

Wireless N Dual Band Adapter N900UBE

User Manual

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Safety Information:

In order to keep the safety of users and your properties, please follow the following safety instructions:

- 1. This USB wireless network card is designed for indoor use only. DO NOT expose this network card to direct sun light, rain, or snow.
- 2. DO NOT put this network card at or near hot or humid places, like kitchen or bathroom. Also, do not left this wireless network card in the car in summer.
- 3. This network card is small enough to put in a child's mouth, and it could cause serious injury or could be fatal. If they throw the network card, the card will be damaged. PLEASE KEEP THIS NETWORK CARD OUT THE REACH OF CHILDREN!
- 4. This network card will become hot when being used for long time (*This is normal and is not a malfunction*). DO NOT put the network card on a paper, cloth, or other flammable objects after the network card has been used for a long time.
- 5. There's no user-serviceable part inside the network card. If you found that the network card is not working properly, please contact your dealer of purchase and ask for help. DO NOT disassemble the network card by yourself, warranty will be void.
- 6. If the network card falls into water, DO NOT USE IT AGAIN BEFORE YOU SEND THE CARD TO THE DEALER OF PURCHASE FOR INSPECTION.
- 7. If you smell something strange or even see some smoke coming out from the network card, switch the computer off immediately, and call dealer of purchase for help.

Chapter 1 Overview

Thank you for purchasing Rosewill's N900UBE. This is an extremely high-speed 802.11a/b/g/n dual band wireless network USB Adapter. This wireless network adapter is transferring data at a transfer rate of 450Mbps at both 2.4GHz and 5GHz.

N900UBE with an easy-to-install USB 2.0 interface and external antenna, setting up this wireless adapter will be just as easy!

1.1 Package Content

Before getting started, please verify that your package includes the following items:

- 1. Rosewill N900UBE Wireless Dual Band USB Adapter x 1
- 2. Quick Installation Guide x 1
- 3. Resource CD x 1, including:
 - Wireless Utility and Driver
 - User Manual
 - Quick installation guide x 1

Note:

Make sure that the package contains the above items. If any of the listed items are damaged or missing, please contact with your distributor.

1.2 Overview of the Product

Thank you for purchasing this high-speed wireless dual band network card! This network card can operate in 2.4GHz or 5GHz wireless network. Excepting common wireless standards 802.11a/b/g, this wireless network card is also able to access 802.11n wireless networks - data transfer rate is 300Mbps, and that's six times faster than 802.11g wireless network!

1.3 Features

- High transfer data rate up to 450Mbps at 2.4GHz or up to 450Mbps at 5GHz
- Portable dongle type design.
- Supports Infrastructure, Ad-Hoc, and Wi-Fi Direct* connection method.
- QoS function: provides Wi-Fi Multimedia (WMM) quality of service to secure audio/video/voice data traffic as higher priority.
- 802.11a/b/g/n compatible.
- Supports 64/128-bit WEP, WPA, WPA2 with IEEE 802.1x functions for high level of security.
- Supports One-Click button WPS (Wi-Fi Protected Setup) connection.

- USB 2.0 interface you can get it installed on your computer in just few seconds!
- Supports Soft AP mode Broadcasting wireless signals while surfing

Note:

Wi-Fi Direct requires compatible devices which supporting this Wi-Fi Standards.

Chipset	Ralink RT3573
Standard	IEEE 802.11a/b/g/n
Interface	USB2.0 Type A
	2.4000~2.4835GHz
Frequency band	5.150~5.825GHz
	11a: 6/9/12/24/36/48/54Mbps
	11b: 1/2/5.5/11Mbps
Data Rate	11g: 6/9/12/24/36/48/54Mbps
	11n (20MHz): MCS0-23, up to 216Mbps
	11n (40MHz): MCS0-23, up to 450Mbps
	2.4GHz: 11b:16±1.5 dBm,11g:14±1.5 dBm;
Output Power	11n(20MHz):14±1.5 dBm, 11n(40MHz): 12 ±1.5 dBm
	5GHz: 11a:11±1.5 dBm, 11n(20/40MHz): 11±1.5 dBm
	2.4GHz: 11b@11Mbps: -87 ±2dBm,11g@54Mbps: -71 ±2dBm
Receive	11n(20MHz)@MCS7:-69
Sensitivity	5GHz: 11a@54Mbps: -70 ±2dBm
	11n(20MHz)@MCS7:-69 ±2dBm,11n(40MHz)@MCS7: -65 ±2dBm
Security	64/128 bit WEP, WPA/WPA2, WPA-PSK/WPA2-PSK (TKIP/AES); WPS button
Antenna	2 internal antennas plus 1 external antenna (3T3R)
LED	Link/Activity
	Windows OS: 2000/XP/Vista/7 (32 / 64bit)
OS support	Mac OS: Mac OS 10.5, 10.6, 10.7
Dimension	3.43 x 10.24 x 7.09 in (87 (L) x 26 (W) x 18 (H) mm)
Weight	0.06 lb (25 g)
Tamparatura	Operating: 32~104°F (0~40°C);
remperature	Storage: -40~140°F (-40~60°C)
ن الله المرابع	Operating: 0 ~ 90% (Non-Condensing);
Πυπιαίτγ	Storage: Max. 95% (Non-Condensing)

1.4 Product Specification

1.5 System Requirement

You must have at least the following

- A desktop PC or Notebook with An empty USB 2.0 port (May not be able work with USB 1.1 port, performance will be greatly reduced)
- At least a 300MHz processor and 32MB of memory
- Windows OS for WinXP, Vista, and 7 or Mac OS 10.5, 10.6, 10.7
- At least 100MB of available disk space
- A CD-ROM Drive
- A 802.11n

 802.11g or 802.11a/b Wireless (and Dual Band) Access Point/Router (for infrastructure Mode) or another 802.11n
 802.11g or 802.11b wireless (and Dual Band) adapter (for Ad-Hoc; Peer-to-Peer networking mode).

