User's Manual

433Mbps 802.11AC Dual Band Wireless USB Adapter

► WDL-U601AC

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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 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:

1. Reorient or relocate the receiving antenna.
2. Increase the separation between the equipment and receiver.
3. Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
4. Consult the dealer or an experienced radio technician for help.

FCC Caution

To assure continued compliance, use only shielded interface cables when connecting to computer or peripheral devices. Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the 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.

(2) This device must accept any interference received, including interference that may cause undesired operation.

Federal Communication Commission (FCC) Radiation Exposure Statement

This equipment complies with FCC radiation exposure set forth for an uncontrolled environment. In order to avoid the possibility of exceeding the FCC radio frequency exposure limits, human proximity to the antenna shall not be less than 20 cm (8 inches) during normal operation.

CE Mark Warning

This is a class B device. In a domestic environment, this product may cause radio interference in which case the user may be required to take adequate measures.

R&TTE Compliance Statement

This equipment complies with all the requirements of DIRECTIVE 1999/5/CE OF THE EUROPEAN PARLIAMENT AND THE COUNCIL OF 9 March 1999 on radio equipment and telecommunication terminal equipment and the mutual recognition of their conformity (R&TTE). The R&TTE Directive repeals and replaces in the directive 98/13/EEC (Telecommunications Terminal Equipment and Satellite Earth Station Equipment) as of April 8, 2000.

Safety

This equipment is designed with the utmost care for the safety of those who install and use it. However, special attention must be paid to the dangers of electric shock and static electricity when working with electrical equipment. All guidelines of this and of the computer manufacture must therefore be allowed at all times to ensure the safe use of the equipment.

EU Countries Intended for Use

The ETSI version of this device is intended for home and office use in Austria, Belgium, Denmark, Finland and France (with frequency channel restrictions), Germany, Greece, Ireland, Italy, Luxembourg, the Netherlands, Portugal, Spain, Sweden and the United Kingdom.

The ETSI version of this device is also authorized for use in EFTA member states like Iceland, Liechtenstein, Norway and Switzerland.

WEEE regulation

To avoid the potential effects on the environment and human health as a result of the presence of hazardous substances in electrical and electronic equipment, end users of electrical and electronic equipment should understand the meaning of the crossed-out wheeled bin symbol. Do not dispose of WEEE as unsorted municipal waste and have to collect such WEEE separately.

Revision

User's Manual of PLANET 802.11ac Dual Band Wireless USB Adapter

Model: WDL-U601AC

Rev: EM-WDL-U601AC_v1.0 (August, 2015)

Part No. 2081-E23230-000

CONTENTS

Chapter 1. PRODUCT INTRODUCTION

1.1 Package Contents

The following items should be in the package:

- WDL-U601AC -- 802.11ac Dual Band Wireless USB adapter
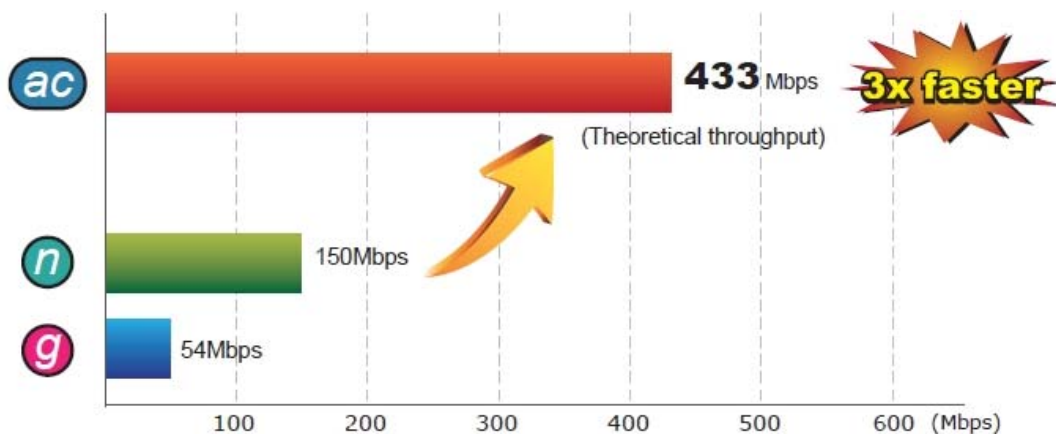- Quick Installation Guide
- CD (including driver and user's manual)

Note	If there is any item missing or damaged, please contact the seller immediately.

1.2 Product Description

**High-speed 802.11ac Wireless Experience**

PLANET WDL-U601AC offers a reliable and cost-effective wireless extension solution. It adopts IEEE 802.11ac standard with 1T1R antenna technology and is backward compatible with IEEE 802.11a and 802.11n. The WDL-U601AC supports USB 2.0 interface that integrates with one transmit channel and one concurrent receive channel to enable the speed to go up to 433Mbps for both data upload and download.

433 Mbps
(Theoretical throughput)

3x faster

ac

n 150Mbps

g 54Mbps

100   200   300   400   500   600 (Mbps)

Maximum Speed: Next Generation 802.11ac vs. 802.11n

2.4G/5G Dual Band Wireless Connectivity

The WDL-U601AC is a cost-effective, highly-integrated USB Wireless Adapter containing the dual band technology that supports 2.4GHz or 5GHz wireless signals. It supports data rate of up to 433Mbps and fully complies with 802.11a/b/g/n/ac specifications, providing feature-rich wireless connectivity at high standards, and delivering reliable throughput from an extended distance. Optimized RF architecture and baseband algorithms provide superb performance with low power consumption. The WDL-U601AC Wireless USB Adapter is designed to support standard based features in the areas of security, quality of service and international regulation, giving end users the greatest performance anytime in any circumstance.
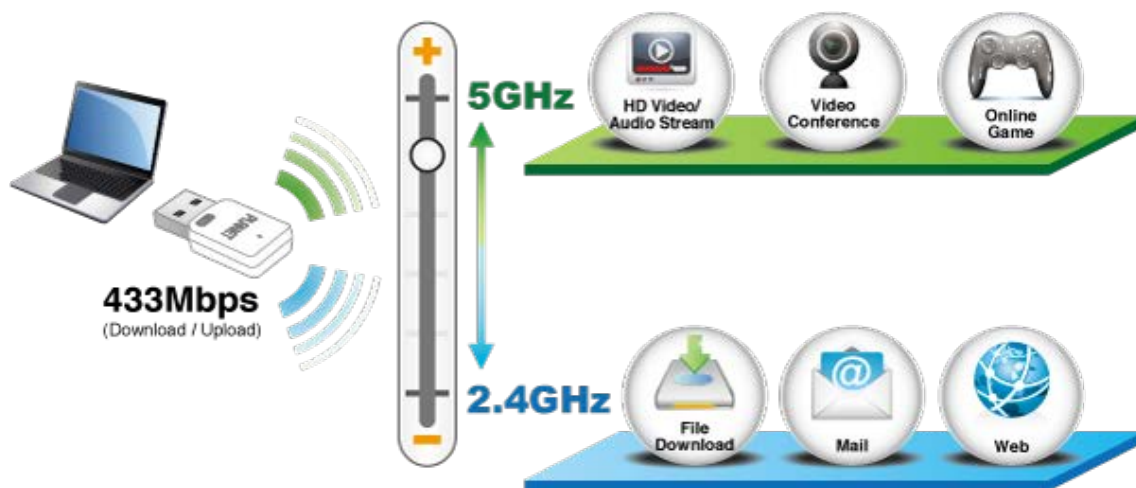
Benefits of High-speed 5GHz Signal

Since there are more and more wireless applications and electric devices using the radio frequency of 2.4GHz, the wireless channel of 2.4GHz has been already too crowded for clients to enjoy the high-speed wireless connection. In order to avoid the wireless interference between each other, the WDL-U601AC provides users with the radio frequency of 5GHz for watching HD videos or playing online games. The Wireless USB Adapter is suitable for multimedia applications requiring wider bandwidth.

Advanced Wireless Security

The WDL-U601AC provides advanced security features including 64-/128-bit WEP, WPA/WPA2 and WPA-PSK/WPA2-PSK with TKIP/AES encryption. Furthermore, in order to simplify the security configurations, WPS (Wi-Fi Protected Setup) function is included to offer a convenient and fast connection method for users as well.

WPS (Wi-Fi Protected Setup)
Quick & Easy Wireless Connection

Software Access Point Function for Wireless Connection Sharing

More than just being an adapter for PC and laptop connecting to high-speed wireless network, the WDL-U601AC can also become a wireless access point. By configuring the USB wireless adapter, users can switch the WDL-U601AC operation mode between Station mode and Access Point mode. When the WDL-U601AC is in the Access Point mode, it turns to a Wi-Fi Hotspot. The Wi-Fi supported devices such as iPhone/Android/Windows Phone/iPad/NDS/PSP can connect to it and share the wireless access easily. Therefore, travelers would then be worry-free to connect to Internet wirelessly via the WDL-U601AC when there is only wired Internet available anywhere.

1.3   Product Features

- 2.4GHz/5GHz dual band wireless connectivity
- Complies with IEEE 802.11a/n/ac and IEEE 802.11/b/g/n standards
- Built-in internal antennas with 1T1R MIMO technology
- Maximal speed of upload and download is up to 433Mbps
- 5GHz band optimizes HD video streaming and online gaming
- USB 2.0/1.1 attached interface
- Supports WEP 64-/128-bit, WPA, WPA-PSK, WPA2, WPA2-PSK (TKIP/AES encryption)
- Wi-Fi Protected Setup (WPS) support
- Supports Software AP mode
- Windows XP, Win7, Win 8, Linux, and MAC OS X ready
- Easy to install using the Multi-language Setup Wizard

1.4   Hardware Description

- **Case Outlook**

- **LED Definition**

There is an LED on the wireless adapter. When the data is transmitting, the LED will flash.

