# Tenda
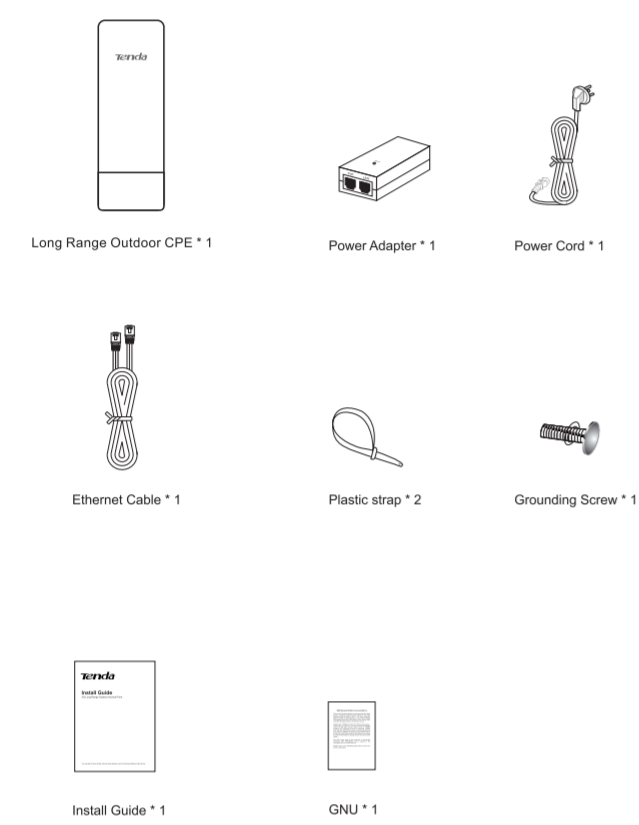
# Install Guide
5GHz Long Range Outdoor CPE
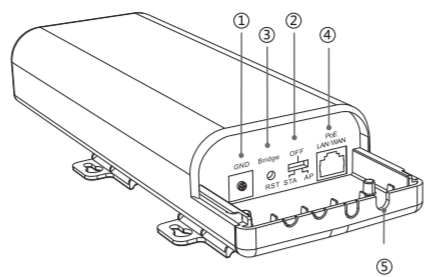
You can get the User Guide online at www.tendacn.com for featured settings of the device.

## Package Contents

Long Range Outdoor CPE * 1
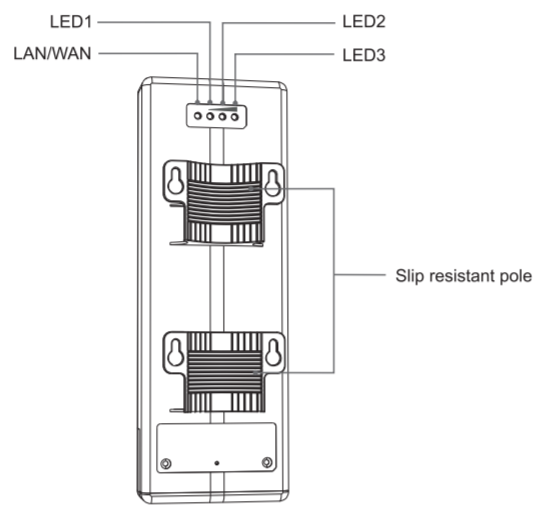
Power Adapter * 1

Power Cord * 1

Ethernet Cable * 1

Plastic strap * 2

Grounding Screw * 1

Install Guide * 1

GNU * 1

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## 1 Get to Know Your Device

### ▶ Front View

| Item | Port / Button | Description |
|---|---|---|
| ① | GND | With the included grounding screw, attach a copper wire here to provide proper surge and lightning protection for your device. |
| ② | STA/OFF/AP (Mode Switch) | Used to adjust operating mode of the device.<br>**OFF** : the default position. When the switch is on OFF position, you can change operating mode through WEB UI.<br>**STA**: When the switch is on STA position, the device only work at station mode, and you can't change the operating mode through WEB UI.<br>**AP**: When the switch is on AP position, the device only work at AP mode, and you can't change the operating mode through WEB UI. |
| ③ | Bridge/RST | Used to bridge two device or reset the device to factory default settings.<br>**1**. When one ON switch to AP position and another switch to STA Position. Pressing and holding Bridge/RST button for 3~7seconds on AP device, then release it, the Signal Threshold LED(LED1/LED2/LED3)will start blinking. Within 2 minutes, pressing and holding Bridge/RST button for 3~7 seconds on Station device, then release it, the Station will start to negotiate with AP automatically to connect to it. When two device bridge successfully, the Signal Threshold LED (LED1/LED2/LED3) will turn on and be solid.<br>**2**. Pressing and holding the RST/Bridge button for over 15 seconds to restore this device to factory default. |
| ④ | PoE/LAN/WAN | This port provides power over an Ethernet connection via the PoE injector, And it works interchangeably as a WAN port in Router mode and a LAN port in other modes. |
| ⑤ | / | Cable access hole cut-outs |

