

TP-LINK®

The Reliable Choice

Installation Guide

Outdoor CPE

CPE210 / CPE220 / CPE510 / CPE520

CONTENTS

Overview	4
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Hardware Connection

Site Consideration	6
Ethernet Cable Selection	8
Connection and Installation	9
Lightning & ESD Protection	10

Software Configuration

Login to Pharos	10
Configuration for Typical Application	14
• Point-to-Point	14

Antenna Alignment	16
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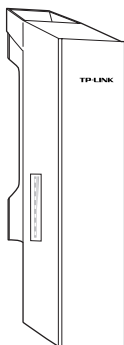
Specifications	17
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Frequently Asked Questions (FAQ)	18
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Overview

TP-LINK's Pharos series outdoor CPEs are dedicated to outdoor wireless network solutions. This guide is applicable to products including CPE210, CPE220, CPE510 and CPE520.

• Package Contents



Pharos CPE



Passive PoE Adapter



Power Cord

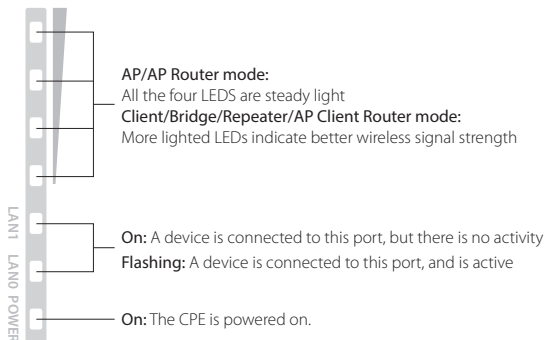


Pole Mounting Straps



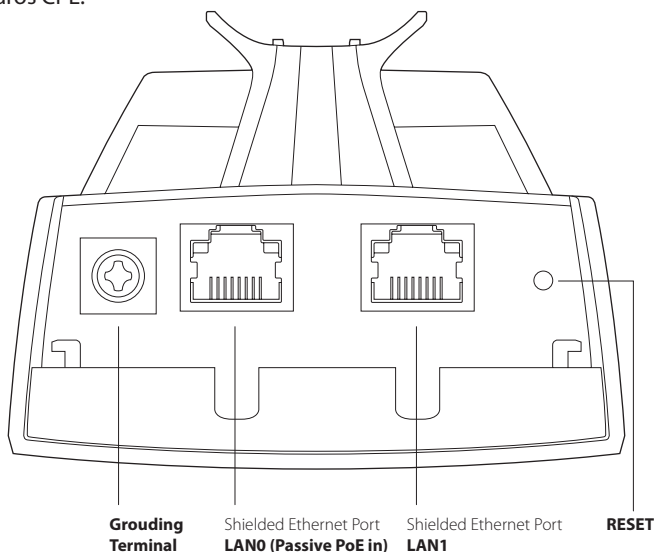
Installation Guide

• LED Explanation

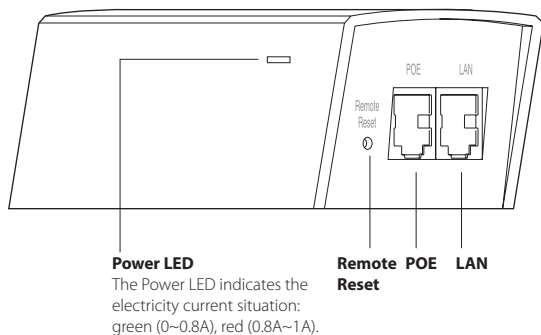


• Panel Layout

Pharos CPE:



Passive PoE Adapter:



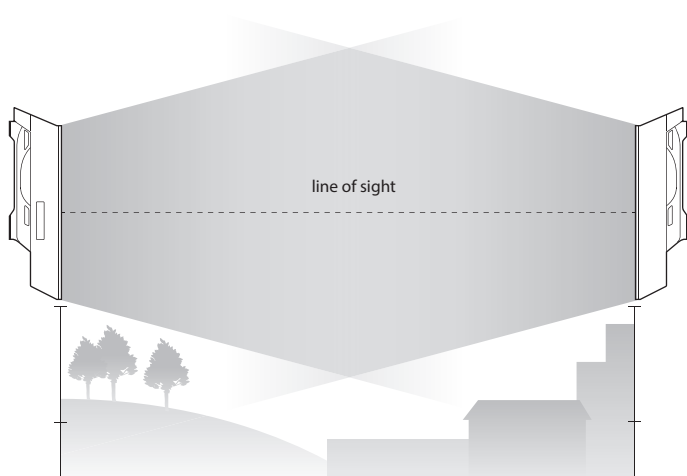
Hardware Connection

1. Site Consideration

• Mounting Height

Ensure a clear line of sight between the wireless devices for an optimum performance. An elevated location is recommended as obstacles like trees, buildings and large steel structures will weaken the wireless signal.

