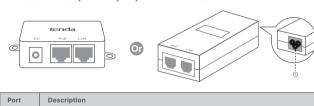
Quick Installation Guide

Outdoor CPE 01/01-5G/03/04/06/0S3

Package contents

| Item | 01 | 01 - 5G | 03 | 04 | 06 | OS3 |
|--------------------------------------|----|----------------|----|----|----|-----|
| CPE | 1 | | | | | |
| PoE injector | 1 | 1 | 1 | 1 | 1 | 1 |
| Power adapter | 1 | 1 | 1 | 1 | × | 1 |
| Power cord | × | × | × | × | 1 | × |
| Plastic strap | 2 | 1 | 2 | 2 | 2 | 2 |
| Ethernet cable | × | × | 1 | × | × | × |
| Screw for fixing the PoE injector | 2 | 2 | 2 | 2 | × | 2 |
| Expansion bolt | 2 | 2 | 2 | 2 | × | 2 |
| Grounding screw | × | × | 1 | × | 1 | × |
| Quick insta ll ation guide | √ | | | | | |



Get to know the PoE injector

The included PoE injector may vary with CPE models.



Get to know your device The CPE appearance varies with models. Please refer to the CPE you purchased.

LED indicators/slots

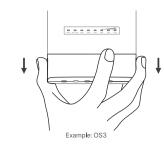
LED indicator/Clat Status Description

The following table lists all LED indicators that may be used on the CPE. However, the LED indicators and slots may vary with CPE models.

| LED indicator/Slot | Status | Description | | |
|---|----------|---|--|--|
| Solid on | | CPE powered on | | |
| Power | Off | CPE powered off | | |
| | Solid on | CPE powered on without data transmission | | |
| LAN/WAN, PoE/LAN | Blinking | CPE powered on with data transmitting | | |
| | Off | CPE powered off | | |
| PoE/LAN1, LAN2, LAN3, LAN4 | Solid on | Corresponding port connected without data transmission | | |
| | Blinking | Corresponding port connected with data transmitting | | |
| | Off | Corresponding port disconnected | | |
| WiFi | Solid on | WiFi enabled without data transmission | | |
| | Blinking | WiFi enabled with data transmitting | | |
| | Off | WiFi disabled | | |
| LED1, LED2, LED3 (Received signal strength indicator) Solid on/ blinking | | CPE bridged or connected to other devices - Solid on: CPE working in AP, Repeater, P2MP or Router mode - Blinking: CPE working in Client, Universal repeater or WISP mode The more indicators are on, the better the connection quality is. | | |
| | Off | No device connected to the CPE wirelessly, or weak signal strength. Adjust your CPE's direction or location. | | |
| Wall mounting slots | | Prepare 4 expansion bolts and 4 screws for wall mounting. Recommended specifications: - Expansion bolt: outer diameter: 6 mm; length: 40 mm - Screw: thread diameter 3 mm; length: 20 mm; 5.5 mm < head diameter < 8.5 mm | | |
| Pole mounting slots | | You can thread the included plastic straps through these slots to attach the CPE to the pole. | | |

Ports/button

For some models, you need to remove the cover to see the ports and buttons. OS3 is used for example in the following figure.

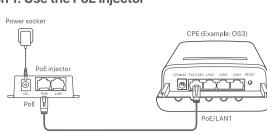


The following table lists all ports and buttons that may be used on the CPE. However, the ports and buttons may vary with CPE models.

