USB Wireless LAN Adapter

User's Manual

November 2010

FCC Warning

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communication. 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:

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

FCC Caution: To assure continued compliance, any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment. This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

(1) This device may not cause harmful interference, and

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

IMPORTANT NOTE:

FCC Radiation Exposure Statement:

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with a minimum distance of about eight inches (20cm) between the radiator and your body.

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

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.

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Revision History

Revision V1.0 History 1st Release

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1. Introduction

This is a wireless 11n USB Adapter that provides unsurpassed wireless performance for your Desktop PC or Notebook. It complies with IEEE 802.11n draft 2.0 wireless standard and is backward compatible with IEEE 802.11b/g. This USB adapter provides better wireless reception and up to 150Mbps data transfer rates in 11n mode. With this adapter, you can easily upgrade your Desktop PC or Notebook wireless connectivity. Once connected, to access the network with high-speed Internet connection while sharing photos, files, music, video, printers, and storage. Get a better Internet experience with a faster wireless connection so you can enjoy smooth digital phone calls, gaming, downloading, and video streaming.

The Wireless USB adapter provides peer-to-peer communication among any compatible wireless client users and no Access Point required. It also supports WEP, WPA, WPA2, WPS, 802.1x high-level WLAN security features that guarantee the best security for users.

1.1 Features

- Complies with draft IEEE 802.11n standard
- Up to 150Mbps data transfer rates in IEEE 802.11n mode
- Backward compatible with IEEE 802.11b/g
- Legacy and High Throughput Modes
- Supports 64/128-bit WEP Data Encryption
- Supports WPA, WPA2 (802.11i), WPS, 802.1x advanced security
- Supports Quality of Service (QoS) WMM, WMM-PS
- Supports both Infrastructure and Ad-Hoc Networking Modes
- Supports Multiple BSSID
- Simple user setup and diagnostics utilities

1.2 Package Contents

- One Wireless USB Adapter
- One USB A-type male to female extension cable
- One CD disk includes driver/utility and user's manual

1.3 LED Indicator

LED	Light Status	Description
ACT Blinking		Data is being transmitted or received

1.4 Minimum System Requirements

Computer with:

- 300MHz processor and minimum 64MB RAM
- Windows 2000, XP(32/64bit), Vista(32/64bit) or Windows 7 (32/64bit)
- A CD-ROM Drive
- An available USB 2.0 port

2. Install Driver/Utility

Step1: Inset Wireless LAN USB Adapter Installation CD into CD-ROM drive then windows below will appear. Click **Install Driver & Utility** to begin Driver Installation.



Step2: After click **Install Driver Utility**, the USB Wireless LAN Software wizard will appear and then click **Next** to continue.



Step 3: Please wait for a while during wizard is configuring.

REALTEK 11n USB Wireless LAN Software	x
Setup Status	1
REALTEK 11n USB Wireless LAN Software is configuring your new software installation.	
Installing	
C:\\REALTEK\11n USB Wireless LAN Utility\UPnP\libtag-1.dll	
	_
InstallShield	
Cance	:

(For Windows 7 OS, if bellow screen is appeared, choose **Install this driver software anyway** to continue.)



Step 4: Please wait for while during setup program is configuring.



Step 5: Choose **Yes, I want to restart my computer now** and Click **Finish** to complete installation.



[Configure Wireless LAN Utility]

Step 1: After Setup has finished installing the driver, please right-click the Wireless LAN icon on the system tray, and select **Open Config Utility**.

Open Config Utility					
About					
Hide					
Quit					

Step 2: The USB Wireless LAN Utility will be displayed; select **Available Network** tab and the utility will auto-detect the available network channels and shows them in the list. Choose one you would like to connect.

REALTEK 11n USB Wireless LAN Utility	
Refresh(<u>R</u>) Mode(<u>M</u>) About(<u>A</u>)	
B- WyComputer	General Profile Available Network Status Statistics Wi-Fi Protect Setup Easy Sharing Virtual WiFi
Realtek RTL8188CU Wireless LAN 802.11n USB 2.0 Network Adapter	Available Network(s)
	SSTD Channel Encountion Network Authentication Signal T
	PART CHAINER ENCLOSED IN NELWORK AUCHENICATION Signal 1
	¹ lab 1 TKIP/AES WPA Pre-Shared Key/ 60% In
	Refresh Add to Profile
	Note
	Double click on item to join/create profile.
Image: Wight of the second	Close

Step 3: The **Wireless Network Properties** windows will show. You will see the network channel which you choose show in the **Profile Name**. Enter the Network Key (if it is necessary) and click **OK** to continue.

