

OC3505D Genesis FWA Outdoor CPE

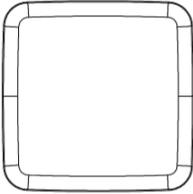
Quick Installation Guide

1 Overview

This product is an outdoor FWA CPE designed to support band 48.

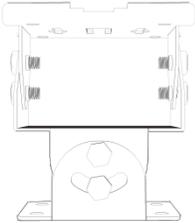
2 Package Contents

- 1. Genesis FWA CPE

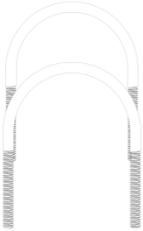


- 2. Mounting Kit

- 1 * Mounting Bracelet



- 2 * Holder



- 4 * Nut



- 4 * M6 Hex Bolt/Washer/Split Lock Washer



3 Interface

The following figure illustrates the appearance of the device.

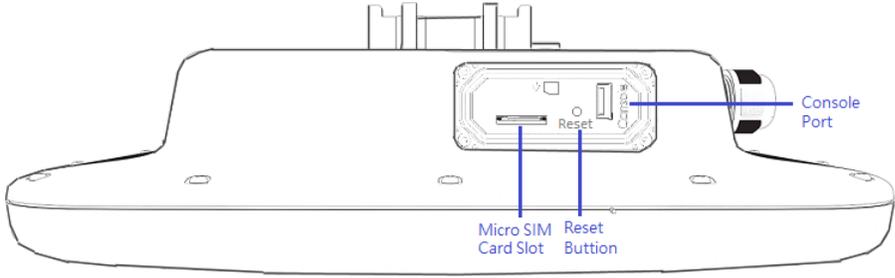


Table 3-1 Descriptions of the interfaces and buttons

Micro SIM Card Slot	Insert the micro SIM card here.
Reset Button	<p>This button is recessed; you need a pin or paper clip to depress it.</p> <ul style="list-style-type: none"> • Reboot. When pressed longer than 2 seconds, the device will reboot (restart). • Reset to default values. When pressed and held over 5 seconds, the settings of the device will be set to the default values.
Console Port	This port is used for root access to the device through a serial interface.

Figure 3-2 Interfaces and Indicators

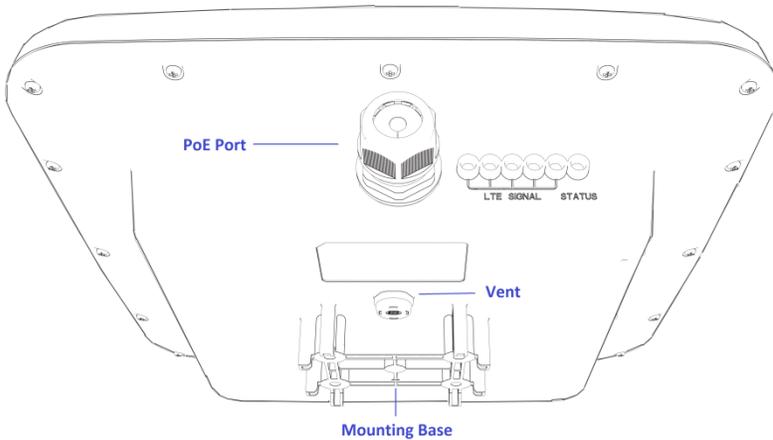


Table 3-2 Descriptions of interfaces and indicators

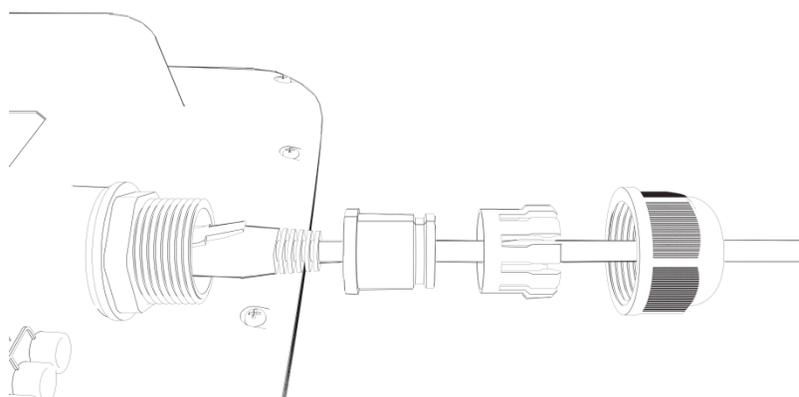
PoE/LAN Port	This PoE port can supply power to the device via Cat 5E or Cat.6 Ethernet cable.
LTE Signal LEDs (Green)	<p>Blinking (Green) - Signal strength status.</p> <ul style="list-style-type: none"> • One LED - RSRP (> -125) dBm • Two LEDs - RSRP (> -115) dBm • Three LEDs - RSRP (> -105) dBm • Four LEDs - RSRP (> -95) dBm

