BaiCells EG7035 User Manual

V1.0

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About This Document

This document introduces the specifications of BaiCells EG7035 CPE and guides users to install and configure it.

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Revision Record

Date	Version	Description	Author
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1. Product Overview

1.1 Introduction

Baicells is a high-tech company dedicated in wireless broadband access solutions and service operation. With the advent of the Internet+ era, the development of WBB is imminent. Through continuous innovation, Baicells launches the world first mobile broadband system based on the Internet architecture and unlicensed spectrum. Baicells can provide serious CPEs, include indoor and outdoor unit on different spectrums.

Baicells EG7035 is a high performance outdoor CPE. EG7035 has the superior wireless access performance and comprehensive routing capabilities, which have the abilities to bring the end-users WBB services.

1.2 Features

EG7035 is designed according to the simplicity principle, which can evolve in a short period and realize fast customization, delivery and deployment as well. The main features of EG7035 is as follows:

- Support TD-LTE network according to the operator's choice.
- LTE comply to 3GPP Release9 CAT4.
- LTE TDD 3650MHz - 3700MHz
- Support the 100Mbps Ethernet WAN.
- Intuitionist and convenient Web-based management.
- Built-in LTE bipolar directional high gain antenna.
- Support TR069 and OMA-DM network management protocol.
- Support Cell lock. SIM lock. Pin lock.
- User-friendly design of LED indicator.
- Power supply with PoE.

- Protection support IP67.
- Support pole installation or wall mounting.

1.3 Product Description

EG7035 CPE product is shown in Table 1-1.

Table 1-1 EG7035 Product Description

Product	Description
EG7035	3.65G LTE Customer Premise Equipment

1.4 Appearance

The appearance of EG7035 is shown in Figure 1-1, and is described in Table 1-2.

Figure 1-1 EG7035 Appearance

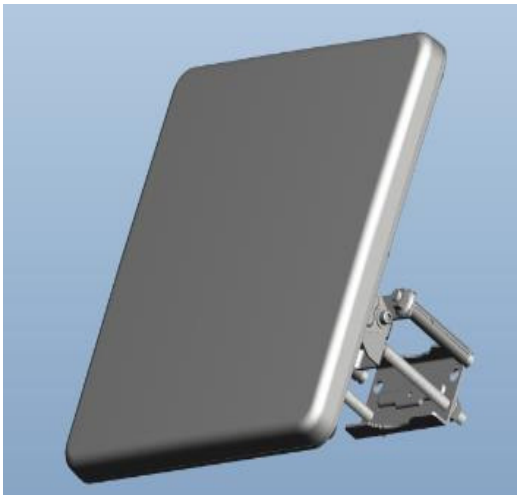


Table 1-2 EG7035 Appearance Index

Index	Description
Dimension	About 280mm * 280mm * 135mm
Weight	About 1000g
Color	French grey

1.5 Interface and Button

The interface of EG7035 is shown in Figure 1-2, and is described in Table 1-3.

Figure 1-2 Interface and Button of EG7035

Table 1-3 Description of EG7035 Interface and Button

Connectors	Description
ETH RJ45	One LAN
USIM Slot	Support 1.8V/3.0V USIM
Restore Button	Long press over 10s to restore the factory settings

1.6 LED Indicators

Table 1-4 LED Indicators

LED Name	Description	Color	LED Behavior	Status Indicator
PWR	Power Indicator	Green	OFF	No Power Supply
			Steady On	Power On
LTE Signal	3 LTEs, Indicate connection state and signal strength	Green	All OFF	No Connected
			ALL blanking	Connecting
			One LED Steady On	Connected, the signal is weak
			Two LED Steady On	Connected, the signal is medium
			Three LED Steady On	Connected, the signal is strong
LAN	Eth Indication	Green	OFF	Ethernet connection is not established
			Steady On	Ethernet connection is normal
			Blanking	Ethernet interface data being transmitted

2. Technical Specifications

2.1 Basic Specification

Table 2-1 Basic Specification

Specification	Description	Comment
LTE Standard	3GPP Release 9	None
Ethernet LAN Port	One RJ-45 port 10/100 auto-sensing, auto-MDX, 12V ~ 24V PoE	None
LED Indicators	Power/LET Signal/LAN Indicator	None
USIM	Support 1.8V/3.3V 2FF USIM	None
Restore Button	Tact Button	Long press over 10s to restore the factory settings
Power Supply	• Input: Universal range 100~240V AC • Output: 12V 1A	None

