Introduction

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

Overview The Outdoor Gateway is a WiiMAX subscriber station designed to provide Internet access for a home or small office. The Outdoor Gateway includes an **outdoor unit** (ODU) connected to a **supply unit** (IDU). The ODU provides the WiMAX Internet link, and the IDU serves as the gateway for a local Ethernet wired.

The indoor unit includes:

• One standard RJ-45 Ethernet port for LAN connections.

• One 8 PIN RJ-45 Ethernet port for connection to the ODU. This cable provides a dedicated Power-over-Ethernet (PoE) power supply to the ODU, as well as a data link between the ODU and the IDU. The IDU should be connected to an AC power connection.

Installing the ODU

Before installing the ODU, verify that you have all the items listed in the package checklist. If any of the items are missing or damaged, contact your WiMAX service provider.

Selecting a Location

The ODU should be pole-mounted outdoors and aligned so its antenna faces the nearest WiMAX base station.
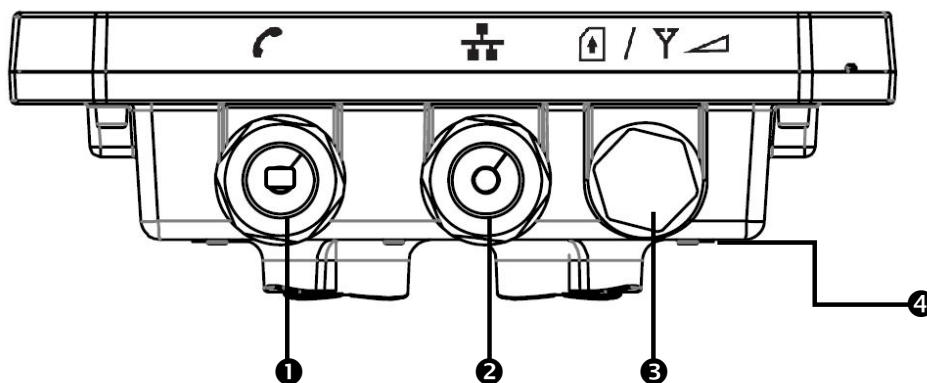
When selecting a suitable location for the unit, consider these guidelines:

• Place the ODU as high as possible to achieve the best possible link quality.

• Place the ODU away from power and telephone lines.

• Avoid placing the ODU too close to any metallic reflective surfaces.

• Be sure to ground the ODU with an appropriate grounding wire (not included) by attaching it to the grounding screw on the unit and to a good ground connection.

Additional information:

Check below items before installing the outdoor CPE:

- One RJ-14 connector for connecting to the telephone line.
- One RJ-45 connector for connecting to the PoE adaptor.
- LED indicator inside and SIM card slot for inserting SIM card.
- A grounding screw on the rear panel.

Mounting the ODU

Mount the ODU unit on a 1"-4" pole using the supplied kit (Figure 1), or the optional Tilt accessory.

