UGREEN BE6500

UGREEN BE6500 WiFi 7 PCIe Card with Bluetooth 5.4 User Manual

Model: BE6500 (55204)

Introduction

This manual provides comprehensive instructions for the installation, operation, and maintenance of your UGREEN BE6500 WiFi 7 PCIe Card with Bluetooth 5.4. This device is designed to upgrade your desktop computer's wireless capabilities, offering high-speed WiFi 7 connectivity and Bluetooth 5.4 functionality. Please read this manual carefully before installation and use to ensure optimal performance and safety.

Setup Instructions

Follow these steps to properly install your UGREEN BE6500 WiFi 7 PCIe Card.

1. Package Contents

- UGREEN BE6500 WiFi 7 PCIe Card
- Two 6dBi High-Gain Antennas
- USB Cable for Bluetooth Functionality
- Low-Profile Bracket (for small form factor cases)
- Driver USB Stick
- Mounting Screws

2. Hardware Installation

1. **Power Off Your Computer:** Ensure your computer is completely shut down and unplugged from the power source.
2. **Open the Computer Case:** Remove the side panel of your computer case to access the motherboard.
3. **Locate an Available PCIe Slot:** Find an empty PCIe x1 slot on your motherboard. The card is compatible with PCIe x1, x4, x8, or x16 slots.
4. **Insert the PCIe Card:** Carefully align the UGREEN WiFi 7 PCIe Card with the chosen PCIe slot and press it firmly until it is securely seated.

5.



Image: UGREEN BE6500 WiFi 7 PCIe Card being inserted into a computer's PCIe slot.

6. **Secure the Card:** Use a mounting screw to secure the card to the computer case. If you have a small form factor case, replace the standard bracket with the included low-profile bracket before installation.
7. **Connect the Antennas:** Screw the two 6dBi high-gain antennas onto the connectors at the back of the PCIe card. Adjust their orientation for optimal signal reception.

8.



Image: Two 6dBi high-gain antennas screwed onto the back of the UGREEN BE6500 WiFi 7 PCIe Card.

9. **Connect the Bluetooth USB Cable:** Connect one end of the included USB cable to the 4-pin USB header on the PCIe card and the other end to an available 9-pin USB 2.0 header on your motherboard. This connection is essential for Bluetooth functionality.
10. **Close the Computer Case:** Replace the side panel and reconnect the power cable.

3. Driver Installation

The UGREEN BE6500 WiFi 7 PCIe Card requires specific drivers for full functionality. This card is only compatible with **Windows 11** (excluding Windows 11 21H2). Other operating systems are not supported.

1. **Power On Your Computer:** Start your computer.
2. **Disable Built-in Bluetooth (if applicable):** If your computer has a built-in Bluetooth adapter, it is recommended to disable it in Device Manager to prevent conflicts with the new card's Bluetooth 5.4 functionality.
3. **Insert Driver USB Stick:** Plug the included USB stick into an available USB port on your computer.
4.



Image: UGREEN driver USB stick being inserted into a computer's USB port.

5. **Run Driver Installer:** Navigate to the USB stick in File Explorer and run the driver installation program. Follow the on-screen prompts to complete the installation.
6. **Restart Computer:** After the installation is complete, restart your computer to apply the changes.

Operating Instructions

1. Connecting to a WiFi Network

1. After driver installation and computer restart, the WiFi adapter should be recognized by Windows 11.
2. Click on the WiFi icon in the system tray (bottom right corner of your screen).
3. Select your desired WiFi network from the list of available networks.
4. Enter the network security key (password) if prompted.
5. Click 'Connect'.

The UGREEN BE6500 supports WiFi 7 tri-band technology (6GHz, 5GHz, 2.4GHz) and Multi-Link Operation (MLO). MLO technology intelligently selects the optimal signal path across multiple bands for a more stable and fluid network experience, reducing latency and disconnections. Ensure your WiFi 7 router also supports MLO for full benefits.



Image: MLO Technology diagram showing multi-band aggregation and seamless switching.