### ▶ Rear View

LED1 — LED2
LAN/WAN — LED3

Slip resistant pole

| LED | Status | Description |
|---|---|---|
| LAN | Off | The device is powered off. |
| | Solid | The device is powered on, and there is no data transmission. |
| | Blinking | There is data transmission on this port. |
| LED1/LED2/LED3 (Signal Threshold LED) | Off | The device isn't bridged to other device. |
| | Blinking | The device is negotiating with other device to bridge together. |
| | Solid | The Signal Threshold LEDs on the device will light up when received signal levels reach the values defined in the LED1/LED2/LED3 fields in the WEB UI. This allows a technician to easily deploy a CPE product without logging into the device. The default values are shown below:<br>When -90 dBm < wireless signal strength < -80dBm, **LED1** will be green.<br>When -80 dBm < wireless signal strength < -70dBm, **LED1, LED2** will be green.<br>When -70 dBm < wireless signal strength, **LED1, LED2** and **LED3** will be green. |

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## 2 Hardware Install

### Step 1: Mount the AP
Set up the AP in an outdoor location, usually on the roof, and thread plastic straps through grooves underneath the brackets.
Then attach the device firmly to a solid pole.
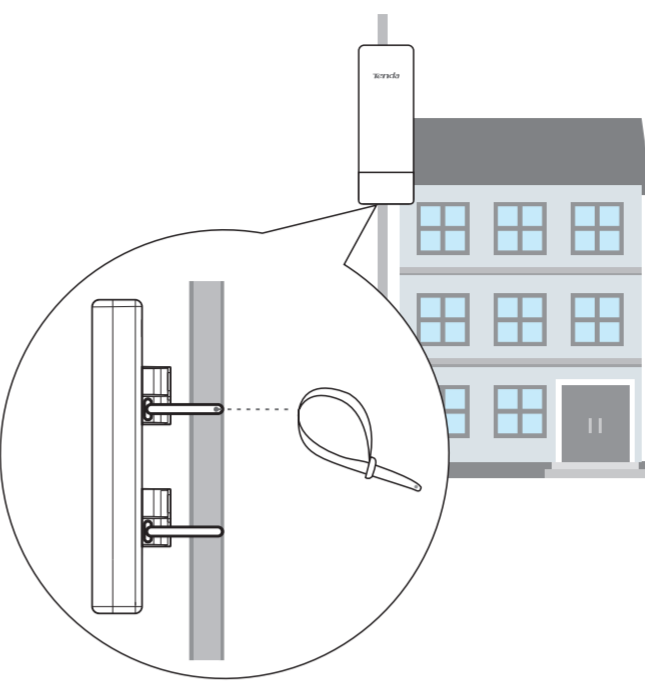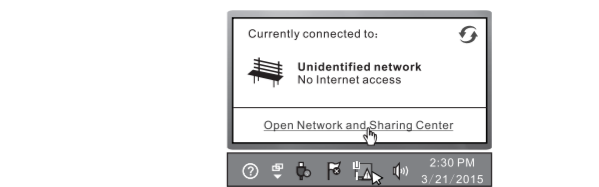
### Step 2: Connect the AP
1. Slide the bottom cover of the AP down to expose the ports.
2. Connect the **PoE LAN/WAN** port of device to the **PoE** port of the adapter with an Ethernet cable.
3. Connect your computer to the **LAN** port of the adapter with another Ethernet cable.
4. Gently replace the cover by sliding it up until it clicks into place.
5. Connect the Power Cord to the adapter's power port.
Connect the other end of the Power Cord to a power outlet.

