

ST-2510AW equipment parameter setup and user manual

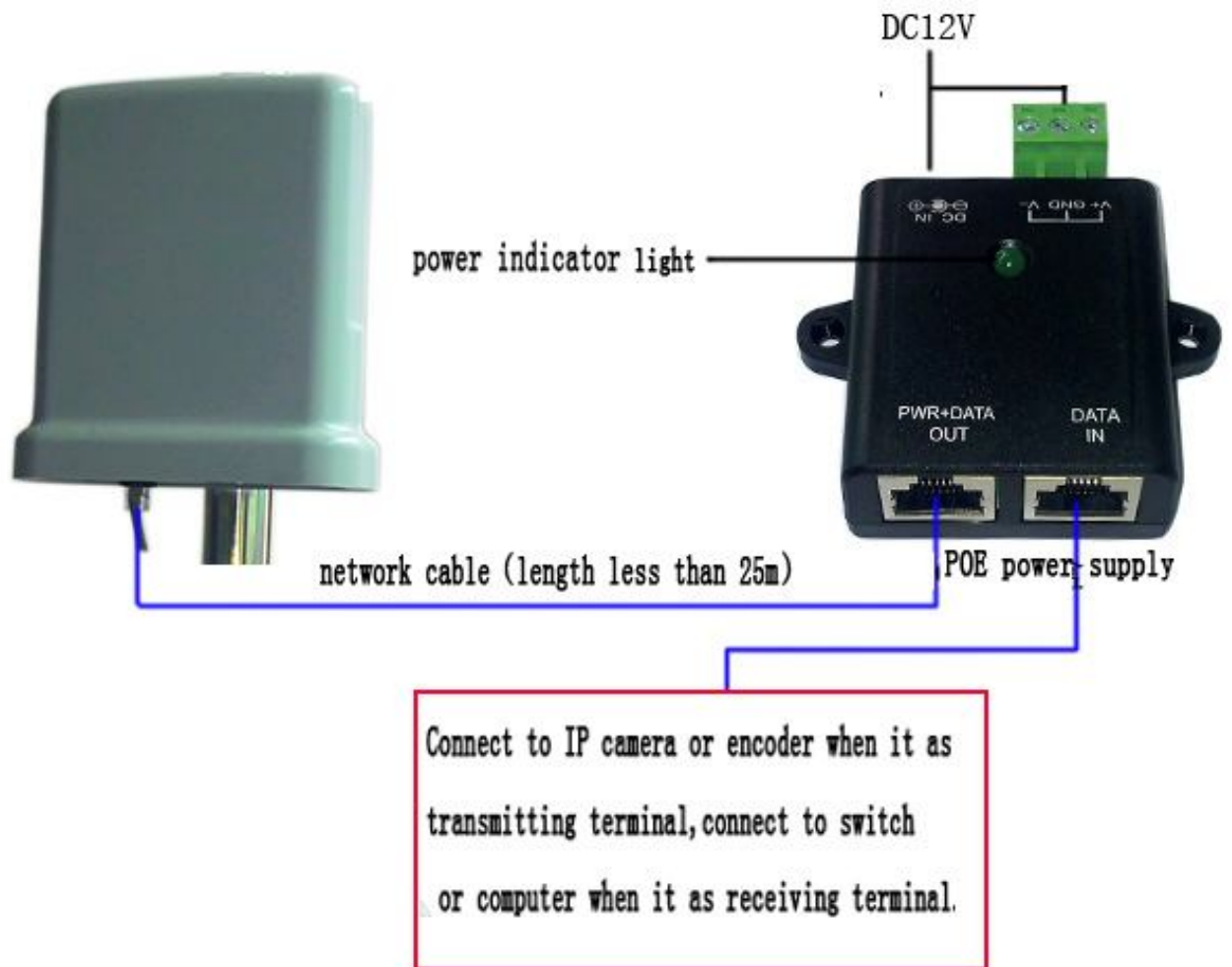
Product appearance:



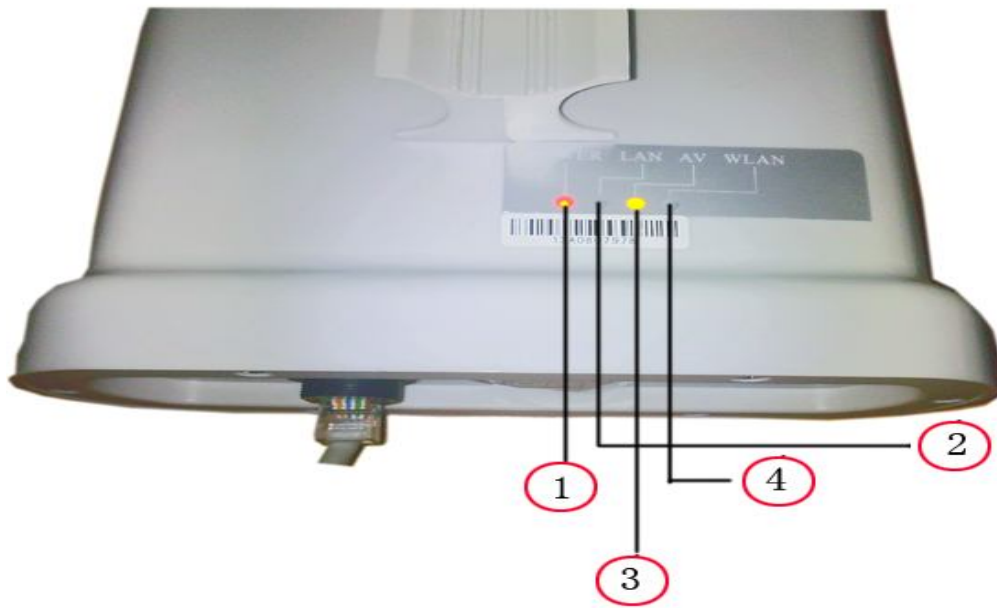
How to connect the equipment:

