# CPE5450/CPE5450 Master/CPE5450 Slave /CPE5450CD/CPE5450AP/CPE5450FIT/CPE80R/CPE5300/1200AP

## User Manual

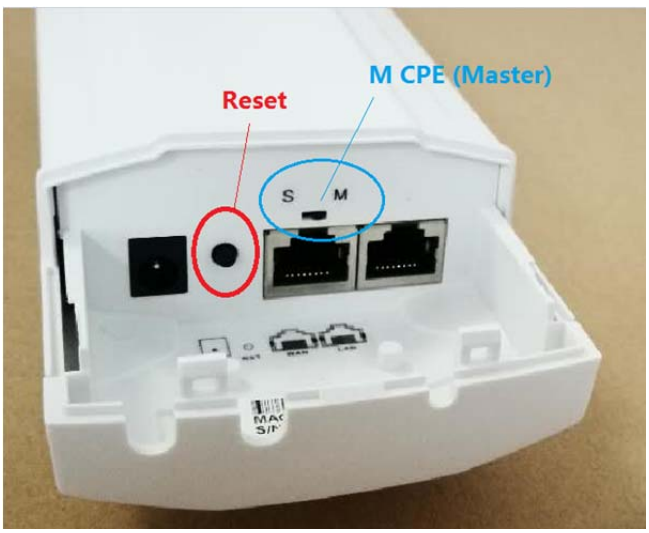
Ver1.3

Jul 2019

### Product pictures



**S CPE (Slave CPE)**




**M CPE (Master CPE)**

Application: Point-to-Point

## Specifications :

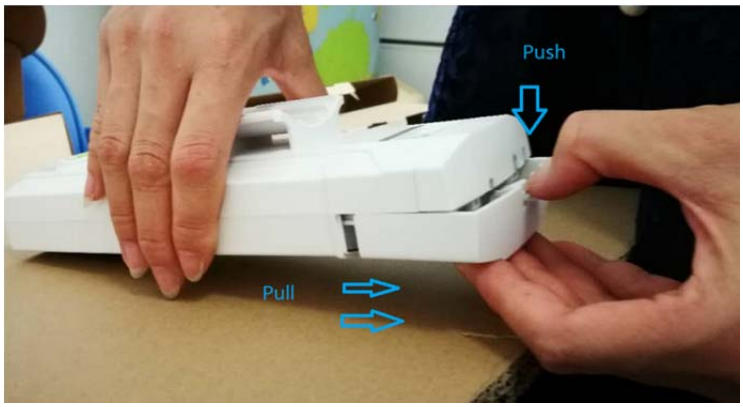
| **Hardware** | |
|---|---|
| Wireless Standard | 802.11ac,450Mbps data rate. |
| Interface | 2*10/100Mbps auto-negotiation RJ45 ports |
| | 1*Reset button, press 15 seconds to revert to default setting |
| | 1*DC jack support 12V |
| Antenna | 14dBi Directional Antenna |
| Indicator | Power, wifi, WAN, LAN, 4 signal strength led indicator |
| Power | DC 12V/1A;24V POE |
| Size | 233mmX77mmX35mm |
| Data Rate | 450Mbps |
| **Firmware** | |
| Operation Mode | Gateway，Repeater，WISP，WDS，AP mode |
| Network Protocol | IEEE 802.3(Ethernet) |
| | IEEE 802.3u(Fast Ethernet) |
| | IEEE 802.11a/an/ac |
| Wireless Settings | Smart channel Analysis |
| | Distance control 802.1x ACK time output |
| | VAP(virtualAP)，Max 4 can be configured |
| | BSSID |

## 1.Preparation for installation:

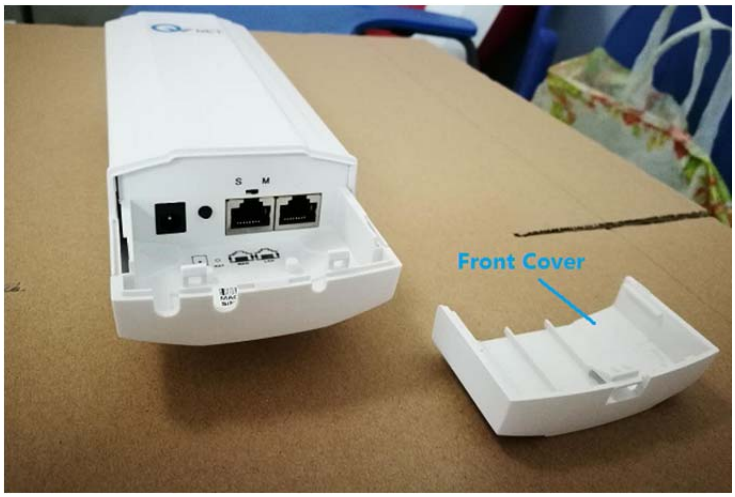
**1-0 Shake the devices (CPE5450) separately, to check if the device is damaged from shipment, if you can hear some noise from inside of the device, and you suspect it maybe PCBA board loosened, please contact us, we will help check if you need a replacement.**

**1-1 Move front cover**

1-1-2 Push this part and pull the front cover out




1-1-3




**1-2 Ensure you know the CPE kit are ready for installation**

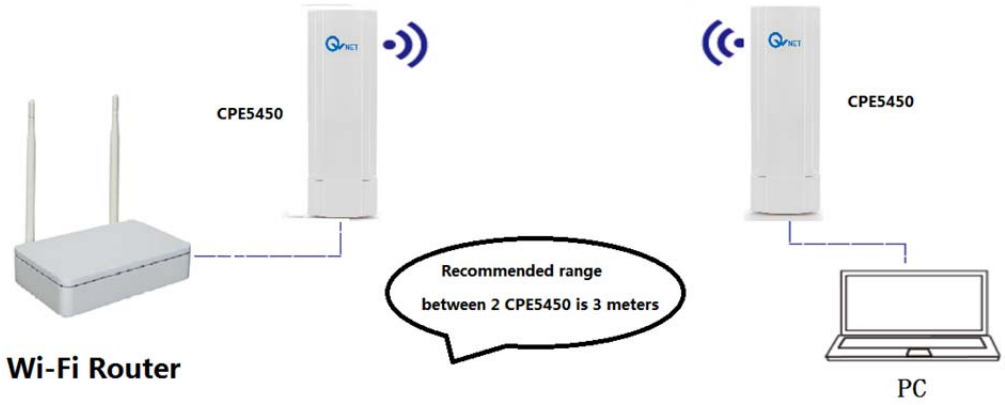
This step is to verify wireless connection between 2 CPE5450, to make sure they can talk each other, It also helps user to be familiar with the product and prevent any defective item caused by delivery etc.