2. Pairing Bluetooth Devices

1. Ensure the Bluetooth USB cable is correctly connected to your motherboard.
2. Go to Windows Settings > Bluetooth & devices.

3. Turn on Bluetooth.
4. Click 'Add device' and select 'Bluetooth'.
5. Put your Bluetooth device (e.g., headphones, mouse, keyboard, controller) into pairing mode.
6. Select your device from the list and follow any on-screen prompts to complete pairing.

The Bluetooth 5.4 module allows simultaneous connection of multiple Bluetooth devices, freeing you from cable restrictions.

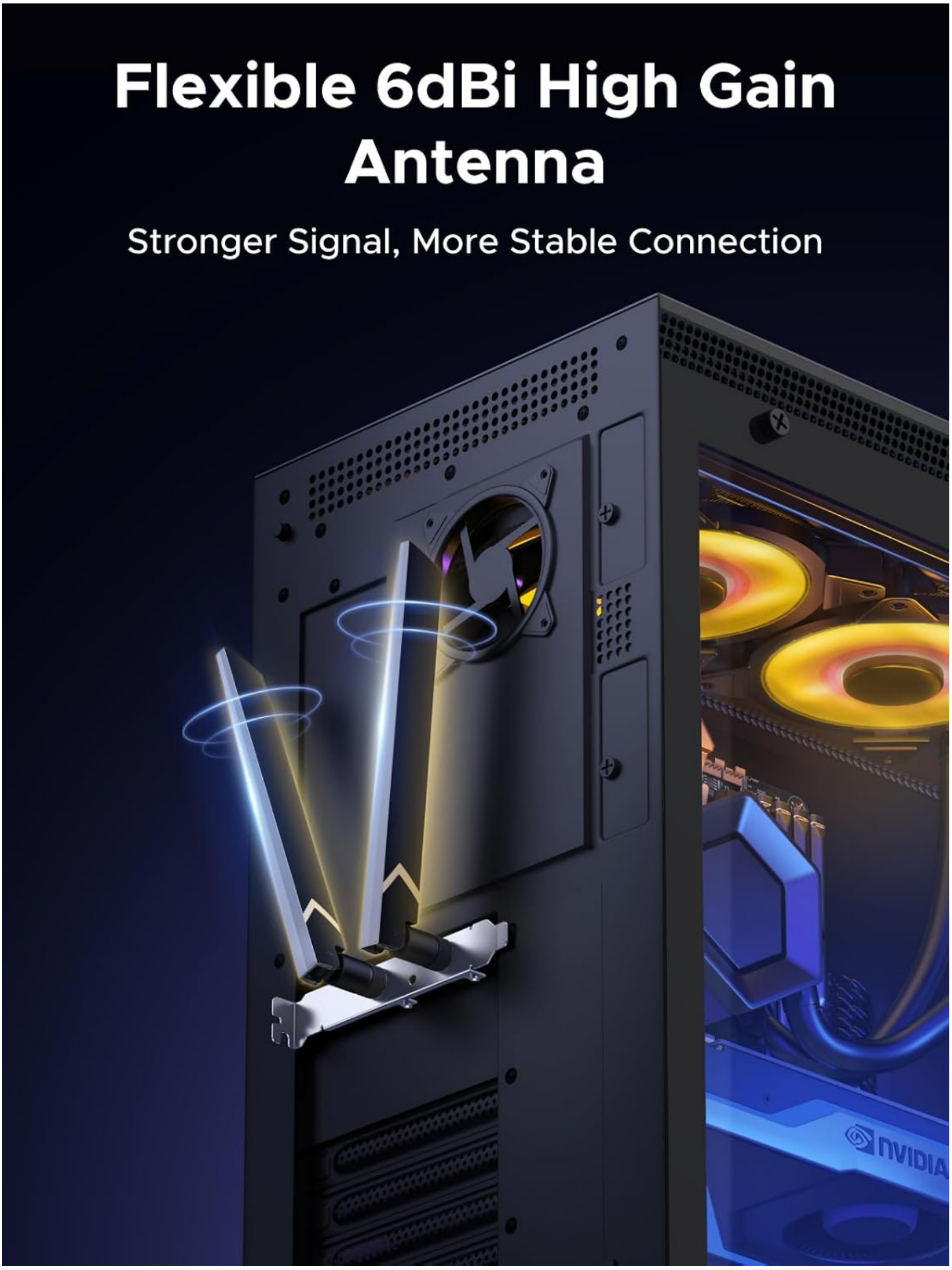


Image: Bluetooth 5.4 connectivity diagram showing various compatible devices.

