



Super G[™] Wireless PCI Adapter Model # AWLH4130 User's Manual

Ver. 1A

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1. Introduction

The **108Mbps Super G[™] Wireless PCI Adapter** is an advanced IEEE 802.11b/g compatible, high performance wireless card that supports data transfer speeds of up to 54 Mbps or 108Mbps in **SuperG** mode.

The **108Mbps Super G[™] Wireless PCI Adapter** comes with software drivers for the most popular Microsoft Windows operating systems and can be integrated into a larger network, running Windows 2K or XP in either **Ad Hoc** mode (without an Access Point) or **Infrastructure mode** (with an Access Point).

1.1 Package Contents

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

- 108Mbps Super G[™] Wireless PCI Adapter
- Antenna
- Quick Installation Guide
- Manual and Drivers/Utility on CD

1.2 Features

- Compatible with IEEE 802.11g/b higher data rate up to 108Mbps*
- Maximum reliability, throughput and connectivity with automatic data rate switching
- Supports wireless data encryption with 64/128/152-bit WEP for security
- Supports infrastructure networks via Access Point and ad-hoc network via peer-to-peer communication
- Built-in dual diversity antenna for the multi-path environment
- Supports WPA and AES enhanced security
- Friendly user configuration and diagnostic utility

1.3 System Requirements

- A computer with an available PCI slot
- Windows 2000 and XP

- At least 32 MB of memory and a 300 MHz processor or higher
- An 802.11b/g Access Point for (Infrastructure Mode) or another computer with an 802.11b/g wireless card installed (for Ad-Hoc Mode)

2. Installation

2.1 Install Driver & Utility

This section provides instructions on how to install the **Super** G^{TM} **Wireless PCI Adapter**. The driver is installed along with the utility.

Note: Be sure to power off the computer before inserting the PCI adapter.

Step 1 Insert the PCI Adapter into an available PCI slot and turn on the computer. Windows will detect the adapter and request for a driver. Click **Cancel** to quit the wizard.



Step 2 Insert the Driver & Utility CD into your CD drive and select **Install Driver and Utility** from the menu.



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

Step 3 Click Next at the welcome screen.



Step 4 Click **Next** to accept the default destination folder to install the software or click **Browse** to manually select a different destination folder.

WLAN Monitor - InstallShield Wizard	×
Choose Destination Location Select folder where setup will install files.	
Setup will install WLAN Monitor in the following folder.	
To install to this folder, click Next. To install to a different folder, click Browse another folder.	e and select
C Destination Folder	
C:\\Airlink101\Airlink101 WLAN Monitor\	Browse
InstallShield	Canad

Step 5 Click Next at the Select Program Folder screen.

WLAN Monitor - InstallShield Wizard	×
Select Program Folder Please select a program folder.	
Setup will add program icons to the Program Folder listed below. You may type a new folder name, or select one from the existing folders list. Click Next to continue. <u>P</u> rogram Folder:	
Airlink101 Existing Folders: Accessories	
Administrative Tools Adobe Atrink101 Atrink101	
Games Google Desktop Google Updater iTunes	
InstallShield	

Step 6 Verify **"Yes, I want to restart my computer now"** is selected and click **Finish** to restart your computer.

WLAN Monitor - InstallShie	ld Wizard
	InstallShield Wizard Complete The InstallShield Wizard has successfully installed WLAN Monitor. 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.
	< Back Finish Cancel

Step 7 After restarting the computer, Windows will automatically detect the PCI adapter and install the driver for it.

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 Hardware tab first then click on Device Manager.



Step 3 Expand **Network adapters** and verify that **Airlink101 SuperG Wireless PCI Adapter** is in the list and that no yellow question mark or exclamation mark is beside it.



2.3 Configure the PCI Adapter

Note to Windows XP Users:

You must disable the Wireless Zero Configuration Utility in order to use the WLAN Monitor. Please refer to the following steps to disable the Wireless Zero Configuration Utility.

Step 1 Double-click on the **Wireless Network Connection Icon** in the system tray, 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.

