

EUB-9701 EXT2

Wireless-N USB 2.0 Adapter

(802.11n draft, 802.11g & 802.11b)



User Manual Version: 1.3



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Revision History

Version	Date	Notes
1.1	May 24, 2007	Created
1.2	June 4, 2007	Updated setup pages
1.3	June 9, 2007	Modified Config pages & Screenshots



1 Introduction

EnGenius Wireless-N USB Adapter (EUB-9701 EXT2) implements the latest 11n (Draft 2.0) technology which extremely improves wireless signal for your computer than existing wireless 802.11g technology. The incredible speed of Wireless-N USB adaptor makes heavy traffic networking activities more flexible and takes the wireless into practical road.

You could enjoy the racing speed of wireless connection, surf Internet without string of wires. Adding EnGenius Wireless-N to your Notebook or Computer, provides an excellent solution for media-centric activities such as streaming video, gaming, and enhances the QoS (WMM) without any performance penalty.

It extends network coverage by 3 times and boosts transmission throughput 6 times than existing 11g products. For more security-sensitive applications, EUB-9701 EXT2 supports Hardware-based IEEE 802.11i encryption/decryption engine, including 64-bit/128-bit WEP, TKIP, and AES. Also, it supports Wi-Fi alliance WPA and WPA2 encryption. Cisco CCX V1.0, V2.0 and V3.0

Features	Advantages
High Speed Data Rate Up to 300Mbps*	Capable of handling heavy data payloads
	such as MPEG video streaming
IEEE 802.11b/g Compliant	Fully Interoperable with IEEE 802.11b /
	IEEE802.11g compliant devices with legacy
	protection
WPA/WPA2 (IEEE 802.11i), WEP	Powerful & Robust data security.
64/128	
Support	
Support 2Tx * 2Rx Radios	enables Intelligent Antenna
WMM (IEEE 802.11e) standard support	Wireless Multimedia Enhancements Quality of
	Service support (QoS) / enhanced power
	saving for Dynamic Networking.
2 Detachable Antenna design	Flexible with SMA connector design

2 Features



* Theoretical wireless signal rate based on IEEE standard of 802.11a, b, g chipset used. Actual throughput may vary. Network conditions and environmental factors lower actual throughput rate. ** All specifications are subject to change without notice.

3 Package Contents

Open the package carefully, and make sure that none of the items listed below are missing. Do not discard the packing materials, in case of return; the unit must be shipped back in its original package.

- > One Wireless-N USB Adaptor
- > One USB cable (1.0m)
- > One CD-ROM with User's Manual & Drivers
- Quick Installation Guide
- > 2 Detachable antennas (Reverse SMA connector)



LED	Description
LINK	Blinks when active connection is available else remains switched OFF
PWR	Blinks rapidly when data communication in progress else remains switched OFF



4 System Requirements

To begin using the WLAN USB Adapter, your PC/Notebook must meet the following minimum requirements:

- > Operating System Microsoft Windows XP/2000
- USB 2.0 socket x 1 (free to use socket)
- > 256MB system memory or larger
- > 750MHz CPU or higher configuration

5 Installation

Important: Install the WLAN Adapter utilities before inserting the WLAN Adapter into your computer.

Insert the support CD into your optical drive. In the CD drive folder, you will see the following file.



Open the file and you can briefly see the following...



Choose EnGenius configuration utility & click next





Await instructions as you see the setup progress as shown below...



Click finish to restart PC/notebook.



Please insert EUB-9701 EXT2 Wireless Network Adapter with the USB cable in your notebook/PC's available USB 2.0 socket



After a few seconds a notification that setup is complete will show up as follows. Click **Finish** to restart the PC/notebook.

EnGenius Wireless USB Adap	ter Setup
	InstallShield Wizard Complete The InstallShield Wizard has successfully installed EnGenius Wireless USB Adapter . 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.
Install Shield	Kancel



6 Verify installation

- 1. Open [Control Panel] =>Double-click [System].
- 2. Select [Hardware] tab=>Click [Device Manager].



