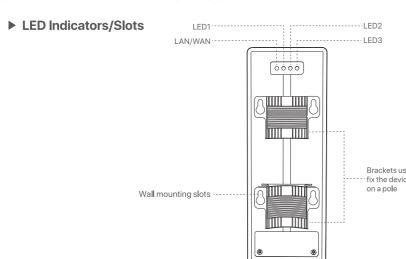
Tenda

Get to Know the Device

Quick Installation Guide

5 km Outdoor Point to Point CPE Model: 03



Ports & Button

				p p
Package Contents		LAN/WAN	Blinking	The power is supplied to the device properly, and the port is transmitting or receiving data.
			Off	No power is supplied to the device.
•				The device is working in AP, Repeater, P2MP or Router mode, and connected to wireless clients. If the device
• O3 * 1	Grounding Screw * 1			is automatically connected to the other one, it is set to AP mode.
• PoE Injector * 1	 Pole Mounting Strap * 2 		Solid on	• LED1, LED 2 and LED3 are solid on: Perfect Signal
,	ŭ i	LED1, LED2, LED3		LED1 and LED 2 are solid on, and LED 3 is off: Good signal
 Power Adapter * 1 	 Screw * 2 (Used to fix the PoE injector) 	(Signal Strength LED)		 LED1 is solid on, and LED2 and LED3 are off: Weak signal. Please adjust the direction or location of the two deventions.

• 03 * 1	Grounding Screw * 1				is automatically connected to the other one, it is set to AP mode.
PoE Injector * 1	 Pole Mounting Strap * 2 		LED1, LED2, LED3	Solid on	LED1, LED 2 and LED3 are solid on: Perfect Signal LED1 and LED 2 are solid on, and LED 3 is off: Good signal
Power Adapter * 1	• Screw * 2 (Used to fix the PoE injector)		(Signal Strength LED)		LED1 is solid on, and LED2 and LED3 are off: Weak signal. Please adjust the direction or location of the two dev
• Ethernet Cable * 1	• Expansion Anchor * 2 (Used to fix the PoE inj	ector)		Blinking	The device is working in Client, Universal Repeater or WISP mode, and connected to a remote AP. If the device is
 Quick Installation Guide * 1 					automatically connected to the other one, it is set to Client mode.
				Off	The device is not connected to a wireless client or a remote AP.
Please read this quick installation guid http://www.tendacn.com for more info	e before you start. You can visit our website at rmation about the device.	PAP	Wall mounting slots	/	Used for wall mounting. You should prepare 4 expansion bolts and 4 screws for wall mounting. Recommended specifications: Expansion bolt: outer diameter: 6 mm; length: 40 mm Screw: PA3*20 mm, 5.5 mm < head diameter < 8.5 mm

ED Indicator/Slot Status

ID Port/Button Use the included grounding screw and cable to connect the device's grounding terminal to a grounding terminal of building to avoid ESD and lightning damage to the device. After the device is powered on for 1 minute, hold down this button for about 8 seconds. When all the LED indicators on the device light up, the device restores to the factory settings 10/100 Mbps automatic negotiation RJ45 port. Used to connect to a switch, computer, or other wired devices PoE power input and data transmission port. PoE LAN/WAN If the device works in Router mode, it is a WAN port. Otherwise, it is a LAN port. Use the included PoE injector to supply power to the device. Ethernet cable inlet.

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

1 Set up the Devices (AP + Client Mode)

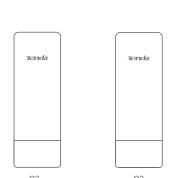
At least two devices are required for bridging.

Method 1: Automatic Bridging (Recommended

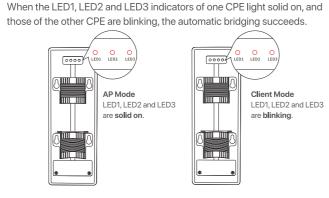
Peer-to-peer bridging

• Automatic bridging is only applicable when the devices are in factory settings, and the bridging process lasts less than 1 minute after the devices are powered on Automatic peer-to-peer bridging could fail if three or more powered devices in factory settings are placed nearby.

following figure.







Wait for the two devices to negotiate and connect to each other automatically.

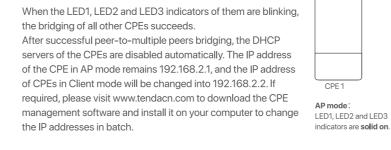
Description

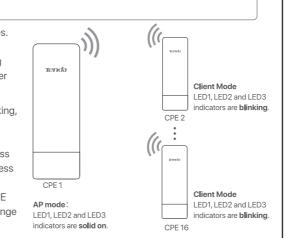
If the bridging succeeds, the DHCP servers of the two devices are disabled. The IP address of the device working in AP mode remains 192.168.2.1, and the IP address of the device working in Client mode changes to 192.168.2.2.

