

802.11n Wireless PCI Adapter

MODEL: AWD102N





User Manual

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1.0 Introduction

1.1 Welcome

The AZiO AWD102N connects you with IEEE802.11n (Draft 2.0) networks at receiving rate up to an incredible 300Mbps. By using the reflection signal, 802.11n's "Multiple In, Multiple Out" (MIMO) technology increases the range and reduces "dead spots" in the wireless coverage area. Unlike ordinary wireless networking of 802.11b/g standards that are confused by wireless reflections, MIMO can actually use these reflections to increase four times transmission range of 802.11g products. Besides, when both ends of the wireless link are 802.11n products, MIMO technology can utilize twice radio band to increase three times transmission speed of ordinary 802.11g standard products, and can comply with backwards 802.11b/g standards.

Soft AP supported by AWD102N can help you establish wireless LAN networking with the lowest cost. Furthermore, WPS (PBC and PIN) encryption method can free you from remembering the long passwords. Complete WMM function allows your voice and video to be smoother.

1.2 Product Feature

- Complies with IEEE 802.11n (Draft 2.0), IEEE 802.11g, IEEE 802.11b standards
- Provides 32-bit PCI interface
- Provides 300Mbps receiving rate and 150Mbps sending rate
- Supports 20MHz/40MHz frequency width
- Auto-detects and changes the network transmission rate
- Provides two work modes: Infrastructure and Ad-Hoc
- Supports Soft AP to establish your wireless LAN networking with lowest cost
- Supports 64/128-bit WEP, WPA, WPA2 encryption methods and 802.1x security authentication standards
- Supports WPS (PBC and PIN) encryption method to free you from remembering long passwords
- Supports WMM to enhance your audio, video, and voice application experience.
- Supports Windows 2000 / XP / 2003 / Vista

1.3 Contents of Package

- One AWD102N
- One Installation CD
- One Quick Installation Guide
- Two Dipole Antennas

Please Contact your local authorized reseller or the store purchased from for any items damaged and/or missing.

1.4 Before you begin

Here are the minimum system requirements:

- A desktop PC with an available 32-bit PCI slot
- Minimum 600MHz processor and 128MB memory
- Windows 2000, XP, 2003, or Vista
- A CD-ROM Drive
- 802.11n or 802.11b/g Access Point (for infrastructure Mode) or another 802.11n or 802.11b/g wireless adapter (for Ad-Hoc; Peer-to-Peer networking mode.)

2.0 LED Indicators

AWD102N supports up to 300 Mbps connections. It is fully compliant with the specifications defined in 802.11n (Draft 2.0) standard.



The status LED indicators of AWD102N are as follows:

- Lnk/Act ON (Green): Indicates a valid connection
- Lnk/Act Flashing: Indicates the Adapter is transmitting or receiving data.

3.0 Installation

3.1 Installing the AWD102N

- Open your PC case and locate an available PCI slot on the motherboard.
- Slide the AWD102N into the PCI slot. Make sure that all of its pins are touching the slot's contacts. You may have to apply some pressure to slide the AWD102N all the way in. After it is firmly in place, secure its fastening tab to your PC's chassis with a mounting screw. Then close your PC.
- Attach the external antennas to AWD102N's antenna ports.
- Power on the PC.



• Select *Cancel* when "Found New Hardware" window appears.

Found New Hardware Wiz	ard
	Welcome to the Found New Hardware Wizard Windows will search for current and updated software by looking on your computer, on the hardware installation CD, or on the Windows Update Web site (with your permission). Read our privacy policy Can Windows connect to Windows Update to search for software? Yes, this time only Yes, now and gvery time I connect a device No, not this time
	< Back. Next > Cancel

3.2 Installing the Driver and Utility

NOTE: Snap-shot screens of the following installation procedure are based on Windows XP. Installation procedures will be similar for other windows operating systems.