Wireless Network Properties:						
This is a computer-to-computer(ad hoc) network; wireless access points are not used.						
Profile Name: RD_FTPSERVER						
Network Name(SSID): RD_FTPSERVER						
Channel: 1 (2412MHz) -						
Wireless network security						
This network requires a key for the following:						
Network Authentication: WPA2-PSK 🔹						
Data encryption: AES						
ASCII PASSPHRASE						
Key index (advanced): 1						

Confirm network key:						
OK <u>C</u> ancel						

REALTER 11 & USB Wireless LAN Litility								_ 0 <u>_ x</u>
Refresh(R) Mode(M) About(A)								
MyComputer Sealtek RTL8188CU Wireless LAN 802.11n USB 2.0 Netwo	k Adapter Availa	Profile ,	Available Network	Status	Statistics	Wi-Fi Protect Setup	Easy Sharing	Virtual WiFi
	Pro	file Name RD_FTPSEI	SS RVER RD	ID _FTPSE	RVER		Add	
							Remove	
							Edit	
							Duplicate	
							Set Defau	lt
			III			Þ		
Show Tray Icon	Adapter	_		_	_			Class
Radio Off Virtual	ViFi allowed							Close

Step 4: The chosen Wireless network will be listed in the **Profile** tab.

Step 5: Now you can browse the Internet Explorer and connect to the Internet.



Step 6: You can also move your mouse to wireless LAN icon in the system tray and check the current Wireless Network Connection status.



3. Wireless Network Configuration

The Configuration Utility is an application that helps you to configure the Wireless LAN adapter and monitor the link status and statistics during the communication process.

3.1 General

In the "General", you can immediately monitor the link status.

REALTEK 11n USB Wireless LAN Utility									
Refresh(R) Mode(M) About(A)									
E- 🖁 MyComputer	General F	Profile Ava	ilable Network	Status	Statistics	Wi-Fi Protect Setup	Easy Sharing	Virtual WiFi	
Realtek RTL8188CU Wireless LAN 802.11n USB 2.0 Network Adapter		Status: Associated							
		Sp	eed: Tx:72 I	4bps Rx	:58 Mbps				
		T	Type: Infrastr	ucture					
		Encryp	otion: AES						
		:	SSID: RD_FTF	SERVER	2				
	s	Signal Strer	ngth:				849	%	
		Link Qu	ality:				100	1%	
	Natural	de Addroom							
	Netwon	MAC Address: MAC Address: 00-06-4E-7E-R3-8C							
		1	IP Address: 19	92.168.	55.143				
		Su	Gateway: 10	22.255.4 27.168 '	255.0 55.1				
			Gaceway, 1						
			ſ	R	eNew IP				
			L L						
Show Tray Icon 📃 Disable Adapter	,							Close	
Radio Off Virtual WiFi allowed								0000	

Status: Current connection status

Speed: Show current transmit rate and receive rate.

Type: Network type in use.

Encryption: Encryption type in use.

SSID: The Current AP name of user type.

Signal Strength: Receive signal strength

Link Quality: Display link quality strength

Network Address: Display the current connection's MAC Address, IP address, Subnet Mask, and Gateway information.

Click "**ReNew IP**" button to refresh the current AP.

3.2 Profile

In the "**Profile**", you can view the current using Available Point(s). You can add, remove or edit the current Available Point(s). Also you can duplicate the AP or Set current AP as Default.

3 REALTEK 11n USB Wireless LAN Utility							- • ×
Refresh(R) Mode(M) About(A)							
B	General Profile	Available Netv	vork Status	Statistics	Wi-Fi Protect Setup	Easy Sharing	Virtual WiFi
Realtek RI L8188CU Wireless LAN 802.11n USB 2.0 Network Adapter	Available Pro	ofile(s)					
	Profile Nan	ne	SSID				Add
	C RD_FTF	SERVER	RD_FTP:	SERVER	_		
						R	emove
							Edit
						Du	uplicate
						Set	t Default
	•				4		
☑ Show Tray Icon □ Disable Adapter □ Radio Off ☑ Virtual WiFi allower	d						Close

3.3 Available Network

The "**Available Network**" shows all Access Points, Routers or Adapters nearby when operating in Ad-Hoc mode.