See Q2 in FAQ for details about how to calculate the minimum mounting height of the devices.

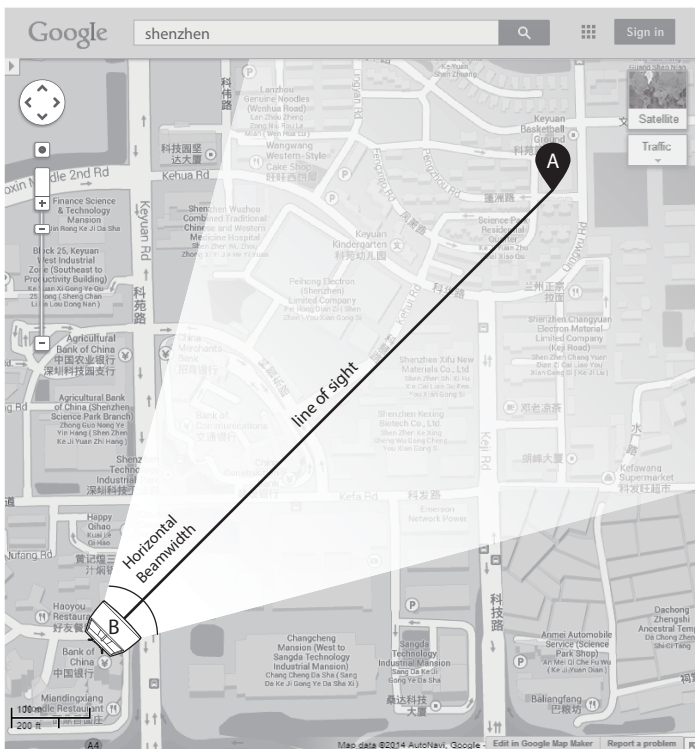


Side View

• Orientation

Install the CPE devices with their fronts facing the signal receivers. You can orient the devices with the assistance of Google Map, GPS and some landmarks according to the horizontal beamwidth listed below.

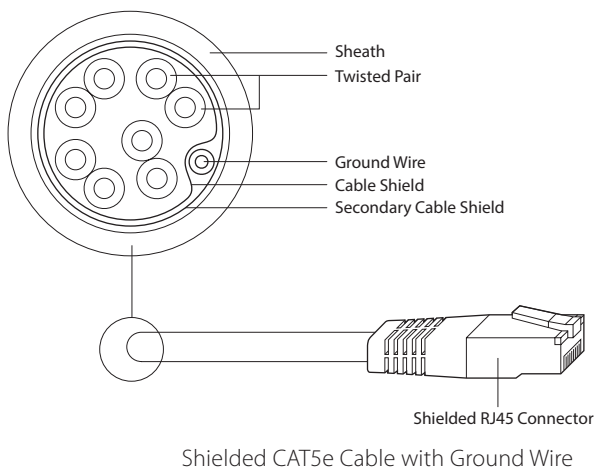
Models	CPE210	CPE220	CPE510	CPE520
Horizontal Beamwidth	65°	45°	45°	50°