Select and double-click [802.11N USB wireless LAN card]



Verify that the device status of [802.11N USB wireless LAN card]



[This device is working properly]->Click [OK]

802.11n	USB Wireless L	AN Card Properties	? 🗙
General	Advanced Drive	r Details	
H	802.11n USB Win	eless LAN Card	
	Device type:	Network adapters	
	Manufacturer:	Ralink Technology, Corp.	
	Location:	Location 0 (USB Device)	
Devi	ce status		
This If yo	device is working pr u are having problem	roperly. ns with this device, click Troubleshoot to	
start	the troubleshooter.		
			~
		Iroubleshoot	
<u>D</u> evice	usage:		
Use th	iis device (enable)		~
		ОК	ancel

7 Setup Network Configuration (MS WinXP)

- Enter [Start Menu] =>select [Control panel] =>select [Network].
- Right-click [Wireless Network]
- Select [Local Area Connection]) icon=>select [properties]
- Select [Internet Protocol (TCP/IP)] =>Click [Properties].



🗕 Wireless Network Connection 4 Properties 🛛 🕐 🔀
General Advanced
Connect using:
19 802.11n USB Wireless LAN Card Configure
This connection uses the following items:
AEGIS Protocol (IEEE 802.1x) v3.5.3.0
Microsoft TCP/IP version 6
Install Uninstall Properties
Transmission Control Protocol/Internet Protocol. The default wide area network protocol that provides communication across diverse interconnected networks.
Show icon in notification area when connected
Notity me when this connection has limited or no connectivity
OK Cancel
OK Cancel
OK Cancel
OK Cancel Internet Protocol (TCP/IP) Properties
OK Cancel Internet Protocol (TCP/IP) Properties ? General Alternate Configuration . You can get IP settings assigned automatically if your network supports this capability. Otherwise, you need to ask your network administrator for the appropriate IP settings.
OK Cancel Internet Protocol (TCP/IP) Properties General Alternate Configuration You can get IP settings assigned automatically if your network supports this capability. Otherwise, you need to ask your network administrator for the appropriate IP settings. O Dbtain an IP address automatically 2
OK Cancel Internet Protocol (TCP/IP) Properties General Alternate Configuration You can get IP settings assigned automatically if your network supports this capability. Otherwise, you need to ask your network administrator for the appropriate IP settings. O Ubtain an IP address automatically a O Use the following IP address:
OK Cancel Internet Protocol (TCP/IP) Properties Image: Contract of the set of the
OK Cancel Internet Protocol (TCP/IP) Properties General Alternate Configuration You can get IP settings assigned automatically if your network supports this capability. Otherwise, you need to ask your network administrator for the appropriate IP settings. O Use the following IP address: UP address: Subnet mask: Default natewar.
OK Cancel Internet Protocol (TCP/IP) Properties ? General Alternate Configuration ? You can get IP settings assigned automatically if your network supports this capability. Otherwise, you need to ask your network administrator for the appropriate IP settings. • Obtain an IP address automatically • • Use the following IP address: • • Use the following IP address: • • Default gateway: • •
OK Cancel Internet Protocol (TCP/IP) Properties ? General Alternate Configuration You can get IP settings assigned automatically if your network supports this capability. Otherwise, you need to ask your network administrator for the appropriate IP settings. Obtain an IP address automatically 2 Use the following IP address: 1 Subnet mask: 1 Default gateway: 1 Obtain DNS server address automatically 2
OK Cancel Internet Protocol (TCP/IP) Properties Image: Concel General Alternate Configuration You can get IP settings assigned automatically if your network supports this capability. Otherwise, you need to ask your network administrator for the appropriate IP settings. Image: Obtain an IP address automatically a Image: Obtain an IP address: Im
OK Cancel Internet Protocol (TCP/IP) Properties Image: Contract of the contract
OK Cancel Internet Protocol (TCP/IP) Properties General Alternate Configuration You can get IP settings assigned automatically if your network supports this capability. Otherwise, you need to ask your network administrator for the appropriate IP settings. O Use the following IP address: UP add
OK Cancel Internet Protocol (TCP/IP) Properties Image: Concentration General Alternate Configuration You can get IP settings assigned automatically if your network supports this capability. Otherwise, you need to ask your network administrator for the appropriate IP settings. Image: Concentration of the appropriate IP settings. Image: Concentration of the appropriate IP settings. Image: Concentration of the appropriate IP settings. Image: Concentration of the appropriate IP settings. Image: Concentration of the appropriate IP settings. Image: Concentration of the appropriate IP settings. Image: Concentration of the appropriate IP settings. Image: Concentration of the appropriate IP settings. Image: Concentration of the appropriate IP settings. Image: Concentration of the appropriate IP settings. Image: Concentration of the appropriate IP settings. Image: Concentration of the appropriate IP settings. Image: Concentration of the appropriate IP settings. Image: Concentration of the appropriate IP settings. Image: Concentration of the appropriate IP settings. Image: Concentration of the appropriate IP settings. Image: Concentration of the appropriate IP settings. Image: Concentration of the appropriate IP settings. Image: Concentration of the appropriate IP settings. Image: Concentration of the appropriate IP settings. Image: Concentretee IP settings.