- 1. Insert the Installation CD into your CD-ROM drive. Browse the CD and double-click on **setup.exe** in the "Driver" folder to execute it. The wizard will run and install all necessary files to your computer automatically.
- 2. Click *Next* to accept the Agreement. Or click *Cancel* to cancel the installation.

Ralink Wireless LAN - InstallS	Ralink Wireless LAN - InstallShield Wizard						
License Agreement Please read the following license a	agreement carefully.						
Ralink	RALINK Wireless Utility for Windows 98/ME/2000/XP/Vista Copyright (C) RALINK TECHNOLOGY, CORP. All Rights Reserved. Thank you for purchasing RALINK Wireless product! SDFTWARE PRODUCT LICENSE The SOFTWARE PRODUCT is protected by copyright laws and international copyright treaties, as well as other intellectual property laws and treaties. The SOFTWARE PRODUCT is licensed, not sold. 1. GRANT OF LICENSE. This End-User License Agreement grants you the following rights:Installation and Use. You may install and use an unlimited number of copies of the SOFTWARE PRODUCT. Reproduction and Distribution. You may reproduce and distribute an unlimited number of copies of the SOFTWARE PRODUCT; provided that each copy shall be a true and complete copy, including all copyright and trademark notices, and shall be accompanied by a copy of this EULA. Copies of the SOFTWARE PRODUCT may be distributed as a standalone produc or included with your own product.						
InstallShield	Cance Next >	cel					

- 3. Select *Ralink Configuration Tool* or *Microsoft Zero Configuration Tool* then click *Next*.
 - a. It is recommended to select **Ralink Configuration Tool**, which provides full access to all functions of the AWD102N.
 - b. If you prefer to use the wireless configuration tool provided by Windows XP or Vista, please select **Microsoft Zero Configuration Tool.**



4. Select Optimize for WiFi mode or Optimize for performance mode then click Next.

Ralink Wireless LAN - Instal	IShield Wizard	
Setup Type Select the setup type that best	suits your needs.	
	Choose Configuration TxBurst or WiFi.	
	Optimize for W/Fi mode	
	Optimize for performance mode	
RRalink		
InstallShield	< Back Next >	Cancel

5. Click *Finish* to complete the software installation.



You will see a tray icon is appear in your system tray at the bottom of the screen after the software and hardware installation is successfully completed.

4.0 Configuration

Right-click the tray icon Band then click *Launch Config Utilities* to use the Ralink configuration utility.



4.1 Profile

Profile can keep your favorite wireless setting among your home, office, and other public hotspots. You can save multiple profiles and activate the profile of your choice.

PROF1	FAE	Auto	Open	Encryption None	Network Ty
PROF2	6F_EMAX	Auto	Open	None	Infrastructure
Add	1 1)elete	Edit		Activate

- 1. Definitions:
 - a. Profile Name: Name of the profile, preset to PROF* (* indicate 1, 2, 3,)
 - b. SSID: The public name of a wireless network, Service Set IDentifier
 - c. Network Type: Infrastructure and/or Ad-Hoc
 - d. Authentication: Open, Shared, (Leap), WPA-PSK, WPA2-PSK, WPA and WPA2
 - e. Encryption: WEP, TKIP, AES, and None
 - f. Channel: Channel of the connected wireless network
- 2. Add: to create a new profile
- 3. Edit: to edit/modify/change parameter of an existing profile
- 4. Delete: to delete an existing profile
- 5. Activate: to make an existing profile become active and to connect

4.1.1 Add/Edit Profile

a. Configuration

Add Profile Configuration Authe	entication and Security			X
' Profile Name	PROF1	SSID	FAE	•
PSM CAM (Const	antly Awake Modej	C PS	iM (Power Saving Mode)	
Network Type Preamble	Infrastructure	•		
Fragment Thre	d 0 <u>'</u>			
	Oł	Car	ncel Apply	Help

- **1. Profile Name:** Specify a name for the profile.
- **2. SSID:** Name of usage intended wireless network. User can key in the intended SSID name or use the pull down menu to select from available Access Points.
- Network Type: You can select between Infrastructure or Ad-hoc mode. Infrastructure: A wireless Router and/or Access Point is required. Ad-hoc: Peer-to-Peer network, no base station required.