| Port/Button | Description | |
|--|--|--|
| 12V 1A, DC | DC power jack. Connect the power adapter (if any) to this port for power supply. | |
| PoE LAN/WAN, PoE/LAN, PoE/LAN1, LAN1 12V PoE, LAN2 802.3af PoE | Multiplexing port for power input and data transmission. - If passive PoE is used for power supply, connect this port to the PoE port of the PoE injector. - If you power on the CPE using a power adapter, this port can be connected to a computer, switch or IP camera. - If standard PoE is used for power supply, connect this port to the PoE port of the IEEE 802.3af/at PoE power supply device. You can check whether the CPE supports standard PoE power supply on the package box or the CPE's Specifications page on www.tendacn.com. - \(\frac{1}{2} \). Tips - If the CPE works in the Router mode (if supported), this port functions as a WAN port to connect to an upstream network device. - LAN12V PoE port only supports passive PoE. LAN2 802.3af PoE port only supports standard PoE. | |
| LAN,LAN2,LAN3,LAN4 | Ethernet port for connecting to a computer, switch or IP camera. | |
| RST, RESET, Reset | Reset button. Used to restore the CPE to factory settings. For details, see Q2 in FAQ. | |
| Cable grommet | Used to fix the power cord or Ethernet cable. | |
| GND | Grounding terminal. Use a grounding cord and included grounding screw to connect the grounding terminal to the earth or building for surge and lightning protection. | |
| Power cord/grounding cord/ Ethernet cable inlet | Used to fix the power cord of the power adapter, grounding cord, or Ethernet cable. | |

Power on the CPE

Option 1: Use the PoE injector



Option 2: Use the power adapter

- _____ Tips
Use the included power adapter to avoid damage to the CPE.

If your CPE has a DC power jack, use the included power adapter to power on the CPE.

CAT5 or better Ethernet cable recommended. See Q3 in FAQ for maximum distance



Scenario 1: CCTV surveillance or point to point data transmission

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

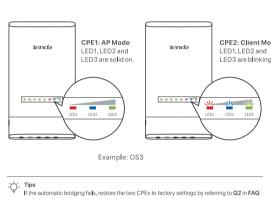
Option 1: Automatic bridging (recommended)

Peer-to-peer bridging

- Tips
- Automatic bridging only works for CPEs in factory settings.

Place two CPEs in factory settings next to each other, open their covers and power them on. $After the \, CPEs \, complete \, startup, they \, start \, automatic \, bridging \, and \,$ their LED1, LED2 and LED3 indicators blink quickly. About 1 minute later, when the LED1, LED2 and LED3 indicators of one CPE light solid on and those of the other CPE blinks slowly, the automatic bridging

After the bridging succeeds, the DHCP server of the CPEs will be $\ disabled\ automatically.\ The\ IP\ address\ of\ the\ CPE\ working\ in\ AP\ model$ remains 192.168.2.1, and the IP address of the CPE working in Client mode is changed into 192.168.2.2.



Peer-to-multiple peers bridging

DC, ①

Powerjack

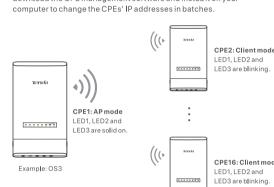
power on the rest CPEs within 30 minutes. Otherwise, the bridging may fail.

One CPE can bridge with 15 CPEs at most.

Step1: Choose any two CPEs, then perform Peer-to-peer bridging. Step2: Within 30 minutes after peer-to-peer bridging succeeds, put other CPEs in factory settings near the CPE working in AP mode (LED1, LED2 and LED3 are solid on), and power them on. After the other CPEs complete startup, they start automatic bridging and their LED1, LED2 and LED3 indicators blink quickly. About 1

slowly, the bridging succeeds. After the bridging succeeds, the DHCP servers of the CPEs are disabled, and the IP addresses of CPEs working in Client mode are all changed into 192.168.2.2. You can visit www.tendacn.com to

minute later, when their LED1, LED2, and LED3 indicators blink



Option 2: Manual bridging

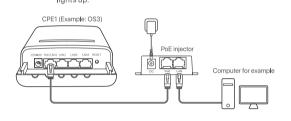
Step1: Place two CPEs next to each other. Step2: Log in to the web Ul of CPE1.

• Open the CPE1 cover and power it on (PoE injector used in this

2 Connect client to CPE1.

Method 1: Connect your wireless client (such as a smartphone) to the WiFi network of CPE1. By default, the WiFi name of CPE1 is **Tenda_**XXXXXX (XXXXXX) indicates the last six characters of the MAC address). If a WiFi QR code is provided on the CPE1 nameplate, you can scan it to connect to the WiFi network directly.