• Select the [General] tab.

a. If your Wireless Router supports [DHCP] function, please select both [Obtain an IP address automatically] and [Obtain DNS server address automatically].b. If the router does not support [DHCP] function, you have to configure the IP and DNS settings.

8 Setup WLAN (EnGenius Config-Utility)

Prerequisite:

- 1. Your home/office environment should have a wireless LAN Access Point (AP) that is available for your use.
- 2. You should readily have the (security keys) to connect those Wireless LAN Access Points (AP)

Configuration utility will first automatically link with the Wireless AP if there is no security key required. If the connection is successful, a message will appear on taskbar.

Following steps guides you to initially setup a wireless network connection.

Notice the EnGenius configuration utility on the taskbar

🔦 🕬 🔀 🗊 4:50 PM

Hovering the mouse cursor briefly over "EG" icon will show status as follows...the current status indicates that **Config utility** has automatically connected to an **Access Point** named **NKSP**.



Right click on "EG" icon will open up a menu as shown below

Launch Config Utilities Use Zero Configuration as Configuration utility Exit



Click on Launch Config Utilities. Notice it has many tabs for configuration

To make connection, select one AP/SSID (eg: NKSP) and click [Connect]. When the connection works, **S** [Connected] will appear in the left button of this tab and the icon appears in front of the linked AP.

When the connection failed, [Disconnected] will appear. If the AP has set up the encryption, please setup the same before you click [OK].

SSID	BSSID	Si	C	Encry	Authe	Network
ICNEXUS	00-90-CC-76-4B	10	6	WEP	Unknown	Infrastruct.
S NKSP	00-A0-C5-EF-C2	34%	6	None	Unknown	Infrastruct.
						>
		_				
Johneoteu (>1		Hesca	n	Lonne	ect A	dd to Profile

Click on **Site Survey** tab. Press **Rescan**. You will see several AP listed under <u>SSID</u>

They denote individual access points. Click on the one you want to connect with. Notice that if there is no security key needed, you can see that in the **Encryption** status as "**None**".



If there is security key required, obtain it and click **connect**. If you need to input a security key, refer to chapter 9 to understand setting up WEP key.

9 Setup Network security (WEP, WPA...)

If your AP/Router has network security key, your wireless adapter needs to have the same security setting. The details of network security setting are described below. Please open EnGenius Wireless Utility before you start to setup network security:



Please click [start] ->select [Programs] ->click [CG-WLUSB2GO] ->click [EnGenius Wireless Utility], and the wireless icon "**EG**" will appear on taskbar.

a. Setting WEP

If AP you want to connect to has [WEP] authentication, press [Connect].

nGenius WLAN U	tility					
ofile Link Status Sil	e Survey St	atistics	dvanc	ed QoS	WPS Configu	ration About
SSID	BSSID	Signal	C	Encry	Authentic	Network
	00-02-6F	100%	1	None	Unknown	Infrastruct
PUNSID_WI	00-0F-CB	86%	9	WEP	Unknown	Infrastruct
<						>
Connected <> end	ienius	В	ascan		Connect	Add to Profile
			Jocuri			- da to Fionie
					OK	

Press **Connect**. You will see a window pop up as shown below.