Peer-to-multiple peers bridging

• The automatic peer-to-multiple peers bridging lasts for 30 minutes. During this period, the device working in AP mode must be kept powered on. Otherwise other devices will fail to perform automatic bridging.

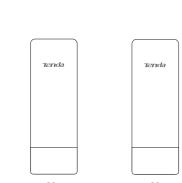
• Perform Peer-to-peer bridging to bridge any two devices. Within 30 minutes after peer-to-peer bridging succeeds, place other CPEs in factory settings near the CPE working in AP mode (LED1, LED2 and LED3 are solid on) and power When the LED1, LED2 and LED3 indicators of them are blinking,





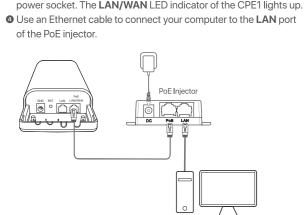
Method 2: Set up the Devices Using Web UI

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



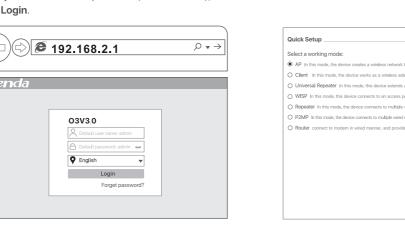
Step 2: Connect the computer to CPE 1. Uncover the housing of CPE1.

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



If this page does not appear, please refer to Q1 in FAQ.

• Start a web browser on the computer, and visit 192.168.2.1. Enter your user name and password (default: admin), and



O Client In this mode, the device works as a wireless adapter to connect to the wireless network of upstream AF Repeater In this mode, the device connects to multiple wired networks through wireless bridge, and provides wireless access Next

Select AP, and click Next.

3 Set an SSID, which is **Tenda_123456** in this example, security mode (WPA2-PSK is recommended), and Key, and click Next.



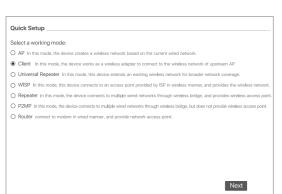
4 Click Save, and wait until the device reboots automatically to activate the settings.

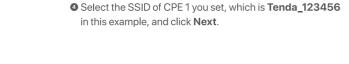
Step 4: Set CPE2 to Client Mode.

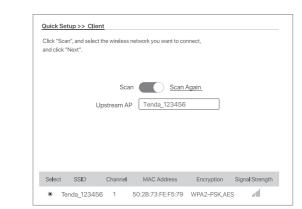
• Perform the procedure in Step 2: Connect the Select Client, and click Next. **computer to CPE 1** to connect the computer to CPE 2.

2 Start a web browser on your computer, and visit 192.168.2.1. Enter the login user name and password (both are admin by default), and click Login.









and click Next.

Quick Setup >> Client Upstream AP Tenda 123456 Upstream AP MAC Address 50:2B:73:FE:F5:79 Channel 1 (2412) Security Mode WPA2-PSK • Encryption Type ● AES OTKIP OTKIP&AES Key ------Previous **Next**

same network segment as that of CPE 1. For example, if the IP address of CPE 1 is 192.168.2.1, you can set this device's IP address to 192.168.2.X (X ranges from 2 to 254). Then

click Next.

Quick Setup >> Client IP Address 192.168.2.100 Subnet Mask 255.255.255.0 Default Gateway 192.168.2.254 Primary DNS Server 8.8.8.8 Secondary DNS Server 8.8. Previous Next OClick Save, and wait until the device reboots to activate the

The device is set to client, click "save" to apply the setting. Previous Next When LED1, LED2, and LED3 of CPE1 are solid on, and LED1,

LED2, and LED3 of CPE 2 are blinking, the bridge succeeds.

If this page does not appear, please refer to Q1 in FAQ.

2 Install the Devices The equipment is suitable for mounting at heights >2 m.

- The device (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 device (receiver in Client mode) with LED1, LED2 and LED3 blinking should be connected to the switch connecting to a monitoring IP camera. See **Figure 2**.

