



## **XL-PBW224CW**

Coaxial Integrated Access System

**User's manual  
V1.2**

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## Statement

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## Safety Notice

1. Please use the product specified power supply. If special circumstances need to use other vendors to provide the power supply, make sure that provide voltage and current in line with the provisions of this product, at the same time recommend the use of certified products through the security, otherwise, may result in fire or electric shock. In using this product, do not damage the power cord to forcibly distorted, stretching Pull and banding, and they must not be under heavy pressure in the folder in goods between or, otherwise, may result in the power cord is damaged, resulting in fire or electric shock.
2. In the use of the former make sure that the environment of temperature and humidity in accordance with the products required. (Since the air-conditioned room to move this product to the natural temperature may cause the product surface or internal components have condensed water vapor, please be the product of natural dry before using the power to open.)
3. Non-technical service personnel not to demolish or repair, or repair or failure may be caused by improper electric shock, fire and so on, resulting in injuries, but also result in failure of your product warranty.
4. Do not use fingers, pin, wire and other metal items, foreign bodies into the air vents and cracks inside. May result in current through the metal or foreign body, causing an electric shock and lead to injury, if the body down into the foreign body or a similar object should be to stop using.
5. Do not be packed in plastic bags discarded or stored in places where young children get to be that if young children in their trap the head, nose and mouth may occur the Department of obstruction, which led to suffocation.
6. Please follow the instructions of the manual method of use, it could result in damage to this product.

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# **1 Welcome to coax XL-PBW224CW Integrated Access System**

## **1.1 Recognizing XL-PBW224CW**

Today's cable networks in households, by telephone twisted pair, power lines and the most common CATV coaxial cable. Also among the coaxial cable which, with its large bandwidth, shielding is good, the high rate of households, business is rich in resources and become an ideal medium for broadband Internet access. However, the existing CATV HFC network is a one-way broadcast, in the rapid development of technology and the demand today, as digital television, digital voice, online games, IPTV and other emerging business and promotion, the user demand for bandwidth keeps to climb, one-way broadcast networks can not meet the new business requirements, upgrading the network will be inevitable. XL-PBW224CW in the existing HFC network based on the construction of a residential area to meet the multi-user (MDU) to use a new type of coaxial cable Integrated Access Ethernet access technology. Its working principle is to use existing coaxial cable network, in its RF spectrum to add Ethernet data channels, without prejudice to the normal work of the existing CATV system, not to the existing network of large-scale changes, the Data CATV signal and the signal with the original transmission, for carrying IP-based data, voice and video and other multimedia services. The transformation of the less cost and engineering will be the original one-way CATV network into a two-way, digital, and can carry multimedia broadband networking platform.

Its advantages in

- the need to upgrade the current coaxial network
- no need to re-erection of the new cable to the user's home
- able to provide the same coaxial port RF video signals and Ethernet business
- rapid establishment of a two-way interactive TV business communications reverse transmission channel
- Support for VoIP and IPTV and other IP service access network for data transmission

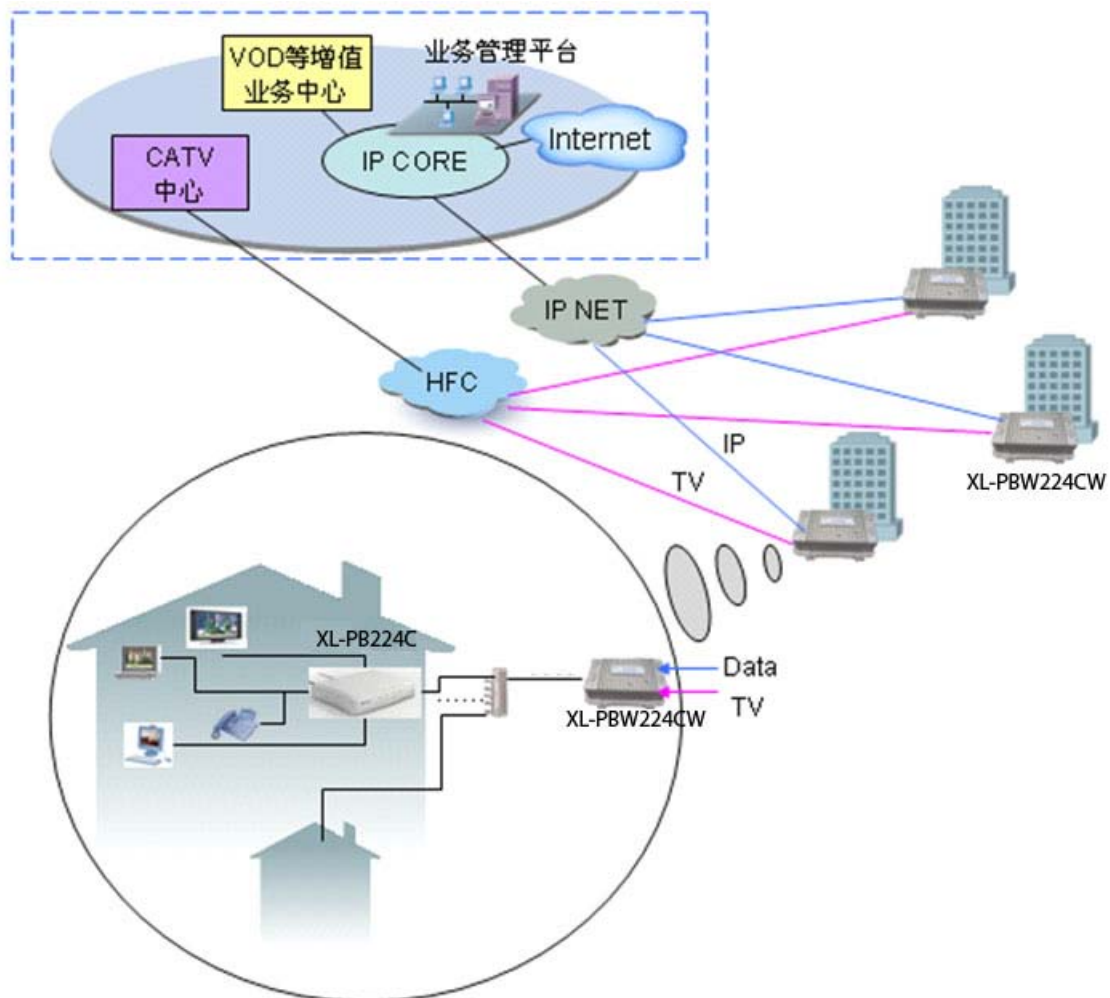
XL-PBW224CW system to bring in the enjoyment of your video / data multiple experience before you recognize your system XL-PBW224CW.

