

## PCI Express 802.11n 300Mbps WiFi Adapter

PEX300WN2X2



\*actual product may vary from photos

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## FCC Compliance 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 or more 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.

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# Introduction

The PEX300WN2X2 PCI Express Wireless N Card (PCIe x1) adds high speed wireless network connectivity to almost any PCI Express-enabled desktop/workstation PC. Using a 2T2R (2 Transmitter/2 Receiver) design over the 2.4GHz frequency, this PCIe wireless card provides up to 300Mbps of data bandwidth over an 802.11n network, while improving signal reception and range.

Backward compatible with 802.11b/g networks (11/54Mbps), this WiFi N adapter offers a versatile wireless networking solution with support for standard and advanced security options such as WEP, WPA and WPA2, along with wireless Quality of Service (QoS) support and quick and easy setup through WPS.

This easy-to-install PCI Express 2.0 card is backed by StarTech.com's 2-year warranty and free lifetime technical support, making for an excellent wireless upgrade or first-time setup option.

## Packaging Contents

- 1x PCI Express Wireless Networking Card
- 2x Antenna
- 1x Low Profile Bracket
- 1x Driver CD
- 1x Instruction Manual

## System Requirements

- PCI Express enabled computer system with available full profile PCI Express slot
- Microsoft® Windows® XP/Vista/Server 2003/Server 2008 R2/7/ 8 (32/64-bit), or Linux® kernel 2.6.3 or later

# Installation

**WARNING!** PCI Express cards, like all computer equipment, can be severely damaged by static electricity. Be sure that you are properly grounded before opening your computer case or touching your PCI Express card. StarTech.com recommends that you wear an anti-static strap when installing any computer component. If an anti-static strap is unavailable, discharge yourself of any static electricity build-up by touching a large grounded metal surface (such as the computer case) for several seconds. Also be careful to handle the PCI Express card by its edges and not the gold connectors.

## Hardware Installation

1. Turn your computer off and any peripherals connected to the computer (i.e. Printers, external hard drives, etc.). Unplug the power cable from the rear of the power supply on the back of the computer and disconnect all peripheral devices.
2. Remove the cover from the computer case. See documentation for your computer system for details.
3. Locate an open PCI Express slot and remove the metal cover plate on the rear of the computer case (Refer to documentation for your computer system for details.). Note that this card will work in PCI Express slots of additional lanes (i.e. x4, x8 or x16 slots).
4. Insert the card into the open PCI Express slot and fasten the bracket to the rear of the case.
5. Place the cover back onto the computer case.
6. Attach the included external antennas to the rear bracket of the card.
7. Insert the power cable into the socket on the power supply and reconnect all other connectors removed in Step 1.

## Driver Installation

### Windows XP/Server 2003

1. Upon starting Windows, if the "Found New Hardware" wizard appears on the screen, cancel/close the window and insert the included Driver CD into the computer's CD/DVD drive.
2. AutoPlay should automatically launch the Driver/Software installation splash screen. If not, open "My Computer" then open the CD/DVD drive the disk is inserted into and double-click the file Setup.exe.
3. Select the option to install the Drivers. This will launch the Driver Installation wizard.
4. During the installation, you will be prompted to install only the drivers or also the Ralink WLAN Utility. If you wish to use the built-in Windows utility for setting up your wireless connection, then install the drivers only. If you do not wish to use the built-in Windows Utility (Zero Configuration Utility), then also install the Ralink Utility.  
**NOTE:** You can switch to using the Windows Utility at any time.

5. Complete the wizard and this will automatically install all of the drivers/software. Restart the computer when prompted.

## Windows Vista/7/8

1. Upon starting Windows, if the "Found New Hardware" wizard appears on the screen, cancel/close the window or choose not to install the drivers and insert the included Driver CD into the computer's CD/DVD drive.
2. AutoPlay should automatically launch the Driver/ Software installation splash screen or prompt you to run Setup.exe. If not, open "Computer" open the CD/ DVD drive the disk is inserted into and double-click the file Setup.exe.
3. Select the option to install the Drivers. This will launch the Driver Installation wizard.
4. During the installation, you will be prompted to install only the drivers or also the Ralink WLAN Utility. If you wish to use the built-in Windows utility for setting up your wireless connection, then install the drivers only. If you do not wish to use the built-in Windows Utility (Zero Configuration Utility), then also install the Ralink Utility.  
**NOTE:** You can switch to using the Windows Utility at any time.
5. Complete the wizard and this will automatically install all of the drivers/software. Restart the computer when prompted.