1.6 LED Status

This USB Adapter contains one LED. Please refer to the following description for LED definition.

LED Name	Light Status	Description
Link/	Blinking	Linked to a wireless access point / Transferring data
Activity	Off	Power off

Chapter 2 Installation Guide

2.1 Hardware Diagram

- 1. USB Connector
- 2. External Wireless Antenna
- 3. Link/Activity LED
- 4. WPS Button (Press to activate WPS pairing mode)



2.2 Dual Band Wireless Adapter Driver and Utility Installation

Please follow the following instructions to install your new wireless network card:

1. Insert the USB wireless network card into an empty USB 2.0 port of your computer when computer is switched on. Never use force to insert the card, if you feel it's stuck, flip the card over and try again.



2. Insert device driver CDROM into the CD/DVD ROM drive of your computer, and execute 'Setup.exe' program in 'Driver' folder.



3. On Windows Vista / Windows 7 computer, you may see UAC (User Account Control) window popup to warn you that this program is going to make changes to your computer, click '**Yes'** to continue.

😗 Use	r Account Control	—
0	Do you want unknown puł	to allow the following program from an plisher to make changes to this computer?
	Program name: Publisher: File origin:	Generic_RT2870_D-3.2.1.0_RU-4.1.1.0_AU-4.1.0.0_051 Unknown Hard drive on this computer
🕑 s	how details	Yes No
		Change when these notifications appear

4. Please select "I accept the terms of the license agreement", and then click 'Next'

alink Wireless LAN - Instal License Agreement Please read the following licens	IShield Wizard	
Ralink	RALINK Wireless Utility for Windows 2000/XP/Vista/Win7 Copyright (C) RALINK TECHNOLOGY, CORP. All Rights Reserved Thank you for purchasing RALINK Wireless product! SOFTWARE PRODUCT LICENSE The SOFTWARE PRODUCT is protected by copyright laws and international copyright treaties, as well as other intellectual property laws and treaties. The SOFTWARE PRODUCT is licensed, not sold. 1. GRANT OF LICENSE. This End-User License Agreement grants you the following rights:Installation and Use. You may install and use an unlimited number of copies of the SOFTWARE PRODUCT. Reproduction and Distribution. You may reproduce and distribute an unlimited number of copies of the SOFTWARE PRODUCT. provided that each copy shall be a true and comp copy, including all copyright and trademark notices, and shall be accompanied by a copy of this EULA. Copies of the SOFTWARE PRODUCT may be distributed as a standalone pro- or included with your own product.	ete of fuct
	I do not accept the terms of the license agreement	

5. Select 'Install driver and Ralink WLAN Utility' and click 'Next' to continue. Optionally, you can select 'Install driver only' to install wireless network card driver only, and use Windows' built-in wireless manager.

If you don't know which one you should choose, select '**Install driver and Ralink WLAN Utility**' for maximum functionality.



(Windows XP Only)

 Select the wireless configuration utility you wish to use, then click 'Next' to continue. It's recommended to select 'Ralink Configuration Tool' for maximum functionality. If you used to use Windows' built-in configuration tool, select 'Microsoft Zero Configuration Tool'.

Ralink Wireless LAN - InstallS	hield Wizard		
Setup Type Select the setup type that best	suits your needs.		
Ralink	Select Configuration Tool. Ralink Configuration Tool Microsoft Zero Configuration Too	ai	
InstallSheld	< <u>B</u> ack	Next >	Cancel

(Windows XP Only)

7. Click 'Install' to continue.



Please note: If you see this message, click 'Install this driver software anyway' to continue.

😵 Windo	ws	Security
😿 v	Vin	dows can't verify the publisher of this driver software
	→	Don't install this driver software You should check your manufacturer's website for updated driver software for your device.
	÷	Install this driver software anyway Only install driver software obtained from your manufacturer's website or disc. Unsigned software from other sources may harm your computer or steal information.
🕑 See	det	ails

8. Please be patient while installation is in progress, this may require few minutes.

Ralink Wireless LAN - InstallSh	ield Wizard	X
Setup Status		
	The InstallShield Wizard is installing Ralink Wireless LAN	
	Installing	
Palink		
- Hallink		
Instellähield	Cancel	

9. Click 'Finish' to finish installation procedure.

Ralink Wireless LAN - InstallSh	ield Wizard
	InstallShield Wizard Complete
	The InstallShield Wizard has successfully installed Ralink Wireless LAN. Click Finish to exit the wizard.
Ralink	
Installähreid	Cancel

10. Please insert your USB wifi network card to any empty USB port now. A popup message indicating that your computer found '802.11n USB Wireless LAN Card' will appear. Please be patient while Windows is installation driver.

This message will only appear when you insert the USB wifi network card to your computer's USB port, or you insert the network card to a different USB port of your computer.