Detailed procedures are as follows:

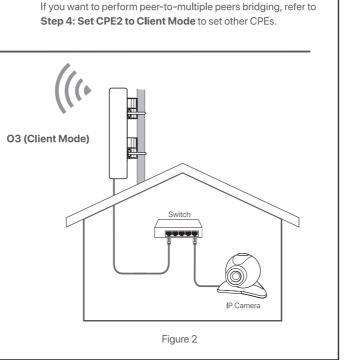
• Place the transmitter in the open air at the point where the NVR is located. Place the receiver in the open air at the point where the IP camera is located.

Our Uncover the housings of the two devices, and connect the PoE LAN/WAN ports of the devices to the PoE ports of PoE injectors respectively. 9 Use the included power adapters to connect the PoE injectors to power sockets. The LAN/WAN LED indicators light up.

Adjust the two devices' direction or location until the LED1, LED2 and LED3 of the two devices light up.

9 Use the pole mounting straps to attach the two devices to the poles respectively.

O3 (AP Mode)



Application Scenario 2: Wireless ISP Hotspot Access

1 Set up the Device

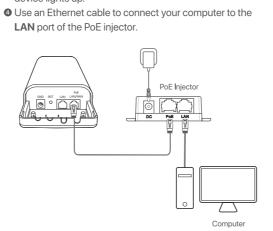
Step 1: Connect the computer to the device.

• Uncover the housing of the device.

② Use an Ethernet cable to connect the PoE LAN/WAN port of the device to the **PoE** port of the PoE injector. 3 Use the included power adapter to connect the PoE injector

device lights up.

to a power socket. The LAN/WAN LED indicator of the



5 Select the Internet Connection Type of your ISP hotspot. We take PPPoE as an example here. Enter the PPPoE user name and password provided by your ISP, and click Next.

Internet Connection Type O DHCP(Dynamic IP) O Static IP Address © PPPoE

2 Install the Devices

Place the device at open air.

PoE port of the PoE injector.

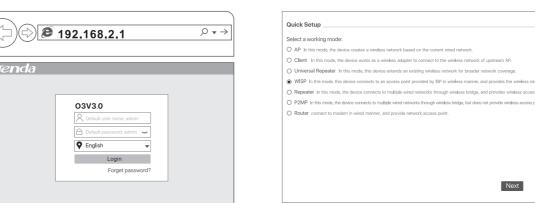
LED indicator lights up.

the device light up.

Quick Setup >> WISF

Step 2: Set the device to WISP Mode. • Start a web browser on your computer, and visit

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



2 Select WISP, and click Next.

If this page does not appear, please refer to Q1 in FAQ.

Channel 1 (2412)

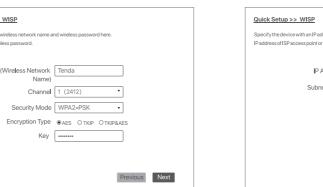
Security Mode WPA2-PSK

6 Customize the SSID and key, and click **Next**.

Quick Setup >> WISP

Set an IP address belonging to different network segment as that of your ISP hotspot. For example, if the IP address of

Then click Next.



your ISP hotspot is 192.168.2.1, you can set this device's IP address to 192.168.X.1 (X ranges from 0 to 254 excluding2).

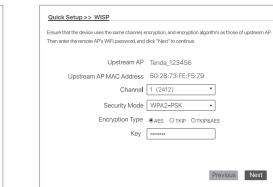


Select the SSID of your ISP (Internet Service Provider)

hotspot, which is **Tenda_123456** in this example, and click Next.



Enter the WiFi password of your ISP (Internet Service Provider) hotspot in the **Key** text box, and click Next.



3 Click Save, and wait until the device reboots to activate the When LED1, LED2, and LED3 of the device are blinking, the

device is connected to your ISP hotspot successfully.

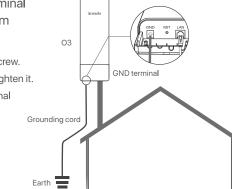
Quick Setup >> WISP The device is set to WISP. Please click "Save" to apply the settings IP Address 192.168.3.1 Subnet Mask 255.255.255.0

Grounding

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.

Previous Next

Connect one side of the grounding cord to the included grounding screw. Oconnect the grounding screw to the GND terminal of the CPE, and tighten it. Connect the other side of the grounding cord to the grounding terminal



Q1: I cannot log in to the web UI of the device by entering 192.168.2.1. What should I do? Try the following methods and try again:

Previous Next

2 Uncover the housings of the device, and connect the PoE LAN/WAN port of the device to the

• Use the included power adapter to connect the PoE injector to a power socket. The LAN/WAN

• Adjust the device's direction or location on the selected pole until the LED1, LED2 and LED3 of

4 Connect the **LAN** port of the PoE injector to the **WAN** port of your wireless router.

• Use the pole mounting straps to attach the device to the pole.

