

LTE CPE

Quick installation Guide

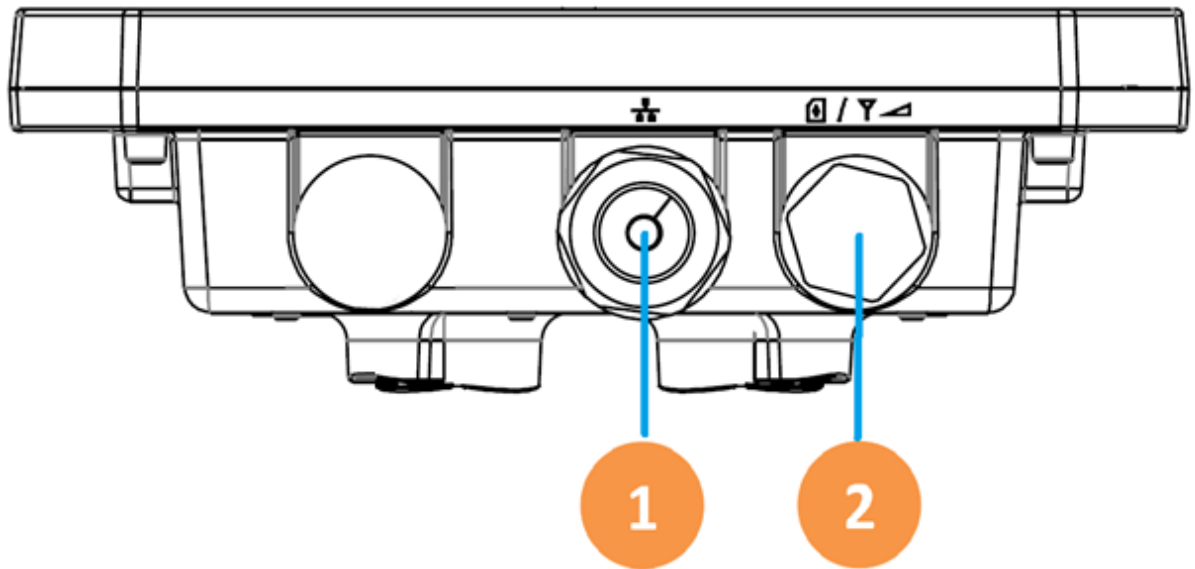
WLTGG-133
LTE Outdoor CPE

Contents

CONTENTS	1
1. CONNECTORS	2
2. LED INDICATORS	3
3. INSTALLING LTE OUTDOOR CPE.....	4
4. CONNECTING THE CABLES	7
5. WEB INTERFACE	9

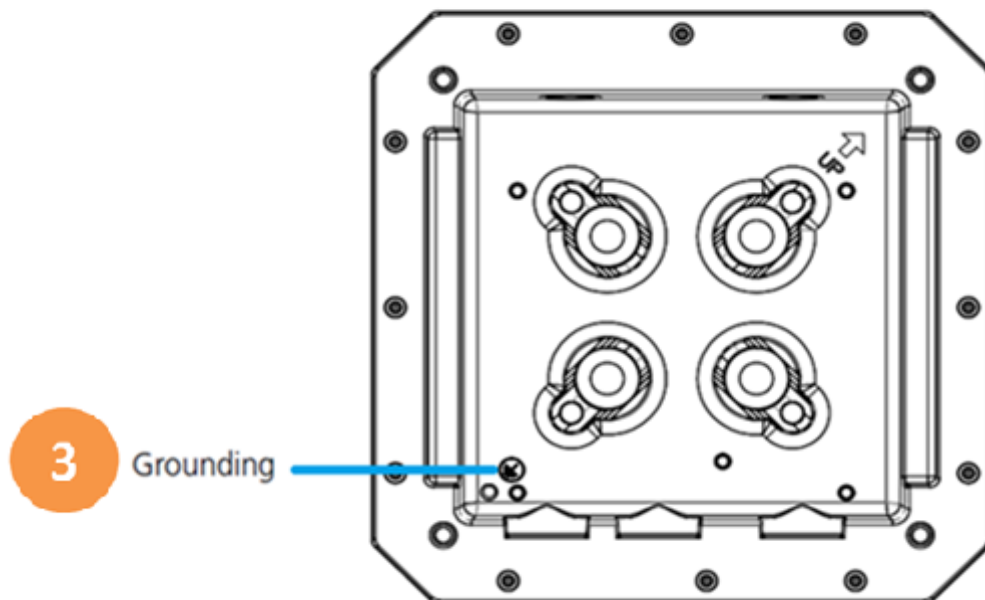
Connectors

1. One RJ-45 connector for connecting to the PoE adaptor.
2. LED indicator inside and SIM card slot for inserting SIM card.