2.2 RF Specification

Table 2-2 RF Specification

Feature	Capability	
	Value	Unit
LTE Mode	TDD LTE	None
Channel Bandwidth	5/10/15/20	MHz
MAX Output Power	17	dBm
LTE Standard	3GPP R9	None
Frequency	3650 ~ 3700	MHz
Antenna Gain	19.5	dBi

2.3 SW Specification

Table 2-3 SW Specification

Item	Description
Language Settings	English
Network Mode	Bridge / NAT

SIM	• PIN Management • SIM Lock
Network Connection setup	• Create, delete, and edit APNs • Set up dial-up connection automatically • Set up dial-up connection manual
LTE Scan Mode	• Full Band • Cell Lock • Band / Frequency Preferred
VPN	• Support VPN pass through • Support PPTP tunnel mode
NAT	• Port forwarding • Port trigger • DMZ • UPnP
Statistics	• LAN Link Status • Transmit / Receive traffic • Running Time

2.4 Device Management

Table 2-4 Device Management

Item	Description
Maintenance	• Date & Time setting • Reset • Restore factory settings • Restore/Backup Configuration File • Local upgrade • FOTA upgrade
TR069	Can enable or disable TR069 Management
Port mirror	Can enable or disable the port mirror function
Syslog	Support the syslog function can send the log to the PC via LAN
Diagnostics	Support the Ping and trace route

2.5 Environment Specification

Table 2-5 Environment Specification

Feature	Capability
Operating Temperature	-40℃ ~ 55℃
Storage Temperature	-40℃ ~ 70℃
Operating Humidity	5% ~ 95%
Drop	0.8m
Protected Level	IP67

2.6 Regulatory Compliance

FCC Compliance

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.

Any Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

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 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.

Warning

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20 cm between the radiator & your body.

IC Compliance

This device complies with Industry Canada licence-exempt RSS standard(s).

Operation is subject to the following two conditions: (1) This device may not cau se interference, and (2) This device must accept any interference, including inter ference that may cause undesired operation of the device.

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux ap pareils radio exempts de licence.
L'exploitation est autorisée aux deux conditions suivantes:

(1) l'appareil ne doit pas produire de brouillage, et

(2) l'utilisateur de l'appareil doit accepter tout brouillage
radioélectrique subi, même si le

brouillage est susceptible d'en compromettre le fonctionnement.

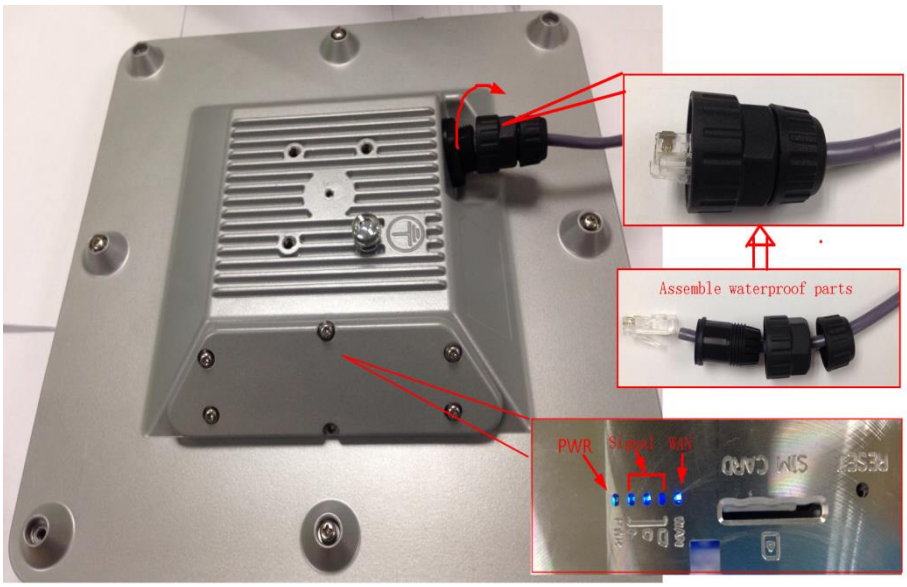
The antenna(s) used for this transmitter must be installed to provide a separation distance of at least 20 cm from all persons and must not be collocated or operating in conjunction with any other antenna or transmitter, End-Users must be provided with transmitter operation conditions for satisfying RF exposure compliance.

