

WIRELESS 300N USB 2.0 INTERNET ADAPTER



User Manual DN-70542 Rev.2 • DN-70543 Rev.2

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CHAPTER 1. Introduction

DIGITUS new 2T2R wireless 802.11b/g/n USB adapter series comes with two models. DN-70542 is the mini-size version whereas DN-70543 integrates external detachable dipole antenna for better transmission and reception. In addition to the common wireless standards 802.11b/g, this new wireless adapter series is also 802.11n compatible with data transfer rate up to 300Mbps, which is three times faster than 802.11g wireless network!

1.1 Product Features

- Complies with IEEE 802.11n, IEEE 802.11g and IEEE 802.11b standards
- Provides USB2.0 port
- Provides 150/300Mbps receiving rate and 150/300Mbps sending rate
- Supports 20MHz/40MHz frequency width
- Auto-detects and changes the network transmission rate
- Provides two work modes: Infrastructure and Ad-Hoc
- Supports Soft AP to establish your wireless LAN networking
- Supports 64/128-bit WEP, WPA, WPA2 encryption methods and 802.1x security authentication standard
- Supports WPS (Wi-Fi Protected Setup) encryption method to free you from remembering long passwords
- Easy-to-install, plug and play
- Supports Windows XP/VISTA/Win7/8/10/Linux/Macintosh

1.2 Package contents

The package contains:

- One Wireless 801.11b/g/n USB adapter
- One CD (include driver/utility/user manual)

NOTE: If any of the listed contents are damaged or missing, please contact the retailer from whom you purchased the product for assistance.

1.3 Indicator Description

LED blinking indicates the data communication.

CHAPTER 2: Quick Installation Guide

This chapter describes how to use the included CD-ROM which includes the Driver and the Client Utility.

2.1 Driver Installation

Please follow the below instructions to install the Wireless USB Adapter:

2.1.1

Insert the USB wireless network adapter into an available USB 2.0 port of your computer. Please note that the USB connector side is directional, so please flip the USB adapter when it cannot be inserted into the USB port.

2.1.2

The following message will appear on your computer, click 'Cancel / Close'.

Under Windows XP



Under Windows Vista and Windows 7/8/10

Driver Software Installation		×
Installing device driver so	oftware	
802.11 n WLAN	Waiting for user input	
		Close

2.1.3

Insert the driver CD into your CD-ROM. You can see autorun screen below. If not, you can double click '<u>autorun.exe</u>' on CD.



Click 'Install Driver' to start the installation procedure

2.1.4

Installation wizard will then be shown. Click 'Next' to continue.



2.1.5

Once the installation is finished the computer will be asked to reboot. You can click '**Finish**' and reboot the computer to finish the driver installation.

REALTEK 11n USB Wireless	LAN Software
	InstallShield Wizard Complete The InstallShield Wizard has successfully installed REALTEK. 11n USB Wireless LAN Software. Before you can use the program, you must restart your computer. • Yes, I want to restart my computer now. • No, I will restart my computer later. Remove any disks from their drives, and then click Finish to complete setup.
	K Back Finish Cancel

2.1.6

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 also uses different color to show the status of wireless connection:



Wireless connection is established, good signal reception.



Wireless connection is established, weak signal reception.



Connection is not established yet.

Wireless network card is not detected.

For detailed instructions of wireless network configuration utility, please see next chapter.

2.2 Connect to Wireless Access Point

To use wireless network, you have to connect to a wireless access point first. You can either use Client utility (comes with network card driver), or Windows Zero Config utility (comes with Windows operating system).

2.2.1 Using Client Utility

Please follow the following instructions to use Client configuration utility to connect to wireless access point.

1. Left-click the Client configuration utility icon located at lower-right corner of computer desktop, and configuration menu will appear:



2. Wireless utility will appear. Click '<u>Available Network</u>' menu to search for wireless access points nearby.

REALTEK 11n USB W	ireless LAN Utility	
Refresh(R) Mode(M) Abou	ut(A)	
🖃 😼 MyComputer	General Profile Available Network Status Statistics Wi-Fi Protect Setup	
Realtek R I L 818t	Available Network(s)	
	SSID Channel Encryption Network Authentication	Signal 1
	👔 🕐 3GRouter 6 None Unknown	100% Ir
	1 1 QA300M 6 None Unknown	48% Ir
	I I ²⁰ WR2880 6 None Unknown	44% Ir
	THLY 11 None Unknown	60% Ir
	I I TKIP WPA Pre-Shared Key	56% Ir
		3
	Refresh Add to Profile	
<	Double click on item to join/create profile.	
✓ Show Tray Icon Radio Off	Disable Adapter Windows Zero Config	Close

3. Please wait for a while, and all wireless access points which can be reached by this wireless network card will be displayed here.

