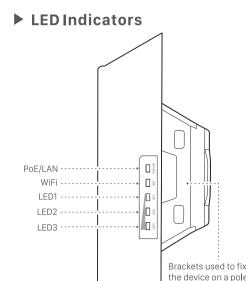
# Tenda

# Getting to Know the Device

## Quick Installation 2km Outdoor Point to Point CPE



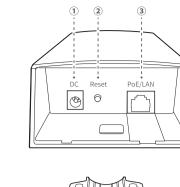
G	u	i	d	e	

## **Package Contents** Screw \* 2 (Used to fix the PoE injector) Expansion anchor \* 2 (Used to fix the PoE injector) Pole mounting strap \* 2

## PoE injector \* 1 Power adapter \* 1 • Quick installation guide \* 1

Please read this quick installation guide before you start. You can visit our website at

# Blinking Data is being transmitted over the port Off The CPE is not powered on. Solid on The wireless function is enabled, and no data is being transmitted Blinking Data is being transmitted in a wireless manner. Off The wireless function is disabled.



▶ Ports & Button

	ID	Port/Button	Description
LAN	1)	DC	DC power jack. Used to connect the device to a power supply using the included power adapter.
	2	Reset	Reset Button. After the device is powered on for 1 minute, hold down this button for about 8 seconds. When all the LED indicators light up and then turn o the device is restored to factory settings.
<u> </u>	3	PoE/LAN	It is used to supply power or transmit data.  • To power on the device using POE, connect this port to the POE port of the included POE injector.  • If the device is powered on using a DC power adapter, this port can be connected to a switch or other wired devices.
	4	/	Power cord inlet.
	(5)	/	Ethernet cable inlet.
····· 6	6	/	Cover opening button.

# Scenario 1: CCTV Surveillance or Point to Point Data Transmission

1Setting up the CPEs (AP + Client Mode) Tips: At least two CPEs are required for bridging.

Option 1: Automatic Bridging (Recommend)

peer-to-peer bridging. Otherwise, peer-to-peer bridging may fail.

• Automatic bridging is only applicable when the CPEs are in factory settings.

Signal strength LED indicators. Solid on indicates the CPE works

Solid on/ device works in Client, Universal Repeater or WISP mode.

Blinking • LED1, LED2 and LED3 are solid on/blinking: Good signal

Off No WiFi-enabled clients are connected to your CPEs.

in AP, P2MP, Repeater or Router mode while blinking indicates the

• LED1 and LED2 are sold on/blinking, and LED3 is off: Fair signal

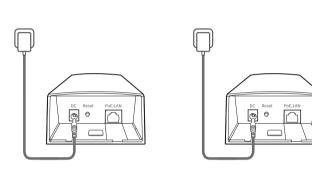
• LED1 is solid on/blinking, and LED2 and LED3 are off: Weak signal

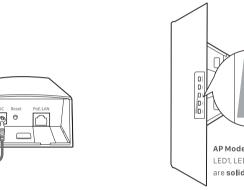
Please adjust the direction or location of your CPEs.

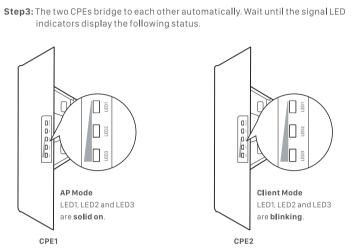
• A CPE in AP mode can bridge to 15 CPEs at most. • If the bridging succeeds, the DHCP servers of the bridged CPEs are disabled, and the IP addresses of the CPEs working in Client mode are changed to 192.168.2.2.

# Peer-to-peer bridging (Two CPEs)

Step1: Place the two CPEs next to each other. Step2: Remove the cover of each CPE, and use the included power adapters to powe them on. When the WiFi LED indicator lights up, the CPE completes startup.