2. Ethernet Cable Preparation

1. Select the adequate type of Ethernet cable.

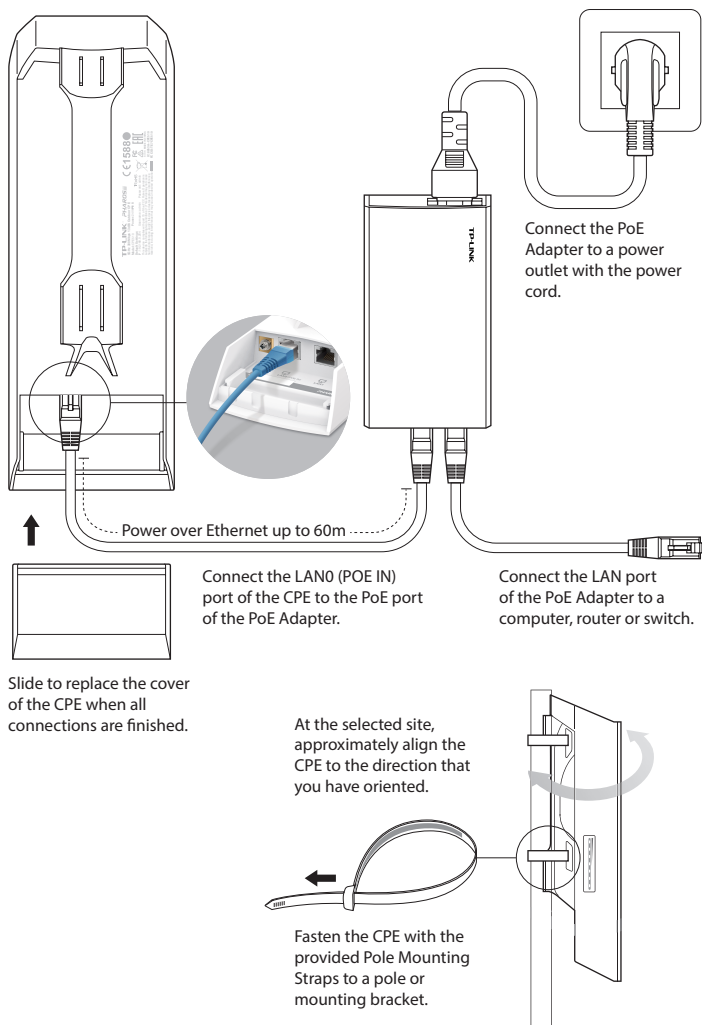
The shielded CAT5e cable with ground wire (refer to the figure below) is prior to the general shielded CAT5e cable during the whole cabling. The former can more effectively protect your devices against ESD attacks under brutal outdoor environment.



2. Review the routes of connecting the POE Adapter to the CPE and evaluate the Ethernet cable length for all the connections, then prepare adequate Ethernet cable.

3. Connection and Installation

Please connect and install the device as shown in the figure below.

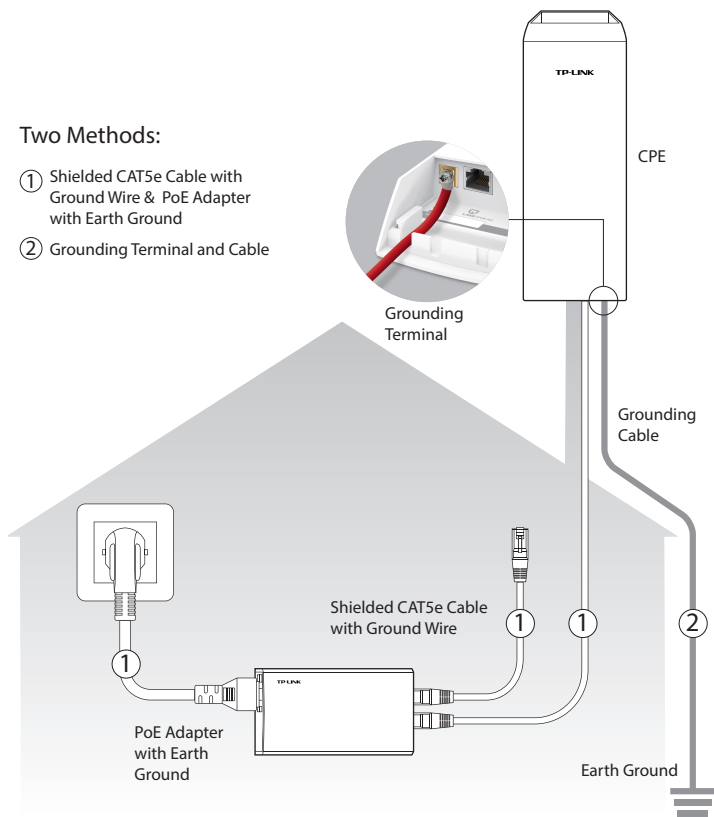


4. Lightning & ESD Protection

Proper grounding is extremely important for outdoor devices. Pharos CPEs provide two methods to protect the devices from damage of lightning and ESD attacks as shown in the figure below.

Two Methods:

- ① Shielded CAT5e Cable with Ground Wire & PoE Adapter with Earth Ground
- ② Grounding Terminal and Cable



In most cases, adopting either of the two methods can be adequate, but adopting both of them can offer more effective protection.

Software Configuration

This chapter introduces the login to the Pharos Web Interface and the software configurations to implement Point-to-Point application.

1. Login to PharOS

1. Before accessing the PharOS Web Interface, you need to assign a static IP address 192.168.0.x ($2 \leq x \leq 253$) to your computer. We use 192.168.0.10 as an example in the figure below.

The image shows a 'General' configuration window for network settings. It contains instructions on how to obtain IP settings, radio buttons for selecting between automatic and manual IP/DNS assignment, input fields for IP address, subnet mask, default gateway, preferred and alternate DNS servers, a checkbox for validating settings, and buttons for 'Advanced...', 'OK', and 'Cancel'.

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 . 0 . 10

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