

**WM5030-OD WiMAX Outdoor Modem**  
**Quick Installation Guide**



Version 1.3

TECOM CO., LTD

2009/9/1

## TABLE OF CONTENTS

<b>1. UNPACK THE OUTDOOR MODEM.....</b>	<b>1</b>
<b>2. MAKING CONNECTIONS.....</b>	<b>2</b>
<b>3. OMK.....</b>	<b>3</b>
<b>4. NETWORK CONFIGURATION.....</b>	<b>5</b>
4.1 SETUP YOUR COMPUTER TO CONFIGURE WM5030-OD .....	5
4.2 MAKING CONNECTION TO WIMAX NETWORK.....	7

## 1. UNPACK THE OUTDOOR MODEM

The following figure lists the items shipped with WM5030OD outdoor modem:

1. PoE Adapter: Qty 1
2. 1.5 M 8P4C gray Ethernet cable (between computer and PoE): Qty 1
3. 1 M 8P8C white Ethernet cable (between PoE and Modem) <sup>note</sup>: Qty 1
4. Quick Installation Guide: Qty 1
5. WM5030-OD outdoor modem: Qty 1
6. Mounting kit: Qty 1
7. RJ45 connector water sealing plug: Qty 1
8. CD-ROM: Qty 1
9. 1.5M Power Cable for PoE Adapter: Qty 1
10. Warranty Card : Qty 1

Note: The length of Ethernet cable required connecting outdoor modem and PoE adapter pending on actual installation requirements, and it is thus not provided. The cable provided is for configuration or testing purpose only – not for installation purpose.

