

Ignite your mobile broadband



# Quick Start Guide

## M600 & M1200

LTE Outdoor CPE

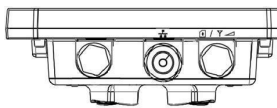
## INTRODUCTION

Thank you for purchasing the Cellferno M Series LTE CPE. This high-quality product is designed to provide high speed internet using the 3G/4G mobile network.

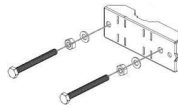
The following guide will assist in setting up and installing the CPE.

## PACKAGE CONTENTS

The following items come with your package. If any of the items are missing or damaged, contact your place of purchase.



LTE Outdoor CPE



Pole Mount (M10\*100 Bolt, Nuts, and Spring Washers)



Quick Install Guide



PoE Power Adaptor  
+Power Cord



Cap (For SIM card)



Nylon Cable Gland  
(For RJ-45 Ethernet Cable)

## OPTIONAL ACCESSORIES



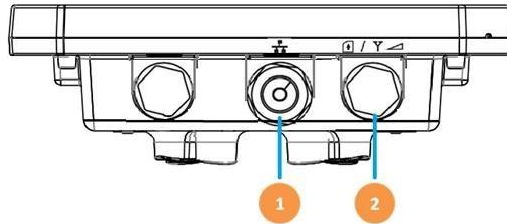
10m or 20m  
FTP CAT 5E Outdoor Shielded Patch Cable



Altai IX500 Access Point  
2.4/5GHz 802.11ac

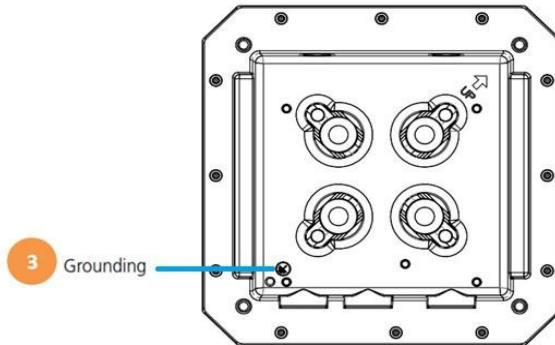
## HARDWARE OVERVIEW

1. **Network Port** for connecting to the PoE Injector to provide power and data
2. **SIM Card Slot** with Internal LED indicators



1. **Grounding Screw** for electrical protection

The Grounding screw (marked  $\overline{\text{T}}$ ) is located on the rear panel of the ODU.







### Note:

- a. A grounding cable must be installed between the grounding port on the rear of the CPE and an external grounding point.
- b. For additional lightning protection it is recommended an Ethernet Surge Protector is also installed.

## LED INDICATORS

Next to sim card slot are two LED indicators for power and network signal strength.

| LED Name | Location  | Color | LED Behavior | Status Indication |
|----------|---|-------|--------------|-------------------|
| Power    |  | Blue  | Solid        | Power On          |

|        | LTE/WCDMA Signal Strength LED  |       | Signal Strength(dBm) Definition             |
|--------|--|-------|---|
| High   |   | Blue  | RSRP: <-91dB<br>RSSI: <-80dB                |
| Medium |   | Green | RSRP: -91 to -103dB<br>RSSI: -80 to -90dB   |
| Low    |  | Red   | RSRP: -103 to -115dB<br>RSSI: -90 to -100dB |

## INSTALLING THE CPE

### Install SIM card

- Step 1:** Unscrew the SIM card protector cap.
- Step 2:** Insert a SIM card into the SIM card slot as pictured. Push sim fully into the slot until it springs back and holds
- Step 3:** Screw the cap back on **tightly**.

### Selecting a Location

The LTE Outdoor CPE should be pole-mounted outdoors and aligned so its antenna faces the nearest LTE cell tower. When selecting a suitable location for the CPE, consider these guidelines:

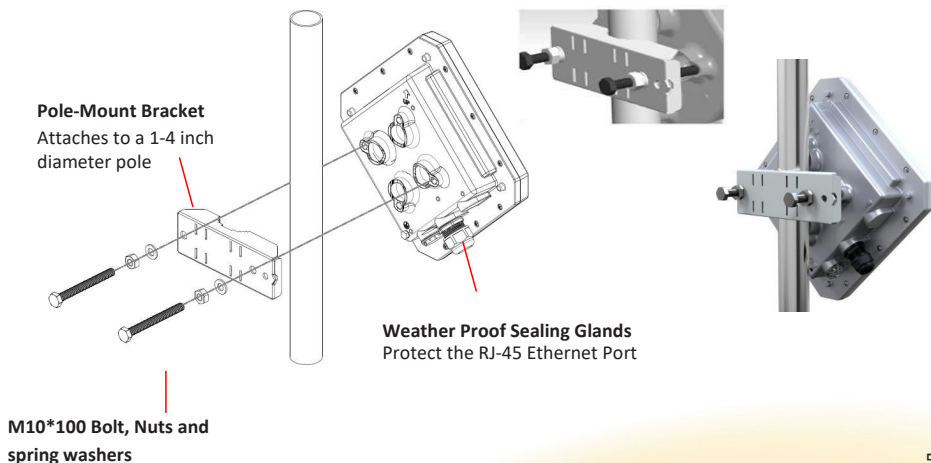
- Place as high as possible to achieve the best possible link quality, ideally with line of sight to the tower.
- Place the CPE away from power lines.
- Avoid placing the CPE too close to any metallic reflective surfaces.
- Be sure to ground the CPE with an appropriate grounding wire (not included) by attaching it to the grounding screw on the unit and to a good ground connection.