3. Antenna Orientation

The flexible 6dBi high-gain antennas can be adjusted to optimize signal strength and range. Experiment with different angles to find the best reception for your environment.

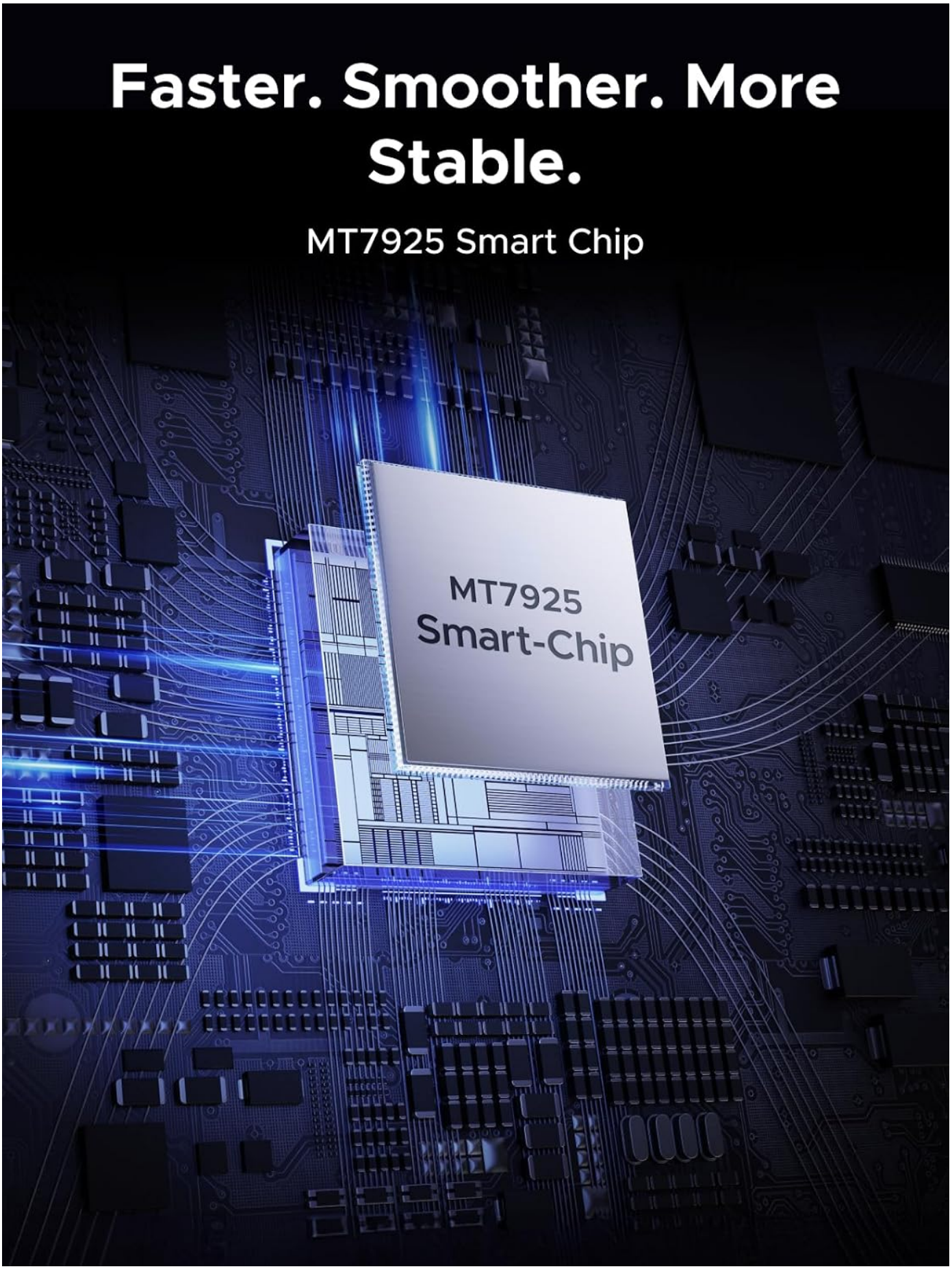


Image: Flexible 6dBi high-gain antennas installed in a PC case, illustrating signal coverage.