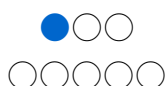
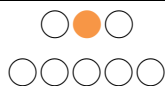
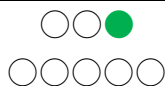
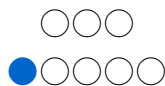
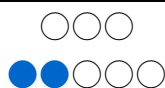
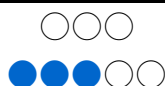
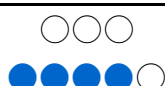
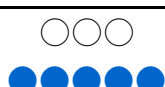


3. A grounding screw on the rear panel.

The Grounding screw (marked ) is located on the rear panel of the ODU.

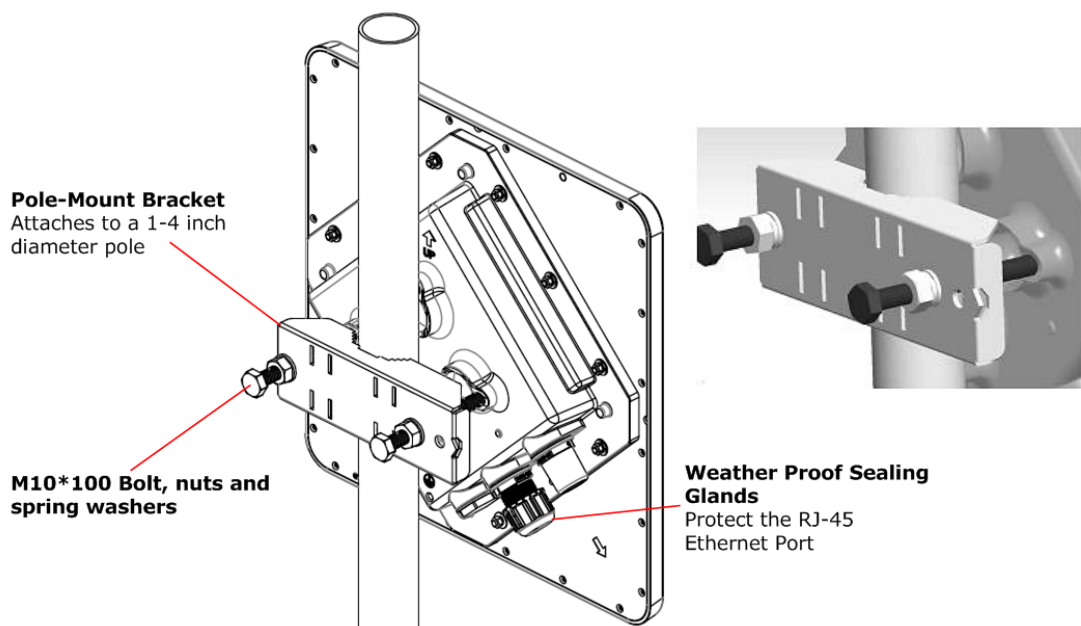


LED Indicators

LED name	Location	Color	LED Behavior	Status Indication
LED List				
MAIN power		Blue	ON	Power On
			OFF	Power Off
Ethernet status		Orange	Steady ON	Detect Ethernet Device Connected
			Blinking	N/A
			OFF	No Ethernet connection
SIM status		Green	Steady ON	SIM DETECTED (with LTE connection)
			Blinking when On-hook	SIM NO DETECTED / SIM NOT INSERTED
			OFF	SIM DETECTED (without LTE connection)
LTE Status LED : Link Status			When CPE is power on, each LED indicates each link status ; change upon customer requirement	
LTE 1		Blue	Steady ON	Signal is poor SINR < 7dB
LTE 2		Blue	Steady ON	Signal is weak 7dB ≤SINR <11dB
LTE 3		Blue	Steady ON	Signal is Good 11dB ≤ SINR <18dB
LTE 4		Blue	Steady ON	Signal is very good 18dB ≤ SINR <23dB
LTE 5		Blue	Steady ON	Signal is Excellent SINR>=23dB