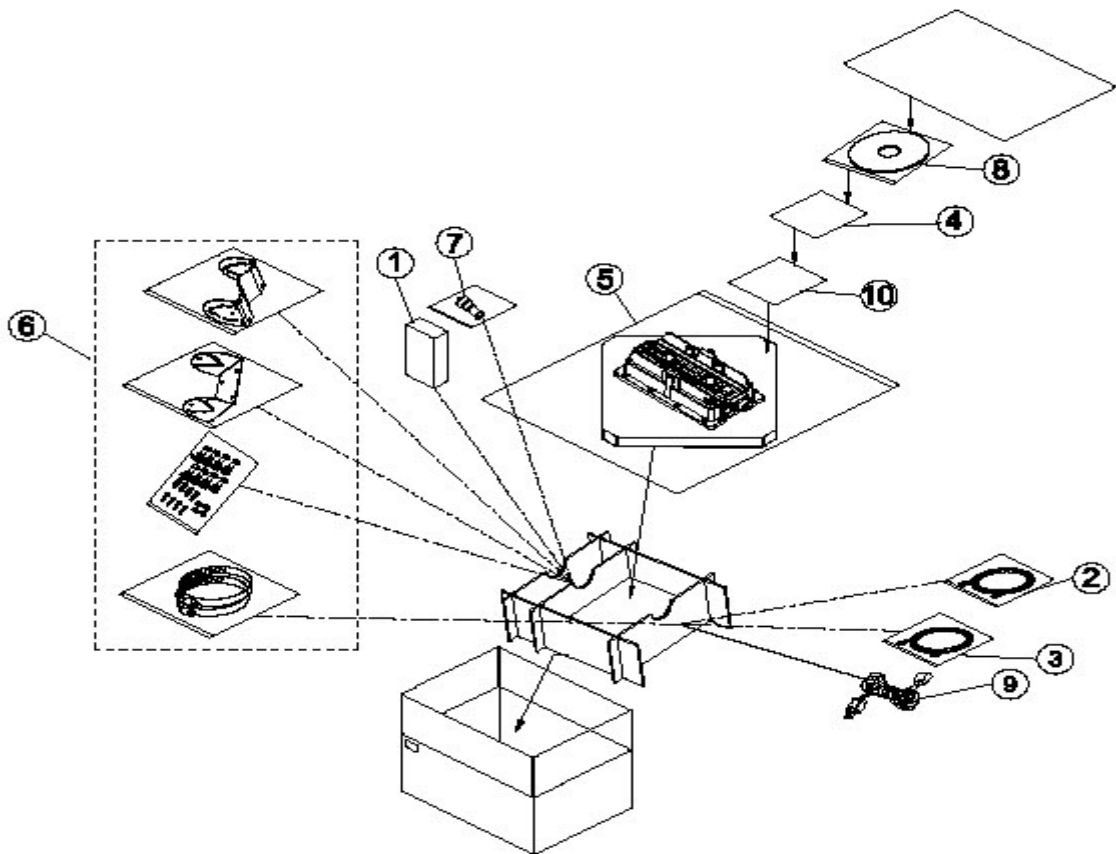
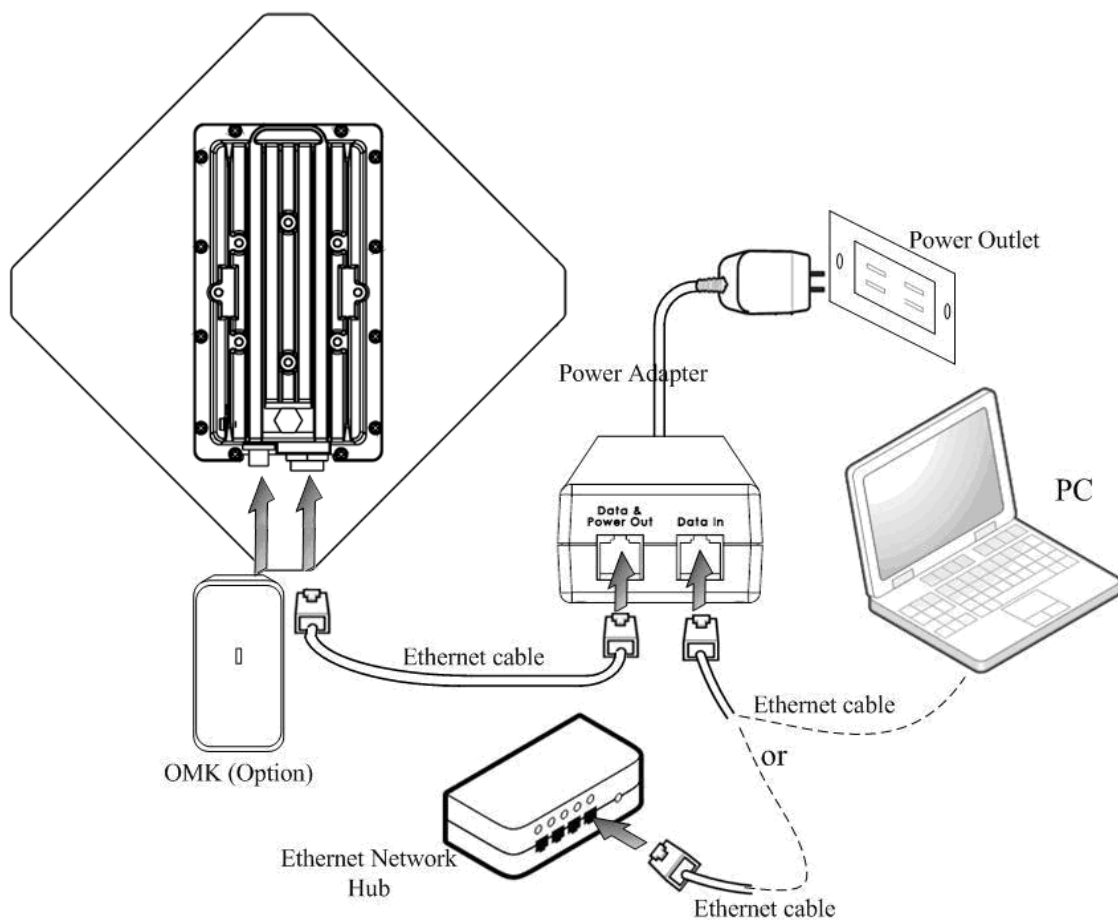


Figure 1. WM5030 Outdoor Modem Package Contents

## 2. MAKING CONNECTIONS

In order to configure WM5030 outdoor modem, please take the following steps:

1. Connect the white Ethernet cable between the RJ-45 connector located at the bottom of the outdoor modem and the “Data & Power Out” port of PoE adapter.
2. Connect the gray Ethernet cable between the “data in” port of the PoE adapter and your personal computer.
3. Plug the PoE adapter power cable to power outlet
4. Plug the OMK (Outdoor modem Monitoring Kit) to OMK connector



**Figure 2. Typical Installation Diagram**

### 3. OMK

OMK (Outdoor modem Monitoring Kit) is a convenient tool for technician during installation, testing and maintenance for WM5030-OD. It is designed for easy carrying and an excellent tool to display radio quality for technician to adjust orientation and tilt of WM5030-OD for best reception from WiMAX base station. OMK features include:

- CINR signal quality
- Link status
- Power indicator
- Reset to factory default

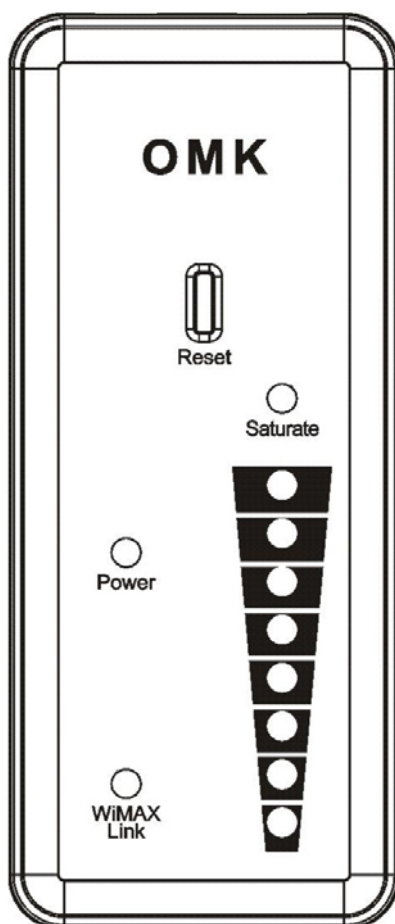


Figure 3. OMK

**Table 1: Definitions of OMK LED**

	Color	Function									
<b>WiMAX Signal Indicator</b>	Green	CINR	$31 \geq$	$29 >$	$27 >$	$24 >$	$20 >$	$15 >$	$10 >$	CINR	
		$>$	$\geq$	$\geq$	$\geq$	$\geq$	$\geq$	$\geq$	$\geq$	$\geq$	$< 5\text{dBm}$
		31dBm	29dBm	27dBm	24dBm	20dBm	15dBm	10dBm	5dBm		
<b>Saturate LED</b>	Red	RSSI $> -20\text{dBm}$ : ON (saturate)									
<b>WiMAX Link LED</b>	Green	Operational: ON Not in operation: OFF									
<b>Power LED</b>	Green	Power-on: ON, Power-off: OFF									
<b>Reset Button</b>		Push and hold for 20 seconds will reset WM5030-OD to factory default									

## 4. NETWORK CONFIGURATION

### 4.1 Setup your computer to configure WM5030-OD

Step 1: Complete prior section 2 to connect your computer and WM5030OD.

Step 2: Make sure the power indicator on Modem is on.

Step 3: Find your “Network Connections” setting in “Control Panel”

Step 4: In your “Network Connections”, right click “Local Area Connection”, and then select “Properties”. (Ref. Figure 4)

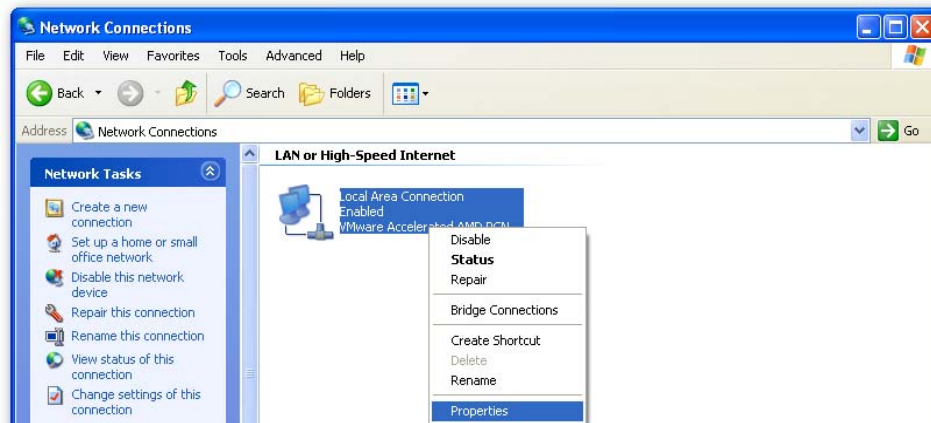
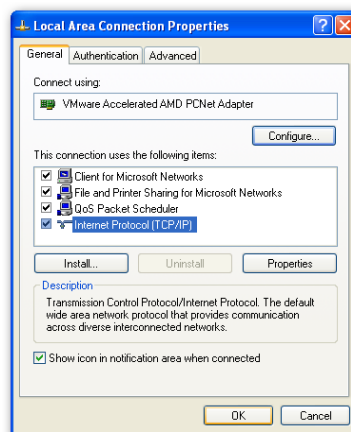


