

USER MANUAL

DWM-112

VERSION 1.0



D-Link[®]

WIMAX

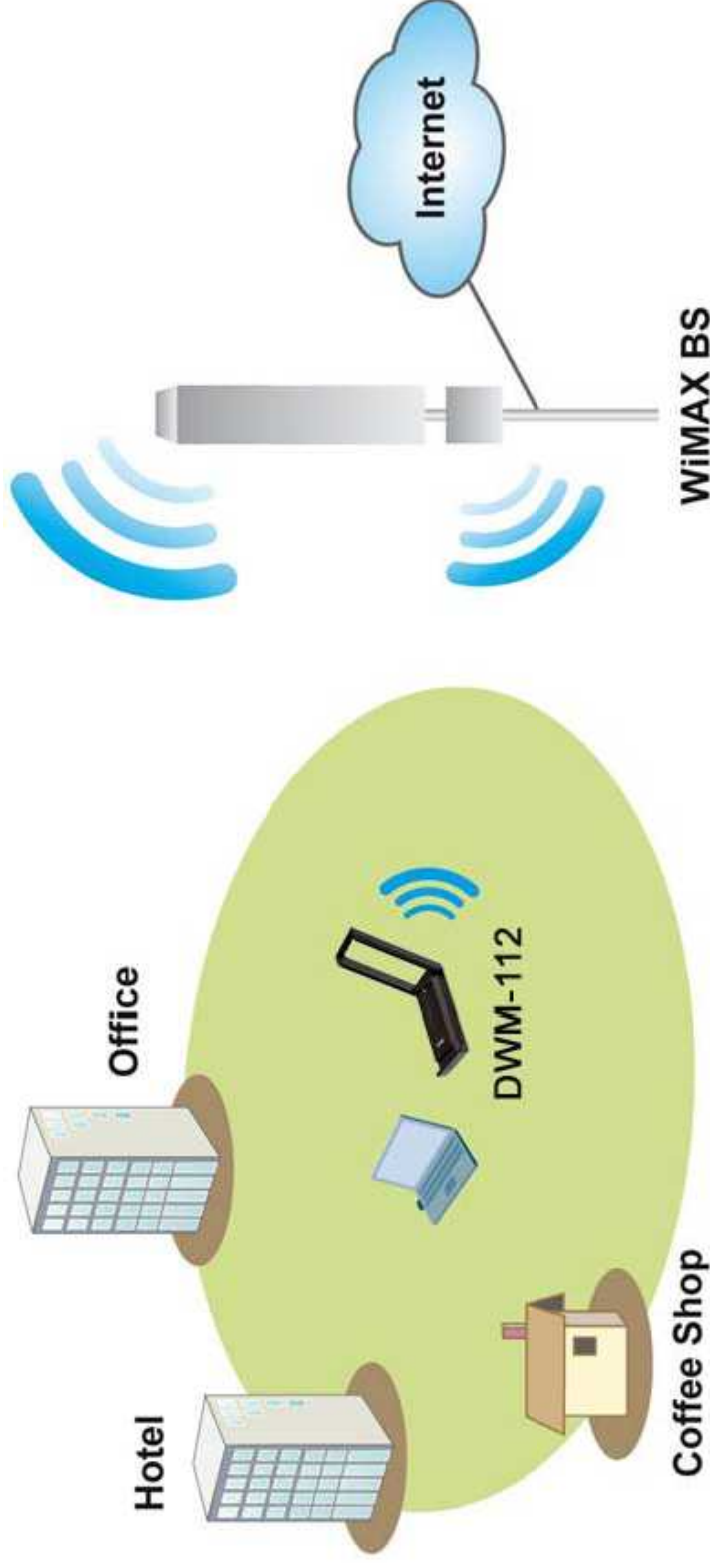


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Introduction

Worldwide Interoperability for Microwave Access (WiMAX) is the 802.16 networking standard that wirelessly provides high bandwidth at long distances. D-Link DWM-112, with IEEE 802.16e-2005 standard, is a broadband wireless access (BWA) USB adapter. With simple configurations, you can wirelessly access high-speed Internet via the WiMAX base station (BS) of your Internet service provider (ISP) within its coverage area. Simply plug the D-Link DWM-112 Adapter into your USB, and get started.



Package Contents

- DWM-112 IEEE802.16e WiMAX USB adapter
- Extension cable

System Requirements

- Computer with:
- At least one USB 2.0 port
- Windows XP/Vista
- WiMAX Utility

Features

- Supports IEEE802.16e-2005 Wireless MAN-OFDMA and Wireless HUMAN air interface
- Visual graphic icon and signal strength for connecting and disconnecting WiMAX
- Radio on/off function for when traveling on an airplane or any location that prohibits radio usage
- EAP base authentication for security

Hardware Overview



Power LED: A steady green light indicates that the WIMAX Adapter is ready for use.