A

wiji ienei	etess Ne ral Wirele	ss Net	vorks	Advar	n 12 Pr	opernes		JĽ
μı	 Jse Windov	vs to ci	onfigur	e my wi	eless netv	vork settin	gs	
	ailable net	vorks:						
) connect t 1 wireless	o an av	/ailable	e networ	k, click Co	ontigure.	figure	
	* 1004 D							
	efault				~	Re	fresh	
Pri Au be	default	vorks: conne	ct to a	vailable	networks	in the orde	f resh er listed	
	default	works: conne	ct to a	vailable	networks	in the orde	fresh er listed ve up e down	
	default	works: conne	ct to a	vailable	networks Propert	in the orde	f resh er listed ve up e down	

Step 3 To open the PCI Adapter's utility, double-click on the WLAN Monitor Icon in the system tray.



The utility automatically adds an available wireless network to the **Preferred WLANs** box. If no SSID is added, or if the SSID is wrong, please refer to the following steps to join the appropriate wireless network.

Step 4 Select the SSID of the wireless network you wish to connect to from the **Available WLANs** box and click **Connect**.

Airlink101 SuperG	Wireless PCI Ada	apter				
Configuration Status	Option About					L
- Available WLANs:						
To connect to availab	ble WLAN				R <u>e</u> fresh	Connect
	MAC(BSSID)	Signal	Security 0	C Freq	M S	XB
💡 default325	00:50:18:44:EA:06	" 1…	Disable 1	1 2.462Ghz	g	
🔥 pincian i	00:16:01:27:75:3A	_ <u></u> 0% ⊗	⇒ WEP .	1 2.412Ghz	g	
👗 trigger	00:0F:A3:1C:93:29	🛛 🖉	≫ WEP ·	1 2.412Ghz	g	
Profile <u>G</u> roup Control Please select a profile	e group to apply : A	Preferred WL automatically SSID	ANs: - connect to availal Secu	ble WLAN per t	below order:	Move to
	Dejete Selec <u>t</u>	<	IIII			
				ОК	Cancel	

Step 5 You will be prompted for the security key if you have one setup for your wireless network. Verify the key you enter is correct and click **Connect**.

Wireless Netwo	ork Connection	X
The network defa PreShared Key). Please input the F	ault requires a network key (also called a WEP key or WPA/W PreShared key ,and then click button "Connect".	(PA2
Network <u>K</u> ey :		
Check Networ	ork Key	
Advance	C <u>o</u> nnect	<u>C</u> ancel

Step 6 Verify the SSID you have selected is in the **Preferred WLANs** box and click **Apply**.

Airlink101 SuperG	Wireless PCI Ada	apter				X
Configuration Status	Option About					
Available WLANs:						
To connect to availab	ble WLAN				R <u>e</u> fresh	Connect
SSID 🛆	MAC(BSSID)	Signal	Security	C Freq	M S	XB
💡 default325	00:50:18:44:EA:06	" 1…	Disable	11 2.462Ghz	g	
👗 pinclan1	00:16:01:27:75:3A	0% <u>∞</u>	WEP	1 2.412Ghz	g	
👗 trigger	00:0F:A3:1C:93:29	🗠 🕞	WEP	1 2.412Ghz	g	
Profile <u>Group Control</u> Please select a profile	e group to apply : New Rename Dejete Select	Preferred WLA uutomatically o SSID default3	ANs: onnect to avai	lable WLAN per ecurity en System	below order: <u>N</u> ew Remo <u>v</u> e Pr <u>o</u> perties <u>R</u> eCor	Move to Export Import
			(ОК	Cancel	Apply

Note: Be sure to remove the wrong SSID from the **Preferred WLANs** box before adding any new SSID. You can remove the wrong SSID by selecting it and clicking on **Remove**.

Step 7 A blue circle will surround the SSID you have chosen. Click OK.

Airlink101 SuperG Wireless	PCI Adapter			X
Configuration Status Option	About			
Available WLANs:				
To connect to available WLAN			R <u>e</u> fresh	<u>C</u> onnect
SCID 🛆 MAC(BSSID) Signal	Security C	Freq M S	XR
💡 🧣 efault325 00:50:18	:44:EA:06 🔊 1	Disable 11 2	2.462Ghz g	
🔒 🚺 🔥 pinclan1 00:16:01	:27:75:34 🔊 0% 🧕	🏁 WEP 1 2	2.412Ghz g	
👗 trigger 00:0F:A3	3:1C:93:29 🗿 3 🧕	🏁 WEP 1 2	2.412Ghz g	
Profile <u>G</u> roup Control Please select a profile group to a	apply : <u>Preferred W</u>	ANs: connect to available W	'LAN per below order:	
Neg		Security	<u>N</u> ew	Move to
Rena	ame default	325 Open Syste		Export
Deje	ete			Import
Sele				onnect
			K Cancel	

Congratulations! The installation for your Super G PCI Adapter is complete.