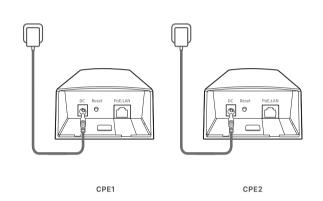






# Peer-to-multi peer bridging (Multiple CPEs)

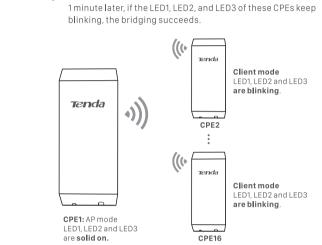
Step1: Choose any two CPEs, perform Peer-to-peer bridging, and select the CPE that works in AP mode (LED1 LED2 and LED3 are solid on) Step2: Within 3 minutes after peer-to-peer bridging succeeds, put the other CPEs near the CPE that works in AP mode, and power them on



O WISP In this mode, this device connects to an access point provided by ISP in wireless manner, and provides the wireless netwo

② Select AP, and click Next

Select a working mode:



③ Set an SSID, which is **Tenda\_123456** in this example,**Security** 

Mode (WPA2-PSK is recommended), and Key, and click Next.

4 Click **Save**, and wait until the CPE reboots automatically to

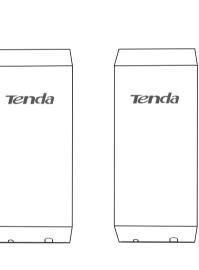
Step3: Wait for about 1 minute.

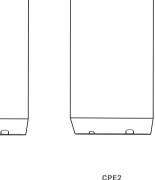
Quick Setup >> AP

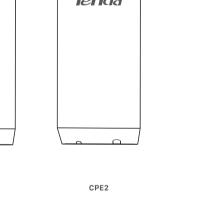
activate the settings.

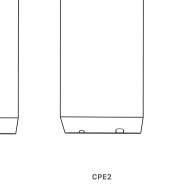
## Option 2: Setting up the CPEs Using Web UI

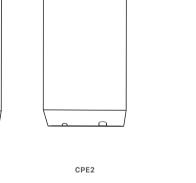
Step 1: Place the two CPEs next to each other.

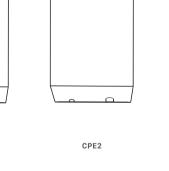


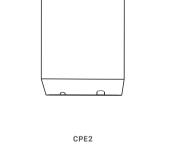




















If the login page doesn't appear, please refer to **Q1** in **FAQ**.

## Step 2: Connect the computer to CPE1. 1) Remove the cover of CPE1

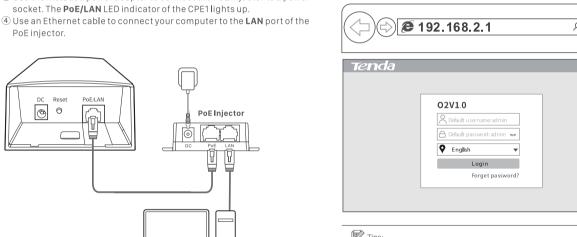
③ Select Client, and click Next.

O Repeater In this mode, the device connects to multiple wired networks through wireless bridge, and provides wireless access point.

O P2MP In this mode, the device connects to multiple wired networks through wireless bridge, but does not provide wireless access points.

PoE injector.

② Use an Ethernet cable to connect the **PoE/LAN** port of CPE1 to the **PoE** port of the PoE injector. ③ Use the included power adapter to connect the PoE injector to a powe socket. The PoE/LAN LED indicator of the CPE1 lights up.

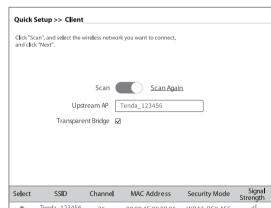


Step 3: Set CPE1 to AP Mode.

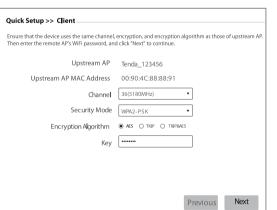
① Start a web browser on the computer, and visit **192.168.2.1.** 

Enter your user name and password, and click **Login**.

4 Select the SSID you set on CPE1, which is **Tenda\_123456** in this example, and click **Next**.



Quick Setup >> Client Upstream AP MAC Address 00:90:4C:88:88:91 Channel 36(5180MHz) Security Mode WPA2-PSK • Encryption Algorithm ● ÆS ○ TKIP ○ TKIP&ÆS



## 5 Enter the WiFi password you set on CPE1 in the **Key** text box, and click **Next**.

### 6 Set the IP address to an unused IP address belonging to the same network segment as that of CPE1. For example, if the IP address of CPF1 is 192 168 2.1 you can set this CPF's IP address to 192.168.2.X (X ranges from 2 to 254). Then click Next.



