

LTE CPE

Quick installation Guide



WLTMS-110
Connection Guide

Copyright

This DOCUMENT is copyrighted with all rights reserved. No part of this publication may be reproduced, transmitted, transcribed, stored in a retrieval system, or translated into any language in any form by any means without the written permission of Gemtek Technology Co. Ltd.

Notice

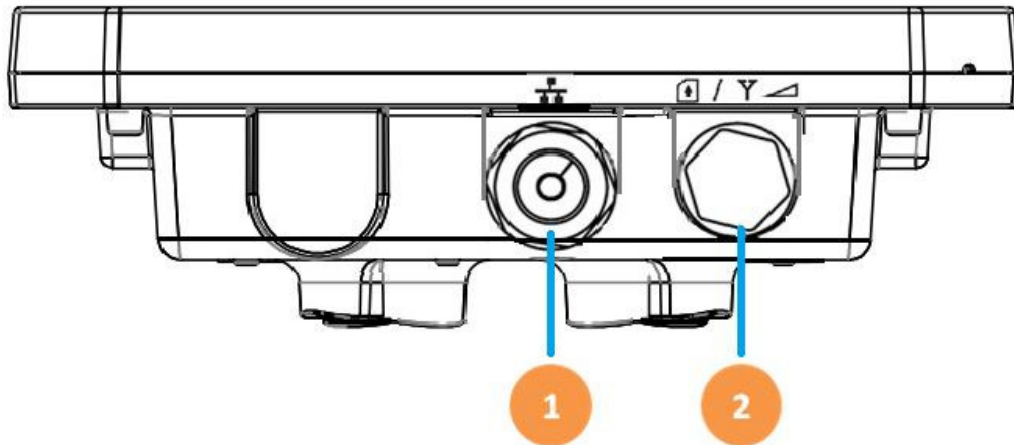
Gemtek reserves the right to change specifications without prior notice.

While the information in this document has been compiled with great care, it may not be deemed an assurance of product characteristics. Gemtek shall be liable only to the degree specified in the terms of sale and delivery.

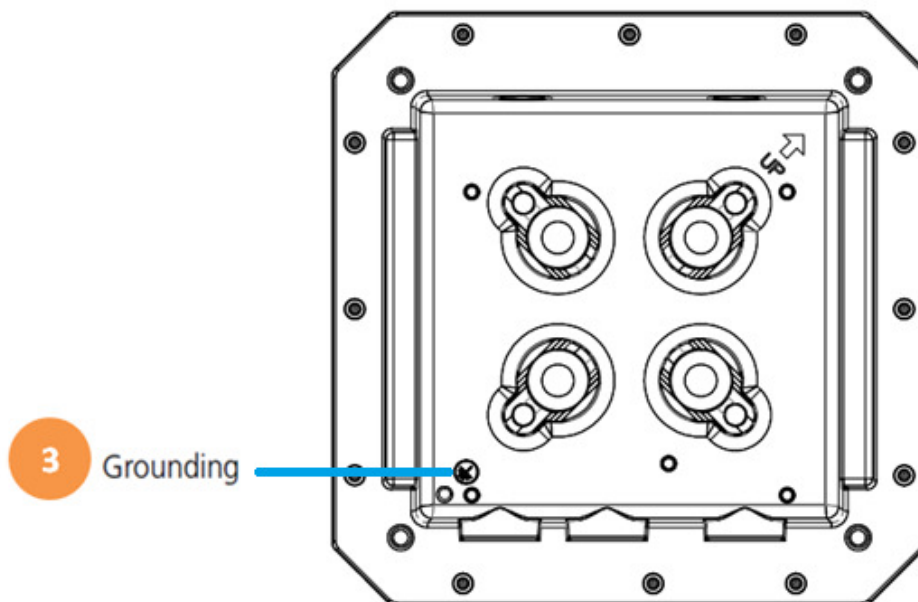
The reproduction and distribution of the documentation and software supplied with this product and the use of its contents is subject to written authorization from Gemtek.

Connectors

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



The Grounding screw (marked $\overline{\text{T}}$) is located on the rear panel of the ODU.