REALTEK 11n USB W	/ireless LAN Utility		
Refresh(R) Mode(M) Abou	ut(A)		
🖃 🚽 MyComputer	General Profile Available Network Status Statistics Wi-Fi Protect Setup		
Realtek RTL8188	Available Network(s)		
	SSID Channel Encryption Network Authentication	Signal	-
	Garden Charles State Address Addre	100%	Īr
	VICA300M 6 None Unknown	48%	Ir
	1 ² WB2880 6 None Unknown	44%	Ir
	PHLY 11 None Unknown	60%	Ir
	11 TKIP WPA Pre-Shared Key	56%	Ir
	Refresh Add to Profile Note Double click on item to join/create profile.		×
< >>			
Show Tray Icon Radio Off	 Disable Adapter Windows Zero Config 	Close	

If the wireless access point you wish to connect does not appear here, you can click (<u>Refresh</u>) button to scan for wireless access points again; if the wireless access point you're looking for still not appear, try to move the computer closer.

When the access point you're looking for is on the list, left-click it and then double click it or click 'Add to Profile'.

- 4. If a password (a.k.a. 'Network Key') is required to access the wireless access point, please input it in '<u>Network key</u>' (and input it again in '<u>Confirm network key</u>' for confirmation). Click '<u>OK</u>' when password is properly inputted.
 - NOTE: Network security type ('<u>Network Authentication</u>' and '<u>Data</u> <u>encryption</u>') will be selected automatically based on wireless access point's security setting. It's not required to change these settings by yourself.

Wireless Network Properties:	
Profile Name: Office	802.1x configure
Network Name(SSID): Office	EAP TYPE :
	GTC
	Tunnel : Privision Mode :
This is a computer-to-computer(ad hoc) network; wireless access points are not used.	· · · · · · · · · · · · · · · · · · ·
Channel: 11 (2462MHz)	Username :
Wireless network security	
This network requires a key for the following:	Identity :
Network Authentication: WPA-PSK 👻	
Data encryption: TKIP 🗸	Domain :
	Password :
Key index (advanced):	Certificate :
Network key:	
	PAC : Auto Select PAC
Confirm network key:	×
OK	

All options in this page will be filled automatically according to the access point you wish to add to profile. However, you can still modify any of them to meet your requirement.

Profile name	You can give a name to this profile, so you can remember its
	purpose easily. It can be any phrase to help you remember.
Network Name (SSID)	The SSID (Service Set IDentifier, i.e. access point's name).
	This field will be filled as the access point you selected when
	SSID is not hidden and grayed out. If SSID is hidden, you
	have to input correct SSID you yourself.
This is a	Check this box if you wish to connect to another computer /
computer-to-computer	network device by ad hoc method. When not accessing to
(ad hoc) network	wireless access point, you have to check this box.
Channel	Select wireless channel for ad hoc connection. This option
	only appears when you're using ad hoc connection.
Network Authentication	Select the network authentication type from drop-down
	menu. This setting must be identical with the setting of
Dete enery ution	Wireless access point you with to connect.
Data encryption	Select the data encryption type from drop-down menu. This
	setting must be identical with the setting of wheless access
	When the encryption type is 'WEP' it's required to input a set
	of 'passphrase' to connect to wireless access point. Check
	ASCII' or 'PASSPHRASE' depends on the security setting of
	access point and input it in the box if you select
	'PASSPHRASE' you also need to select the length of the key.
	, , , , , , , , , , , , , , , , , , , ,
	The passphrase must be identical with the setting of wireless
	access point you with to connect.
Key index	Select WEP key index. For most of access points you can
	select '1', but please refer to the setting of the access point.
Network key / Confirm	When the encryption type is 'WPA' or 'WPA2-PSK', it's
network key	required to input a set of 'passphrase' to connect to wireless
	access point. Please input the same passphrase in two
	boxes for confirmation.
EAP IYPE / Iunnel /	When authentication type is any of 802.1X, you have to
Provision Mode	select EAP type, tunnel, and provision mode from dropdown
	menu. This setting must be identical with your 802.1x
Lloornomo / Idontity /	Diagona input 202 1x related authentication information here
Domain / Password	Please input 602. IX related authentication information here.
Certificate	If certification is required to authenticate with 802.1x
	authentication server, please select a local certificate from
	dropdown list.
PAC	Check this box and PAC (Privilege Access Certificate) will be
	automatically selected.

Please click '<u>OK</u>' when ready.

Network card will attempt to connect to access point now, this may require few seconds to minutes, please be patient. When the '<u>Status</u>' become '<u>Associated</u>', your computer is connected to access point you selected. Click '<u>Close</u>' to close configuration menu.