Authentication and Secu	rity 🛛 🔀
Authentication Type :	Open Vise 802.1x 802.1x Setting
Encryption :	WEP
WPA Preshared Key :	
- Wep Key	
⊙ Key#1 Hex	
OKey#2 Hex	×
O Key#3 Hex	▼
OKey#4 Hex	▼
* WEP 64 Bits Encryption: * WEP 128 Bits Encryption	Please Keyin 10 HEX characters or 5 ASCII characters n: Please Keyin 26 HEX characters or 13 ASCII characters
	Show Password
	IK Cancel

Follow steps below:

a. [Authentication Type]: indicates the authentication type of the AP/Router.

Please confirm the setting of the AP/Router.

* [Open]: WEP open system is based on request and grant. It is essentially no authentication.

* [Shared]: WEP shared key is based on request, challenge, challenge response, grant/deny.

b. Select [WEP] in [Encryption].

c. Key in AP encryption keys (64/128bits) in the box Key1~Key4. Please accept the auto selected setting of [Hex]/ [ASCII].

- d. Select the current AP encryption keys from Key1~Key4.
- e. Press [OK] to finish setting.

b. Setting WPA

WPA encryption type can be divided into WPA-PSK, WPA2-PSK, WPA (or called WPA-EAP), and WPA2 (or called WPA2-EAP). All settings should correspond with settings of the wireless AP you would want to connect with.

WPA-PSK and WPA2-PSK



ile Link Status Site	Survey Statistics Adv	anced IP	⁹ Information	a About		
SSID	BSSID	Signal	Channel	Encryption	Authentication	Netw
core	00-23-12-A1-04-02	94%	10	None	Unknown	Infras
	00-23-12-A1-06-01	23%	1	None	Unknown	Infras
ATTW-OFFICE	00-0A-79-5B-FE-43	18%	6	TKIP;AES	WPA-PSK	Infras
bearhome	00-C0-02-F5-FB-34	57%	6	None	Unknown	Infras
0205	00-50-18-21-CF-69	100%	6	None	Unknown	Infras
cs-test	00-0A-79-81-4A-96	57%	9	WEP	Unknown	Infras
RD-SW	00-C0-02-FF-56-12	47%	11	WEP	Unknown	Infras
😽 home a	00-C0-02-E4-B7-68	23%	11	WEP	Unknown	Infras
OFFICE	00-0A-79-75-CD-AC	7%	11	TKIP	WPA-PSK	Infras
	UU-UA-79-5C-E2-A2	47%	11	WEP	Unknown	Infras
<		104				>
Connected <> corega		I	Rescan	Connect	t Add to P	rofile

Setting the [Authentication and Security] Page:

cruption :		AFS		ar.
aypoort.				
A Preshared K	cy:			
 Key#1 	Hex			
O Key#2	Hex	~		
⊖ Key#3	Hex			
⊖Key#4	Hex	<u> </u>		
* WEP 64 B * WEP 128 characters	its Enoryp Bits Encry	ion: Please Keyin bion: Please Keyi	10 HEX character n 26 HEX characte	s or 5 ASCII characters rs or 13 ASCII
				Show Password

- a. Authentication Type: Select [WPA-PSK] or [WPA2-PSK] (AP must support the function).
- b. Encryption: Select [TKIP] or [AES].(Same as AP)
- c. Enter the selected AP's password in [WAP Preshared Key] box and click [OK].

WPA and WPA2



1. Select an AP with [WPA] or [WPA2] authentication and press [Connect]. Here we use OFFICE for example; hence the following settings must correspond with your corresponding Wireless Access Point.