11. You should be able to see this popup message, indicating your new USB network is ready to use; If not, please either try to re-install driver, or insert the network card to another USB port of your computer.



12. A new icon will appear near the clock of system tray:



Left-click the icon will launch wireless network configuration utility, and you can right-click the icon to show the quick menu of configuration utility.

This icon uses 5 colors to represent current network status:

R+ (Green)	The Wireless Adapter established, signal strength good
R+ (Yellow)	The Wireless Adapter established, signal strength normal
R+ (Red)	The Network connection established, signal strength poor
(Blue)	The Network connection is not yet established
(Black)	The Wireless Adapter is not found on your computer

Chapter 3 Wireless Connection Guide

This chapter describes how to configure your Adapter for wireless connectivity on your Wireless Local Area Network (WLAN) and use the data security encryption features.

After Installing the Adapter, the Adapter's tray icon will appear in your system tray. It appears at the bottom of the screen, and shows the signal strength using color and the received signal strength indication (RSSI).

In the following instruction for making a network connection, we use the provided Utility to configure your wireless network settings.

Note: You could use either the software we provide or Microsoft Zero Configuration tool to configure this adapter.

3.1 Connecting with Microsoft Zero Configuration tool (Win XP)

 After specifying the Microsoft Zero Configuration tool to configure your wireless network, right click on the icon on system tray. Select "View Available Wireless Networks" to specify your wireless network.



• The tool shows the available wireless networks. Select your demanding network to connect with.



 If prompted, enter the password/network key for your wireless network and click the Connect button.

The network 'Rosewill Wirele key). A network key helps	ess Acc' requires a network key (also called a WEP key or WP) a prevent unknown intruders from connecting to this network.
Type the key, and then d	ick Connect.
Network key:	•••••

Choose a wireless network

Click an item in the li	st below to connect to a wireless network in range or to get more
information.	

((0))	Corporate,	Connected ☆
	😚 Security-enabled wireless network (WPA)	
((0))	Articles	
	Unsecured wireless network	
((0))	Visitors	
	Unsecured wireless network	

3.2 Connecting with Window Vista and Windows 7

You can easily access to wireless with Win Vista and Win7. First, move your mouse to lower right hand corner as below and click on the icon where arrow pointing to.



Click **Refresh** to get an update of your Wireless Network Connection. This should help you search the SSID of the network you want to connect to.

Not connected Refresh	-4
Wireless Network Connection 2	^
dlink	.all
dlink123	.11
andy	
PoHOME523	.atl
Other Network	
Open Network and Sharing Cen	ter

Select your desired SSID, then Click "Connect".

Not connected	÷7
Wireless Network Connection 2	^
dlink123	.ell
andy	lite.
Rosewill_Wireless_Signal	lle.
Connect automatically	<u>C</u> onnect
dlink	llte.
Ruckus	lte.
Wireless_DF21E0	Sall
Open Network and Sharing C	enter

You will be prompt to ask you entering the network security key. Once entered, please click OK to complete.

Connect to a Network Type the network	rk security key
Security key:	Hide characters
9	You can also connect by pushing t e button on the router.
	OK Cancel

You should see below in a very short period and find out whether you are connected or now.



If this is your first time connect, you will see a window show up and ask you for setting up Network Location. Please select the location based on your internet usage.



3.3 Connecting with Ralink Wireless Utility

We also provide a Ralink Wireless Utility for users to connect to a wireless network easily. It provides more information and configuration for this adapter. As default, the Utility will start automatically if you select "Install driver and Ralink WLAN Utility" when installing drivers. You can find this icon and double click to start it on the lower right hand corner of your computer desktop. Or you can right click the tray icon and select Launch Config Utility.

C	Launch Config Utility						
	Switch to Client + AP Mode Switch to AP Mode						
	Exit						
	×						
	Customize						



This is the startup window of the Ralink Wireless Utility

Here	is e	each	button	's func	tion:
-					

(2)	<u>Wi-Fi Direct</u>
	(will appear only if your computer can support this function)
\bigcirc	Site Survey
	Link Information
	<u>Profile</u>
0	Advanced
í	<u>About</u>

Please first start by selecting it to search nearby wireless signal for connection.

When click on ⁽²⁾, a window will popup and presents to you the nearby Wi-Fi Signals.

If you did not see the signal you want to connect, please click 😰 to rescan.

One time connection:

Please first highlight your desired

SSID, then click ⁽¹⁾. Then follow the popup window's direction to connect. (Please see for detail)

Setup the Profile for all future connection:

Please click Add to Profile to add the SSID to profile for all future use. For detail, please follow Add/Edit Profile.

Ralink	(a) (2) (E) (a) (a) (a) (a) (a) (a) (a) (a) (a) (a	2 E	Avail	able N	etworks					×
Ralink SSID Rate Channel	D D E D D 1 ? X	EEC"-1 4 cr 25 16 cl25 12 cr 14 cl25 14 cl.	⊗ 0000 0 00000	1 9 2 6 10 1 11 64 1 11		9 9 9 9 9 9 9 9	0	A NONON CO	94% 100% 0% 47% 23% 100% 83% 2% 100% 89%	E
		F (griguest) maginm i mgs mod mes_ (s.) (webdto)() AP Information SSID MAC Address (*) 66	55555 5.579	64 1 11 64 10 ~3 E	a b a b uthentica	9 9	WP. TKI	() A2-P P+A	7% 100% 83% 2% 73% SK ES	۲. ۲»