REALTEK 11n USB W	ireless LAN Utility	
Refresh(R) Mode(M) Abou	ıt(A)	
🖃 💡 MyComputer	General Profile Available Network Status Statistics Wi-Fi Protect Setup	
	Status: Associated	
	Speed: Tx:72 Mbps Rx:72 Mbps	
	Type: Infrastructure	
	Encryption: None	
	SSID: 3GRouter	
	Signal Strength: 100%	
	Link Quality:	
	Network Address:	ñ (
	MAC Address: 00:E0:4C:00:00:13	
	IP Adaress: 0.0.0.0	
	Gateway:	
< > >	ReNew IP	
Show Tray Icon	Disable Adapter	Close

NOTE: If you connected to an access point but the connection has been dropped soon, please check security settings and re-check password spelling.

2.2.2 Using Windows Zero Configuration

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

1. Right-click Client configuration utility icon, and click 'Open Config Utility'.

Open Config Utility	
About	
Hide	
Ouit	

2. Check 'Windows Zero Config' box.

REALTEK 11n USB W	/ireless LAN Utility		
Refresh(R) Mode(M) Abo	ut(A)		
🖃 😼 MyComputer	General Profile Available Network Status Statistics Wi-Fi Protect Setup		
Realtek RTL8188	Available Network(s)		
	SSID Channel Encryption Network Authentication	Signal	٦
	🕄 🕄 3GRouter 6 None Unknown	100%	Ir
	I ³ QA300M 6 None Unknown	48%	Ir
	🚺 🖓 WR2880 6 None Unknown	44%	Ir
	🚺 🖓 HLY 11 None Unknown	60%	Ir
	11 TKIP WPA Pre-Shared Key	56%	Ir
			>
	Refresh Add to Profile]	
	Note Double click on item to join/create profile.		
	J		
Show Tray Icon Radio Off	Disable Adapter Windows Zero Config	Close	-

3. A message indicating that you've been switched to Windows Zero.



NOTE: To return to use Client utility, uncheck 'Windows Zero Config' box.

 Click '<u>Start</u>' button (should be located at the bottom-left corner of windows desktop), click '<u>Control Panel</u>', then click '<u>Network and Internet Connections</u>' in Control Panel.



5. Double click 'Network Connections'.



Right-click <u>Wireless Network Connection</u> (it may have a number as suffix if you have more than one wireless network card, please make sure you right-click the Wireless LAN 802.11n USB Network Adapter), then select <u>View Available Wireless Networks</u>.



7. 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, then click '<u>Connect</u>'.



8. If the access point is protected by encryption, you have to input its security 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 security key or passphrase.

Wireless Network Cor	nection 🛛 🔀
The network 'office' requir key helps prevent unknow	es a network key (also called a WEP key or WPA key). A network In intruders from connecting to this network.
Type the key, and then cl	ick Connect.
Network key:	
Confirm network key:	
	Connect

9. If you can see '<u>**Connected**</u>' message, the connection between your computer and wireless access point is successfully established.



CHAPTER 3: Client Utility

3.1 Connection Profile Management

If you need to connect to different wireless access points at different time, like of access point of your home, office, cybercafe, or public wireless service, you can store the connection parameters (encryption, passphrase, security etc, etc.) as a profile for every access point, so you don't have to input these parameters every time when you want to connect to a specific wireless access point.

To manage profiles, right-click the Client configuration utility icon located at lower-right corner of computer desktop, then click '**Open Config Utility**'.

Open Config l	Jtility	
About		
Hide		
Quit	22	

Click the 'Profile' menu.

REALTEK 11n USB Wi	ireless LAN Utility 📃 🗖 🔀
Refresh(R) Mode(M) Abou	t(A)
Refresh(R) Mode(M) Abou	t(A) General Profile Available Network Status Statistics Wi-Fi Protect Setup Available Profile(s) Profile Name SSID Add © 3GRouter 3GRouter Remove Edit Duplicate Set Default
Show Tray Icon	Disable Adapter Windows Zero Config

3.1.1 Add a new profile

By this function you can setup the connection parameters for a specific wireless access point in advance, without contacting it first.

If you want to create a new profile, click 'Profile' menu, then click 'Add' button.