LED Indicator
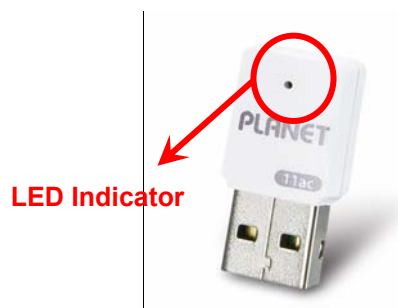
LED	Color	Description
Flashing		Data transmitting or receiving
Off	BLUE	The USB adapter has not been installed or the radio of the wireless USB adapter has been disabled from wireless utility

Chapter 2. INSTALLATION

2.1 Microsoft Windows Driver Installation

Note	1. If you have installed other wireless adapters before, please uninstall the existing drivers and utilities first.
	2. The following installation is performed in Windows 7. The procedures in other operating systems are similar.

Please follow the instructions below to install the USB Wireless Adapter:
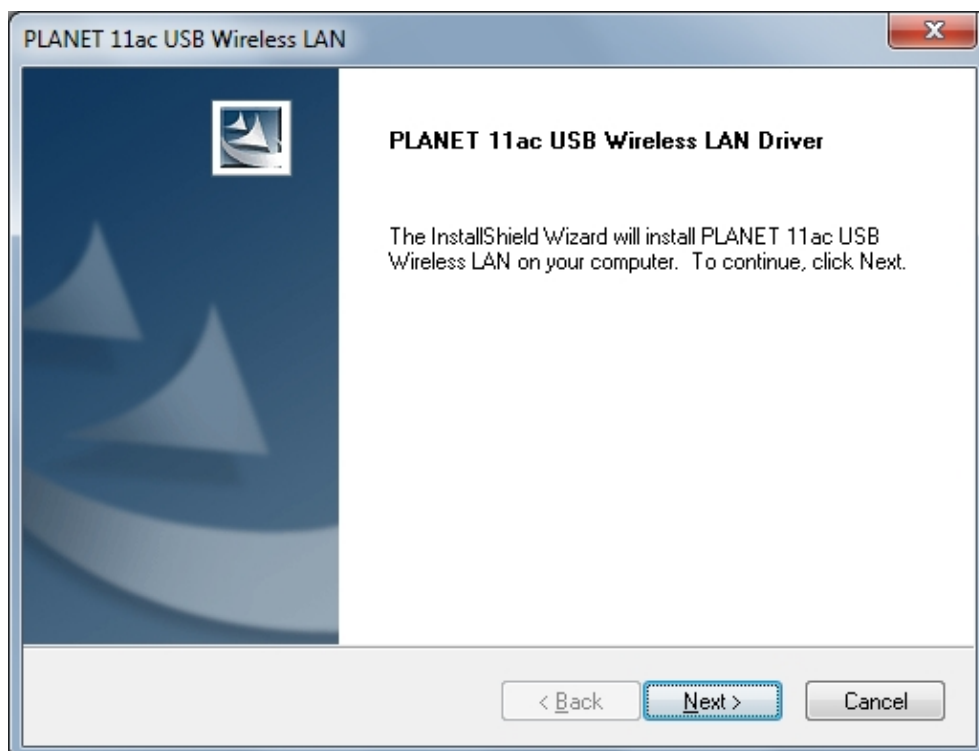
Step 1. Insert the bundled CD into the CD-ROM drive.

Step 2. Then a webpage will appear. Click the "**Driver**" hyperlink to initiate the installing wizard.

Step 3. Choose the setup language.

**Step 4.** Click the "**Next**" button to start installing the driver.

Step 5. Please select "**Yes, I want to restart my computer now**" and click "**Finish**" to finish the installation.
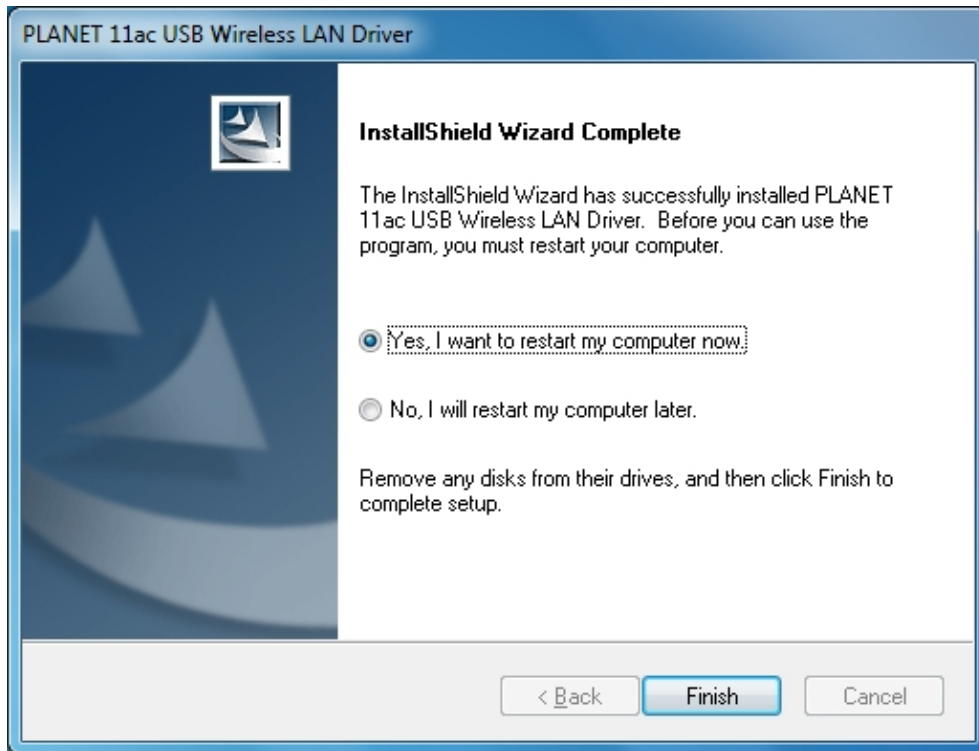

Step 6. Insert the USB wireless network card into an empty USB 2.0 port of your computer when computer reboots. Never use force to insert the card; if you feel it's stuck, flip the card over and try again.
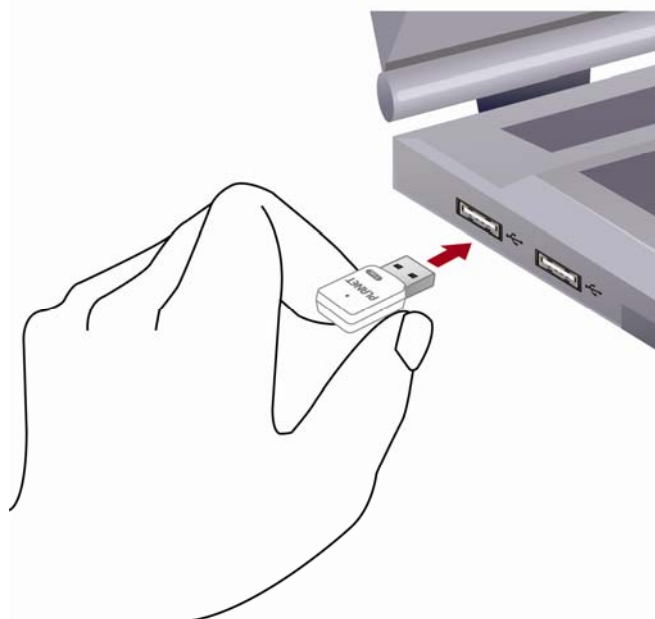
Step 7.   The system will find the new hardware and display the message below.
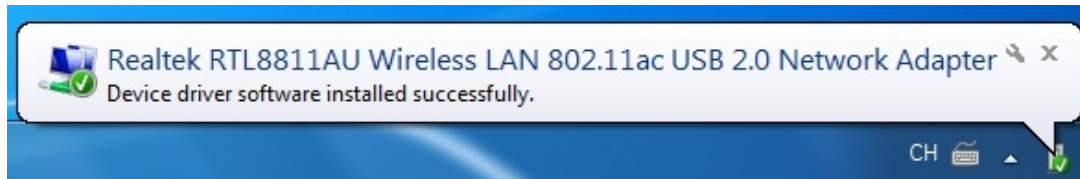
After the driver of wireless adapter has been installed successfully, you'll select the wireless network at lower-right corner of the screen. And you can start to surf the internet by connecting to the router.
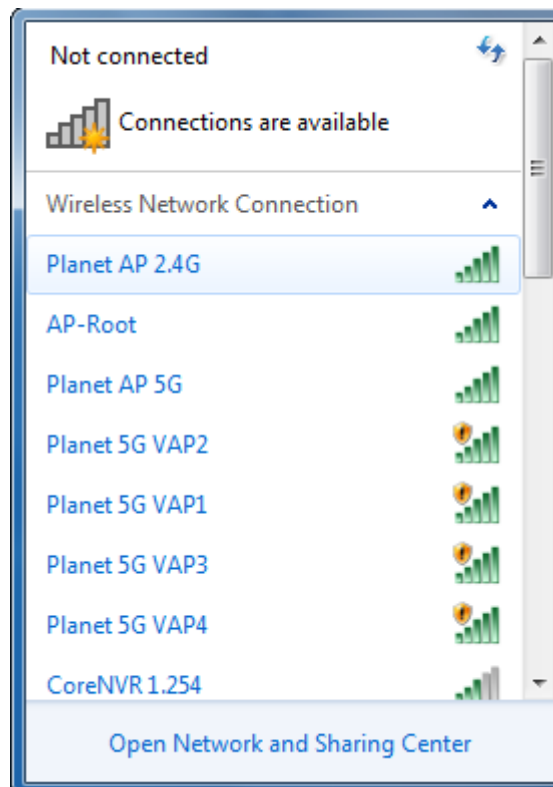
Chapter 3. CONNECTING TO WIRELESS NETWORK

To use wireless network, you have to connect to a wireless access point first. You can use **Windows Zero Config utility** (comes with Windows XP operating system).