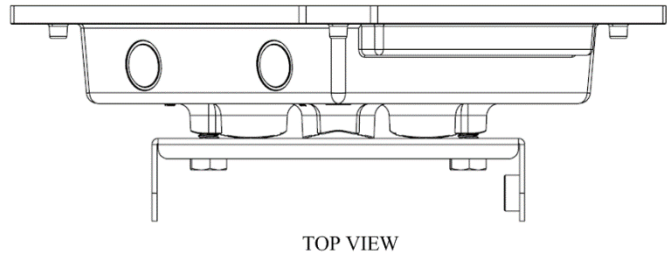
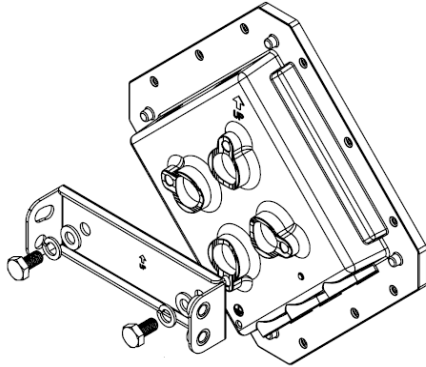
Installing LTE outdoor CPE

- ◆ **Selecting a Location:** LTE Outdoor CPE should be pole-mounted outdoors and aligned so its antenna faces the nearest LTE eNB. When selecting a suitable location for the unit, consider these guidelines:
 - Place LTE Outdoor CPE as high as possible to achieve the best possible link quality.
 - Place the LTE Outdoor CPE away from power and telephone lines.
 - Avoid placing LTE Outdoor CPE too close to any metallic reflective surfaces.
 - Be sure to ground LTE Outdoor 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 ODU:** Mount LTE Outdoor CPE on a 1"-4" pole using the supplied kit, or the optional tilt accessory.
 - **Using the clamp [Unadjustable angle]**
 1. Thread the M10*100mm bolt through a spring washer, flat washer and the bracket holes.
 2. With the connector facing downward, attach LTE Outdoor 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.

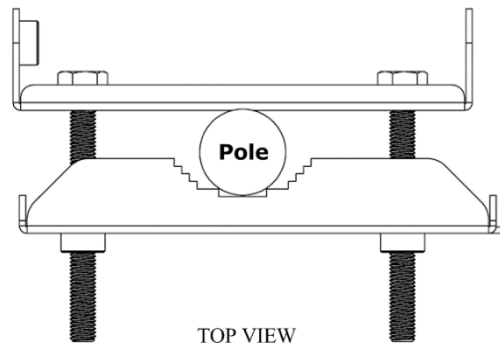
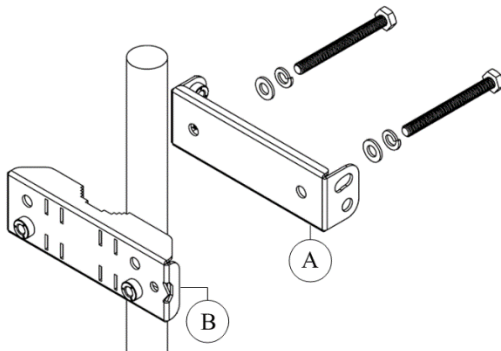


- **Using the clamp [adjustable angle] –Type1**

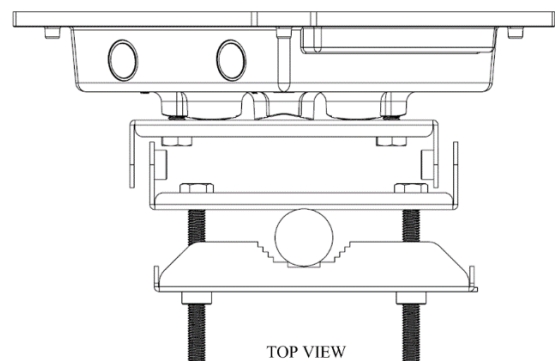
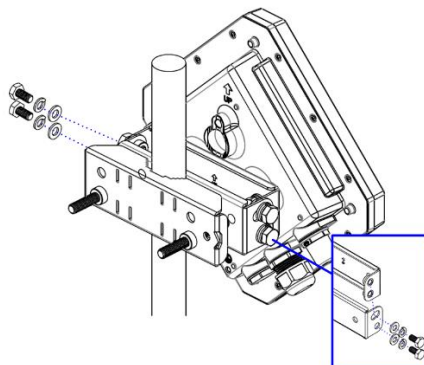
1. Thread the M10*20mm bolt through a spring washer, flat washer and the bracket holes, and tighten the bolts to the LTE Outdoor CPE.