REALTEK 11n USB Wi	ireless LAN Utility		
Refresh(R) Mode(M) Abou	it(A)		
MyComputer MyComputer Mealtek RTL8186	General Profile Availab	le Network Status Statistics Wi-	Fi Protect Setup
	Profile Name	3GRouter	Add
			Remove
			Edit
			Duplicate
			Set Default
	<		
<			
Show Tray Icon		 Disable Adapter Windows Zero Config 	Close

You'll be prompted to input connection parameters for the wireless access point you wish to connect:

Drofile Name:	3GBouter	No. of Academic Sciences	
Pronie Marne,		802.1x configure	
Network Name(SSID):	3GRouter	EAP TYPE :	
		GTC	~
		Tunnel : Privision Mode :	
This is a computer-to access points are no	a-computer(ad hoc) network; wireless t used.		1
Channel:	6 (2437MHz)	Username ;	
Wireless network secu	urity		
This network requires	a key for the following:	Identity :	
Netv	vork Authentication: Open System 🛛 😪		
	Data encryption: Disabled	Domain :	
	SPHRASE	Password :	
Key index (advanced)): 1 🗸	Certificate :	
Network key:			18
		PAC : Auto Select PAC	
Confirm network key:			3

Required parameters are:

Profile name	You can give a name to this profile, so you can remember its purpose easily. It can be any phrase to help you remember.
Network Name (SSID)	The SSID (Service Set IDentifier, i.e. access point's name). This must be identical with the SSID of the access point you wish to connect.
This is a computer-to-computer (ad hoc) network	Check this box if you wish to connect to another computer / network device by ad hoc method. When not accessing to wireless access point, you have to check this box.
Channel	Select wireless channel for ad hoc connection. This option only appears when you're using ad hoc connection.
Network Authentication	Select the network authentication type from drop-down menu. This setting must be identical with the setting of wireless access point you with to connect.
Data encryption	Select the data encryption type from drop-down menu. This setting must be identical with the setting of wireless access point you with to connect.
ASCII / PASSPHRASE	When the encryption type is 'WEP', it's required to input a set of 'passphrase' to connect to wireless access point. Check 'ASCII' or 'PASSPHRASE' depends on the security setting of access point, and input it in the box; if you select 'PASSPHRASE' you also need to select the length of the key. The passphrase must be identical with the setting of wireless access point you with to connect.
Key index	Select WEP key index. For most of access points you can select '1', but please refer to the setting of the access point.
Network key / Confirm network key	When the encryption type is 'WPA' or 'WPA2-PSK', it's required to input a set of 'passphrase' to connect to wireless access point. Please input the same passphrase in two boxes for confirmation.
EAP TYPE / Tunnel / Provision Mode	When authentication type is any of 802.1X, you have to select EAP type, tunnel, and provision mode from dropdown menu. This setting must be identical with your 802.1x authentication server.
Username / Identity / Domain / Password	Please input 802.1x related authentication information here.
Certificate	If certification is required to authenticate with 802.1x authentication server, please select a local certificate from dropdown list.
PAC	Check this box and PAC (Privilege Access Certificate) will be automatically selected.

When all required parameters are set, click ' \underline{OK} ' to create and save a new profile. 19

3.1.2 Remove an existing profile

When you no longer need an existing profile, you can remove it.

If you want to remove a profile, click '**<u>Profile</u>**' menu, then select an existing profile which you wish to remove, and then click '**<u>Remove</u>**' button.

	General Profile Availa	ble Network Status Statistics W	/i-Fi Protect Setup
Concert Reproc	Available Profile(s)		
	Profile Name	SSID	Add
	(1)3GRouter	3GRouter	Remove
			Edit
			Duplicate
			Set Default
	<	10	>
	h		

3.1.3 Edit an existing profile

If you have added a profile before, and you wish to change the content of the profile, you can use this function. Please select a profile from the list first, then click '<u>Edit</u>' button. You'll be provided with the contents of selected profile, and you can edit them. Click '<u>OK</u>' to save changes, or click '<u>Cancel</u>' to discard changes.

Profile Name:	3GRouter	802.1x configure	
Network Name(SSID):	3GRouter	EAP TYPE :	
		GTC	~
		Tunnel : Privision Mode	e :
This is a computer-to access points are no	p-computer(ad hoc) network; wireless t used,		·
Channel:	6 (2437MHz)	Username :	
Wireless network secu	urity		
This network requires	a key for the following:	Identity :	
Netw	vork Authentication: Open System 🛛 🚽		
	Data encryption: Disabled	Domain :	
	SPHRASE	Password :	
Key index (advanced)): 1 🗸	Certificate :	
Network key:			~
		PAC : Auto Select PAC	
Confirm network key:			~

3.1.4 Make a copy of existing profile

If you need to make a copy of a specific profile, you can use this function. This function is very convenient when you need to build a new profile which parameters are similar to any existing profile.

REALTEK 11n USB Wireless LA	N Utility	
Refresh(R) Mode(M) About(A)		
MyComputer General Availabl Profile Sa	Profile Available Network Status Statistics Wi-Fi Pro e Profile(s) a Name SSID Router 3GRouter	Add Remove
		Edit Duplicate
		Set Default
<		
Show Tray Icon	 Disable Adapter Windows Zero Config 	Close

To do this, select an existing profile, then click 'Duplicate' button.

You'll be prompted to input a profile name, please use an identical name that does not exist in profile list.