**Please be kindly noted that you will need to prepare either a router or a computer for this step. Using both a router and a computer to check is preferred. If you don't have a computer, we suggest you using a cell phone and a router, currently the devices don't support cell phone (i.c. iPhone ) to access web page to configure directly.**

You just need to execute either step 1-2-1 or step 1-2-2. But you could neglect these 2 steps and proceed to step ( 2-1) if you neither have a Wi-Fi router /cabled router , nor a computer (PC), or if you think you know CPE well.

1-2-1 Using both a router and a computer to verify if the devices are talking each other.

Sketch Diagram




Equipment:

| | |
|---|---|
| CPE5450 | 1 pair (2PCS) |
| Wi-Fi router /cabled router | 1pcs |
| PC (Notebook) | 1 set |
| Ethernet Cable | 4pcs |
| POE Power Adapter | 2pcs (Ethernet Cable Length:<60M, or 194ft) |

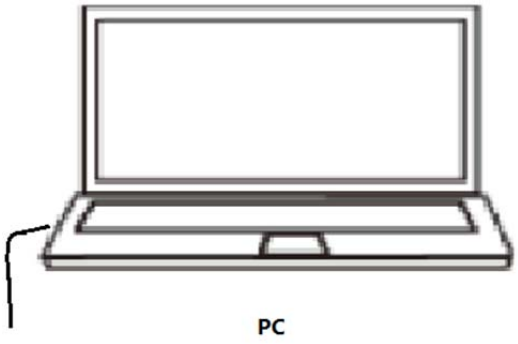
1-2-1-1 Use Ethernet cable to connect POE port of power adapter to LAN port of CPE5450 (1#)



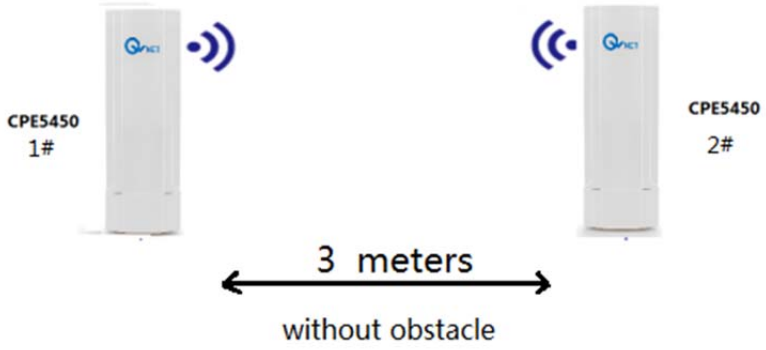
1-2-1-2 Use Ethernet cable to connect WAN port of CPE5450(1#) to LAN port of Wi-Fi Router


1-2-1-3 Use Ethernet cable to connect POE port of power adapter to WAN port of CPE5450 (2#)


1-2-1-4 Use Ethernet cable to connect LAN port of CPE5450(2#) to PC


1-2-1-5 Set range between CPE5450 1# and CPE5450 2# : 3 meters is recommended, without obstacle between 2 CPEs



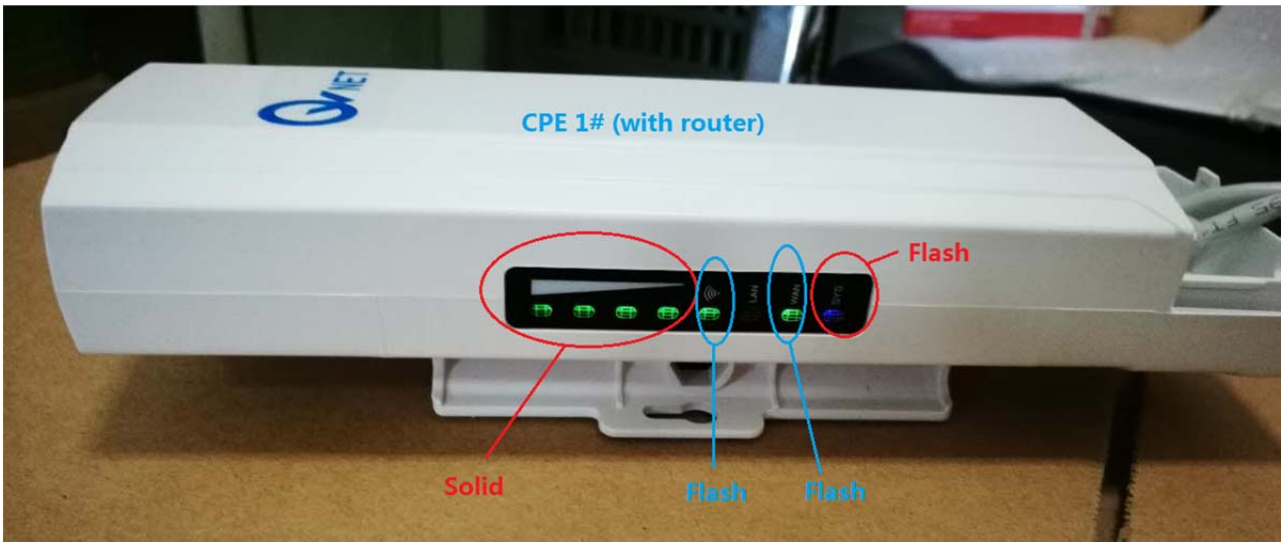

1-2-1-6 Turn on all equipment, especially check as below to see if 2 CPE5450 are turning on, wait for 1 minute


Light is on


Light is not on

1-2-1-7 Light information

Normal lights are as followings:



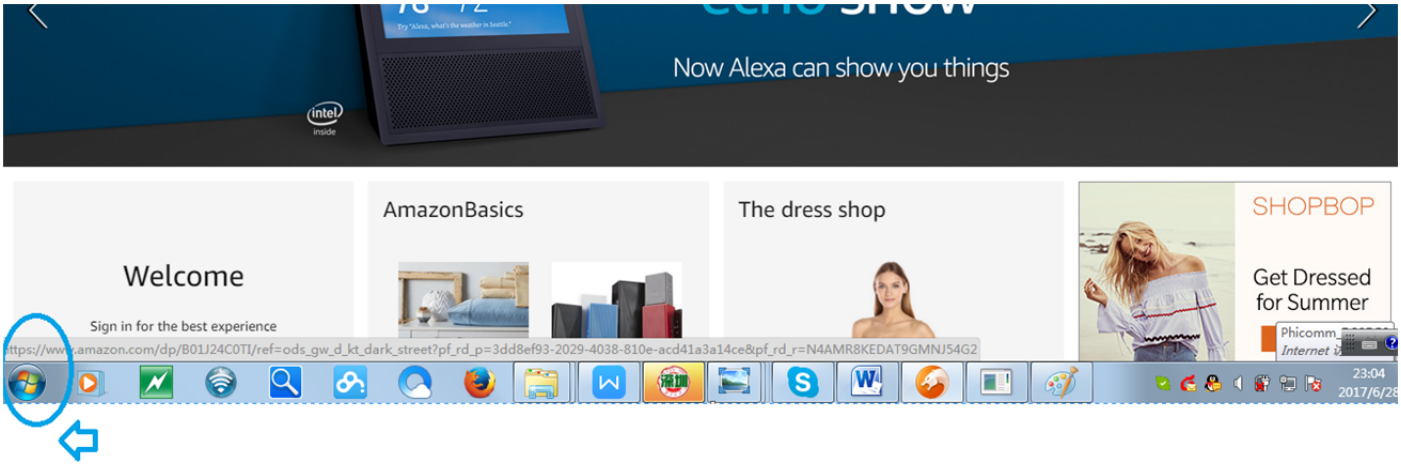


1-2-1-8 Ping IP address of the Wi-Fi router (some is:192.168.1.1 or 192.168.0.1) on the PC