SSID	BSSID	Signal	Channel	Encryption	Authentication	Netw
core	00-23-12-A1-04-02	94%	10	None	Unknown	Infras
	00-23-12-A1-06-01	23%	1	None	Unknown	Infras
ATTW-OFFICE	00-0A-79-5B-FE-43	18%	6	TKIP;AES	WPA-PSK	Infras
bearhome	00-C0-02-F5-FB-34	57%	6	None	Unknown	Infras
0205	00-50-18-21-CF-69	100%	6	None	Unknown	Infras
cs-test	00-0A-79-81-4A-96	57%	9	WEP	Unknown	Infras
RD-SW	00-C0-02-FF-56-12	47%	11	WEP	Unknown	Infras
😽 home	00-C0-02-E4-B7-68	23%	11	WEP	Unknown	Infras
OFFICE	00-0A-79-75-CD-AC	7%	11	TKIP	WPA	Infras
	00-0A-79-5C-E2-A2	47%	11	WEP	Unknown	Infras
<		TUM T	<u> </u>			>
Connected <> corega			Rescan	Connec	t Add to P	rofile

Setting the [Authentication and Security] Page:

Authentication Typ	be:	WPA	~)	C(802.1x Setting
Encryption :		AES		
√PA Preshared K	ey:			
Wep Key		-		
() Key#1	Hex	~		
⊖ Key#2	Hex	~		
⊖ Key#3	Hex	× [
⊖ Key#4	Hex	×		
* WEP 64 B * WEP 128 I characters		iion: Please Keyin 1 ption: Please Keyin	0 HEX characte 26 HEX charact	rs or 5 ASCII characters ers or 13 ASCII
				Show Password

a. Authentication Type: select [WPA] or [WPA2-PSK] (AP must support the function).

b. Encryption: select [TKIP] or [AES] (Same as AP)



c. If the AP/router has [802.1x Setting] function, click it for advanced settings. Please consult your network administrator for details or check the user manual of the Wireless Access Point.

uthentication Ty	ype: PEAP	~	Session Resumption	n: Disabled	1
Identity :			Password :		
	autificate				
Use Chient c	ermicale				
Issued To :	ermicale				
Issued To : Issued By :	ermicale				
Issued To : Issued By : Expired On :	ermicale				
Use Chent c Issued To : Issued By : Expired On : Friendly Name	6 : 			More	
Issued To : Issued To : Issued By : Expired On : Friendly Name	er intexte			More	
Issued To : Issued By : Issued By : Expired On : Friendly Name Tunneled Authe Protocol :	entication EAP-MSCHAP v2	>	Identity :	More	

Click [OK] to finish setting.

10 Adding Profiles

1. Select one AP in the SSID column, eg: EnGenius=>Click [Add to Profile] and the page shown below will appear.



dd Profile				Þ
Configuration Authentic	ation and Security			
Profile Name PF	30F1	SSID	engenius	*
● CAM (Constantly	Awake Mode)	O PSM (F	Power Saving Mode)	
Network Type	Infrastructure	✓ TX Power	Auto	*
	Auto	~	2347 2347	
			-	
Fragment Threshol	d 256		-h ²³⁴⁶ 2346	
	ОК	Cancel	Apply	Help

2. Setting items in the [configuration] tab:

• Profile Name: Enter the connected AP profile, eg: PROF1.

• **SSID**: Click the drop-down menu and select one AP. You can also enter the AP manually.

• **PSM**: When CAM is selected, indicates that the product is not in power saving status. When PSM is selected, the product is in power saving status. (Only select it under Infrastructure network type).

• Network Type: [Infrastructure] or [Ad Hoc] type. We recommend you to select [Infrastructure].

• **Transmit power**: the amount of power used by a radio transceiver to send the signal out. User can choose power value by sliding the bar.

• [RTS Threshold] and [Fragment Threshold]: We recommend you to use the default value 2312. User can adjust threshold numbers by sliding the bars or key in the values directly.

3. Click [OK] and the set AP will appear in the [Profile] tab.



Profile Na	ame SSID	Channel	Authenticat	Encryption	Network
PROF	1 engenius	Auto	Open	WEP	Infrastructure
	dd	Delete	Edit		Activate

• [Add]: Click [Add] to add a new profile.

• [Delete]: to delete a profile, select one profile name and click [Delete].

• [Edit]: to edit the setting of a profile, select the profile and click [Edit].

• [Activate]: to activate the selected profile, select the profile and click [Activate].