4. Power Save Mode: Choose between CAM or PSM.

CAM (Constantly Awake Mode): AWD102N will stay power-ON as long as the computer is connected to a power outlet.

PSM (Power Saving Mode): AWD102N will hibernate when the computer is hibernating.

- **5. RTS Threshold:** you can adjust the RTS threshold number by sliding the bar or key in the value directly. Default value = 2347
- **6. Fragment Threshold:** you can adjust the Fragment threshold number by sliding the bar or key in the value directly. Default value = 2346
- b. Authentication and Security

nervotion :	None	
1/DA Prosbarod Kou		
Wen Keu		
	ex 🔽	
C Key#2	ex 🔄	
С Кеу#З 🛛 🖡	ex 🔽	
C Key#4	8%	
* WEP 64 Bits End	yption: Please Keyin 10 HEX characters or 5 ASCII of	naraoters
WEP 128 Bits Er	styption: Please Keyin 26 HEX characters or 13 ASUI	characters

- 1. Authentication: Open, Shared, (Leap), WPA-PSK, WPA2-PSK, WPA and WPA2.
- **2. Encryption:** Algorithm used in BSS or IBSS, WEP, TKIP, AES, and None.
- **3.802.1x configuration:** This is an advanced encryption mode based on Radius server or authentication credentials.

c. 802.1X

02.1x Setting	
Certification CA 9 Authentication T	erver
Identity	Password Domain Name
Use Client cer	tificate
Issued To :	Expired On : More.
Issued By :	Friendly Name :
File Path :	Remove Import
Tunneled Authe	ntication
Protocol	EAP-MSCHAP v2 Identity
1	Password
	OK Cancel Apply Help

- **1. Authentication Type:** The type selected here must be identical to the type of the 802.1x authentication type you're using.
- 2. Session Resumption: Enable or Disable.
- **3.** Domain Name: Input the domain name of 802.1x authentication. This field will be grayed out when authentication type is not set to EAP-FAST.
- 4. Use Client: If the authentication type is using PEAP or TTLS, you can use the certificate stored on your computer. If the authentication type is using TLS/Smart Card, this box will be always checked.
- 5. Allow unauthenticated provision mode: This box is always checked and can not be modified.
- **6.** Use protected authentication credential: If the authentication type is using EAP-FAST, you can use protected authentication credential by checking this box.
- 7. **Remove:** Remove the credentials you imported previously.
- **8**. **Import:** Import the authentication credential file (PAC or al file format), you'll be prompted to select a credential file from your computer.
- **9. Protocol:** Select the protocol of tunneled authentication. This pull-down menu is only available when authentication type is using **PEAP** or **TTLS**. When using **EAP-FAST** as authentication type, the protocol setting is always **Generic Token Card** and cannot be changed.
- **10. Password Mode:** Select the password mode of **EAP-FAST** authentication mode. This setting is hidden when the authentication type is not set to **EAP-FAST**.

4.2 Link Status

Status :	FAE <> 00	0-0E-2E-44	-6B-3E		
Extra Info :	Link is Up [TxPower:1	00%]		
Channel :	1 <> 2412	1 <> 2412 MHz; central channel : 3			
Link Speed :	Tx (Mbps)	Γ	243.0	Rx (Mbps)	28.9
Throughput :	Tx (Kbps)	Γ	4.2	Rx (Kbps)	31.2
	Good	83%			
Link Quality :					
	Good	100%		Γ	dBm
Signal Strength 1:					
	Good	94%			
Signal Strength2 :					1 50 65
	Good	100%			
Signal Strength 3:					
	Low	26%			
Noise Level :					
_ UT					
BW: 40 G	l: long M(CS: 14	SNR0: 3	0 SNR1: n/a	

The Link status page shows detailed information about the current connection.