Method 2: Use an Ethernet cable to connect the **LAN** port of the PoE injector to a computer. The **PoE/LAN1** indicator of CPE1 lights up.



3 Start a web browser on the client connected to CPE1 and visit 192.168.2.1. Enter the login username and password and click

⊕ ⊕ 192.168.2.1 Tips
If the login page does not appear, please refer to Q1 in FAQ.

Step3: Set CPE1 to AP mode.

 Access the Quick Setup page, select AP, and click Next. 2 Customize your SSID (WiFiname) and Key (WiFi password) Select a Channel, a Security Mode (WPA2-PSK recommended and an Encryption Algorithm. Click Next.



❸ Click Save, and wait until CPE1 reboots automatically to activate

Step4: Set CPE2 to Client mode. • Perform **Step 2** to log in to the web UI of CPE2. 2 Access the Quick Setup page, select Client, and click Next. 3 Select the SSID of CPE1, which is Tenda_123456 in this example,



4 Enter the **Key** of CPE1, and click **Next**.



5 Set the IP address to an unused one belonging to the same network segment as that of CPE1. For example, if the IP address of CPE1 is 192.168.2.1, you can set CPE2's IP address to 192.168.2.X (X ranges from 2 to 254). Then click Next.



6 Click **Save**, and wait until the CPE reboots to activate the settings. The LED1, LED2 and LED3 indicators of CPEs will blink quickly when they start bridging. When the LED1, LED2 and LED3 indicators of CPE1 light solid on, and the LED1, LED2 and LED3 $\,$ indicators of CPE2 blink slowly, the bridging succeeds and the DHCP servers of the two CPEs are disabled automatically. To perform peer-to-multiple bridging, log in to other CPEs and repeat **Step 4** to set them to the Client mode and bridge them with

2.Install the CPEs

 $\label{thm:cpe} The \ \mathsf{CPE} \ is \ usually \ \mathsf{deployed} \ in \ \mathsf{schools}, communities, factories \ \mathsf{or} \ \mathsf{streets} \ \mathsf{for} \ \mathsf{surveillance}.$

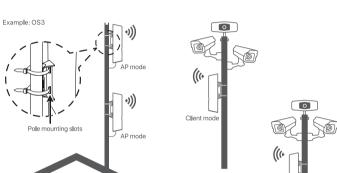
Pole mounting is used for illustration here. • Choose the elevated, open location for installation.

2 Thread the two plastic straps through the pole mounting slots on the bracket of the CPE, and attach the CPE onto the selected pole. Adjust the CPE's location and direction, and tighten the straps to fix the CPE. Power on the CPE.

4 Connect the CPEs with the LED1, LED2 and LED3 indicators solid on (AP mode - the transmitting end) to the switch which is connected to a Network Video Recorder (NVR).

3 Connect the CPEs with the LED1, LED2 and LED3 indicators blinking (Client mode – the receiving end) to IP cameras or a switch connected to IP cameras. 6 Install the CPE cover.

After successful installation, the connection quality reaches the best when the LED1, LED2 and LED3 indicators of the CPEs light solid on or blink.

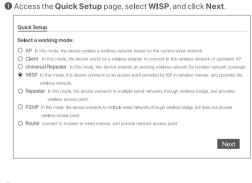




Scenario 2: Wireless ISP hotspot access

1.Set up the CPE

Step1: Perform Step 2 in Option 2: Manual bridging under Scenario 1: CCTV surveillance or point to point data transmission to log in to the web UI of the CPE. Step2: Set the CPE to WISP mode



2 Select the SSID of the Internet Service Provider (ISP) hotspot, which is Tenda_123456 in this example, and click Next. Quick Setup >> WISP



3 Enter the password for the ISP hotspot in the Key box, and click Next

Upstream AP Tenda_123456 Channel Security Mode WPA2-PSK • Previous Next

4 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.