• Ensure that the device 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). Reset the device to factory settings.

Q2: How to reset the device to factory settings?

Note: Resetting the device will clear all settings, and you need to configure it again. Method One: 1 minute after the device is powered on, uncover the housing of the device, and hold down the RST button for about 8 seconds. When all LED indicators light up, the device is

restored to factory settings. Method Two: Log in to the web UI of the device, choose Tools > Maintenance, and click the Reset button.

Q3: How to determine whether the bridging signal is optimal when the devices are used for CCTV surveillance?

Method One: Observe the LED indicators of the two devices. The bridging signal is optimum when all of the LED1, LED2 and LED3 indicators are solid on or blinking. Method Two: Log in to the web UI of one device (default login address: 192.168.2.1), choose Status, and check the wireless status on the following page:

Working Mode	Client	AP's MAC Address	50:2B:73:FE:F5:79
SSID	N/A	Signal Strength	-32dE
Security Mode	N/A	Background Noise	-95dE
Channel/Radio Band	1/2412	TX/RX Link	1X1
No. of Wireless Clients	N/A	Transmit/Receive Speed	72Mbps/26Mbps

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



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. This equipment should be installed and operated with a minimum distance of 20 cm between

the device and your body. The mains plug is used as disconnect device, the disconnect device shall remain readily operable. 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.

Declaration of Conformity Hereby, SHENZHEN TENDA TECHNOLOGY CO., LTD. declares that the radio equipment type

O3 is in compliance with Directive 2014/53/EU. The full text of the EU declaration of conformity is available at the following internet address: https://www.tendacn.com/download/list-9.html

Operating Frequency: EU/2412-2835MHz (CH1-CH13) EIRP Power (Max.): 19.98 dBm Software Version: V1.0.0.10

Caution:

Adapter Model: BN073-A12012E, BN073-A12012B, BN073-A12012U Manufacturer: 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 The device is used outdoors. The power adapter is used indoors.

Q4: After the installation succeeds, the monitors 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. • Ensure that the computer, NVR and IP camera are in the same network segment, and the NVR

configuration and IP camera configuration are correct. • If the IP camera can be scanned but cannot be added at the NVR side, ensure that the Transparent Bridge function is enabled and the IP camera is already in initialization (active) state. • If the IP camera cannot be scanned at the NVR side, please refer to the following procedure to

solve the issue.

Q5: The automatic bridging fails. What should I do?

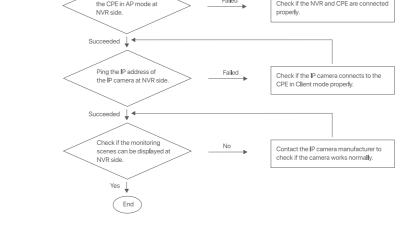
whose LED1, LED2, and LED3 are solid on.

connected to the earth or building.

Try the following solutions:

• Peer-to-peer bridging: If the peer-to-peer bridging fails, restore the two CPEs to factory settings, and try again. Peer-to-multiple peers bridging:

- For the CPEs that fail to bridge within 30 minutes after peer-to-peer bridging succeeds, reset them and try again. - For the CPEs that fail to bridge beyond 30 minutes after peer-to-peer bridging succeeds, refer to Method 2: Set up the Devices Using Web UI to set the rest CPEs to Client mode, and then connect them to the wireless network of the CPE



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.

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.

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 Operating frequency: 2412-2462MHz

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.

RECYCLING

impact on the environment.

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

User has the choice to give his product to a competent recycling organization or to the retailer when he buys a new electrical

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

Technical Support

Shenzhen Tenda Technology Co., Ltd. Floor 6-8, Tower E3, No.1001, Zhongshanyuan Road, Nanshan District, Shenzhen, China. 518052 USA hotline: 1-800-570-5892

Toll Free: Daily-9am to 6pm PST Canada hotline: 1-888-998-8966 Toll Free: Mon - Fri 9 am - 6 pm PST Hong Kong hotline: 00852-81931998 Global hotline: +86 755-2765 7180 (China Time Zone)

Website: www.tendacn.com

E-mail: support@tenda.com.cn

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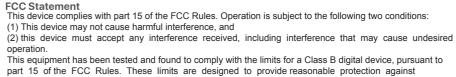
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ISP Hotspot



This equipment should be installed and operated with a minimum distance of 20 cm between the

device and your body.