3.1 Windows Zero Configuration

Windows XP/Vista/7 has a built-in wireless network configuration utility called "**Windows Zero Configuration**" (WZC). You can also use WZC to configure your wireless network parameter:

3.1.1 Windows XP - Use Windows Zero Configuration

Step 1. Click the "**Start**" button (should be located at the bottom-left corner of windows desktop), click "**Control Panel**", and then click "**Network and Internet Connections**" in Control Panel.
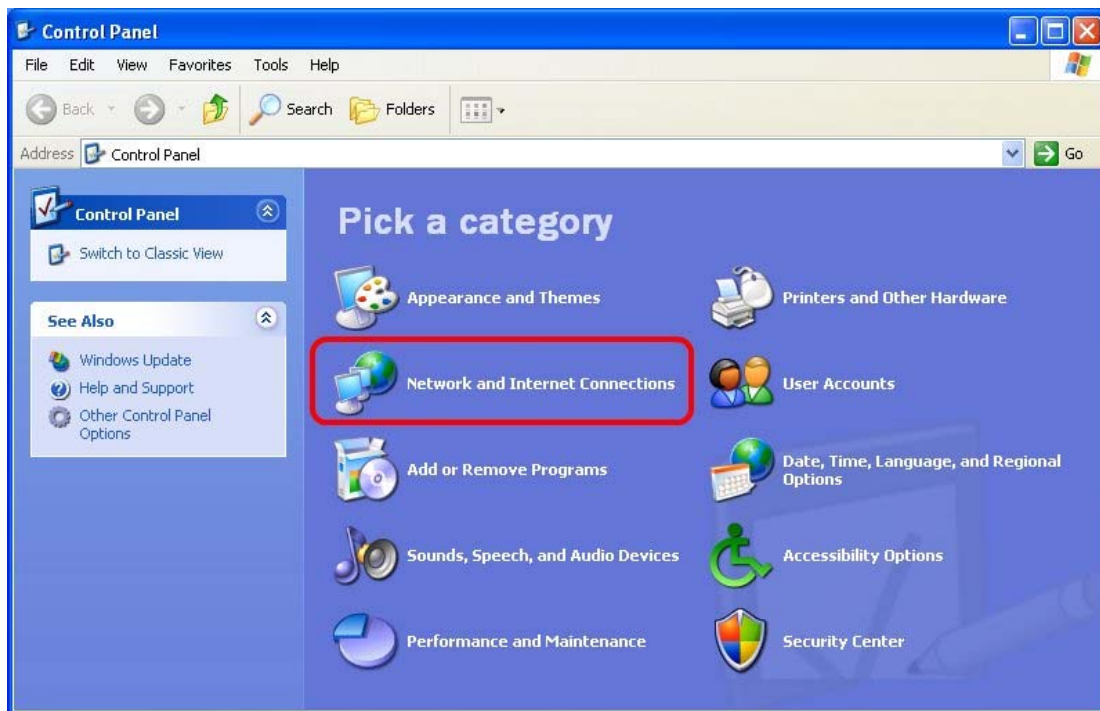
Step 2. Double-click "**Network Connections**".
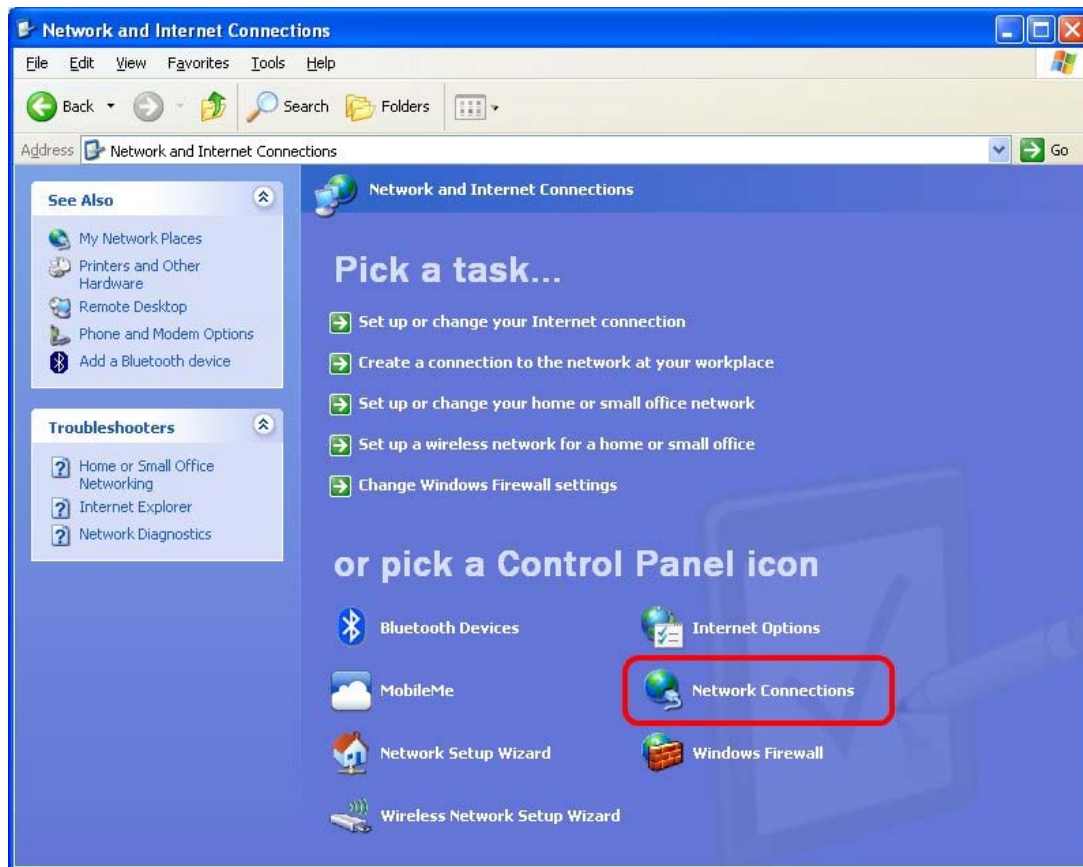
Step 3. Right-click "**Wireless Network Connection**" (it may have a number as suffix if you have more than one wireless network adapter; please make sure you right-click the **PLANET Wireless LAN 802.11ac USB Network Adapter**), and then select "**View Available Wireless Networks**".
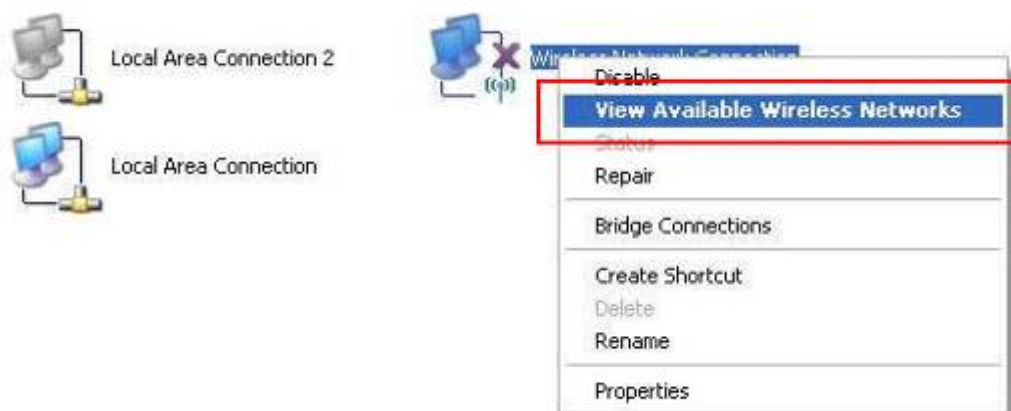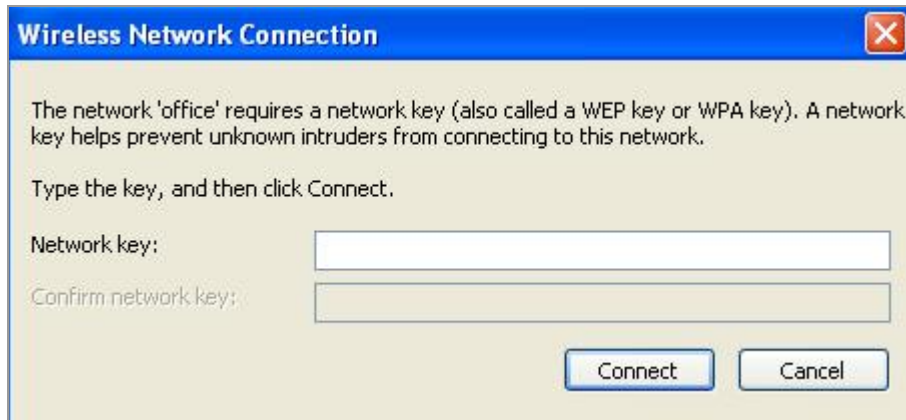
Step 4. All wireless access points in proximity will be displayed here. If the access point you want to use is not displayed here, please try to move your computer closer to the access point, or you can click "**Refresh network list**" to rescan access points. Click the access point you want to use if it's shown, and then click "**Connect**".
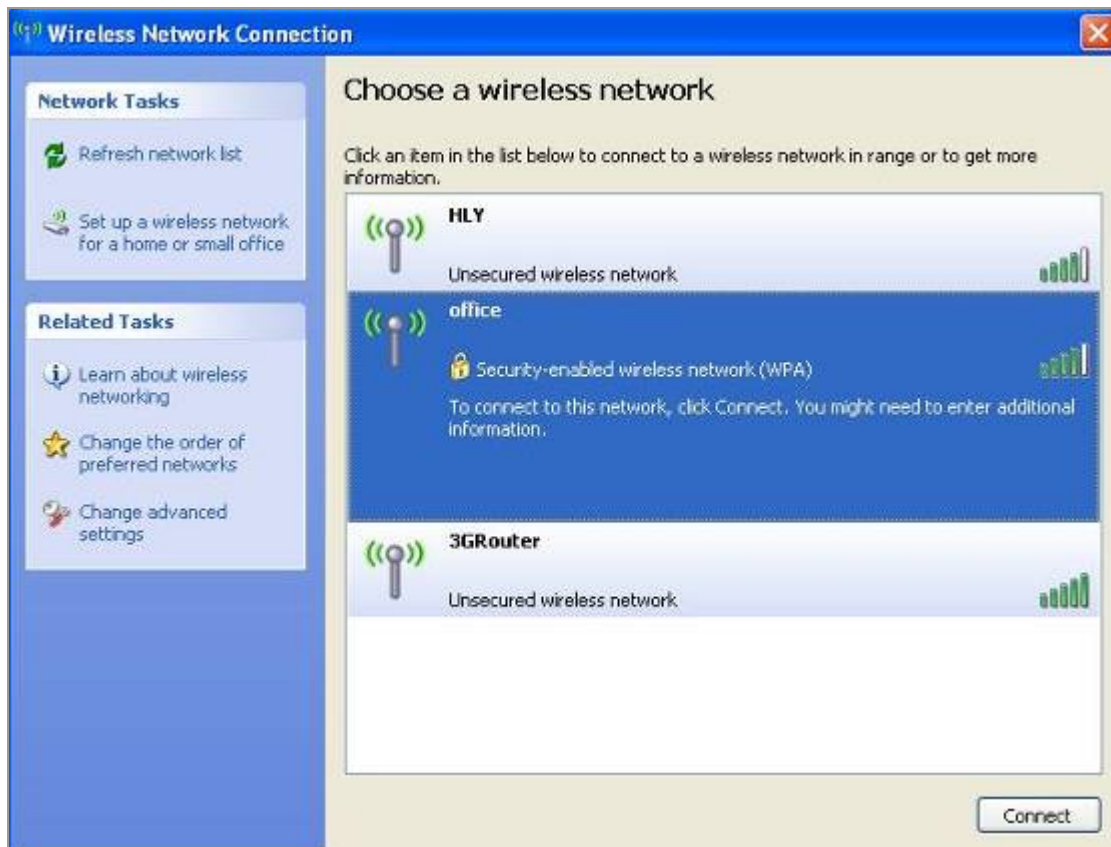
Step 5. If the access point is protected by encryption, you have to input its network key or passphrase here. It must match the encryption setting on the access point. If the access point you selected does not use encryption, you'll not be prompted for network key or passphrase.