⑤ Customize the **SSID (WiFi Name)**, select a **Security Mode** (WPA2-PSK recommended), customize a Key, and click Next. Quick Setup >> WISP



6 Set the IP address to an unused one belonging to a different network segment as that of the ISP hotspot. For example, if the IP address for the ISP hotspot is 192.168.2.1, you can set this CPE's IP address to



Click Save, and wait until the CPE reboots to activate the settings



3 Power on the CPE. ② Connect the LAN port of the CPE to the WAN port of your wireless The connection quality reaches the best when the LED1, LED2 and LED3 indicators of the CPE blink.

Thread the two plastic straps through the pole mounting slots on

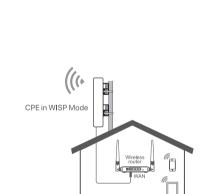
the brackets of the CPE, and attach the CPE onto the selected pole. Adjust the CPE's location and direction, and tighten the



2. Install the CPE

Pole mounting is used for illustration here.

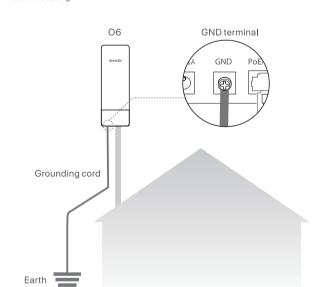
Place the CPE over the roof.



Grounding

This part applies to the CPE with a GND terminal. O6 is used for example here. Connect the GND terminal of the CPE to a grounding terminal connected to the earth or $building, to \,protect \,the \,CPE \,from \,overvoltage \,and \,overcurrent \,caused \,by \,lightning.$

Connect one side of the grounding cord to the included grounding screw. ② Connect the grounding screw to the GND terminal of the CPE, and tighten it. 3 Connect the other side of the grounding cord to the grounding terminal connected to the earth or building.



FAQ

Q1: I cannot log in to the web UI of the CPE by entering 192.168.2.1. What should I do? A1: Try the following solutions:

 Ensure that the CPE is connected to a power soul • Ensure that the IP address of the computer is set to 192.168.2.X (X ranges from 2 - 254 and is unused) • Restore the CPE to factory settings by referring to Q2, and try again. Q2: How to reset the CPE?

A2: Note: Resetting the CPE clears all settings, and you need to configure it again. Method 1: After the CPE completes startup, hold down the reset button (RST, RESET or Reset) for about 8 seconds and release it when all LED indicators light up. The CPE is restored to factory settings Method 2: Log in to the web UI of the CPE, navigate to **Tools** > Maintenance, and click **Reset**.

 ${\tt Q3:What is the \, maximum \, distance \, for \, PoE \, power \, supply \, when \, a \, PoE \, injector \, is \, used \, for \, power \, supply?}$ A3: The following table is for your reference. You can check the power supply data on the CPE housing, power

| Power supply mode | Input voltage | Maximum PoE power supply distance |
|--|---------------|-----------------------------------|
| 9V 0.6A DC power supply/PoE power supply | 9-13V | 30m |
| 12V 1A DC power supply/PoE power supply | 9-13V | 50 m or 60 m |
| 24V 0.5A PoE power supply | 18-25V | 60m |

Q4: How to check that the CPE is under the best connection status? A4; Method 1: Observe the LED indicators of the CPE. The connection quality reaches the best when the LED1, LED2 and LED3 indicators of the CPEs light solid on or blink.



Q5: The automatic bridging fails. What should I do? A5: Try the following solutions:

• Peer-to-peer bridging: If the peer-to-peer bridging fails, restore the two CPEs to factory settings by

referring to **Q2**, and try again.