3. Configure the WLAN Monitor

This section describes the various functions of the **WLAN Monitor** that you can configure, including the settings of wireless encryption.

3.1 Configuration Tab

The Configuration tab displays a list of available Access Points.

Airlink101 SuperG Wireless PCI Adapter	×
Configuration Status Option About	
Available WLANs: To connect to available WLAN Refresh Connect	
SSID 🛆 MAC(BSSID) Signal Security C., Freq M., S., XR	
💡 default325 00:50:18:44:EA:06 💭 1 Disable 11 2.462Ghz g	
🗼 🗼 pinclan1 00:16:01:27:75:34 🚚 0% 🗪 WEP 1 2.412Ghz g	
🗼 trigger 00:0F:A3:1C:93:29 🚛 3 🕬 WEP 1 2.412Ghz g	
Profile Group Control Please select a profile group to apply : Automatically connect to available WLAN per below order:	
New SSID Security New Move to	
Rename default325 Open System Remove Export	
Delete Properties Import	
Select ReConnect	
OK Cancel Apply	

Available WLANs: displays a list of available Access Points that you can connect to. To update the list, click on **Refresh**. To manually add a SSID to the list, click on **Connect**.

Profile Group Control: once you have added all the SSID you want to the preferred WLANs, you can group them by giving them a name in the **Profile Group Control** box and click **Add**. Any settings you set to the group will automatically be applied to all WLANS belonging to that group.

Preferred WLANs: you may add a preferred SSID which the wireless adapter will automatically connect to upon startup. To add a new SSID from the available WLANs list, select the desired SSID and click **Connect**. To add a new SSID that is not listed in the available WLANs list, click on **New** and manually enter the name of the SSID. If you have more than one preferred WLAN, you may move the SSID up or down the list. Each time the computer starts up, the wireless adapter will attempt to connect to the SSID listed beginning from the top of the list. If you wish to configure the properties of a WLAN, highlight it and click on **Properties**.

3.2 Configuring WEP Encryption

onfiguration Status	Option About									
Available WLANs:								_		_
To connect to availal	ble WLAN						R <u>e</u> fres	sh	<u>C</u> onnect	
SSID 🛆	MAC(BSSID)	Signa	el	Security	C.,	Freq	М	S	XB	
💡 default325	00:50:18:44:EA:	06 🔊 1		Disable	11	2.462Ghz	g			
👗 pinclan1	00:16:01:27:75:	3ക എറ്റാ	% 🕬	WEP	1	2.412Ghz	g			
👗 trigger	00:0F:A3:1C:93:	29 " ani 3	. 🕬	WEP	1	2.412Ghz	g			
Profile <u>G</u> roup Control		Preferred	IWLAN	Ns:						
Profile <u>G</u> roup Control Please select a profile	e group to apply : New	Preferred Automatic	i WLA) ally co	Ns: Innect to a	vailable Securiti	WLAN per	below ord	der:	Move to	
Profile Group Control Please select a profile	e group to apply : Ne <u>w</u> Rename	Preferred Automatic SSID P def	I WLAN ally co ault325	Ns: nnect to a	vailable Security Open Sy	WLAN per	below ord <u>N</u> e Rem	der: w	Move to	
Profile Group Control Please select a profile	e group to apply : Ne <u>w</u> Rename Dejete	Preferred Automatic SSID P def	l WLAN ally co	Ns: Innect to a	vailable Security Open Sy	WLAN per	below ord <u>N</u> e Rem Pr <u>o</u> pe	der: w ove rties	Move to Export Import	
Profile Group Control Please select a profile	e group to apply : New Rename Dejete Select	Preferred Automatic SSID ? def	I WLAt ally co ault325	Ns: Innect to a	vailable Security Open Sy	WLAN per	below ord <u>N</u> e <u>Rem</u> u Pr <u>o</u> pe	der: w ove rties <u>R</u> eCo	Move to Export Import)))

The following screen will appear after you click on the **Properties** button from the Preferred WLANs box.

