# Wireless 54Mpbs MIMO Mini-PCI Adapter

User's Manual

#### USA

Compliance statement to FCC

This module complies with part 15 of the FCC rules. Operation is subject to the following 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. 4.1 RF exposure compliance This module may be installed into any end product in mobile device applications. Because the module only radiates very low power levels, it complies with RF exposure requirements.

Requirements to end product

The following provisions for end product will be required on the FCC regulation, part 15.

(1) Antenna

Pro-Nets wishes that our customer shall use the WM71RL1 module without any modifications including antenna. If customer use a unique antenna, the FCC certification is required for the end product.

(2) Markings

To satisfy FCC exterior labeling requirements, the following text must be placed on the exterior of the end product.

#### Contains Transmitter Module FCC ID: RXZ-WM71RL1

Any similar wording that expresses the same meaning may be used.

(3) Caution to user for modification

The following caution is expressed on the user manual.

The changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the device.

(4) Compliance statement to FCC

The following statement is expressed on the user manual.

This module complies with part 15 of the FCC rules. Operation is subject to the following conditions: (1) This device may not cause harmful interference, and (2) this devicemust accept any interference received, including interference that may cause undesired operation.

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All trade names and trademarks are the properties of their respective companies.

#### **Revision History**

Revision V1.0

First release

History

# Caution: This user guide information is only provided to OEM or module installer.

Do not supply to the end user.



### Revision History

Rev	Date	Maintain	Descriptor
0.0.1.0	03/31/05	Kathy Ko	1. Create RT61 ATE Driver
			2. Start Frame OID change to
			RT_OID_802_11_START_TX_FRAMES
			3. For High Channel : TX power value range
			is 0~36



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## 1. System Requirement

- Windows 2000/XP
- Microsoft Virtual C++ 6.0
- Platform SDK
- DDK 3790

## **2. Install ATE Driver**

Step 1 : Insert the RT61 Card bus / Mini PCI / PCI.

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? O Yes, this time only O Yes, now and every time I connect a device O No, not this time
	Click Next to continue.
	< Back Next > Cancel

Figure 2-1 Search New device.



Step 2 : Select Advance installation.

Found New Hardware Wiza	rd
	This wizard helps you install software for: Network Controller If your hardware came with an installation CD or floppy disk, insert it now. What do you want the wizard to do? Mhat do you want the wizard to do? Install the software automatically (Recommended) Install from a list or specific location (Advanced) Click Next to continue.
	< Back Next > Cancel

Figure 2-2 Select Advance installation

Step 3 : Select manual installation.

Please choose your search an	d installation optio	ns.		
O Search for the best driver in t	these locations.			
Use the check boxes below paths and removable media.	to limit or expand the c The best driver found	default search, w will be installed.	hich includes lo	ocal
Search removable me	dia (floppy, CD-ROM	)		
Include this location in	the search:			
D:\\v/DM_3665\SMA	XWDM\W2K_XP	~	Browse	
⊙ Don't search. I will choose th	ne driver to install.			
Choose this option to select t the driver you choose will be	the device driver from the best match for you	a list. Windows ur hardware	does not guara	ntee

Figure 2-3 Select manual installation



Step 4 : Select device type : Network Adapter.

Found New Hardware Wizard	
Hardware Type.	
Select a hardware type, and then click Next. Common hardware types:	
Modems Modems Monitors Multifunction adapters Multi-port serial adapters Multi-port serial adapters Network adapters Network Client Network Protocol Network Service Mon-Plug and Play Drivers	
< Back Next >	Cancel

Figure 2-4 Select device type



Found	New Hardware Wizard
Sele \	ct Network Adapter Which network adapter do you want to install?
	Click the Network Adapter that matches your hardware, then click OK. If you have an installation disk for this component, click Have Disk.
(Unable	to find any drivers for this device)
	Have Disk
	Kext > Cancel

Figure 2-5 Select device driver from "Have Disk"



Step 6 : Select the ATE driver directory

Install F	rom Disk	
J.	Insert the manufacturer's installation disk, and then make sure that the correct drive is selected below.	OK Cancel
	Copy manufacturer's files from:	Browse

Figure 2-6 Select the ATE driver directory

Step 7 : Select Network Adapter.