O6

Bottom Cover

PC

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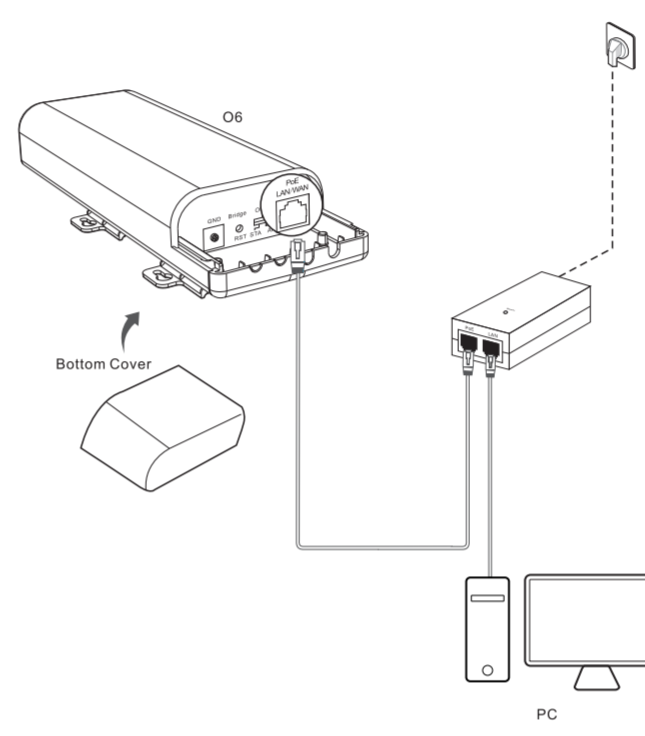
## 3 Configure PC

**Step 1:** Click the icon on the bottom right corner of your desktop.

**Step 2:** Click **Open Network and Sharing Center**.

Currently connected to:
**Unidentified network**
No Internet access
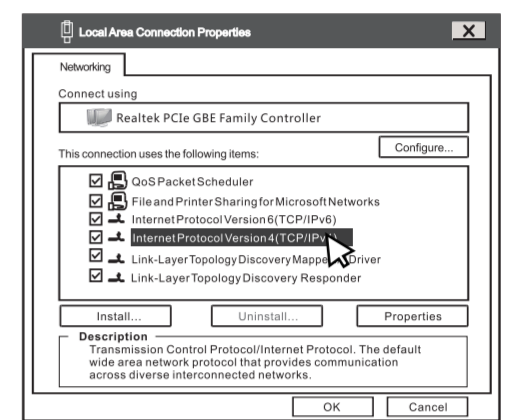
Open Network and Sharing Center

2:30 PM
3/31/2015

**Tips**
If you cannot find the icon on the bottom right corner of your desktop, follow steps below:
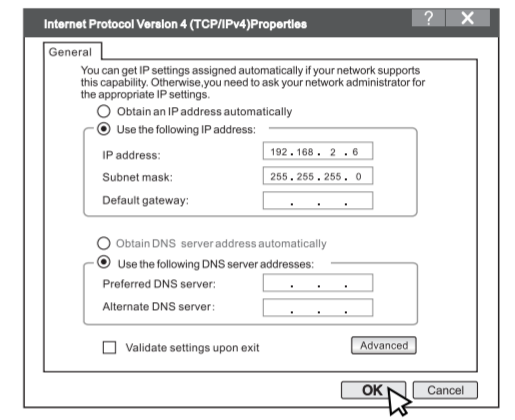Click **Start > Control Panel > Network and Internet > Network and Sharing Center**.

**Step 3:** Click **Local Area Connection > Properties**.
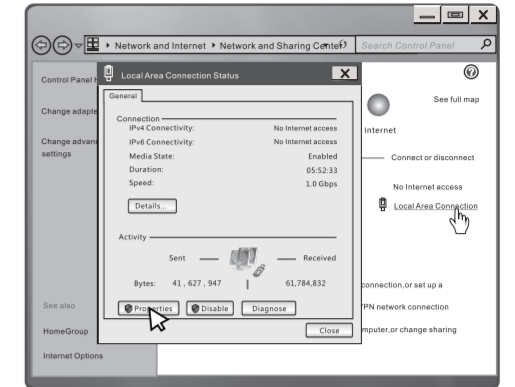
**Step 4:** Find and double click **Internet Protocol Version 4(TCP/IPv4)**.

