



# MIMO XR<sup>™</sup> 802.11g Cardbus Adapter Model # AWLC5025 User's Manual

Ver. 1A

# Table of Contents

1. Introduction	
1.1 Package Contents	
2. Installation	4
2.1 Install Driver & Utility	4
2.2 Verify Driver Installation	9
3. Configure the Cardbus Adapter	11
4. Configure the Wireless Utility	16
4.1 Link Information	
4.2 AP List	
4.3 Configure Encryption Settings	19
4.4 Profile Setting	
4.5 Static IP Setting	
4.6 About	
Technical Support	

# 1. Introduction

Thank you for purchasing the MIMO XR<sup>™</sup> Cardbus Adapter. When used with other Airlink101<sup>™</sup> MIMO XR<sup>™</sup> wireless products, the wireless signal range extends farther than standard 802.11g products.

This Adapter supports 64/128-bit WEP data encryption that protects your wireless network from eavesdropping. It also supports WPA (Wi-Fi Protected Access) feature that combines IEEE 802.1x and TKIP (Temporal Key Integrity Protocol) technologies. Client users are required to authorize before accessing the APs or AP Routers, and the data transmitted through the network is encrypted/decrypted by a dynamically changing secret key.

#### 1.1 Package Contents

Before you begin the installation, please check the items of your package. The package should include the following items:

- One MIMO XR<sup>™</sup> Cardbus Adapter
- One Quick Installation Guide
- One Installation CD (Driver/Utility/Manual)

# 2. Installation

#### 2.1 Install Driver & Utility

This section provides instructions on how to install the **MIMO XR™ Cardbus Adapter**. The driver is installed along with the utility.

Note: Do not insert the Cardbus Adapter until you have reached the appointed step.

For Windows 98SE and ME users, you may be prompted to insert the Windows 98SE or ME CD during the driver installation. Be sure to have your Windows 98SE or ME CD ready.

**Step 1** Insert the Driver & Utility CD into your CD drive and select **Install Utility** from the menu.



**Note:** If the Autorun screen doesn't appear automatically go to **Start**, **Run**, and type **D:\autorun.exe** (where **D** is the letter of your CD drive) and click **OK**.

Step 2 Click Next at the welcome screen.



Step 3 Click Next to accept the default destination folder.

InstallShield Wizard	$\mathbf{X}$
Choose Destination Location	
Setup will install Airlink101 MIMO XR Cardbus	Adapter Software in the following folder.
To install to this folder, click "Next". To install select another folder and click "Next".	to a different folder, click "Browse", then
Destination Folder C:\Program Files\Airlink101\AWLC5025	Browse
InstallShield	< Back Next > Cancel

**Step 4** Click **Continue Anyway** at the Windows Logo Screen. (For Windows 2000, click **Yes** at the Digital Signature Not Found prompt).

Software	e Installation
<u>.</u>	The software you are installing has not passed Windows Logo testing to verify its compatibility with Windows XP. ( <u>Tell me why</u> <u>this testing is important.</u> ) Continuing your installation of this software may impair or destabilize the correct operation of your system either immediately or in the future. Microsoft strongly recommends that you stop this installation now and contact the software vendor for software that has passed Windows Logo testing.
	Continue Anyway STOP Installation

**Step 5** Verify **Yes, I want to restart my computer now** is selected and click **Finish** to restart your computer.



Step 6 After your computer is restarted, insert the Cardbus Adapter.



Step 7 Select Install the software automatically and click Next.



For Windows 98SE and ME, select **Search for the best driver for your device** and click **Next**. Verify all the check boxes are checked and click **Next**.

**Step 8** Click **Continue Anyway** at the Windows Logo Screen. (For Windows 2000, click **Yes** at the Digital Signature Not Found prompt).

Hardwar	re Installation
<u>.</u>	The software you are installing for this hardware: Airlink101 MIMO XR Cardbus Adapter has not passed Windows Logo testing to verify its compatibility with Windows XP. (Tell me why this testing is important.) Continuing your installation of this software may impair or destabilize the correct operation of your system either immediately or in the future. Microsoft strongly recommends that you stop this installation now and contact the hardware vendor for software that has passed Windows Logo testing.
	Continue Anyway STOP Installation

Step 9 Click Finish. (Restart the computer for Windows 98SE and ME).



### 2.2 Verify Driver Installation

To verify if the driver has been installed successfully, please perform the following steps.

Step 1 Right-click on My Computer from your desktop and select Properties.

**Step 2** Select the **Device Manager** tab. (For Windows 2000/XP, select the **Hardware tab** first then click on **Device Manager**).