Using the Clamp

1 Thread the M10*100mm bolt through a spring washer, flat washer and the bracket holes.
2 With the connector facing downward, attach the ODU to a 1" -4" pole.
3 Attach the bracket to the other side of the pole.
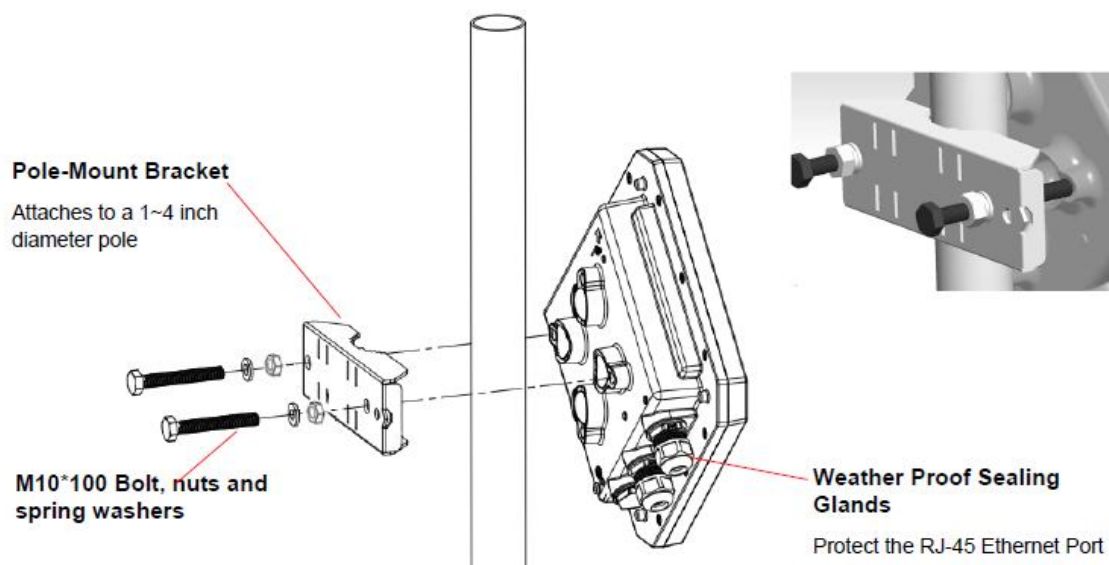4 Thread the M10*100 mm bolts through both holes on either side. Tighten the nuts.

Figure 1: Mounting the ODU on the Pole

Installing the IDU

The IDU can only be mounted indoors. It should be mounted on any horizontal surface, such as a desktop or shelf. Be sure to select a suitable location for the device within 100 m (328 ft.) of the ODU. Consider these guidelines:

- Select a cool, dry place, which is out of direct sunlight.
- The device must be near an AC power outlet that provides 100 to 240 V, 50 to 60 Hz with proper grounding.
- The device should be accessible for network cabling.
- The overall length of the Ethernet cables from the ODU to the IDU and from the IDU to the PC must not exceed 100m.

You must plan a cable route from the ODU to the IDU indoors. Consider these guidelines:

- Determine a building entry point for the cable.
- Determine if conduits, bracing, or other structures are required for safety or protection of the cable.
- For additional lightning protection, it is recommended to use a lightning arrestor immediately before the Ethernet cable enters the building.

Connecting the Cables

Figures 2 demonstrates ODU CPE connected to an IDU (supply unit –PoE)
RJ-45 and telephone line have to be connected to outdoor CPE.

- Follow the instruction on PoE adapter: RJ-45 port ("TO/FROM OSU POE RJ45) connects to ODU through RJ-45 cable, meanwhile, RJ-14 port ("TO/FROM OSU VOIP) and outdoor CPE can be connected by telephone line.
- Using a phone line connected the telephone with RJ-11 port on POE adapter.
- Available for other device such as PC/Hub/Switch connected to PoE through RJ-45 cable on PoE.
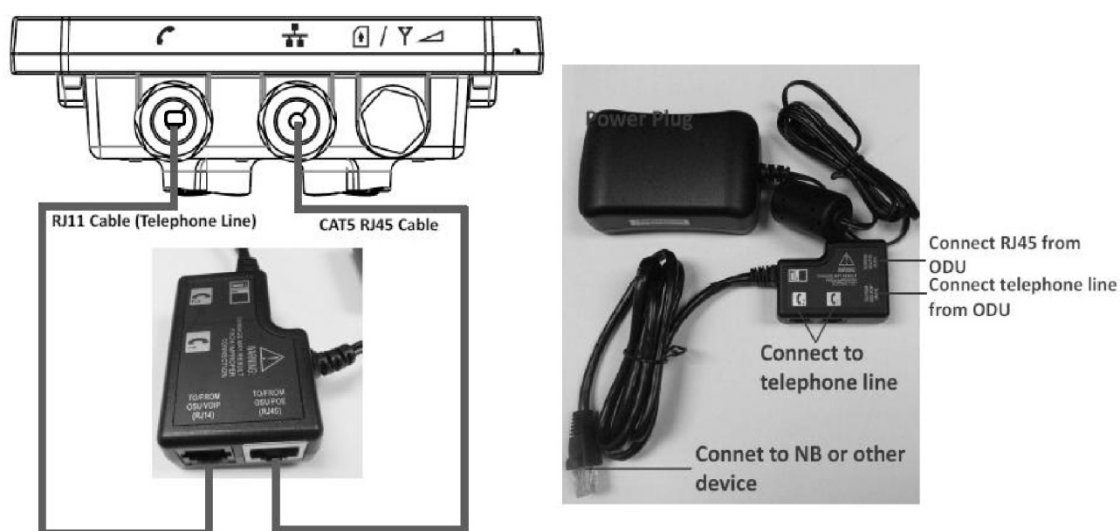

