



WAB-5010

**N300 5GHz Outdoor PoE Wireless Access Point,
Controller Managed**

User's Manual

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This is the manual of outdoor CPE, which will approximate guide you how to set and apply the outdoor CPE, it provide a convenient graphical interface for network construction and maintenance person, as well as a user through a simple and accurate operation, and configuration management of the CPE.

1 Preparation for Configuration

1.1 Power supply and Connection

Instruction of different ports



P1 CPE Port Connection

Please use a power supply of 12V DC adapter or 48V POE adapter, WAN / LAN port is the PoE Port.



Pay Attention

Pls make sure the CPE's power supply is normal in reset process, or the CPE will be damaged and can't reboot

Powered by POE

The connection way of CPE, PoE and PC: POE port should connect with the WAN/POE Port of the CPE. Please make sure the device is under AP mode. You can press Reset Button to make it to default settings.



P2 Connection diagram of CPE and PoE

Powered by DC

When the CPE powered by DC, please connect the LAN port with PC.



Pay Attention

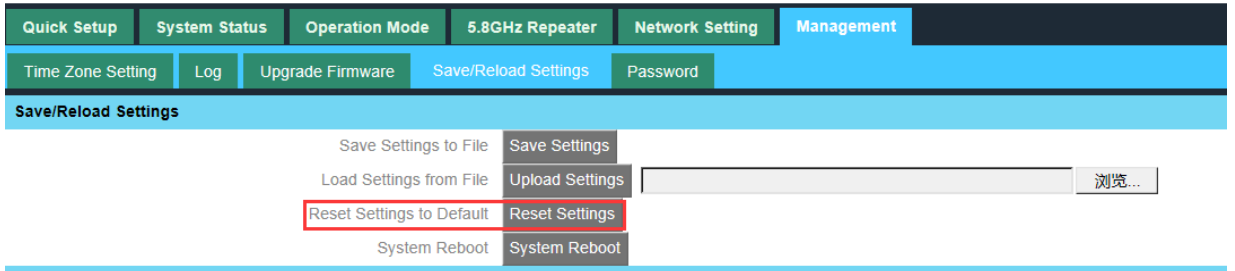
Incorrect Connection or the use power adapter and PoE adapter not from our factory, the CPE will be damaged

Reset Button

Press the Reset Button on CPE more than 15 seconds, then release, the device will reboot and restore to factory settings

Software Reset

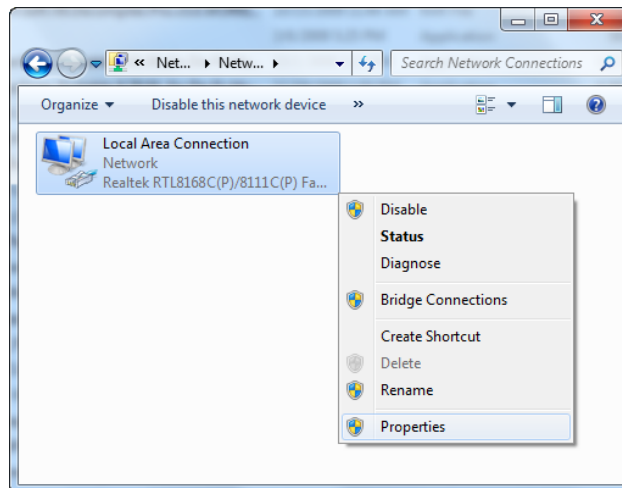
CPE Manage page: Click “Management”, then “Save/Reload Settings”, then click “Reset Settings” to finish the CPE Reset



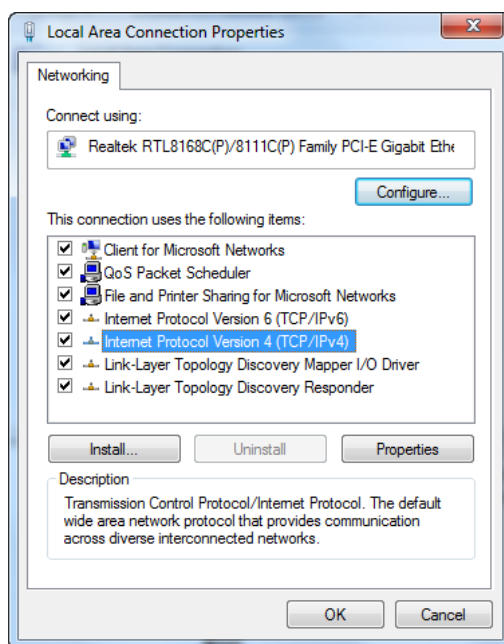
1.2 Log in

A. Connect the CPE with computer as P2 picture

B. Configure the PC's local connection IP address as 192.168.188.X (X is any number but 253), subnet mask is 255.255.255.0, follow P3 and P4 to finish.