- 1. Status: Shows the current connected SSID / BSSID. If there is currently no active connection, "Disconnected" will be displayed.
- 2. Extra Info: Shows link status and its transmission power.
- 3. Channel: Shows the current connected channel.
- 4. Link Quality: Based on signal strength and TX/RX packet error rate (%).
- 5. Signal Strength: Shows in percentage (%) or dBm.
- 6. Noise Level: Shows noise and signal strength ratio (%). If the value of this item is high, data transfer rate will drop.
- 7. Transmit:

Link Speed: Shows current transmitting rate (Mbps).

Throughput: Shows current transmitting throughput (Kbps).

8. Receive:

Link Speed: Shows current receiving rate (Mbps).

Throughput: Shows current receiving throughput (Kbps).

4.3 Site Survey

Under Site Survey tab, all surrounding wireless networks from the last scan will be displayed. Click *Rescan* to update and refresh. Or, Select a SSID to add to your profile.

SSID	BSSID	Signal	C	Encrypt	Authent	Network T
@h32046	00-0E-2E-92-F9	91%	1	TKIP	WPA-P	Infrastruct.
🛸 FAE	00-0E-2E-44-6B	100%	1	None	Unknown	Infrastruct.
EMAX	00-50-FC-D7-A1	55%	11	TKIP	WPA-P	Infrastruct.
6F_EMAX	00-0E-2E-FF-FF	34%	11	None	Unknown	Infrastruct.
6554N	00-0E-2E-DF-52	100%	11	TKIP;A	WPA-P	Infrastruct.
ailive	00-0E-2E-43-3C	100%	11	TKIP	WPA-P	Infrastruct.
6315SRg	00-0E-2E-B3-4F	100%	11	TKIP	WPA-P	Infrastruct.
6FGUEST	00-0E-2E-6E-FB	29%	2	WEP	Unknown	Infrastruct.
						>
Connected <> F/	AE	Rescan		Connec	at Ad	ld to Profile



Indicates your currently connected network.

4.4 Statistics

The Statistics page displays the detail counter information based on 802.11 MIB counters. This page translates the MIB counters into a format easier for user to understand.

Ralink Wireless Utility Profile Link Status Site Survey Statistics Advanced	QoS WPS Co	onfiguration About
⊤ Transmit Statistics		
Frames Transmitted Successfully	=	294
Frames Fail To Receive ACK After All Retries	=	51
RTS Frames Successfully Receive CTS	=	0
RTS Frames Fail To Receive CTS	=	0
Frames Retransmitted Successfully	=	1754
- Receive Statistics		
Frames Received Successfully	=	285
Frames Received With CRC Error	=	1931
Frames Dropped Due To Out-of-Resource	=	0
Duplicate Frames Received	=	0
		Reset Counter
		0K Help

4.5 Advanced

The following figure shows Advance function of UI.

🗟 Ralink Wireless Utility	
Profile Link Status Site Survey Statistics Ad Wireless mode 802.11 B/G/N mix Wireless Protection Auto	vanced QoS WPS Configuration About Select Your Country Region Code
 Tx BURST Enable TCP Window Size Fast Roaming at 70 dBm Turn off RF 	 Show Authentication Status Dialog Enable CCX (Cisco Compatible eXtensions) Turn on CCKM Enable Radio Measurement Non-Serving Channel Measurements Limit 250 milliseconds (0-2000)
	OK Help

- 1. Wireless mode: Select from 802.11B only, 802.11 B/G mixed, 802.11 B/G/N mixed, and 802.11G only.
- 2. Enable Tx BURST: Ralink's proprietary frame burst mode. We suggest using it with an Access Point that has the same technology.
- **3.** Enable TCP Window Size: Check this box and the configuration utility will adjust TCP window size automatically to get better performance.
- **4. Fast Roaming at:** Fast to roaming, setup by transmitting power.
- 5. Enable CCX (Cisco Compatible eXtensions):
 - a. LEAP Turn on CCKM.
 - b. Enable Radio Measurement: channel measures every 0~2000 milliseconds.