System Properties
System Restore Automatic Updates Remote General Computer Name Hardware Advanced
Device Manager The Device Manager lists all the hardware devices installed on your computer. Use the Device Manager to change the properties of any device. Device Manager
Drivers   Driver Signing lets you make sure that installed drivers are compatible with Windows. Windows Update lets you set up how Windows connects to Windows Update for drivers.   Driver Signing Windows Update   Hardware Profiles
Hardware profiles provide a way for you to set up and store different hardware configurations. Hardware Profiles
OK Cancel Apply

**Step 3** Expand **Network adapters** from the list and verify that **Airlink101 MIMO XR Cardbus Adapter** is listed and no yellow question mark is beside it.

B Device Manager	
File Action View Help	
Computer Disk drives Disk drives DVD/CD-ROM drives Floppy disk controllers Floppy disk controllers DE ATA/ATAPI controllers Keyboards Monitors Monitors Monitors Monitors Monitors PCMCIA adapters PCMCIA adapters PCMCIA adapters Ports (COM & LPT) Processors Sound, video and game controllers Storage volumes	
in	

If **Airlink101 MIMO XR Cardbus Adapter** is not listed, or you see a yellow question mark beside it, please re-install the driver again.

# 3. Configure the Cardbus Adapter

This section describes how to connect your **MIMO XR™ Cardbus Adapter** to a wireless network.

#### Note to Windows XP Users:

You must disable the Wireless Zero Configuration Utility in order to use the bundled Wireless Utility. Please follow the steps below to disable XP's wireless utility.

**Step 1** Double-click on the **Wireless Network Connection Icon** in the system tray and then click on **Properties** or **Advanced**.



**Step 2** Go to the **Wireless Networks** tab, uncheck the **"Use Windows to configure my wireless network settings"** check box and click **OK**.

		ork Con	nection 1	2	oerties ?
eneral	Wireless	Networks	Advanced		
Us	e Windows	to configur	e my wireles	s netwo	rk settings
Avai	ilable netwo	rks: —			
Too	connect to a	an available	e network, cl	ick Conf	igure.
i	wireless			^	Configure
Å	108AP				Refresh
1 Y	default			~	ricitean
¥	default			<u>×</u>	Themesian
Pref	erred netwo				
Pref	erred netwo		vailable netv	works in	the order listed
- Prefe	erred netwo		vailable netv	works in	
- Prefe	erred netwo		vailable netv	works in	the order listed
- Prefe	erred netwo			works in	the order listed Move up Move down

To open the Cardbus Adapter's utility go to **Start > (All) Programs > Airlink101 MIMO Cardbus Utility > Airlink101 MIMO Cardbus Utility**.

	1	Programs	•	💼 Airlink101 MIMO Cardbus Utility	•	📥 Air	rlink101 MIMO Cardbus Utility
	Ì	Documents	•		1	🛃 Ur	ninstall Airlink101 MIMO Cardbus Utility
onal	<u>.</u>	Settings	•				
<b>Professional</b>	$\mathbf{P}$	Search	•				
Prof	?	Help and Support					
XP		Run					
indows	P	Log Off					
Wi	0	Turn Off Computer					

**Step 1** Go to the **AP List** tab, select the **SSID** (Network Name) of the wireless network you wish to connect to, and click **Connect**.

Monitor				
🕼 Link Information ዷ AP List 🏑	Profile Setting 🛛 🦹 About 📃			
Network Name Band Signal	Site Information			
👗 default 🛛 G 🛛 95%	Network Type : Access Point			
λ <b>≙</b> Β 20%	Channel : 6			
	Encryption : Off			
	Surveyed at : 00:C0:49:54:11:E4			
Connect Refresh				
	www.airlink101.com			

**Step 2** If encryption is not enabled for the selected access point / router, skip to step 6. Otherwise, enter a **Profile Name** for your wireless setting and click **Next**.

Wheless Mot	nitor 🗵
Profile Settin	Ig
Profile Name : defa	ult
Back Next	Exit

**Step 3** Verify that the **Network Name** matches the **SSID** of your wireless network and click **Next**.

Wireless Monitor 🗵				
Profile Setting				
Network Name :	default			
Network Type :	👗 Access Point 📃 💌			
Transfer Rate :	📣 Automatic 📃 🔽			
ABC Back Ne	ABC Exit			

**Step 4** Select the proper encryption setting for your wireless router or access point from the drop-down menu and click **Next**.

Witeless Monitor				
Profile S	etting			
Authentication Mode :	🔒 Open System 🖃			
Encryption :	🛍 4 64 bits 🔽			
	0101010 0101010 0101010 0101010 0101010			
Back	ext Exit			

**Step 5** Follow the on-screen instructions to complete the encryption settings. Click **Complete** when finished.

**Step 6** You should see a blue circle around the antenna icon indicating a valid connection.

Monitor	
Link Information	Site Information Network Type : Access Point Channel : 6 Encryption : Off Surveyed at :
Connect Refresh	00:C0:49:54:11:E4

**Step 7** Go to the **Link Information** tab and click on the **More** button.



**Step 8** Verify that you are receiving adequate Signal Strength and Link Quality and that you have been assigned a valid IP address (instead of all 0's).