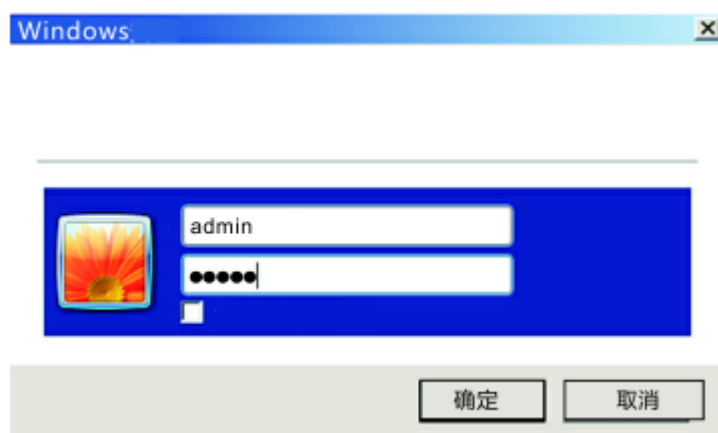


P3 Setting of computer's IP address



P4 Setting of computer's IP address


C. Input 192.168.188.253 into IE browser, then pop up the Log in page, the default Log in user name: admin, Passwords: admin, pls do as following P5



P5 Log in

D. After login, you can see the current status of the CPE: The current Operation Mode, WLAN Status

Quick Setup



Operation Mode: AP Mode

Advanced Settings

Device Status

LAN Interface Setup

IP Address: 192.168.188.253

MAC Address: 78:D3:8D:E9:F6:38

Location Information

AP Location

AP Name

WLAN Status

WLAN Status: Enabled

SSID: WirelessAP

Encryption: WPA2PSK-AES

Channel Number: 149

CPU Frequency: 535MHz

System Memory: 512 M

CPU Usage: 22%

Memory Usage: 20%

P6: Device Status

2 Quick Configuration

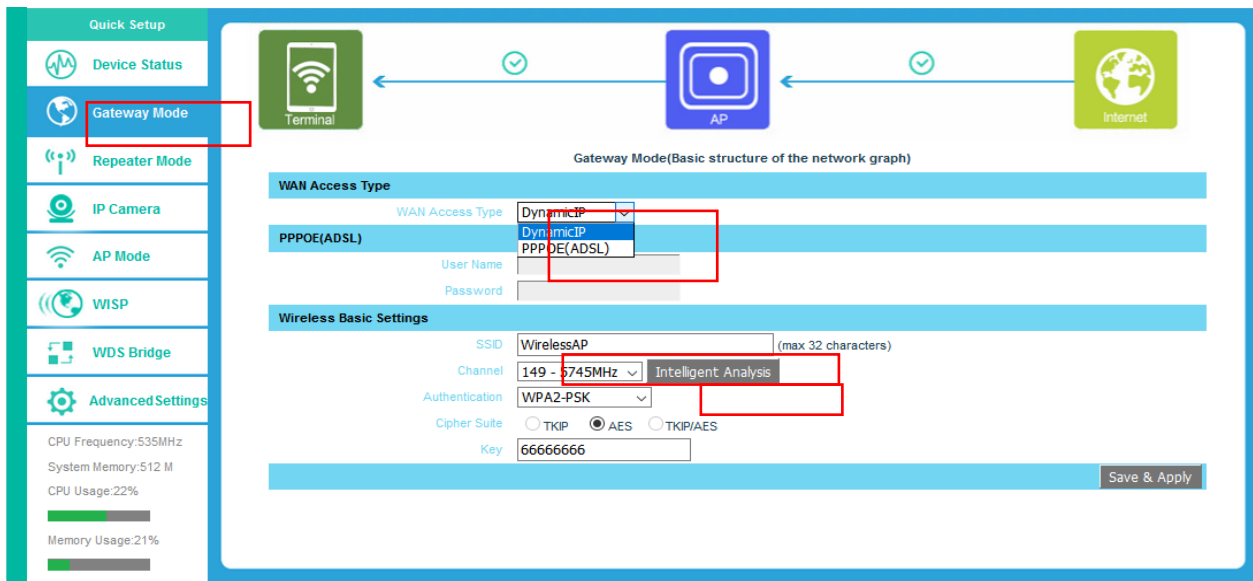
There are six operation modes showed on this page: Gateway mode, Repeater Mode, IP Camera Mode, AP Mode, WISP Mode and WDS Mode.

2.1 Gateway Mode

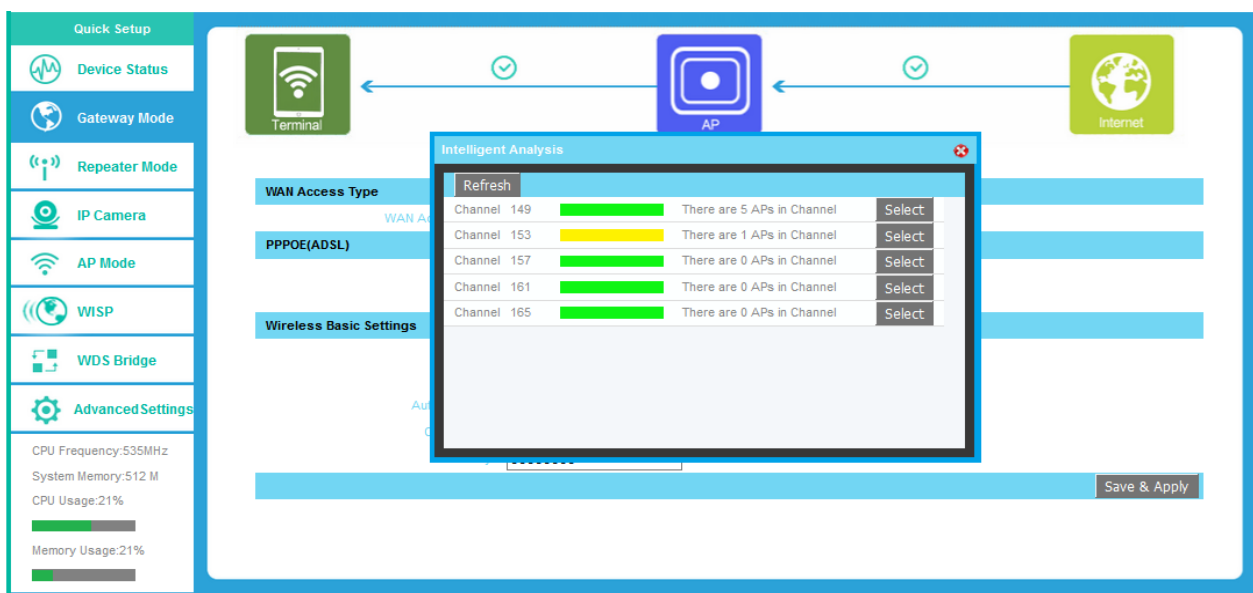
Click “Gateway Mode” under following picture and choose the right WAN access type: Dynamic IP or PPPOE. If you choose PPPOE you have to fill in the User Name and Pass Word the ISP provides.