## 1.2 XL-PBW224CW system products

XL-PBW224CW system includes headend equipment and terminal equipment. Its powerful network carrying capacity makes a head-end equipment to support 31 or 63 or even

127 \* terminal equipment business. Their applications are as follows topology

\*: The actual load with a concrete model version shall prevail



### 1.2.1 XL-PBW224CW End Products

Appearance



Indicator

Item	Meaning	Description
POWER	Power Indicator	Light Always have electricity, you can start using the XL-PBW224CW.
System	System Indicator	The system to start successfully.
Data	Data Indicator	Successfully connected to the network. Flicker: There are data transmission
Ethernet	LAN network Interface Indicator	LAN port connected to the network. Flicker: There are data transmission.

### 1.2.2 Ports



Item	Meaning	Description
POWER	Power port	Input:100V~265V
Ethernet	Network Port	10/100M Adaptive connected computer
RF IN	TV Signal port	Connect TV Signal
RF+DATA OUT	Synthesis of signal output	Connect terminal equipment

XL-PB224C terminal equipment connected diagram as shown above, insert the power

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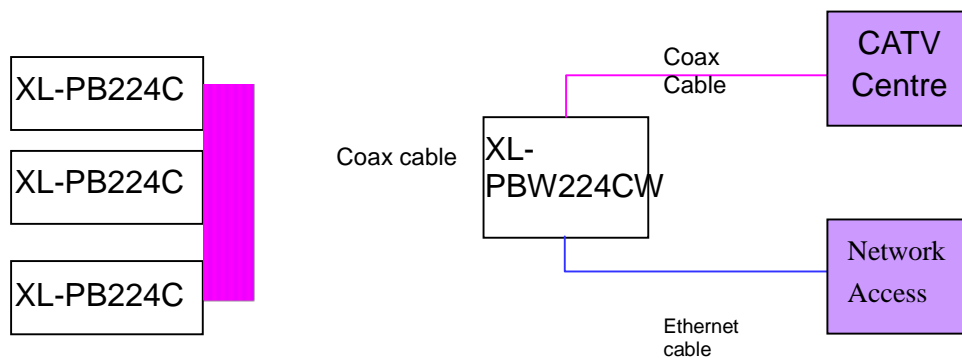
supply before you carefully read the manual on the "safe Notes. "

## 2 Connection

Before you begin using XL-PB224C before the installation of the following:

### 2.1 Connect power and network

#### 2.1.1 Connect network



#### 2.1.2 Connect the power

1. In this step, please confirm your power connector and the power outlet

XL-PBW224CW line voltage and current at the same time is also in line with XL-PBW224CW work.

2. The exchange received a power outlet plugs, XL-PBW224CW to boot.

3. Boot after the POWER indicator light, about 10 seconds after the System indicator will begin to flicker, the system began to self-test, and then after about 10 seconds, such as monitoring systems are completed and normal, System indicator will Always.

4. At this point in accordance with the network if you have completed these steps, both



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through the terminal equipment (XL-PB224C) watching television or surfing the Internet.XL-PBW224CW Information Interface

