset, ead Security J only allo n't enable	ch port w IAC addre wws that p port sec	Up ill recor ss ". packet wh curity on	date d the fir ich has t your Con	st receiv he " Secu trol port	ing packe rity MAC	et's sourc address '	ce MAC " to
 VLAN Setting Multi to 1 Setting Tag Based VLAN Port Based VLAN QoS Setting Class of Service Configuration High Priority Queue Configuration 	After power on address as a " A security port active on. Note:Please dou	reset, ead Security J only allo n't enable	ch port w IAC addre wws that p port sec	Up ill recor ss ". packet wh curity on	date d the fir ich has t your Con	st receiv he " Secu trol port	ing packe rity MAC	et's sourc address '	ce MAC " to

3.7 Logout

By "Logout" function, you can exit the software management. Once re-login required, you should open the IE explore and enter the management by IP address again.

Exit
Are you sure?
Yes No

Chapter 4 Annex

4.1 RJ-45 Pin Norm

For the definition of standard RJ-45 socket/ connector and pin, please refer to the following table:



Fig. 4.1 Standard RJ-45 Socket/ Connector

7 (Fiber) 8 (Fibe

6

Straight-through TP Pin

Pin	MDI-X signal	MDI-II signal		
1	Rx + (Receive)	Tx + (Transmission)		
2	Rx - (Receive)	Tx - (Transmission)		
3	Tx + (Transmission)	Rx + (Receive)		
6	Tx - (Transmission)	Rx - (Receive)		
4,5,7,8	Null	Null		

Tab. 3.2 Definition of Category 5 UTP, RJ-45 Pin

4.2 Straight-through cable







4.3 Crossover cable