	Availa	able N	etworks				×
	N.	1		9	1	94%	<u> </u>
	ų.	9		g	Ľ	100%	
	ų.	2	- b	9	ï	0%	
630311.T	- V	6	- 6) <mark>g</mark>	🛈 💔	170/4	
14P852005	4	10	- 6		-	23%	
rege	ų.	1	6) <mark>g</mark>	ĩ	100%	Ξ
08/07	Ý	11	6) <mark>g</mark>	ĩ	83%	
near	Ý	64	a		ĩ	2%	
	Ý	1	- 6) <mark>g</mark>		100%	
inacti-guesh	\$	11	- 6) <mark>g</mark>		89%	
ti ya i-gwaet	\$	64	a			7%	_
1 - <u>510 - 1375</u>	Ŷ	1	- 6	9		100%	
aanggeraaa	Ŷ	11	- 6	9		83%	
226.256 CT. 1	Ŷ	64	a			2%	
prohallmarks	ø	10	6	9	00	73%	+
AP Information							
SSID		A	uthentic	ation	WPA2-	PSK 🕻 🕻	2)
MAC Address 00.00	30 03 0h	30 B	ncryptio	n	TKIP+A	ES	\cup

Now you have completed the setup of your wireless network. You should be ready to surf!

Chapter 4 Ralink Utility Configuration

Ralink Utility enables N900UBE to serve as 3 modes: Wireless Client mode, Client + AP mode, and AP mode.

- Wireless Client mode: This is the basic and default mode for N900UBE when you install the Utility. N900UBE will serve as a wireless dual band adapter at this mode.
- Client + AP mode: N900UBE under this mode will serve as a wireless dual band adapter while broadcast signals that other Wi-Fi devices can connect to. (Note: N900UBE can only transmit 2.4GHz signal if receives 2.4GHz signal from wireless router, and 5GHz signal if receives 5GHz signal from wireless router)
- AP mode: N900UBE as AP will serve as a signal broadcaster while the computer it installed in is connecting to internet via wire connection. (Note: N900UBE can only transmit either 2.4GHz signal or 5GHz signal in one time, but not at the same time)

4.1 Wireless Client Mode

Wireless client Mode is the default access mode for N900UBE. N900UBE serves as a client to receive the wireless signal from the wireless router for connecting to the internet.

You can find this icon start the system tray and double click to start it on the lower right hand corner of your computer desktop. Or you can **right click** the tray icon and select **Launch Config Utility**.

Launch Config Utility						
Switch to Client + AP Mode Switch to AP Mode						
Exit						
×						
Customize						

Once launched, you should see this window popup. Please refer to the later sessions for more detail introduction on Ralink Utility.



4.1.1 Wi-Fi Direct

Wi-Fi direct is a new technology. You can establish direct connections with one or more network devices which also support this technology without the help of wireless access point. It's similar to Ad-Hoc mode but more simple and powerful.

To enable Wi-Fi direct, double-click the computer icon:



You'll be prompted to input the name of your computer. It will use your computer's name by default, however, you can input a new one here by selecting the blank field below and input a new name, then click right arrow is to continue.

Wi-Fi Direct Setting	×
Please provide a nickname of your Wi-Fi Device	
Use My Computer name : TOXIC-COMPUTER	
с[

Your computer will enter Wi-Fi direct standby mode and scan for any Wi-Fi direct capable computer nearby.



When one or more device(s) is found, you'll see the topology of all nearby devices, like the example shown below:



In this topology:

T) GO (Group Owner) indicates an AP-like device.

Ð This indicates this device is the head of one or more client devices (multiple clients belong to this GO).

9 indicates you can configure secured connection with this device by WPS



lindicates this device uses WPA2AES key.

To access more Wi-Fi direct functionalities, right-click on the laptop icon on the bottom-left corner, and a menu will appear:

<i>Ŋ</i>	_
Scan Enable autonomous GO	

Click 'Scan' to discover nearby Wi-Fi Direct devices. (see example below, 2 nearby devices are found)

Wi-Fi Direct	×
TERESALI TERESALI TERESALI	
My Device Information: HP-PC	
SSID DIRECT-G7 MAC Address 00-0C-43-39-90-4	16 ()
IP Address 0.0.0.0 2 nearby device(s) found	Ľ

For descriptions of other functionalities, see chapters below.

4.1.1.1 Establish connection with P2P device

To establish connection with a P2P (peer to peer) device, double-click on its icon, and you'll be prompted to select its WPS connection type:

(an example as below)

	Wi-Fi Direct	×		
				Double click on icon
My Device Information: SSID DIRECT-G7 IP Address 0.0.0.0	HP-PC MAC Address 00-0C-43-33-90-A6 2 nearby device(s) found	() E		
= + +	Wi-Fi Direct Setting		×	
WPS Type	 Push-Button Configuration(PBC) Display PIN 			
Pin Code	C Enter PIN (ask Display PIN) 26003214 Renew	8 digit		

Please select a WPS type here.

Push-Button Configuration: Using PBC configuration method to establish connection.

Display PIN: Using display PIN method to establish connection. When in this method, you'll see a 8-digit number shown here. Input this number on another device to establish connection.

Enter PIN: Input the 8-digit PIN number displayed on another device in 'PIN Code' field to establish connection.

Then click right arrow 🛸 to continue.