3. Product Installation

1.1 Installation Steps

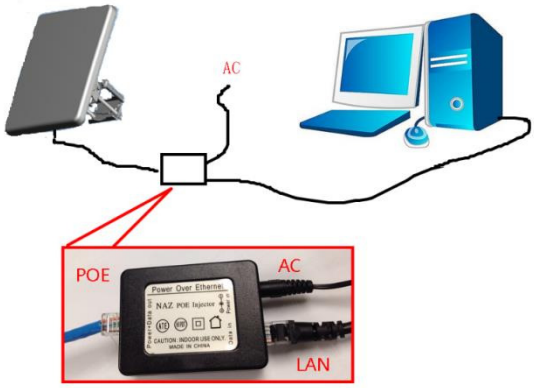
1. Assemble waterproof parts. Plug cable local connection, as shown in Figure 3-1.
2. Open the waterproof cover, and according to the instructions on the SIM card.
3. Connected to the adapter, Pay attention to the adapter interface identify.

Figure 3-1 Install the Sample



4. Mount adapter, and electricity, you can see the LED turn light, as shown in Figure 3-1.

Figure 3-2 Connection Diagram



4. CPE Configuration

4.1 Log in

By using a Web browser to login the CPE management page, the CPE configuration management. Log on to the Web management page steps are as follows:

1. Power on.
2. In the address column of browser, type in http://192.168.1.1, then press “**Enter**”, login in page is shown in Figure 4-1.

Figure 4-1 Login Page

3. Enter the user name and password, click "**Login**" button. After password authentication, you can log on to the web management page.

The default user name/password: admin/admin.

In order to more secure your data, it is recommended that you open the firewall, and keep your login password, WLAN FTP passwords and password.

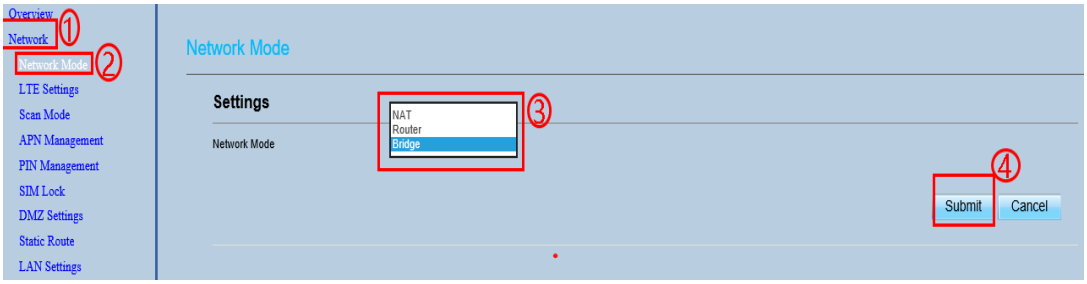
4.2 Basic Configuration

4.2.1 Network Mode

To set the network mode, perform the following steps:

1. Choose **Network Setting**>**Network Mode**.
2. In the Network Mode area, select a mode between Route and Bridge.
3. Click “**Submit**”.

Figure 4-2 Setup Network Mod

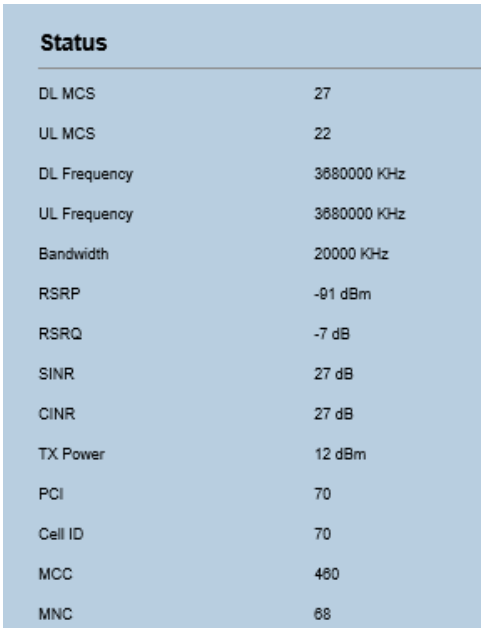


4.2.2 LTE Setting

To set the LTE Network, perform the following steps:

1. Choose **Network Setting>LTE Setting**.
2. In the LTE Setting area, you can configure the LTE network.
3. In the LTE Setting area, you can also view the network information such as frequency, DL&UL MCS, RSRP, RSRQ, CINR, SINR, Tx Power, Cell ID, PCI, MCC and MNC.