### Local Area Connection Properties
Networking
Connect using
Realtek PCIe GBE Family Controller    Configure...
This connection uses the following items:
QoS Packet Scheduler
File and Printer Sharing for Microsoft Networks
Internet Protocol Version 6(TCP/IPv6)
Internet Protocol Version 4(TCP/IPv4)
Link-Layer Topology Discovery Mapper I/O Driver
Link-Layer Topology Discovery Responder
Install...    Uninstall    Properties
Description
Transmission Control Protocol/Internet Protocol. The default wide area network protocol that provides communication across diverse interconnected networks.
OK    Cancel

**Step 5:** Select **Use the following IP address**, type in the IP address: **192.168.2.x** (2~253), Subnet mask: **255.255.255.0** and click **OK**.

### Internet Protocol Version 4 (TCP/IPv4) Properties
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
● Use the following IP address:
IP address:    192 . 168 . 2 . 6
Subnet mask:    255 . 255 . 255 . 0
Default gateway:
○ Obtain DNS server address automatically
● Use the following DNS server addresses:
Preferred DNS server:
Alternate DNS server:
□ Validate settings upon exit    Advanced
OK    Cancel

**Step 6:** Click **OK** on the **Local Area Connection Properties** window (see **Step 4** for the screenshot).
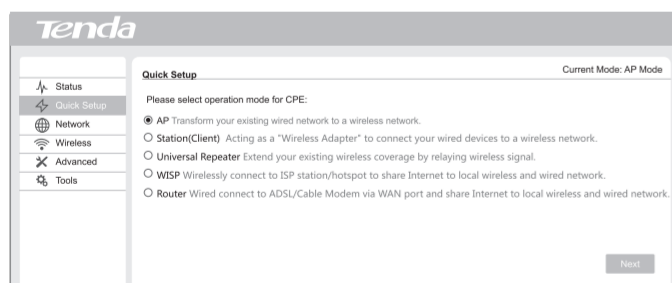
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## 4 Configure the AP

**Step 1:** Input **192.168.2.1** in a web browser's address bar, and then press **Enter** or **Return** on your keyboard.

192.168.2.1
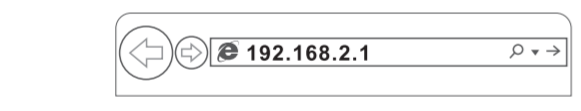
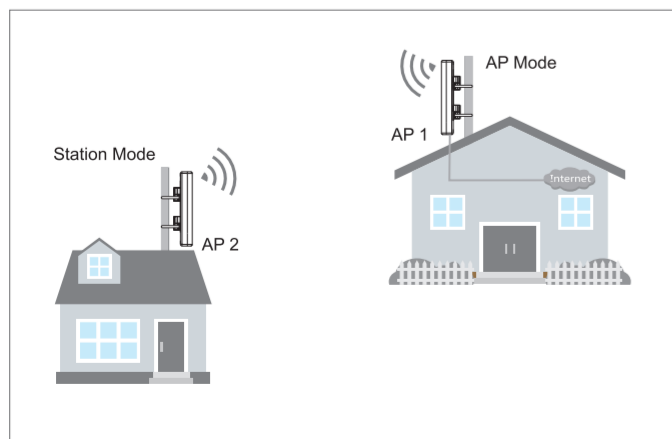**Step 2:** Enter the default username and password (**admin** for both defaults) and click **Login**.

admin
•••••
India
Login
Forget your password?
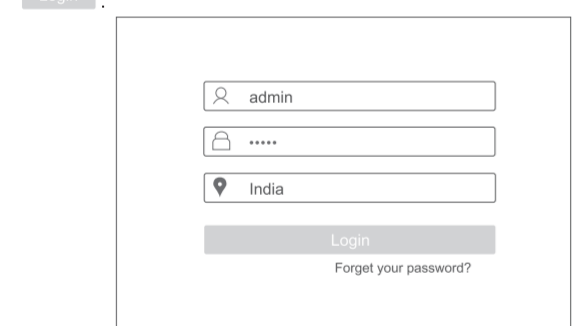
**Step 3:** Please select the proper operating mode and follow instructions on the web UI to apply your settings.