Hardware Installation

1. Find an open USB port.
2. Insert the DWM-112 into the USB port.

Note: Make sure that you have installed the WiMAX utility before inserting the adapter into your USB port. The WiMAX utility also includes the WiMAX adapter driver.

Before You Start

Before starting installation of the device and utility, make sure that you have the following information obtained from your ISP:

- User name/Identity
- Password
- NAI. (If necessary)
- Frequency (If necessary)

Note: If you need to configure the frequency of WiMAX channels, use WiMAX Utility Advanced mode for configuration.

DWM-112 WiMAX Utility

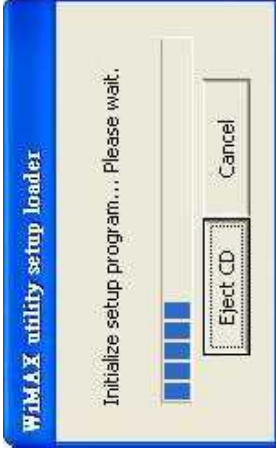
The WiMAX Utility helps you to configure the settings of the WiMAX adapter. You may need to get the information from your Internet Service Provider (ISP) in order to connect to the Internet with the WiMAX Adapter.

Installing the Utility

When you see the Found New hardware wizard appear, please click **cancel**.



The Autorun program on the DWM-112 will launch and install the drivers automatically.



Double-click on the **Setup.exe** file and the installation dialog will then box appear. Click **Next** to proceed.



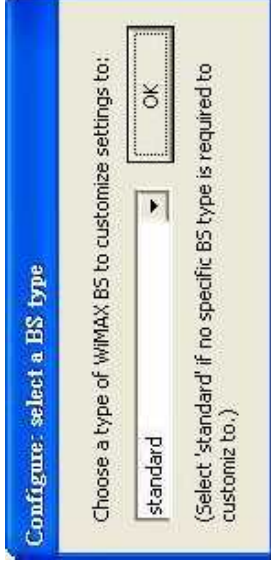
Click **Install** to start the installation.



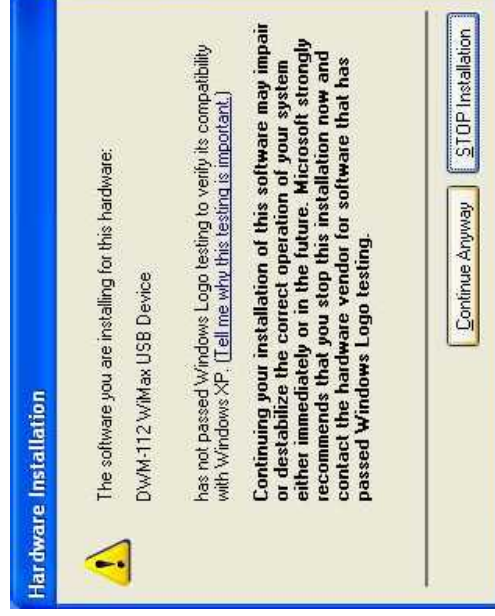
The process bar indicates that the installation is proceeding.



Chooses a type of wimax BS to customize Settings

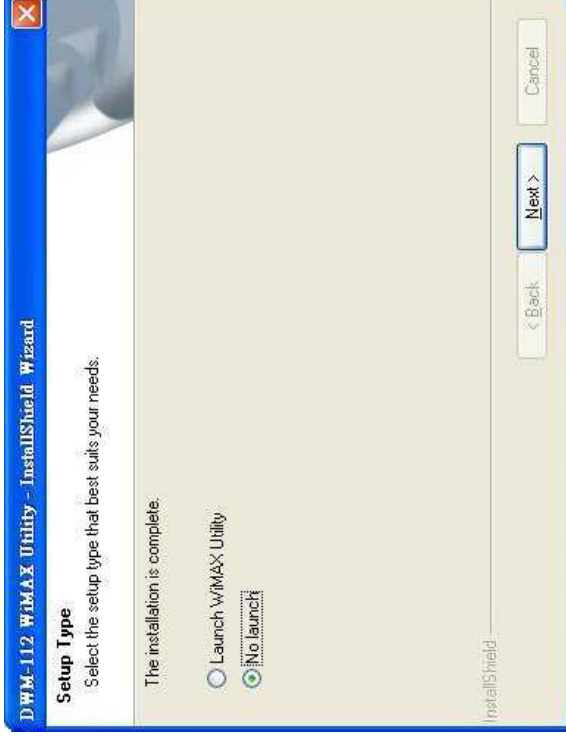


Click **Continue Anyway** to continue the installation



If you select **Launch WiMax Utility**, the software will start after clicking **Next**. If **No launch** is selected, the software will not automatically start, and you can go to **Start > Programs > D-Link > DWM-112 WiMAX Adapter**, and select one of the WiMax Utility modes to start.