ST2510AW is POE power supply with network cable. To make it working normally, Pls connect the equipment to PWR+DATA(OUT) interface of POE power supply box with straight in network cable, DATA(IN) connect to IP camera or other network signal.

Diagram as follows:

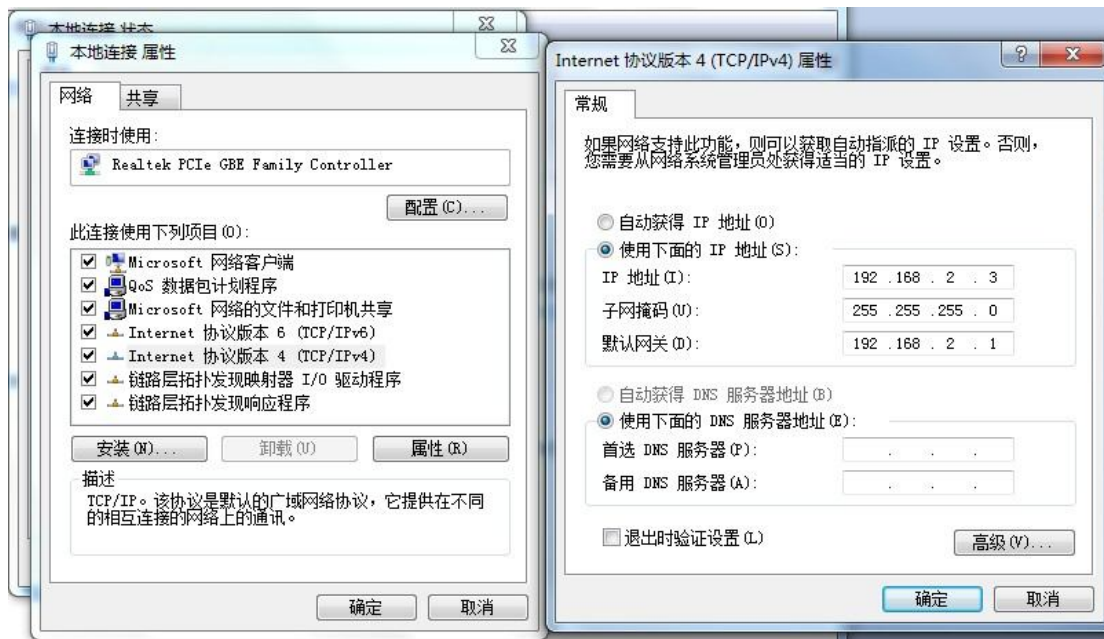


Indicator light diagram:



- 1, POWER, power indicator light, red, when POE power on, red light bright, equipment start.
- 2, LAN, green, it will flicker when start power on.
- 3, AV, yellow, when equipment DATA(IN) connect to equipment, it will flicker
- 4, WLAN, green, it will be bright when equipment is under WDS bridge mode and communication normally.

First, we should change the computer webmaster into the same network segment of wireless equipment. Equipment original IP address is: 192.168.2.254, subnet mask is: 255.255.255.0, gateway: 192.168.2.1, then the computer IP need to be: 192.168.2.X (X=2~253 any digital among this), equipment default user name is: Admin .no password



After turn off the computer gateway modify, you can set up the parameter by entering the IE browser and input the equipment IP address:

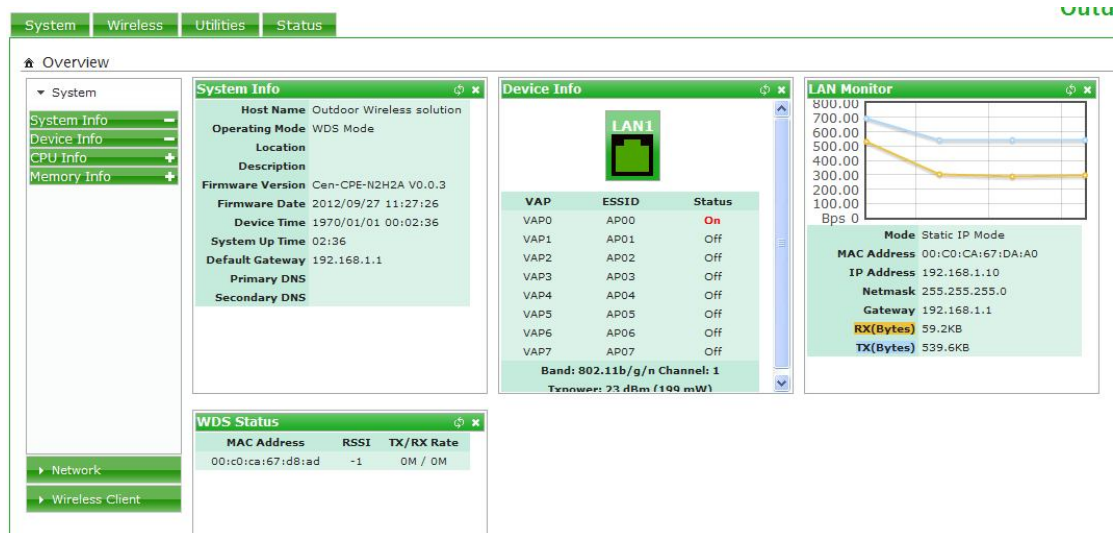


Then input the user name and password on the windows:

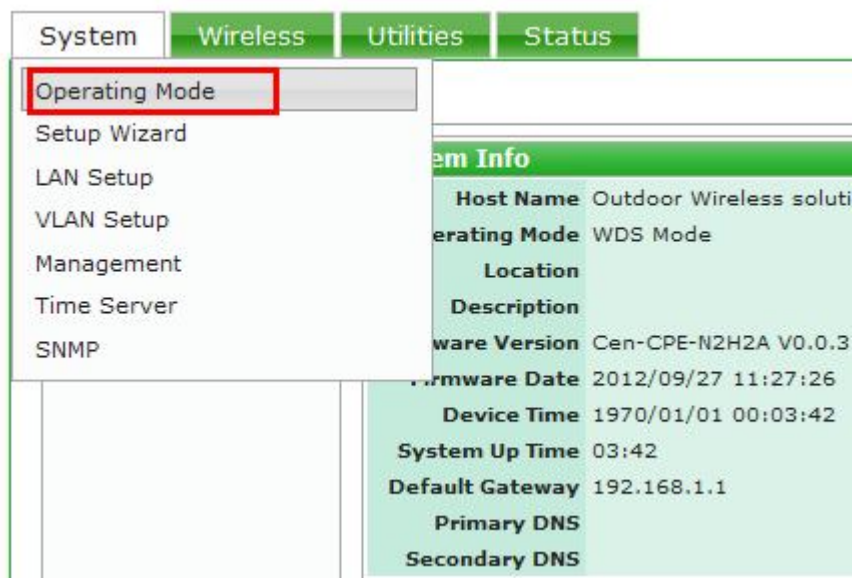


After this, click the “confirm” to enter the main interface

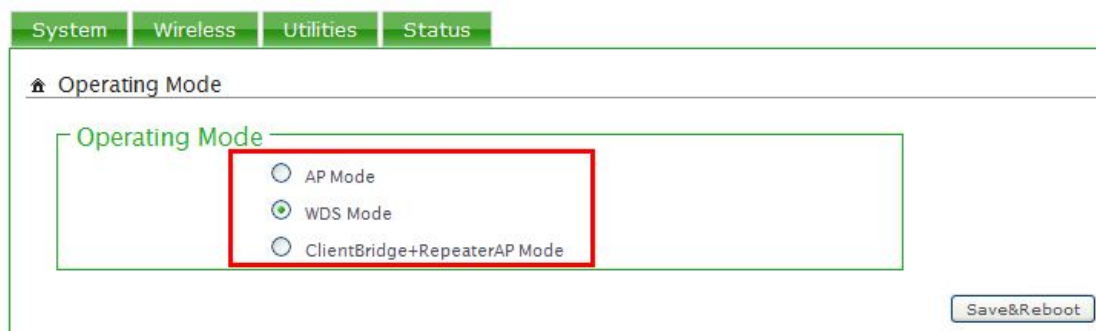
These are relevant information of system on the main interface, including: equipment operation mode, version information, network operating status, IP information, MAC address, etc.



You can finish the equipment operation mode in the system setting up:



Click" Operation mode"



Here according to your requirements, you can choose different operation mode.:

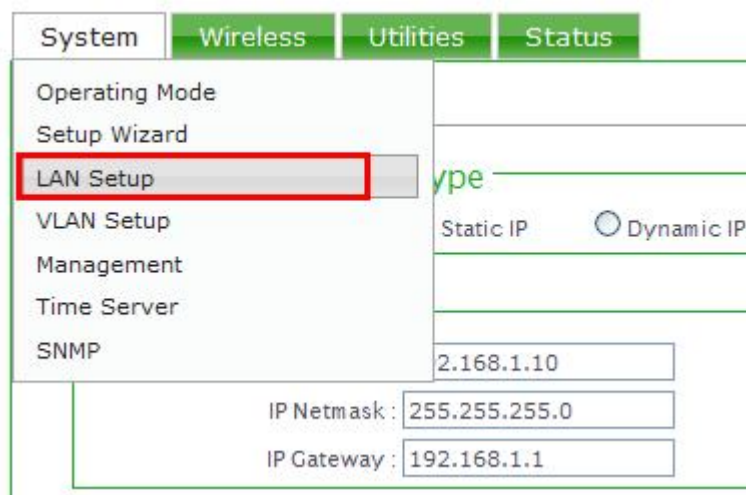
AP mode (mainly refer to coverage, one mail equipment transmits signals all around, and the other client equipment use Client bridge mode to communicate with it.)