Click "**Refresh**" button to collect the SSID and Channel information of all the wireless devices nearby. If you want to connect to any device on the list, double-click the item on the list, and the card will automatically connect to the selected device.

REALTEK 11n USB Wireless LAN Utility	
Refresh(R) Mode(M) About(A)	
MyComputer MyComputer Log Realtek RTL8188CU Wireless LAN 802.11n USB 2.0 Network Adapter	General Profile Available Network Status Statistics WI-Fi Protect Setup Easy Sharing Virtual WiFi Available Network(S)
	SSID Channel Encryption Network Authentication Signal Type
	RD_FTPSERVER 1 TKIP/AES WPA Pre-Shared Key/ 92% Infrastructu 1 TKIP/AES WDA Pre-Shared Key/
	Refresh Add to Profile
	Double click on item to join/create profile.
Image: Show Tray Icon Image: Disable Adapter Image: Radio Off Image: Virtual WiFi allowed	Close

If you want to add one Access Point to the profile, click "**Add to Profile**" button. The **Wireless network properties** windows will display. You can configure your Wireless Network Security for the card.

Wireless Network Properties:
This is a computer-to-computer(ad hoc) network; wireless access points are not used.
Profile Name:
Network Name(SSID):
Channel: 1 (2412MHz) Wireless network security This network requires a key for the following:
Network Authentication: Open System 💌
Data encryption: Disabled
ASCII PASSPHRASE
Key index (advanced):
Confirm network key:
OK <u>C</u> ancel

[Network Authentication]

-- Open System: No authentication is needed among the wireless devices.

-- Shared Key: Only Wireless device using a shared key (WEP Key identified) is allowed to connecting each other. Setup the same key as the wireless device which the card intends to connect.

-- WPA-PSK: It is a special modem of WPA for home users without an enterprise authentication server and provides the same strong encryption protection.

-- WPA2-PSK (for WPA2 Personal): This option will be present only if the wireless network adapter and its driver support WPA2.

-- WPA 802.1X: 802.1x authentication is required in WPA. In the 802.11 standard, 802.1x authentication was optional.

-- WPA2 802.1X: WPA2 is the next-generation Wi-Fi security standard, combining the most powerful authentication and encryption techniques to protect wireless networks from unauthorized use. Based upon the recently-ratified IEEE 802.11i standard, WPA2 adds the Advanced Encryption Standard (AES) to the original WPA specification to provide the greatest levels of network security available. The National Institute of Standards and Technology (NIST) advocates the use of AES security to protect sensitive digital information on government networks.

[Data Encryption]

-- Disabled: Disable the WEP Data Encryption.

-- WEP: Enabled the WEP Data Encryption. When the item is selected, you have to continue setting the WEP Key Length & the key Index.

-- TKIP: Enable the TKIP Data Encryption. When the item is selected, you have to continue setting the Network Key & Confirm network key.

-- Network Key: The keys are used to encryption data transmitted in the wireless network. Fill in the text box by following rules below:

→ 64-bit: Input 10 digit Hex values (in the "A-F", "a-f", and "0-9" range) as the encryption keys. For example: "0123456aef"

 \rightarrow 128-bit: Input 26 digit Hex values (in the "A-F", "a-f", and "0-9" range) as the

encryption keys. For example: "01234567890123456789abcdef"

-- Confirm Network Key: Re-type again the Network key in this text box.

-- Key Length: You may select the 64-bit or 128-bit to encryption transmitted data. Larger key length will provide higher level of security, but the throughput will be lower.

-- Key Index (Advanced): The maximum of key index is 4.

[802.1X configure]

-- EAP TYPE (Extensible Authentication Protocol Authentication Types): Because WLAN security is essential and EAP authentication types provide a potentially better means of securing the WLAN connection, vendors are rapidly developing and adding EAP authentication types to their WLAN access points. Some of the most commonly deployed EAP authentication types include **MD5**, **GTC**, **TLS**, **EAP**, **TTSL**, and **PEAP**.

