

User Guide

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W322U

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Chapter 1 Introduction

W322U is a Wireless USB Adapter with up to 300Mbps transmitting rate. It adopts the very latest wireless standard—IEEE802.11n, which perfectly complies downward with IEEE802.11g/b standards, efficiently reduces the “dead spots” in wireless area and widely multiplies the wireless coverage area.

W322U is suitable both for desktop and notebook computers. Its transmitting rate can reach up to 300Mbps and its transmitting time in LAN will be greatly shortened when connected to Tenda W306R 11N Wireless Router. It responds immediately and keeps smooth when you are searching web pages, downloading, gaming and watching video on line.

All in all, W322U is a cost-effective 300Mbps Wireless USB Adapter with robust signal, farther transmitting distance and stable performance.

1.1 Product Feature

- Supports 300Mbps wireless receiving and transmitting rate
- Complies with the latest 802.11n and 802.11b/g standards
- Provides USB2.0 port
- Supports 20MHz/40MHz frequency width
- Detects wireless network and changes transmitting rate automatically
- Provides two working modes: Infrastructure and Ad-Hoc
- Supports 64/128-bit WEP and WPA/WPA2/802.1x encryption methods
- Supports WPS (Wi-Fi Protected Setup) encryption to secure wireless network strongly
- Complies with Windows 2000/XP/Vista, Linux, MAC OS, etc.
- Supports WMM to smooth your audio and video

1.2 Product Deployment

W322U Wireless USB Adapter offers fast, reliable and cost- effective solution for wireless access. Deployment as follows;

- For staff who requires higher mobility in the office, they want to have access to traditional wired or wireless network in any place of the company;
- Enterprise or individual who requires often changes in lay out of network cables;
- Companies or places which are not suitable for LAN cable laying out because of budget or objective building, including places of great interests, rent places or places for short-term usage;
- Company or individual who avoids using expensive cables, renting cables or renting rights for access.

1.3 Indicator Description

In the front panel of W322U , there is a LED indicator blinking when data communication is going on.

1.4 Package Contents

Unpack the packets, and please find the following items:

- Ø One W322U 300Mbps Wireless USB Adapter
- Ø One CD-ROM

Chapter 2 Installation Guide

This chapter is to assist you how to use the included CD-ROM which comprises the Setup Wizard and the Client Utility Interface.

The following steps on Setup Wizard are taken the Windows XP as example.

1. Please insert the Wireless USB Adapter into the USB port of your computer.



Or

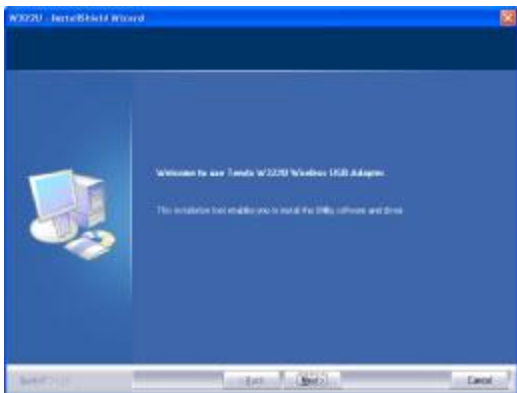
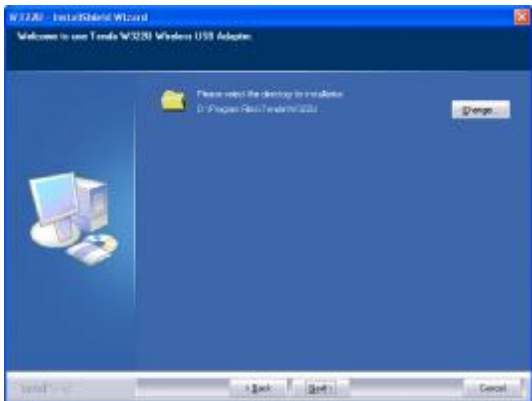


2. "Found New Hardware" system dialogue appears, and selects "Cancel" to use the included Setup Wizard for fast installation; of course, you also can select "Next" to install by manual.