Once, you will see an icon on the taskbar as shown below. Double-click on the D-Link icon to open up the WiMax Utility screen.



Accessing the WiMAX Utility (User mode)

Click **Start** > **Programs** > **D-Link** > **DWM-112 WiMAX Adapter** > **D-Link WiMAX Utility (User mode)** to start the utility, or double-click  – located in the taskbar – to start **WiMAX Utility (User mode)**.

Use WiMAX Utility

Basic Configurations of WiMAX settings

Steps:

- 1) Open the page of settings. Select “**Add...**” and enter a string to add a new operator’s settings.





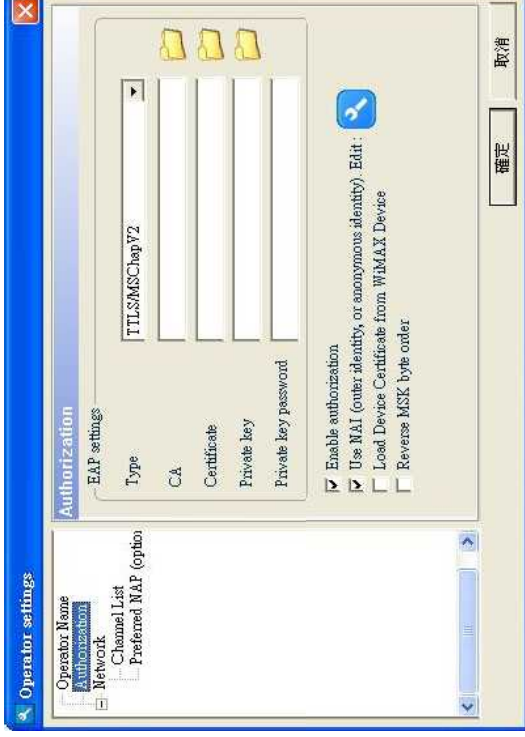
2) Press “**Edit**” to configure a set of settings for this operator, like authentication and channel settings.



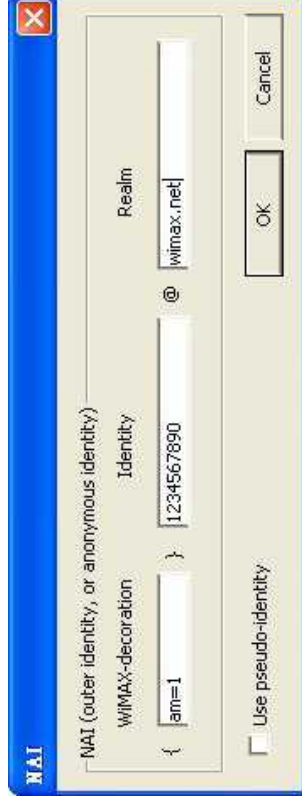
3) Configure authentication settings.
Consider to enable or disable authentication.



Check “Use NAI” if and only if you need to use EAP outer-identity.
Press the Edit icon and enter an outer-identity string in the proper field.

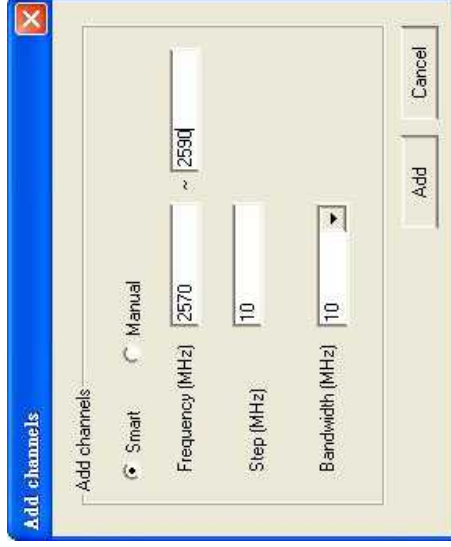
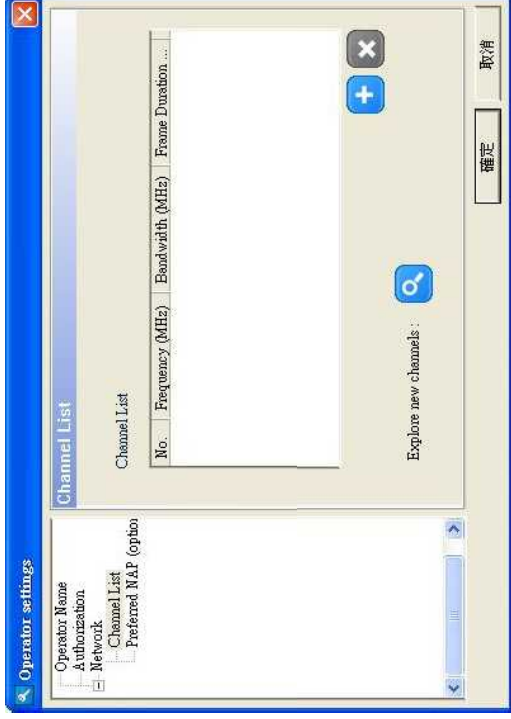


In this example, the final outer-identity is {am=1} (Note: 1. WiMAX-decoration and Realm are optional. 2. Identity should not include symbol '{', '}', or '@').