Figure 4-3 LTE Setting

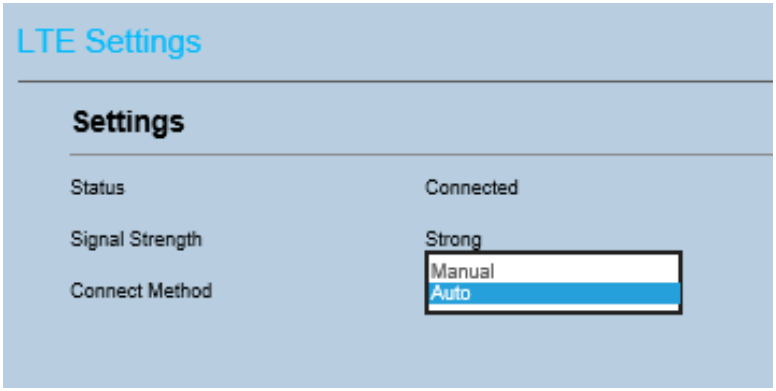


4.2.3 Setting Connect Method

To set the LTE network connect method, perform the following steps:

1. Choose **Network Setting>LTE Setting**.
2. In the LTE Setting area, you can set the connect method.
3. There are two methods to connect the LTE network, it is needed to choose a method between Auto and Manual, if you want to auto connect to the LET network you should choose the Auto, otherwise you should choose Manual.
4. Click "**Submit**".

Figure 4-4 Setup Connect Method



4.2.4 Manual Connect Network

To manual connect the network, perform the following steps:

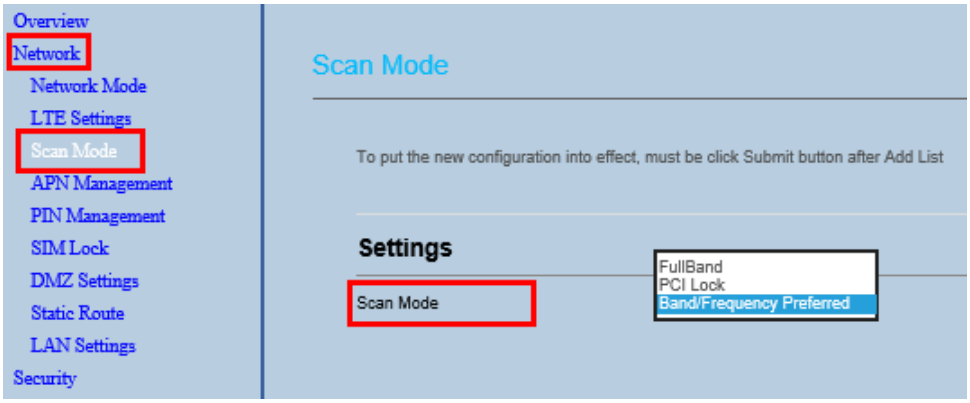
1. Choose **Network Setting>LTE Setting**.
2. Set the Connect Method to Manual.
3. Click PLMN to scan the network and select a network you want to connect. If you don't want to use this function, it will auto select a network to connect.
4. If you want to connect to the LTE network, you should click connect button to connect the network, otherwise you can click the button **Disconnect** to disconnect from LTE network.

4.2.5 Setting Scan Mode

To set the LTE network scan mode, perform the following steps:

1. Choose **Network Setting>LTE Setting**.
2. In the LTE setting area, you can set the scan mode.
3. You can choose full Ban**d, PCI Lock,** or a band the CPE supported.