4.6 QoS

🗟 Ralink Wireless Utility	
Profile Link Status Site Survey Statistics Advanced QoS	WPS Configuration About
VMM Enable	Apply
🕅 WMM - Power Save Enable	Setting
🖵 Direct Link Setup Enable	Apply
Direct Link	
Direct Link Setup	
MAC Address :	
Timeout Value : 80 sec	Apply
DLS Status	
MAC Address Timeout	
	Tear Down
	OK Help

- 1. WMM Enable: Enable Wi-Fi Multi-Media.
- 2. WMM Power Save Enable: Enable WMM Power Save.
- **3. Direct Link Setup Enable:** Enable DLS (Direct Link Setup). This function will greatly improve the data transfer rate between WMM-enabled wireless devices.

MAC Address: Input the MAC address of another WMM-enabled wireless device you wish to establish a direct link with.

Timeout Value: Must be between 0~65535 in integer. A value of zero means it always connects. Default value of Timeout Value is 60 seconds.

Tear Down: If you want to remove a specific wireless device from DLS table, select the device and click this button to remove it.

4.7 WPS Configuration

WPS page supports the configuration setup using PIN configuration method or PBC configuration method. WPS (Wi-Fi Protected Setup) is to simplify the security setup and management of Wi-Fi networks.

SSID FAE 3554N	00-0E-2 00-0E-2	2E-44-6B-3E 2E-DF-52-A4	C 1 11	ID		Authen Unkno WPA	None TKIP:A	Information
								21875175 Config Mode
SSID		MAC Addre	288		Aut	hentica	Encryption	Enrollee - Detail
								Connect Rotate
								Disconnect Export Profile
	WPS Associa	ate IE						Delete
P <u>B</u> C	WPS Probe I	E WPS st	atus	is not (used			

- 1. WPS AP List: Display the information of surrounding APs with WPS IE from last scan result, including SSID, BSSID, Channel, ID (Device Password ID), Security-Enabled.
- 2. **Rescan:** Updates information on surrounding wireless network.
- **3. Information:** Display the information about WPS IE on the selected network, list including Authentication Type, Encryption Type, Config Methods, Device Password ID, Selected Registrar, State, Version, AP Setup Locked, UUID-E and RF Bands.
- 4. PIN Code: 8-digit numbers.
- 5. Config Mode: Enrollee or external Registrar.
- 6. Detail: Information about Security and Key in the credential.
- 7. Connect: Connect to the selected network inside credentials.

- 8. Rotate: Connect to the next network inside credentials.
- **9. Disconnect:** Stop WPS action and disconnect this active link.
- **10.** Export Profile: Export all credentials to Profile.
- **11. Delete:** Delete an existing credential.
- **12. PIN:** Start to add to AP using PIN configuration method.
- **13. PBC:** Start to add to AP using PBC configuration method.

Note: When clicking PIN or PBC button, please don't click **Rescan** within two-minute. If you want to abort this setup within the interval, restart PIN/PBC or press Disconnect to stop WPS.

- 14. WPS associate IE: Send the association request with WPS IE during WPS setup.
- **15.** WPS probe IE: Send the probe request with WPS IE during WPS setup.

4.8 About

Displays information about AWD102N, such as Utility version/date, Driver version/date, EEPROM version and Firmware version.