-- Tunnel: Use the drag-down list to choose the tunnel.

-- Username: Enter the username for personal certificate.

-- Identity: Enter the Identity for personal certificate.

-- Password: Enter the password in advance.

-- Certificate: Click drag-down list to choose certificate that you want to use.

3.4 Status

In the "Status", you can view the current link status of Wireless LAN adapter.



3.5 Statistics

In the "**Statistics**", you can get the real time information about the packet transmission and receiving status.

👷 REALTEK 11n USB Wireless LAN Utility 🛛 👘 🗆 🔤 🖉										
Refresh(B) Mode(M) About(A)										
WyComputer MyComputer Computer Computer	General Profile Available Network Status Statistics	Wi-Fi Protect Setup Easy Sharing Virtual WiFi								
	Counter Name	Value								
	Tx OK	84								
	Tx Error	0								
	Rx OK	43								
	Rx Packet Count	43								
	Rx Retry	15								
	Rx ICV Error	0								
	Reset									
Image: Show Tray Icon Image: Disable Adapter Image: Radio Off Image: Virtual WiFi allowed		Close								

3.6 Wi-Fi Protected Setup (WPS)

In the "Wi-Fi Protect Setup", you can setup the Wi-Fi network more easily and secure. . There are two main methods for you: Pin Input Config (PIN) Method & Push Button Config (PBC) Method". Select one of following methods to setup your AP.

The primary goal of Wi-Fi Protected Setup (Wi-Fi Simple Configuration) is to simply the

security setup and management of Wi-Fi networks. This Wireless LAN utility as an Enrollee or external Registrar supports the configuration setup using PIN configuration method or PBC configuration setup using PIN configuration method or PBC configuration method through an internal or external Registrar.

REALTEK 11n USB Wireless LAN Utility	
Refresh(<u>R</u>) Mode(<u>M</u>) About(<u>A</u>)	
Realter RTL8188CU Wireless LAN 802.11n USB 2.0 Network Adapter	General Profile Available Network Status Statistics Wi-Fi Protect Setup Easy Sharing Virtual WiFi 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 : 38699320 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) External Registrar There are two functions in External Registrar:Configure an AP to A security you want and add an new device into your network. External Registrar
Show Tray Icon Disable Adapter Radio Off Virtual WiFi allowed	Close

Pin Input Config (PIN): Start to add to Registrar using PIN configuration method. If STA Registrar, remember that enter PIN Code read from you Enrollee before starting PIN.
 Push Button Config (PBC): Start to add to AP using PBC configuration method.

External Registrar: There are 2 functions in External Registrar – **Configure an AP to A** security you want & Add an New device into your network.

3.7 Easy Sharing

In Windows 7 Operation System, you can share data and media with PC, PS3, iPod...etc.

🧱 REALTEK 11n USB Wireless LAN Utility						
Refresh(<u>R</u>) Mode(<u>M</u>) About(<u>A</u>)						
B → WyComputer	General Profile EzSharing In Win 7, you PS3, iPode	Available Network	Status Statist	ics Wi-Fi Protect Setup (Manage Shared F	Easy Sharing	Virtual WiFi
Image: Show Tray Icon Image: Disable Adapter Image: Radio Off Image: Virtual WiFi allowed	ļ					Close

3.8 Virtual WiFi

Virtual WiFi is a technology which virtualizes wireless adapter into as many wireless adapter depending upon the requirement, and make the machine to think that it has many wireless adapter in it thus provides the ability to connect to multiple hotshots simultaneously i.e. it allows a single wireless adapter to act like two, two NIc in one machine.

SoftAP function is to enable your wireless adapter as a Virtual Wi-Fi AP to extend wireless coverage and share internet connection with others. (SoftAP is only supported in Windows 7.)