Step 6. If you can see "**Connected**" message, the connection between your computer and wireless access point you selected is successfully established.
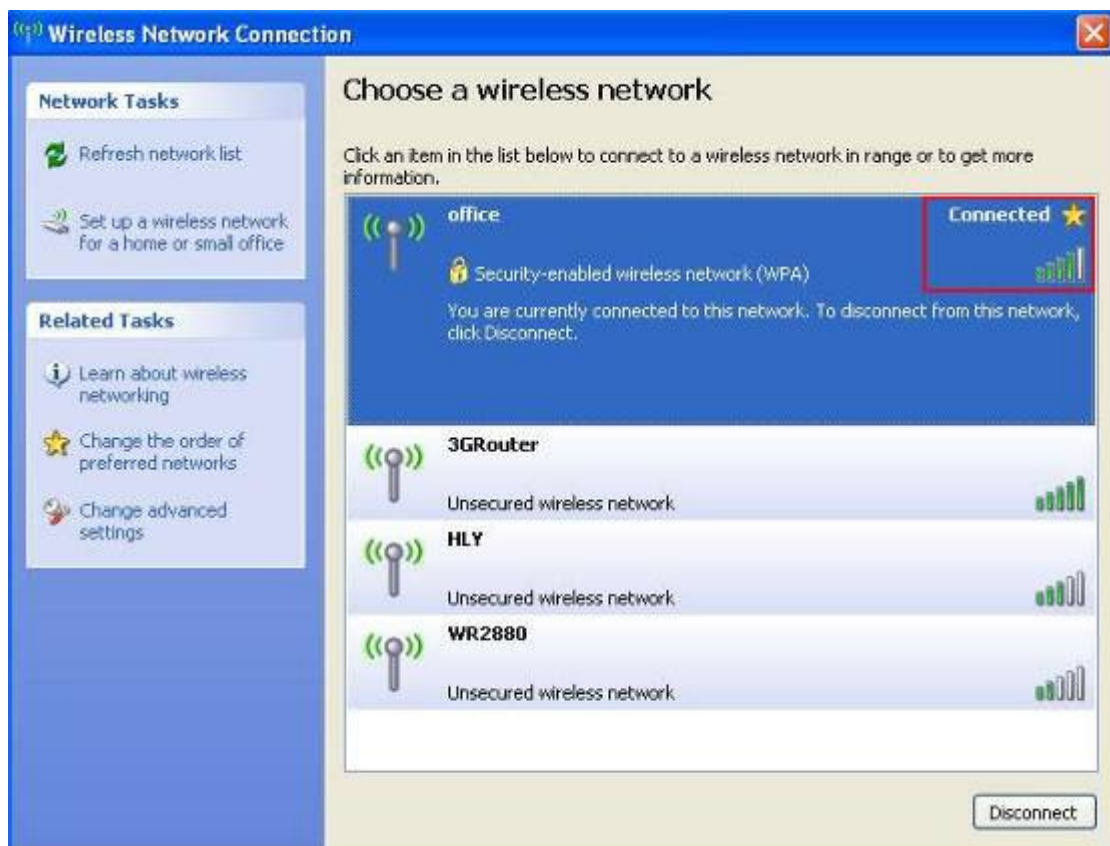
3.1.2 Windows 7 - Use Windows 7 WLAN AutoConfig

WLAN AutoConfig service is built-in in Windows 7 that can be used to detect and connect to wireless network. This built-in wireless network connection tool is similar to wireless zero configuration tool in Windows XP.

Step 1: Right-click on the **network icon** displayed in the system tray

Step 2: Highlight and select the wireless network (**SSID**) to connect.

    (1) All wireless access points in proximity will be displayed here. If the access point you want to use is not displayed here, please try to move your computer closer to the access point, or you can click "**Refresh network list**" to rescan access points.

    (2) Click the access point you want to use if it's shown, and then click "**Connect**".

> **Note**
>
> If you will be connecting to this Wireless Router in the future, give a check to [**Connect automatically**].
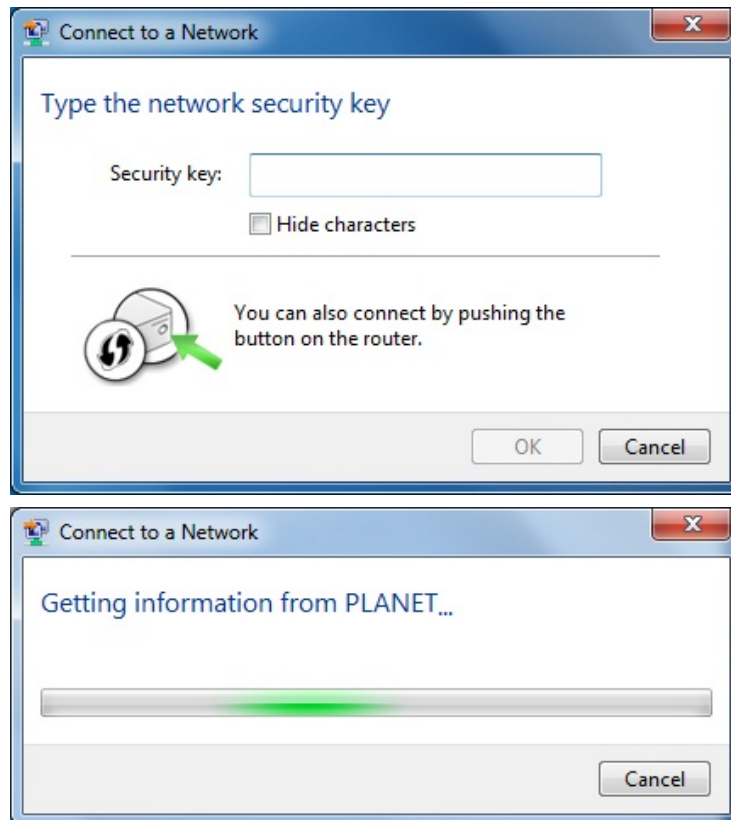
Step 3: Enter the **network security key** of the wireless access point.