### Tenda
Status
Quick Setup    Current Mode: AP Mode
Network    Please select operation mode for CPE:
Wireless    ● AP Transform your existing wired network to a wireless network.
Advanced    ○ Station(Client) Acting as a "Wireless Adapter" to connect your wired devices to a wireless network.
Tools    ○ Universal Repeater Extend your existing wireless coverage by relaying wireless signal.
○ WISP Wirelessly connect to ISP station/hotspot to share Internet to local wireless and wired network.
○ Router Wired connect to ADSL/Cable Modem via WAN port and share Internet to local wireless and wired network.
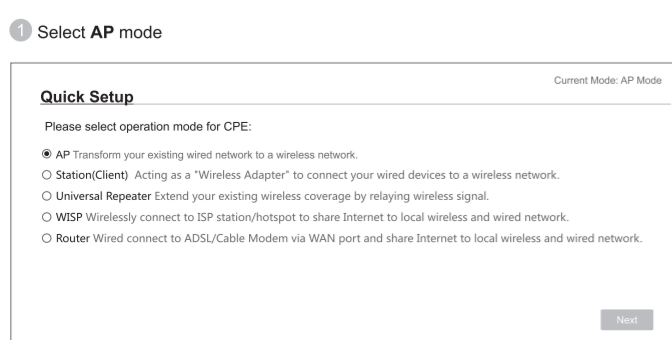Next

Here we will mainly introduce 2 application scenarios to you.
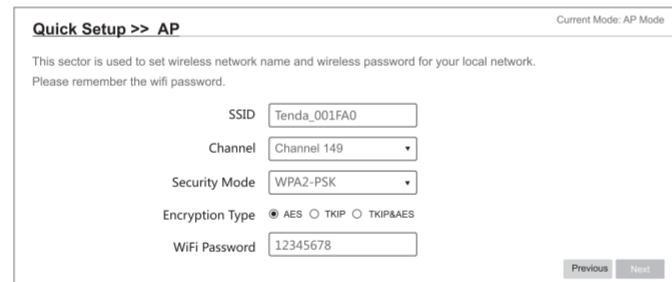
### ▶ AP Mode + Station Mode
For long-distance data transmission and IP camera (CCTV) surveillance, one works in AP mode and the other works in Station mode to build stable wireless connection.
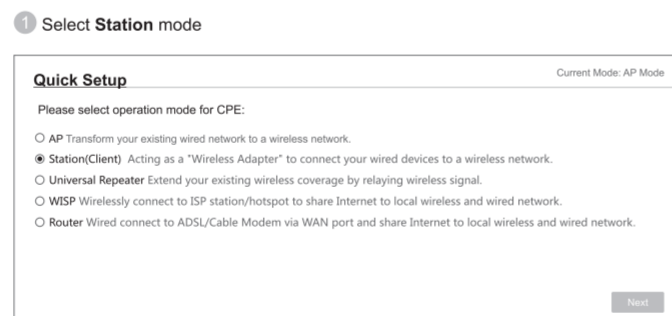Please follow the steps as shown below.

AP Mode
AP 1
Station Mode
AP 2

### 1.Set AP1 in AP mode.
① Select **AP** mode

### Quick Setup    Current Mode: AP Mode
Please select operation mode for CPE:
● AP Transform your existing wired network to a wireless network.
○ Station(Client) Acting as a "Wireless Adapter" to connect your wired devices to a wireless network.
○ Universal Repeater Extend your existing wireless coverage by relaying wireless signal.
○ WISP Wirelessly connect to ISP station/hotspot to share Internet to local wireless and wired network.
○ Router Wired connect to ADSL/Cable Modem via WAN port and share Internet to local wireless and wired network.
Next

② Customize your SSID (WiFi name)
Set security settings (Recommended: WPA2-PSK, AES)

### Quick Setup >> AP    Current Mode: AP Mode
This sector is used to set wireless network name and wireless password for your local network.
Please remember the wifi password.
SSID    Tenda_001FA0
Channel    Channel 149
Security Mode    WPA2-PSK
Encryption Type    ● AES ○ TKIP ○ TKIP&AES
WiFi Password    12345678
Previous    Next

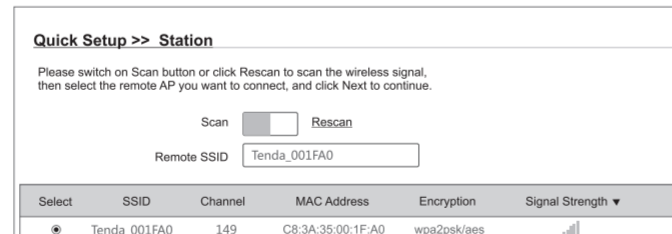Then click **Save** on the appearing page to apply your settings. Wait until the device restarts automatically.