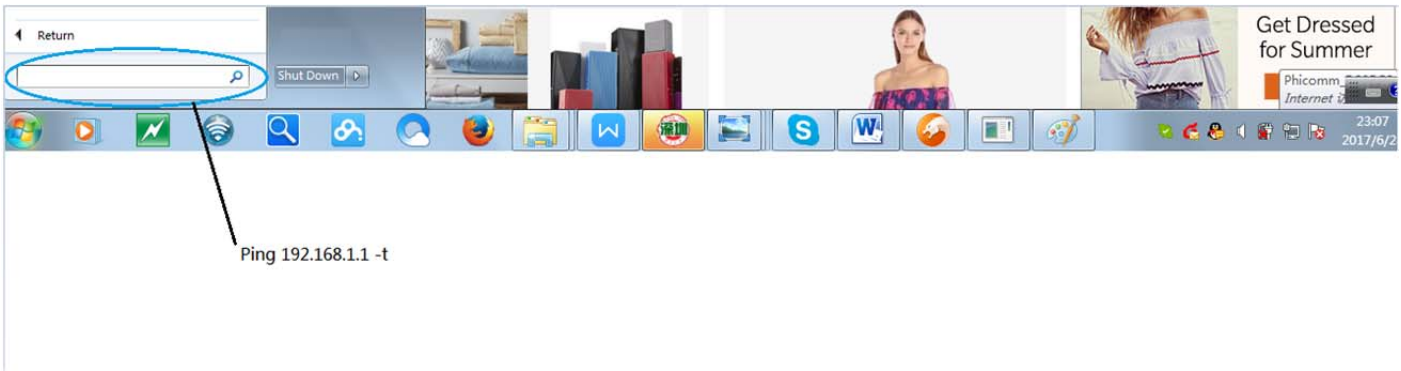
You could find IP of router on label (normally located on bottom of the router), following is a sample for your reference


Following is 192.168.1.1 , Win7 OS

A. Click "**Windows**" icon



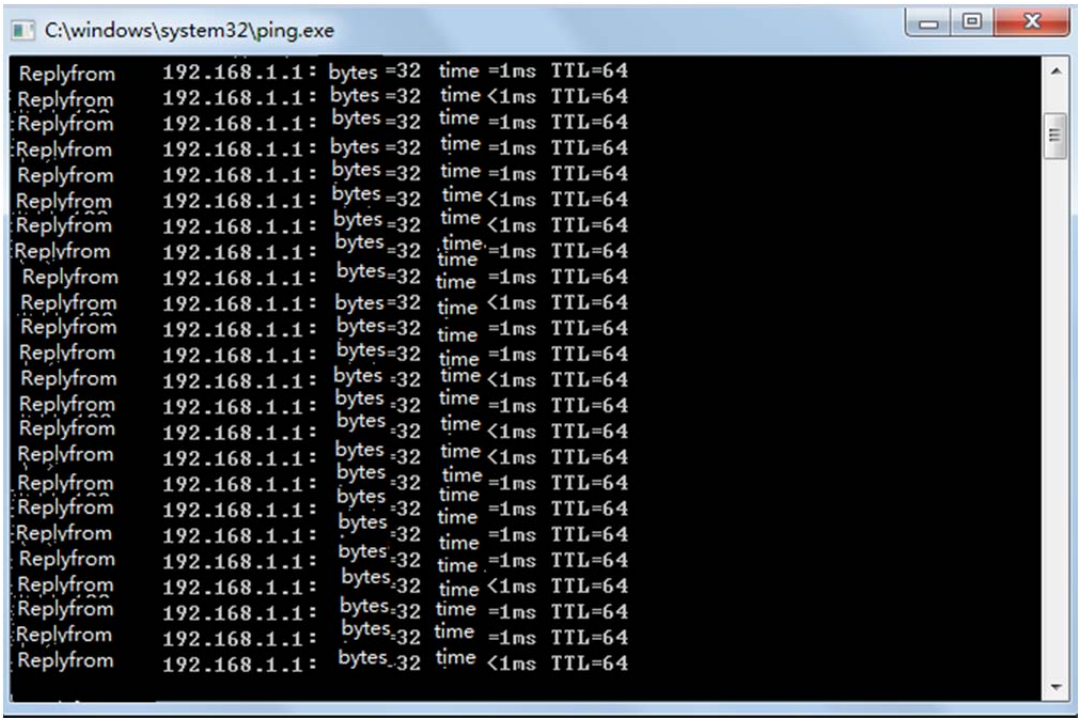

B. Input command "**ping 192.168.1.1 –t**"




C. Click "**enter**" to

**Ping 192.168.1.1 –t**

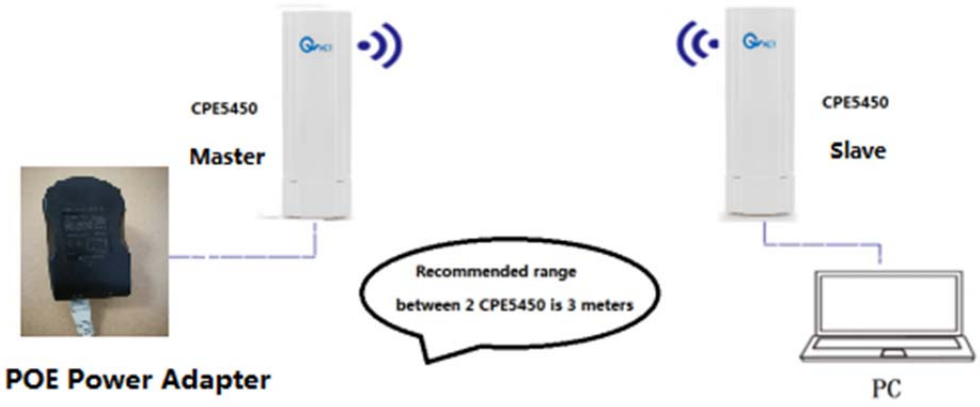
Following messages indicates the CPE5450 devices are working well. And you don't need to execute step 1-2-2. You could proceed to execute step 2-1 instead.