• Peer-to-multiple peers bridging: After peer-to-peer bridging succeeds, ensure that the rest CPEs are - For the CPEs that fail to bridge within 30 minutes after peer-to-peer bridging succeeds, reset them and try

- Beyond 30 minutes after peer-to-peer bridging succeeds, refer to **Option 2: Manual bridging** to set the

rest CPEs to Client mode, and then connect them to the WiFi network of the CPE whose LED1, LED2, and

 ${\tt Q6:After\,the\,bridging\,succeeds,the\,LED1,LED2\,and\,LED3\,indicators\,do\,not\,light\,up\,or\,only\,some\,of}$ them do. What should I do? A6: Try the following solutions:

Ensure that the bridging distance between the CPEs is within the normal range.
 Place the CPEs in an elevated location at the same height with few obstacles nearby

and IP camera configuration are correct.

End

Q7: After the installation succeeds, there is no display of the scenes monitored by IP cameras at the NVR side. What should I do? A7: Try the following solutions: • Ensure that all devices are working normally and connected properly.

• Ensure that the computer, NVR and IP camera are in the same network segment, and the NVR configuration

• If the IP camera can be scanned but cannot be added at the NVR side, ensure that the **Transparent Bridge**

Make slight direction adjustment of the CPEs by moving it vertically and horizontally. Change the direction
with an interval of 20s to 30s each time to observe the change of LED1, LED2 and LED3 indicators until the

function is enabled and the IP camera is already in initialization (active) state.

If the IP camera cannot be scanned at the NVR side, refer to the following procedure to solve the issue. Check if the NVR, switch and

Get support and services



https://www.tendacn.com/service/default.html

For technical specifications, user guides and more information, please visit the product page or service page on www.tendacn.com. Multiple languages are available. You can see the product name and model on the product label.

Safety Precautions

to prevent accidents. The warning and danger items in other documents do not cover all the safety $precautions that \, must \, be \, followed. \, They \, are \, only \, supplementary \, information, \, and \, the \, installation \, and \, determined by the contraction of the$ -The device is suitable for mounting at heights > 2 m. - Do not use the device in a place where wireless devices are not allowed.

- Please use the included power adapter/PoE injector (if provided). - CPE is used outdoors. PoE injector and power adapter are used indoors. -If you power on the CPE using a power adapter: the mains plug is used as the disconnect device, and shall emain readily operable; the power socket shall be installed near the device and easily accessible -CPE operating temperature: -30°C-60°C; Power adapter operating temperature: 0-35°C - Keep the device away from water, fire, high electric field, high magnetic field, and inflammable and

-If such phenomena as smoke, abnormal sound or smell appear when you use the device, immediately stop

using it and disconnect its power supply, unplug all connected cables, and contact the after-sales service- Disassembling or modifying the device or its accessories without authorization voids the warranty, and For latest safety precautions, see Safety and Regulatory Information on www.tendacn.com.

- Do not use the power adapter/PoE injector if its plug or cord is damaged.

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FCC Statement

s 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 when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, 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 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 ECC radiation exposure limits set forth for an uncontrolled environment and it also complies

with Part 15 of the FCC RF Rules. This equipment should be insta**l**ed 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 the equipment.

This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter. Operating frequency: 01/04V3.0/06V3.0/0S3V2.0: 2412–2462 MHz; 01-5G/04/06/083: 5150-5250 MHz 5725-5850 MHz

is product bears the selective sorting symbol for Waste electrical and electronic equipment (WEEE). This mean 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. r has the choice to give his product to a competent recycling organization or to the retailer when he buys a new

 $\textbf{NOTE:} (1) \ \text{The manufacturer is not responsible for any radio or TV interference caused by unauthorized modifications to} \\$

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



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CE Mark Warning

Declaration of Conformity

This is a Class B product. In a domestic environment, this product may cause radio interference, in which case the oment should be installed and operated with a minimum distance 20cm between the device and 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

Hereby, SHENZHEN TENDA TECHNOLOGY CO., LTD. declares that the device is in compliance with Directive The full text of the EU declaration of conformity is available at the following internet address:

Attention: In EU member states, EFTA countries, Northern Ireland and Great Britain, the operation in the frequency range 5150MHz – 5250MHz is only permitted indoors. The operation in the frequency range 5470 MHz – 5725 MHz is permitted both indoors and outdoors.



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