3.1.5 Set as default profile

If you wish to use a specific profile as default connection, you can select a profile in the list, and click '<u>Set Default</u>'. Selected profile will become default selection and Client configuration utility will attempt to connect to selected access point.

(R) Mode(M) About(A)		
Realtek RTL818t	rofile Available Network Status Statistics Wi	i-Fi Protect Setup
Available	Profile(s)	
Profile	Name SSID	Add
(L) 3GF	outer 3GRouter	C
		Remove
		Edit
		Duplicate
		Set Default
<		X
>		

3.2 View Network Statistics, General Information, and Status

The configuration utility provides information about network statistics and link status. If you want to know how your wireless network card works, you can use these functions to get detailed information about the wireless connection you're using.

3.2.1 General Information

If you want to know the general information of the access point you're connecting to, click '**General**' menu:

REALTEK 11n USB Wi	ireless LAN Utility	
Refresh(R) Mode(M) Abou	t(A)	
B S MyComputer	General Profile Available Network Status Statistics Wi-Fi Protect Setup	
Realter R IL0100		
	Status: Associated	
	Speed: Tx:72 Mbps Rx:72 Mbps	
	Type: Infrastructure	
	Encryption: None	
	SSID: 3GRouter	
	Signal Strength: 100%	
	Link Quality:	
	[
	Network Address:	
	MAC Address: 00:E0:4C:00:00:13	
	IP Address: 192.168.1.120	
	Subret Mask: 200.200.200.0	
	Gateway, 152.100.1.1	
	ReNew IP	
<		
🗹 Show Tray Icon	Disable Adapter	Close
🔲 Radio Off	🔲 Windows Zero Config	

All general information like signal strength and link quality will be displayed here. These information are very useful when you encounter some problem on connecting to access point.

If you wish to get a new IP address from DHCP server, you can click '<u>**ReNew IP**</u>' button.

3.2.2 Status

If you want to know the status of your wireless network card, click 'Status' menu:

REALTEK 11n USB W	ireless LAN Utility	
Refresh(R) Mode(M) Abou	ut(A)	
MyComputer Realtek RTL8188	General Profile Available Network Status Statistics Wi-Fi Protect Setup Manufacturer REALTEK NDIS Driver Version 1006.0.614.2010 Short Radio Header No Encryption Disabled Authenticate Open System Channel Set 11 MAC Address 00:E0:40:00:00:13 Data Rate (AUTO) Tx:72 Mbps Rx:72 Mbps Channel (Frequency) 6 (2437 MHz) Status Associated SSID 3GRouter Network Type Infrastructure Power Save Mode None Associated AP MAC 00:00:43:30:52:E8 Up Time (hh:mm:ss) 0:26:36	
Show Tray Icon Radio Off	Disable Adapter Clc Windows Zero Config	se

3.2.3 View Network Statistics

To view the statistical data of wireless network card, click '<u>Statistics</u>' menu, and the statistics of wireless connection will be displayed:

(R) Mode(M) About(A)		
MyComputer General	Profile Available Network Status Statistics Wi-Fi P	rotect Setup
A Redicer K ILUIUC		
	Counter Name) (alua
	Tx ON	0
	Ry OK	912
	Bx Packet Count	912
	Bx Retry	7
	Rx ICV Error	0
	Reset	
>		
	and an and a set of the	

All connection-related statistics is displayed here. You can click '<u>**Reset**</u>' button, to reset the statistics of all items back to 0.

3.3 Miscellaneous Settings

There are few functions provided by Client configuration utility, you can access these functions from the bottom of configuration menu:

REALTEK 11n USB W	ireless LAN Utility	
Refresh(R) Mode(M) Abou	it(A)	
🖃 y MyComputer	General Profile Available Network Status Statistics Wi-Fi Protect Setup	
	Status: Associated	
	Speed: Tx:72 Mbps Rx:72 Mbps	
	Encryption: None	
	SSID: 3GRouter	
	Signal Strength: 100%	
	Link Quality:	
	Network Address:	1
	MAC Address: 00:E0:4C:00:00:13	
	IP Address: 192.168.1.120 Subpot Mode: 255.255.0	
	Gateway: 192.168.1.1	
	ReNew IP	
< >		
Show Tray Icon	Disable Adapter Windows Zero Config	Close

The descriptions of these function are listed as follow:

Show Tray Icon	Check this box to show an icon on system tray.	
Radio Off	Switch wireless radio off. Wireless network functionalities are disabled.	
Disable Adapter	Disable wireless network adapter. All functionalities of configration menu will disappear. To resume, unckeck 'Disable Adapter'.	
Windows Zero Config	Use Windows Zero Configuration to manage wireless connections. See section 2.2.2.	