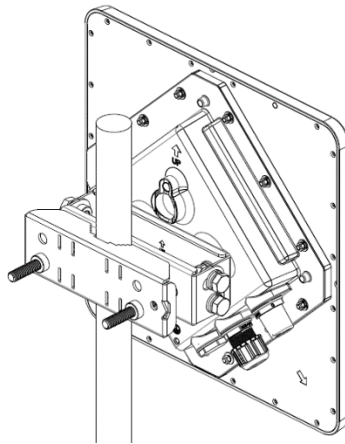
2. Thread the M10*100mm bolt through a spring washer, flat washer and the holes of bracket A. Attach the bracket A to the other side of the pole and through both holes of the bracket B on either side, and tighten the bolts.



3. With the connector facing downward, and assembling two brackets together. Thread the M10*20mm bolt through a spring washer, flat washer and the bracket holes.

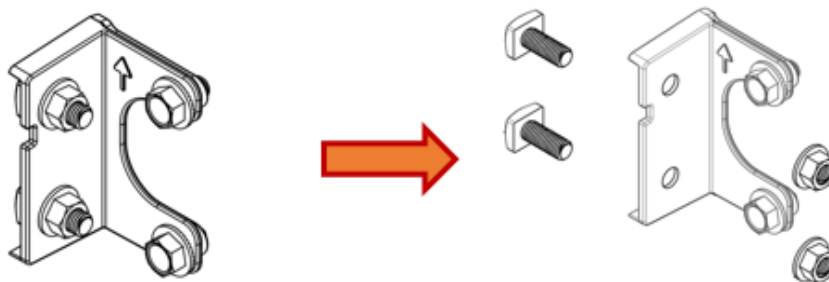


4. Adjust the required angle and lock the screws. This is an angle that can be adjusted 10 degrees above and below.

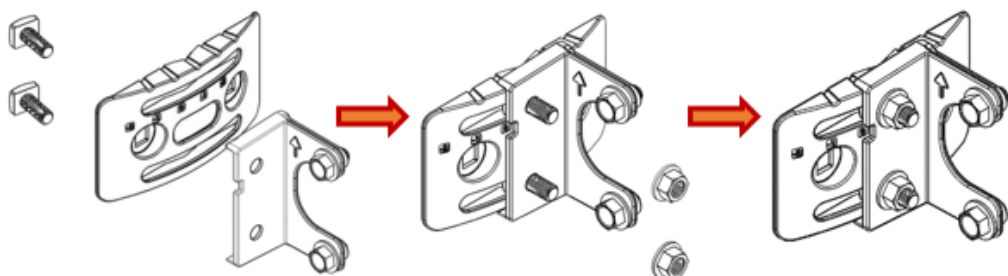


- **Using the clamp [adjustable angle] –Type2**

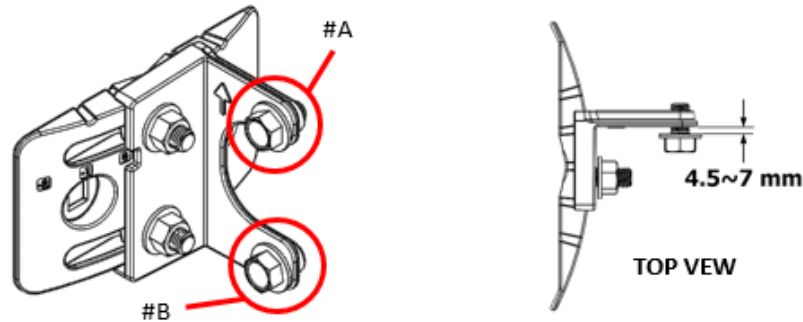
1. Locate the mid bracket and remove the two M10x1.5 (25mm L) screws from it by unscrewing the two M10 lock nuts. Set the screws and nuts aside.