1-2-2 Using a computer to check.

If devices you have are in same mode, like both devices are in S mode (Slave) or in M mode (Master), you could neglect this step and proceed to step 2-1.

Sketch Diagram

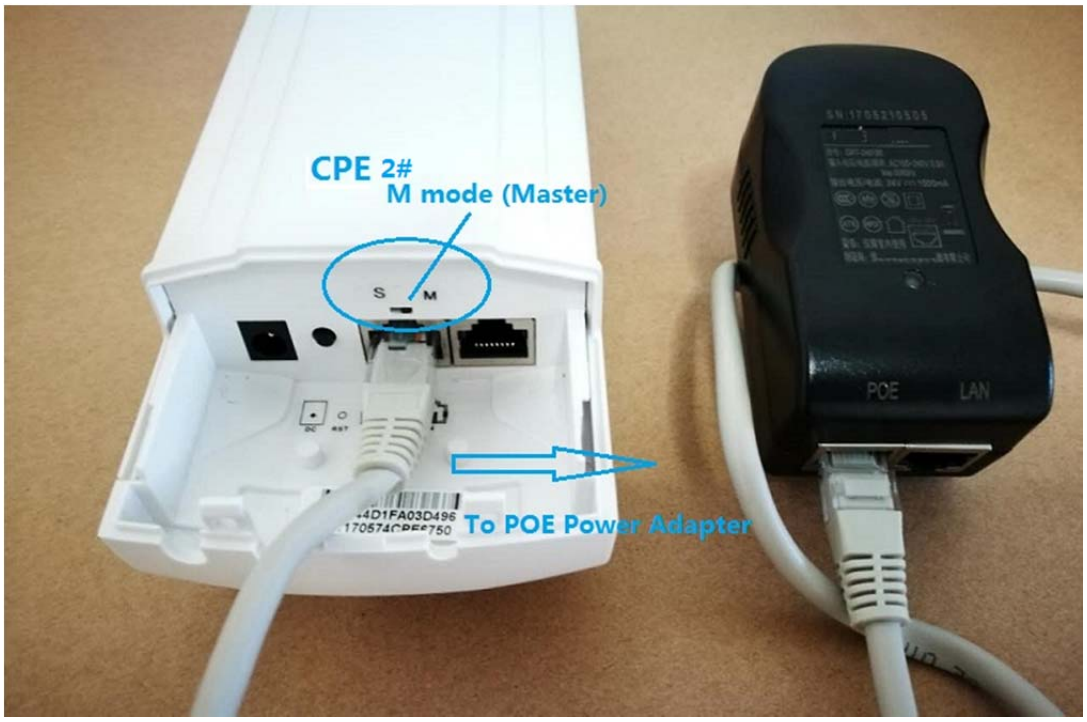



Equipment:

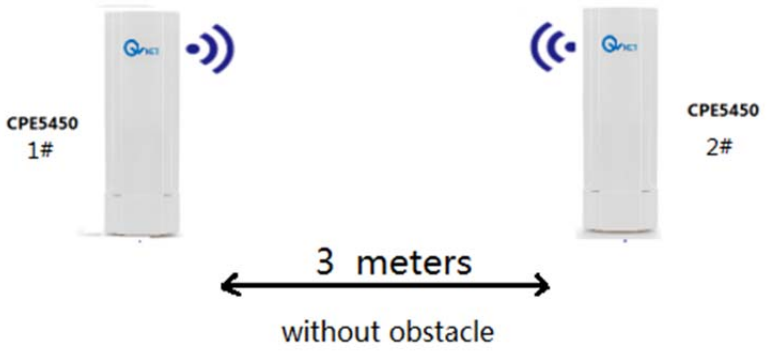
| | |
|---|---|
| CPE5450 | 2pcs |
| PC (Notebook) | 1 set |
| POE Power Adapter | 2pcs |
| Ethernet Cable | 3pcs |

1-2-2-1 Connect CPE5450 1# to PC and power adapter as following:


1-2-2-2 Connect CPE5450 2# to power adapter as following:




1-2-2-3 Set range between CPE5450 1# and CPE5450 2# : 3 meters(around 10 foot) is recommended, without obstacle between 2 CPEs :



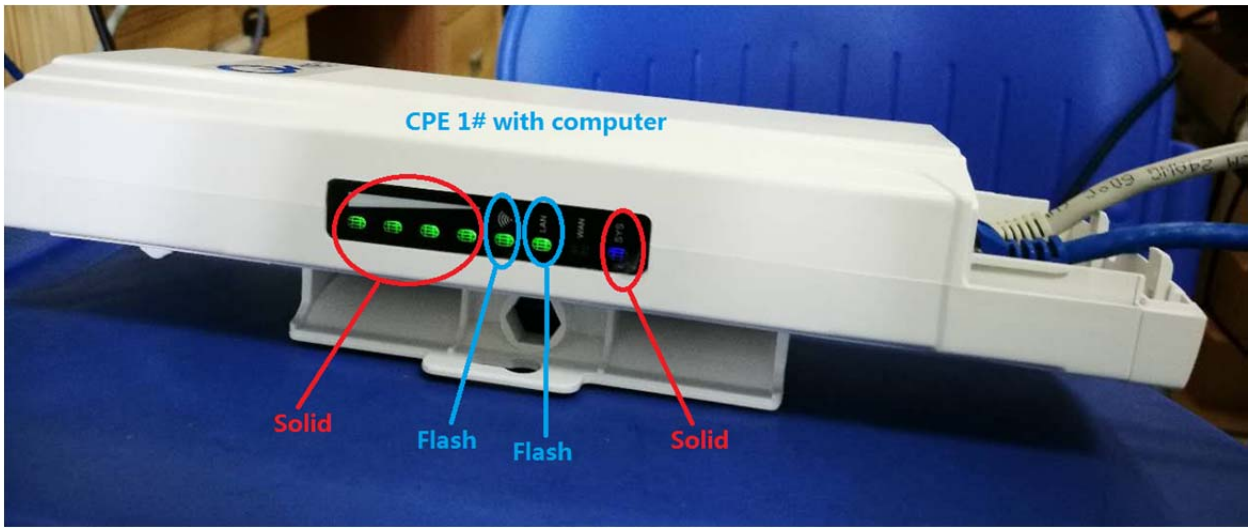

1-2-2-4 Turn on all equipment, especially check as below to see if 2 CPE5450 are turning on, wait for 1 minute