3. Insert the included CD-ROM into the CD-ROM drive of your computer, and the Welcome screen appears. (If not appear, double click the "W322U .exe" icon.)

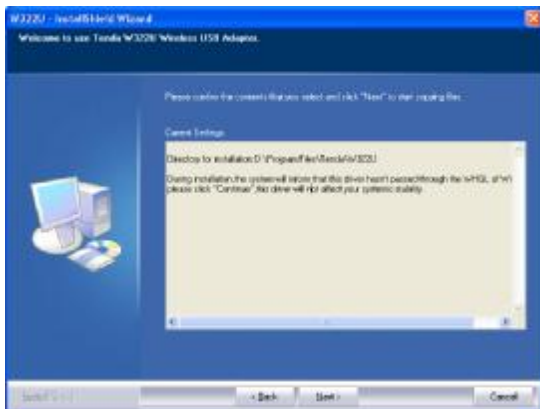


4. Click "Enter".**5. Click "Next" to start installing.**

- Click "Change..." to select the directory path, or click "Next".



- Select "OK" and "Next" in the following window.



- During the installation, the following dialogue maybe

appears. Click the “Continue Anyway” to continue.
There is no security threat to your computer.



9. Click “Finish” to complete the installation.



Chapter 3 Client Utility Interface

This software is for the W322U Wireless USB Adapter management. If it does not appear, select “Start”—“All Programs”—“Tenda”—“W322U ”, or click the shortcut on your PC’s desktop.

**Note:**

In the Windows XP, you can select the included W322U Client Utility Interface or the Windows XP internal wireless application to configure the device.

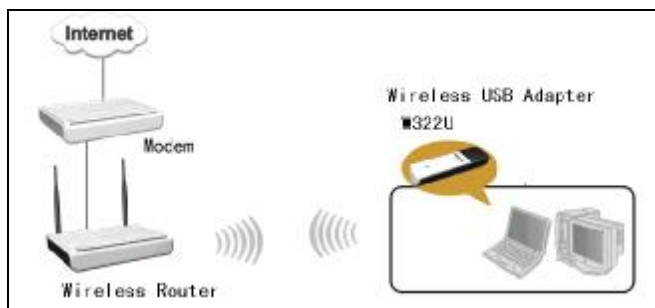
There are two client utility applications in W322U : Station mode and AP mode.

**Note:**

In this utility interface, Station Mode (Client Mode) is the default access way.

3.1 Station Mode

3.1.1 Station Mode Topology



In this mode, W322U serves as a client to receive the wireless signals to access the Internet.

3.1.2 Status

In the Network Status window, it displays something on wireless adapter and wireless network status, including SSID, Authentication type, Encryption Type, IP address, subnet mask and gateway and so on.



3.1.3 Site Survey

The Site Survey is used to scan the available wireless network around, showing the wireless network's signal strength and other information which provides basis for you to access which wireless network.



Connect: select one entry in the wireless network list and click the button to connect the device with the selected network.

Refresh: rescan the wireless network around.

3.1.4 Profile Management

This window saves the general wireless parameters for different profiles, which is used to fast connect the wireless network you need.



UP/DOWN: To change the profile's sequence in the list.

Connect: To activate one profile.

New: To create a new profile and configure the site status and security setting.

Modify: To modify one existing profile.

Delete: To delete one existing profile.



(Site Status)



(Security Setting)

3.1.5 Statistics

Statistics is used to summarize Rx and Tx data packets, including the success and error packet amount.



Clear: click this button to renew the statistics.

3.1.6 WPS Setting

WPS setting is enabled only on WPS-compliant devices.



PIN Enter the Pin code and click the “PIN” to automatically connect the wireless adapter with wireless devices around.

PBC Click the “PBC” to complete auto-check and connections between wireless adapter and other wireless device.

Refresh: to update the Pin code.