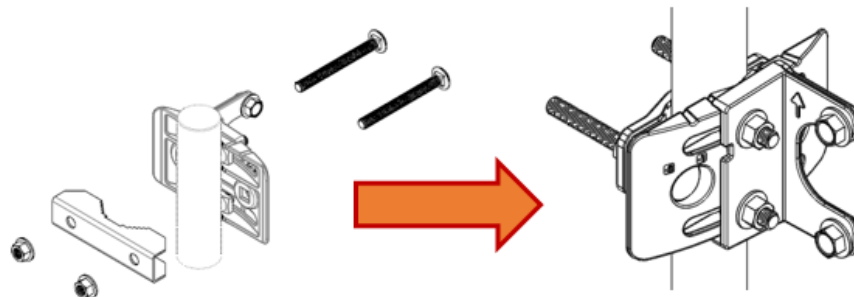
Secure the pole side bracket with the mid bracket by inserting two M10x1.5 (25mm L) screws through both brackets and fastened with two M10x1.5 lock nuts. Please take note of the mid bracket's orientation, ensuring that the arrow is pointing up. You should position the mid bracket in the middle position of pole side bracket and adjust it after attaching the CPE (See Step 4)



Please ensure that the M10x1.5, 16mm L screw (#A) on the top hole and the M6 enlarged hex head screw (#B) on the bottom hole of the mid bracket have a distance of 4.5-7mm between the screw heads and the mid bracket surface as shown in the top view figure below.

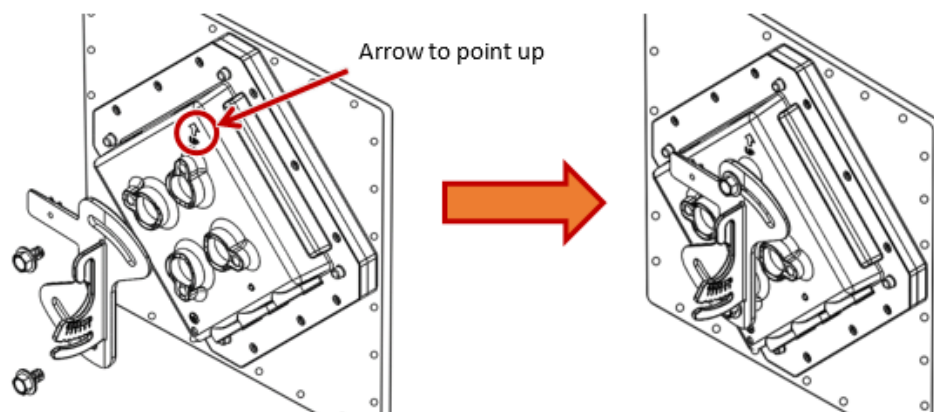


2. SECURING BRACKET ON POLE: Take the assembled pole side bracket, hold it on one side of the pole. Slot the two M10 carriage bolts through the holes of the bracket and hold it there; take the clamp (23K-700-0291R) and slot it through the carriage bolts. Fasten the bolts with two M10x1.5 lock nuts.

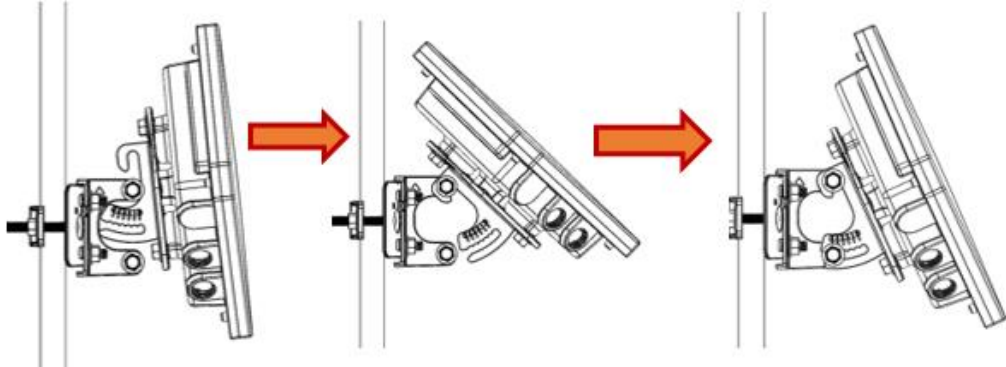


To assemble the unit side bracket, take the CPE and ensure that it is oriented with the arrow pointing upwards.