### Mounting the CPE

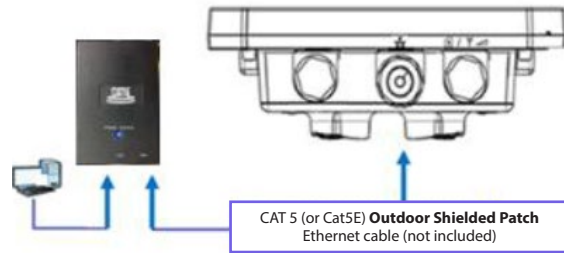
Mount the CPE on a 1"-4" pole using the supplied kit, or the optional tilt accessory. Ensure the UP ↑ arrow on the back of the unit is pointing up.

### Using the clamp

1. Thread the M10\*100mm bolt through a spring washer, flat washer and the bracket holes.
2. With the connector facing downward, attach the CPE to a 1"-4" pole.
3. Attach the bracket to the other side of the pole.
4. Thread the M10\*100mm bolts through both holes on either side, and tighten the nuts.



## CONNECTING THE CABLES



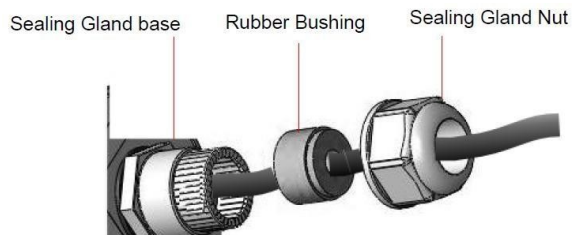
### Outdoor Connection

Connect a grounding cable between the ground terminal on the CPE and a good ground connection.

### Preparing and Connecting the Cable

#### 1. Connect the Cable

- Remove the sealing cable gland plug from the CPE. Open the sealing gland nut and remove it. Disassemble the rubber bushing.
- Insert the cable into the sealing gland base and connect it to the Ethernet port at the base of the CPE. Make sure the connector is completely inserted and tightened.
- Insert the rubber bushing on the cable and then into the gland base.



- Tighten the sealing gland nut.

### Note

Use FTP CAT 5E 4X2X24 AWG outdoor Shielded Patch Cable or above. The total length of the Ethernet cable from the CPE to the PoE must not exceed 80m

### Indoor Connection

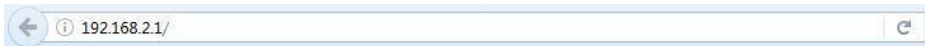
1. With the Ethernet cable now connected to the CPE. Connect the other end of the cable to the PoE adaptor port labeled **"PWR+DATA OUT"**.
2. Connect an Ethernet cable from the PoE adaptor port labelled **"DATA IN"** to a WAN port on a PC/Hub/Switch/Wi-Fi Router/Wi-Fi Access Point.



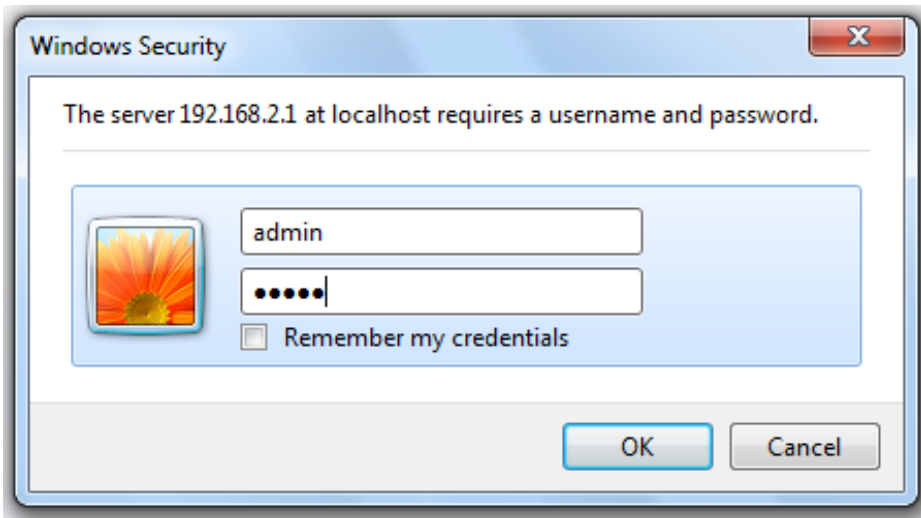
## LED INDICATORS

### Login

1. Launch a web browser.
2. In the address bar, enter `http://192.168.2.1`, then press **Enter**.



3. On the opening screen, enter the username (admin) and password (admin).
4. Step 3: Click OK to login to the main screen.
5. Click one of the header tabs for Advanced features.



The Cellferno CPE uses network domain 192.168.2. x.

For any downstream connections, all devices should avoid using this network domain otherwise there might be IP address conflict and cause communication failure.



**Note**

The CPE should connect to the internet without any special settings, if you require to manually enter an APN follow the steps below.

1. Go to Network > **Network Settings** > **WWAN Setting-APN Profile Table** to enter the APN profile name, then click Add.
2. Enter APN, Username and Password is applicable, then click Save.
3. Go to Network > **Network Settings** > **WWAN Setting-APN** to configure the APN to Manual. Then select the Profile Name you added from the Profile Selection, then click Apply.

**Above change will be applied after the system is rebooted.**

If the PIN verification on your SIM card is enabled, please go to **Network Settings** > **Mobile Settings** > **UICC/SIM PIN Management** to unlock the PIN code.

If you ever remove the SIM card, you must restart the CPE to read the SIM card properly.

For more detail information, please contact your reseller or download the Cellferno CPE M Series User Guide.



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