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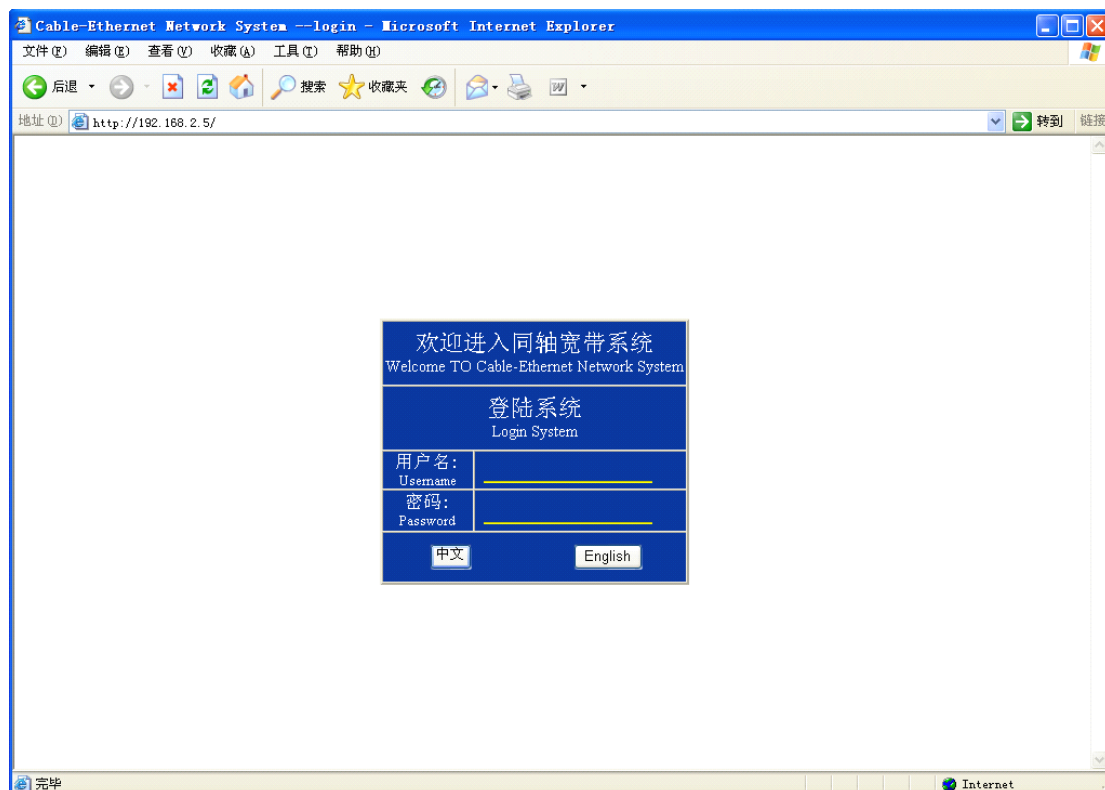
XL-PBW224CW easy to set up, simple operation, users do not need to carry out any operation XL-PBW224CW. XL-PBW224CW random will be attached to one for the equipment condition monitoring of private IP addresses, you can use a web browser through the IP address of the page to enter the state of the state of observation equipment.

## 3 XL-PBW224CW Information Interface

XL-PBW224CW easy to set up, simple operation, users do not need to carry out any operation XL-PBW224CW. XL-PBW224CW random will be attached to one for the equipment condition monitoring of private IP addresses, you can use a web browser through the IP address of the page to enter the state of the state of observation equipment.

### 3.1 Login Page

(In this case to use the IE browser, IP address 192.168.2.5 as an example), enter in the address bar 192.168.2.5, landing interface appears, enter your user name and password, as shown in Figure 3-1



## 3.2 The basic configuration system information

**Running status**

- System status
- ETH statistics
- PLC statistics

**Base setting**

- Network
- Data forwarding
- Traffic control

**Advanced setting**

- VLAN
- QOS

**Diagnostics**

- Diagnostics

**Account setting**

- Guest
- Administrator

**Save & Restart**

- Save & Restart
- Reset factory

**System status**

Software version :	3-10-02.beta0
DHCP ON/OFF :	OFF
IP address :	192.168.2.5
Network mask :	255.255.255.0
MAC address :	00:76:05:00:50:00
Mode :	master
Data forwarding :	Enable
Traffic control :	Disable

## 3.2.1 System information

The screenshot shows the 'Cable-Ethernet Network System' web interface in Microsoft Internet Explorer. The browser address bar shows 'http://192.168.2.5/main\_sf46bfb0-eng.html'. The page title is 'Cable-Ethernet Network System'. On the left, there is a navigation menu with categories: Running status, Base setting, Advanced setting, Diagnostics, Account setting, and Save & Restart. The 'System status' page is active, displaying a table of system parameters.

System status	
Software version:	3-10.02.beta0
DHCP ON/OFF:	OFF
IP address:	192.168.2.5
Network mask:	255.255.255.0
MAC address:	00.76.05.00.30.00
Mode:	master
Data forwarding:	Enable
Traffic control:	Disable

## 3.2.2 ETH system equipment information

The screenshot shows the 'Cable-Ethernet Network System' web interface in Microsoft Internet Explorer. The browser address bar shows 'http://192.168.2.5/main\_sf46bfb0-eng.html'. The page title is 'Cable-Ethernet Network System'. On the left, there is a navigation menu with categories: Running status, Base setting, Advanced setting, Diagnostics, Account setting, and Save & Restart. The 'ETH statistics' page is active, displaying a table of network statistics.

ETH Statistics		
	RX	TX
PACKETS:	9851746	9608448
ERRORS:	0	0
Dropped PACKETS:	0	0
OVERRUNS:	0	0
FRAME:	3518	
CARRIERS:		0
Collisions:		0
Queue length:		1000
BYTES:	1088148060	2857920212

## 3.2.3 PLC System Equipment Information

The screenshot shows the 'Cable-Ethernet Network System' web interface. The left sidebar contains navigation menus for 'Running status', 'Base setting', 'Advanced setting', 'Diagnostics', 'Account setting', and 'Save & Restart'. The main content area displays 'PLC Statistics' in a table format.

