



LTE CPE12300XG

Quick Installation Guide



Introduction

This Quick Installation Guide covers the basic installation of the CPE12300XG Outdoor.

Overview

The CPE12300XG is a category 12 LTE UE designed to provide wireless Internet access for a home or small office.

Before you Begin

Check the following items in this package:

CPE Package:

No.	Item	Quantity	Image
1	LTE Outdoor CPE	1	

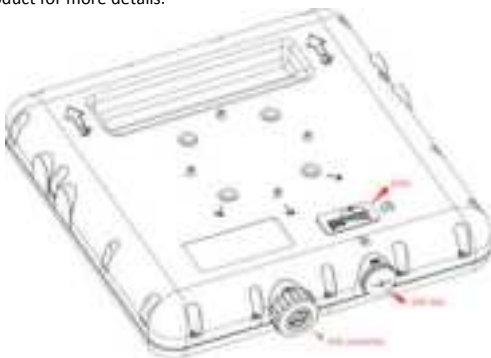
2	PoE Injector	1	
3	Bracket	2	
			
4	U shape bolt for $\leq 2"$	2	
5	Nut M6	8	

6	SEMS Screw M6x12mm	8	
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Getting to know the CPE

Note:

The figures below are provided only for reference purposes. See the actual product for more details.



LED Indicators

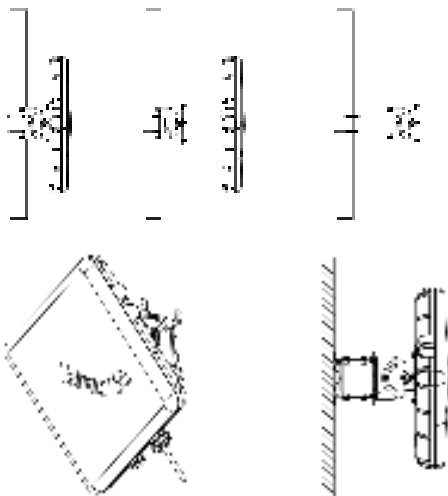
LED Indicator	Colour	Status	Description
Signal	Blue	Level -5	$24 \leq \text{SINR}$
		Level -4	$16 \leq \text{SINR} < 24$
		Level -3	$12 \leq \text{SINR} < 16$
		Level -2	$8 \leq \text{SINR} < 12$
		Level -1	$1 \leq \text{SINR} < 8$

		Level 0-LED Off	SINR < 1
PWR	Blue	ON	Device is Powered On
		Off	Device is Powered Off
ETH	Blue	ON	Ethernet connection is established.
		Off	Ethernet connection is not established
SIM	Blue	ON	SIM card is inserted/ detected
		Off	SIM card is not detected/Inserted

Placing the CPE

- Place the CPE outdoors facing open area and eNodeB. Obstructions such as concrete walls, glass partitions or wooden walls affect the transmission and reception of wireless signals.
- Keep the CPE away from electrical appliances that produce strong electric or magnetic fields such as microwave ovens, refrigerators or dish satellite antennas.

To mount the CPE to a pole, follow the steps below (left to right) as described in the next paragraph:



To mount the CPE to wall, follow the steps below (left to right) as described in the next paragraph:

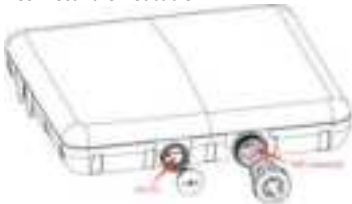
Connecting the CPE

Install the USIM card

This CPE is specially designed for the 4G LTE network. Please check that you have a valid USIM card from the service provider.

1. Open the USIM Card Slot lid.
2. Insert a valid USIM card into the USIM card slot.

3. Connect Ethernet cable.



4. Put the lid cover back.

Remove the USIM card

Open SIM Slot Lid cover and Push USIM card to eject it from the slot.

Connecting External Device(s) to the CPE

To use the Internet connection and configure the CPE settings, you must connect your CPE to a computer.