Input the SSID, Key (password of the SSID), Authentication (Encryption Type) and Channel as you wish. Intelligent Analysis will help you to choose the best channel according to the current environment.

After configuration please Save & Apply.



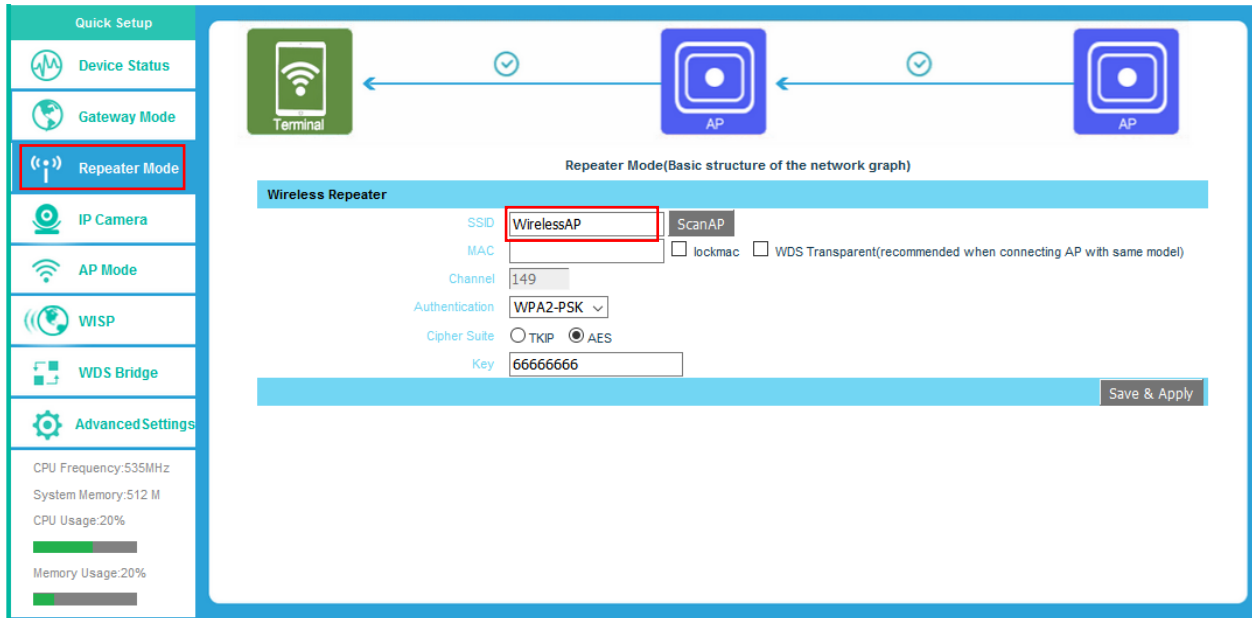
P7 Gateway Mode



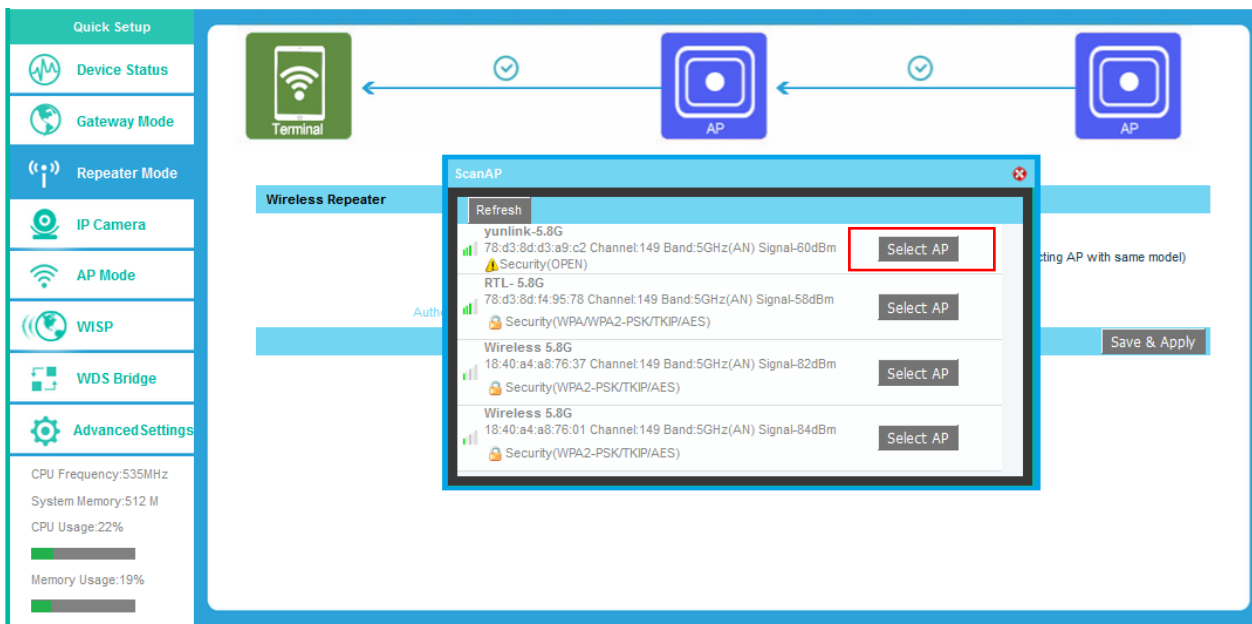
P8 Intelligent Analysis

2.2 Repeater Mode

Scan AP and choose the SSID you want to repeat. You are advised to lock the MAC of the SSID you repeat. Please do not change the Channel of the SSID you repeat. And input the Password of the SSID you repeat. Then Save & Apply.



P9 Repeater Mode



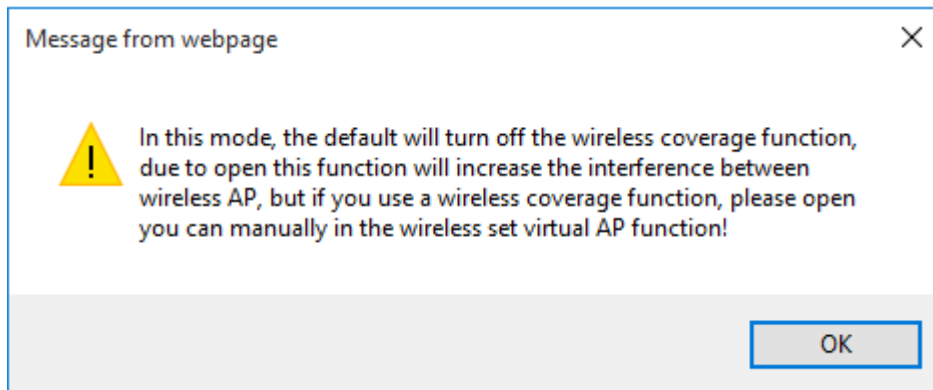
P10 Scan AP



Instruction

If your computer can't pop up this window, pls check your IE explorer and see whether it is blocked already. And if this CPE can't scan any SSID, pls check if there are 5G wireless signal.

After apply you will see the following warning. Click OK. The SSID is disable in default setting, it works as Station; Then if need SSID broadcast in this operation mode, just manually change under Advanced Setting.



After choosing the SSID, click Edit to configure it.

The screenshot shows the configuration interface for a 5.8GHz Repeater. The "5.8GHz Repeater" tab is selected, and the "5.8GHz Virtual AP" sub-tab is active. The "Wireless VAP Settings" section includes options for VAP Interface (Disabled/Enabled), SSID (max 32 characters), Broadcast SSID (Disabled/Enabled), WMM (Disabled/Enabled), Authentication (Open), Key Length (Wep 64 Bit/Wep 128 Bit), Cipher Suite (TKIP/AES/TKIP/AES), Key Format (ASCII/5 characters), and a Key field. Below this is a table of virtual AP configurations:

Status	Band	SSID	Broadcast SSID	Rate	WMM	Security	Edit
📶 (Off)	11NAHT40	WirelessAP1	Enabled	Auto	Enabled	Open	<input checked="" type="radio"/>
📶 (Off)	11NAHT40	WirelessAP2	Enabled	Auto	Enabled	Open	<input type="radio"/>
📶 (Off)	11NAHT40	WirelessAP3	Enabled	Auto	Enabled	Open	<input type="radio"/>

Buttons for "Save & Apply" and "Reset" are located at the bottom right of the table.