	RX	TX
PACKETS :	9606790	9895978
ERRORS :	0	0
Dropped PACKETS :	0	161362
OVERRUNS :	0	0
FRAME :	0	
CARRIERS :		0
Collisions :		0
Queue length :		1000
BYTES :	2723633430	1091096171

## 3.3 Basic Settings

### 3.3.1 IP Address settings

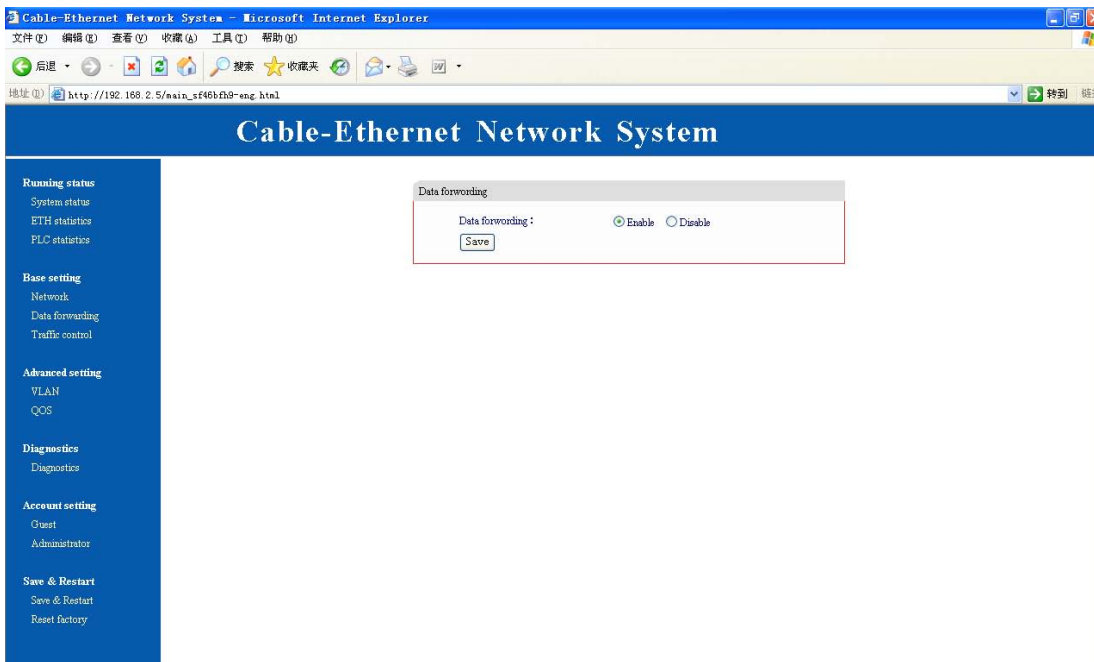
Entry this interface you can change the IP address

The screenshot shows the 'Cable-Ethernet Network System' web interface with the 'Network Configuration' section active. It includes radio buttons for 'Obtain an IP address automatically' (Yes/No), input fields for IP address, Network mask, and MAC address, and a 'Save' button.

Field	Value
Obtain an IP address automatically :	<input type="radio"/> Yes <input checked="" type="radio"/> No
IP address :	192.168.2.5
Network mask :	255.255.255.0
MAC address :	00:76:05:00:50:00

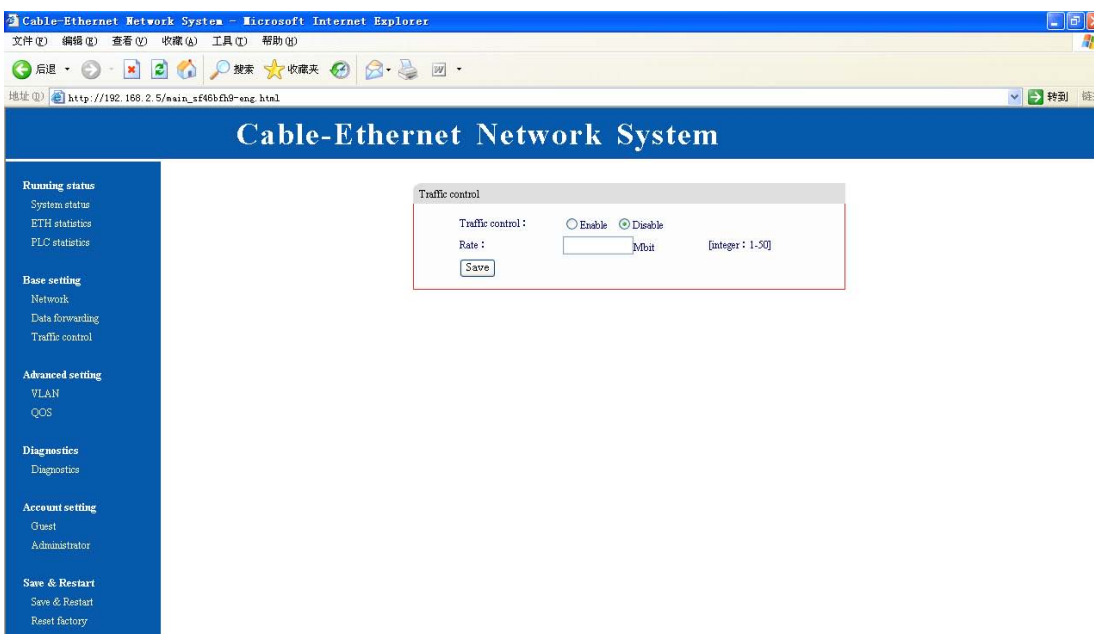
### 3.3.2 Data forwarding

Entry this interface you can setup the data exchange switch, please choose Enable during normal state.