When LED1, LED2, and LED3 of CPE1 are solid on, and LED1, LED2, and LED3 of CPE2 are blinking, the bridging succeeds. If you want to perform peer-to-multi peer bridging, refer to Step4: Set CPE2 to Client Mode to set the other CPEs.

## 2 Installing the CPEs

- The CPE (transmitter in AP mode) with LED1, LED2 and LED3 solid on should be connected to the switch connecting to a
- network video recorder (NVR). See **Figure 1**. • The CPE (receiver in Client mode) with LED1, LED2 and LED3 blinking should be connected to the switch connecting to an IP camera. See **Figure 2**.

Detailed procedures are as follows: Step1: Place the transmitter in the elevated, open air at the point where the NVR is located. Place the receiver in the elevated,

open air at the point where the IP camera is located. Step2: Remove the cover of the CPEs, and connect the PoE/LAN ports of the CPEs to PoE injectors respectively.

The **PoE/LAN** LED indicators light up. Step3: Adjust the CPEs' direction or location until the LED1, LED2 and LED3 of the CPEs light up.

**Step4:** Use the pole mounting straps to fix the CPEs.

# CPE in AP Mode CPE in Client Mode Figure 1: Monitor Center

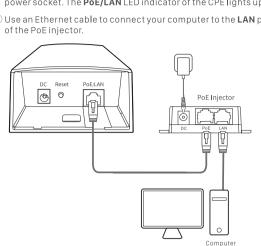
# Scenario 2: Wireless ISP Hotspot Access

# 1 Setting up the CPE

Step 1: Connect the computer to the CPE. 1 Remove the cover of the CPE.

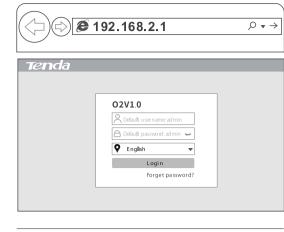
② Use an Ethernet cable to connect the **PoE/LAN** port of the CPE to the PoE port of the **PoE** injector.

power socket. The **PoE/LAN** LED indicator of the CPE lights up. of the PoE injector.



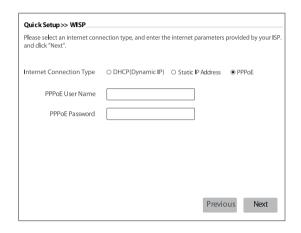
## Step 2: Set the CPE to WISP Mode. ① Start a web browser on your computer, and visit **192.168.2.1**.

Enter your user name and password (default: admin), and click **Login**.



Tips: If the login page does not appear, please refer to Q1 in FAQ.

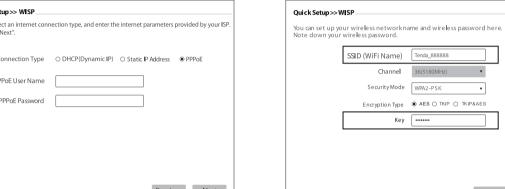
6 Customize the SSID (WiFi Name) and Key, and click Next.



⑤ Select the Internet Connection Type of your ISP hotspot.

**PPPoE** is used for illustration here. Enter the PPPoE user

name and password provided by your ISP, and click **Next**.



① Set an IP address belonging to different network segment as

that of your ISP hotspot. For example, if the IP address of your

ISP hotspot is 192.168.2.1, you can set this CPE's IP address to

192.168.X.1 (X ranges from 0 to 254 excluding 2).

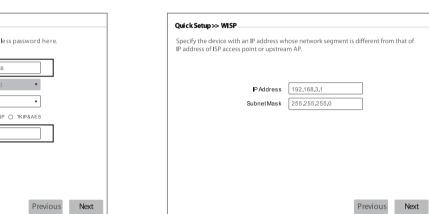
Select WISP, and click Next.

Select a working mode:

O Client In this mode, the device wor

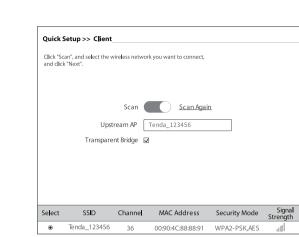
O Universal Repeater In this mode, this device extends an existing wireless network for broader network coverage.