WDS mode (mainly refer to wireless bridge function, make both ends data for bridge

communication, like a bridge, connect the ends, so it is also called bridge mode. Main application: point-to-point, point-to multipoint)

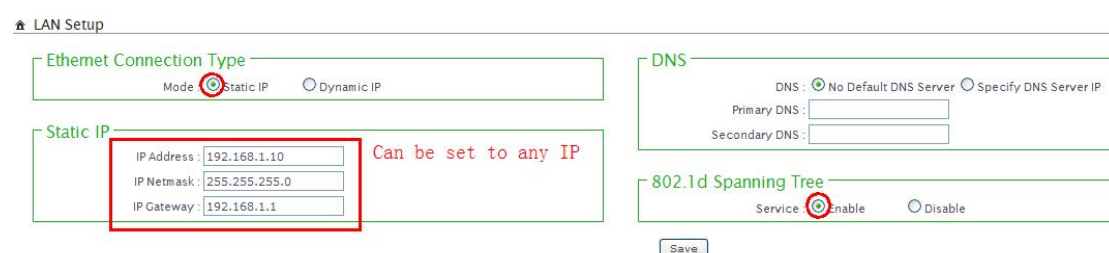
ClientBridge+RepeaterAP mode (add relay mode at client, client mode mainly communicate with AP mode **【master transmitter】**, one AP mode equipment can work with multi-client mode terminal. The **RepeaterAP** is mainly used as relay. That is, with thus setting up, the equipment can do signal(which is received from main AP equipment) coverage to all around, thus, the signal coverage area is increased.)

Equipment IP modify



The screenshot shows a web interface with four tabs: System, Wireless, Utilities, and Status. The 'Wireless' tab is selected. A dropdown menu is open under 'Wireless', showing options: Operating Mode, Setup Wizard, LAN Setup (highlighted with a red box), VLAN Setup, Management, Time Server, and SNMP. To the right of the dropdown, there are input fields for IP configuration: 'Static IP' is selected, 'Dynamic IP' is unselected, and the IP address is set to '192.168.1.10'. Below these, the 'IP Netmask' is '255.255.255.0' and the 'IP Gateway' is '192.168.1.1'.

Choose Local Area Network in the system default:



The screenshot shows the 'LAN Setup' configuration page. It has two main sections: 'Ethernet Connection Type' and 'DNS'. In the 'Ethernet Connection Type' section, 'Mode' is set to 'Static IP' (selected with a red circle). In the 'Static IP' section, 'IP Address' is '192.168.1.10', 'IP Netmask' is '255.255.255.0', and 'IP Gateway' is '192.168.1.1'. A red box highlights these three fields, with the text 'Can be set to any IP' next to it. In the 'DNS' section, 'DNS' is set to 'No Default DNS Server' (selected with a red circle). Below this, 'Primary DNS' and 'Secondary DNS' are empty. In the '802.1d Spanning Tree' section, 'Service' is set to 'enable' (selected with a red circle). A 'Save' button is at the bottom right.

Click 

 Press " Reboot " after all configurations to enable new setting.

Click"reboot"

Press **Reboot** after all configurations to enable new setting.

Sometimes it may be necessary to reboot the system if it begins working improperly. Rebooting the system will not delete any of your configuration settings. Click reboot button to reboot the system.

Reboot

Click

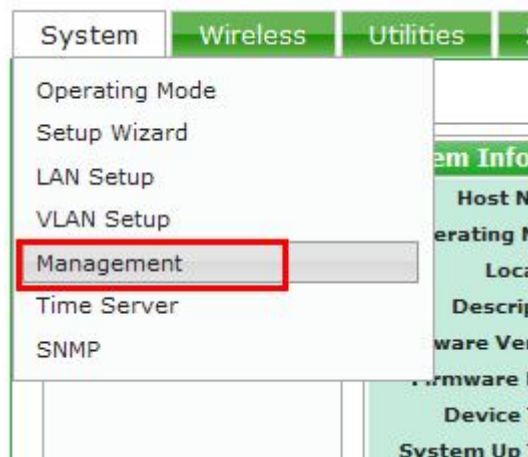
Reboot

Enter restart count down interface



You will enter new IP interface after restart, then input the user name and password again.

Chang equipment's user password



Click "management"

Management Setup

System Language

Language : English ▼

System Information

System Name : Outdoor Wireless solution

Description :

Location :

Root Password

New Root Password :

Check Root Password :

You can change the information in the red frame to your requirements.