Figure 2:CPE Connections

CAUTION *Do not* connect the data equipment to the PoE port on the IDU, as it supplies DC power to the ODU, and this may harm other equipment connected to it.

Connect the indoor unit to the AC mains using the power adapter supplied with the unit.

Preparing and Connecting the IDU-ODU Cable

Use only Category 5E 4x2x24# FTP outdoor cables from an approved manufacturer. The cable provides pin-to-pin connection on both ends.

1 Prepare the cable: Use a crimp tool for RJ-45 connectors to prepare the wires. Insert them into the appropriate pins and use the tool to crimp the connector. Make sure to do the following:

» Remove as small a length as possible of the external jacket. Verify that the external jacket is well inside the sealing cover when connected to the unit, to ensure good sealing.

» Pull back the shield drain wire before inserting the cable into the RJ-45 connector, to ensure a good connection with the connector's shield after crimping.

2 Connect the cable (see Figure 3):

a Remove the sealing gland plug from the gland nut.

b Open the sealing gland nut and remove it. *Do not* disassemble the gland base from the bracket.

c Insert the cable into the sealing gland base and connect it to the RJ-45 connector at the bottom of the ODU, labeled. Make sure that the connector is completely inserted and tightened.

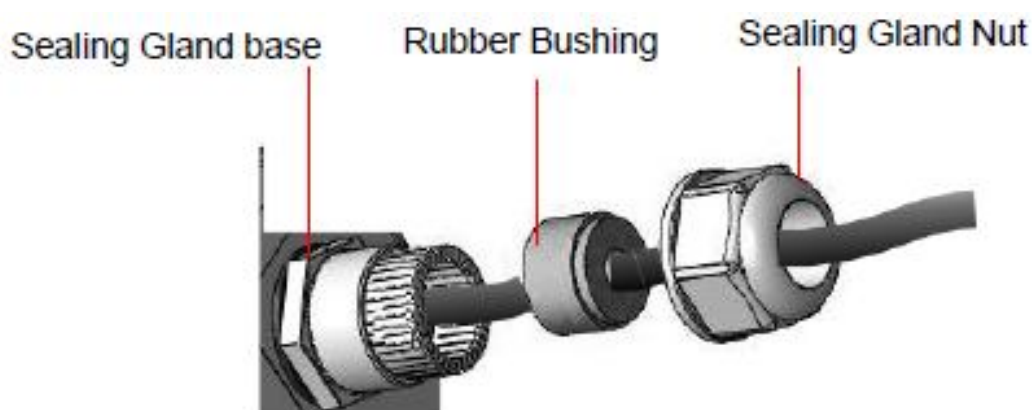**d** Insert the rubber bushing on the cable into the gland base.

Figure 3 : Cable Insertion

Outdoor Gateway Quick Installation Guide

Easy Setup

Follow the steps below to configure your device through the web interface:
Step 1: Click the web browser (Internet Explorer) and enter default IP address of the ODU CPE: **http://192.168.15.1**

Step 2: Enter ODU administrator login username/password to access the web management interface. The default username/password: **administrator/administrator.**

Step 3: Simply configure the device settings after login (Figure 4).