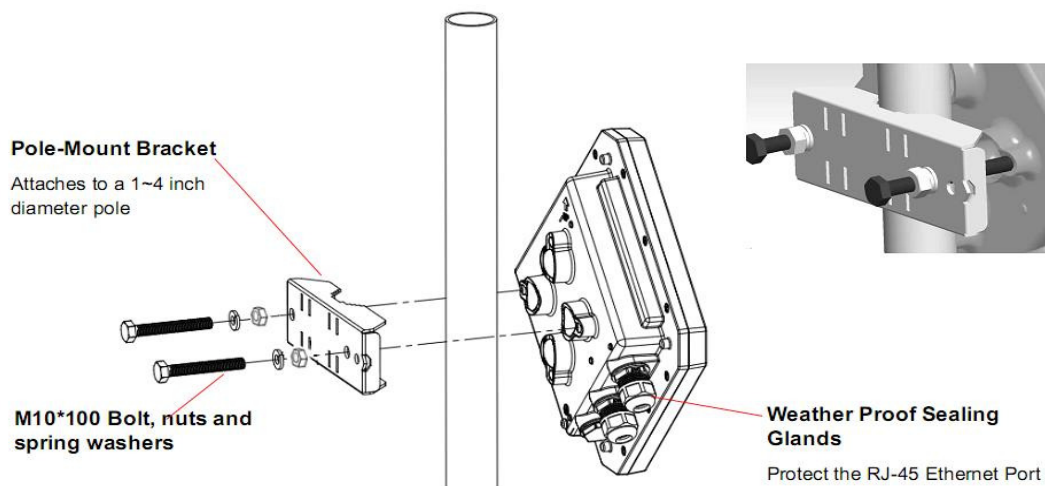


LED Indicators _ODU

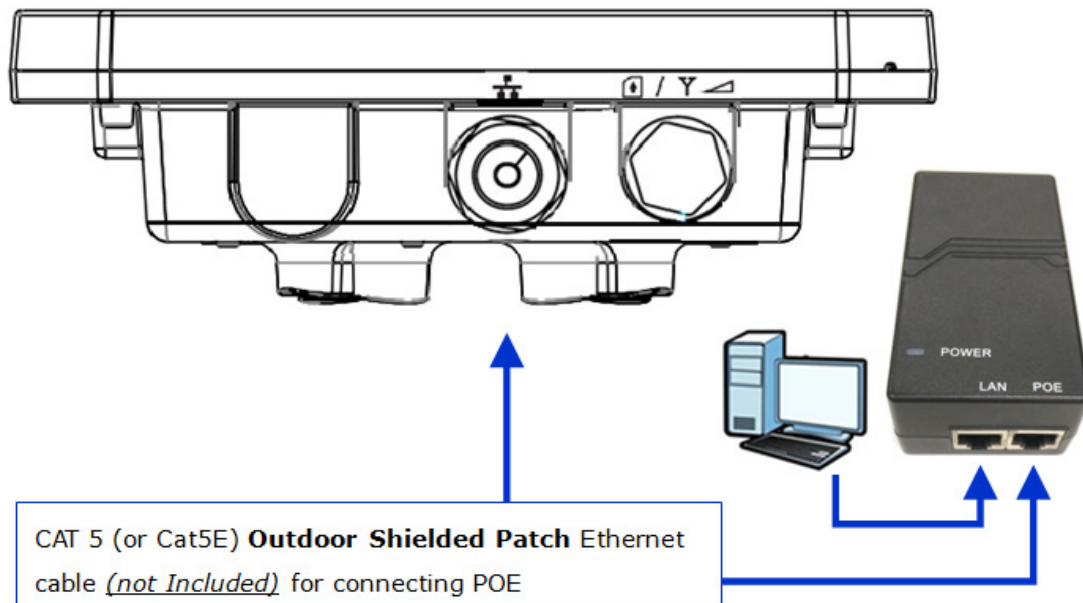
LED name	Location	Color	LED Behavior	Status Indication
LED List				
MAIN power		Blue	ON	Power On
			OFF	Power Off
Ethernet status		Yellow	Steady ON	Ethernet Connected
			Blinking	Data Transmission
			OFF	No Ethernet action
SIM status		Green	Steady ON	SIM Detected
			Blinking when On-hook	PUK / PIN Code
			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

Installing LTE outdoor CPE

- **Selecting a Location:** LTE Outdoor CPE should be pole-mounted outdoors and aligned so its antenna faces the nearest LTE eNB. When selecting a suitable location for the unit, consider these guidelines:
 - Place LTE Outdoor CPE as high as possible to achieve the best possible link quality.
 - Place the LTE Outdoor CPE away from power and telephone lines.
 - Avoid placing LTE Outdoor CPE too close to any metallic reflective surfaces.
 - Be sure to ground LTE Outdoor CPE with an appropriate grounding wire (not included) by attaching it to the grounding screw on the unit and to a good ground connection.
- **Mounting the ODU:** Mount LTE Outdoor CPE on a 1"-4" pole using the supplied kit, 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, attaché LTE Outdoor CPE to a 1"-4" pole.
 3. Attach the bracket to the other side of the pole.
 4. Thread the M10*100mm bolts through both holes on either side, and tighten the nuts.



