





## Cautions and Warnings

 **Warning:** Read and understand the installation instructions and all safety warnings before connecting the eFemto to the power source. Failure to understand safety precautions may result in injury.

 **Warning:** Operate the eFemto only with the power adapter supplied with the product.

 **Warning:** Do not cover the eFemto or block the airflow to the device with any objects.

 **California Prop65 Warning:** The plastic and cords on this product contain phthalates, a chemical known to the State of California to cause cancer, birth defects and other reproductive harm. Wash hands after handling. For more information, please visit the following site: [www.p65warnings.ca.gov](http://www.p65warnings.ca.gov)

## USA: Federal Communications Commission (FCC) statement

This device complies with FCC part 15 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, including interference that may cause undesired operation of the device.

## FCC Warning:

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

This device complies with FCC requirements for RF exposure in public or uncontrolled environments. The device should be installed and operated with minimum distance of 58cm between the radiator and your body.

**FCCID:** 2A0385G2101-48

## What's in the eFemto Box

- Apex Enterprise Small Cell (eFemto)
- Mounting Bracket with Hardware
- GPS Antenna and cable (7m)
- Ethernet cable – 2m
- Power cord
- Power supply (not plenum rated)
- Quick Start Guide

## Port Connections



Port	Function
Power	To connect Power Supply (12V DC).
LMT	Local Monitoring Terminal port. To manage settings and to display device status.
WAN/PoE	To connect to a Power over Ethernet (PoE) or Wide Area Network (WAN) port.
1PPS	Reserved for future use.
Reset	Factory reset.
INT/EXT	To select antenna INT (internal)/EXT (external).
GPS	To connect GPS antenna and receive GPS signal.

## Antenna Connections



Port	Function
4G Ant 1	Antenna 1 connection for LTE external antenna/DAS.
4G Ant 2	Antenna 2 connection for LTE external antenna/DAS.
5G Ant 3	Antenna 3 connection for 5G NR external antenna/DAS.
5G Ant 4	Antenna 4 connection for 5G NR external antenna/DAS.

## Prerequisites

### Ethernet and Backhaul (B/H) Requirements

For optimum performance regarding backhaul bandwidth requirements and specific firewall settings, please refer to the User Guide.

### GPS Signal

The eFemto requires a strong GPS signal from the provided indoor GPS antenna. For installation other than with the provided GPS antenna, please refer to the online 4G LTE Network Extender for Enterprise User Guide.

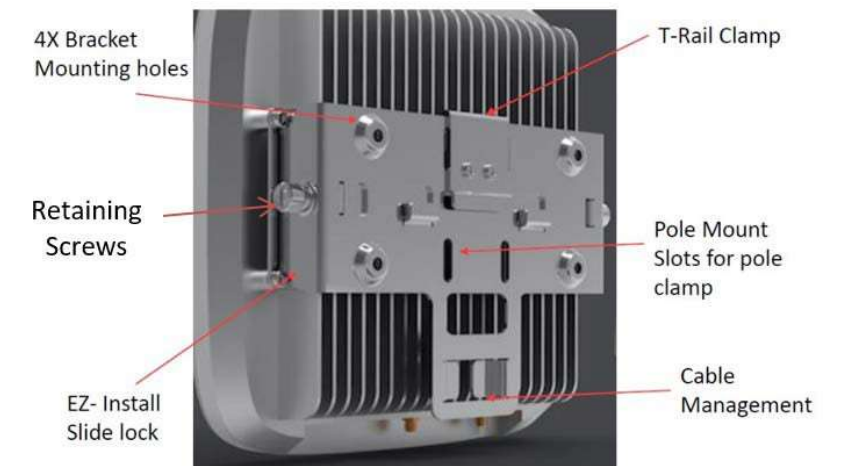
### Placement

The eFemto can be installed: vertically or horizontally on a wall, floor, or ceiling. Place the unit at least 10 feet away from products that generate electromagnetic radiation (e.g., microwave oven).

1. Identify a location for the eFemto, central to users, but no more than 21 feet from an exterior window or wall to allow for a strong GPS signal.
2. Identify a power source for the eFemto.
3. Follow device mounting, installation, and power up steps.

## Mounting Procedure

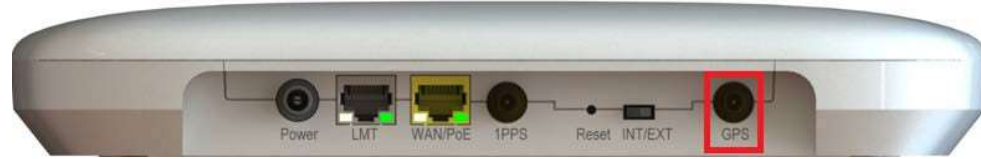
The package contains screws and anchors for drywall mounting. Installation on alternate surfaces will require the purchase of the appropriate anchors and hardware.