O Router connect to modem in wired manner, and provide network access point

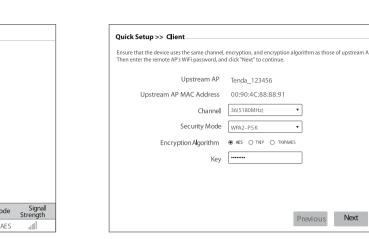


Then click Next.

③ Select the SSID of your ISP (Internet Service Provider) hotspot, which is **Tenda\_123456** in this example, and click **Next**.



4 Enter the WiFi password of your ISP hotspot in the **Key** text box, and click Next.



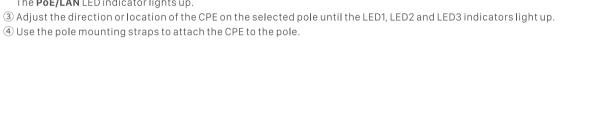
® Click **Save**, and wait until the CPE reboots to activate the When LED1, LED2, and LED3 of the CPE are blinking, the CPE is connected to your ISP hotspot successfully.

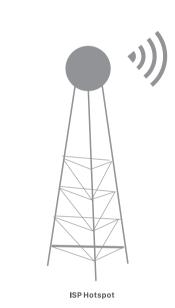


# 2 Installing the CPE

1) Place the CPE over the roof.

2 Remove the cover of the CPE, and connect the **PoE/LAN** port of the CPE to the WAN port of your wireless router. The **PoE/LAN** LED indicator lights up.







Q1: I cannot log in to the web UI of the CPE by entering 192.168.2.1. What should I do?

• Ensure that the CPE has been connected to the power supply and the computer properly. • Ensure that the IP address of the login computer is 192.168.2.X (X ranges from 2 to 254). • Restore the CPE to factory settings.

Q2: How to reset the CPE to factory settings?

Note: Resetting the CPE clears all settings, and you need to configure it again. Method One: 1 minute after the CPE is powered on, remove the cover of the CPE, and hold down the Reset button for about 8 seconds. When all LED indicators light up once, the CPE is restored to factory settings. Method Two: Log in to the web UI of the CPE, choose Tools > Maintenance, and click the Reset button.

 ${\tt Q3: How \ to \ determine \ whether \ the \ signal \ strength \ LED \ indicators \ are \ optimal \ when \ the \ CPEs \ are \ used \ for \ CCTV \ surveillance?}$ Option One: Observe the LED indicators of the CPEs. The bridging signal is optimum when all of the LED1, LED2 and LED3 indicators are solid on or blinking.

Wireless Sta	tus		
Working Mode	Client	AP's MAC Address	00:90:4C:88:88:91
SSID	N/A	Signal Strength	-65dBm
Security Mode	N/A	Background Noise	-116dBm
Channel/Radio Band	157/5785MHz	TX/RX Link	3X3
Channel BandWidth	40MHz	Transmit/Receive Speed	216mbps/216Mbp
TX Power	23dBm	TD-MAX	Disabled
Wireless Client	N/A		

Stronger signal strength (-60 is better than -70) and less background noise (-100 is better than -90) lead to better bridging signal.

Declaration of Conformity

Software Version: V1.0.0.1

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 5.15-5.35GHz band are restricted to indoor use only.

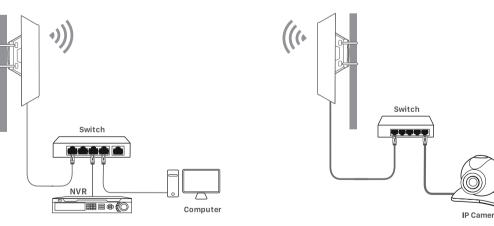
This equipment should be installed and operated with a minimum distance 20cm between the device and your body. WARNING: The mains plug is used as disconnect device, the disconnect device shall remain readily operable. (1) The manufacturer is not responsible for any radio or TV interference caused by unauthorized modifications to this equipment.

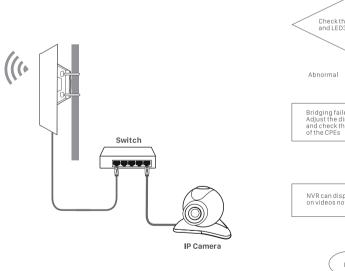
(2) To avoid unnecessary radiation interference, it is recommended to use a shielded RJ45 cable.