4.1.1.2 Accept Wi-Fi Direct Connection Request

When your computer's Wi-Fi direct function is enabled, and some other computer wishes to connect with your computer, you'll be prompted by a pop-up message:



Click the pop-up message to accept incoming connection request. Then, When Wi-Fi Direct is successfully connected, you will see a straight line between 2 devices.

(See example as below)



4.1.1.3 Wi-Fi Direct / Legacy client concurrent mode

This wireless network card can operate in both Wi-Fi direct and legacy wireless network client mode. So you can establish Wi-Fi direct connection and connect to access point at the same time.

When Wi-Fi direct is enabled, you can right-click Ralink utility icon, and a menu will appear:

Launch Config Utility
Switch to Client + AP Mode
Switch to AP Mode
Exit

There are 2 modes available:

Switch to Client + AP Mode: enable network client and access point functionality at the same time.

Switch to AP Mode: Enable access point mode only.

4.1.1.4 Autonomous GO

Enable this function to allow other users to initiate a Wi-Fi Direct 'GO' directly. To use this function, select 'Enable autonomous GO' by right-clicking laptop icon at the bottom-left corner:



You'll be prompted to input a WPA2-PSK key for autonomous GO:

= + +	Wi-Fi Direct Settings	×			
** Enable autonomous GO **					
Security Type	WPA2PSK AES				
WPA Preshared Key	12345678				

You'll also be prompted to select an operating channel for this autonomous GO connection: Select a preferred channel in 'Preferred channel' dropdown list, then click is button to finish.

= + +	Wi-Fi Direct Settings	×
Preferred channel	6	

4.1.1.5 Media sharing

You can share files on your computer with other Wi-Fi direct points. To enable this function, right-click on the laptop icon on the bottom-left corner, and a menu will appear:

 WITTDIEC	,
Scan Enable autonomous GO	

Click 'Media Sharing' to continue. You'll be prompted to select a folder on your computer for file sharing.

	Media Sharing	×
Service status	Stopped	
Server Name	Ralink Media Server	
Sharing Folder	2:\Users\albert\Documents\Media Sharing	

You can click folder icon by to select a folder, then click right arrow to start sharing files on your computer. For security reasons, do not select a folder which contains sensitive or personal files, only select the folder which contains public files.

Please note that a new folder named 'Media Sharing' will be created under 'C:\Users\XXX\Documents' folder, where 'XXX' is your user name in Windows.

Other users may access the files on your computer now. To stop sharing file, click stop button.

After you enabled media sharing function, other computers can see your sharing folder by clicking 'Network' item in Windows Explorer:



Double-click 'Ralink Media Server' icon to open Windows media player, users can select the category of media files you shared.

4.1.2 Site Survey

Site Survey shows you all surrounding wireless networks from the last scan.



Click on Site Survey button if from menu bar, the information window will pop out.

EP.	Ē	Availa	able N	etwork	s			×
Ē		_k	1	_	Q	1	94%	
		Ň	9	ſ	b g	6	100%	
	22351A	ě	2	- č	5 ğ	į	0%	
	8.8 -9. ST	ě	6	- d	5 ğ	0 Ģ	47%	
	23322025)	10	- d	5		23%	
	TATENGE	Ŵ.	1	- 0	5 <mark>9</mark>	ę.	100%	=
	75 <u>6</u> .0	Ŷ	11	- 0	9 🤤	ę.	83%	
	4F1(N)	Ŷ	64	a		L	2%	
	化结构的 建化化合剂	Ŷ	1	- 0	9 🤤		100%	
	10993-1,5693	Ŵ.	11	- 0) <mark>9</mark>		89%	
	nange galanti	Ŵ.	64	a			7%	
	18 QQ 4480	Ŵ.	1	- 0) <mark>9</mark>		100%	
	(25, 650) $(73, 950)$	\$	11	- 0	9 9		83%	
	25-19 <u>2</u> 4-1925C	\$	64	a		_	2%	
	produzioner he	ø	10	L Q) <mark>9</mark>	🛈 ()	73%	-
AF	P Information							
SS	ID		A	uthent	ication	WPA2-	PSK ((P))
M	AC Address (@3-50)-%2-	C() (* 5	-80 E	ncrypti	on	TKIP+A	ES	

- Rescan: to update and refresh surrounding wireless networks
- Profile: to jump to profile list window
- Connect: select one wireless network and click this button to connect it

4.1.2.1 Connect

Once you highlighted the desired SSID, then click



You should see a "Profile Settings" window show up and Utility will automatically detect your SSID's "**Authentication**" and "**Encryption** "setting. So unless you want to adjust the setting manually, otherwise, you can just click for next step.

Ralink	Ø ■ 0 ⊚ i ? ×	Available Networks	×
SSID Rate Channel	Rosewill_test_alpha 300.0 Mbps IP Address 192.168.0.196 4 (2427 MHz) Mask 255.255.255.0	crygg-genst Ø 64 â 0% migg-genst Ø 64 â 0% migg-genst Ø 11 Ø 100% vagg man Ø 6 Ø 100% vagg man Ø 6 Ø 100% vagg man Ø 64 â 2% metabilmarkin Ø 3 Ø Ø 18%	*
Authentication Encryption	Profile Settings ×	Image: State Mark 1 100% Rosewill_test_alpha 4 1 100% rosewill_test_beta 40 1 100% smodel 6 9 23% L0%1 6 9 23% L0%1 1 9 1 Switch (L) 9 9 9 Switch (L) 9 9 9 Switch (L) 5 9 7%	
		AP Information SSID Rosewill_test_a Authentication WPA-PSK MAC Address 17 11 1 1000 VD Encryption TKIP+AES	2

You will be asking to enter the **WPA Preshared Key** (or any type of the **Key** based on your **Authentication** and **Encryption** type. The **WPA Preshared Key** is your SSID's connection password which is pre-set in the wireless router. Please enter the **Key** then click for complete the connection process.