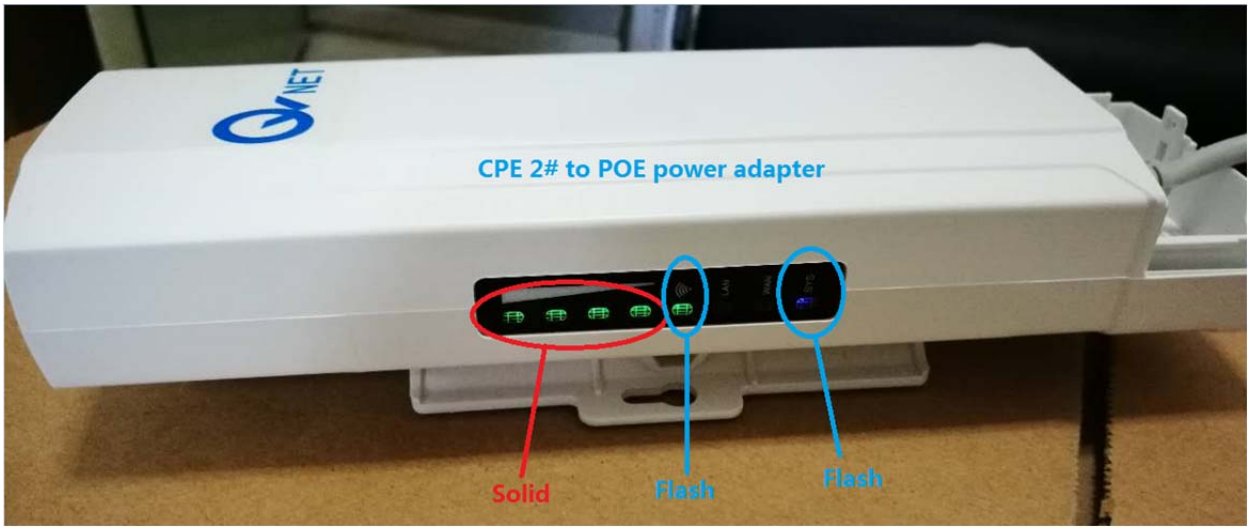

Light is on


Light is not on

1-2-2-5 Light information

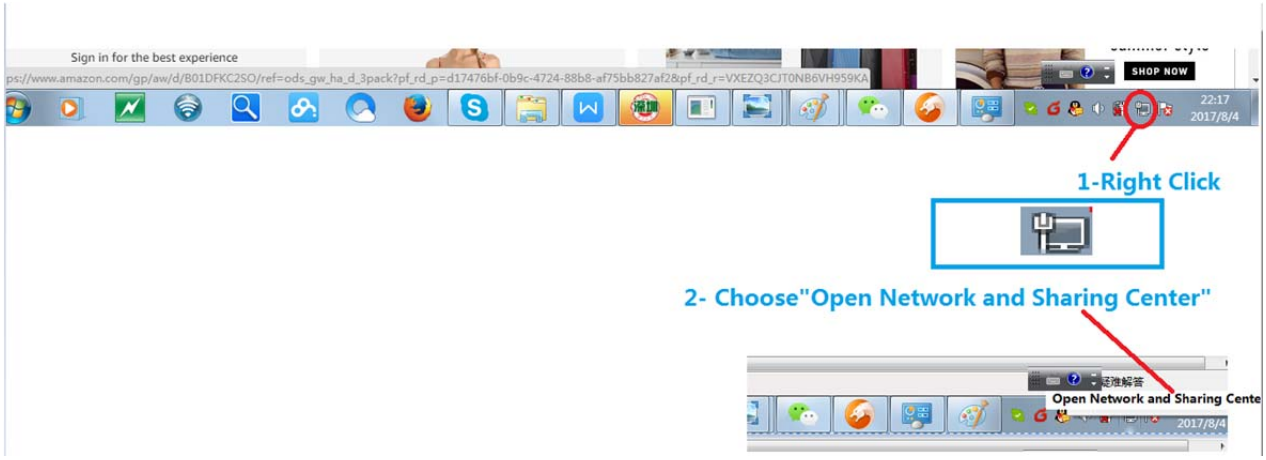
Normal lights are as followings:





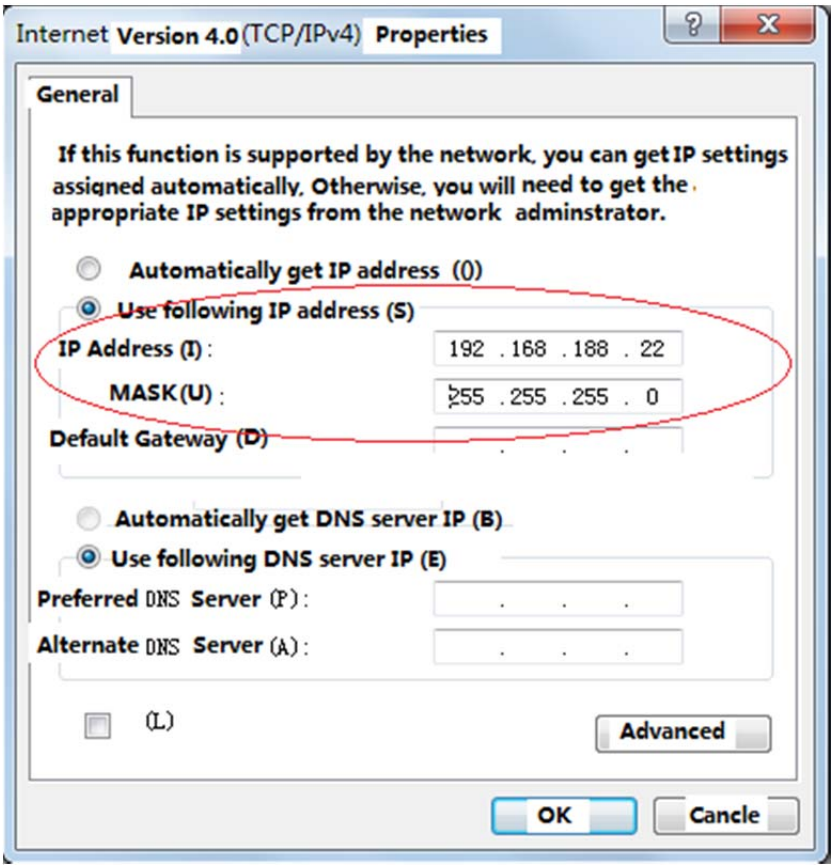

1-2-2-6 Set IPv4 IP address or IPv6 IP address of the PC to "**192.168.188.22**"(or 192.168.188.11 etc.),