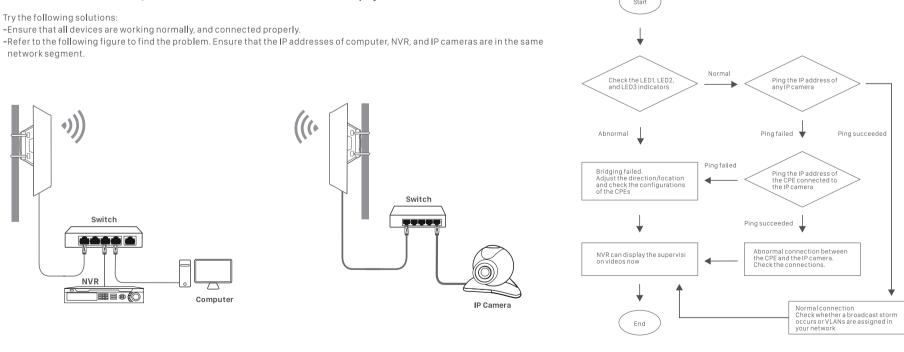
Hereby, SHENZHEN TENDA TECHNOLOGY CO., LTD. declares that the radio equipment type 02 is in compliance with Directive 2014/53/EU. The full text of the EU declaration of conformity is available at the following internet address: http://www.tendacn. com/en/service/download-cata-101.html Operating Frequency: EU/5150-5250MHz (CH36-CH48); EIRP Power (Max.): 22.98dBm EU/5470-5725MHz (CH100-CH140); EIRP Power (Max.): 26.98dBm

Adapter Model: BN036-A12012E, BN036-A12012B Manufacture: SHENZHEN HEWEISHUN NETWORK TECHNOLOGY CO., LTD. Input: 100 - 240 V AC, 50/60 Hz 0.4 A Output: 12 V DC, 1 A === : DC Voltage

## Q4: After the installation succeeds, the IP cameras connected to the NVR cannot display the surveillance videos. What should I do? Try the following solutions: -Ensure that all devices are working normally, and connected properly.







network segment.

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 quarantee 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.

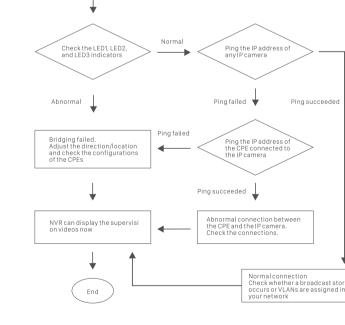
— Connect the equipment into an outlet on a circuit different from that to which the receiver is connected. — Consult the dealer or an experienced radio/TV technician for help.

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.

Radiation Exposure Statement This device complies with FCC radiation exposure limits set for th for an uncontrolled environment and it also complies with Part 15 of the FCC radiation exposure limits and the following the follThis equipment should be installed and operated with minimum distance 20cm between the device and your body.

Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this party responsible for compliance could void the user's authority to operate this party responsible for compliance could void the user's authority to operate this party responsible for compliance could void the user's authority to operate this party responsible for compliance could void the user's authority to operate this party responsible for compliance could void the user's authority to operate this party responsible for compliance could void the user's authority to operate this party responsible for compliance could void the user's authority to operate this party responsible for compliance could void the user's authority to operate this party responsible for compliance could be a supplied to the user's authority to operate this party responsible for compliance could be a supplied to the user's authority to operate the could be a supplied to the user's authority to operate the could be a supplied to the could be a supplied to the user's authority to operate the could be a supplied to the could beThis transmitter must not be co-located or operating in conjunction with any other antenna or transmitter. Operating frequency: 5150-5250MHz, 5725-5850MHz

(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.





This product bears the selective sorting symbol for Waste electrical and electronic equipment (WEEE). This means that this product must be handled pursuant to European directive 2012/19/EU in order to be recycled or dismantled to minimize its impact on the environment. User has the choice to give his product to a competent recycling organization or to the retailer when he buys a new electrical or electronic equipment.

Operating Temperature: -30 °C - 60 °C Operating Humidity: 10% - 90% RH, non-condensing



## Technical Support ShenzhenTendaTechnology Co., Ltd.

6-8 Floor, Tower E3, NO.1001, Zhongshanyuan Road, Nanshan District, Shenzhen, China. 518052 Canada hotline: 1-888-998-8966 HongKong Hotline: 00852-81931998

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