Real application and operation mode

Communications setting of AP mode and ClientBridge+RepeaterAP mode

First, choose one of the equipment, change its mode for AP mode

Operating Mode

Operating Mode

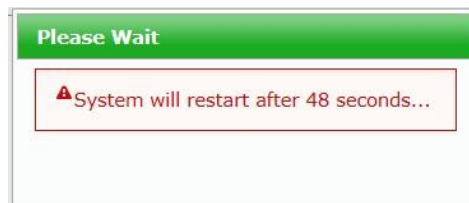
☒ AP Mode

☐ WDS Mode

☐ ClientBridge+RepeaterAP Mode

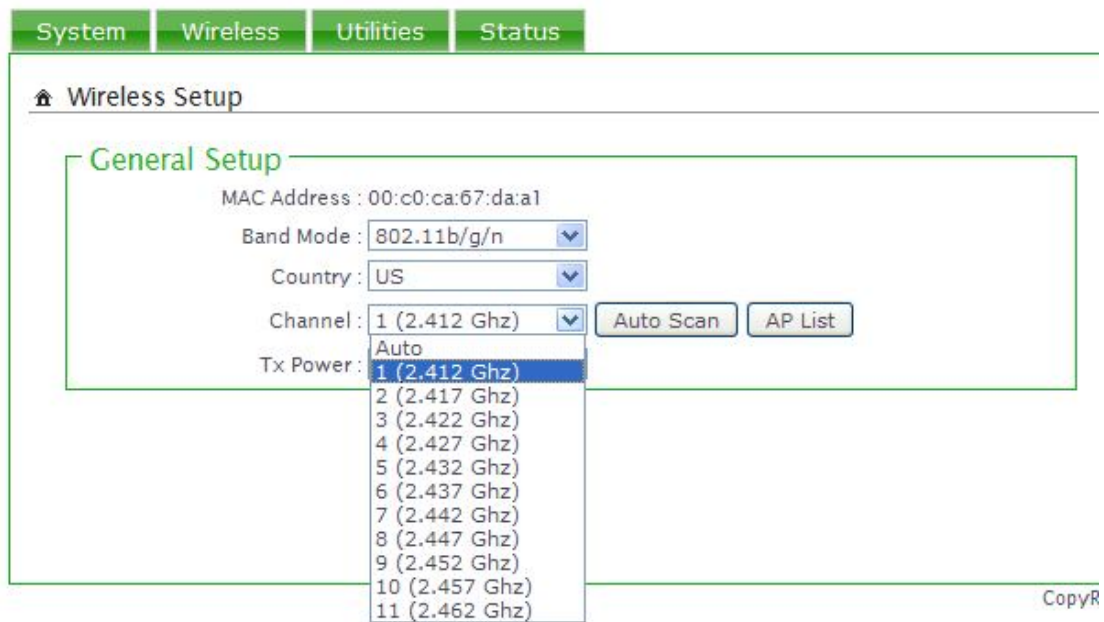
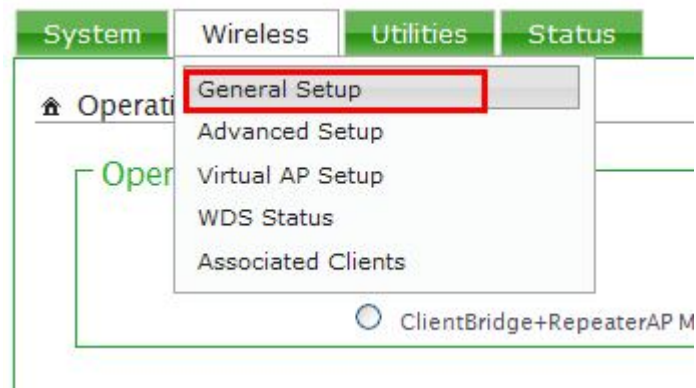
Save&Reboot

Click **Save&Reboot**, setting the equipment as AP mode

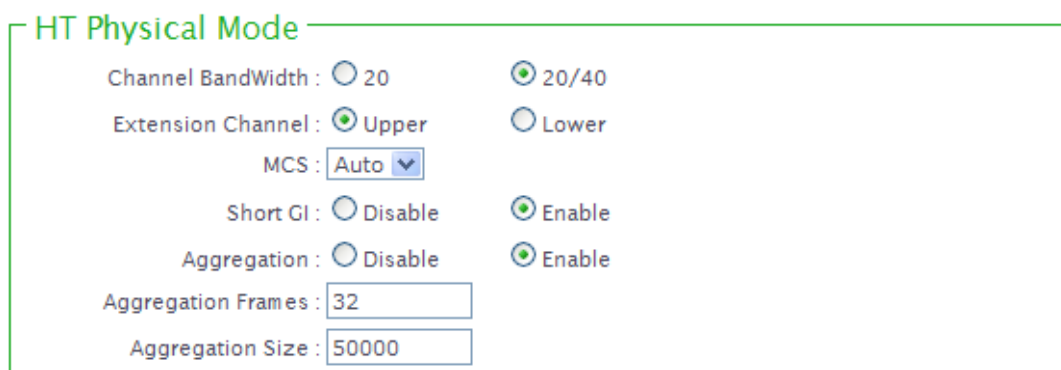


Equipment will enter restart count down status

Response parameters setting



Here you can set up the equipment parameters: working frequency mode, country and region, channels.

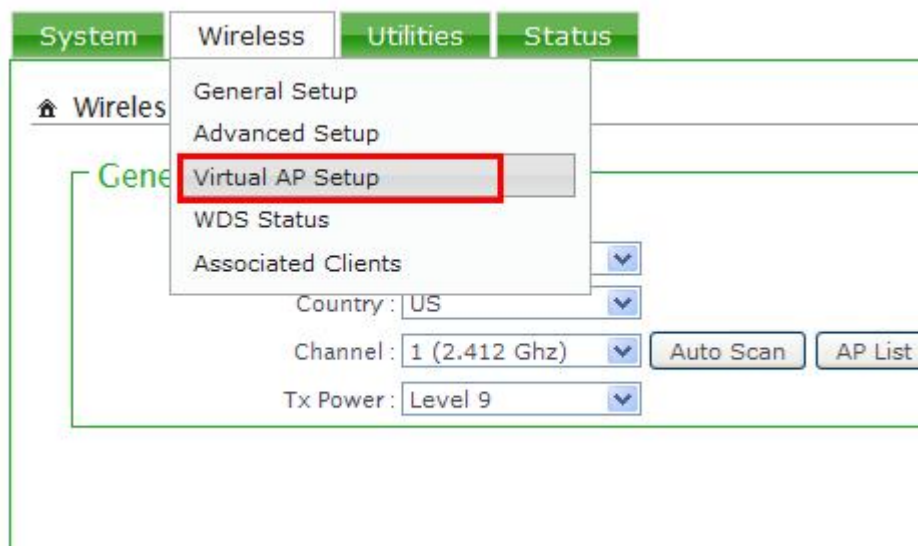


Here it aims at different working frequency to do multi-mode setting for equipment. Under 802.11a / n mode and 802.11n mode, the MCS explanations as below:

MCS index	Spatial streams	Modulation type	Coding rate	Data rate (Mbit/s)	
				20 MHz channel	40 MHz channel

				800 ns GI	400 ns GI	800 ns GI	400 ns GI
0	1	BPSK	1/2	6.50	7.20	13.50	15.00
1	1	QPSK	1/2	13.00	14.40	27.00	30.00
2	1	QPSK	3/4	19.50	21.70	40.50	45.00
3	1	16-QAM	1/2	26.00	28.90	54.00	60.00
4	1	16-QAM	3/4	39.00	43.30	81.00	90.00
5	1	64-QAM	2/3	52.00	57.80	108.00	120.00
6	1	64-QAM	3/4	58.50	65.00	121.50	135.00
7	1	64-QAM	5/6	65.00	72.20	135.00	150.00
8	2	BPSK	1/2	13.00	14.40	27.00	30.00
9	2	QPSK	1/2	26.00	28.90	54.00	60.00
10	2	QPSK	3/4	39.00	43.30	81.00	90.00
11	2	16-QAM	1/2	52.00	57.80	108.00	120.00
12	2	16-QAM	3/4	78.00	86.70	162.00	180.00
13	2	64-QAM	2/3	104.00	115.60	216.00	240.00
14	2	64-QAM	3/4	117.00	130.00	243.00	270.00
15	2	64-QAM	5/6	130.00	144.40	270.00	300.00

virtual AP setting



click“**virtual AP setting**”, then enter the setting interface

VAP List						
VAP	MAC Address	ESSID	Status	Security Type	MAC Filter Setup	VAP Edit
VAP0	00:C0:CA:67:DA:A1	AP00	On	Disabled	Disable	Edit
VAP1		AP01	Off	Disabled	Disable	Edit
VAP2		AP02	Off	Disabled	Disable	Edit
VAP3		AP03	Off	Disabled	Disable	Edit
VAP4		AP04	Off	Disabled	Disable	Edit
VAP5		AP05	Off	Disabled	Disable	Edit
VAP6		AP06	Off	Disabled	Disable	Edit
VAP7		AP07	Off	Disabled	Disable	Edit

Default "VAP0" is in "start using" status, click [Edit](#) to insert the setting interface

Security

ESSID:

Hidden SSID: ☐ Enable ☒ Disable

Client Isolation: ☐ Enable ☒ Disable

IAPP: ☐ Enable ☒ Disable

Maximum Clients:

VLAN ID(Tag): VLAN ID:

Security Type:

WPA General

Cipher Suite: ☐ AES ☒ TKIP

Group Key Update Period:

Master Key Update Period:

Key Type: ☒ ASCII ☐ HEX

Pre-shared Key:

WDS Setup

Service: ☐ Enable ☒ Disable

#	Enable	WDS Peer's MAC Address	Description
01	<input checked="" type="checkbox"/>	00-c0-ca-67-d8-ad	11
02	<input type="checkbox"/>		
03	<input type="checkbox"/>		
04	<input type="checkbox"/>		

Save

Input corresponding identification name on the ESSID window. If it needs encryption, then choose different encryption methods at the corresponding "safe mode" window, and write the corresponding code on the right side of "sharing key"

WPA2-PSK

关闭

WEP

WPA-PSK

WPA2-PSK

WPA-Enterprise

WPA2-Enterprise

WEP 802.1X

After Setting this page, click [Save](#)

Press " Reboot " after all configurations to enable new setting.

Click "reboot"

Press **Reboot** after all configurations to enable new setting.

Sometimes it may be necessary to reboot the system if it begins working improperly. Rebooting the system will not delete any of your configuration settings. Click reboot button to reboot the system.

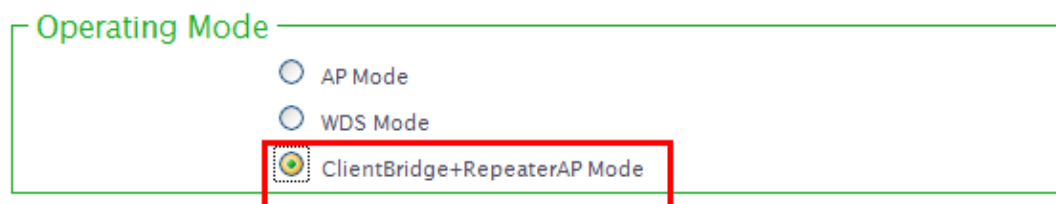
Reboot

Click **Reboot**, go to restart countdown interface:



Entering into main interface after restarting, AP mode setting finished.