🧱 REALTEK 11n USB Wireless LAN Utility							x
Refresh(R) Mode(M) About(A)							
Refresh(R) Mode(M) About(A) D MyComputer L Realtek RTL8188CU Wireless LAN 802.11n USB 2.0 Network Adapter	ieneral Profile Available M Start Virtual WiFi SoftAP S Virtual WiFi SoftAP S Status: SSID: BSSID: Association Table AID MAC Addr	twork Status t AP tatus Not Supporte ess	Statistics 1 d Life Tir Config	me	Easy Sharing	Virtual WiFi	E
🗑 Show Tray Icon 🔲 Disable Adapter	[III				-
□ Radio Off						C	osé

How to use Virtual WiFi Function:

Step1: Enable "Virtual WiFi Allowed" on the bottom of USB wireless utility. Next, move to Virtual WiFi tab and enable "Start Virtual Wifi SoftAP". The System will create a SSID and BSSID after SoftAP is enabled.

🞇 REALTEK 11n USB Wirele	ess LAN Utility	- • ×
Refresh(<u>R</u>) Mode(<u>M</u>) Ab	sout(<u>A</u>)	
MyComputer	General Profile Available Network Status Statistics Wi-Fi Protect Setup Easy Sharing	Virtual WiFi
Realtek KIL818	V Start Virtual WiFi Soft AP	
	Virtual WiFi SoftAP Status	
	Status: Started	
	SSID: GIGA-PC-09810	
	BSSID: 00:06:4F:7E:B3:8C	
	Association Table	_
	AID MAC Address Life Time	
	Config	
	Comg	
	Setting Internet Connection Sharing (ICS)	
Chan Tau Ian		
Show Tray Icon Radio Off	 Disable Adapter Virtual WiFi allowed 	Close

Step2: Click "**Config**" button to enter wireless network properties. You can change the network name (SSID) and network key for other wireless devices connection. (SoftAP adopts WPA2-PSK(AES) as Wireless network security)

Wireless Network Properties:
Profile Name: HOSTED_NETWORK_PROFILE
Network Name(SSID): GIGA-PC-09810
Wireless network security This network requires a key for the following:
Network Authentication: WPA2-PSK 🔹
Data encryption: AES -
Network key:

Confirm network key:
OK Cancel

Step3: If you want to share Internet connection to other wireless device through USB Wireless, besides enabling the SoftAP function, you have to enable "Internet Connection Sharing" function in Windows 7 as well.

**To enable "Internet Connection Sharing" from Windows 7, please follow the following steps in your computer:

(1) Please log to Windows 7 as administrator or user identification. Click "**Start**" \rightarrow "Control **Panel**"



(2) Select "Network and Internet" then Click "View network status and tasks".



	weet b. Natural and Sharing Caster	
Control Panel Home	View your basic network information a	and set up connections
Change adapter settings Change advanced sharing	GIGA-PC Multiple netwo (This computer)	rks Internet
settings	View your active networks RD_FTPSERVER Public network	Connect or disconnect Access type: Internet Connections: All <u>Wireless Network</u> Connection 2 (RD_FTPSERVER)
See also	GIGA-PC-09810 Work network	Access type: No network access Connections: Wireless Network Connection 3
HomeGroup Internet Options Windows Firewall	Change your networking settings Set up a new connection or network Set up a wireless, broadband, dial-up, ad access point.	I hoc, or VPN connection; or set up a router or

(3) Right click wireless network connection to enter Wireless Network Connection Status

(4) In Wireless Network Connection Status, please select "Properties".

dff Wireless Network Connection 2 St	atus 🔍 🗶
General	
Connection	
IPv4 Connectivity:	Internet
IPv6 Connectivity:	No Internet access
Media State:	Enabled
SSID:	RD_FTPSERVER
Duration:	00:05:09
Speed:	58.0 Mbps
Signal Quality:	Lite
Details Wireless Prop	erties
Activity	
Sent —	Received
Bytes: 1,258	19,430
Properties Pisable	Diagnose
	Close

(5) Click "Sharing" tab and enable "All other network users to connect through this computer's Internet connection".

For Home networking connection: Please select Microsoft Virtual WiFi Miniport device (example here is named Wireless Network Connection 3.)

Wireless Network Connection 2 Properties	3
Networking Sharing	
Internet Connection Sharing	
Allow other network users to connect through this computer's Internet connection	
Home networking connection:	
Wireless Network Connection 3	
Allow other network users to control or disable the shared Internet connection	
Using ICS (Internet Connection Sharing) Settings	
OK Cancel	

(6) After above configuration in Windows 7, in USB Wireless Utility "**General**" page, it will indicate Microsoft Virtual WiFi Miniport Adapter IP 192.168.100.1.