🞼 Ralink Wireless Utility				×
Profile Link Status Site Surv	ey Statistics	Advanced QoS WP	PS Configuration About	
R	www.	RALINKTECH.COM		
(c) Copyright 2007,	Ralink Techno	logy, Inc. All rights reserve	d.	
RaConfig Version :	1.3.2.10	Date :	07-30-2007	
Driver Version :	1.0.4.0	Date :	07-28-2007	
EEPROM Version :	1.1	Firmware Version	: 0.7	
IP Address :	0.0.0.0	Phy_Address :	00-0E-2E-DC-86-3E	
Sub Mask :	0.0.0.0	Default Gateway :		
			or [
			UK Help	

5.0 Using Zero Configuration

Windows XP and Vista has a built-in wireless network configuration utility called "Windows Zero Configuration" (WZC). It is a built-in service to configure your wireless clients from Windows

1. To start using WZC, right click the tray utility and select Use Zero Configuration as Configuration utility.

Use Zero Configuration as Configuration utility Switch to AP Mode	Launch Config Utilities
Switch to AP Mode	Use Zero Configuration as Configuration utility
Evit	Switch to AP Mode
	 Exit

The windows wireless network connection will appear, double-click the wireless network icon
 on the system tray to check the wireless network. Choose the network and click Connect to setup the association.

(19) Wireless Network Connect	tion	×
Network Tasks	Choose a wireless network	
🛃 Refresh network list	Click an item in the list below to connect to a wireless network in range or to get more information.	
🔮 Set up a wireless network	((p)) Wireless lan 802.11g AP	
	🗸 🔮 Security-enabled wireless network	l
Related Tasks	((Q)) Supper G Wireless Network	
Learn about wireless networking	Unsecured wireless network	J
Change the order of preferred networks		
Change advanced settings		
	Connect	

3. If your wireless router has been encrypted, a window for inputting the security will appear. Please input the key and click **Connect** and the connection will connect.

4. To configure the wireless connect properties, please right-click the wireless icon in the system tray and choose **Status** to open the page **Wireless Network Connection Status**.

^{((†0)} Wireless Networ	k Connection Status 🛛 🛛 🔀
General Support	
Connection	
Status:	Connected to Supper G W
Duration:	00:32:49
Speed:	54.0 Mbps
Signal Strength:	T
- Activity	Sent — 🦗 — Received
Packets:	452 22
Properties	Disable View Wireless Networks Close

5. Click **Properties** button in **General** tab and choose the tab **Wireless Networks** to add the **SSID** of available networks by clicking **Add**, if there are several available networks, linking priority

could be configured by the button **Move up** and **Move down**. The icon **Properties** shows the current linked Access Point. Click **Properties** to configure authentication of wireless connection.

上 Wireless Network Connection Properties 🛛 🔹 💽
General Wireless Networks Advanced
Use Windows to configure my wireless network settings
Available networks:
To connect to, disconnect from, or find out more information about wireless networks in range, click the button below.
View Wireless Networks
Automatically connect to available networks in the order listed below: Supper G Wireless Network (Aut Move up Move down Add Remove Properties Learn about setting up wireless network
<u>configuration.</u>
OK Cancel

Supper G W	/ireless Netwo	ork properties 🛛 🛛 🛛 🛛
Association	Authentication	Connection
Select this wireless Et	option to provide hernet networks.	authenticated network access for
🗹 Enable	IEEE 802.1x auth	hentication for this network
EAP type:	Smart Card or o	other Certificate 🗸 🗸
		Properties
🔽 Authen	ticate as compute	er when computer information is available
Authen unavail	ticate as guest wł able	hen user or computer information is
		OK Cancel

6. **Advanced** page configures firewall and connection sharing.

🗕 Wireless Network Connection Properties 🛛 🔹 💽
General Wireless Networks Advanced
Windows Firewall
Protect my computer and network by limiting or preventing access to this computer from the Internet
Internet Connection Sharing
Allow other network users to connect through this computer's Internet connection
Home networking connection:
Select a private network connection
Allow other network users to control or disable the shared Internet connection
Learn more about <u>Internet Connection</u> Settings
If you're not sure how to set these properties, use the <u>Network Setup Wizard</u> instead.
OK Cancel

6.0 Soft AP

AWD102N has two modes: working station and Soft AP. After starting Soft AP, AWD102N will be an AP to accept any wireless device access.