1. Determine the mounting location and verify that no wires, pipes, etc., are directly behind or in the wall at the point of mounting.
2. Use the wall mounting bracket to act as a template to mark anchor holes on the wall.
3. Drill holes into drywall and push in the supplied plastic drywall anchors. Installation on surfaces other than drywall may require different anchoring hardware which can be purchased at your local hardware store.
4. Align the mounting bracket with the wall anchors and attach using the supplied screws (4 x No.10 1" length with fastener).
5. Slide the eFemto with mounting bracket into the wall mounting bracket.
6. Fasten retaining screws (Self-tapped screw, 1018 harden, PA4\*25, Phillips 2#, Color-Zn plating) on the side of the bracket.
7. When power is supplied through the PoE port, the PoE power source should meet Class 4 and Class 5 requirements.

## GPS Installation

Connect the GPS antenna cable (indoor use only) to the GPS port of the eFemto.



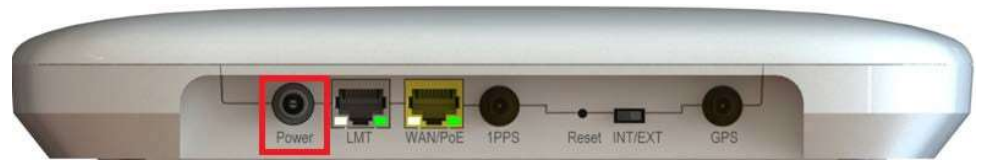
**Note:** The GPS antenna must stay connected to the eFemto at all times for operation. The initial GPS fix can take up to 60 minutes.

## Ethernet and Power Connections

Attach the supplied Ethernet cable from your router or modem LAN port to the eFemto WAN/PoE port for network connectivity.



Plug in the Power Supply and insert the power cable into the eFemto Power port. Automatic startup and hardware initialization will begin.



### POWER ON

At startup, the eFemto will conduct self configuration. This will take between 30 - 60 minutes the first time the eFemto turns on.

## Optional Accessories Available

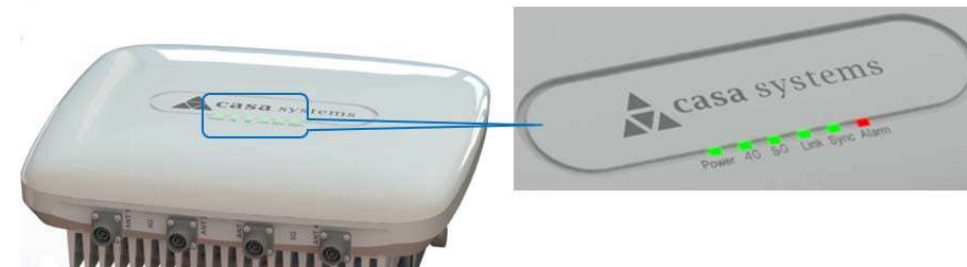
- Power over Ethernet (POE) Device



A full list of optional accessories can be viewed and ordered from [www.verizonwireless.com](http://www.verizonwireless.com).

## Automated Startup

The following Status LED sequence will occur. Upon successful setup, the LED will blink green.



**Note:** If the LED fails to turn green after one hour or is blinking a series of red pulses, consult the troubleshooting section (below).

LED	Color	Description
Power	Green	OFF: Power not detected. ON: All the power rails are present. Flashing: Unit booting or firmware upgrading.
4G	Green	OFF: 4G radio disabled. ON: 4G radio activity enabled, unit is transmitting or receiving.
5G	Green	OFF: 5G radio disabled. ON: 5G radio activity enabled, unit is transmitting or receiving.
Link	Green	OFF: Ethernet link down. ON: Ethernet link up.
Sync	Green	OFF: Synchronization not established. ON: Synchronization acquired. Flashing: Synchronization lost.
Alarm	Red	OFF: No alarm detected. Flashing: System critical alarm.

## Troubleshooting

### No GPS Signal

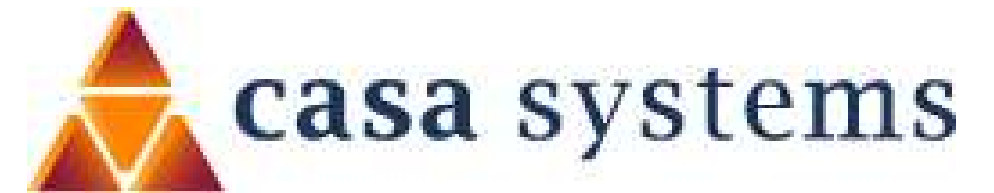
The Sync LED off and Alarm LED fix red indicates no GPS signal. Check the About eFemto page in the Advanced Settings web interface, on the tabs for "Status and Alerts" or "GPS" to see the status of the GPS constellation.

### Is my wireless device connected to the eFemto?

Using the Advanced Settings web interface, sign in and the Connected Devices panel for indication of connected users.

### Cannot reach eFemto GUI or locked out of device.

Press the RESET button for 10 seconds to reset the system to factory default settings.



## 4G/5G Network Extender 4 for Enterprise

### Installation Reference Guide