Then choose another device, change its mode into **ClientBridge+RepeaterAP mode**



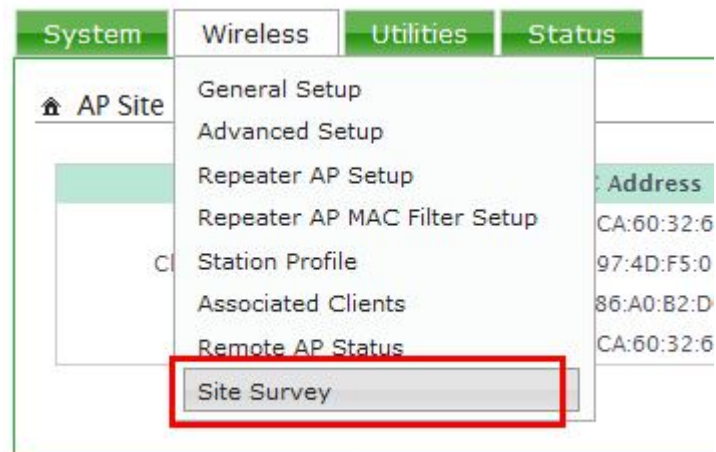
Click **Save&Reboot**, set the equipment as **ClientBridge+RepeaterAP mode**.



Equipment will go to the restart countdown status

The corresponding parameter Settings

Enter the system interface, click on the "wireless set", appear the drop-down menu, select the "available network search"



Appear network searching window:



After completion of a search will find network signal list, find out RSSID name you just set at another AP mode equipment, click "select"

Outdoor wireless solution

ESSID	MAC Address	Signal/Noise, dBm	RSSI	Signal Quality, %	Channel	Security	Select
r	00:C0:CA:60:32:0E	-52 / -95	43	100%	1	WPA2-PSK/AES	Select
ChinaNetk7s5	FC:C8:97:4D:F5:0F	-74 / -95	21	59%	2	WPA-PSK/AES	Select
sz-smv	00:25:86:A0:B2:D0	-79 / -95	16	42%	7	WPA-PSK/AES	Select

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Operate on the appearing interface:

🏠 Station Profile

Connection Setup

Connection Mode : ☒ Force ☐ Cycle

Profile Configuration

MAC Address : 00:C0:CA:67:DA:A1

Profile Name :

ESSID :

Lock to AP MAC : (Optional)

Security Type :

Cipher Suite :

Pre-shared Key :

After setting this page , click

New configuration files will take effect after clicking "restart"

⚠ Press " **Reboot** " after all configurations to enable new setting.

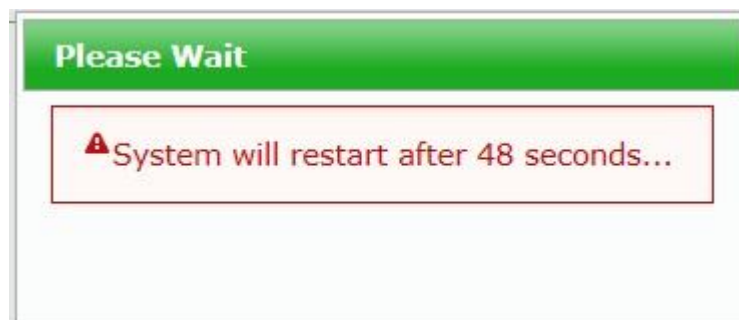
click " restartt"

🏠 Reboot

⚠ Press " **Reboot** " after all configurations to enable new setting.

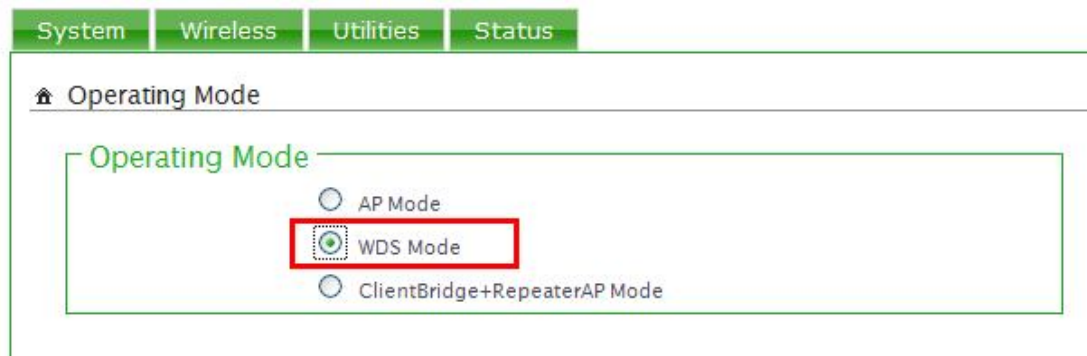
ℹ Sometimes it may be necessary to reboot the system if it begins working improperly. Rebooting the system will not delete any of your configuration settings. Click reboot button to reboot the system.