	<ul style="list-style-type: none"> • Five LEDs - RSRP (> -85) dBm
Status LED (Green/Red)	<p>On (Green) - Power on.</p> <p>Off - No power.</p> <p>On (Red) - No SIM card. Error/Warning.</p>

4 Installation

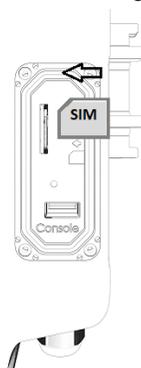
Step 1: Connect a standard CAT 5E or CAT 6 Ethernet cable to the LAN port of the device

1. Remove the water-proof cap from the device.
2. Use the water-proof cap on the Ethernet cable.
3. Tighten up the caps after connecting the Ethernet cable to the PoE port of the device.



Step 2: Insert the micro SIM card

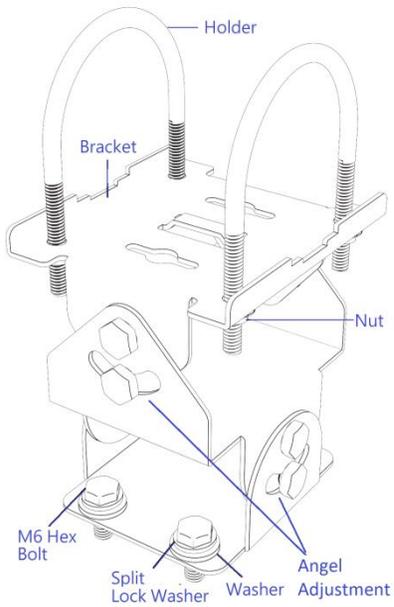
1. Detach the SIM card cover from the device.
2. Insert the micro SIM card (**not included**) into the card slot.
Note: Make sure the micro SIM card is installed correctly. Do not insert or remove the SIM card while the CPE is powered on, otherwise it might be damaged.



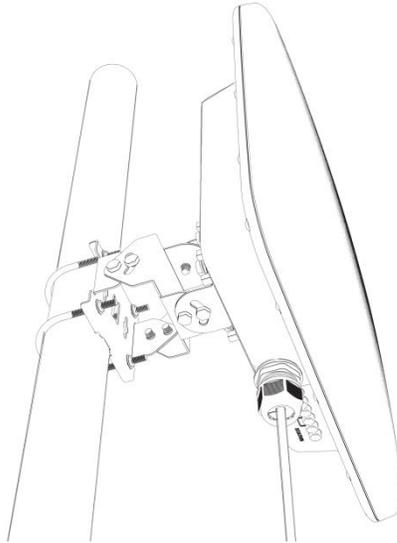
3. Re-attach the SIM card cover on the device.

Step 3: Mounting Kit Installation

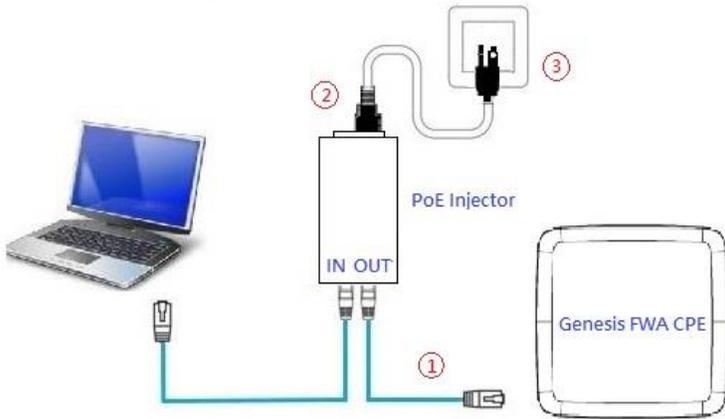
1. Install the mounting bracket on the Genesis CPE using the four included M6 hex bolts. (10mm wrench required).



2. Use the two circular holders and four nuts to secure the Genesis CPE to a pole. (8mm wrench driver required)
3. Keep the M6 hex bolts on the mounting bracket loosen for adjusting the direction of the Genesis CPE later.
4. Use a mobile phone compass app or Google maps to determine the direction of the CPE.
5. Manually adjust the CPE to properly align with the eNodeB.