(1) The Connect to a Network box will appear

(2) Enter the **security key**

If the access point is protected by encryption, you have to input its network key or passphrase here. It must match the encryption setting on the access point.

(3) Click the [**OK**] button


Step 4: Check if "**Connected**" is displayed

Chapter 4. AP MODE

Besides being a wireless client of other wireless access points, PLANET wireless adapter can also act as a wireless service provider. You can switch the operation mode of wireless adapter to "**AP**" mode to simulate the function of a real wireless access point by software. And all other computers and Wi-Fi supported devices can connect to your computer wirelessly, and even share your internet connection service.
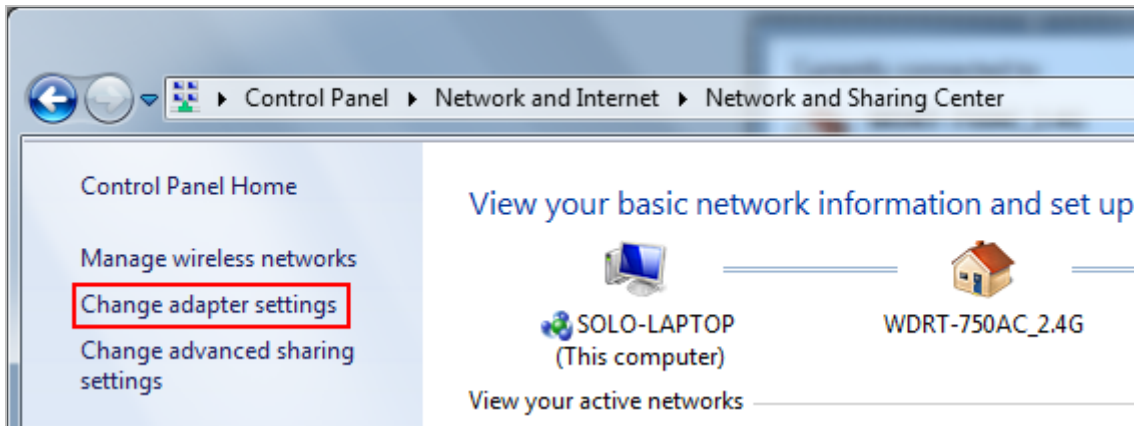
4.1   Switch to AP Mode

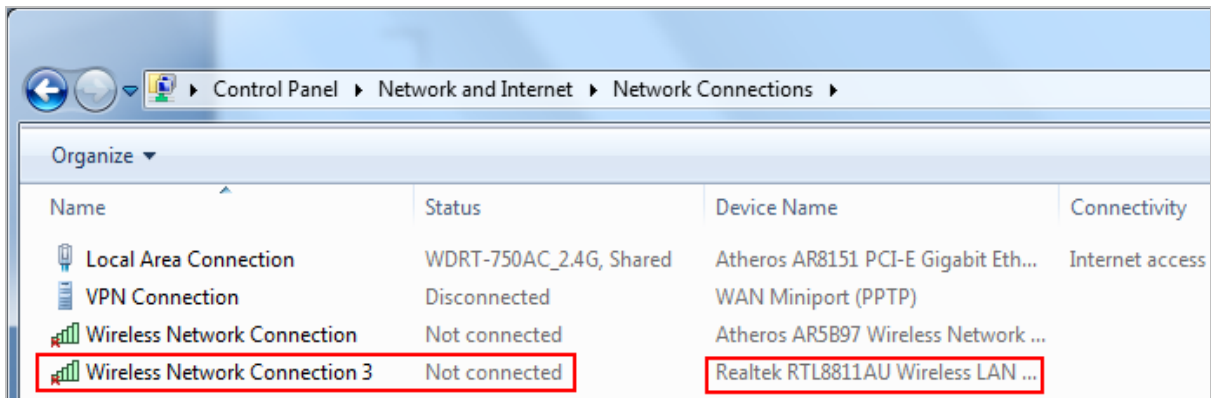Please follow the instructions below to switch to Access Point mode:

Step 1: Please confirm that your computer is connected to Internet first, and then open the **Network and Sharing Center**.
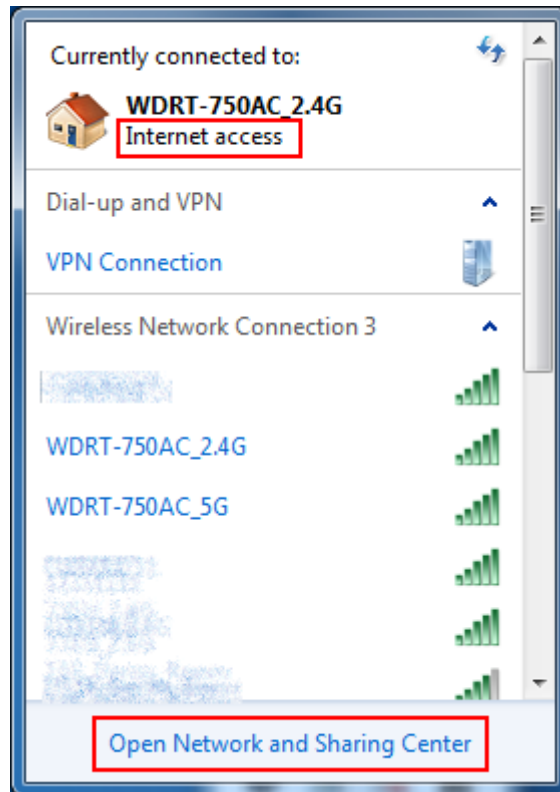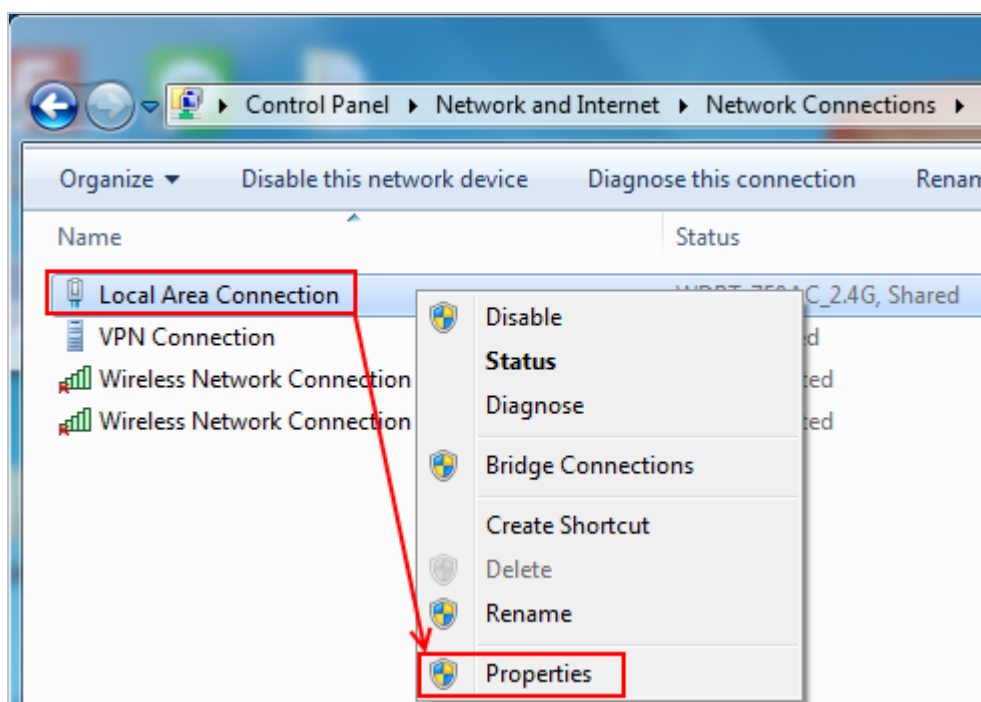
Step 2: Go to "**Change adapter settings**".

Step 3: Please DO NOT establish any connection by wireless network.

Step 4: Configure the Local Area Connection.