A. B-




C. Left click "Change Network Adapter Setting"

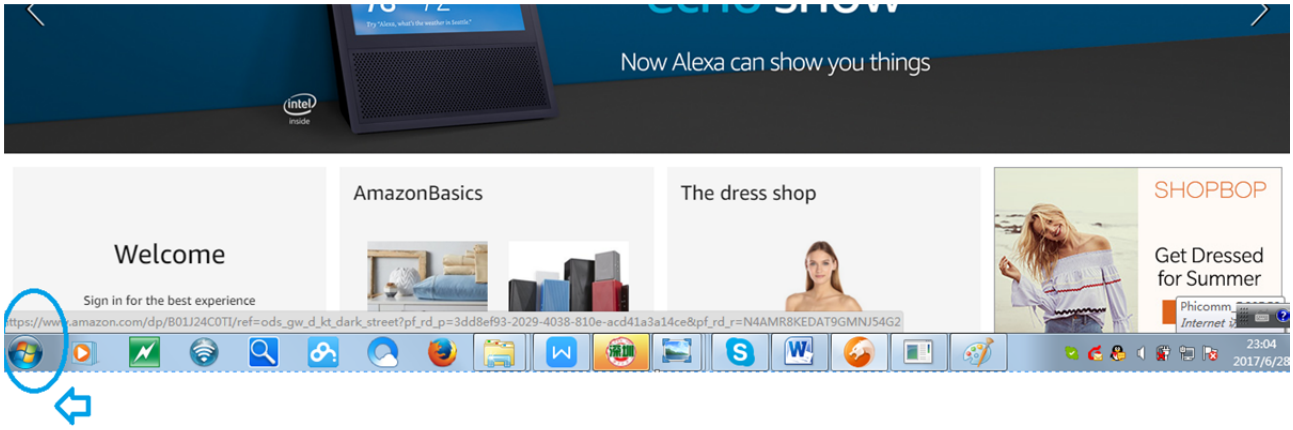

D.Set IPv4 IP address or IPv6 IP address of the PC to "**192.168.188.22**"(or 192.168.188.11 etc.),




1-2-2-7 Ping “192.168.188.252 -t”

Following is Win7 OS

A. Click “**Windows**” icon

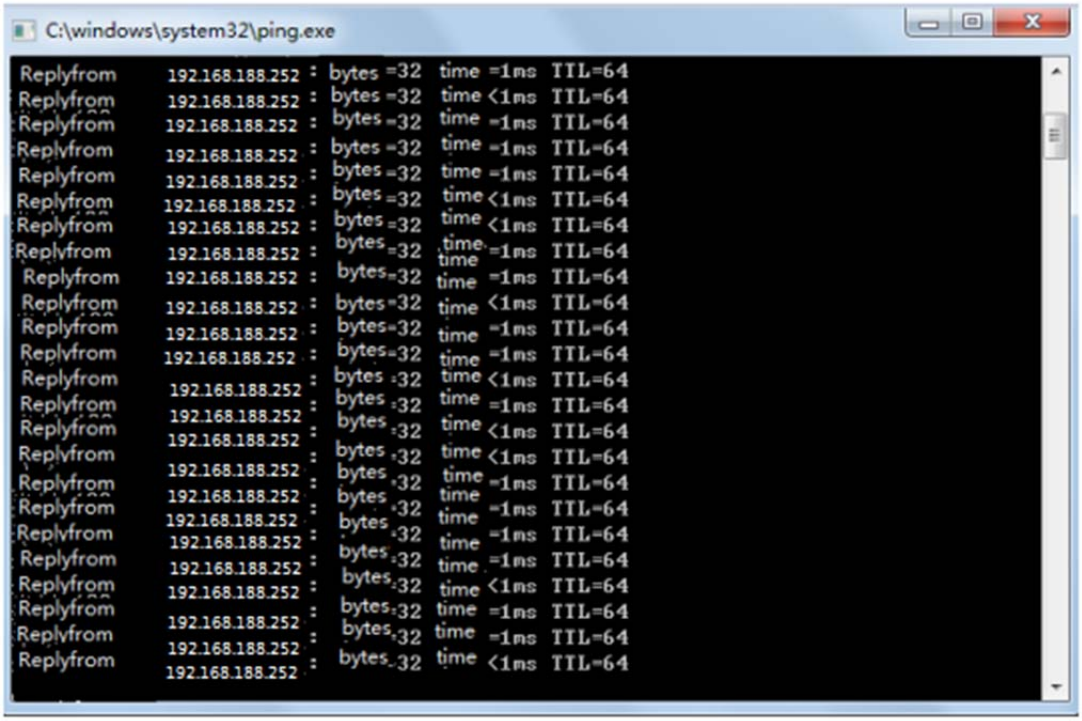



B. Input command “**ping 192.168.188.252 -t**”


C. Click “enter” to

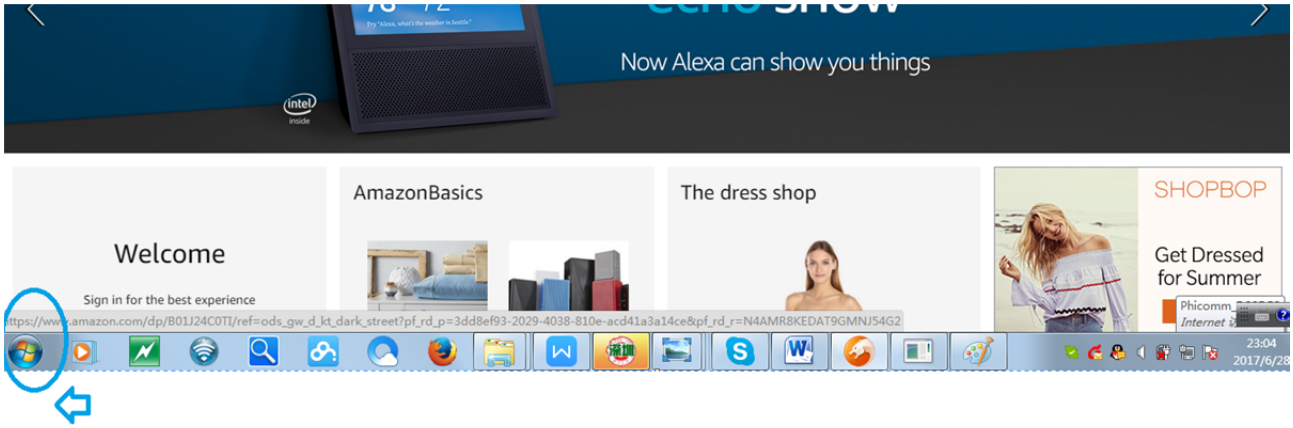
**Ping 192.168.188.252 -t**

Following messages indicates one CPE5450 device(Master) is working well.