Figure 4-5 Setup Scan Mode

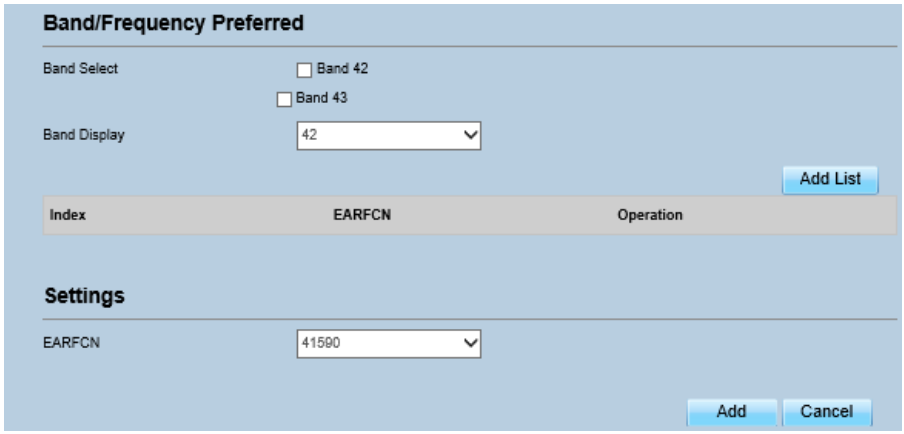


4.2.6 Setting Frequency (Earfcn)

To set the frequency, perform the following steps:

1. Choose **Network Setting>LTE Setting**.
2. In the LTE setting area, click to set the frequency.
3. In the Frequency Setting area, you can choose a band, then click Add list to choose an Earfcn Number.
4. Click "**Submit**".

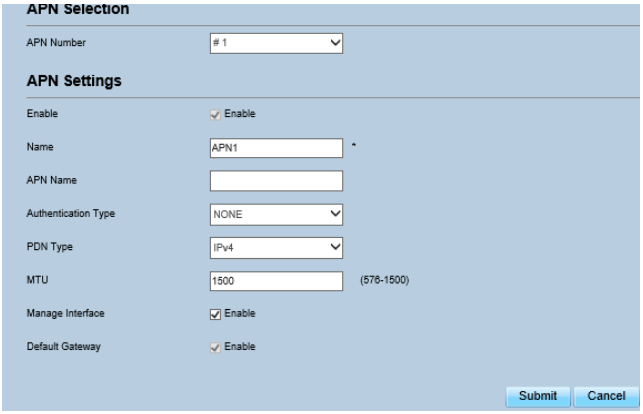
Figure 4-6 Setting frequency



4.2.7 **APN Management**

1. To set and manage APN, perform the following steps:
2. Choose **Network Setting>APN Management**.
3. In the APN Management area, you can set the APN.
4. Choose an APN number which you want to set.
5. In the APN Setting area you can set the APN parameters, such as enable or disable the APN, APN name, username, password and so on.
6. If you want set an APN as default gateway, you should check that is enabled.
7. Click "**Submit**".

Figure 4-7 APN Management



Appendix A **FAQs**

A.1 The POWER indicator does not turn on.

- Make sure that the power cable is connected properly and the CPE is powered on.
- Make sure that the power adapter is compatible with the CPE.

A.2 Fails to Login to the web management page.

- Make sure that the CPE is started.
- Verify that the CPE is correctly connected to the computer through a network cable. If the problem persists, contact authorized local service suppliers.

A.3 The CPE fails to search for the wireless network.

- Check that the power adapter is connected properly.
- Check that the CPE is placed in an open area that is far away from obstructions, such as concrete or wooden walls.
- Check that the CPE is placed far away from household electrical appliances that generate strong electromagnetic field, such as microwave ovens, refrigerators, and satellite dishes.

If the problem persists, contact authorized local service suppliers.

A.4 The power adapter of the CPE is overheated.

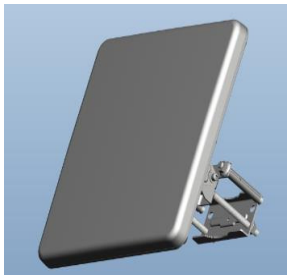
- The CPE will be overheated after being used for a long time. Therefore, power off the CPE when you are not using it.
- Check that the CPE is properly ventilated and shielded from direct sunlight.

A.5 The parameters are restored to default values.

- If the CPE powers off unexpectedly while being configured, the parameters may be restored to the default settings.