6.1 Start Soft AP

After starting AWD102N driver, you will see icon 📫 in the system tray.

Right-click the icon and choose **Switch to AP Mode**, the tray icon will change to **use**, and the soft AP configuration Utility window will appear as below.

Launch Config Utilities Use Zero Configuration as Switch to AP Mode Exit	Configuration utility
🖧 Ralink Wireless Utility	
Config Access Control Mac Table Event Log	Statistics About
SSID SoftAP-3E	Channel 1 💌
Country Region Code	 No forwarding among wireless clients Hide SSID Allow BW 40 MHz
Beacon (ms) 100	
Idle time(60 - 3600)(s) 300	
	Default Apply

6.2 Configuration

In soft AP configuration Utility page, you can make some basic configurations, such as wireless network name, mode, channel and authentication.

🖧 Ralink Wireless Utility	
Config Access Control Mac Table Event Log	Statistics About
SSID SoftAP-3E	Channel 1
Wireless Mode 802.11 B/G/N mix 💌	<- Use Mac Address Security Setting
Country Region Code 11 B/G 0: CH1-11 Beacon (ms) 100 Idle time(60 - 3600)(s) 300	 No forwarding among wireless clients Hide SSID ✓ Allow BW 40 MHz
	Default Apply
	Help

Click **Security Setting** button to make different security configurations of wireless communication, and you can choose the authentication type or encryption type.

Security Setting					
Authentication Type	Open	•	Encryption Type	Not Use	•
WPA Pre-shared-Key					
Group Rekey Interval	60	0 seconds			
-Wep Key-		8 W.			-
€ Key#1 [Hex 💌				
С Кеу#2 🛛	Hex <u>*</u>				1
С Кеу#З 🛛	Hex 💌				
С Кеу#4 [Hex 💌]			
* WEP 64 Bits En * WEP 128 Bits Ei	aryption: Please horyption: Please	Keyin 10 HE e Keyin 26 H	X characters or 5 EX characters or 1	ASCII characters 3 ASCII charact	ers
			1	🗐 Show Passw	vord
	OK		Ca	ncel	

6.3 Access Control

Choose the **Access Control** tab to start MAC control. Access control includes **Allow All** and **Reject All**. After editing the MAC address access list, only the MAC in the Allow All list will be to access the Soft AP.

🔏 Ralink Wirele	ss Utility	×		
Config Access Control Mac Table Event Log Statistics About				
Access Policy	Allow All			
NAC Addam	and a second interview			
MAC Address	aabbccddeeff Access List			
	Add			
	Delete			
	Remove All			
	Apply			
	нер			

6.4 MAC Table

MAC Table page shows the information of the wireless devices accessed to this soft AP.

No No	Rate = 24.00 B: Rate = 11.00

6.5 Switch to Working Station mode

In the Soft AP mode, right-click the icon **Mode**. AWD102N will switch to working station mode with an interface of working station.

7.0 Specifications

General Features		
Standards	IEEE 802.11n(Draft 2.0) IEEE 802.11g IEEE 802.11b	
Interface	32-bit PCI	
OS	Windows 2000/XP/Vista	
User interface	Easy to use user configuration software	
roaming	Support multipoint auto roaming and configuration; Support wireless network environments auto detect.	
LED	Status / activity	
Antenna type	External Dipole Antenna (Detachable)	
RF and baseband Technical Fe	eatures	
Frequency range	2.4~2.4835GHz	
Radio data rate	 11n: 150/130/117/104/78/52/39/26/13Mbps 65/58.5/52/39/26/19.5/13/6.5Mbps 11g: 54/48/36/24/18/12/9/6Mbps 11b: 11/5.5/2/1Mbps 	
Modulation	BPSK, QPSK, CCK and OFDM (BPSK/QPSK/16-QAM/64-QAM)	
Spectrum Spread Technology	DSSS	
Transmit output power	11n 20MHz/40MHz: -65dBm 54Mbps: -72dBm 11Mbps: -88dBm	
Antenna Gain	2 x 1.8 dBi	
Number of Selectable Channels	USA,Canada: 11 channels Europe: 13 channels	
Media Access Protocol	WMM	
Data security	WPA/WPA2; 64/128-bit WEP; TKIP/AES	
Environmental and Physical		
Operation Temp.	0°C ~ 40°C	
Storage Temp.	-20°C ~ 70°C	
Operation Humidity	10% - 90% RH, Non-condensing	