### 3.3.3 Traffic control

Entry this interface you can setup the speed of the device (Range 1-50M)



## 3.4 Advanced Settings

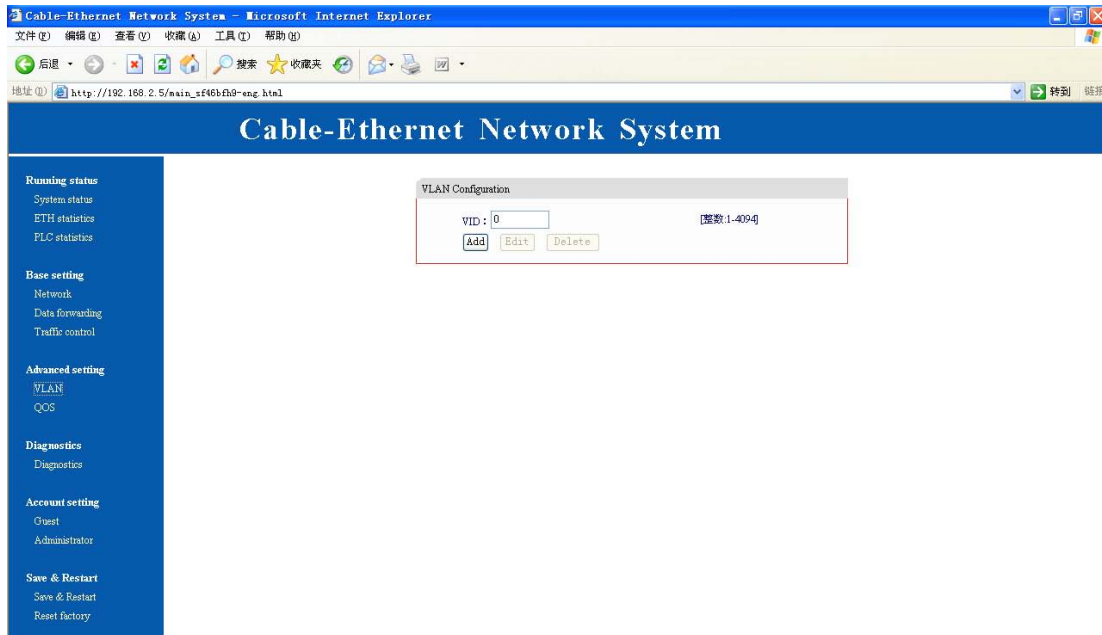
### 3.4.1 Vlan Setting

#### CAUTION!

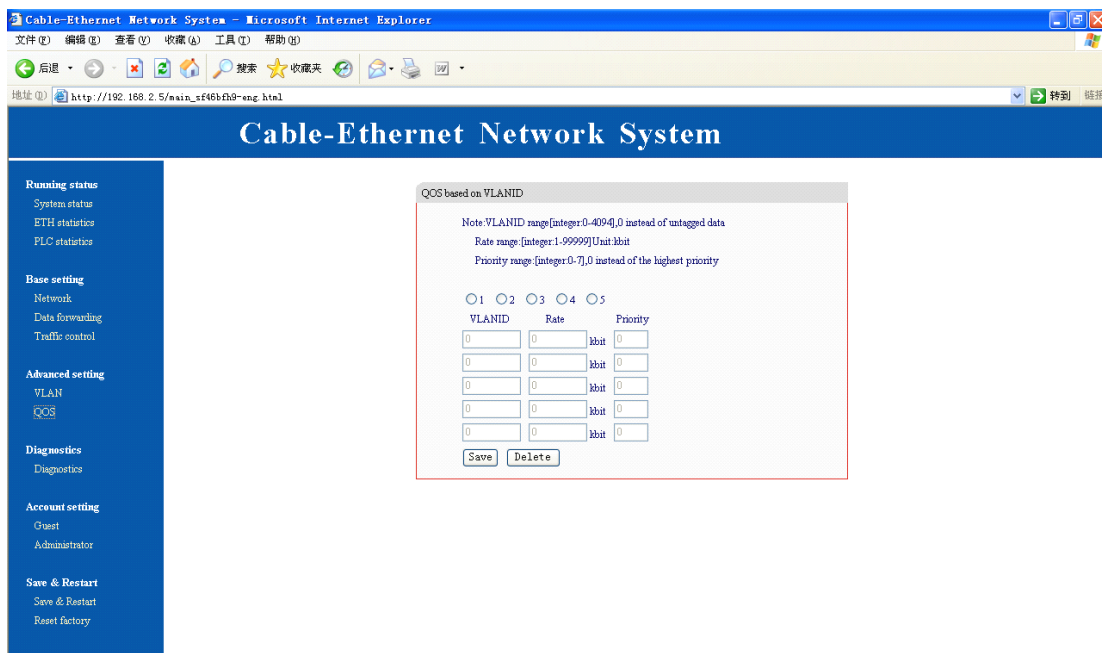
In firmware v3-10-02-beta0 VLAN settings is not working properly over WEB interface. Please do not add any new VLAN, it caused major failure.

