

Outdoor CPE Guide for installation and debugging



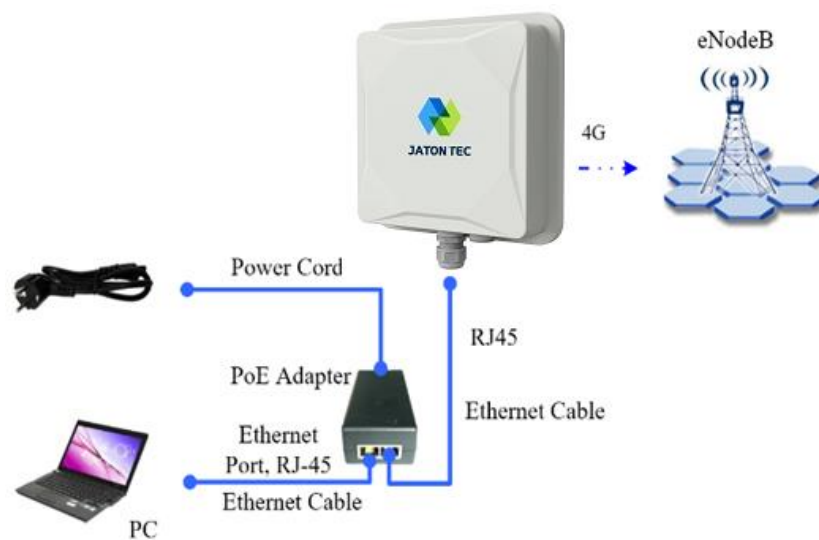
In order to get the best signal from eNB, please follow the under step to install and debug 4G CPE.

1、 Preparation before installation:

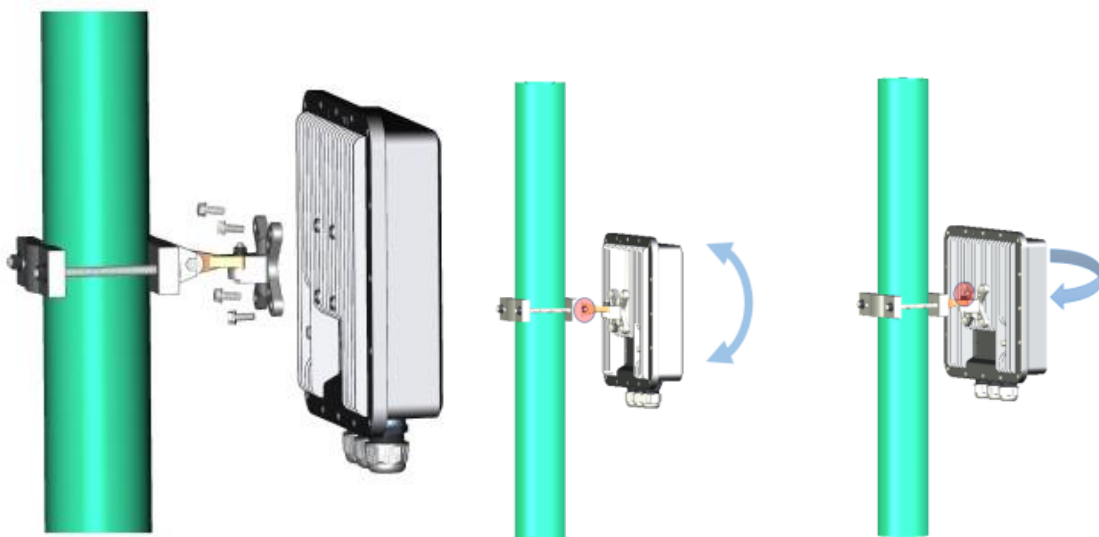
- a) Please consult to Operator about the position of eNB. The CPE need to install close to the eNB, and also please ask for the horizontal angel of the transmit antenna and relevant information of eNB.
- b) Please prepare handheld portable GPS and compass.
- c) Please input the operator's SIM card to CPE before installation.

2、 Hardware's connection and installation:

- a) Please refer to the following picture, connect all the devices as following. please make sure all are connected correctly



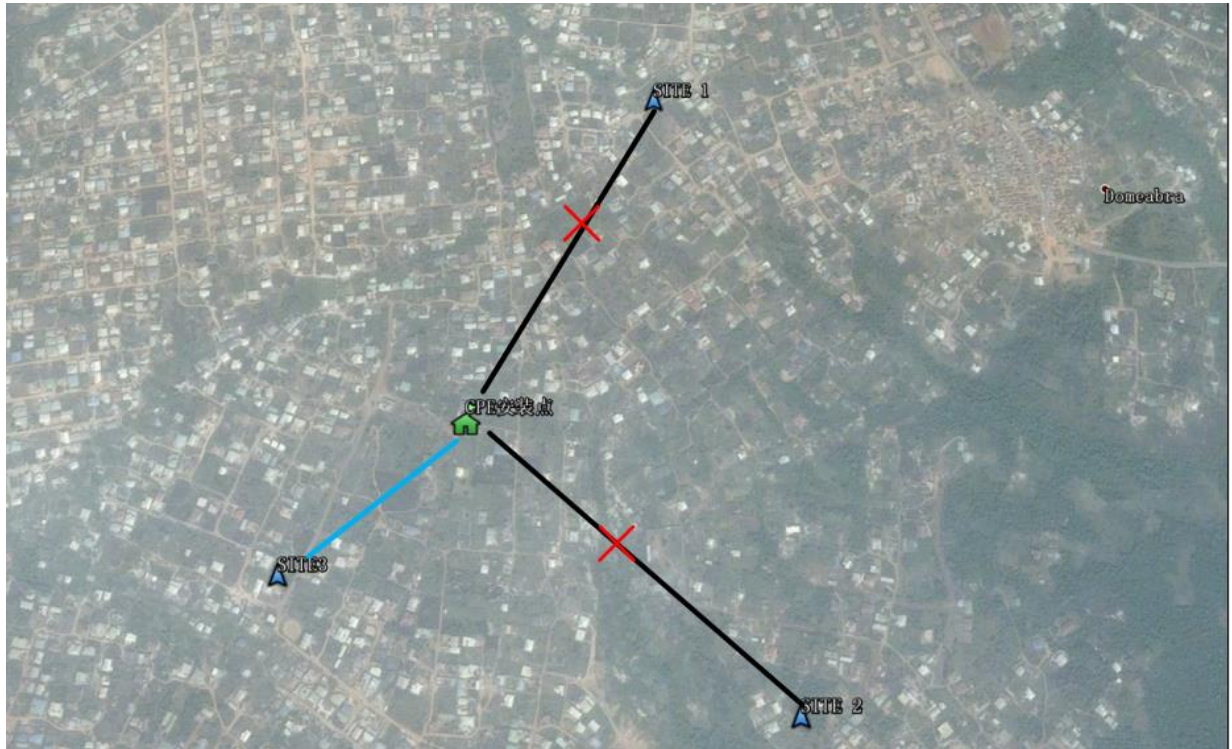
- b) Please refer to the following picture to fix the CPE on the correct position. Don't totally deadlock the hoop if need to do some adjustment.