### 2.Set AP2 in Station mode.
① Select **Station** mode

### Quick Setup    Current Mode: AP Mode
Please select operation mode for CPE:
○ AP Transform your existing wired network to a wireless network.
● Station(Client) Acting as a "Wireless Adapter" to connect your wired devices to a wireless network.
○ Universal Repeater Extend your existing wireless coverage by relaying wireless signal.
○ WISP Wirelessly connect to ISP station/hotspot to share Internet to local wireless and wired network.
○ Router Wired connect to ADSL/Cable Modem via WAN port and share Internet to local wireless and wired network.
Next

② Select the remote SSID (WiFi name) you wish to bridge from the list

### Quick Setup >> Station
Please switch on Scan button or click Rescan to scan the wireless signal, then select the remote AP you want to connect, and click Next to continue.
Scan    Rescan
Remote SSID    Tenda_001FA0

| Select | SSID | Channel | MAC Address | Encryption | Signal Strength ▼ |
|---|---|---|---|---|---|
| ● | Tenda_001FA0 | 149 | C8:3A:35:00:1F:A0 | wpa2psk/aes | |

③ Enter the key (WiFi password) of the remote AP if needed

### Quick Setup >> Station
Please keep Channel, Security mode,Encryption Type,Frequency bandwidth the same with remote AP, then enter the remote AP's wifi password,and click Next to continue.
Remote AP    Tenda_001FA0
Remote AP MAC    C8:3A:35:12:34:B0
Channel    Channel 149
Security Mode    WPA2-PSK
Encryption Type    ● AES ○ TKIP ○ TKIP&AES
Key    12345678
Previous    Next

④ If the remote AP's IP address is 192.168.2.1, this AP's IP address should be 192.168.2.x (2~254).

### Quick Setup >> Station
Please make sure the IP address is different from remote AP's IP address but in the same network segment.
IP Address    192.168.2.3
ISubnet Mask    255.255.255.0
Default Gateway    192.168.2.254
Preferred DNS Server    192.168.2.254
Alternate DNS Server
Previous    Next