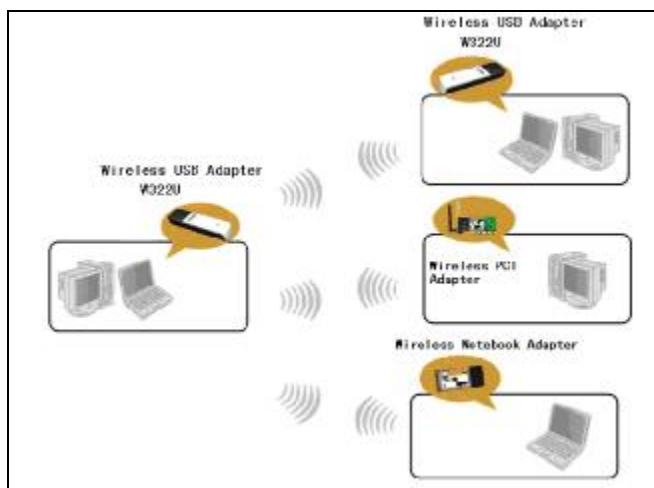
Rescan: to rescan the WPS-compliant wireless network around.

Disconnect: to disconnect the connected wireless network.

3.2 AP Mode

3.2.1 AP Mode Topology

The device also can serve as an access point to transmit wireless signals and create wireless network, allowing other wireless clients to access the network.



Click the AP Mode icon to enter the AP Mode interface.

3.2.2 Basic Setting

This window is used to configure the AP's basic parameters, including SSID, Wireless Mode and Channel.



SSID: Wireless network's ID name scanned by wireless adapter.

Wireless Mode: 802.11b/802.11g/802.11b/g mixed.

Channel: 1~11 channels provided.

Restore Default: to restore the set parameters to default factory default settings.

Apply: to make the changes made take effect.

3.2.3 Security Setting

This window is used to configure the wireless network's security authentication, providing WEP, WPA-PSK, WPA2-PSK, and WPA-PSK/WPA2-PSK encryption methods.



WEP □ 10/26 bits Hex or 5/13 ASCII support.

WPA-PSK □ 8~32 bits ASCII support.

WPA2-PSK □ 8~32 bits ASCII support.

WPA-PSK/WPA2-PSK □ 8~32 bits ASCII support.

**Note:**

1. The Hex characters include 0~9 numbers and a~f letters.
2. ASCII characters include any numbers/letters and characters.

3.2.4 Access Control

Access Control is based on the MAC address to decide that the specified client connects to the wireless network, or disables it to access the wireless network.



Filter Policy:

Disabled: to disable the filter function.

All Permitted: to permit all clients in the list to access the wireless network.

All Blocked: to refuse all clients in the list to access the wireless network.

MAC Address□to input the client's MAC address to implement the corresponding filter policy. For example: b0000a8cd702.

Add: to add the entered MAC address into the list.

Delete: to delete one existing MAC address in the list.

Remove All: to delete all clients' MAC address in the list.

Apply: to make the changes made take effect.

3.2.5 About

This window displays something about software version and wireless adapter.



Appendix One: Acronyms and Terms

- WLAN** Wireless Local Area Network
- 802.11** A family of specifications developed by the IEEE for WLAN technology.
- 802.11a** An extension to 802.11 WLAN standard that provides up to 54 Mbps transmission in the 5 GHz UNI radio band.
- 802.11b** An extension to 802.11 WLAN standard that provides up to 11 Mbps transmission in the 2.4 GHz ISM radio band. 802.11b uses DSSS modulation.
- 802.11g** An extension to 802.11 WLAN standard that provides up to 54 Mbps transmission in the 2.4 GHz ISM radio band. 802.11g uses OFDM modulation and is backwards compatible with 802.11b.
- Ad-Hoc** A group of computers each with wireless adapters, connected as an independent WLAN.
- AES** Advanced Encryption Standard
- BSSID** Basic Service Set ID

DHCP	Dynamic Host Configuration Protocol
DSSS	Direct Sequence Spread Spectrum. DSSS is one of two types of spread spectrum radio. The other is frequency-hopping spread spectrum (FHSS).
QoS	Quality of Service
OFDM	Orthogonal Frequency Division Multiplexing
RADIUS	Remote Authentication Dial In User Service
RTS	Request to Send
SSID	Service Set Identifier. A 32-character unique identifier attached to the header of packets sent over a WLAN that acts as a password when a mobile device tries to connect to the BSS.
TCP/IP	Transmission Control Protocol/Internet Protocol
TKIP	Temporal Key Integrity Protocol
WDS	Wireless Distribution System
WEP	Wired Equivalent Privacy. A security protocol for WLANs defined in the IEEE 802.11 standard.
WPA	Wi-Fi Protected Access

WPA2 Wi-Fi Protected Access 2. The next generation of Wi-Fi security, based on the 802.11i standard.