Wireless	Monitor 🛛
Wireless Information	
Connect To Network :	default [ 00:14:A5:01:4F:40 ]
Network Type :	Access Point
Channel :	6
Encryption :	Off
Link Speed :	54 Mbits / sec
Signal Strength	Link Quality
- IP Information DHCP Status :	Automatic/DHCP
Current IP :	192.168.1.100
Subnet Mask :	255.255.255.0
Default Gateway :	192.168.1.1
DNS Server :	192.168.1.1
	Back

If you do not have adequate Signal Strength, try re-orienting the Access Point and/or the Cardbus Adapter to get a better reception.

# 4. Configure the Wireless Utility

This section describes the various functions of the Wireless Utility that you can configure, including the settings of wireless encryption.

#### 4.1 Link Information

The **Link Information** tab shows the current profile in use as well as details of the current network connection.



Click on the **More** button to see the details of the current network connection.

Wireless	Monitor 🗵
└── Wireless Information	
Connect To Network :	default [ 00:14:A5:01:4F:40 ]
Network Type :	Access Point
Channel :	6
Encryption :	Off
Link Speed :	54 Mbits / sec
Signal Strength	Link Quality
- IP Information	
DHCP Status :	Automatic/DHCP
Current IP :	192.168.1.100
Subnet Mask :	255.255.255.0
Default Gateway :	192.168.1.1
DNS Server :	192.168.1.1
	Back

The Wireless Information displays the current wireless network you are connected to as well as various other statuses such as the Signal Strength and your assigned IP address.

#### 4.2 AP List

The **AP List** tab displays all the available Access Points detected by the Cardbus Adapter. Simply select the desired Access Point you wish to connect to and click **Connect**.



The **Site Information** displays a list of status for the selected AP, including the Channel number and the Encryption status.

#### 4.3 Configure Encryption Settings

This section describes how to configure encryption settings for the Cardbus Adapter.

**Note:** The encryption settings you set for the Adapter must match the same settings of the Access Point/Wireless Router; otherwise, the encryption will not work properly.

**Step 1** From the **AP List** tab, select the Access Point/Wireless Router you want to connect to and click **Connect**.

Monitor ×		
🔊 Link Information  🏭 AP List 🏾 🖉	췯 Profile Setting 💡 About 🔄	
Network Name   Band   Signal	Site Information	
🛵 default 🛛 G  95%	Network Type : Access Point	
<b>Å</b> B  20%	Channel : 6	
	Encryption : On	
	Surveyed at : 00:C0:49:54:11:E4	
Connect Refresh		
	www.airlink101.com	

Step 2 Verify the Profile Name is correct and click Next.

Wheless Monftor	$\times$
Profile Setting	
Profile Name : default	
Back Next Exit	)

Wheless (	Aonftor 🛛
Profile S	etting
Network Name :	default
Network Type :	👗 Access Point 📃 💌
Transfer Rate :	📣 Automatic 📃 💌
	ABC
Back Ne	Exit

Step 3 Verify the Network Name (SSID) is correct and click Next.

#### For WEP Settings:

WEP Step 4 Select the appropriate Authentication Mode and Encryption settings and click Next.

Windess Monftor		
Profile S	etting	
Authentication Mode :	🔒 Open System 🗨	
Encryption :	<b>€</b> 4 64 bits 💌	
0101010101010101010101010		
01010101010		
Back	ext Exit	

WEP Step 5 Select the appropriate Input Method, Key (password), Key Index, and click Next.



WEP Step 6 Click Complete to finish the settings.

Witzlass Monftor	
Profile Setting	٦
IP Setting : 🖳 Original Setting 🔽	
10	
Back Complete Exit	
	1

#### For WPA Settings:

Window Monftor	
Profile S	etting
Authentication Mode :	🔒 WPA-PSK 📃 👻
Input Method :	🔒 TKIP 🔽
01	
Back	ext Exit

WPA Step 4 Select WPA-PSK and the appropriate Input Method and click Next.

WPA Step 5 Enter the WPA Key (passphrase) and click Next.

Wheless Monftor	$\times$
Profile Setting	
Key:	
Back Next Exit	

WPA Step 6 Click Complete to finish the settings.

Wheless Monftor
Profile Setting
IP Setting : 📳 Original Setting 🔽
Back Complete Exit

**Step 7** You should see a blue circle around the antenna icon indicating a valid connection. A lock icon beside the antenna indicates the connection is encrypted.