Step 5: Select "**Sharing**", check "**Allow other network users to connect through this computer's Internet connection**" and select the **Wireless Network Connection** of your WDL-U601AC.
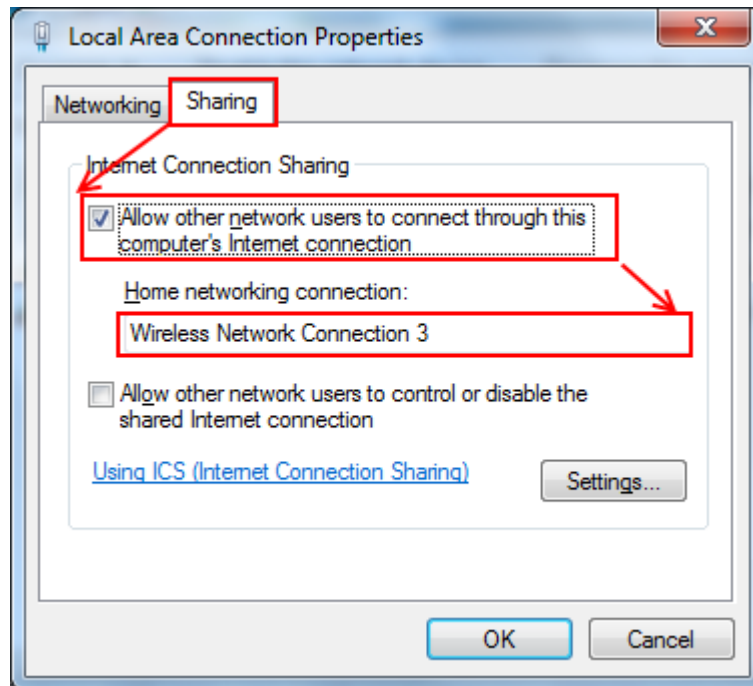
Step 6: Go to **Network and Sharing Center**.
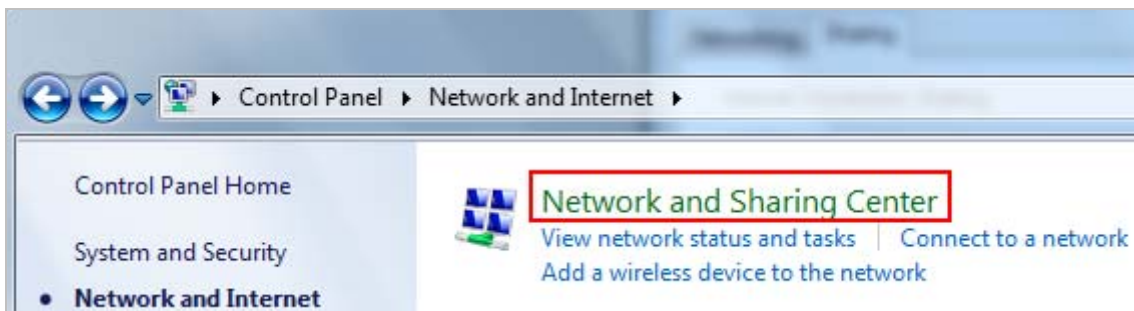
Step 7: Select "**Set up a new connection or network**".
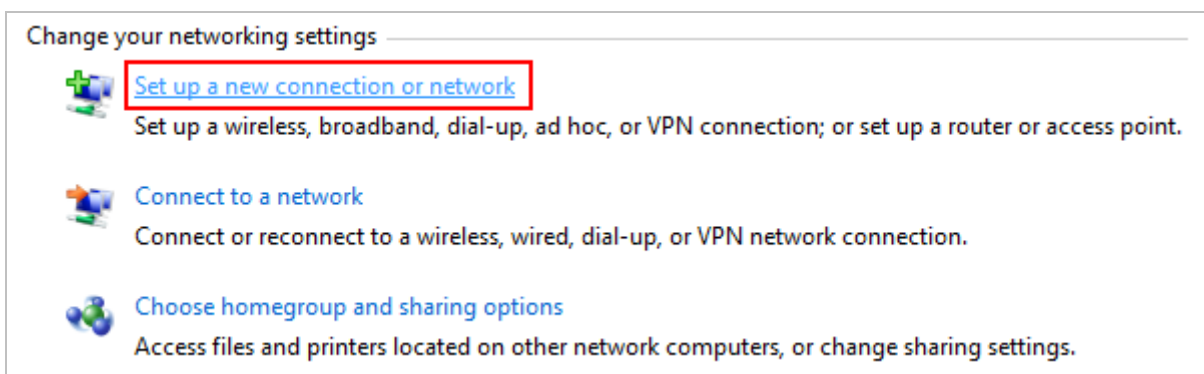
Step 8: Select "**Set up a wireless ad hoc (computer-to-computer) network**".
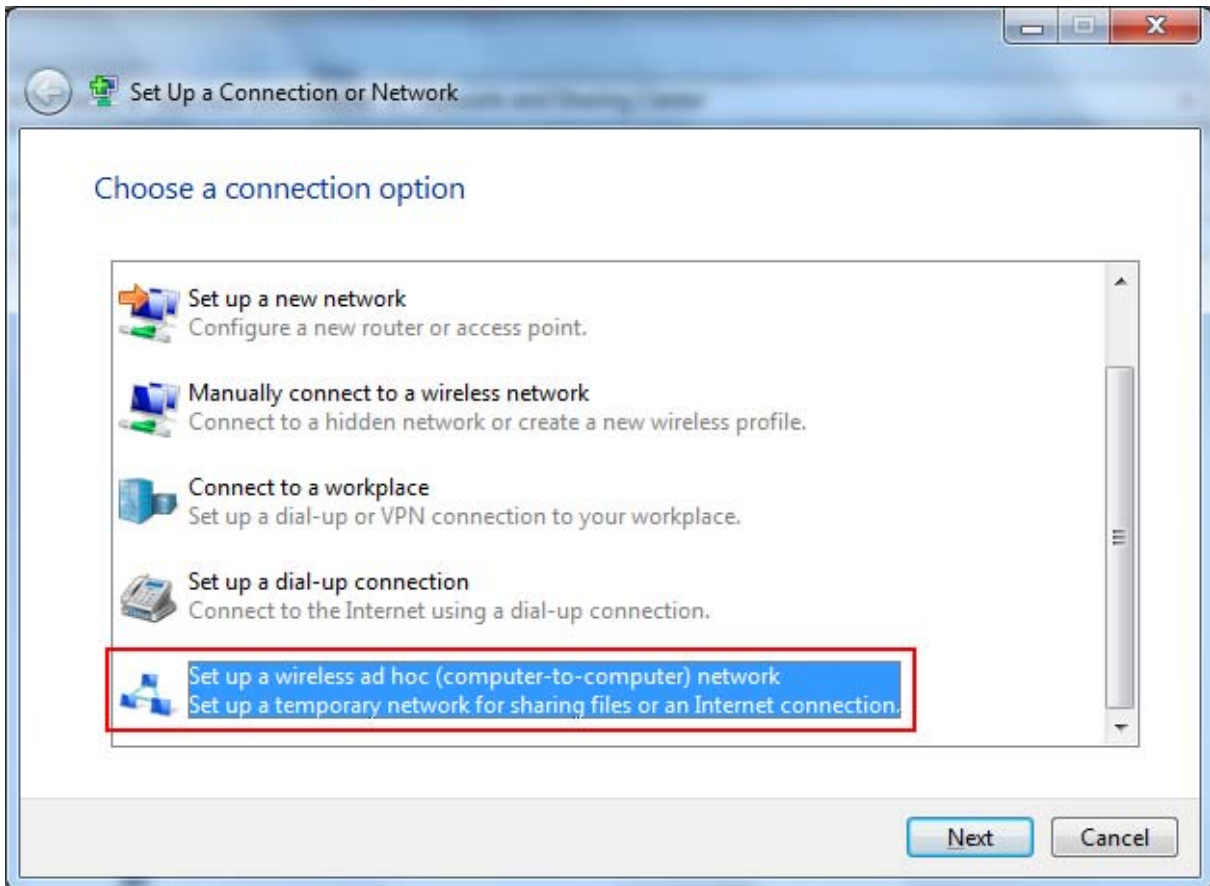
Step 9: Select the **Wireless Network Connection** of your WDL-U601AC.
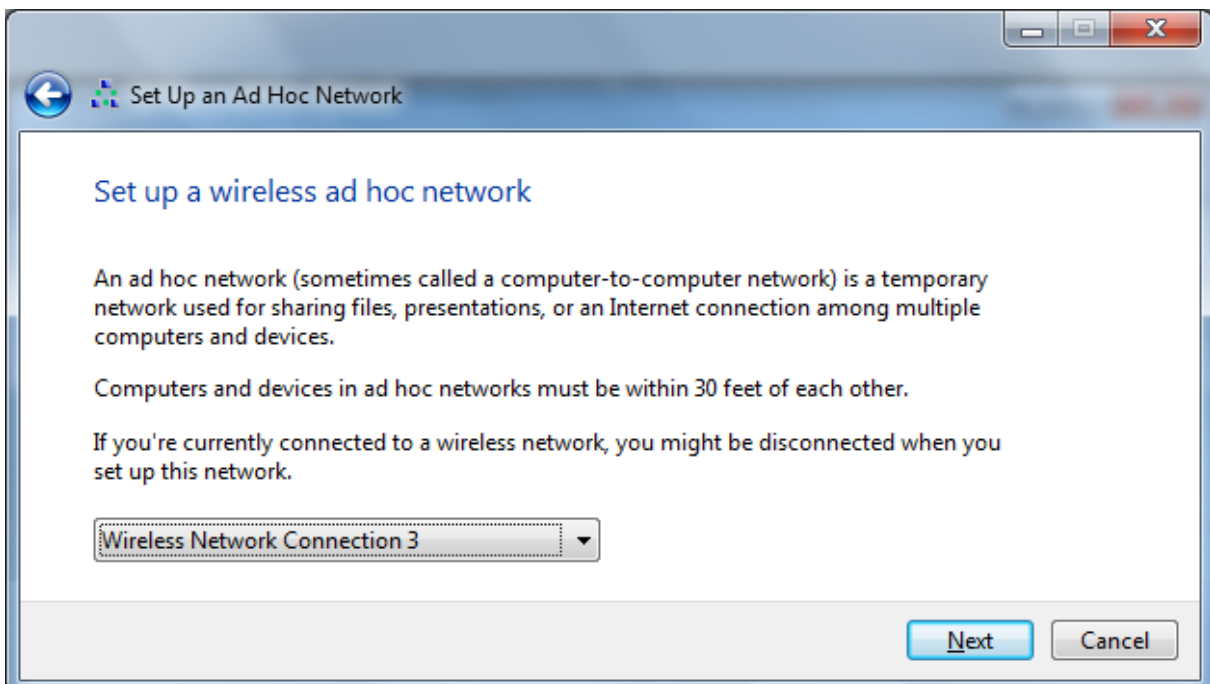
Step 10: Enter the SSID of your AP, select a security type and enter the security key.