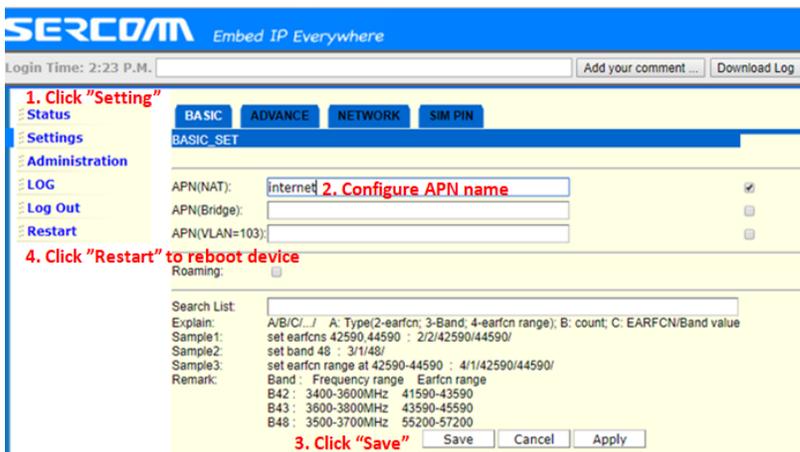
Step 4: Power on Genesis CPE



1. Connect the Ethernet cable from the Genesis CPE to the **OUT** port on the PoE injector unit.
2. Connect the power cable to the PoE injector.
3. Connect the PoE injector power plug to a power source.
4. The power/status LED on the Genesis CPE should turn green when it is powered on successfully.

Step 5: Signal Check and Angle Adjustment

1. Connect one end of an Ethernet cable to the **IN** port of the PoE injector and the other end to a computer.
2. Access Genesis FWA CPE Web UI on the computer via the following:
URL: <https://10.10.2.254>
Username/Password: admin/admin
3. The device/CPE is in NAT mode by default and could be accessed at above URL directly. If the device/CPE is configured in bridge mode and access to the local web UI is needed, you must configure a static IP on your PC to the following - 10.10.2.10/255/255.255.0
4. Configure the APN via the web page.



5. Make sure the Genesis CPE eNode and cell information is correct in the **Status** and **Cell Status** page.

- Manually adjust the Genesis CPE vertically and horizontally until you have obtained the best RSRP (-80) (this value is not guaranteed depending on installation location) and SINR (30 or higher) values. These values will refresh every 2 seconds.

Status	RRC/NAS Counter	Environment	Throughput	BLER
LTE				
Status Cause:	[Established]	Connection Status	Connected	
APN(NAT)	cmnet	IP Address:	192.168.150.26	
APN(Bridge)		IP Address:		
APN(VLAN)		IP Address:		
IMEI:	123456798213141	IMSI:	31148000002129	
EARFCN(UL):	43690	EARFCN(DL):	43690	
BW:	20MHz	PLMND:	31148	
PCI:	501	RSSI:	-56	
TAC:	1333	RSRP:	-82	
SINR:	32	CWMP Status:	CONNECTED	

Network Information	
PLMN	31148
TAC	1
CID	654654
eNB	2557
CI	62
BandWidth	20MHz

Cell information						
Cell	EARFCN	PCI	RSRP	SINR	RSSI	RSRQ
PCC	56190	501	-90	32	-67	-6
SCC	56388	502	-94	30	-69	-6

If SINR < 5

- Double check the eNode direction.
- Adjust the Genesis CPE so SINR will raise with minimum RSRP drop.
- Try another location.

If RSRP < -120

- Manually adjust the Genesis CPE to obtain a better RSRP value.
- Try another location.

- Restore the computer IP to DHCP mode in order to access the Internet again.
- Follow Step 2 & 3 to access Genesis FWA CPE..

Step 6: Final Check

- Tighten the M6 hex bolts on the mounting bracket.
- Install the Genesis CPE side door to cover all I/O ports. (PH1 screwdriver required)

5 Technical Specification

Table 5-1 Technical Specification

Item	Specification
Dimension	307mm x 307mm x 77.8mm (Height x Width x Depth)
Power	PoE (Power Over Ethernet)
Operation Temperature	-40°C ~ 55°C
Storage Temperature	-40°C ~ 70°C
LAN Port	1 * 10/100/1000BaseT (RJ45) LAN Port
SIM Interface	1 * Micro SIM socket

Federal Communication Commission Interference Statement

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

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 20cm between the radiator & your body.