11 WPS Configuration

Wi-Fi Protected Setup (WPS) configuration function - provides easy procedures to set up wireless security. Wi-Fi Protected Setup gives SOHO users a variety of setup options. It uses familiar methodologies such as typing in a Personal Identification Number /numeric code (PIN method), and pushing a button (Push-Button Configuration, or PBC) to enable users to automatically configure network names and strong WPA2 (Wi-Fi Protected Access 2TM) data encryption and authentication.



EG EnGenius WLAN Uti	ity			X
Profile Link Status Site	Survey Statistics Adv	vanced QoS	WPS Configura	ation About
SSID BSS	D C. IE) Authe	Encry	Rescan Information Pin Code 11185192
SSID	MAC Address	Authentic	Encryption	Detail Connect Rotate Disconnect Delete
PIN WPS Assoc	iate IE	at used		

12 QoS

Wi-Fi CERTIFIED[™] for WMM (Wi-Fi Multimedia) provides multimedia enhancements for Wi-Fi® networks that improve the user experience for audio, video, and voice applications. WMM is a profile of the IEEE 802.11e Quality of Service (QoS) extensions for 802.11 networks and started a certification program for WMM to satisfy the most urgent needs of the industry for a QoS solution for Wi-Fi networks. WMM provides prioritized media access and is based on the Enhanced Distributed Channel Access (EDCA) method.



Click **WMM Enable** to turn on the WMM capability.

Click **WMM – Power Save Enable** and this can improve the power savings by atleast 15% as far as the EUB-9701 EXT2 power consumption is concerned.



13 Advanced Settings

Wireless mode: Select wireless network mode (speed)

- 802.11b/g mixed: Automatically detect 11b or 11g
- 802.11b only: Frequency only 11b
- 802.11b/g/n mixed: Automatically detect 11b or 11g or 11n

In order to keep the connection stable, please select [Auto] to automatically confirm which mode the wireless network is working.

<u>TX-Burst</u>: Ralink's proprietary frame burst mode. When it is checked, transmission throughput will be improved. (Only works when AP supports this function)



Enable TCP Window Size :.(When checked, the reception speed will improve.)

Fast Roaming at ____ **dBm**: Will enter roaming mode when dBm reaches defined level.

CCX 2.0: Open CCX (supports Cisco Compatible Extensions function). Check it after making sure the Wireless AP supports it.

Turn on CCKM: Open CCKM function (Cisco Key Management).

Enable Radio Measurements: Open the function of CCK Monitor AP Channel.

Non-Serving Channel Measurements: Select and start to monitor the channels on which the AP is not transmitting

Turn off RF: Disable wireless radio.

Turn on RF: Enables wireless radio.

[Apply]: Click this when finish the settings.



E EnGenius WLAN Utility	X
Profile Link Status Site Survey Statistics	Advanced QoS WPS Configuration About
Wireless mode 802.11 B/G/N mit	× •
Tx BURST	Show Authentication Status Dialog
Enable TCP Window Size	Enable CCX (Cisco Compatible eXtensions)
Fast Roaming at -70 dBm	Turn on CCKM
Turn off RF	Non-Serving Channel Measurements
	Limit 250 milliseconds (0-2000)
	Apply
	OK

14 Statistics

Statistics page displays the detail information about Wireless LAN TX/RX.

- Transmit Statistics: Statistic of transmitted frames.
- Receive Statistics: Statistic of received frames.
- [Reset Counters]: Click [Reset Counter] to zero the statistic numbers of transmitting and receiving data and start over.



EG EnGenius WLAN Utility		\mathbf{X}
Profile Link Status Site Survey Statistics Advanced QoS	WPS Con	figuration About
- Transmit Statistics		
France Transmitted Successfully		4245
Frames Fail To Beceive ACK After All Betries	_	236
PTS Frames Successfully Receive CTS	_	0
PTC Frames Fail To Bossius CTC	_	0
	-	1005
Frames Retransmitted Successfully	=	1695
Receive Statistics		
Frames Received Successfully	=	221
Frames Received With CRC Error	=	6812
Frames Dropped Due To Out-of-Resource	=	0
Duplicate Frames Received	=	0
	[Reset Counter
		ОК

15 Link Status

This tab displays the information of the Wireless connection status.