Found New Hardware Wizard	
Select Network Adapter Which network adapter do you want to in	stall?
Click the Network Adapter that matche installation disk for this component, clic	s your hardware, then click OK. If you have an k Have Disk.
Network Adapter:	
	• · · · · · · · · · · · · · · · · · · ·
This driver is not digitally signed! <u>Tell me why driver signing is important</u>	Have Disk
	< Back Next > Cancel

Figure 2-7 Select Network Adapter.



Step 8 : Pop up the warning wizard for asking you if you really want to install the "RT2561, RT2661 ATE Driver". Press "Continue Install".

Har dwa	re Installation
<u>.</u>	The software you are installing for this hardware: RT2561, RT2661 QATest PCI WDM Driver 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 STUP Installation

Figure 2-8 asking you if you really want to install the deiver

#### Step 9 : Installing…



Figure 2-9 Installing



Step 10 : Complete the driver installation.



Figure 2-10 Complete the driver installation.

Step 11 : Open Device Manager to check whether the ATE driver installs success.



Figure 2-11 Open Device manager to check whether success



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# 3. RaConfig Utility

## 3.1 Build RaConfig Utility

## 3.1.1Set Include file path

- Step 1 ∶ Select Tools→Options
- Step 2 : Insert the Microsoft SDK's Include file path

contor   Tabs   Debug	Compationity	Bulla	Directories	Source
Platform:		Show dire	ctories for:	
Win32	-	Include fi	les	
Directories:				🖱 🗙 🛧
C:\PROGRAM FILES\MICI	ROSOFT SDK\I	NCLUDE		
C:\Program Files\Microso C:\Program Files\Microso	oft Visual Studi oft Visual Studi	o\VC98\MI o\VC98\AT	-C\INCLUDE L\INCLUDE	
C:\Program Files\Microso C:\Program Files\Microso	oft Visual Studi	o\VC98\MI o\VC98\AT	-C\INCLUDE L\INCLUDE	

Figure 3-1 Set Include file path



## 3.1.2Set Library file path

Step 1 ∶ Select Tools→Options

Step 2 : Insert the Microsoft SDK's Library file path



## 3.1.3Set DDK path

Step 1 : Select Project  $\rightarrow$  Settings

Step 2 : Make sure the path of Windows DDK 3790 is correct in "C/C++" tag of Project Settings..

Project Settings	? 🗙
Project Settings Settings For: Win32 Debug Source Files S	Debug C/C++ Link Resources MIDL Brov +   Category: General   Reset   Warning level: Optimizations:   Level 3  Disable (Debug)   Warnings as errors  Generate browse info   Dehug info:        <
EEPROM_Page.cpp HexEdit.cpp HiddenSsidDlg.cpp HideDlg.cpp History.txt	Project Options: /nologo /MTd 1W3 /Gm /GX /ZI /Od /I "c:\WINDDK\3790 \INC\W2K" /I "c:\winddk\3790\inc\wnet" /D "_DEBUG" /D "WIN32" /D "_WINDOWS" /D "_MBCS" /D "M_WPA"
	OK Cancel

Figure 3-3Check DDK path in C/C++ tag



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Step 3 : Make sure the path of Windows DDK 3790 is correct in "Link" tag of Project Settings.

Project Settings	? 🗙
Settings For: Win32 Debug  Source Files  8021×AuthPage.cpp  8021×Sheet.cpp  AboutPage.cpp  AdvancePage.cpp  AdvancePage.cpp  AuthSecuDlg.cpp  AuthSecuDlg.cpp  AuthSecuPage.cpp  Certificate.cpp  Certificate.cpp  Certificate.cpp  Certificate.cpp  EEPROM_Page.cpf  HideDlg.cpp  HideDlg.cpp  History.txt	Debug C/C++ Link Resources MIDL Brov   Category: General Reset   Output file name: Reset   Debug/RaConfig2500.exe   Object/library modules:   Crypt32.lik C:\WINDDK\3790\lib\w2k\i386\lphlpapi.lib   V Generate debug info   Ignore all default libraries   Link incrementally   Generate debug   Generate debug   Generate debug   Shlwapi.lib   Version.lib   Shlwapi.lib   Version.lib   Steupapi.lib   Version.lib   Version.lib

Figure 3-4 Check DDK path in Link tag