Step 11: The Wireless network name (SSID) and password will be shown on the screen when all configurations are done.

Step 12: You can see the SSID now and just press **Disconnect** if you don't want to share this wireless network.

Appendix: Specifications

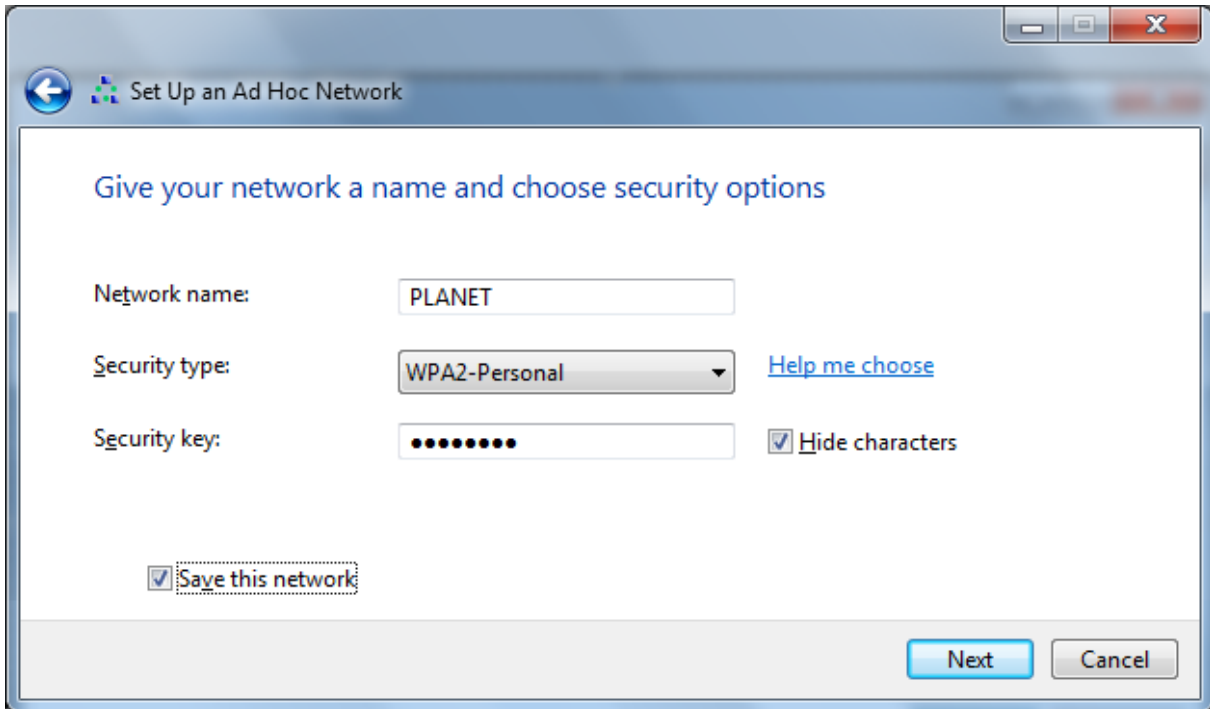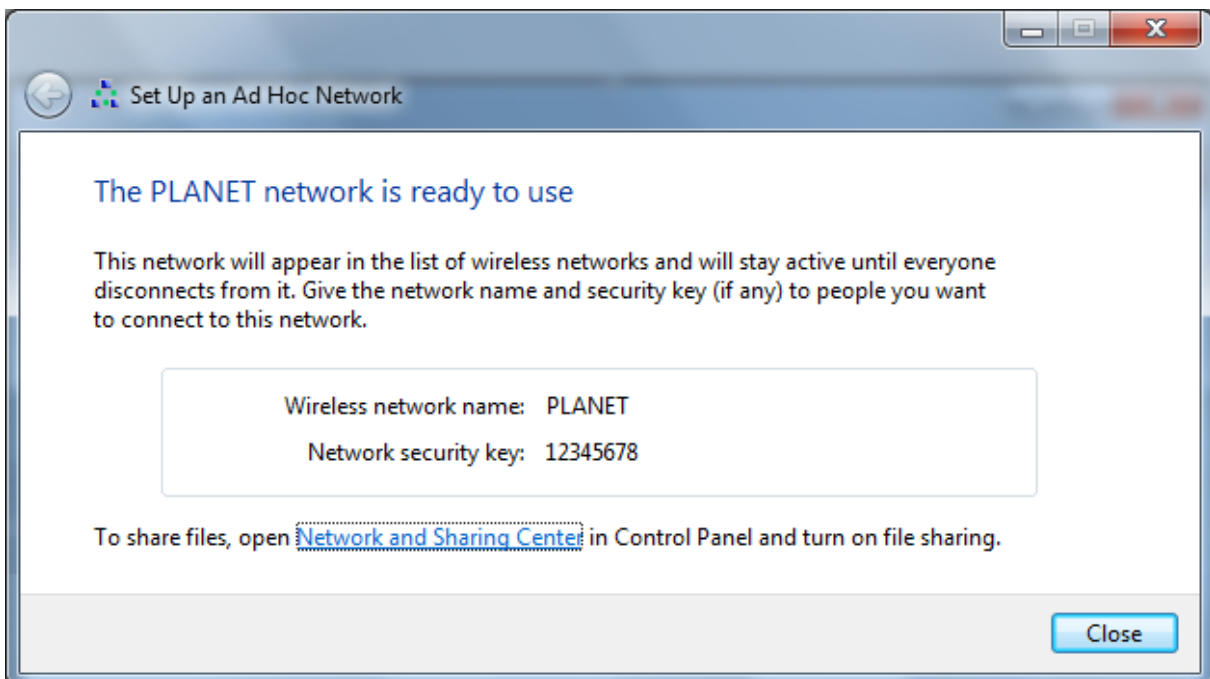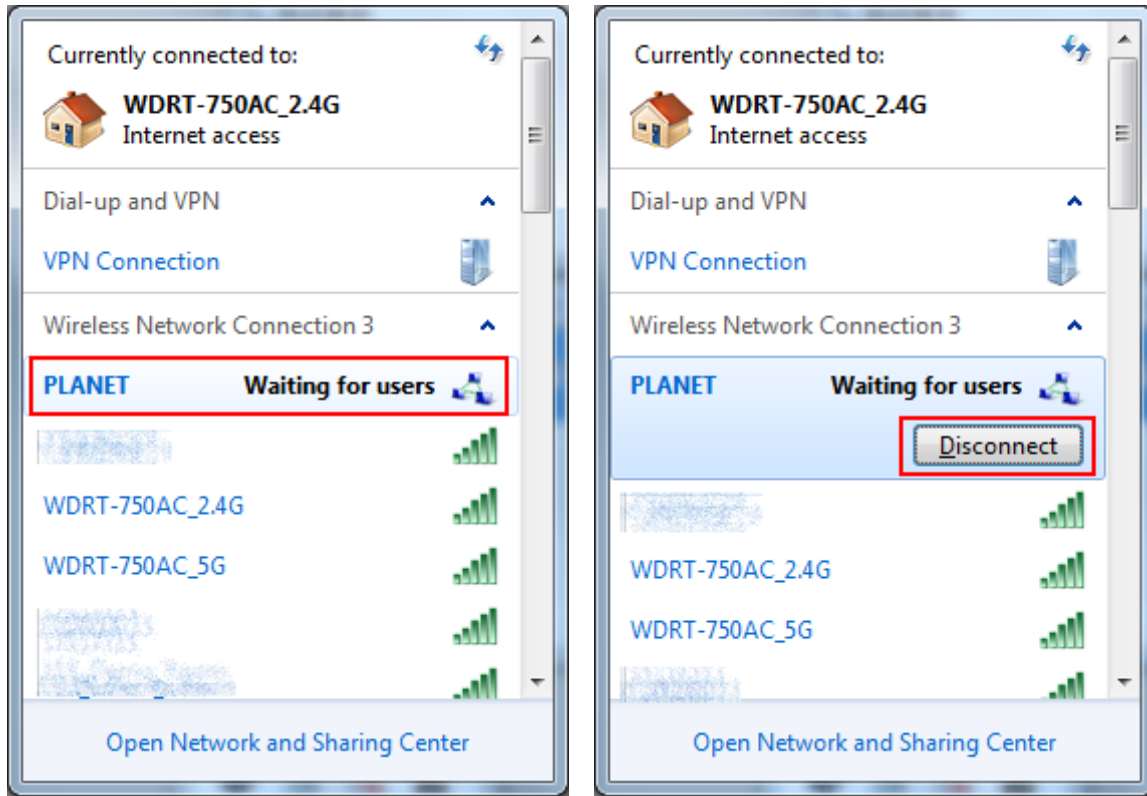| Product	Dual Band 802.11ac Wireless USB Adapter
Model	WDL-U601AC
Hardware Specifications	
Chipset	Realtek RTL8811AU
Interface	USB 2.0, Type-A
Antenna Type	Internal antenna
Antenna Gain	1 x 2.4GHz: 2dBi 1 x 5GHz: 4dBi
LED	1 x Link/Active
Operating Voltage	5V DC, power input from USB port
Dimensions	15 x 6 x 34mm
Wireless Specifications	
Standards Conformance	IEEE 802.11ac standard compliant IEEE 802.11b/g/n backwards compatible IEEE 802.11a/n backwards compatible
RF Modulation	PSK/CCK, DQPSK, DBPSK, OFDM
Frequency Band	2.412-2.484 GHz 5.180-5.240 GHz/ 5.745-5.825 GHz
Data Rate	802.11a: 54, 48, 36, 24, 18, 12, 9 and 6Mbps 802.11b: 11, 5.5, 2 and 1 Mbps with auto-rate fall back 802.11g: 54, 48, 36, 24, 18, 12, 9 and 6Mbps 802.11n (20MHz): up to 72Mbps 802.11n (40MHz): up to 150Mbp 802.11ac: up to 433Mbps
Operating Mode	Ad-Hoc/Infrastructure, Soft AP
Encryption Security	WEP 64-/128-bit WPA/WPA2 (TKIP/AES) WPA-PSK/WPA2-PSK (TKIP/AES)
Wireless Advanced	Supports Software WPS (Wi-Fi Protected Setup)
Operating Systems	Windows XP (x86/x64)/VISTA (x86/x64)/Win7 (x86/x64)/Win8.1 (x86/x64) Linux Kernel 2.6.18~3.16.0 Macintosh 10.7/10.8/10.9/10.10
Certification	
Emission	FCC, CE