W	/ireless Network Prop	perties	×
١	Wireless network <u>n</u> ame (SS	iID): default	
ſ	Wireless network key		
	This network requires a k	ey for the following:	
	A <u>u</u> thentication Mode:	Open System 😽 😽	
	Data <u>E</u> ncryption:	WEP 💌	
	Key length: 64 bits (4	40+24) - 10 Hexadecimal digits 🗙	
	Default <u>k</u> ey:	~	
	Network Key :		
	Check Net <u>w</u> ork Key		
	Enable 802.1		
		Authentication Config	
[This is a computer to co access points are used.	mputer (ad <u>h</u> oc) network; no	
	I <u>P</u> & Proxy Setting	<u> </u>	

If your existing wireless network has **WEP** encryption enabled, you need to configure the wireless adapter with the identical encryption settings in order to establish a connection.

Step 1 Verify that the Wireless network name matches the **SSID** of the Access Point you're trying to connect to.

Step 2 Verify the **Authentication Mode** is set to the same setting as the Access Point you're trying to connect to.

Step 3 Select WEP from the Data Encryption drop-down menu.

Step 4 Choose the same Key length that the Access Point is using.

Step 5 Enter the identical key in the corresponding key number

Step 6 Make sure the default key is the same key number used by the Access Point.

Note: both the key and the key number must be identical with the Access Point.

Step 7 Click OK to save your settings.

Step 8 Click Apply and OK.

3.3 Configuring WPA-PSK/WPA2-PSK Encryption

If your existing wireless network has WPA-PSK or WPA2-PSK encryption enabled, you need to configure the wireless adapter with the identical encryption settings in order to establish a connection.

Step 1 Go to the **Properties** screen of the preferred WLAN as described above and verify that the Wireless network name is the **SSID** of the Access Point you're trying to connect to.

Step 2 Choose **WPA-PSK or WPA2-PSK** from the **Authentication Mode**. Select **TKIP or AES** as the **Data Encryption** and click on the **Authentication Config** button.

Wireless Network Properties				
Wireless network name (SSID): default				
Wireless network key (WEP) This network requires a key for the following:				
Authentication Mode: WPA-PSK				
Data Encryption: TKIP				
Key length: 64 bits (40+24) - 10 Hexadecimal d				
Key 1:				
Key 2:				
Key 3:				
Key 4:				
Default key: Key 1				
Enable 802.1X Authentication Config				
This is a computer to computer (ad hoc) network; no access points are used.				
IP & Proxy Setting OK Cancel				

Step 3 Enter a passphare in the WPA Passphrase field and click **OK**. (Note: the passphrase must be between 8 – 63 characters long).

Advance Security Settings	
WPA-PSK	
WPA Passphrase	
EAP Type	-
Certificate	
User Certificate	~
🗖 Validate Server Certificate	
User Information User Name Domain Name	
Password	
Confirm Password	
TTLS Identity	
Trust CA List	
	Add
F	emove
OK Cancel	

3.4 Status Tab

Under the **Status Tab** you will find information on the connection state, hardware information, and advanced state.

Wireless Network Config Utility		×
Configuration Status Option About		
Connection State		
Connection Status :	Connected	
SSID:	default	
BSSID:	00:03:2F:22:C9:60	
Network Type :	Infrastructure	
Frequency :	802.11g-2.4GHz	
Channel :	6	
Data Encryption :	Disable	
Speed :	36.0 Mbps	
Authentication State :	Connected	
Signal Strength :	30 %	
Hardware Information	Advance State	
MAC Address : 00:0F:3D:84:AD:80	Radio Status: ON	
Regulatory Domain : ETSI		
	OK Cancel A	Apply

Connection Status: displays the status of the connection

SSID: The SSID that the wireless adapter is connected to

BSSID: The MAC Address of the Access Point that the wireless adapter is connected to

Network Type: The network connection type

Frequency: The frequency that the wireless adapter is using

Channel: The channel number that the wireless adapter is using

Data Encryption: Displays if WEP encryption is disabled or enabled

Speed: Displays the speed of the connection

Authentication State: Displays the authentication state

Signal Strength: A bar shows the signal strength of the connection

Hardware Information: Displays the MAC Address of the wireless adapter and the regulatory domain.

Advanced State: Displays whether the radio signal is On or Off.

3.5 Option Tab

Under the **Option Tab**, general settings and advanced settings are shown.