1-2-2-8 Ping “192.168.188.253 -t”

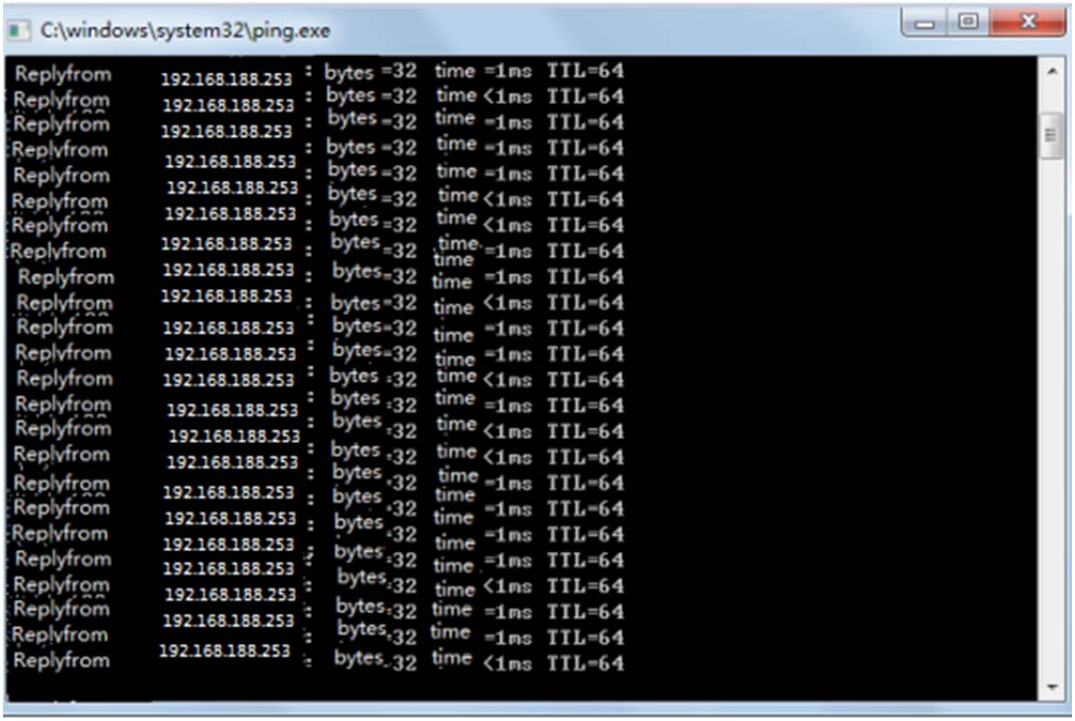
A. Click “**Windows**” icon




B. Input command “**ping 192.168.188.253 -t**”


C. Click “enter” to

**Ping 192.168.188.253 -t**




The CPE devices are working ok.

## 2. Application 1, used in wireless video transmission with camera(s)

**2-1 With one camera**

Block Diagram


Equipment:

| | |
|---|---|
| CPE5450 | 1 pair (2PCS) |
| Camera | 1pcs |
| DVR/NVR | 1pcs |
| Ethernet Cable | 4pcs |

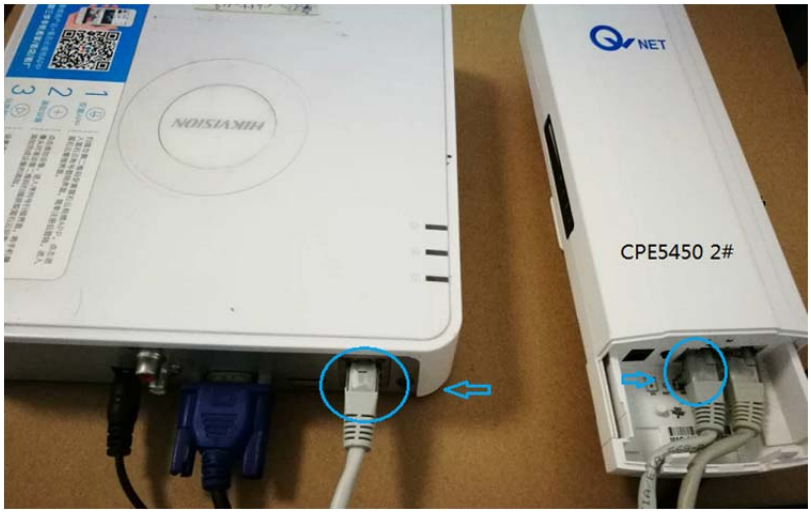
2-1-1 Use Ethernet cable to connect WAN port of CPE5450 1# to IP camera


2-1-2 Use Ethernet cable to connect LAN port of CPE5450 1# to POE port of power adapter



2-1-3 Use Ethernet cable to connect LAN port of CPE5450 2# to POE port of power adapter

2-1-4 Use Ethernet cable to connect WAN port of CPE5450 2# to NVR/DVR



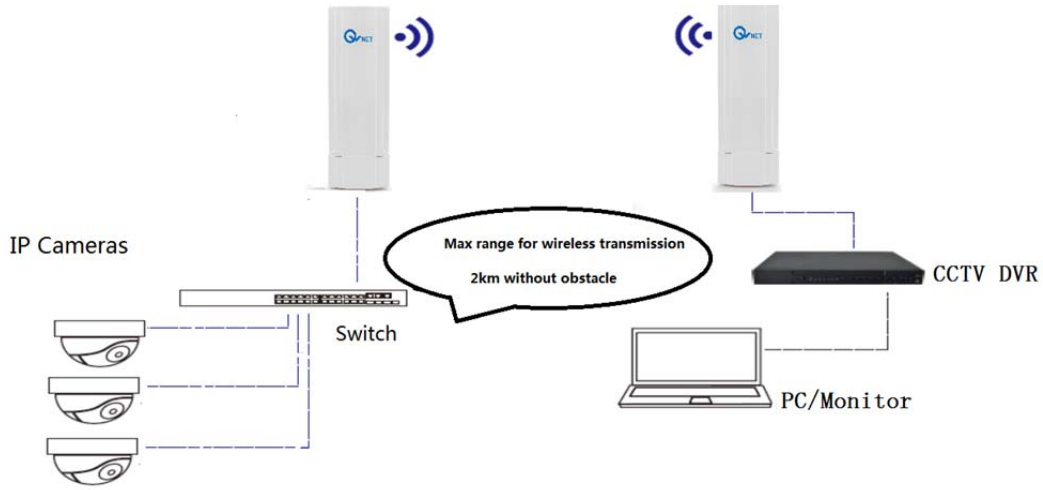

2-1-5 Turn on all equipment, especially check as below to see if 2 CPE5450 are turning on, wait for 1 minute, then you could see video of camera on monitor


Light is on


Light is not on

**2-2 With more than 2 cameras**

Sketch diagram



2-2-1 Use Ethernet cable to connect switch to IP cameras

2-2-2 Use Ethernet cable to connect switch to CPE5450 1#

2-2-3 Use Ethernet cable to connect LAN port of CPE5450 2# to POE port of power adapter