VLAN and other advanced settings are accessible in ebttables over telnet or RS-232 console. Login to telnet or console is root / rootplc. Console/telnet is intended only for advanced user, please change setting carefully.

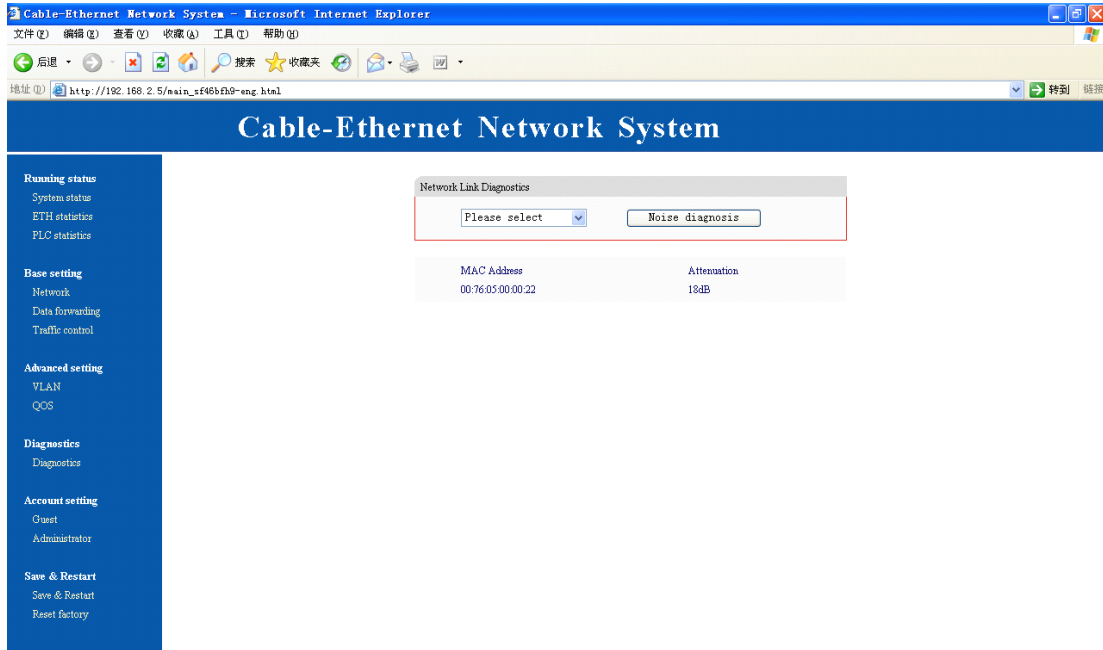
More info about ebttables: <http://ebtables.sourceforge.net/>