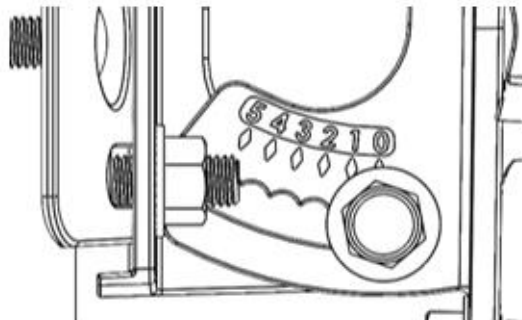
Align the unit side bracket (23K-700-0287R) with to the back of the CPE and secure it with two M10x1.5 screws. (See figure below)



3. Bring the CPE up to the previously secured bracket on the pole. Hook the unit side bracket (there is a small hook on the top) onto the loosely fastened M10x1.5 screw on the mid bracket – such that the hook is on the screw itself and you can tighten the screw to secure the unit.

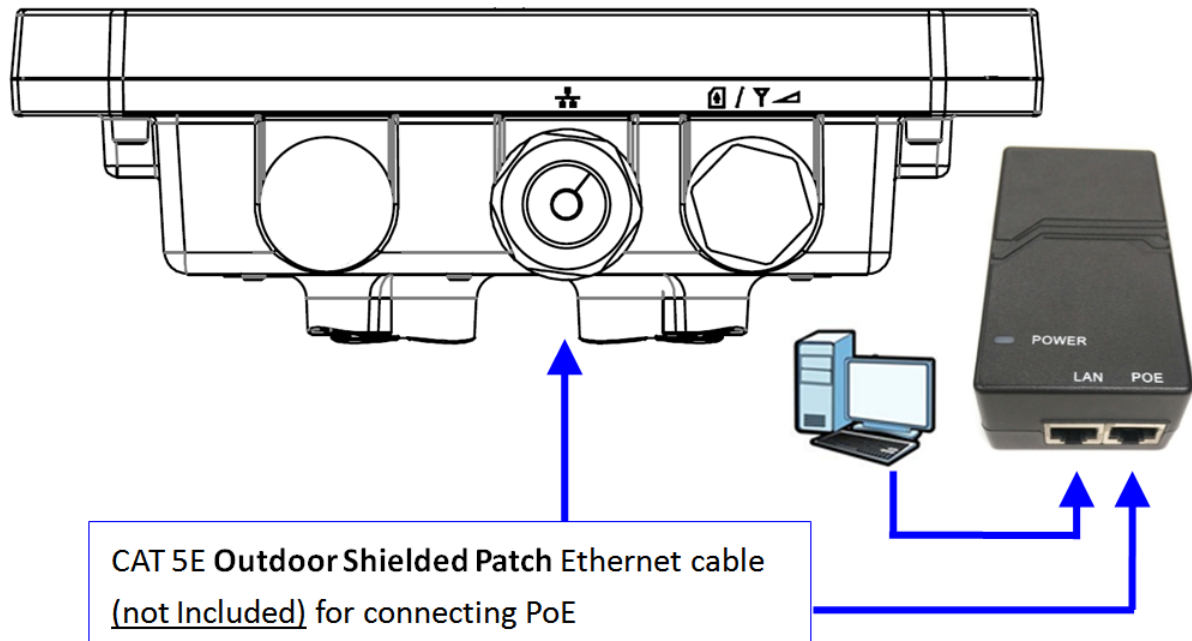


4. Then, slide the curved bottom part of the bracket onto the M6 enlarged hex head screw. There are scorings every 5 degrees of tilt-angle, from 0 (Vertical position) to 5 (25° uptilt). Adjust the tilt to the desired angle and tighten the screw to secure the position of the CPE.



You can also adjust the CPE by sliding the mid bracket left and right after loosening the lock nuts installed in Step 2 (above). There are scorings every 7° of azimuth-angle from 0 (0° position) to ± 2 (14° position left or right). Tighten the lock nuts when you are satisfied with the position of the CPE.

Connecting the Cables



- ◆ **Outdoor Connection:** Connect a grounding cable between the Ground terminal of the LTE outdoor CPE and a good ground connection.
- ◆ **Preparing and connecting the cable:** Use only **5E 4x2x24# FTP (or above) outdoor Shielded Patch Cable** from an approved manufacturer.

1. Insert the RJ-45 cable:

Insert the Cat5e RJ-45 cable into the sealing gland base and connect it to the RJ-45 connector at the bottom of the ODU, labeled. Make sure that the connector is completely inserted and tightened.