P11 Virtual AP

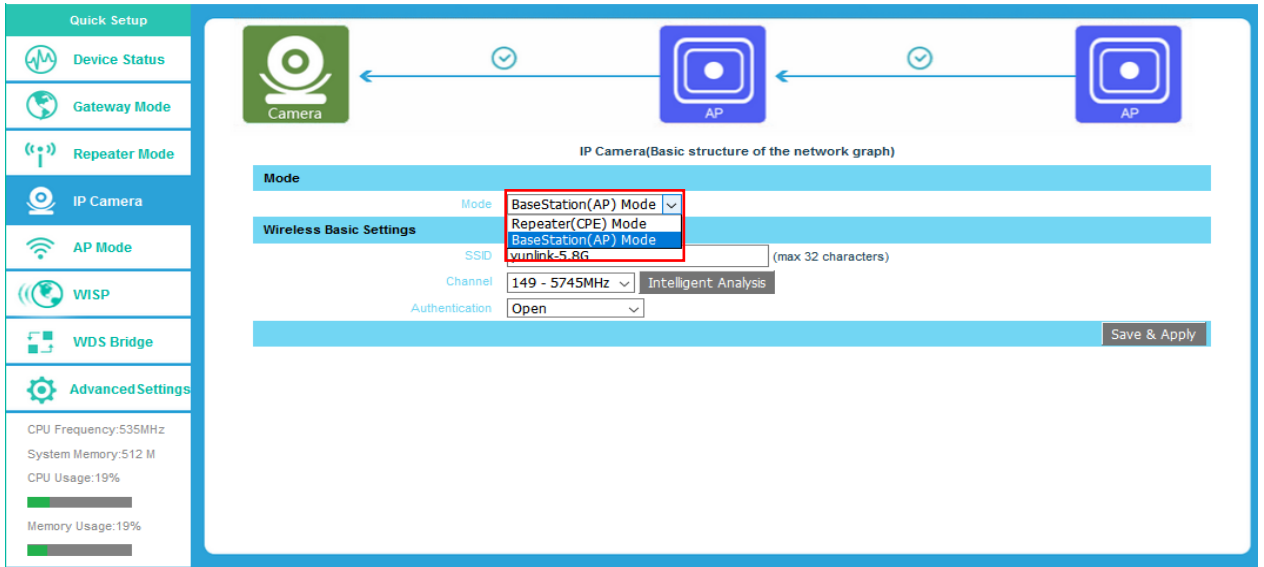
2.3 IP Camera Mode



P12 Application of Cameras

Pls note: If CPE1 in AP operation mode, CPE2 in repeater operation mode, then DVR in CPE1 side; The setting of AP and Repeater mode, please refer to 2.2 and 2.4.

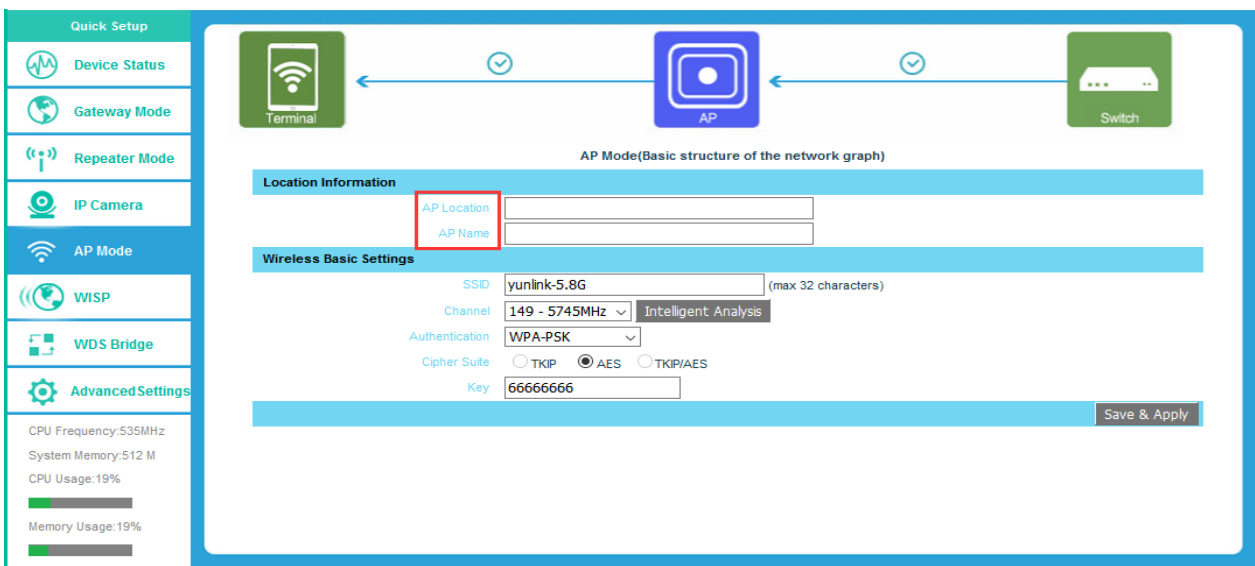
If CPE1 and CPE2 in WDS operation mode, then DVR can be in CPE1 side or CPE2 side.



P13 IP Camera

2.4 AP Mode

Plug and Play to transmit wireless signal for wireless end users form wired networking. In this part, user can mark the AP's location and name for easy problem checking. Input the SSID, Key (password of the SSID), Authentication (Encryption Type) and Channel as you wish. Intelligent Analysis will help you to choose the best channel according to the current environment. Then Save & Apply.



P14 AP Mode

2.5 WISP Mode

Choose the right WAN access type: Dynamic IP or PPPOE. If choose PPPOE you have to fill in the User Name and Pass Word the ISP provides. (You can refer to 2.1)

Scan AP and choose the SSID you want to repeat. You are advised to lock the MAC of the SSID you repeat. Please do not change the Channel of the SSID you repeat. And input the Password of the SSID you repeat. Then Save & Apply. (You can refer to 2.2)

Quick Setup

- Device Status
- Gateway Mode
- Repeater Mode
- IP Camera
- AP Mode
- WISP
- WDS Bridge
- Advanced Settings

CPU Frequency:535MHz
System Memory:512 M
CPU Usage:19%
Memory Usage:19%

WISP(Basic structure of the network graph)

WAN Access Type

1 WAN Access Type DynamicIP

PPPOE(ADSL)

User Name
Password

WISP

2 SSID yunlink-5.8G ScanAP
MAC 78:d3:8d:d3:a9:c2 lockmac
Authentication Open Channel 149

Save & Apply

P15 WISP Mode

2.6 WDS Mode

This mode is used for PTP or PTMP WiFi transmission.user can mark the AP's location and name for easy problem checking. Input the SSID, Key (password of the SSID), Authentication (Encryption Type) and Channel as you wish. After this configuration, you can scan AP to choose the SSID you want to bridge. You are only allowed to bridge the CPE with same channel and same encryption type. Then Save & Apply. When use WDS mode, you are advised to configure each CPE with different IP address in case you are confused by CPEs.