WPA2-PSK Wi-Fi Protected Access 2-Pre-shared Keys

WPA-PSK Wi-Fi Protected Access-Pre-shared Keys

Appendix Two: Product Specification

Standard	IEEE802.11g, IEEE802.11b, IEEE802.11n
Port	USB2.0
Frequency Range	2.4.2.4835GHz
Transmission Rate	Provides 300Mbps receiving rate and 300Mbps sending rate
Transmission Power	Max. 18dbm
Modulation Method	OFDM, CCK
Working Temper.	0□.40□
Storage Temper.	-40□.70□
Working Humidity	10..90.RH non-condensing

Appendix Three: How to connect with PSP

1. Topology of PSP connecting with W322U



2. To configure PSP with Ad-Hoc mode

2.1 Select Network Settings



2.2 Select Ad-Hoc mode



2.3 Select Channel



3. Scan PSP in W322U Utility Interface and double-click to connect the wireless network.



4. In Site Survey check "enable PSP connection mode" box.



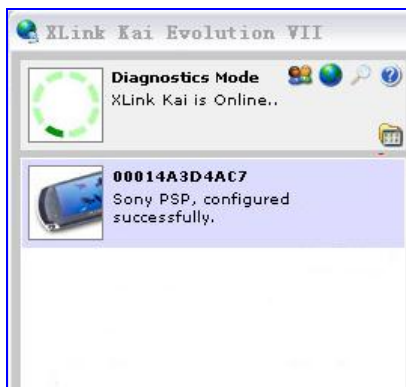
5. To configure Xlink Kai

Select “Start” → “All programmers” → “Xlink Kai Evolution VII” → “Start Kai Config” to configure the user name, password and other parameters as follows.



6. Login Xlink Kai

Select "Start" → "All programmers" → "Xlink Kai Evolution VII" → "Start Kai". PSP will connect with Xlink Kai automatically. The following window will indicate the connection is established well now.



Appendix Four: How to Set WPS

The adapter supports PBC and PIN code modes for WPS settings. The setting steps of the two modes will be introduced in detail. (The following connections take Tenda W306R Wireless Router for example.)



1. Wireless Connection in PBC Mode

- 1.1 Keep pressing the WPS button on the Router's panel for one second or login to the Router's Web interface and select "PBC" on the WPS Setting page, then click "Apply" button. (The WPS indicator will keep blinking for 2 minutes.)

It indicates that the function is enabled. During the interval, wireless adapter can negotiate with the Router in WPS/PBC mode. After two minutes, WPS indicator will be off.)



1.2 Click the “Rescan” button on the UI of the adapter to scan the wireless signal of the Router which needs to be connected.



1.3 First please select and click the needed wireless signal. Then click "PBC" button on the UI. (If you use the WPS button on the adapter, you just need to keep pressing it for one second.) Now the adapter will negotiate and connect with the wireless Router automatically.



1.4 When the connection is established, the "Status" on the connection information page will show "Connected" and other information such as IP address will appear.



2. Wireless Connection in PIN Mode



2.1 Copy the Pin Code (It shows 97882459 on the UI and you can also click “Renew” button to renew PIN Code.) on the UI of the adapter to the WPS Setting page of W306R, and then click “Apply” button. (Now the WPS indicator of the Router will keep blinking for about 2 minutes. It indicates that WPS function is enabled.)



2.2 Click the “Rescan” button on the UI of the adapter to scan the wireless signal of the Router which needs to be connected.



2.3 First select and click the wireless signal which

needs to be connected. Then click the “PIN” button on the UI. Now the adapter will negotiate and connect with the wireless Router automatically.



2.4 When the connection is established, the “Status” on the connection information page will show “Connected” and other information such as IP address will appear.