	Available Networks	×
SSID Rosewill_test_alpha Rate 300.0 Mbps IP Address 192.168.0.196 Channel 4 (2427 MHz) Mask 255.255.255.0	cropg-genest b 64 a 0% model_class b 11 b 9 100% vidog_man b 6 b 9 100% vidog_man b 6 b 9 100% vidog_man b 64 a 2% vidog_man b 64 a 2% vidog_man b 3 b 9 10 47 18%	*
Profile Settings X	Rosewill_test_alpha 4 3 100% rosewill_test_beta 40 3 1 9%	
WPA Preshared Key	smith b b b 4/% nobion b 6 5 23% LUN1 b 1 5 1 Switch b 9 5 73%	Ш
	10%2_A2A, B 6 0% 10%E 5 9 0% AP Information 5 9 7% SSID Rosewill_test_a Authentication WPA-PSK MAC Address 10 10 10 00 00 Encryption TKIP +AES	•

4.1.3 Profile

Profile can records your favorite wireless setting among your home, office, and other public hotspot. You can save multiple profiles and activate anyone from the record at your preference.



Click Profile button from menu bar, below window will pop out.

PROF1	Wireless_N	8	Ŋ

- Add: to create a new profile
 - Delete: to delete an existing profile
- Edit: to edit/modify/change parameter of an existing profile
- Import: import the dedicated profile
- Export: save the selected profile as backup
- ♦ I Add WPS Profile: to configure WPS settings
- 🖤 Activate: to make an existing profile become active and to connect

4.1.3.1 Add / Edit Profile

Profile Name	PROF1
SSID	Wireless_N
Network Type	• Infrastructure - Connect to AP
	C Ad Hoc - Connect to other computers

- **Profile Name:** Enter a name for the profile edited.
- SSID: The name of your wireless network.
- Network Type:
 - a. Infrastructure A wireless Router and/or Access Point is required.

b. Ad-hoc – Peer-to-Peer network, no base station required.

- Next: Click this button to continue.
- Back: Click this button to go back to previous step.
- Cancel: Click this button to close the window.

After entering your desired Profile Name and SSID, Click Rev Next to configure encryption settings.

Authentication	Open	•
Encryption	None	•

- Authentication: Open, Shared, WPA, WPA-PSK, WPA2, WPA2-PSK, 802.1x, CCKM.
- Encryption: None, WEP, TKIP, AES

4.1.3.2 Add WPS Profile

Add WPS Profile supports the configuration setup using PIN/numeric code (PIN) configuration method or Push-Button Configuration (PBC) configuration method. WPS (Wi-Fi Protected Setup) simplify the security setup and management of Wi-Fi networks.

 Push-Button Configuration(PBC): Default setting, push buttons to complete auto-check and connections between N900UBE and other wireless device

WPS AP List	Auto	
WPS Method	Push-Button Configuration(PBC)	
	C PIN / numeric code	

- PIN/numeric code: Enter 8 digit numbers Pin code to automatically connect N900UBE with wireless devices around.
 - Select WPS AP from drop-down menu or check Auto checkbox to find WPS AP automatically.

WPS AP List	Wireless_N 📃 🗖 Auto
WPS Method	C Push-Button Configuration(PBC)
	PIN / numeric code

2. Select Config mode for connecting the WPS wireless network.

Pin Code	emanette	Renew
Config Mode	Enrollee	▼ WPS Profile
	Enrollee	

- **Enrollee**: As a client device. Click Renew button to update pin code.
- Registrar: As a host AP. Enter 8 digit numbers Pin code and click WPS Profile button for detail configuration.
 - 3. Click WPS Profile button to configure below settings

SSID	Wireless_N_WPS		
BSSID	00-23-F8-08-11-26		
Authentication	WPA2-PSK	•	
Encryption	AES	•	

- SSID: Enter a name of SSID for WPS wireless network
- BSSID: It is a 48bit identity used to identify a particular BSS (Basic Service Set) within an area. In Infrastructure BSS networks, the BSSID is the MAC address of the AP.
- Authentication: Select from drop-down menu.
- Encryption: Select from drop-down menu.

4.1.4 Link Information



Click Elix Link Information button from menu bar, below window will pop out.

Link Status

Link Information	>
Rosewill test alpha <> C. C. C. C. C. C.	_
Link is Up [Tx Power: 100%]	
WPA2-PSK	
AES	
Infrastructure	
6	
	Rosewill_test_alpha <> 0 21.1.20.0.00 Link is Up [Tx Power:100%] WPA2-PSK AES Infrastructure 6

Throughput

<u>all</u> 🕐	Link Info	rmation	
Link Quality			100 %
Signal Strength 2			-33 dBm
Transmit		Receive	
Link Speed	300.0 Mbps	Link Speed	81.0 Mbps
	0.000 Khos	Throughput	22, 160 Khos

Statistics

Statistics displays the detail counter information.