Click , and go to restart countdown interface



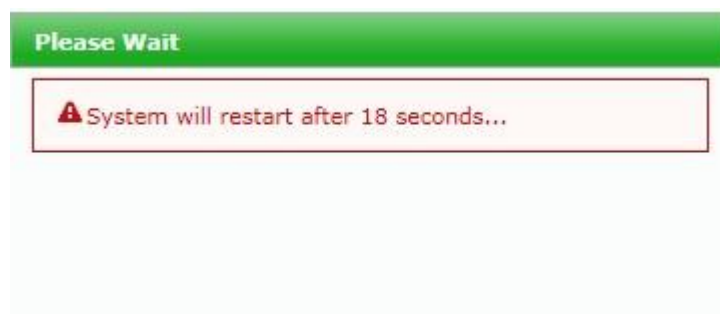
After the restarting ,it enter into the main interface, ClientBridge + RepeaterAP mode setting finished.

Communication settings of WDS model



Select "operating mode" in the "system Settings" drop-down menu, choose "WDS model" in the interface of pop-up

Click [Save&Reboot](#), the system into the state of countdown restart

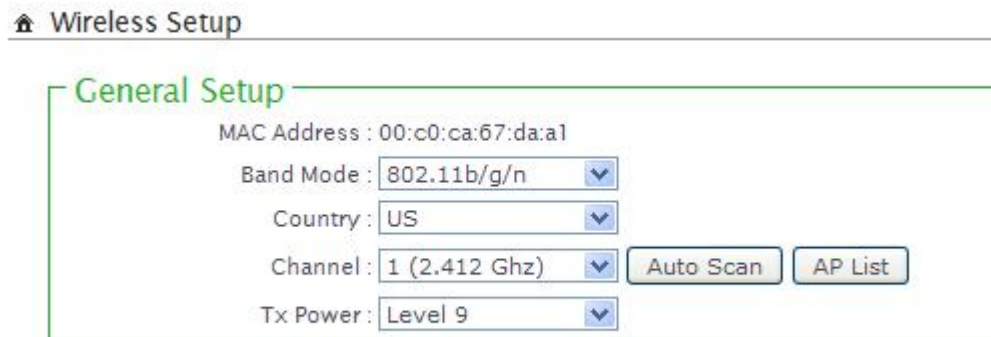


After login in, click on the "wireless set", select "general set" from the drop-down menu



The "general set" interface is mainly to set the wireless frequency band mode and channel:
Two sets of equipment to set up the mutual communication in the same channel, to carry out

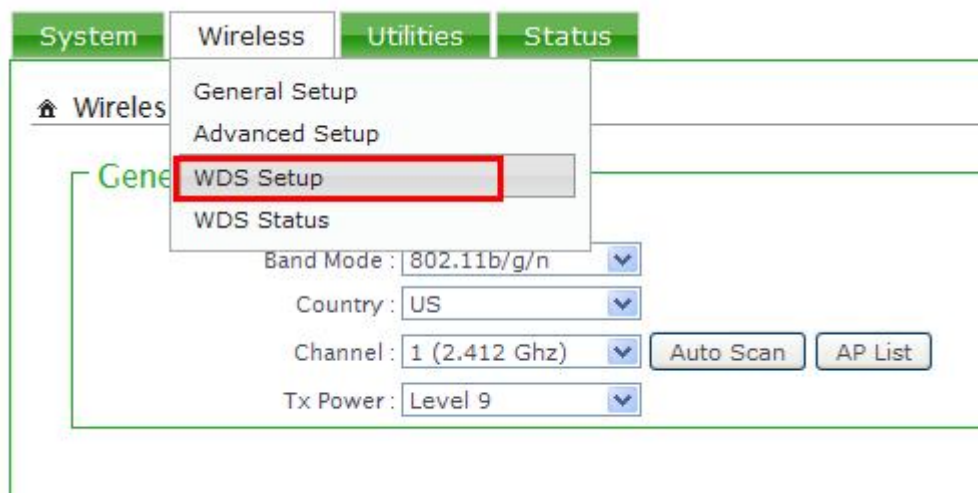
normal communication, in the practical application of the user can set according to the actual needs.



The image shows the 'Wireless Setup' page with a sub-section titled 'General Setup'. It contains the following fields and controls:

- MAC Address : 00:c0:ca:67:da:a1
- Band Mode : 802.11b/g/n (dropdown menu)
- Country : US (dropdown menu)
- Channel : 1 (2.412 Ghz) (dropdown menu)
- Tx Power : Level 9 (dropdown menu)
- Buttons: 'Auto Scan' and 'AP List'

After setting, then click  , restart to make new configuration validation



The image shows the 'Wireless' menu in the top navigation bar. The menu is open, showing options: 'General Setup', 'Advanced Setup', 'WDS Setup' (highlighted with a red box), and 'WDS Status'. Below the menu, the 'General Setup' interface is visible, containing the same fields and controls as the previous image.

Then enter the "WDS set" interface to set parameters

Basically to add the MAC address which communicate with it , maximum 8 group MAC address

WDS MAC List

#	Enable	WDS Peer's MAC Address	Description
01	<input checked="" type="checkbox"/>	00 : c0 : ca : 67 : d8 : ad	11
02	<input type="checkbox"/>	: : : : : :	
03	<input type="checkbox"/>	: : : : : :	
04	<input type="checkbox"/>	: : : : : :	
05	<input type="checkbox"/>	: : : : : :	
06	<input type="checkbox"/>	: : : : : :	
07	<input type="checkbox"/>	: : : : : :	
08	<input type="checkbox"/>	: : : : : :	

Save

Finally click

Save

 ,restart to make configuration validation.

The other equipment which communicate with it must do the same Settings, then the two sets equipment can be normally communication

The setting of WDS mode complete finished