Quick Setup

- Device Status
- Gateway Mode
- Repeater Mode
- IP Camera
- AP Mode
- WISP
- WDS Bridge
- Advanced Settings**

CPU Frequency:535MHz
System Memory:512 M
CPU Usage:19%
Memory Usage:19%

←
✓
←
✓
←
←

WDS Bridge(Basic structure of the network graph)

Location Information

AP Location

AP Name

Wireless Basic Settings

SSID (max 32 characters)

Channel

Authentication

WDS Settings

AP BSSID <input type="text"/>	<input type="button" value="ScanAP"/>	AP BSSID <input type="text"/>	<input type="button" value="ScanAP"/>
AP BSSID <input type="text"/>	<input type="button" value="ScanAP"/>	AP BSSID <input type="text"/>	<input type="button" value="ScanAP"/>

P16 WDS Mode

3 Advanced Settings

3.1 System Status

In system status, you will see the firmware version, build time, System uptime...

Quick Setup	System Status	Operation Mode	5.8GHz Wireless	Network Setting	Management
System Status	5.8GHz Wireless Status	LAN Status			
Status					
Firmware Version B20160809120441					
Build Time 20160809120441					
System uptime 0Day 0H 4M 25S					

P17 System Status

Click 5.8GHz Wireless Status, you will see the basic information of the CPE.

Quick Setup	System Status	Operation Mode	5.8GHz Wireless	Network Setting	Management
System Status	5.8GHz Wireless Status	LAN Status			
WLAN Status					
5.8GHz WLAN Status AP(Enabled)					
Channel-Band 5GHz(AN) channel149					
SSID gh (Broadcast)					
BSSID 78:D3:8D:E9:F6:39					
Encryption Open					
MAC Address 78:D3:8D:E9:F6:39					
WDS AP List 78:D3:8D:D3:A9:C2					
Access Control Mode Allow All					
Client Table Client Table Client Number[1]					

P18 5.8GHz Wireless Status

If want to check LAN status, pls check following picture

Quick Setup	System Status	Operation Mode	5.8GHz Repeater	Network Setting	Management
System Status	5.8GHz Wireless Status	LAN Status			
LAN Status					
IP Address 192.168.188.253					
Subnet Mask 255.255.255.0					
DHCP Server Disabled					
MAC Address 78:D3:8D:BF:CE:C4					

P19 LAN Status

3.2 Operation Mode:

Set operation mode manually, choose the right operation mode, then apply changes. The function of this part will be same as Chapter 2.

Quick Setup	System Status	Operation Mode	5.8GHz Repeater	Network Setting	Management
Operation Mode					
Operation Mode					
<input type="radio"/> Gateway Mode	In this mode, the device is supposed to connect to internet via ADSL/Cable Modem. The NAT is enabled and LAN ports share the same IP to ISP through WAN port. The connection type can be setup in WAN page by using PPPOE, DHCP client or static IP.				
<input checked="" type="radio"/> Repeater Mode	In this mode, all ports are bridged together and NAT function is disabled. All the WAN related function and firewall are not supported.				
<input type="radio"/> WISP Mode	In this mode, all ethernet ports are bridged together and the wireless client will connect to ISP access point. This is enabled and PCs in ethernet ports share the same IP to ISP through wireless LAN. You must set the wireless client mode first and connect to the ISP AP in Site-Survey page. The connection type can be setup in WAN page by using PPPOE, DHCP client or static IP.				
<input type="radio"/> AP Mode	In this mode, the AP wireless interface and cable interface bridging together. Without NAT, firewall and all network related functions.				
					Apply Changes

P20 Operation Mode

3.3 5.8GHz Wireless

A. 5Ghz Basic


In this part, user can configure the SSID, encryption type, password of the SSID. Intelligent Analysis will help you to choose the best channel according to the current environment.

Quick Setup	System Status	Operation Mode	5.8GHz Wireless	Network Setting	Management
5.8GHz Basic					
5.8GHz Basic	WDS Bridge Setting	5.8GHz Virtual AP	VLAN Setting	5.8GHz Access Control	5.8GHz Advanced
Wireless Basic Settings					
Status	<input type="radio"/> Disabled <input checked="" type="radio"/> Enabled				
SSID	gh (max 32 characters)				
AP Name	<input type="text"/>				
AP Location	<input type="text"/>				
Band	5 GHz (AN)				
Broadcast SSID	<input type="radio"/> Disabled <input checked="" type="radio"/> Enabled				
WMM	<input type="radio"/> Disabled <input checked="" type="radio"/> Enabled				
Channel					
Channel Width	20MHz				
Channel Number	149 - 5745MHz Intelligent Analysis				
Security					
Authentication	Open				
					Save & Apply

P21 5.8GHz Basic

B.WDS Bridge Setting

Please refer to 2.6.