3.4 Establish secure connection with AP by WPS

Wi-Fi Protected Setup (WPS) is the latest wireless network technology which makes wireless network setup become very simple. If you have WPS-enabled wireless access point, and you want to establish a secure connection to it, you don't have to configure the wireless access point and setup data encryption by yourself. All you have to do is to go to the WPS setup page of this wireless card, click a button, and then press a specific button or enter a set of 8-digit code on the wireless access point you wish to establish a secure connection - just three simple steps!

For older wireless access points, it's possible to perform a firmware upgrade to become a WPS-enabled access point. Since they may not have a hardware button to press for WPS setup, you can use an alternative WPS setup method - input the pin code. Every WPS-compatible wireless network card support pin code configuration method; you can just input the code to wireless access point, and the wireless access point and wireless network card will do the rest for you.

This wireless network card is compatible with WPS. To use this function, the wireless access point you wish to connect to must support WPS function too. Now, please follow the following instructions to establish secure connection between WPS-enabled wireless access point and your wireless network card.

This wireless network card supports 2 kinds of WPS: PIN code and Push-Button.

Please follow the following instructions to setup WPS:

1. Right-click Client configuration utility icon, and click 'Open Config Utility'.



2. Click '<u>Wi-Fi Protect Setup</u>' menu.

REALTEK 11n USB With Refresh(R) Mode(M) About	/ireless LAN Utility	וצ
Refresh(R) Mode(M) Abou	General Profile Available Network Status Statistics Wi-Fi Protect Setup Status: Associated Speed: Tx:72 Mbps Rx:72 Mbps Type: Infrastructure Encryption: None SSID: 3GRouter Signal Strength:	
	Link Quality: 100% Network Address: MAC Address: 00:E0:4C:00:00:13 IP Address: 192.168.1.120	
<	Subnet Mask: 255.255.0 Gateway: 192.168.1.1 ReNew IP	
Show Tray Icon	Disable Adapter Olose Windows Zero Config	

3. You can use PIN code or Push-Button configuration, and WPS-compatible wireless access point must use the same type of WPS. For instructions on setup each type of WPS, see next 2 chapters for detailed instructions.

REALTEK 11n USB Wi	reless LAN Utility	
Refresh(R) Mode(M) Abou	t(A)	
Refresh(R) Mode(M) Abou	General Profile Available Network Status Statistics Wi-Fi Protect Setup WJ-Fi Protected Setup (WPS) An easy and secure setup solution for Wi-Fi network Pin Input Config (PIN) After pushing the PIN button.Please enter the PIN code into your AP. PIN Code : 35229414 Pin Input Config (PIN) Push Button After pushing the PBC button.Please push the physical button on your AP or visual button on the WPS config page. Push Button Config (PBC)	
Show Tray Icon Radio Off	 Disable Adapter Windows Zero Config 	Close

3.4.1 PIN Code

To use PIN Code, please click 'Pin Input Config (PIN)' button:

efresh(R) Mode(M) Abo	ut(A)
MyComputer	General Profile Available Network Status Statistics Wi-Fi Protect Setup Wi-Fi Protected Setup (WPS) An easy and secure setup solution for Wi-Fi network Pin Input Config (PIN) After pushing the PIN button.Please enter the PIN code into your AP. PIN Code : 35229414 Pin Input Config (PIN) Push Button After pushing the PBC button.Please push the physical button on your AP or visual button on the WPS config page.
	Push Button Config (PBC)
Show Tray Icon	Disable Adapter Close

You'll be prompted to select an access point you wish to connect. If you know its SSID, click '<u>Yes</u>', otherwise click '<u>No</u>'.

Wi-Fi P	rotected Se	tup (WPS)	
?	Do you wan	t to select a spec	ific AP ?
(Yes	No	

If you select '<u>Yes</u>', a list of all WPS-compatible AP nearby will be displayed; you can click '<u>Refresh</u>' to rescan, then select an AP and click '<u>Select</u>' button.

WPS AP Name	WPS AP MAC
3GRouter HLY	00:0C:43:30:52:E8 00:E0:4C:81:96:C1
	Refresh

If you select '<u>No</u>', wireless network card will prompt you to enter 8-digit PIN code into your AP, without selecting an AP in advance.

After you select '<u>Yes</u>' or '<u>No</u>' in previous step, network card will attempt to connect to WPS-compatible AP, and an 8-digit number will appear. Please input this number to AP's configuration menu within 2 minutes, and network card will establish secure connection with AP automatically.

To stop this procedure before connection is established, click 'Cancel'.

Wi-Fi Protected Setup - PIN method	
Wi-Fi Protected Setup - PIN method	
Please enter the following PIN code into your AP .	
PIN Code : 35229414	
Status : Initial WPS	
(#########	
Cance	

3.4.2 Push Button

To use Push-Button WPS configuration, please click '<u>Push Button Config (PBC)</u>' button. This is the easiest way to establish secure connection by WPS, but if there're more than one WPS-compatible AP using Push-Button config, please use PIN Code instead.