2-2-4 Use Ethernet cable to connect WAN port of CPE5450 2# to NVR/DVR

2-2-5 Turn on all equipment, wait for 1 minute, then you could see video of camera on monitor

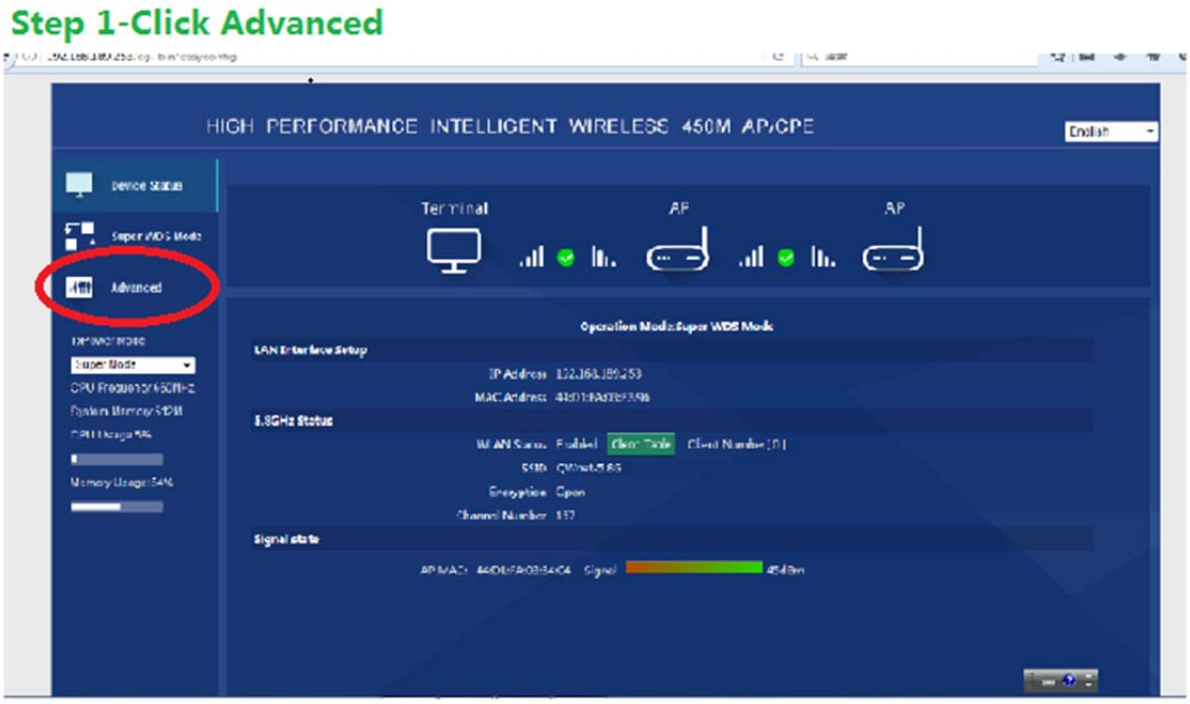
**2-3 With your router, to extend Wi-Fi signal, CPE5450 kit are used as Wi-Fi repeater**

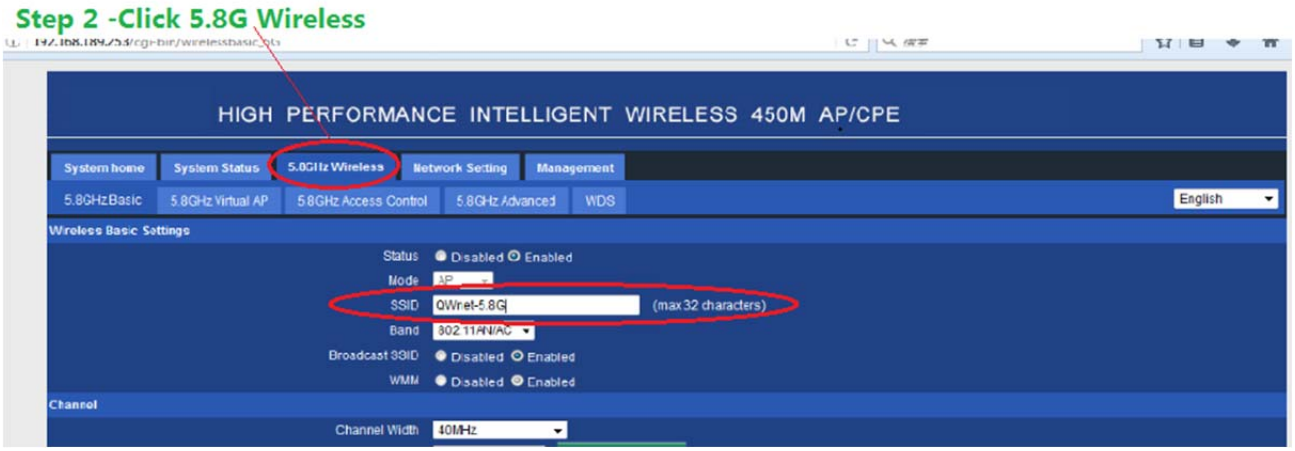
2-3-1 Please kindly refer to step 1-2-1 (from 1-2-1-1 to 1-2-1-7)

2-2-2 The default password for the device is : 66666666

2-2-3 IP address for another CPE, M (Master) CPE5450 is: 192.168.188.252,

and IP address for S(Slave) CPE5450 is :192.168.188.253, so you could log into the device via page to change SSID and password of the device.



**Warning:**

**<u>Do not push “Reset” button of CPE4540</u>, if you keep pushing “Reset” button for longer than 15 seconds, the devices will not maintain connection between 2 CPEs, and then they need to be re-configured. If you push “Reset”button one time (not longer than 5 seconds), it may cause 3 minutes to 5 minutes transmission issue (not stable) , but it will resume by itself.**

3. Use metal hoop with screw fastening to fasten the device

3-1


3-2

3-3

3-4

**FCC Statement**

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

—Reorient or relocate the receiving antenna.

—Increase the separation between the equipment and receiver.

—Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

—Consult the dealer or an experienced radio/TV technician for help.

**FCC Radiation Exposure Statement**

This device complies with FCC radiation exposure limits set forth for an uncontrolled environment and it also complies with Part 15 of the FCC RF Rules. This equipment must be installed and operated in accordance with provided instructions and the antenna(s) used for this transmitter must be installed to provide a separation distance of at least 20 cm from all persons and must not be co-located or operating in conjunction with any other antenna or transmitter. End-users and installers must be provided with antenna installation instructions and consider removing the no-collocation statement.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

(1) this device may not cause harmful interference, and

(2) this device must accept any interference received, including interference that may cause undesired operation.

Caution!

Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.