🞇 REALTEK 11n USB Wirele	ess LAN Utility					
Refresh(<u>R</u>) Mode(<u>M</u>) At	pout(<u>A</u>)					
	General Profile Available Network Status Statistics Wi-Fi Protect Setup Easy Sharing Virtual WiFi					
Realtek RTL818	Status: Associated					
	Speed: Tx:72 Mbps Rx:58 Mbps					
	Type: Infrastructure					
	Encryption: AES					
	SSID: RD_FTPSERVER					
	Signal Strength: 78%					
	Link Queltus					
	Network Address:					
	MAC Address: 00:06:4F:7E:B3:8C Rootek RTI 8189CU Wireless LAN 902 11p USR 2 0 Network Adoptor					
	IP Address: 192.168.55.143					
	Subnet Mask: 255.255.255.0					
	Gateway: 192.168.55.1					
	Microsoft Virtual WiFi Miniport Adapter					
	IP Address: 192.168.100.1					
	Subnet Mask: 255.255.0					
	ReNew IP					
< <u> </u>						
Show Tray Icon	Disable Adapter Close Virtual W/Ei allowed					

****For other LAN users' connection:**

Please select the network name (SSID) from Microsoft Virtual WiFi Miniport Adapter.

REALTEK 11n USB Wirele	ess LAN Utility				
Refresh(B) View(V) About((<u>A</u>)				
🖃 闍 MyComputer	General Profile Available Ne	twork Statu	s Statistics V	Vi-Fi Protect Setup	
Realter RTL8188CU	Available Network(s)				
	SSID	Channel	Encryption	Network Authentication	Signal
	((1))01-Webcam-Serv	7	WEP	Unknown	58%
	((1)02-Webcam-Serv	7	WEP	Unknown	62%
	(11) SAPIDO-1F-Fax_R	8	WEP	Unknown	48%
	(f)BT_WebCam	9	WEP	Unknown	60%
	(14) SAPIDO_Fun_Cen	9	WEP	Unknown	42%
	((4))SAPIDO-FTP-Server	10	WEP	Unknown	56%
	(1)	11	None	Unknown	58%
	(11) 3.5G_BT_Server	11	None	Unknown	46%
	(11) SAPIDO_Fun_Cen	11	None	Unknown	8%
	(11) SAPIDO_Fun_Cen	11	AES	WPA Pre-Shared Key	60%
	(11) SAPIDO_Mobile_H	11	None	Unknown	62%
	C C SAPIDO_Mobile_H	11	None	Unknown	70%
	(10) TEST-PC-83510	11	AES	WPA2 Pre-Shared Key	62%
	Le				s.
	Refres	h		Add to Profile	
	Note Double click on item	to join/creal	te profile.		
< N					
Show Tray Icon	E] Disable Ac	lapter		Close
Ready					NUM

Next, in Wireless Network Properties: Please input same network security and key as Microsoft Virtual WiFi Miniport Adapter.

Profile Name:	TEST-PC-83510	802.1x configure		
Network Name(SSID):	TEST-PC-83510	EAP TYPE :		
		GTC		×
		Tunnel :	Privision Mode :	
This is a computer-to access points are no	o-computer(ad hoc) network; wireless it used.		×	~
Channel:	11 (2462MHz) 👻	Username :		
Wireless network secu	urity			
This network requires	a key for the following:	Identity :		
Netv	vork Authentication: WPA2-PSK			
	Data encryption: AES	Domain :		
	SPHRASE	Password :		
Key index (advanced): 1 💌	Certificate :		
Network key:				~
********		PAC : Auto	Select PAC	
Confirm network key:				~

Once the wireless network is connected successfully, the Network Address will indicate same IP range as Microsoft Virtual WiFi Miniport Adapter.