- **Status**: Displays the linked AP name and MAC address. When [Disconnect] appears in this box, the connection is failed.
- Extra Info: link status and strength.
- Channel: Current channel in use.
- Link Speed: Show current transmit rate and receive rate.
- Throughput: Display transmit and receive throughput value.
- Link Quality: Display connection quality based on signal strength and TX/RX packet error rate.



EG EnGenius WLAN U	Jtility				
Profile Link Status S	ite Survey S	tatistics	Advanced	QoS WPS Confi	guration About
Status :	CNEXUS <	> 00-90-1	CC-76-4B-BF		
Extra Info :	Link is Up (TxPower:1	00%]		
Channel :	6 <> 2437	MHz			
Link Speed :	Tx (Mbps)		11.0	Rx (Mbps)	11.0
Throughput :	Tx (Kbps)		3.1	Rx (Kbps)	31.7
Liok Qualitu :	Good	100%			
En incloading :	Good	100%			dBm
Signal Strength 1:					
Signal Strength2 :	Good	94%			
Noise Level :	Low	26%			
HT BW: n/a G	il: n/a		MCS: n/a	SNR0: n/a	SNR1: n/a
					ЭК

• Signal Strength 1 & 2: Receive signal strength, user can choose to display

as percentage or dBm format

• Noise Level: Display noise signal strength.

16 About

The About tab displays version information of

- 1. Driver
- 2. Utility
- 3. EEPROM binary
- 4. Firmware
- 5. IP Address (current)
- 6. MAC address of the PHY
- 7. Subnet MASK Address
- 8. Default Gateway



		EnGe	^	
		LIIOe	nius	
F	aConfig Version :	1.3.2.0	Date :	05-11-2007
D	river Version :	1.0.1.0	Date :	03-13-2007
E	EPROM Version :	1.1	Firmware Version	1: 0.3
IF	^o Address :	192.168.1.100	Phy_Address :	00-02-4F-11-11-37
s	ub Mask :	255.255.255.0	Default Gateway :	192.168.1.1

17 Uninstalling EnGenius Utility/Driver

Select Uninstall option from the start menu.



You can see the wizard preparing for uninstallation



EnGenius Wireless USB Ada	ptor Utility and Driver Install - InstallShield Wizard
Preparing Setup Please wait while the InstallShi	sld Wizard prepares the setup.
	EnGenius Wireless USB Adaptor Utility and Driver Install Setup is preparing the InstallShield Wizard, which will guide you through the rest of the setup process. Please wait.
InstallShield	Cancel

Select Remove All

EnGenius Wireless USB Ada	pter Setup	
Please select one way to co	ntinue install	
	There have existed an older version. Which way do you like to do?.	
InstallShield	(< <u>B</u> ack) Next > Ca	ncel

Removing the utility is in progress. At any time you may press **cancel** to abort uninstallation.



EnGenius Wireless USB Adaş Setup Status	ter Setup	
	EnGenius Wireless USB Adapter is configuring your new software installation.	
InstallShield		anceli



You will need to restart your computer for ensuring a clean removal of the EnGenius Utility.

Genius Wireless USB A	lapter Setup
	Setup has finished installing
	Aegis function will work after reboot.
	Yes, I want to restart my computer now.
	No, I will restart my computer later.
	Click Finish to complete EnGenius Wireless USB Adapter Setup.
InstallShield	Finish





Appendix A – Driver Installation for Windows Vista



- 1. Click Locate and install driver software (recommended)
- 2. Click Countinue





3. Click I don't have the disc. Show me other options.



4. Click **Browse my computer for driver software (advanced)**



Br	owse for driver software	on your computer		
Sea	arch for driver software in this loca	ation:		
E:	\ahone\EUB-9701 vista\x32		•	B <u>r</u> owse
	Include subfolders			
lect d	river directory. Browse .			<u>N</u> ext Car
N S	Vindows Security	futhe publisher.	of this driv	Jor coftwara