Quick Setup	System Status	Operation Mode	5.8GHz Wireless	Network Setting	Management
5.8GHz Basic					
5.8GHz Basic	WDS Bridge Setting	5.8GHz Virtual AP	VLAN Setting	5.8GHz Access Control	5.8GHz Advanced
WDS Settings					
Wireless Basic Settings		Authentication(Open)	Channel(149)		
AP BSSID	78:D3:8D:D3:A9:C2	ScanAP		AP Comment	<input type="text"/>
AP BSSID	<input type="text"/>	ScanAP		AP Comment	<input type="text"/>
AP BSSID	<input type="text"/>	ScanAP		AP Comment	<input type="text"/>
AP BSSID	<input type="text"/>	ScanAP		AP Comment	<input type="text"/>
 The devices in WDS bridge mode should be at the same channel and authentication(Open or WEP) type!					
					Save & Apply

P22 WDS Bridge Setting

C. 5.8Ghz Virtual AP

Please refer to Virtual AP setting in 2.2.

Quick Setup	System Status	Operation Mode	5.8GHz Wireless	Network Setting	Management		
5.8GHz Basic	WDS Bridge Setting	5.8GHz Virtual AP	VLAN Setting	5.8GHz Access Control	5.8GHz Advanced		
Wireless VAP Settings							
VAP Interface <input type="radio"/> Disabled <input type="radio"/> Enabled							
SSID <input type="text"/> (max 32 characters)							
Broadcast SSID <input type="radio"/> Disabled <input type="radio"/> Enabled							
WMM <input type="radio"/> Disabled <input type="radio"/> Enabled							
Authentication <input type="text"/> Open							
Key Length <input type="radio"/> Wep 64 Bit <input type="radio"/> Wep 128 Bit							
Cipher Suite <input type="radio"/> TKIP <input type="radio"/> AES <input type="radio"/> TKIP/AES							
Key Format <input type="text"/> ASCII(5 characters)							
Key <input type="text"/>							
					Save & Apply	Reset	
Status	Band	SSID	Broadcast SSID	Rate	WMM	Security	Edit
(Off)	11NAHT40	WirelessAP1	Enabled	Auto	Enabled	Open	<input type="radio"/>
(Off)	11NAHT40	WirelessAP2	Enabled	Auto	Enabled	Open	<input type="radio"/>
(Off)	11NAHT40	WirelessAP3	Enabled	Auto	Enabled	Open	<input type="radio"/>

P23 5.8Ghz Virtual AP

3.4 Management

A. Time Zone Setting

You can select the time zone. Sync with time server is only available under Gateway, WISP mode.

High-performance Outdoor 300M AP/CPE

Quick Setup	System Status	Operation Mode	5.8GHz Wireless	Network Setting	Management	
Time Zone Setting	Signal Tracking	Log	Upgrade Firmware	Backup/Restore Settings	Password	
Time Zone Setting						
Current Time 2015-01-01 15:57:06 <input type="checkbox"/> Sync with host						
Time Zone Select: (GMT+08:00)Beijing, Chongqing, Hong Kong, Urumqi						
<input type="checkbox"/> Enable NTP client update						
NTP Server: <input type="radio"/> 192.5.41.41 - North America						
<input type="radio"/> 0.0.0.0 (Manual IP Setting)						
<input type="checkbox"/> When device running at 0:00 Automatic optimization system						
					Save & Apply	Cancel

P24 Time Zone

B. Signal Tracking

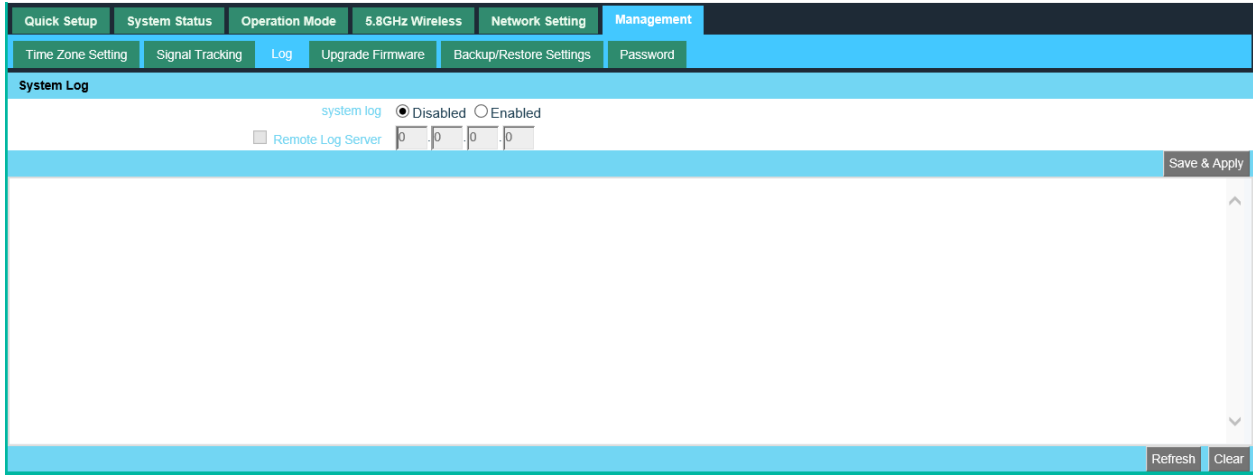
Scan AP first then start tracking the signal.