1. Insert the other end of the Ethernet cable to the port of the POE power supply (Port marked POE) to be kept inside the premises near the AC outlet.
2. Connect one end of another Ethernet cable to a Wireless Router or directly to a PC/Laptop and the other end to the port marked LAN on the POE Power Supply. For setting up Wireless router, please refer to the User Manual supplied with wireless router.
3. Plug the POE Power Supply to an electrical outlet using the AC cord supplied with POE power supply.
4. Connect LAN devices such as computer or switches to the LAN ports of the CPE by using good quality Ethernet cables or use Wi-Fi.

Accessing the Web based Utility

The web based utility of the CPE is a web browser based configuration interface that allows easy device set up, configuration and management through internet browser. For example: on a PC with Windows XP or higher version:

1. Connect the hardware of the CPE correctly.
2. Set the IP address of the connected computer and ensure that the IP address of the computer is in the same segment as that of CPE.

Note:

By default the IP address of the CPE is **192.168.254.251**, the subnet mask is **255.255.255.0** and the user log in is **admin** and password is **admin**.

It is recommended that the IP address and DNS settings are obtained automatically.

3. Run internet explorer. Enter <http://192.168.254.251> . In the address bar and press enter.



4. Enter the correct user name and password in login window and login. After the password verification, the web based utility functions can be performed.
5. The HOME screen of the CPE will be displayed.



FAQ:

The power indicator is not ON.

- Check if the POE Power Supply is plugged properly into AC socket.
- Check if the LED on the POE power supply is Green indicating it is correctly plugged in AC.
- Check if the power adapter meets the requirement and specification.
- Check if the Ethernet Cable used to carry power to CPE is a four pair cable.

Web Based Utility cannot be accessed

- Ensure that the CPE is powered on.
- Ensure that network cable between LAN port on POE power supply (or wireless router) and computer is properly connected.
- Ensure that IP address of the computer is correct.

Device cannot access the network

- Check if the SIM card is inserted properly.
- Check LTE network status from Web GUI and Minimum RSRP should be greater than -120 dBm for access to the network. Typically should be around -90 dBm.

Device cannot access the internet

- Check that Operator has provided internet access services.
- Check that IP address is automatically taken.
- Check that firewall rules are not blocking your internet service.

Throughput performance is not OK

- Ensure that there are not too many users under the same LTE Cell.
- Ensure the wireless environment is good.
- Check the value of SINR thru GUI. >10 dB is a good value for good throughput.

FCC Regulations:

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.

This device 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.

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- 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.

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

RF Exposure Information

This device meets the government's requirements for exposure to radio waves.

This device is designed and manufactured not to exceed the emission limits for exposure to radio frequency (RF) energy set by the Federal Communications Commission of the U.S. Government.

This device complies with FCC radiation exposure limits set forth for an uncontrolled environment. In order to avoid the possibility of exceeding the FCC radio frequency exposure limits, human proximity to the antenna shall not be less than 50cm (20 inches) during normal operation.

ISED Notice

This device complies with Innovation, Science and Economic Development Canada license-exempt RSS standard(s). Operation is subject to the following two conditions:

- (1) this device may not cause interference, and
- (2) this device must accept any interference, including interference that may cause undesired operation of the device.

Le présent appareil est conforme aux CNR Innovation, Sciences et Développement économique Canada applicables aux appareils 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

This device complies with the Canadian ICES-003 Class B specifications. CAN ICES-003(B)/ NMB-003(B)

IC: 899A-CPE12300XG

ISED RF Exposure Statement

This device complies with ISED RSS-102 RF exposure limits set forth for an uncontrolled environment. In order to avoid the possibility of exceeding the IC RSS-102 RF exposure limits, human proximity to the antenna shall not be less than 50cm (20 inches) during normal operation.

Cet appareil est conforme aux limites d'exposition aux rayonnements de la CNR-102 définies pour un environnement non contrôlé. Afin d'éviter la possibilité de dépasser les limites d'exposition aux fréquences radio de la CNR-102, la proximité humaine à l'antenne ne doit pas être inférieure à 50 cm (20 pouces) pendant le fonctionnement normal.