Environment	
Operating Temperature	0°~40°C (32°~104°F)
Humidity	10% ~ 90%, non-condensing
Package	
Package Contents	■ WDL-U601AC (dual band 802.11ac wireless USB adapter) ■ Quick Installation Guide ■ CD (including drivers and user's manual)

Appendix: Troubleshooting

Symptom:	The LED is off.
Remedy:	Make sure the wireless USB adapter is inserted properly. Otherwise contact your vendor.
Symptom:	The LED is always on, but not blinking.
Remedy:	Make sure that you have installed the driver from the CD that comes with the package. Otherwise contact your vendor.
Symptom:	The LED is blinking but the Wireless Utility icon does not appear in the icon tray.
Remedy:	Make sure that you have installed the Utility from the CD that comes with the package.
Symptom:	The USB adapter is linking, but can't share files with others.
Remedy:	Make sure the file and printer sharing function is enabled. You can enable the function by checking the icon of **My Computer** -> **Control Panel** -> **Network** -> **file and printer sharing** -> I want to be able to give others access to my files.
Symptom:	Slow or poor performance in AP mode
Remedy:	Try to select another channel for the communicating group or move your device closer to the Access Point.

EC Declaration of Conformity

For the following equipment:

*Type of Product   :   433Mbps 802.11AC Dual Band Wireless USB Adapter
*Model Number   :   WDL-U601AC

* Produced by:
Manufacturer's Name   :   **Planet Technology Corp.**
Manufacturer's Address: 10F., No.96, Minquan Rd., Xindian Dist.,
                          New Taipei City 231, Taiwan (R.O.C.)

is herewith confirmed to comply with the requirements set out in the Council Directive on the Approximation of the Laws of the Member States relating to 1999/5/EC R&TTE, Low Voltage Directive 2006/95/EC.
For the evaluation regarding the R&TTE the following standards were applied:

EN 300 328 V1.8.1	(2012)
EN 301 893 V1.7.1	(2012)
EN 301 489-1 V1.9.2	(2011)
EN 301 489-17 V2.2.1	(2012)
EN 62311	(2008)
EN 60950-1	(2006 + A11:2009 + A1:2010 + A12:2011)

Responsible for marking this declaration if the:

☒ **Manufacturer**   ☐ **Authorized representative established within the EU**

Authorized representative established within the EU (if applicable):

Company Name: **Planet Technology Corp.**

Company Address: **10F., No.96, Minquan Rd., Xindian Dist., New Taipei City 231, Taiwan (R.O.C.)**

Person responsible for making this declaration

Name, Surname   **Kent Kang**

Position / Title :   **Director**

Taiwan   **6th Nov., 2015**
Place   *Date*   *Legal Signature*

PLANET TECHNOLOGY CORPORATION

EC Declaration of Conformity

English	Hereby, **PLANET Technology Corporation,** declares that this **802.11ac Dual Band Wireless USB Adapter** is in compliance with the essential requirements and other relevant provisions of Directive 1999/5/EC.	**Lietuviškai**	Šiuo **PLANET Technology Corporation,,** skelbia, kad **802.11ac Dual Band Wireless USB Adapter** tenkina visus svarbiausius 1999/5/EC direktyvos reikalavimus ir kitas svarbias nuostatas.
Česky	Společnost **PLANET Technology Corporation,** tímto prohlašuje, že tato**802.11ac Dual Band Wireless USB Adapter** splňuje základní požadavky a další příslušná ustanovení směrnice 1999/5/EC.	**Magyar**	A gyártó **PLANET Technology Corporation**, kijelenti, hogy ez a**802.11ac Dual Band Wireless USB Adapter** megfelel az 1999/5/EK irányelv alapkövetelményeinek és a kapcsolódó rendelkezéseknek.
Dansk	**PLANET Technology Corporation,** erklærer herved, at følgende udstyr **802.11ac Dual Band Wireless USB Adapter** overholder de væsentlige krav og øvrige relevante krav i direktiv 1999/5/EF	**Malti**	Hawnhekk, **PLANET Technology Corporation,** jiddikjara li dan **802.11ac Dual Band Wireless USB Adapter** jikkonforma mal-ħtiġijiet essenzjali u ma provvedimenti oħrajn relevanti li hemm fid-Dirrettiva 1999/5/EC
Deutsch	Hiermit erklärt **PLANET Technology Corporation,** dass sich dieses Gerät **802.11ac Dual Band Wireless USB Adapter** in Übereinstimmung mit den grundlegenden Anforderungen und den anderen relevanten Vorschriften der Richtlinie 1999/5/EG befindet". (BMWi)	**Nederlands**	Hierbij verklaart , **PLANET Technology orporation,** dat **802.11ac Dual Band Wireless USB Adapter** in overeenstemming is met de essentiële eisen en de andere relevante bepalingen van richtlijn 1999/5/EG
Eesti keeles	Käesolevaga kinnitab **PLANET Technology Corporation,** et see **802.11ac Dual Band Wireless USB Adapter** vastab Euroopa Nõukogu direktiivi 1999/5/EC põhinõuetele ja muudele olulistele tingimustele.	**Polski**	Niniejszym firma **PLANET Technology Corporation,** oświadcza, że **802.11ac Dual Band Wireless USB Adapter** spełnia wszystkie istotne wymogi i klauzule zawarte w dokumencie „Directive 1999/5/EC".
Ελληνικά	*ΜΕ ΤΗΝ ΠΑΡΟΥΣΑ ,* **PLANET Technology Corporation,** *ΔΗΛΩΝΕΙ ΟΤΙ ΑΥΤΟ* **802.11ac Dual Band Wireless USB Adapter** *ΣΥΜΜΟΡΦΩΝΕΤΑΙ ΠΡΟΣ ΤΙΣ ΟΥΣΙΩΔΕΙΣ ΑΠΑΙΤΗΣΕΙΣ ΚΑΙ ΤΙΣ ΛΟΙΠΕΣ ΣΧΕΤΙΚΕΣ ΔΙΑΤΑΞΕΙΣ ΤΗΣ ΟΔΗΓΙΑΣ 1999/5/ΕΚ*	**Português**	**PLANET Technology Corporation**, declara que este **802.11ac Dual Band Wireless USB Adapter** está conforme com os requisitos essenciais e outras disposições da Directiva 1999/5/CE.
Español	Por medio de la presente, **PLANET Technology Corporation,** declara que **802.11ac Dual Band Wireless USB Adapter** cumple con los requisitos esenciales y cualesquiera otras disposiciones aplicables o exigibles de la Directiva 1999/5/CE	**Slovensky**	Výrobca **PLANET Technology Corporation,** týmto deklaruje, že táto **802.11ac Dual Band Wireless USB Adapter** je v súlade so základnými požiadavkami a ďalšími relevantnými predpismi smernice 1999/5/EC.
Français	Par la présente, **PLANET Technology Corporation,** déclare que les appareils du **802.11ac Dual Band Wireless USB Adapter** sont conformes aux exigences essentielles et aux autres dispositions pertinentes de la directive 1999/5/CE	**Slovensko**	**PLANET Technology Corporation**, **s tem potrjuje,** da je ta **802.11ac Dual Band Wireless USB Adapter** skladen/a z osnovnimi zahtevami in ustreznimi določili Direktive 1999/5/EC.
Italiano	Con la presente , **PLANET Technology Corporation,** dichiara che questo **802.11ac Dual Band Wireless USB Adapter** è conforme ai requisiti essenziali ed alle altre disposizioni pertinenti stabilite dalla direttiva 1999/5/CE.	**Suomi**	**PLANET Technology Corporation,** vakuuttaa täten että **802.11ac Dual Band Wireless USB Adapter** tyyppinen laite on direktiivin 1999/5/EY oleellisten vaatimusten ja sitä koskevien direktiivin muiden ehtojen mukainen.
Latviski	Ar šo **PLANET Technology Corporation,** apliecina, ka šī **802.11ac Dual Band Wireless USB Adapter** atbilst Direktīvas 1999/5/EK pamatprasībām un citiem atbilstošiem noteikumiem.	**Svenska**	Härmed intygar, **PLANET Technology Corporation,** att denna **802.11ac Dual Band Wireless USB Adapter** står i överensstämmelse med de väsentliga egenskapskrav och övriga relevanta bestämmelser som framgår av direktiv 1999/5/EG.