Figure 4. Local Area Connection Property

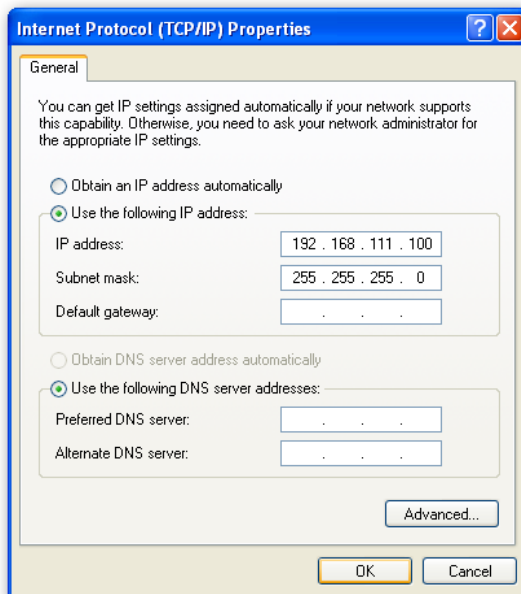
Step 5: A dialog that contains properties of this network connection appears as below. Please select “Internet Protocol (TCP/IP)” and click “OK” (Ref. Figure 5)



**Figure 5. TCP/IP**

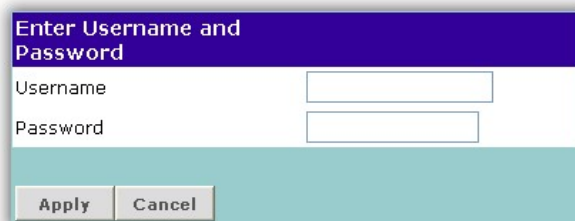
Step 6: Enter 192.168.111.100 into IP address and 255.255.255.0 into Subnet mask, and click “OK”.

(Ref. Figure 6)



**Figure 6. IP Configuration**

Step 7: Enter the IP address (default is 192.168.111.113) of WiMAX modem into Web Browser. A dialog Box will pop out to request for user login information (Ref. Figure 7). Please enter management username/password into the required fields, then click “Apply” to continue. The username/password for outdoor modem technical installer is **isp/isp**. After successfully log in, WM5030-OD home page is displayed.



**Figure 7. Login**

Note: For subscriber, the default username/password is subscriber/ subscriber with limited control features.



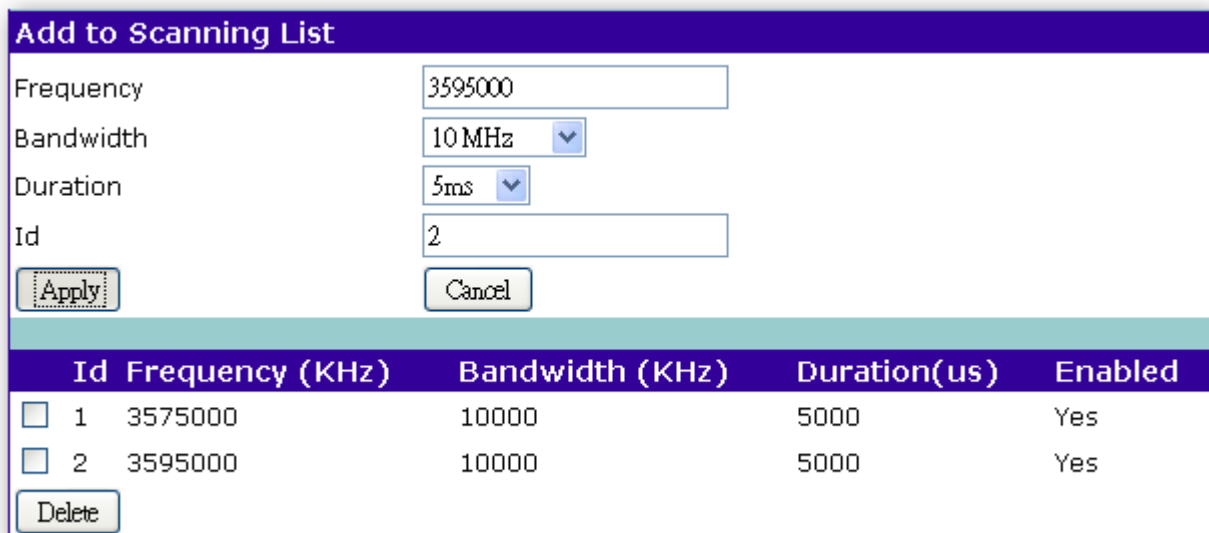
#### 4.2 Making Connection to WiMAX Network

Step 1: Press “Disconnect” button. If user is already connected to WiMAX network, then new channel cannot be added to the scan list (Ref. Figure 8)



**Figure 8. Disconnect before Scanning**

Step 2: Type in the central frequency of the WiMAX operator, and select the correct bandwidth to add new frequency to the scan list (Ref. Figure 9).