Airlink101 SuperG Wireless PCI Adapter			×
Configuration Status Option About			
General Setting Auto launch when Windows <u>s</u> tart up Remember mini status position	Advance Setting Disable <u>R</u> adio Radio Freguency :	802.11b/g-2.4GHz 🗸	
Auto <u>h</u> ide mini status	Start <u>a</u> d hoc network : Adhoc Channel :	2.4GHz	
Enable IP Setting and Proxy Setting in Profile	Power Save Mode :	Fast Save	
Group Roaming	<u>T</u> ransmit Power : S <u>u</u> per G :	100% 🗸	
WLAN type to connect	e≚tend Range :	Disable	
Infrastructure and ad hoc network Infrastructure network only ord has network only	Fragmentation Threshold : RTS Threshold :	2346	
Automatically connect to non-preferred networks			
	OK	Cancel Apply	

General Setting:

Auto launch when Windows starts up: check the box to launch the WLAN Monitor when Windows starts up

Remember mini status position: remembers the mini status position **Auto hide mini status:** auto hides the mini status screen

Set mini status always on top: the mini status screen will always stay on top of the desktop

Enable IP setting and Proxy setting in profile: allows you to back up previous IP settings

Group Roaming: Check the box to enable group roaming.

WLAN type to connect:

Infrastructure and Ad-Hoc network: for connecting to either an access point or

a peer network client without the use of an access point **Infrastructure:** for connecting to an access point only **Ad-Hoc**: for connecting directly to another wireless client without using an Access Point or wireless router. (Both wireless clients must be set to using Ad-Hoc mode).

Automatically connect to non-preferred networks: Check the box to connect to non-preferred networks upon startup.

Advance Setting:

Disable Radio: Check the box to disable the radio signal

Radio Frequency: 802.11b/g switches automatically between 802.11b and 802.11g speed depending on the other wireless devices. 802.11b will only connect at 802.11b speed (11 Mbps or lower).

Start ad hoc network: Choose the appropriate frequency for your ad-hoc network

Ad-Hoc Channel: Choose the desired channel for your ad-hoc network. All devices in the ad-hoc network must use the same channel.

Power save Mode:

Fast Save - This setting consumes half the power.

Max Save - This setting consumes the least power.

Disable - This default setting consumes the most power.

Transmit Power: Choose to transmit power from 100%, 50%, 25%, 12.5% and Lowest.

Super G: Enable or Disable the Super G function (108Mbps). In order to transfer speeds at 108 Mbps, all wireless devices must be Super G compatible and set to use Super G.

eXtend Range: Enable or Disable eXtend range

Fragmentation Threshold: Set the desired fragmentation threshold **RTS Threshold:** Set the desired RTS threshold

3.6 About Tab

Displays the Driver and Utility version

Airlink101 SuperG Wireless PCI Adapter	×
Configuration Status Option About	_
VIRLINK [™]	
Utility Version : V3.0.41.61012	
Driver Version : 4.1.2.714	
Secured by Odyssey	
Copyright 2006, Airlink101. All rights reserved	
OK Cancel Apply	

Appendix - Technical Specifications

Standards

• IEEE 802.11b/g, Atheros Super G[™] Interface

- PCI Local Bus 2.2
- Low profile and half length
- PCI 32 bit

Chipset

- Atheros
- **Frequency Band**
 - 2.400~2.497GHz (Industrial Scientific Medical Band)

Media Access Protocol

• CSMA/CA with ACK

Antenna Type

 Omni-directional dipole antenna with 2dBi

Transmit Power

- 802.11g: +12~15dBm
- 802.11b: 18dBm

Channel Numbers

- 11 channels for United States
- 13 channels for Europe Countries
- 13 channels for Japan

Security

- WEP 64/128-bit encryption
- WPA, WPA2*(for Win2K and XP only)
- 802.1x

Data rate

- 108*Mbps
- 54, 48, 36, 24, 18, 12, 11, 9, 6, 5.5, 2, 1Mbps auto fallback
- LED
 - Power
 - Link

System requirement

- Windows 2K / XP
- Available PCI slot

Environment

- Operating Temp: 0°C to 55°C
- Operating Humidity: 10% to 90% (non-condensing)

Weight

• 82g

Dimensions

• 120 x 60 mm

Warranty

• Limited 1-year warranty

Safety Approvals

• FCC and CE

Technical Support

E-mail: support@airlink101.com

Toll-Free: 1-888-746-3238

Web Site: www.airlink101.com

*Super G[™] technology (108 Mbps) can only be obtained when using products with Atheros Super G[™] chipset.

*Theoretical maximum wireless signal rate based on Atheros Super G[™] and 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.

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http://golfingnear.com Email search by domain

http://emailbydomain.com Auto manuals search

http://auto.somanuals.com TV manuals search

http://tv.somanuals.com