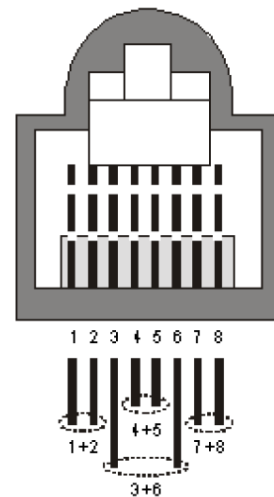
Connecting the Cables



- **Outdoor Connection:** Connect a grounding cable between the Ground terminal of the LTE outdoor CPE and a good ground connection.
- **Preparing and connecting the cable:** Use only UTP-FTP 4x2x24AWG CAT. 5E outdoor cable from an approved manufacturer. The cable provides pin-to-pin connection on both ends.
 - 1. Prepare the cable:** Use a crimp too 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.

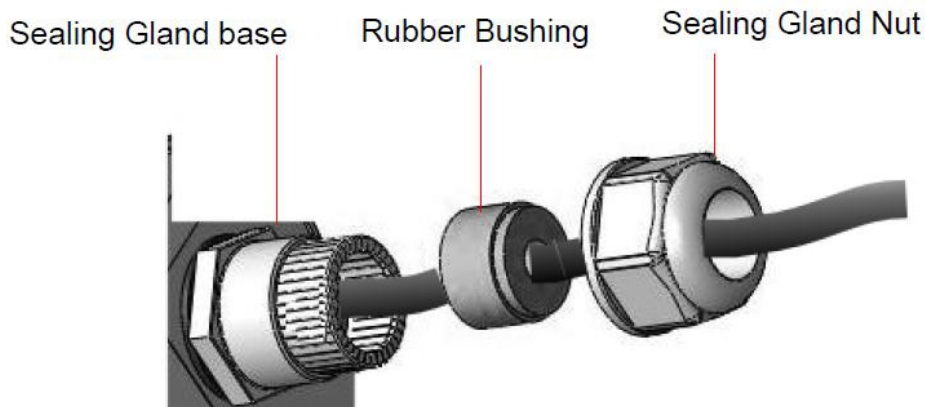
The following figure shows the required wire pair connections. The color codes used in standard cables supplied by the manufacturer are as listed in the table.

Wire color	Pin
Blue	1
Blue/white	2
Orange	3
Orange/white	6
Brown	4
Brown/white	5
Green	7
Green/white	8



2. Connect the cable

- Remove the sealing cable gland plug from the gland nut.
- Open the sealing gland nut and remove it. Don not disassembles the gland base from the bracket.
- Insert the cable into the sealing gland base and connect it to the RJ-45 connector at the bottom of the CPE. Make sure the connector is completely inserted and tightened.
- Insert the rubber bushing on the cable into the gland base.



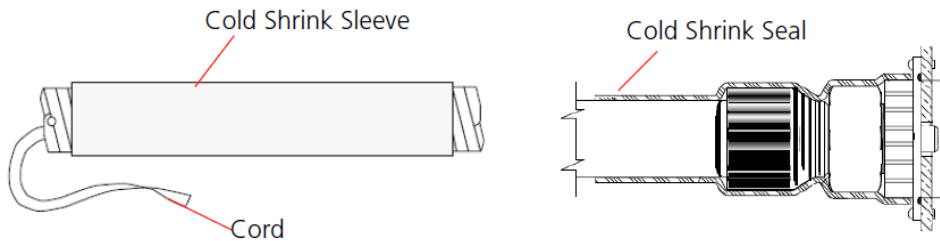
- Tighten the gland nut. Use the dedicated tool for fastening the sealing glands.

3. Seal the connector

- Attach the mastic tape (Scotchfil™ Electrical Insulation Putty) and wrap it around the connector butting up against the connector. Do not over stretch.
- Squeeze to tighten the mastic sealer. Make sure there are no

air bubbles.

- Slide the cold shrink sleeve on top of the connector. Make sure that the sleeve covers both cable connector and unit connector.



- Pull the cord slowly to shrink the sleeve.