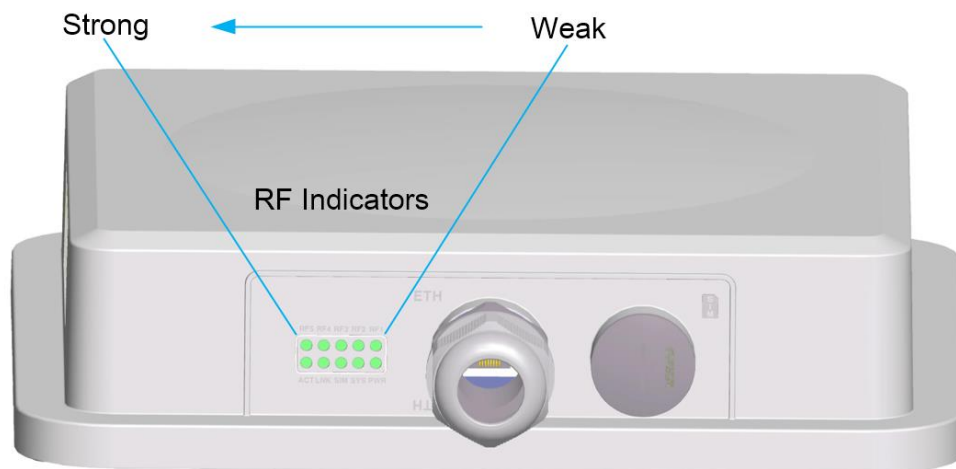
- c) Make sure all device connected correctly and after confirm the electric is safe then connect the CPE to the power.

3、 Adjustment for the direction of CPE

- a) After confirm the installation position for CPE which is close to eNB, make the installation CPE's horizontal direction point to the nearest eNB through GPS and compass. refer to the following picture



- b) After power to the CPE for 2 minutes, It can search the signal and connect to the network of operator. By the lights on bottom(more RF lights on ,the signal stronger),adjust the CPE's direction angel flatly(each horizontal angel by 15° as one point, each point, observe for 2 minutes),adjust the horizontal position until getting the best signal.



- c) Visit the WEB management page on PC to check the current RSRP and SINR value.

LTE Network Security Applications Management Maintenance Status Exit

Overview NDS PLMN Settings Cell Selection PDN Settings SIM Card Advanced LTE SMS Command Shell admin

LTE Information Help

System Information

Manufacturer	
Model Name	LTE B42/43 Outdoor CPE
Chip Model	GDM7243QT
Serial Number	
IMEI	
IMSI	
Supported Band	42/43
Firmware Version	0.3.2.5

Radio Information

RSRP	-114.3 / -106.4 / -110.2 / -117.6 dBm
RSSI	-81.9 / -76.3 / -79 / -78.5 dBm
RSRQ	-12.8 / -10.3 / -11.3 / -18.4 dB
SINR	0 dB
CQI	0
Rank Indication	0
Transmit Mode	TM3
Band ID	42
UL/DL Bandwidth	20000 / 20000 KHz
UL/DL Earfcn	41790 / 41790
UL/DL MCS	0 / 0
RRC State	active
EMM State	registered roaming
PCI	11
eNB ID	11
Cell ID	0
ECI	2816
TX Power	13.9 dBm
UL/DL Throughput	0 / 0 Kbps
SCC Info	-

System Information:
This section shows the basic device 4G Radio hardware and firmware information.

Radio Information:
This section provides 4G LTE air interface related information.

Connection:
This section shows the status of radio and connection for 4G LTE.

Activity:
Shows received and sent packet/byte statistics from WAN side.

d) Keeping the CPE vertical, observe the current data of CPE, at the same time, adjust the CPE's antenna around slightly. the ideal condition is antenna 0 and antenna 1's RSRP values gap not exceeding 8dBm, and the SINR value should stay above 5dB.

e) After checking the CPE's signal receipt is on best status, please fasten the hoop to make sure that any outside force will not change the height and direction of the CPE.

4、 Network interference factor

If after the above adjustment, the CPE can't get the best and high quality of connection with eNB, please contact with the operator network department to make sure no interference around the installation place. please troubleshoot with the engineer from operator.