SREAL LEK 11 II USB WITCHESS LAN UTILITY	
Refresh(R) View(Y) About(A)	
WyComputer General Profile Available Network Status Statistics Wi-Fi Protect Setup	
Realcek RTL8185CU W	
Status: Associated Throughput:	
Speed: Tx:180 Mbps Rx:180 Mbps	
Type: Infrastructure	
Encryption: AES Tx:0.0%, Total:0.0%	
SSID: TEST-PC-83510	
Signal Strength: 74%	
Link Quality:	
99%	
Network Addreps:	
MAC Address: 00:D0:41:BC:8F:39	
IP Address: 192.168.103.160	
Subnet Mask: 255.255.255.0	
Gateway: 192.168.100.1	
Roblew ID	
Nervew IP	
Show Tray Icon	
	ose
Ready	1 1 2

4. Soft-AP Function

Except becoming a wireless client of other wireless access points, this USB Wireless LAN utility can acts as a wireless service provider. You can switch the operating mode to "Access **Point**" 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.

To the Wireless LAN USB Adapter to bridge your wired and wireless network, the following requirements must be met :

- 1. The Wireless LAN USB Adapter must be installed on a computer connected to the wired network.
- 2. Either configure network sharing (refer to the appendix for an example) or bridge the two interfaces (wireless and wired) on the computer.
- 3. Set the wireless station's IP address to be in the same subnet as the computer in which the Wireless LAN USB Adapter is installed.

4.1 Switching to AP Mode

Select "Access Point" from Mode(M) tab to make the Wireless LAN USB adapter act as a wireless AP.

🗱 REALTEK 11n USB Wireless LAN Utility						
Refresh(<u>R</u>) Mode(<u>M</u>) About(<u>A</u>)						
E WyC Station						
R → Access Point N 802.11n USB 2.0 Network Adapter						
Building Building Building MyC Station N Building F Access Point						

After you select "**Access Point**" mode, the Wireless LAN USB adapter available options will change.

Vaiting Setup Up	X
Switching from Station mode to AP mode	

You will see the basic configuration menu of the AP function:

REALTEK 11n USB Wireless LAN Utility							×
Refresh® Mode(M) About(À)							
B- WyComputer	General	Advanced	Statistics	ICS			
Realter RTL8188CU Wireless LAN 802.11n USB 2.0 Network Adapter							
			SSID: G	IGA-PC	_AP		
			BSSID: 0	0:06:4F	-:7E:B3:8C		
		Associati	on Table				
		AID N	IAC Addres	SS	Life Time		
	'		[Config	 ``	
					Connig		
Show Tray Icon Disable Adapter	,						se
Radio Off							

4.2 General

General	Advanc	ced Statistics ICS		
		SSID: GIGA-PC_AP	3-80	
	Assoc	iation Table	0.00	
	AID		Life Time	
	ALU	HAC AUGESS	Life fille	
			-	
			Config	

SSID: The SSID is the unique name shared among all points in your wireless network. The name must be identical for all devices and points attempting to connect to the same network. It shows the current SSID setting of the Wireless USB adapter.

BSSID: It shows the current BSSID's MAC address.

AID: Raise value by current connection.

MAC Address: The station MAC address of current connection

Life Time: The status of current connection.

4.3 Advanced

General Advanced Statistics ICS	
General	
Beacon Interval	
100	
DTIM Period:	
3	
Preamble Mode	
Short -	
Set Defaults	Apply

Beacon Interval: The time between two beacons. (The system default is 100 ms.)

DTIM Period: DTIM is a countdown informing clients of the next window for listening to broadcast and multicast messages. **3** is the default setting.

Preamble Mode: This function will show up when Ad-hoc network type be selected. A preamble is a signal used in wireless environment to synchronize the transmitting timing including Synchronization and Start frame delimiter. Select from the pull-down menu to change the Preamble type into Long or Short.

4.4 Statistics

General Advanced Statistics ICS						
Counter Name	Value					
Tx OK	268					
Tx Error	1					
Rx OK	25					
Rx Packet Count	25					
Rx Retry	20					
Rx ICV Error	0					
Reset						

If you want to know detailed information about how your software access point works, you can view the statistics of the access point.

You can click "Reset" button to reset all counters to zero.

4.5 ICS

The Internet Connection Sharing (ICS) function allows wireless clients to share a single internet connection. In the setup, Wireless USB adapter automatically assigns a virtual IP address to each of the wireless clients. (Please make sure your local network connection is connecting.)

General Advanced Statistics	CS					
Setting Internet Connection Sharing (ICS)						
ConnName	Device Name					
	NVIDIA nEorce Networking Controller					
	Will in orce we working controller					
•		4				
Public Network						
	Apply					