Maintenance

- **Driver Updates:** Periodically check the UGREEN official website for the latest driver updates to ensure optimal

performance and compatibility.

- **Physical Cleaning:** Ensure the PCIe card and antennas remain free from dust accumulation. Use compressed air to gently clean the components if necessary, always with the computer powered off and unplugged.
- **Antenna Position:** Regularly check the antenna orientation to ensure they are positioned for the best signal reception.

Troubleshooting

Common Issues and Solutions

- **No WiFi or Bluetooth Functionality:**
  - Ensure the card is securely seated in the PCIe slot.
  - Verify the Bluetooth USB cable is correctly connected to both the card and the motherboard.
  - Confirm that drivers have been installed correctly from the provided USB stick.
  - Check Device Manager for any error symbols next to the network adapter or Bluetooth device. Reinstall drivers if necessary.
- **Bluetooth Not Working / Conflicts:**
  - If your PC has built-in Bluetooth, disable it in Device Manager before using the UGREEN card's Bluetooth.
  - Ensure the Bluetooth USB cable is connected.
- **Poor Signal Strength or Slow Speeds:**
  - Adjust the orientation of the 6dBi high-gain antennas.
  - Ensure your router is WiFi 7 compatible to fully utilize the card's capabilities.
  - Minimize physical obstructions between your computer and the WiFi router.
- **Compatibility Issues:**
  - This card is **only compatible with Windows 11** (excluding Windows 11 21H2). It does not support Windows 10, 8.1, 7, XP, macOS, or Linux.



Image: Operating system compatibility chart for the UGREEN BE6500 WiFi 7 PCIe Card.

Specifications

Feature	Detail
Brand	UGREEN
Model Number	55204 (BE6500)
Hardware Interface	PCIE x 1
Wireless Standard	IEEE 802.11ax/be (WiFi 7)
Frequency Bands	6GHz, 5GHz, 2.4GHz (Tri-Band)
Max Data Transfer Rate	Up to 6500 Mbps (2882Mbps on 6GHz, 2882Mbps on 5GHz, 688Mbps on 2.4GHz)
Bluetooth Version	Bluetooth 5.4
Antenna Type	Dual 6dBi High-Gain Antennas
Security Protocols	WPA3 Personal/Enterprise
Operating System Support	Windows 11 only (excluding Windows 11 21H2)
Item Weight	10.9 ounces
Package Dimensions	6.85 x 5.94 x 1.26 inches
ASIN	B0F3WS9PN8
Date First Available	April 10, 2025

Warranty Information

UGREEN products typically come with a standard manufacturer's warranty. For specific warranty terms and conditions, please refer to the warranty card included with your product or visit the official UGREEN website. Please retain your proof of purchase for warranty claims.

Customer Support

If you encounter any issues or have questions regarding your UGREEN BE6500 WiFi 7 PCIe Card, please contact UGREEN customer support through the following channels:

- **Official Website:** Visit www.ugreen.com for FAQs, driver downloads, and support contact information.
- **Email Support:** Refer to the contact section on the UGREEN website for email support.

Ask a question about this manual

Ask about setup, troubleshooting, compatibility, parts, safety, or missing instructions. Manuals+ will review the question and use this page's manual context to help answer it.

Name

Anonymous

Email

you@example.com

After a successful submission, we securely hash the supplied account or form email before sending it to Microsoft Advertising for conversion attribution. Privacy details.

Question

Example: How do I reset this device or fix this error?

Details

Model number, symptoms, what you tried, or the section of the manual you are using.

Submit question