Then click **Save** on the appearing page to apply your settings. Wait until the device restarts automatically. When the **Signal Threshold** LED stays solid, it has been bridged successfully!
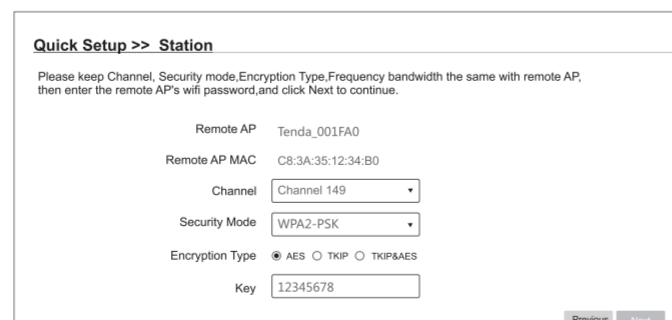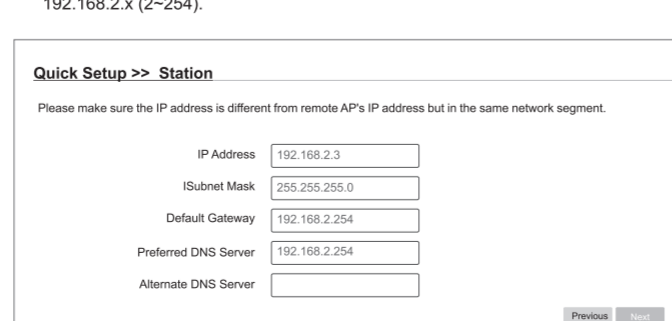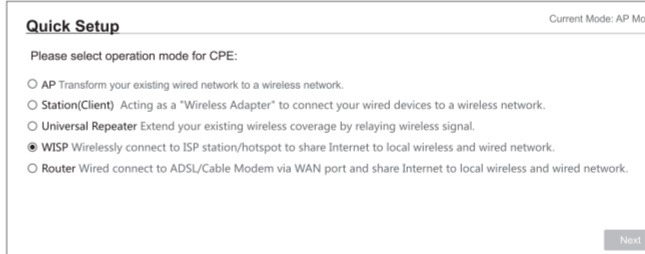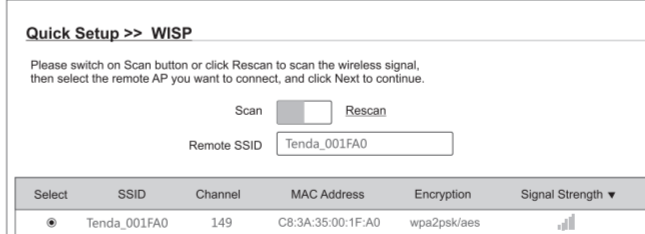
### ▶ WISP Mode
In this mode, the device connects to ISP hotspot wirelessly to share Internet with local wireless and wired devices.
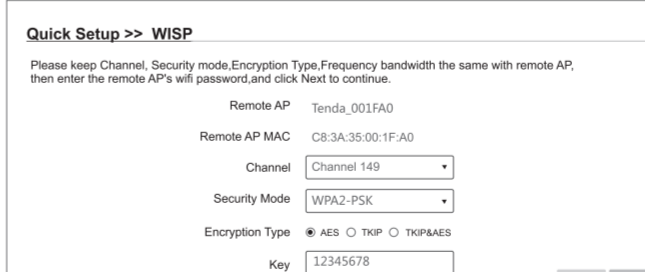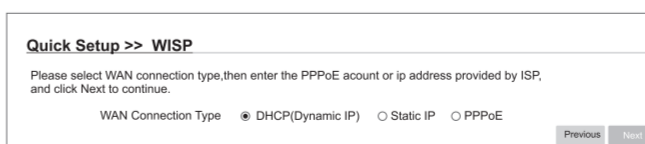
① Select **WISP** mode

### Quick Setup    Current Mode: AP Mode
Please select operation mode for CPE:
○ AP Transform your existing wired network to a wireless network.
○ Station(Client) Acting as a "Wireless Adapter" to connect your wired devices to a wireless network.
○ Universal Repeater Extend your existing wireless coverage by relaying wireless signal.
● WISP Wirelessly connect to ISP station/hotspot to share Internet to local wireless and wired network.
○ Router Wired connect to ADSL/Cable Modem via WAN port and share Internet to local wireless and wired network.
Next

② Select the SSID (WiFi name) of ISP hotspot

### Quick Setup >> WISP
Please switch on Scan button or click Rescan to scan the wireless signal, then select the remote AP you want to connect, and click Next to continue.
Scan    Rescan
Remote SSID    Tenda_001FA0

| Select | SSID | Channel | MAC Address | Encryption | Signal Strength ▼ |
|---|---|---|---|---|---|
| ● | Tenda_001FA0 | 149 | C8:3A:35:00:1F:A0 | wpa2psk/aes | |

③ Enter the key (WiFi password) of the ISP hotspot if needed

### Quick Setup >> WISP
Please keep Channel, Security mode,Encryption Type,Frequency bandwidth the same with remote AP, then enter the remote AP's wifi password,and click Next to continue.
Remote AP    Tenda_001FA0
Remote AP MAC    C8:3A:35:00:1F:A0
Channel    Channel 149
Security Mode    WPA2-PSK
Encryption Type    ● AES ○ TKIP ○ TKIP&AES
Key    12345678
Previous    Next

④ Select the WAN connection type and set corresponding parameters if needed

### Quick Setup >> WISP
Please select WAN connection type,then enter the PPPoE account or ip address provided by ISP, and click Next to continue.
WAN Connection Type    ● DHCP(Dynamic IP) ○ Static IP ○ PPPoE
Previous    Next

⑤ Customize your SSID for your local network
Set security settings for your local network(Recommended: WPA2-PSK and AES)