REALTEK 11n USB W	ireless LAN Utility	
Refresh(R) Mode(M) Abou	t(A)	
Refresh(R) Mode(M) Abou	t(A) General Profile Available Network Status Statistics Wi-Fi Protect Setup Wi-Fi Protected Setup (WPS) An easy and secure setup solution for Wi-Fi network Pin Input Config (PIN) After pushing the PIN button.Please enter the PIN code into your AP. PIN Code : 35229414 Pin Input Config (PIN) Push Button After pushing the PBC button.Please push the physical button on your AP or visual button on the WPS config page. Push Button Config (PBC)	
Show Tray Icon	 Disable Adapter Windows Zero Config 	Close

After you click "Push Button Config(PBC)", a message box will appear:

Wi-Fi Protected Setup - PBC method 🛛 🔀
Wi-Fi Protected Setup - PBC method
If there is more than one AP on the PBC mode, there will be [Session Overlap].Please use PIN method or wait for a while and use PBC method again.
Status : AP Sitesurvey
Complete :
Push Button Config (PBC) Cancel

Please activate Push-Button function on wireless access point now, and wireless network card will establish secure connection with access point within one minute.

CHAPTER 4 Soft-AP Function

Excepting become a wireless client of other wireless access points, this wireless adapter can act as a wireless service provider also! You can switch this wireless adapter's operating mode to 'AP' mode to simulate the function of a real wireless access point by software, and all other computers and wireless devices can connect to your computer wirelessly, even share the internet connection you have!

Please follow the instructions in following chapters to use the AP function of your wireless card.

4.1 Switch to AP Mode and Station Mode

The operating mode of the wireless card is 'Station Mode' (becoming a client of other wireless access points) by default.

Please follow the following instructions to switch to AP mode:

1. Right-click Client configuration utility icon, and click 'Open Config Utility'.



2. Select 'Mode', and then select 'Access Point'.



It requires few seconds to switch to AP mode, please be patient.

Refresh(R) Mode(M) About(A)	s ear officy	
Gene	ral Advanced Statistics ICS	
	SSID: microsof-35426b_AP BSSID: 00:E0:4C:00:00:13 Association Table	
	AID MAC Address Life Time	
	Config	
Show Tray Icon Radio Off	Disable Adapter	Close

After mode switch is complete, you'll see general information of software AP, which shows AP's SSID and connected wireless clients.

REALTEK 11n USB Wi	reless LAN Utility	
Refresh(R) Mode(M) Abou	t(A)	
B WyComputer	General Advanced Statistics ICS	
	SSID: microsof-35426b_AP	
	BSSID: 00:E0:4C:00:00:13 Association Table	
	AID MAC Address Life Time	
	Config	
<		
Show Tray Icon	Disable Adapter	Close
Client mode ico	n: 9:10 AM	
Software AP ico	n. 🖅 🖓 🚱 9:48 AM	

Software AP icon:

4.1.1 Configure SSID and Channel

To configure software AP, click '<u>**Config**</u>' button:

REALTEK 11n USB Wi	ireless LAN Utility	_ 🗆 🛛
Refresh(R) Mode(M) Abou	t(A) General Advanced Statistics ICS SSID: microsof-35426b_AP BSSID: 00:E0:4C:00:00:13 Association Table AID MAC Address Life Time	
	Config	
Radio Off	L Disable Adapter	Close

The 'Wireless Network Properties' is displayed.

reless Network Prope	erties:
Profile Name:	Access Point Mode
Network Name(SSID):	microsof-35426b_AP
This is a computer-to access points are not Channel:	o-computer(ad hoc) network; wireless t used. 1 (2412MHz) 💌
Wireless network secu This network requires	rity a key for the following:
Netw	rork Authentication: Open System
	Data encryption: Disabled
ASCII	SPHRASE
Key index (advanced) Network key:	: 1 💌
Confirm network key:	
ОК	Cancel

Please note that Ad-Hoc mode is not available when network card is in AP mode. The description of major setup items are listed below:

Network Name	Please input the SSID (the name used to identify this
(SSID)	wireless access point) here. Up to 32 numerical characters
	can be accepted here, excepting space.
Channel	Please select the wireless channel you wish to use,
	from 1 to 13.

To save changes, click '<u>OK</u>'; otherwise click '<u>Cancel</u>' to leave this menu and keep settings untouched.