Transmit C	Receive	Reset Counter
Transmitted Successfully	/ =	3265
Retransmitted Successfi	ully =	572
Fail To Receive ACK Aft	er All Retries =	19

4.1.5 Advanced

Click Advanced button for bringing out the **Advanced** function window. You will be able to adjust the wireless Mode by 2.4 GHz and/or 5 GHz and also manage the certification for some Authorization required.



Advanced

N900UBE is a dual band wireless adapter; therefore, you can select among 3

options on 2.4GHz, 2.4GHz + 5 GHz, or 5 GHz.

	Available Networks X
SSID rosewill_test_beta Rate 300.0 Mbps > IP Address 192.168.0.196 Channel 40 (5200 MHz) > Mask 255.255.255.0	Image subset Ø 6 B 9 94% March S Ø 11 B 100% March S Ø 6 B 9 90% March S Ø 11 B 100% 100% March S Ø 11 B 100% 100% March S Ø B 9 0 4 2 March S Ø B B 0 4 2 2 March S Ø B B 0 4 1 0 March S Ø B B 0 4 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 0 0 1
Wireless Mode 2.4 GHz + 5 GH: Select Your Country's Region Code 2.4 GHz 0: CH1-11 5 GHz 16: CH 36, 40, 44, 48, 52, 56, 60, 64,	✓ rosewill_test_beta ↓ 0 0 0 1 83% 6 9 57% 18% 5 18% 5 18% 5 18% 5 18% 5 16% 5 9 73% 74%
Apply	

4.1.6 About

The About window tells you the details of the Firmware information.

2	Daliak		000		0 W
0	Hallink				? X
" 1 "	SSID				
6	👂 Rate		👂 IP Addre	ess	
	😵 Channel		😵 Mask		
					_
		A	bout		×
		A	bout		×
	Version	A	bout		×
	Version Utility	A 4.1.6.0	bout Date	2012-02-09	×
	Version Utility Driver	A 4.1.6.0 3.2.12.0	bout Date Date	2012-02-09 2012-03-05	×
	Version Utility Driver SDK	A 4.1.6.0 3.2.12.0 1.1.6.0	bout Date Date Date Date	2012-02-09 2012-03-05 2012-02-20	×
	Version Utility Driver SDK MAC Address	A 4.1.6.0 3.2.12.0 1.1.6.0	bout Date Date Date	2012-02-09 2012-03-05 2012-02-20	×

4.2 Client + AP Mode

N900UBE can serve as a wireless adapter while as an access point to receive and transmit wireless signals at the same time which allows other wireless clients to access the network.

• Right-click the tray icon salect switch to Client + AP Mode.



4.2.1 Configuration

You can make basic configuration under this window



- We recommend that you connect to the wireless signal first, in order to avoid possible IP conflict. Please follow the steps in <u>4.1.2 Site Survey</u> to first connections to your desired SSID and wireless signal.
- After connects to the wireless signal, Click on the AP button from menu bar, below window will pop out. In AP Configuration page, you can choose some basic configurations, such as wireless network name, and security setting.

2 8	AP			
SSID	SoftAP			
Authentication	WPA2-PSK	Encryption	AES	-
WPA2 Pre-Shared Key	******			
Max Number of Peers	20			
IP Address	192.168.123.1		Apply	

- 3. Click Apply to start broadcast the SSID.
- You should be seeing two active network as below. The SoftAP is the AP N900UBE broadcast.



5. You can use other Wi-Fi Devices to connect to the SoftAP.

4.3 AP Mode

N900UBE can also serve as an access point to transmit wireless signals and create wireless network, allowing other wireless clients to access the network. This AP mode requires your PC to have an additional network card.

4.3.1 Window 7

Right-click the tray icon M and select switch to AP Mode.

Launch Config Utility Switch to Client + AP Mode
Switch to AP Mode
Exit
×
Customize

 Enter a name of SSID for Soft AP and 8~63 ASCII characters for WPA2 Pre-Shared Key.





AP button is will be added to menu bar of main window.

4.3.1.1 Configuration

You can make basic configuration and review the MAC table under AP window



Click AP button if from menu bar, below window will pop out.

AP Configuration

In AP Configuration page, you can make some basic configurations, such as wireless

network name, and security setting.

SSID	SoftAP		
Authentication	WPA2-PSK T End	ryption	AES
WPA2 Pre-Shared Key	*******		
Max Number of Peers	20		
IP Address	192, 168, 123, 1		Apply

MAC Table

MAC Table page shows the information of the wireless devices accessed to this soft AP.

	AP	
BSSID CR-3A CS CS-3 MAC Table	5. Py	
C3-3A-35-C5-45-C1	Authenticated	

4.3.1.2 Switching to Client Mode

In AP mode, right-click the icon $\overset{\scriptstyle{}_{\scriptstyle{\scriptstyle{}}}}{\overset{\scriptstyle{}_{\scriptstyle{}}}{\overset{\scriptstyle{}}}}$ in the system tray and choose Switch to Client Mode, then

N900UBE will switch to client mode with an interface as wireless client.

Open Utility	
Switch to Client Mode	
Exit	
🐴 💌 🔫 🕺 8/15/2012	

4.3.2 Windows XP / Vista

Right-click the tray icon is and select switch to AP Mode.



When main window pop out, select button from the menu bar for more settings.



4.3.2.1 Config AP



Click Config AP button from the above window, a setup window will popup.

SSID: Enter a name of SSID for Soft AP.