- **Indoor Connection**

1. It is assumed that the RJ-45 is already connected to the LTE outdoor CPE. Assemble an RJ-45 connector with a protective cover on the other end of the LTE outdoor CPE cable.
2. Connect the other end of the cable from ODU to the PoE adaptor which labeled "**POE**".
3. Connect RJ45 cable from PoE adaptor which label "**LAN**" to a PC/NB/Hub/Switch.

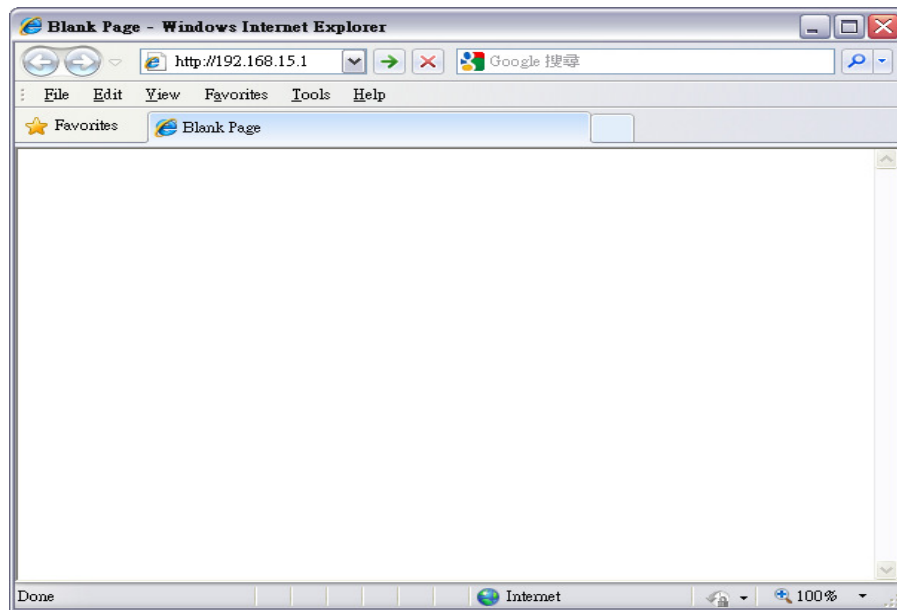


Web Interface

Please follow the steps below to configure your device through the web interface:

Step1: Open the Web browser (Internet Explorer) and enter the default IP address of the ODU CPE, which is :

<http://192.168.15.1>



Web browser

Step2: Enter ODU administrator login username/password to access the web management interface. The default username/password is **administrator/administrator**.



Web management interface

Step3: The page shown here gets displayed in your browser after login; you can now configure the device settings.



GUI Interface

	Mode:	LTE
	Operator:	APN Name
	Signal:	 (More bar means better signal)  (Disconnect, no signal)

Europe – EU Declaration of Conformity

This device complies with the essential requirements of the R&TTE Directive 1999/5/EC. The following test methods have been applied in order to prove presumption of conformity with the essential requirements of the R&TTE Directive 1999/5/EC:

EN 301 908-1 V7.1.1

EN 301 908-13 V6.2.1

EN 62311:2008

EN 301 489-1 V1.9.2

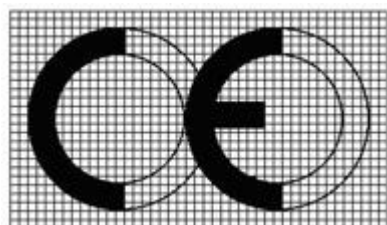
EN 301 489-24 V1.5.1

EN60950-1:2006+A11:2009+A1:2010+A12:2011

EN60950-22 : 2006

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.

The minimum distance between the user and/or any bystander and the radiating structure of the transmitter is **22** cm.



0560

Česky [Czech]	<i>[Jméno výrobce]</i> tímto prohlašuje, že tento <i>[typ zařízení]</i> je ve shodě se základními požadavky a dalšími příslušnými ustanoveními směrnice 1999/5/ES.
Dansk [Danish]	Undertegnede <i>[fabrikantens navn]</i> erklærer herved, at følgende udstyr <i>[udstyrets typebetegnelse]</i> overholder de væsentlige krav og øvrige relevante krav i direktiv 1999/5/EF.
Deutsch	Hiermit erkläre <i>[Name des Herstellers]</i> , dass sich das Gerät <i>[Gerätetyp]</i> in