## Windows Server 2008 R2 Note:

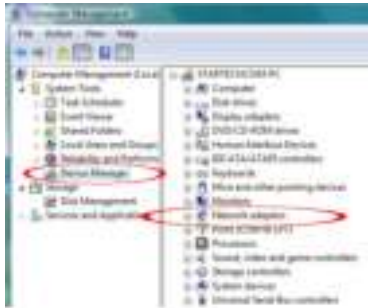
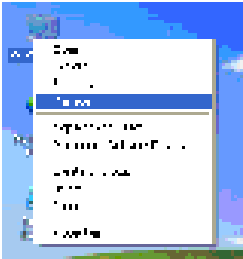
By default, the Microsoft "Wireless LAN Service" Feature is not installed. Before any wireless networking can be enabled, this feature must be installed through the Windows Server Manager window. Refer to Windows' documentation for details.



# Verifying Installation

## Windows 2000/XP/Vista/7/8

From the main desktop, right-click on “My Computer” (“Computer” in Vista/7), then select Manage. In the new Computer Management window, select Device Manager from the left window panel.



Double-click on the “Network adapters” option to open it. A new Wireless adapter should be listed.

# How to Use

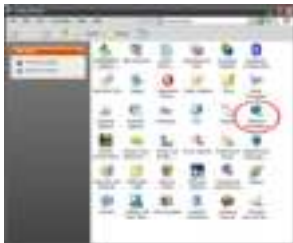
Connecting to a wireless network is done through the Windows wireless configuration utilities. You must know the name of the wireless network (SSID), the type of security it is using (if any) and it's associated password to connect to a wireless network. Consult the documentation for your wireless access point (AP) or contact your network administrator or the wireless AP manufacturer for details.

## Windows XP

The wireless network adapter may appear in the System Tray (next to the clock), or you may have to access it through the Control Panel. If visible in the System Tray, right-click on the icon and select "View available wireless networks". This will bring up a new window that will show you all available wireless networks that Windows has found.



Alternatively, you can access this window by opening the Control Panel from the Start Menu and double-clicking the Network Connections icon. Right-click on the Wireless Network Connection icon (there may be multiple; the highest number should be the latest) and select "View available wireless networks".



Select the wireless network you wish to connect to from the list, and click on the "Connect" button in the bottom right corner. If the network has security enabled, you will be prompted for the password.



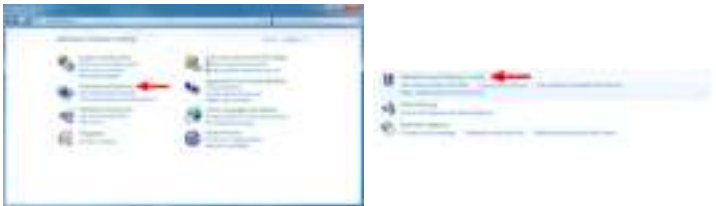


## Windows Vista/7/8

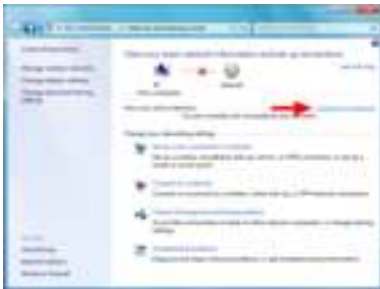
The wireless network adapter will appear as a small icon in the System Tray (next to the clock). Left-clicking on this icon will bring up a list of detected wireless networks. Select the wireless network you wish to connect to and click the “Connect” button. If the network has security enabled, you will be prompted for a password.



Alternatively, you can access the wireless network adapter by opening the Control Panel from the Start Menu, and selecting the Network and Internet category, followed by Network and Sharing Center.



Click on the “Connect to a network” option on the far right side of the window to bring up the list of detected wireless networks.

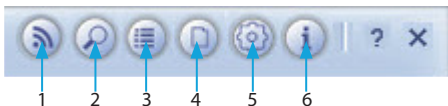


# Ralink WLAN Utility

Instead of using the built-in Windows wireless utility, a 3rd party utility, Ralink WLAN Utility, can be used. This utility provides access to additional advanced features of the wireless card, such as Wi-Fi Direct and Wi-Fi Protected Setup (WPS). If the Ralink WLAN utility is installed, then a small icon will appear in the system tray area near the clock. Double-click the icon to open the utility window, or right-click on it to bring up the menu and select the 'launch' option.



From the main interface, different sub sections can be accessed via the buttons along the top of the window.



1. **Wi-Fi Direct:** Enables Wi-Fi Direct mode for peer-to-peer wireless networking.
2. **Available Networks:** Lists all detected wireless networks within range.
3. **Link Information:** Lists detailed information about the currently connected wireless network.
4. **Profile List:** Manage all of the created network profiles and configure Wi-Fi Protected Setup (WPS).
5. **Advanced Settings:** Advanced wireless settings such as wireless mode and certificate management.
6. **About:** Information about the Ralink Utility.

