

ASUS PCE-AX1800

ASUS AX1800 PCIe WiFi Adapter (PCE-AX1800) User Manual

Model: PCE-AX1800

INTRODUCTION

The ASUS AX1800 PCIe WiFi Adapter (PCE-AX1800) is designed to upgrade your desktop system to the latest WiFi 6 (802.11ax) and Bluetooth 5.2 technologies. This adapter provides enhanced wireless performance, lower latency, and improved network efficiency, making it suitable for demanding network environments. It incorporates advanced features such as OFDMA and MU-MIMO for stable and faster data transmission, even with multiple devices connected simultaneously. The adapter also includes WPA3 network security for robust protection against external threats.

Key Features:

- **Next-Gen WiFi Standard:** Supports WiFi 6 (802.11ax) for improved efficiency and throughput.
- **Ultrafast WiFi Speed:** Achieves up to 1800 Mbps WiFi speed.
- **802.11ax Technology:** Features OFDMA and MU-MIMO for efficient, stable, and faster transmission.
- **Bluetooth 5.2:** Offers faster data transfer and wider coverage compared to previous Bluetooth versions, enhancing battery life and audio quality.
- **WPA3 Network Security:** Provides an additional layer of protection for your PC against external attacks.

WHAT'S IN THE BOX

Verify that all items are present in the package before proceeding with installation.

- ASUS PCE-AX1800 Adapter
- Quick Start Guide
- Warranty Card



Image: The ASUS PCE-AX1800 PCIe WiFi Adapter, showing the card with two external antennas attached.

SETUP

Follow these steps to install your ASUS PCE-AX1800 PCIe WiFi Adapter into your desktop computer.

1. Prepare Your Computer

1. Power off your computer and unplug the power cord from the wall outlet.
2. Open your computer case. Refer to your computer's manual for instructions on how to safely open the case.
3. Locate an available PCIe slot (PCIe x1, x4, x8, or x16).

Upgrade PC to Wi-Fi 6 Standard



5GHz
+
2.4GHz

up to **1.5x** faster speed

1800 Mbps

802.11ax 2x2

1200 Mbps 802.11ac 2x2

Image: A visual representation of the ASUS PCE-AX1800 adapter being installed into a PCIe slot on a computer motherboard.

2. Install the PCIe WiFi Adapter

4. Carefully insert the PCE-AX1800 adapter into the chosen PCIe slot until it is firmly seated.
5. Secure the adapter with a screw if your computer case requires it.

3. Connect Antennas

6. Attach the two external antennas to the connectors on the back of the PCE-AX1800 adapter. Ensure they are securely tightened.
7. Position the antennas for optimal signal reception.



Image: A detailed view of the ASUS PCE-AX1800 adapter, highlighting the antenna connection points.

4. Connect Bluetooth USB Cable (Optional but Recommended)

For Bluetooth functionality, connect the included USB cable from the adapter to an available USB 2.0 header on your motherboard. This connection is essential for Bluetooth to function.



Image: The ASUS PCE-AX1800 adapter, showing the small USB header connector on the card for Bluetooth functionality.

5. Close Case and Power On

8. Close your computer case and reconnect the power cord.
9. Power on your computer.

6. Install Drivers

After booting into your operating system, you will need to install the necessary drivers for both WiFi and Bluetooth. Windows may not automatically recognize the device or install the correct drivers.

- Download the latest drivers from the official ASUS support website for the PCE-AX1800 model.
- If you do not have internet access on the computer, download the drivers on another device and transfer them via a USB flash drive.
- Install the WiFi drivers first, then the Bluetooth drivers. Follow the on-screen instructions.

OPERATING INSTRUCTIONS

Connecting to a WiFi Network

1. Once drivers are installed, open your operating system's network settings.
2. Select the desired WiFi network from the list of available networks.
3. Enter the network password (security key) if prompted.
4. The adapter supports WiFi 6 (802.11ax) features like OFDMA and MU-MIMO, which optimize network traffic for multiple devices, reducing latency and improving overall efficiency when connected to a compatible WiFi 6 router.

Lower Latency with OFDMA & MU-MIMO



Latency ↓

Network Capacity ↑

Network Efficiency ↑

Image: A conceptual diagram showing how OFDMA and MU-MIMO technologies in Wi-Fi 6 reduce latency and improve network capacity and efficiency within a home network.