**Figure 9. Add Operator Central Frequency to Scan List**

Note: A channel cannot be added when WiMAX modem is scanning. Press “Disconnect” to stop.

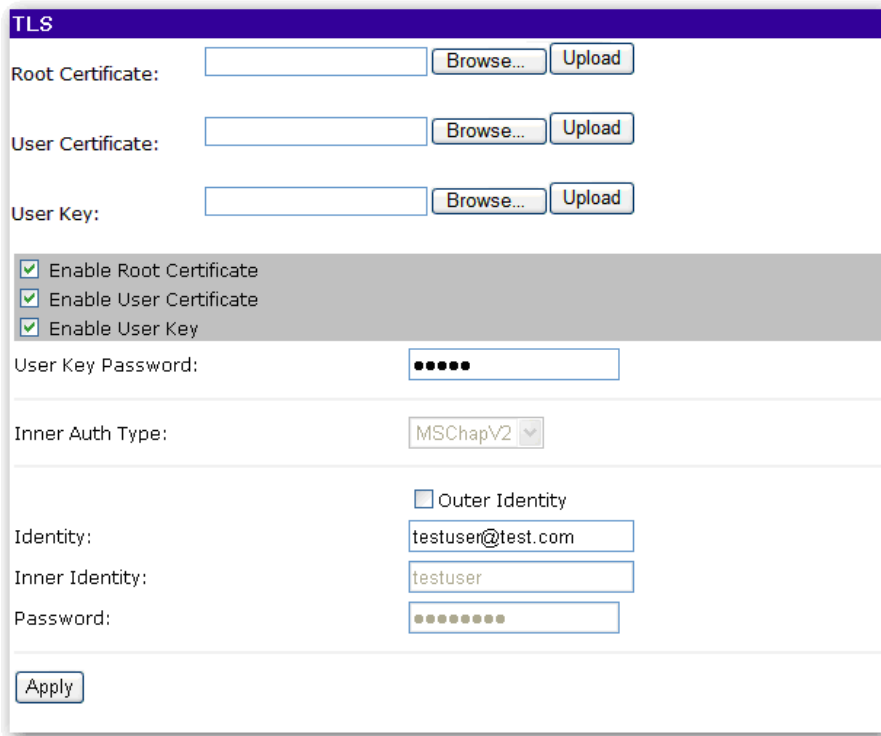
Step 3. To use the authentication feature, user must provide security settings. Please first select “**Authentication**” at the right of the modem home page. If operator requires **TLS** setting, please follow steps **4-A**. If operator requires **TTLS**, then please follow step **4-B** (Ref. Figure 10).



**Figure 10. Choose TLS or TTLS for Authentication**

Note: The factory default Authentication setting is “None”.