6. Click Install this driver software anyway.



Found New Hardware - 802.11 n WLAN	x
Installing driver software	

7. Wait a moment.



🕞 📱 Found New Hardware - EnGenius EUB-9701 Wireless USB Adapter	X
The software for this device has been successfully installed	
Windows has finished installing the driver software for this device:	
EnGenius EUB-9701 Wireless USB Adapter	

8. Finish install driver. Click Close.



Appendix B – Specifications

Data Rates

1, 2, 5.5, 6, 9, 11, 12, 18, 24, 36, 48, 54, 72, 84, 150 and 300Mbps (with 2-stream on both ends)

Standards / Compliance

IEEE802.3, IEEE802.3u, IEEE802.11b, IEEE802.11g, 802.11n 2.0

Regulation Certifications

FCC Part 15, ETSI 300/328/CE

Operating Voltage

5 V ± 0.25V

Status LEDs

LINK

Drivers

Windows 2000/XP/Vista

RF Information

Frequency Band

U.S., Europe and Japan product covering 2.4 to 2.484 GHz, programmable for different country regulations

Media Access Protocol

Carrier Sense Multiple Access with Collision Avoidance (CSMA/CA)

Modulation Technology

802.11g: OFDM (64-QAM, 16-QAM, QPSK, BPSK)

802.11b: DSSS (DBPSK, DQPSK, CCK) Operating Channels

11 for North America, 14 for Japan, 13 for Europe

Receive Sensitivity (Typical)

2.412~2.472G(IEEE802.11b)
 -91dBm @ 1Mbps
 -90dBm @ 11Mbps

- 2.412~2.472G(IEEE802.11g)
 -90dBm @ 6Mbps
 -74dBm @ 54Mbps
- 2.412~2.472G(IEEE802.11N)
 -90 dBm @ MCS 8
 -65 dBm @ MCS 15

Available transmit power

• 2.412~2.472G(IEEE802.11b)

18dBm @1~11Mbps

2.412~2.472G(IEEE802.11g)

15 dBm @6Mbps

14 dBm @54Mbps

2.412~2.472G(IEEE802.11N)
 15dBm

Antenna Configuration

2T2R Mode (detachable 2.4GHz antenna/2.0dBi gain)

Networking

Topology Ad-Hoc, Infrastructure

Security

WPA/WPA2 (AES, 64,128-WEP with shared-key authentication) Cisco CCS V1.0, V2.0 and V3.0 compliant

Physical

Form Factor

USB 2.0/1.1

Dimensions (HxWxD)

70(L) mm x 57.5(W) mm x 16(H) mm

Weight

55 g/ 2.0oz

Environmental

Temperature Range

Operating: 0°C to 50°C Storage: -10°Cto 75°C

Humidity (non-condensing)

5%~95% Typical

Package Contents

One Wireless-N USB Adaptor One CD-ROM with User's Manual and Drivers One USB cable (1.0M) Two SMA antennas

Related Product(s)

11N Wireless USB Adapter/MiniPCI EUB-9701 (802.11n 2.0 Palm type) EUB-9702 (802.11n 2.0 USB 1T2R) ESR-9710 (802.11n 2.0 Router)

High power Outdoor AP-Client EOC-3220 Series (802.11b/g) EOC-8610 Series (802.11a/b/g)

High power Indoor AP-Client ECB-3220 Series / ECB-8610 Series



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 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 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 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 the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

FCC Caution: 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 minimum distance 20cm between the radiator & your body.

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

The availability of some specific channels and/or operational frequency bands are country dependent and are firmware programmed at the factory to match the intended destination. The firmware setting is not accessible by the end user.

Note to US model owner: To comply with US FCC regulation, the country selection function has been completely removed from all US models. The above function is for non-US models only.

Industry Canada statement:

This device complies with RSS-210 of the Industry Canada 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:

Radiation Exposure Statement:

This equipment complies with IC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator & your body.

This device has been designed to operate with an antenna having a maximum gain of 2.0dB. Antenna having a higher gain is strictly prohibited per regulations of Industry Canada. The required antenna impedance is 50 ohms.