Monitor		
Link Information	Profile Setting <b>?</b> About Site Information Network Type : Access Point Channel : 6 Encryption : On Surveyed at : 00:C0:49:54:11:E4	
Connect Refresh	www.airlink101.com	

#### 4.4 Profile Setting

The **Profile Setting** tab lists all the profiles you have created. You can create new profiles for different network environments.

Monitor		
Link Informatio	on 📇 AP List	🧷 Profile Setting 🧣 About 🔄
Profile Name	Network Name	Site Information
<b>å</b> ⊜ default	default	Network Type : -
		Channel : -
		Encryption : -
		IP Setting:-
Add	Edit	Delete Connect
www.airlink101.com		

To add a new profile, follow the steps below:

**Step 1** Click on the **Add** button.



**Step 2** Enter a name for your new profile and click **Next**.

Wireless Monitor	$\mathbf{X}$
Profile Setting	
Profile Name : Office	
	-
Back Next Exit	

**Step 3** Enter the SSID (Network Name) of the wireless network you want to connect to and click **Next**.

Wireless Monitor	
Profile S	etting
Network Name :	Office_AP
Network Type :	👗 Access Point 📃 💌
Transfer Rate :	🖨 Automatic 📃 🔽
Back Ne	ABC Exit

**Step 4** Configure any encryption setting if required and click **Next**.

Witcless (	lonitor 🗵
Profile S	etting
Authentication Mode :	🔒 WPA2-PSK 📃 💌
Input Method :	🔒 TKIP 📃 🔽
Back	ext Exit

Step 5 Click Complete to finish the profile setting.



**Step 6** Your new profile will be listed in the Profile List.

Monitor			
📄 Link Informatio	on 📇 AP List 🕻	🙎 Profile Setting  🤋 About	
Profile Name	Network Name	Site Information	
<b>å⊜</b> default	default	Network Type : -	
An Office	Office_AP	Channel : -	
		Encryption : -	
		IP Setting: -	
Add	( <u>Edit</u> ) (	Delete (Connect	
L		www.airlink101.com	

**Step 7** You can quickly select which profile you want to use from the **Link Information** tab depending on your network environments without having to reconfigure the settings each time.

Monitor ×	
🔊 Link Information 📇 AP List 🕢 Profile Setting 🧖 About 🔄	
Current Profile String : 💡 default 🗨	
🔏 Office	
? default	
Internet	
More	

#### 4.5 Static IP Setting

To change the IP address of the wireless adapter to Static IP, follow the steps below:

**Step 1** On the last step of *4.4 Profile Setting*, under IP setting, select **New Setting** and click **Next**.

Wheless Monitor	$\times$
Profile Setting	
IP Setting : 📴 New Setting	•
IP:#.x.x.x Subnet Mask:#.x.x.x DNS:#.x.x.x	
Back Next Exit	

Step 2 Select Static.

Wheless M	lonitor 🗵
Profile Se	etting
DHCP Status :	🕒 Static 🔽
IP Address :	
Subnet Mask :	255.255.255.0
Default Gateway :	
DNS Server :	
IP:x.x.x.x Subnet Mask:x.x.x.x DNS:x.x.x.x	
Back Comp	olete Exit

**Step 3** Enter in the information and click **Complete** to finish the setting.

#### 4.6 About

The About tab shows the Utility, Driver, and Firmware version as well as the MAC address of the **MIMO XR<sup>™</sup> Cardbus Adapter**.

More More	nitor	×	
🧊 Link Information 📇 AP List	🥢 Profile Setting 🦻 About		
Utility Version :	1. 0. 7. 3		
Driver Version :	1.0.0.0		
Firmware Version :	1.0.0.0		
Address :	00:0F:66:ED:4F:D3		
© 2005. All Rights Reserved.			
www.airlink101.com			

## **Technical Support**

E-mail: support@airlink101.com

Toll Free: 1-888-746-3238

Web Site: www.airlink101.com

<sup>\*</sup>Theoretical maximum wireless signal rate based on IEEE standard 802.11g specifications. Actual data throughput will vary. Network conditions and environmental factors, including volume of network traffic, building materials and construction, mix of wireless products used, radio frequency interference (e.g., cordless telephones and microwaves) as well as network overhead lower actual data throughput rate.

Copyright © 2005 AirLink101. All rights reserved. AirLink101, the stylized AirLink101 logo, specific product designations, and all other words and logos that are identified as trademarks and/or service marks are, unless noted otherwise, the trademarks and service marks of AirLink101. All other product or service names are the property of their respective holders. AirLink101 products are protected under numerous U.S. and foreign patents and pending applications, mask work rights, and copyrights. MIMO XR is a registered trademark of Ralink Technology Corporation.