After configuring the parameters, download the configuration file to quickly restore the CPE to the desired settings

Appendix B Product List

Index	Content	Picture	Amount
1	EG7035 CPE		1
2	12V/1A adapter		1
3	PoE Combiner		1
4	Mounting bracket		1
5	User Manual	n/a	1

BaiCells EG7035 Bracket Installation Guide

V1.0

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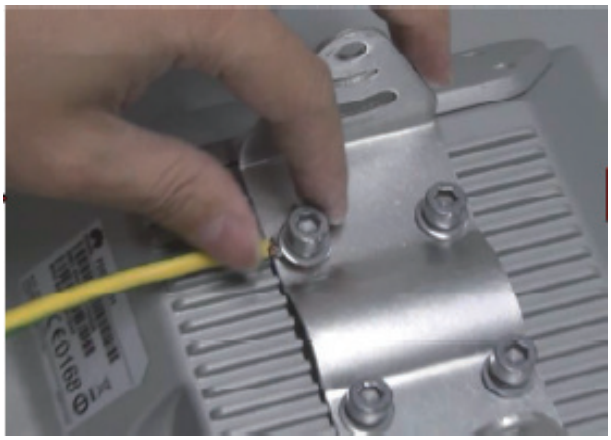
Assemble Bracket

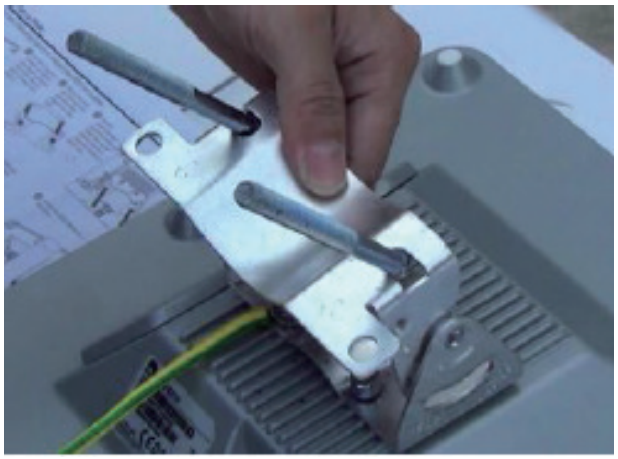
1 Install bracket and screw on, do not tighten the screws.

2 Install ground wire and lock the screw.



3 Tighten four screws using allen hexagon wrench.

4 Put U shape screw on bracket of lock wall and install it on CPE bracket.

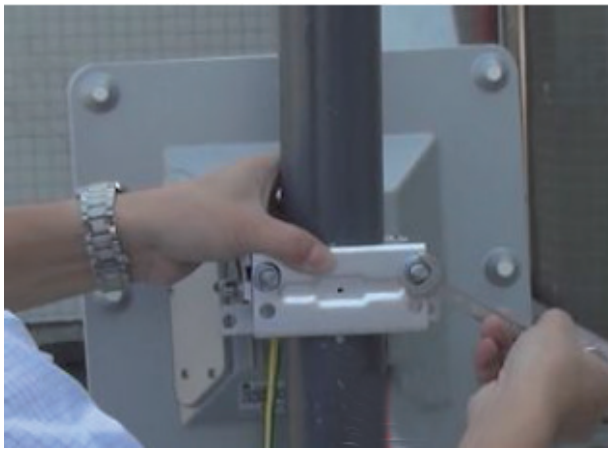


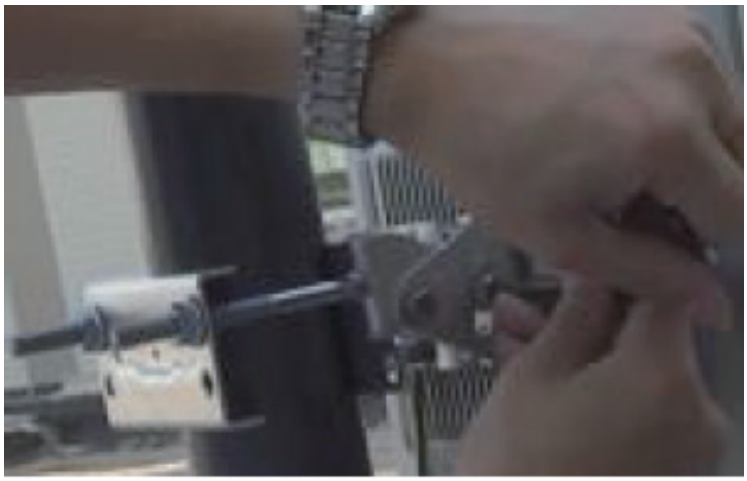
5 Screw on four bacaket srews.

Install on Pole

1 Loop U shape screw on pole and put on pole bracket.

2 Tighten U shape screw nut using wrench.



3 Adjust CPE to a suitble position.

4 Tighten four screws.