Using Bluetooth 5.2

1. Ensure the Bluetooth USB cable is connected to your motherboard and Bluetooth drivers are installed.
2. Enable Bluetooth in your operating system's settings.
3. Put your Bluetooth device (e.g., headphones, mouse, keyboard) into pairing mode.
4. Search for and select your device from the list of available Bluetooth devices on your computer to pair.

Bluetooth Upgrade – Faster and Wider



 **Bluetooth® 5.2**



Bluetooth Devices

Image: The ASUS PCE-AX1800 adapter alongside the Bluetooth 5.2 logo, indicating its capability to connect to various Bluetooth devices like headphones, mice, keyboards, game controllers, and smartphones.

Network Security (WPA3)

The PCE-AX1800 supports WPA3, the latest WiFi security standard. For optimal security, ensure your WiFi router also supports WPA3 and configure your network to use this encryption protocol. This provides enhanced protection for your wireless communications.

Better Network Security

WPA3



Image: The ASUS PCE-AX1800 adapter with a visual representation of WPA3 network security, showing a padlock icon over a WiFi signal.

MAINTENANCE

- **Driver Updates:** Regularly check the ASUS support website for updated WiFi and Bluetooth drivers. Keeping your drivers current ensures optimal performance, stability, and security.
- **Physical Inspection:** Periodically check the antennas to ensure they are securely attached and positioned correctly. Ensure the PCIe card is firmly seated in its slot.
- **Cleanliness:** Keep your computer's interior clean to prevent dust buildup on the adapter, which can affect performance and longevity.
- **Antenna Placement:** Experiment with antenna orientation to achieve the best possible signal strength and coverage.

Boarder Coverage

Two powerful multi-directional antennas greatly extend your existing WiFi reception capabilities