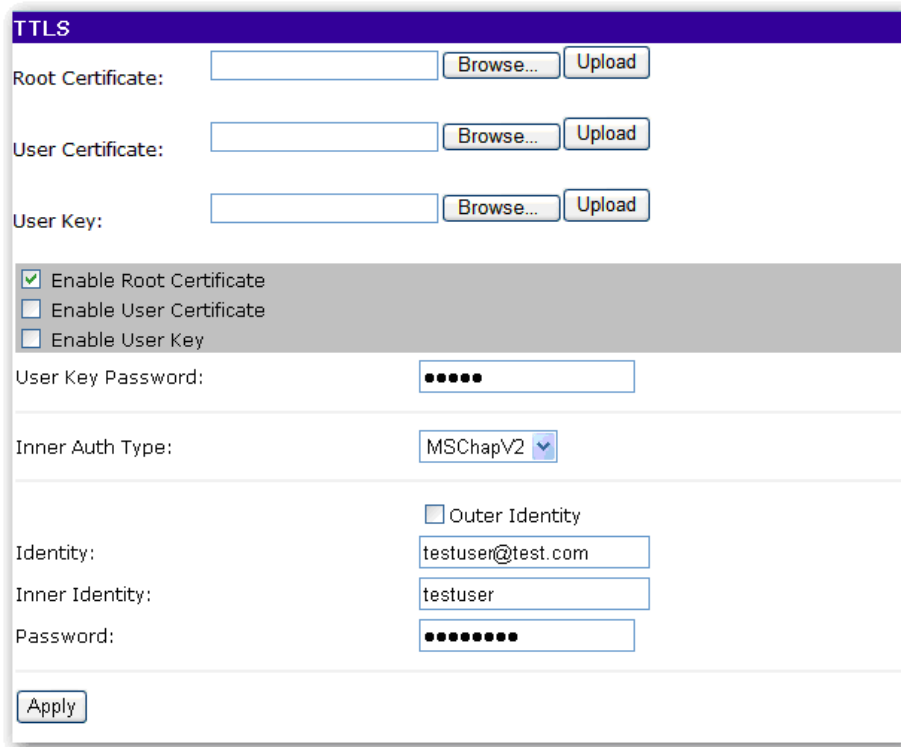
Step 4-A: Please locate the proper CA Certificate file, User Certificate file and Decryption Key file to upload to WM5030-OD. Please contact your WiMAX operator for Password of Decryption Key file. Please also type in account ID and password (Ref. Figure 11).



**Figure 11. TLS Configuration**

Note: The above figures are just for example. For using the WiMAX service, please use the correct authentication type and user information that ISP provided for the authentication setting.

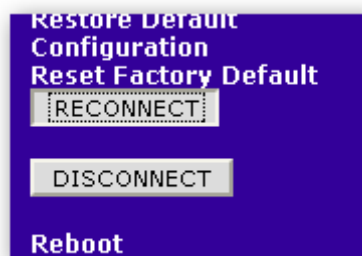
Step 4-B: Please locate the proper CA Certificate file, User Certificate file and Decryption Key file to upload to WM5030-OD. Please contact your WiMAX operator for Password of Decryption Key file. Please select the desired Inner EAP category and enter Identity, Inner Identity and Password, then click “Apply” to configure. (Ref. Figure 12)



**Figure 12. TTLS Configuration**

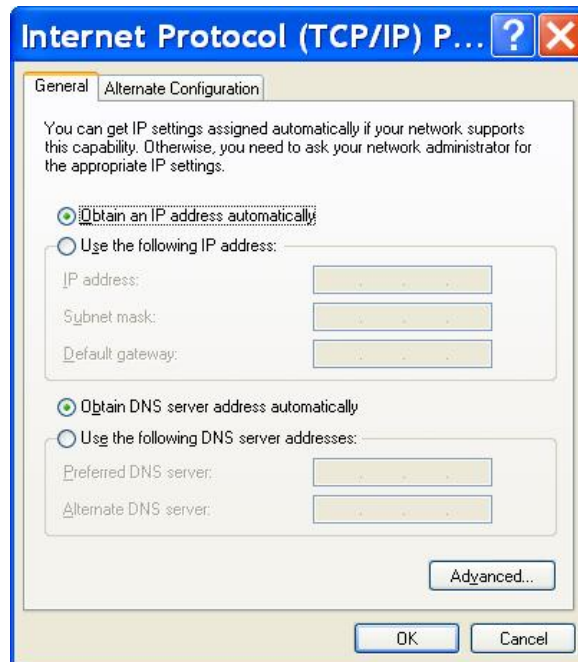
Note: The above figures are just for example. For using the WiMAX service, please use the correct authentication type and user information that ISP provided for the authentication setting.

Step 5: Press “Reconnect” button, to connect to WiMAX network.



**Figure 13. Connecting to WiMAX Network**

Step 6: Now, please change the network setting of your computer in Internet Protocol (TCP/IP) properties, select “Obtain an IP address automatically” and select “Obtain DNS server address automatically”.



**Figure 14. Configure Your Computer TCP/IP Setting**

Step 7: Open web browser such as Internet Explorer (IE) to access Internet to check whether you have successfully connected to the Internet.

**IMPORTANT NOTE:**

To comply with the RF exposure compliance requirements, the antenna(s) used for this transmitter must be installed to provide a separation distance of at least 1 meter from all persons and must not be co-located or operating in conjunction with any other antenna or transmitter. No change to the antenna or the device is permitted. Any change to the antenna or the device could result in the device exceeding the RF exposure requirements and void user's authority to operate the device.