### 3.4.2 QOS Settings



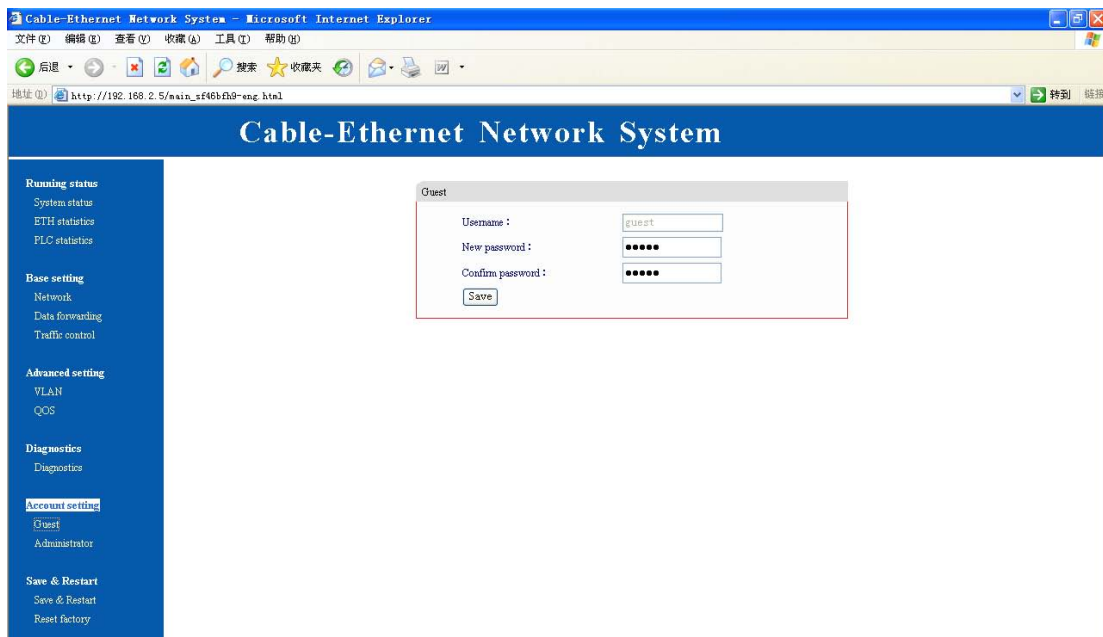
## 3.5 Equipment Diagnostics



## 3.6 Account setting---change Keywords

### 3.6.1 Guest

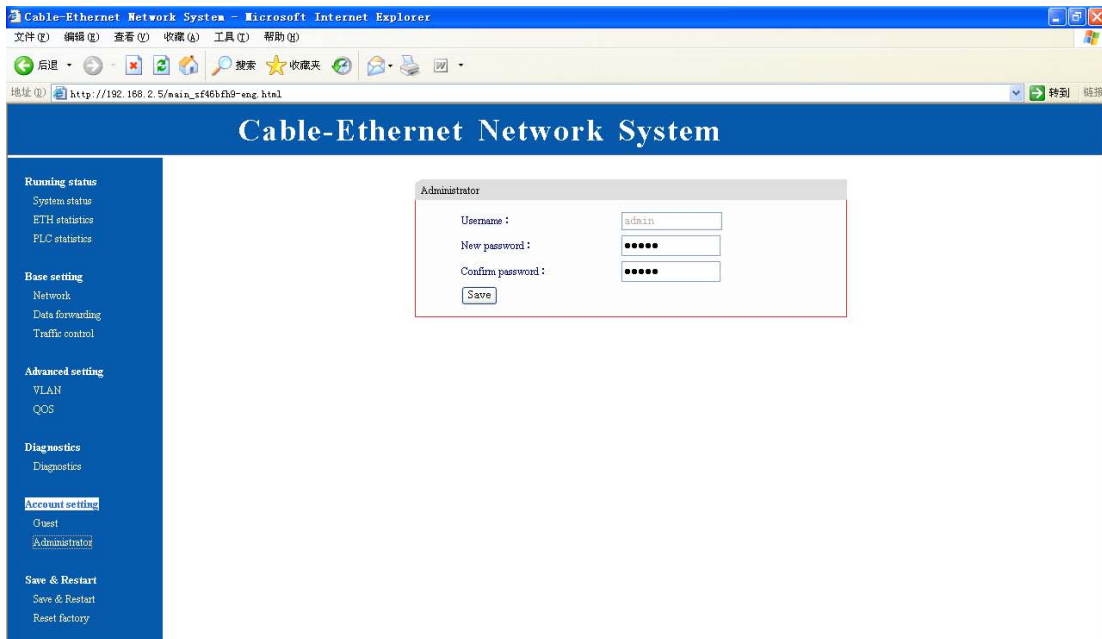
Entry this interface you can change the password of the guest.





## 3.6.2 Administrator

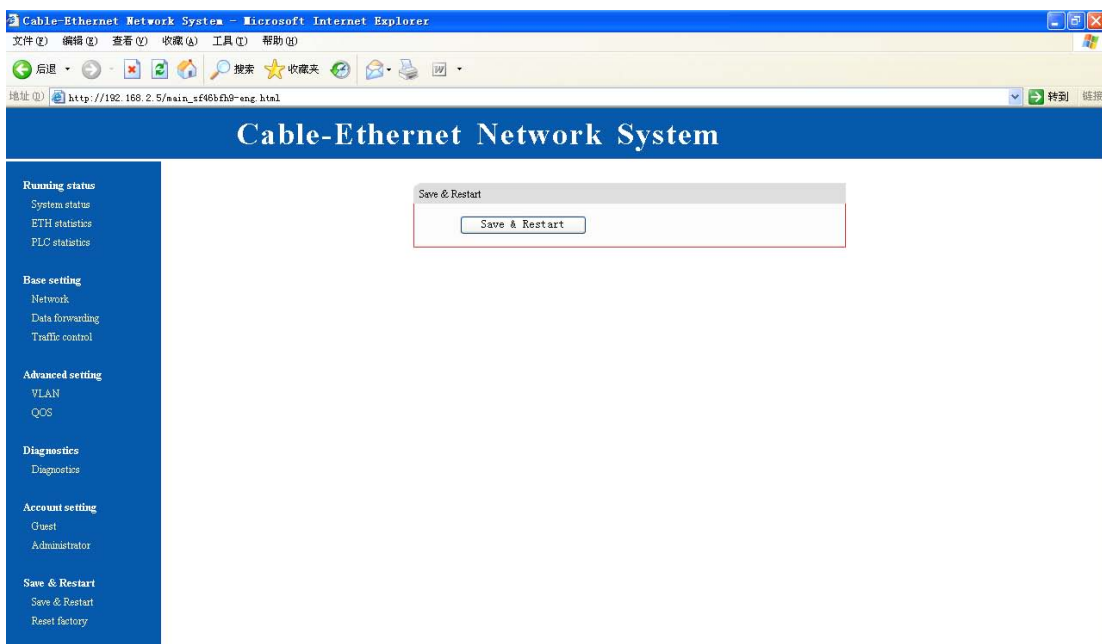
Entry this interface you can change the password of the Admin.