4) Configure WiMAX channel settings
Press “+” to add new channels.

5) If your authentication type (like TLLS/MSCHAPv2) needs user name and password, fill them in the page of settings.



- 6) Press “**Apply**” to apply this operator’s settings and start a connection.



Scan available WiMAX signals

Open the Scan page to scan WiMAX signals in the current operator’s channel list.

Connect/Disconnect/Disable RF



Press to connect or disconnect.




Press to disable the device's RF functions.





For Advanced User

Use button  to access advanced functions.

WiMAX Link Status



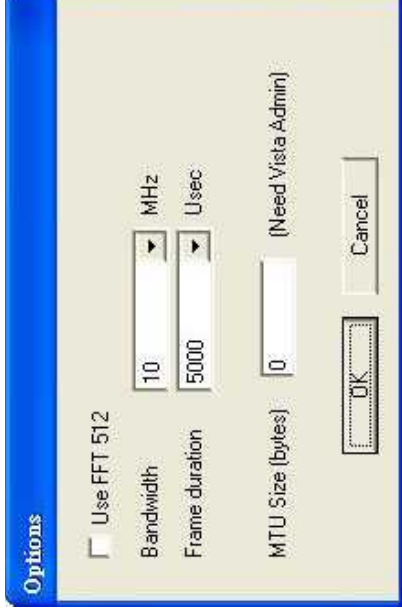
Debug / Diagnostic Tool

Click “**Log**” to open log windows. Contents are saved to 2 log files in the program folder. Log files help developers analyze and debug problems.



Change Bandwidth and Frame duration

Both WiMAX bandwidth and frame duration are global settings.



Product Version



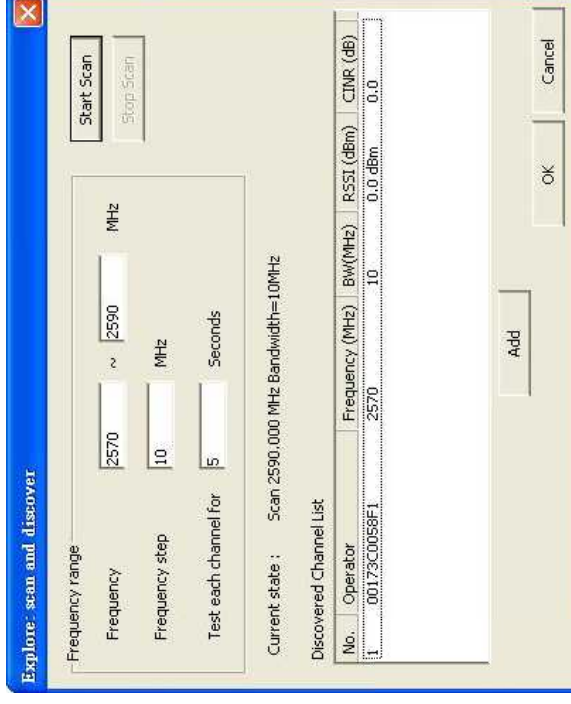
Explore New Channels

This function can help you find out correct frequencies of available WiMAX channels in your environment.

Edit -> Channel List -> Explore new channels.

Input a frequency range and press **Start Scan** to discover new channels.

Once a new channel is discovered, you can **Stop Scan** and select it and add it to the operator's Channel List.



Technical Specifications

Frequency Range

- 2.5GHz radio front-end cover from 2.5GHz to 2.69GHz (NCC Frequencies 2.5025~2.6875GHz)

RF/Antenna

- Transmit power 23dBm
- Embedded antenna

Modulation

- Support QPSK, 16QAM, 64QAM modulation (DL)

Mode

- Support TDD (Time Division Duplex) mode

Channel Bandwidth

- For profile 3A, support 5MHz and 10MHz bandwidth

Standards

- IEEE 802.16e-2005

Interface

- USB 2.0

LED Indicator

- Power

Authentication

- Support PKMv2 protocol, EAP-based authorization, EAP-TLS, EAP-TTLS.

Utility

- Device drivers: Windows XP/Vista

Warning Statement

Federal Communication Commission Interference Statement

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 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.

==== RF Exposure statement for mobile device without SAR measurement=====

IMPORTANT NOTE:

FCC 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.

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

減少電磁波影響，請妥適使用