((Suggest to use Cat 5E 4x2x24# F/STP outdoor Shielded Patch Cable))

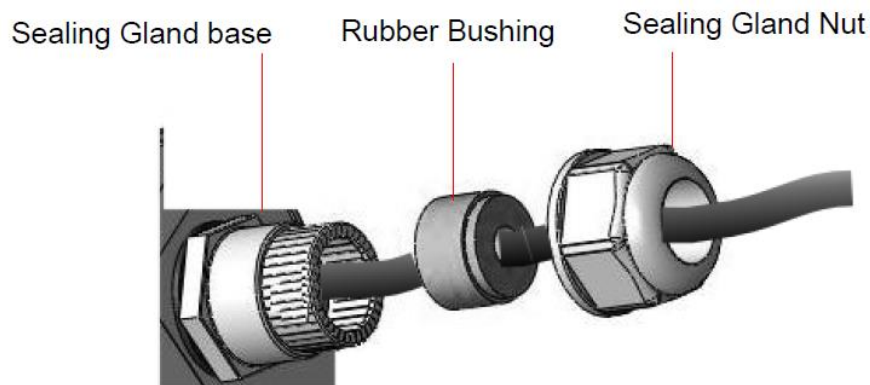
((The total length of the Ethernet cables from the ODU to the IDU's RJ-45 (WAN) PoE port. Must not exceed 100m))

2. Connect the cable

- Remove the sealing cable gland plug from the gland nut.
- Open the sealing gland nut and remove it. Don not disassembles

the gland base from the bracket.

- Insert the cable into the sealing gland base and connect it to the RJ-45 connector at the bottom of the CPE. Make sure the connector is completely inserted and tightened.
- Insert the rubber bushing on the cable into the gland base.



- Tighten the gland nut. Use the dedicated tool for fastening the sealing glands.

◆ PoE Connection

1. It is assumed that the RJ-45 is already connected to the LTE outdoor CPE. Assemble an RJ-45 connector with a protective cover on the other end of the LTE outdoor CPE cable.
2. Connect the other end of the RJ-45 cable to the PoE adaptor which labeled "**PoE**".
3. Connect RJ45 cable from PoE adaptor which label "**LAN**" to a PC/NB/Hub/Switch.



Web Interface

Please follow the steps below to configure your device through the web interface:

Step1: Open the Web browser (Internet Explorer) and enter the default IP address of the ODU CPE, which is : **http://192.168.15.1**

Step2: Enter ODU administrator login username/password to access the web management interface. The default username/password is **admin/admin** .

Web management interface

Step3: The page shown here gets displayed in your browser after login; you can now configure the device settings.

GUI Interface

Mode:	LTE
Operator:	APN Name
Signal:	 (More bar means better signal)  (Disconnect, no signal)

Federal Communication Commission Interference

Statement

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 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 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.

FCC Caution: Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

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.

FCC Caution: Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

IMPORTANT NOTE:

FCC Radiation Exposure Statement:

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance **25cm** between the radiator & your body.

This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

Professional installation instruction

Please be advised that due to the unique function supplied by this product, the device is intended for use with our interactive entertainment software and licensed third-party only. The product will be distributed through controlled distribution channel and installed by trained professional and will not be sold directly to the general public through retail store.

1. Installation personal

This product is designed for specific application and needs to be installed by a qualified personal who has RF and related rule knowledge. The general user shall not attempt to install or change the setting.

2. Installation location

The product shall be installed at a location where the radiating antenna can be kept **25cm** from nearby person in normal operation condition to meet regulatory RF exposure requirement.

3. Installation procedure

Please refer to user's manual for the detail.

4. Warning

Please carefully select the installation position and make sure that the final output power does not exceed the limit set force in relevant rules. The violation of the rule could lead to serious federal penalty.

Table 1—Required data collection capabilities for CBSD management software

All CBSDs:	Category B Devices:
■ Geographic location ■ Antenna height AGL (m) ■ CBSD class (Category A or B) ■ Requested authorization status (PAL or GAA) ■ FCC ID ■ Call sign (PALs only) ■ User contact info ■ Air interference technology ■ Serial # ■ Sensing capability (if supported)	- Limited to Outdoor operation - Antenna gain - Antenna Beam-width - Antenna Azimuth - Antenna Down tilt angle

Contact window:

- Name of the company: CCI Products
- Address of the company: 89 Leuning Street, South Hackensack, NJ 07606
- Either phone number: +1 (201) 342-3338