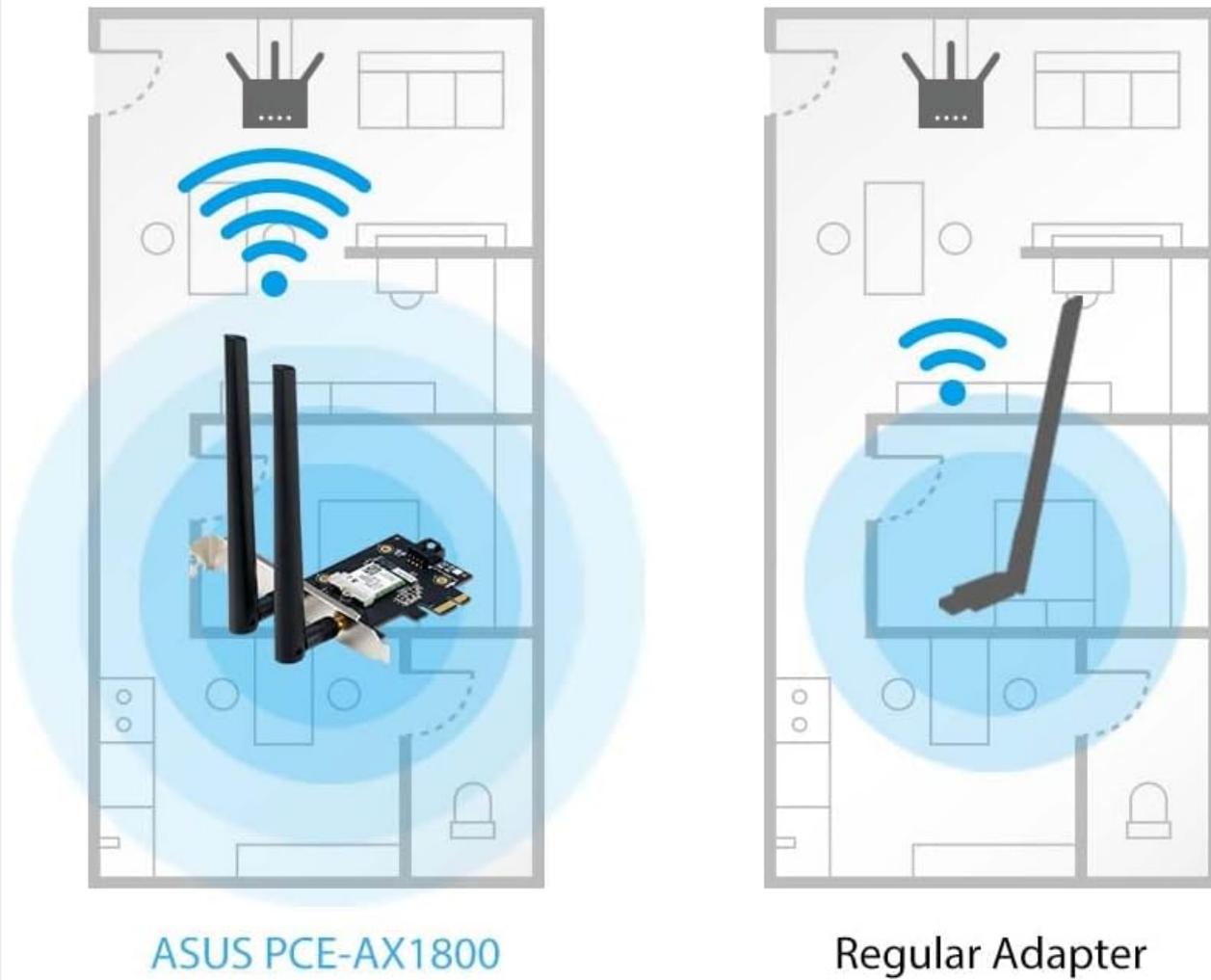


Image: A diagram illustrating the broader coverage provided by the ASUS PCE-AX1800 with its two powerful multi-directional antennas compared to a regular adapter.

TROUBLESHOOTING

No WiFi Connection or Slow Speeds

- **Driver Check:** Ensure the latest WiFi drivers are correctly installed. Reinstalling them can resolve issues.
- **Antenna Connection:** Verify that the antennas are securely attached to the adapter.
- **Router Compatibility:** Confirm your router is functioning correctly and supports WiFi 6 for optimal performance.
- **Signal Interference:** Move your computer closer to the router or adjust antenna orientation to improve signal strength. Other electronic devices can cause interference.
- **PCIe Slot:** Ensure the adapter is fully seated in the PCIe slot. Try a different PCIe slot if available.
- **160 MHz Band Stability:** Some systems may experience instability with the 160 MHz band. If you encounter frequent disconnections or speed drops, try configuring your router or adapter settings to use the 80 MHz band. Refer to your router's manual for specific instructions.

Bluetooth Not Working

- **USB Cable Connection:** The Bluetooth functionality requires the internal USB cable to be connected from the adapter to a USB 2.0 header on your motherboard. Verify this connection.
- **Bluetooth Drivers:** Ensure the Bluetooth drivers are installed. These are separate from the WiFi drivers and are crucial for Bluetooth operation.
- **Enable Bluetooth:** Confirm Bluetooth is enabled in your operating system's settings.
- **Device Pairing:** Ensure your Bluetooth device is in pairing mode and within range.

General Issues

- **System Restart:** A simple restart of your computer can often resolve minor connectivity issues.
- **Operating System Updates:** Ensure your operating system is up to date.

SPECIFICATIONS

Feature	Detail
Model Number	PCE-AX1800
Wireless Standard	WiFi 6 (802.11ax)
Bluetooth Version	Bluetooth 5.2
Data Transfer Rate	Up to 1800 Mbps
Hardware Interface	PCIe, USB (for Bluetooth)
Antennas	2 External Antennas
Network Security	WPA3
Compatible Devices	Desktop PCs
Compatible OS Family	Windows
Product Dimensions	4.74 x 3.46 x 0.85 inches
Item Weight	2.72 ounces
UPC	195553463836

WARRANTY AND SUPPORT

The ASUS PCE-AX1800 PCIe WiFi Adapter comes with a Warranty Card included in the package. Please refer to the Warranty Card for detailed information regarding warranty terms and conditions.

For technical support, driver downloads, and further assistance, please visit the official ASUS support website. You can typically find support resources by searching for your product model (PCE-AX1800) on the ASUS website.

ASUS Support Website: www.asus.com/support