8.0 Trouble-Shooting

This chapter provides solutions to problems that may occur during the installation and operation of AWD102N. Read the descriptions below to solve your problems.

1. The AWD102N does not work properly.

- Try reinserting AWD102N into your PC's PCI slot.
- Right-click on My Computer and select Properties. Select the device manager and click on the Network Adapter. Check to see if AWD102N is installed successfully. If you see a yellow exclamation mark, that means there is resources conflicting. If there is a yellow question mark, please check the following: Make sure that your PC has a free IRQ (Interrupt Request, a hardware interrupt on a PC.)
- Make sure that you have inserted the right adapter and installed the proper driver. If AWD102N does not function after attempting the above steps, remove it and do the following: Uninstall the driver software from your PC. Restart your PC and repeat the hardware and software installation as specified in this User Guide.

2. I cannot communicate with the other computers linked via Ethernet in the Infrastructure configuration.

- Make sure that the PC which AWD102N is associated is powered on.
- Make sure that AWD102N is configured on the same channel and with the same security options as the other computers in the Infrastructure configuration.

3. What should I do when the computer with AWD102N installed is unable to connect to the wireless network and/or the Internet?

- Check and see if the LED indicators on the broadband modem are indicating normal activity. If not, there may be a problem with the broadband connection.
- Check and see if the LED indicators on the wireless router are functioning properly. If not, check that the AC power and Ethernet cables are firmly connected.
- Check and makes sure the IP address, subnet mask, gateway, and DNS settings are correctly entered for the network.
- In Infrastructure mode, make sure the same Service Set Identifier (SSID) is specified on the settings for the wireless clients and access points.
- In Ad-Hoc mode, both wireless clients will need to have the same SSID. Please note that it might be necessary to set up one client to establish a BSS (Basic Service Set) and wait briefly before setting up other clients. This prevents several clients from trying to establish a BSS at the same time, which can result in multiple singular BSSs being established, rather than a single BSS with multiple clients associated to it.
- Check that the Network Connection for the wireless client is configured properly.
- If Security is enabled, make sure that the correct encryption keys are entered on both AWD102N and the access point.

Service & Warranty

Service

If you need assistance with the product, please visit our website at www.aziocorp.com for frequently asked questions and troubleshooting tips. Otherwise, please contact our dedicated customer care team.

There are several ways to contact us:

By Phone: (909) 468-1198 By eMail: <u>support@aziocorp.com</u> On LiveChat: www.aziocorp.com

Warranty

Limited 1 Year Warranty

AZiO Corporation warrants this product against defect in material or workmanship for 1 year from the date of purchase. If this product proves to be defective, contact AZiO Corporation's customer care for repair or replacement of your unit. Return requests cannot be process without the proof of original date of purchase. This warranty applies only to the original purchase of the product and is not transferable. This warranty does not cover any incompatibilities due to the user's computer, hardware, software or related system configuration in which the product interfaces. The warranty does not cover any damage caused by negligence, abuse, or non-authorized modifications. To the maximum extent permitted by applicable law, in no event shall AZiO Corporation, its affiliates, or its dealers be liable for any special, incidental, indirect or consequential damages whatsoever regardless of cause or form of action.