Figure 4: User Interface

Checking for Proper Operation

- Verify data connectivity by sending a ping command to the BTS or by connecting to the Internet.

- Check the LED functionality according to the following table:

LED name	Location	Color	LED Behavior	Status Indication
LED List	●●● ●●●			
MAIN power	●○○ ○○○	Blue	ON	Power On
			OFF	Power Off
Ethernet status	○●○ ○○○	Yellow	Steady ON	Ethernet connected
			Blinking	Data transmission
			OFF	No Ethernet action
SIM status	○○● ○○○	Green	Steady ON	SIM Detected
			Blinking when On-hook	PUK / PIN Code
			OFF	No SIM Detected
LTE Status LED : Link Status			When CPE is power on, each LED indicates each link status	
LTE 1	○○○ ●○○	Red	Steady ON	CINR < 8dB
LTE 2	○○○ ●●○	Red/ Yellow	Steady ON	8dB < CINR < 15dB
LTE 3	○○○ ●●●	Red/ Yellow/ Green	Steady ON	15dB < CINR

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 **40** cm between the radiator & your body.

The operator may manually set the base station to a new non-busy channel when occupancy is detected.

Industry Canada statement:

This device complies with Industry Canada licence 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 d'Industrie Canada applicables aux appareils radio 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.

Radiation Exposure Statement:

This equipment complies with IC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance **40** cm between the radiator & your body.
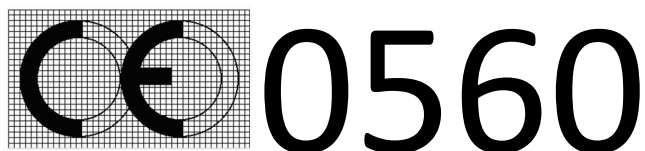
Déclaration d'exposition aux radiations:
Cet équipement est conforme aux limites d'exposition aux rayonnements IC établies pour un environnement non contrôlé. Cet équipement doit être installé et utilisé avec un minimum de **40** cm de distance entre la source de rayonnement et votre corps.

Europe – EU Declaration of Conformity

This device complies with the essential requirements of the R&TTE Directive 1999/519/EC. The following test methods have been applied in order to prove presumption of conformity with the essential requirements of the R&TTE Directive 1999/519/EC:

- **EN 60950-1:2006+A11:2009+A1:2010+A12:2011**
- **EN 62311 : 2008**
- **EN 302 326 V1.2.2: 2007**
- **EN 302 326 V1.3.1:2008**
- **EN 301 489-1 V1.9.2: 2011**
- **EN 301 489-4 V1.4.1:2009**

In Italy the end-user should apply for a license at the national spectrum authorities in order to obtain authorization to use the device for setting up outdoor radio links and/or for supplying public access to telecommunications and/or network services.

CE0560

Česky [Czech]	*[Jméno výrobce]* tímto prohlašuje, že tento *[typ zařízení]* je ve shodě se základními požadavky a dalšími příslušnými ustanoveními směrnice 1999/5/ES.
Dansk [Danish]	Undertegnede *[fabrikantens navn]* erklærer herved, at følgende udstyr *[udstyrets typebetegnelse]* overholder de væsentlige krav og øvrige relevante krav i direktiv 1999/5/EF.
Deutsch [German]	Hiermit erklärt *[Name des Herstellers]*, dass sich das Gerät *[Gerätetyp]* in Übereinstimmung mit den grundlegenden Anforderungen und den übrigen einschlägigen Bestimmungen der Richtlinie 1999/5/EG befindet.
Eesti [Estonian]	Käesolevaga kinnitab *[tootja nimi = name of manufacturer]* seadme *[seadme tüüp = type of equipment]* vastavust direktiivi 1999/5/EÜ põhinõuetele ja nimetatud direktiivist tulenevatele teistele asjakohastele sätetele.
English	Hereby, *[name of manufacturer]*, declares that this *[type of equipment]* is in compliance with the essential requirements and other relevant provisions of Directive 1999/5/EC.
Español [Spanish]	Por medio de la presente *[nombre del fabricante]* declara que el *[clase de equipo]* cumple con los requisitos esenciales y cualesquiera otras disposiciones aplicables o exigibles de la Directiva 1999/5/CE.
Ελληνική [Greek]	ΜΕ ΤΗΝ ΠΑΡΟΥΣΑ *[name of manufacturer]* ΔΗΛΩΝΕΙ ΟΤΙ *[type of equipment]* ΣΥΜΜΟΡΦΩΝΕΤΑΙ ΠΡΟΣ ΤΙΣ ΟΥΣΙΩΔΕΙΣ ΑΠΑΙΤΗΣΕΙΣ ΚΑΙ ΤΙΣ ΛΟΙΠΕΣ ΣΧΕΤΙΚΕΣ