## 3.7 Save & Restart

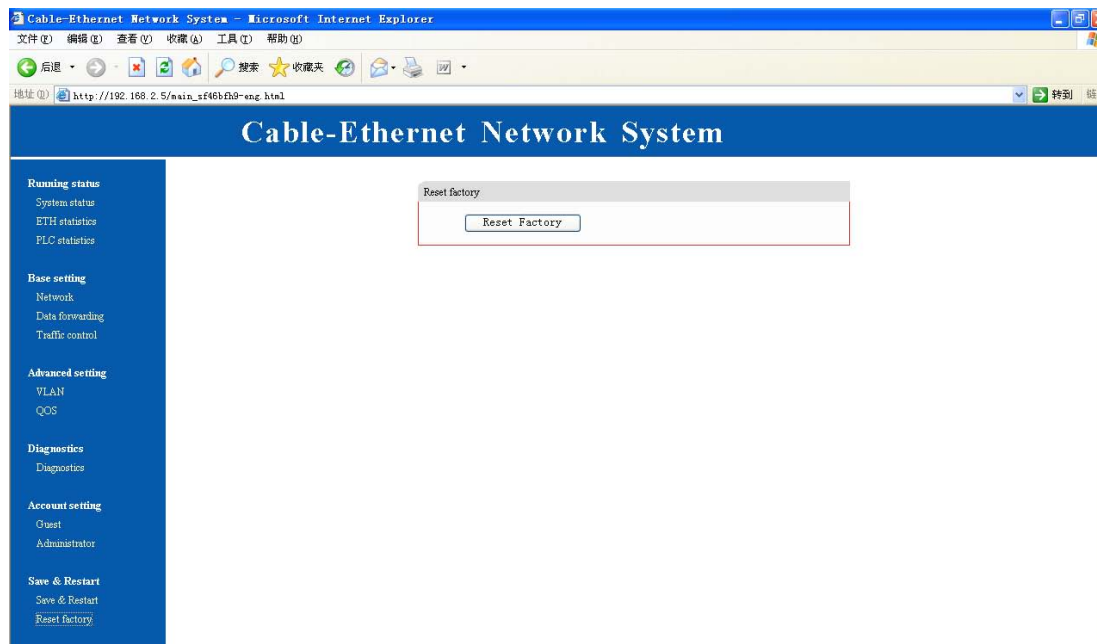
### 3.7.1 Save & Restart

When you change the content of the web interface, you have to press Save & Restart button to save.



## 3.7.2 Reset factory

When your setup is wrong, you can entry this interface to press Reset factory button, recover default data



## 4 Attachment

### 4.1 Specification

#### 4.1.1 Products Specification

Item	XL-PBW224CW
<b>Network standard</b>	IEEE802.3、IEEE802.3u
<b>Link standard</b>	IEEE HomePlug BPL
<b>Physical layer bandwidth</b>	224Mbps
<b>Data throughput</b>	Exclusive or shared 50Mbps
<b>Work of the band</b>	2—30MHz
<b>work of a frequency bandwidth</b>	Single Frequency 28MHz,
<b>Broadband multi-carrier number</b>	7 (Wavelet) X128 (carrier) = 896 (Carrier)
<b>Communication</b>	frequency division duplex / full-time
<b>Security</b>	-45dBuV

<b>Network tolerance of the attenuation</b>	70dB (0-60dB range of the average throughput of 50Mbps, 70dB at 35Mbps)
<b>Output</b>	110—135dBuV
<b>Transmission media and impedance</b>	TV Cable 75Ω
<b>Power supply</b>	AC 100V~265V

#### 4.1.2 Environmental Characteristics

<b>Temperature</b>	-10°C—55°C
<b>Working humidity</b>	10%—90%

#### 4.1.3 Application Characteristics

<b>Security</b>	VLAN (IEEE802.1Q) to ensure security and to reduce regional broadcasting
QoS	QoS (802.1p) priority to provide multimedia applications and bandwidth management
<b>IP Multicast</b>	IGMP snooping through the realization of 802.3 multicast and multicast, multicast group of end-use of a common tone map in order to optimize data throughput.

#### 4.1.4 Manage and Maintain

Manage	Telnet、SNMP
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#### 4.1.5 Modulation

<b>Modulation</b>	OFDM
<b>Modulation</b>	TDMA+CSMA/CA
<b>Modulation Way</b>	None、BPSK、QPSK、16QAM、64QAM、256QAM、1024QAM

#### 4.1.6 Instruction and Ports

<b>LED Power indicator</b>	Power power equipment status indicator Ethernet Ethernet indicator light
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	System System Indicator
	Data Data Link light
<b>Interface type</b>	RJ45 output data interface (1 or 2)
	F-type coaxial mixed data entry interface
	RF TV Signal output interface
	DC Power Interface

## 4.2 Frequency Question Answer

Trouble phenomenon	Solution
POWER light does not shine	<ol style="list-style-type: none"> <li>1, check the power connector is correct.</li> <li>2, check the power adapter match</li> </ol>
Ethernet Light does not shine	<ol style="list-style-type: none"> <li>1, Check the validity of the cable connections, check whether the PC card's indicator light lit.</li> <li>2, Check the card is working correctly, the specific Approach is to look at "Network Adapter" in PC have "?" or "!" Equipment. If so, please remove the equipment and Re-install.</li> <li>3, otherwise they would be another card slot, if the replacement card is not enough, please.</li> </ol>
No TV signal output	<ol style="list-style-type: none"> <li>1, Make sure Cable interface has been properly connected</li> <li>2, Make sure that the normal instructions System indicator.</li> <li>3, Make sure that operators have to apply for opening of related businesses.</li> </ol>
Can not access the Internet	<p>Take model commonly used as an example (already installed on your computer dial-up software) explain:</p> <ol style="list-style-type: none"> <li>1, Make sure the problem does not exist in front.</li> <li>2, Make sure that PC card property is set to automatically obtain IP address.</li> <li>3, Make sure that IE browser proxy server settings are correct.</li> <li>4, Please try to log multiple pages to verify that a site is not due to server failure.</li> </ol>