[German]	Übereinstimmung mit den grundlegenden Anforderungen und den übrigen einschlägigen Bestimmungen der Richtlinie 1999/5/EG befindet.
Eesti [Estonian]	Käesolevaga kinnitab <i>[tootja nimi = name of manufacturer]</i> seadme <i>[seadme tüüp = type of equipment]</i> vastavust direktiivi 1999/5/EÜ põhinõuetele ja nimetatud direktiivist tulenevatele teistele asjakohastele sätetele.
English	Hereby, <i>[name of manufacturer]</i> , declares that this <i>[type of equipment]</i> is in compliance with the essential requirements and other relevant provisions of Directive 1999/5/EC.
Español [Spanish]	Por medio de la presente <i>[nombre del fabricante]</i> declara que el <i>[clase de equipo]</i> cumple con los requisitos esenciales y cualesquiera otras disposiciones aplicables o exigibles de la Directiva 1999/5/CE.
Ελληνική [Greek]	ΜΕ ΤΗΝ ΠΑΡΟΥΣΑ <i>[name of manufacturer]</i> ΔΗΛΩΝΕΙ ΟΤΙ <i>[type of equipment]</i> ΣΥΜΜΟΡΦΩΝΕΤΑΙ ΠΡΟΣ ΤΙΣ ΟΥΣΙΩΔΕΙΣ ΑΠΑΙΤΗΣΕΙΣ ΚΑΙ ΤΙΣ ΛΟΙΠΕΣ ΣΧΕΤΙΚΕΣ ΔΙΑΤΑΞΕΙΣ ΤΗΣ ΟΔΗΓΙΑΣ 1999/5/ΕΚ.
Français [French]	Par la présente <i>[nom du fabricant]</i> déclare que l'appareil <i>[type d'appareil]</i> est conforme aux exigences essentielles et aux autres dispositions pertinentes de la directive 1999/5/CE.
Italiano [Italian]	Con la presente <i>[nome del costruttore]</i> dichiara che questo <i>[tipo di apparecchio]</i> è conforme ai requisiti essenziali ed alle altre disposizioni pertinenti stabilite dalla direttiva 1999/5/CE.
Latviski [Latvian]	Ar šo <i>[name of manufacturer / izgatavotāja nosaukums]</i> deklarē, ka <i>[type of equipment / iekārtas tips]</i> atbilst Direktīvas 1999/5/EK būtiskajām prasībām un citiem ar to saistītajiem noteikumiem.
Lietuvių [Lithuanian]	Šiuo <i>[manufacturer name]</i> deklaruoja, kad šis <i>[equipment type]</i> atitinka esminius reikalavimus ir kitas 1999/5/EB Direktyvos nuostatas.
Nederlands [Dutch]	Hierbij verklaart <i>[naam van de fabrikant]</i> dat het toestel <i>[type van toestel]</i> in overeenstemming is met de essentiële eisen en de andere relevante bepalingen van richtlijn 1999/5/EG.
Malti [Maltese]	Hawnhekk, <i>[isem tal-manifattur]</i> , jiddikjara li dan <i>[il-mudel tal-prodott]</i> jikkonforma mal-ħtiġijiet essenzjali u ma provvedimenti oħrajn rilevanti li hemm fid-Dirrettiva

	1999/5/EC.
Magyar [Hungarian]	Alulírott, <i>[gyártó neve]</i> nyilatkozom, hogy a <i>[... típus]</i> megfelel a vonatkozó alapvető követelményeknek és az 1999/5/EC irányelv egyéb előírásainak.
Polski [Polish]	Niniejszym <i>[nazwa producenta]</i> oświadczam, że <i>[nazwa wyrobu]</i> jest zgodny z zasadniczymi wymogami oraz pozostałymi stosownymi postanowieniami Dyrektywy 1999/5/EC.
Português [Portuguese]	<i>[Nome do fabricante]</i> declara que este <i>[tipo de equipamento]</i> está conforme com os requisitos essenciais e outras disposições da Directiva 1999/5/CE.
Slovensko [Slovenian]	<i>[Ime proizvajalca]</i> izjavlja, da je ta <i>[tip opreme]</i> v skladu z bistvenimi zahtevami in ostalimi relevantnimi določili direktive 1999/5/ES.
Slovensky [Slovak]	<i>[Meno výrobcu]</i> týmto vyhlasuje, že <i>[typ zariadenia]</i> spĺňa základné požiadavky a všetky príslušné ustanovenia Smernice 1999/5/ES.
Suomi [Finnish]	<i>[Valmistaja = manufacturer]</i> vakuuttaa täten että <i>[type of equipment = laitteen tyyppimerkintä]</i> tyyppinen laite on direktiivin 1999/5/EY oleellisten vaatimusten ja sitä koskevien direktiivin muiden ehtojen mukainen.

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