### Quick Setup >> WISP
This sector is used to set wireless network name and wireless password for your local network, please remember the wifi password.
SSID    Tenda_0231a0
Channel    Channel 149
Security Mode    WPA2-PSK
Encryption Type    ● AES ○ TKIP ○ TKIP&AES
WiFi Password    12345678
Previous    Next
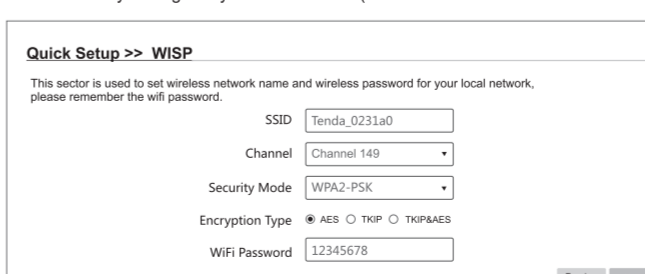
⑥ If the ISP hotspot's IP address is 192.168.2.x, this AP's IP can be 192.168.5.x.

### Quick Setup >> WISP
Please make sure the IP address is different from ISP hotspot's IP address and in the different network segment.
IP Address    192.168.5.1
Subnet Mask    255.255.255.0
Previous    Next
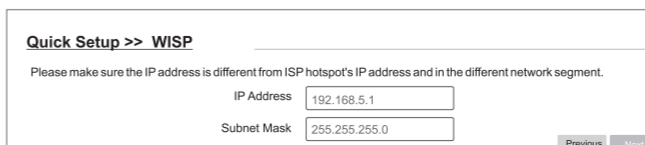
Then click **Save** on the appearing page to apply your settings. Wait until the device restarts automatically. When the **Signal Threshold** LED stays solid, it has been bridged successfully!

**Step 4:** After finishing settings mentioned above, set your PC to **Obtain an IP address automatically** for Internet access.

### Internet Protocol Version 4 (TCP/IPv4) Properties
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
○ Use the following IP address:
IP address:
Subnet mask:
Default gateway:
● Obtain DNS server address automatically
○ Use the following DNS server addresses:
Preferred DNS server:
Alternate DNS server:
□ Validate settings upon exit    Advanced
OK    Cancel

## FAQs

**Q1: How do I restore my device to its factory default settings?**
**Method 1:** Via the **Bridge/RST** button
With the device powered on, slide the bottom cover of the device down to expose the **Bridge/RST** button, press and hold it for over 15 seconds to restore the device to its factory defaults. Note that once your device is reset, all your current settings will be lost and you need to reconfigure your device.
**Method 2:** Via the **RESET** button on the power adapter
With the device powered on, Press and hold the RESET button with a thin pin for at least 15 seconds to restore this device to its factory defaults.
**Method 3:** Via the Web UI
Log in to this device's web UI, click **Tools** > **Maintenance**, locate the **Reset to Factory Settings** section and click **Reset**.

**Q2: I enter the device's LAN IP address in the web browser but cannot access this device's web UI. What should I do?**
① Verify that the IP address of computer should be a different one but on the same network segment as the LAN IP address of this device. The default LAN IP address of device is 192.168.2.1 and you need to set your PC to a static IP address within the following range: 192.168.2.X (2~253).
② Clear the browser cookies or try another web browser;
If you are still unable to login, please restore the device to factory default settings and follow this Install Guide to configure your settings again.

## Declaration of Conformity

Hereby, SHENZHEN TENDA TECHNOLOGY CO., LTD., declares that the radio equipment type O6 is in compliance with Directive 2014/53/EU.
The full text of the EU declaration of conformity is available at the following internet address:
http://www.tendacn.com/en/service/page/ce.html
Operate Frequency: 5150-5250 MHz
EIRP Power (Max.): 22.8 dBm
Software Version: 1.0.0.5

## Safety & Emission Statement

CE Mark Warning
This is a Class B product. In a domestic environment, this product may cause radio interference, in which case the user may be required to take adequate measures.
Operations in the 5.15-5.25GHz band are restricted to indoor usage only.
NOTE: (1) The manufacturer is not responsible for any radio or TV interference caused by unauthorized modifications to this equipment. (2) To avoid unnecessary radiation interference, it is recommended to use a shielded RJ45 cable.

**FCC 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.
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 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 Caution:** Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.
This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.
The manufacturer is not responsible for any radio or TV interference caused by unauthorized modifications to this equipment.
Radiation Exposure Statement
This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator & your body.
NOTE: (1) The manufacturer is not responsible for any radio or TV interference caused by unauthorized modifications to this equipment. (2) To avoid unnecessary radiation interference, it is recommended to use a shielded RJ45 cable.