	ΔΙΑΤΑΞΕΙΣ ΤΗΣ ΟΔΗΓΙΑΣ 1999/5/ΕΚ.
Français [French]	Par la présente *[nom du fabricant]* déclare que l'appareil *[type d'appareil]* est conforme aux exigences essentielles et aux autres dispositions pertinentes de la directive 1999/5/CE.
Italiano [Italian]	Con la presente *[nome del costruttore]* dichiara che questo *[tipo di apparecchio]* è conforme ai requisiti essenziali ed alle altre disposizioni pertinenti stabilite dalla direttiva 1999/5/CE.
Latviski [Latvian]	Ar šo *[name of manufacturer / izgatavotāja nosaukums]* deklarē, ka *[type of equipment / iekārtas tips]* atbilst Direktīvas 1999/5/EK būtiskajām prasībām un citiem ar to saistītajiem noteikumiem.
Lietuvių [Lithuanian]	Šiuo *[manufacturer name]* deklaruoja, kad šis *[equipment type]* atitinka esminius reikalavimus ir kitas 1999/5/EB Direktyvos nuostatas.
Nederlands [Dutch]	Hierbij verklaart *[naam van de fabrikant]* dat het toestel *[type van toestel]* in overeenstemming is met de essentiële eisen en de andere relevante bepalingen van richtlijn 1999/5/EG.
Malti [Maltese]	Hawnhekk, *[isem tal-manifattur]*, jiddikjara li dan *[il-mudel tal-prodott]* jikkonforma mal-ħtiġijiet essenzjali u ma provvedimenti oħrajn relevanti li hemm fid-Dirrettiva 1999/5/EC.
Magyar [Hungarian]	Alulírott, *[gyártó neve]* nyilatkozom, hogy a *[... típus]* megfelel a vonatkozó alapvetõ követelményeknek és az 1999/5/EC irányelv egyéb elõírásainak.
Polski [Polish]	Niniejszym *[nazwa producenta]* oświadcza, że *[nazwa wyrobu]* jest zgodny z zasadniczymi wymogami oraz pozostałymi stosownymi postanowieniami Dyrektywy 1999/5/EC.
Português [Portuguese]	*[Nome do fabricante]* declara que este *[tipo de equipamento]* está conforme com os requisitos essenciais e outras disposições da Directiva 1999/5/CE.
Slovensko [Slovenian]	*[Ime proizvajalca]* izjavlja, da je ta *[tip opreme]* v skladu z bistvenimi zahtevami in ostalimi relevantnimi določili direktive 1999/5/ES.
Slovensky [Slovak]	*[Meno výrobcu]* týmto vyhlasuje, že *[typ zariadenia]* spĺňa základné požiadavky a všetky príslušné ustanovenia Smernice 1999/5/ES.
Suomi [Finnish]	*[Valmistaja = manufacturer]* vakuuttaa täten että *[type of equipment = laitteen tyyppimerkintä]* tyyppinen laite on direktiivin 1999/5/EY oleellisten vaatimusten ja sitä koskevien direktiivin muiden ehtojen mukainen.