4.1.2 Setup Soft-AP Security

To setup security options for Soft-AP, configure 'Wireless Network Security' section as follow:

reless Network Prope	erties:
Profile Name:	Access Point Mode
Network Name(SSID):	microsof-35426b_AP
This is a computer-to	p-computer(ad hoc) network; wireless t used.
Channel:	1 (2412MHz) 💌
Wireless network secu	rity
This network requires	a key for the following:
Netw	v <mark>ork Authentication:</mark> Open System 🛛 💽
	Data encryption: Disabled
ASCII PASS	SPHRASE
Key index (advanced) Network key:	1
Confirm network key:	
ОК	Cancel

The description of setup items about wireless security are listed below:

Network Authentication	Select network authentication mode from dropdown menu.
Data Encryption	Select data encryption method from dropdown menu.
ASCII /	If the encryption method is WEP, check either 'ASCII' or
PASSPHRASE	'PASSPHRASE' box and input it in the box as WEP
	passphrase.
Key Index	Select WEP key index (1-4). If you don't know which one
	you should use, select 1.
Network key /	IF network authentication mode is WPA, please input WPA
Confirm network	passphrase in both box.
key	

To save changes, click '<u>OK</u>'; otherwise click '<u>Cancel</u>' to leave this menu and keep settings untouched.

4.2 Advanced Settings

If you want to setup advanced settings of software access point, select '<u>Advanced</u>' menu. If you don't know the meaning and affects of these settings, keep them untouched.

REALTEK 11n USB W	ireless LAN Utility	
Refresh(R) Mode(M) Abou	ıt(A)	
B WyComputer	General Advanced Statistics ICS	
	General	
	Beacon Interval	
	100	
	DTIM Period:	
	3	
	Preamble Mode	
	Long	
	Sat Defaulte Apply	
< >		
Show Tray Icon	Disable Adapter	Close

The description of all setup items are listed below:

Beacon Interval	Please input wireless beacon time interval here.
DTIM Period	Please input DTIM (Delivery Traffic Indication Message) here.
Preamble Mode	Select wireless frame preamble mode (long or short) from dropdown menu.
Set Defaults	Reset all settings back to factory default value.
Apply	Save changes.

If you changed any setting here and cause problem on communicating with wireless clients, click '<u>Set Defaults</u>' to reset all settings back to default setting.

4.3 Wireless Statistics

Select '<u>Statistics</u>' menu and the data statistics about software access point will be displayed.

🕷 REALTEK 11n USB W	/ireless LAN Utility		
Refresh(R) Mode(M) Abo	ut(A)		
Realtek RTL8188	General Advanced Statistics ICS Counter Name Tx OK Tx Error Rx OK	Value 172 0 1960	
	Rx Packet Count Rx Retry Rx ICV Error		
Show Tray Icon	Reset		se

Click '**Reset**' to reset the value of every item back to '0'.

4.4 Internet Connection Sharing (ICS)

In this page, you can assign a network card on your computer as the path for all wireless clients to get connected to Internet.

If you have only one network card (except this software access point), you don't have to select network card here; if you have more than one network card, select the one you wish to be used as Internet gateway.

REALTEK 11n USB W	ireless LAN Utility	
Refresh(R) Mode(M) Abou	ut(A)	
🖃 😼 MyComputer	General Advanced Statistics ICS	
Realtek R I L 818	Setting Internet Connection Sharing (ICS)	
	ConnName Device Name	
	Local Area Connection Realtek RTL8139 Family PCI Fast Ethernet NIC #2 Local Area Connecti Realtek RTL8139 Family PCI Fast Ethernet NIC	
	Dublic Natwork	
	Local Area Connection Realtek RTI 8139 Family PCI East Ethernet NIC #2	
3 m 1 3		
Show Tray Icon	Disable Adapter	Close
🔲 Radio Off		

Click '**<u>Apply</u>**' to save changes ('**Apply**' is grayed out when no changes are made in this page).

CHAPTER 5: Troubleshooting

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 access	 Click 'Rescan' for few more times and see if you can find any wireless access point or wireless device.
point / wireless	2. Please move closer to any known wireless access point.
device in ' <u>Site</u> <u>Survey</u> ' function.	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 ' <u>Rescan</u> ' 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 ' Open	1.	Please make sure the wireless network card is inserted into your computer's USB port.
<u>Config Utility</u> '	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 cannot establish	1.	Click 'Add to Profile' for few more times.
connection with a certain wireless access point	2.	If the SSID of access point you wish to connect is hidden (nothing displayed in 'SSID' field in ' <u>Site Survey</u> ' 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 ' <u>Status</u> ' menu and write the value of ' MAC Address' 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	1.	Move closer to the place where access point is located.
/ having problem when transferring large files	2.	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.

Hereby ASSMANN Electronic GmbH, declares that this device is in compliance with the requirements of Directive 1999/5/EC and the Directive 2011/65/EC for RoHS compliance. The complete declaration of conformity can be requested by post under the below mentioned manufacturer address.

Assmann Electronic GmbH

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