Quick Setup	System Status	Operation Mode	5.8GHz Wireless	Network Setting	Management
Time Zone Setting	Signal Tracking	Log	Upgrade Firmware	Backup/Restore Settings	Password
Signal Tracking					
SSID <input type="text"/> yunlink-5.8G <input type="button" value="Scan AP"/>					
BSSID <input type="text"/> 78:D3:8D:D3:A9:C2 <input type="button" value="Stop Tracking"/>					
Signal Strength -62 dBm					
Track Status Track Ongoing.....(Tracked 15 times)					
In the procedure of signal tracking, the unexpected effects probably occur in Tx/Rx data transaction. Please press Stop Tracking button instantly after signal tracking!					

P25 Signal Tracking

C. LOG

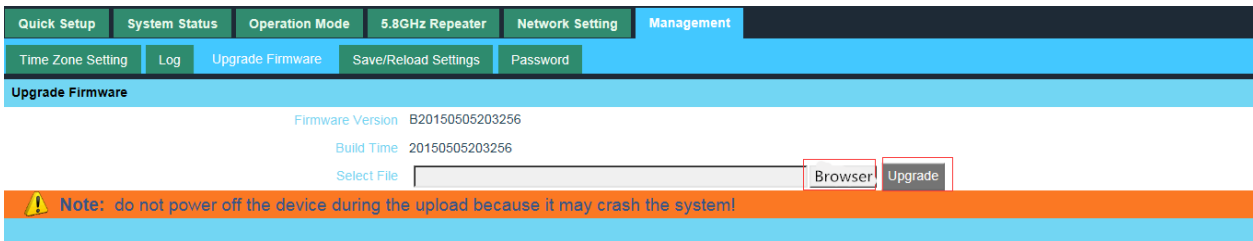
Enabled system log will help you to save the running history of the device. You can copy the log and submit to your engineers.



P26 LOG

D. Upgrade Firmware

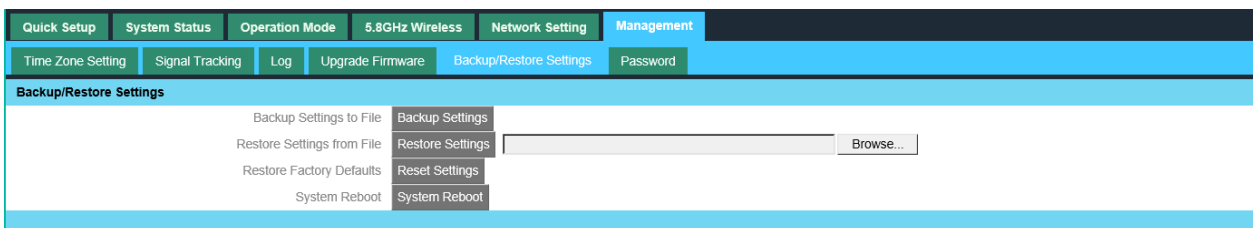
Pls click Upgrade Firmware, then browse and choose the firmware should upgrade, then click upgrade to upgrade the firmware. After upgrading, please Reset the device to factory default.



P27 Firmware Upgrade

E. Backup

You are able to back up the current configuration and restore the configuration from files saved in PC. Reboot and Reset the CPE with just one click.



P28 Backup

F. Password

Change the User Name and Password of Logging in

Quick Setup	System Status	Operation Mode	5.8GHz Wireless	Network Setting	Management	
Time Zone Setting	Signal Tracking	Log	Upgrade Firmware	Backup/Restore Settings	Password	
Password Setup						
	User Name	<input type="text"/>				
	New Password	<input type="text"/>				
	Confirmed Password	<input type="text"/>				
					Save & Apply	Cancel

P29 Password

Trouble Shooting:

F 1 The Failure phenomenon and solution

Failure phenomenon	Solution
SYS Indicator off	Pls make sure the PoE module connection is right. POE Port connect with CPE, LAN port connect with computer
Can't land to CPE through Web page	Pls check the IP address of computer and CPE to see whether they are in same networking segment, The method is click "start"- "Run" input "cmd", ping 192.168.188.253 to test the CPE connectivity. Reset CPE and load it again; Pls make sure the IP address 192.168.188.253 is not occupied by other device in CPE's networking; Check computer and cable problem, recommend to use 10/100M UTP unshielded cable; Clean up Arp binding from "Start"- "Run" input "cmd" arp -d Clean the IE Brower's temporary files and Cache file.
CPE can't connect with AP (the status display unconnected)	Try to scan the available wireless networking again; Make sure the CPE's wireless standard (11b/g/n, 5.8G) is correct; The Security and passwords are matched between CPE and AP; The signal strength of AP is too weak to connect, should be more than -75dBm;
Can't scan the wireless AP	Scan it several times more; Make sure there are 5G signal existed. Reset the CPE, scan it again after CPE restart;
The connection of CPE and AP is success, but the computer can't share internet	Pls Check the computer's IP address and DNS setting. If it is dynamic, set the network card as automatically obtain. If it is static IP, pls contact with ISP for correct IP address and DNS address.
How to Reset CPE	Press the "Reset" button more than 15 seconds after power on. The CPE will restore factory default after the CPE restart.

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