## Connecting to an available network:

1. To connect to a wireless network, bring up “Available Networks” from the main window. This will list all of the detected wireless networks in the area.



2. Once you locate the network you wish to connect to, select it from the list by click on the entry, then click the 'Connect' button. If this is a network that you will be connecting to often, then you may wish to create a persistent profile by clicking the "Add to Profile" button and following the prompts. The Ralink Utility will always first try to connecting to any network that has a profile.



3. If the network uses encryption, a window will popup where you will need to enter the proper authentication information (i.e. password/passphrase).
4. Once successfully connected to the network, information about the wireless router/access point will be listed in the main window and the "AP Information" section of the Available Networks window.

## Manually Creating a Profile

If the network you want the computer to connect to is currently not available (off site), or otherwise not listed as an available network, a profile for the network can be manually created. You must know the name of the network (SSID), the type of encryption and any passwords/passphrases required to connect to the network prior to creating a profile. Multiple profiles can be created, if you regularly connect to different wireless networks in different locations.

1. From the main utility window, click on the "Profile List" button.
2. In the Profile List window, click on the "Add Profile" button.



3. Enter in a name for this profile, then enter the name of the network you wish to connect to in the "SSID" field. Click the "Next" arrow button when ready.



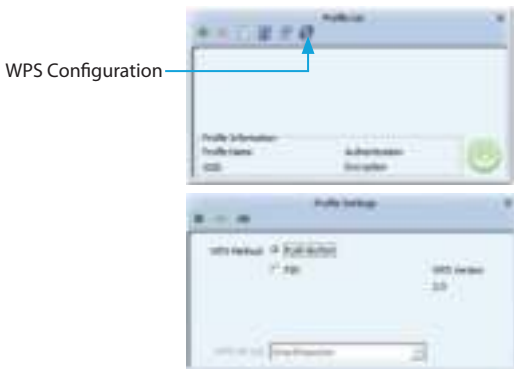
4. Select the type of Authentication/Encryption used by the network (if any). Click the 'Next' arrow button when ready.



5. If an Authentication type was specified, enter in the password/passphrase used to access the network. Click the 'Next' arrow button when ready.
6. Once the profile has been created, you must activate it for it to become the default profile. Select the profile and click the "Activate Profile" button. The wireless adapter will automatically try to connect to the default profile every time you log into the computer.

## Wi-Fi Protected Setup (WPS)

WPS can be used to quickly and easily setup a secure wireless connection to a WPS-enabled wireless router/access point (AP). The WPS configuration section can be accessed via the Profile List window.



Select the method of configuring the WPS connection (push button or PIN code) and select the WPS-enabled AP from the list of detected networks. Click the 'Next' arrow and proceed with the remainder of the setup.

# Specifications

<b>Host Interface</b>	PCI Express 1.1 (x1 slot connector)
<b>Form Factor</b>	Low/Full Profile
<b>Chipset ID</b>	Ralink RT5392
<b>External Connectors</b>	2 x RP-SMA Female
<b>LEDs</b>	1 x Link/Activity
<b>Antenna Configuration</b>	2x2:2 (TxR:S)
<b>Wireless Frequency</b>	2.4 GHz
<b>Supported Standards</b>	IEEE 802.11b, IEEE 802.11g, IEEE 802.11n
<b>Supported Security Schemes</b>	WEP, WPA, WPA2, TKIP/AES
<b>Operating Temperature</b>	-10°C ~ 70°C (14°F ~ 158°F)
<b>Storage Temperature</b>	-20°C ~ 70°C (-4°F ~ 158°F)
<b>Humidity</b>	5% ~ 95% RH
<b>Dimensions</b>	120.0mm x 75.0mm x 18.0mm
<b>Weight</b>	15g
<b>Compatible Operating Systems</b>	Windows XP/ Server 2003/ Vista/ Server 2008 R2/ 7/ 8 (32/64-bit), Linux kernel 2.6.31 and later

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For the latest drivers/software, please visit [www.startech.com/downloads](http://www.startech.com/downloads)

## Warranty Information

This product is backed by a two year warranty.

In addition, StarTech.com warrants its products against defects in materials and workmanship for the periods noted, following the initial date of purchase. During this period, the products may be returned for repair, or replacement with equivalent products at our discretion. The warranty covers parts and labor costs only. StarTech.com does not warrant its products from defects or damages arising from misuse, abuse, alteration, or normal wear and tear.

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