SSID	SoftAP	
Wireless Mode	2.4GHz	•

 Channel: Select the channel used for wireless communication from drop-down menu. Available channel numbers are 1 to 11 for USA, 1 to 13 for European countries.

elect Countr	y Region	
2.4GHz	0: CH1-11	•

 Authentication: Open, Shared, WPA-PSK, WPA2-PSK, and WPA-PSK/WPA2-PSK

Config AP	
Open	
Not Use	•
	Config AP Open Not Use

4.3.2.2 Advanced

2	Ralink	R	0) 🤊	() () ? ×
" 1 "	SSID	SoftAP			
6	Mode	2.4GHz		IP	169.254,126,187
4	Channel	1 (2412 MHz)	8	Mask	255.255.0.0

Click Advanced button from menu bar, below window will pop out.

No rorwarding among	wireless clients
Beacon Interval(ms)	100
TX Power	100 %
Idle time(60 - 3600)(s)	300

- Beacon Interval: Set the beacon interval of wireless radio. Do not modify default value if you don't know what it is, default value is 100.
- TX Power: You can set the output power of wireless radio. Unless you're using N900UBE in a really big area, you may not have to set output power to 100%. This will enhance security (malicious / unknown users in distance will not be able to reach your N900UBE).

4.3.2.3 Access Control List

Access control includes Allow All and Reject All. After editing the MAC address access list, only the MAC in the Allow All list could access the Soft AP.

2	Ralink	<u>)</u>) (0	(i) ? ×
" 1 "	🐉 SSID	SoftAP			
6	Mode	2.4GHz	8	IP	169.254.126.187
4	Channel	1 (2412 MHz)	•	Mask	255.255.0.0

Click Click Access Control List button from menu bar, below window will pop out.

Access Policy	Disable	
MAC Address	Disable Allow All Reject All	
Add		
Delete		
Remove All		

4.3.2.4 Associate List

Associate List page shows the information of the wireless devices accessed to this soft AP.



Click O Associate List button from menu bar, below window will pop out.

Associate List X			
MAC Address	AID	Power Saving Mode	Status
ದರಿನಾ ತರಿಸು ಕಗಳು	1	No	N: MCS = 7, BW =
<			>

FAQ

If you encounter any problem when you're using this wireless network card, don't panic! Before you call your dealer of purchase for help, please check this troubleshooting table, the solution of your problem could be very simple, and you can solve the problem by yourself!

Scenario	Solution	
I can't find any wireless	1. Click 'Rescan' for few more times and see if you can find	
access point / wireless device	any wireless access point or wireless device.	
in 'Site Survey' function.	2. Please move closer to any known wireless access point.	
	3. 'Ad hoc' function must be enabled for the wireless device	
	you wish to establish a direct wireless link.	
	4. Please adjust the position of network card (you may have	
	to move your computer if you're using a notebook	
	computer) and click 'Rescan' button for few more times. If	
	you can find the wireless access point or wireless device	
	you want to connect by doing this, try to move closer to the	
	place where the wireless access point or wireless device is	
	located.	
Nothing happens when I click	1. Please make sure the wireless network card is inserted	
'Launch config utilities'	into your computer's USB port. If the Realtek configuration	
	utility's icon is black, the network card is not detected by	
	your computer.	
	2. Reboot the computer and try again.	
	3. Remove the card and insert it into another USB port.	
	4. Remove the driver and re-install.	
	5. Contact the dealer of purchase for help.	
I can not establish connection	1. Click 'Connect' for few more times.	
with a certain wireless access	2. If the SSID of access point you wish to connect is hidden	
point	(nothing displayed in 'SSID' field in 'Site Survey' function),	
	you have to input correct SSID of the access point you	
	wish to connect. Please contact the owner of access point	
	to ask for correct SSID.	
	3. You have to input correct passphrase / security key to	
	connect an access point with encryption. Please contact	
	the owner of access point to ask for correct passphrase /	
	security key.	

	4. The access point you wish to connect only allows network	
	cards with specific MAC address to establish connection	
	Please go to 'About' tab and write the value of	
	'Phy_Addess' down, then present this value to the owner	
	of access point so he / she can add the MAC address of	
	your network card to his / her access point's list.	
The network is slow / having	1. Move closer to the place where access point is located.	
problem when transferring	2. Enable 'Wireless Protection' in 'Advanced' tab.	
large files	3. Try a lower TX Rate in 'Advanced' tab.	
	4. Disable 'Tx Burst' in 'Advanced' tab.	
	5. Enable 'WMM' in 'QoS' tab if you need to use multimedia /	
	telephony related applications.	
	6. Disable 'WMM – Power Save Enable' in 'QoS' tab.	
	7. There could be too much people using the same radio	
	channel. Ask the owner of the access point to change the	
	channel number.	
	Please try one or more solutions listed above.	

Thank you for purchasing a quality Rosewill Product.

Please register your product at: www.rosewill.com for complete warranty information and future support for your product.

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

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

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.

Any changes or modifications not expressly approved by the party responsible for compliance could void the authority to operate equipment.

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 20cm (8 inches) during normal operation.

The antenna(s) used for this transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

R&TTE Compliance Statement

This equipment complies with all the requirements of DIRECTIVE 1999/5/EC OF THE EUROPEAN PARLIAMENT AND THE COUNCIL of March 9, 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, France, 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: Iceland, Liechtenstein, Norway, and Switzerland.

EU Countries Not intended for use

None.

CE Mark Warning

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