Saved from manuals.plus.
Open the live page for links to other documents and user manuals.

GIGABYTE B650M GAMING PLUS WIFI

GIGABYTE B650M Gaming Plus WiFi Motherboard User Manual

Model: B650M GAMING PLUS WIFI
Brand: GIGABYTE

Introduction

This user manual provides comprehensive instructions for the installation, operation, and maintenance of your GIGABYTE B650M Gaming Plus WiFi motherboard. Designed to support AMD Ryzen 7000/8000 Series Processors, this motherboard offers unparalleled performance with upgraded power design, high-grade storage standards, and outstanding connectivity. Please read this manual thoroughly before proceeding with installation to ensure proper setup and optimal performance.



Figure 1: GIGABYTE B650M Gaming Plus WiFi Motherboard and packaging.

Setup and Installation

Follow these steps for proper installation of your motherboard and components.

1. Motherboard Overview

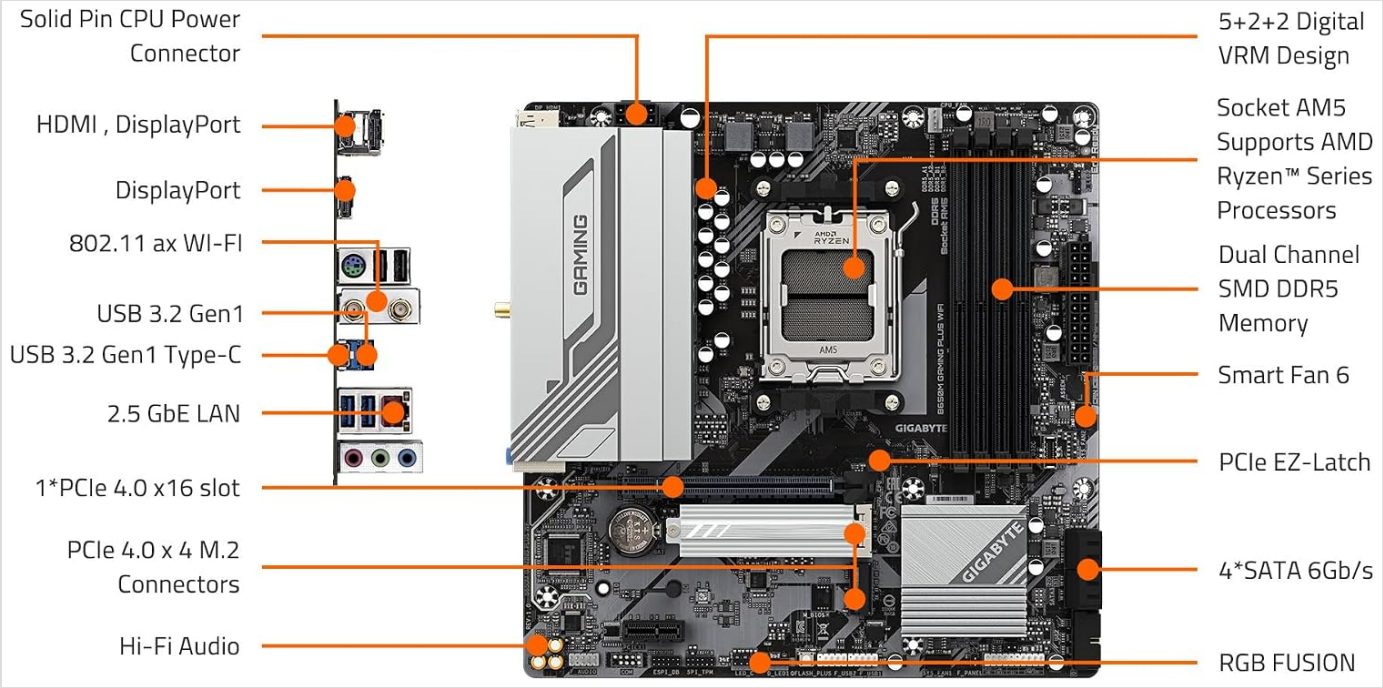


Figure 2: Detailed layout of the GIGABYTE B650M Gaming Plus WiFi Motherboard, highlighting key components and connectors.

Familiarize yourself with the motherboard layout, including the AMD AM5 Socket, DDR5 DIMM slots, PCIe slots, and various connectors.

2. Processor Installation (AMD AM5 Socket)

Carefully align your AMD Ryzen 7000/8000 Series Processor with the AM5 socket. Ensure the CPU is correctly oriented before gently lowering the retention arm. Refer to your CPU's specific installation guide for detailed steps.

3. Memory Installation (DDR5)

This motherboard supports DDR5 memory modules. Insert the memory modules into the 4*SMD DIMM slots, ensuring they are fully seated until the clips on both ends snap into place. For optimal performance, refer to the motherboard's QVL (Qualified Vendor List) for compatible memory and recommended slot configurations for dual-channel operation.

4. Storage Installation (PCIe 4.0 M.2)

Install your PCIe 4.0 x4 M.2 SSDs into the designated M.2 connectors. Secure the SSDs with the provided screws or retention mechanisms. Ensure proper thermal pad placement if applicable.

5. Graphics Card and Expansion Cards

Install your graphics card into the PCIe 4.0 x16 slot. The PCIe EZ-Latch design facilitates easy installation and removal. Additional expansion cards can be installed in other available PCIe slots as needed.

6. Power Connections

Connect the 24-pin ATX main power connector and the 8-pin CPU power connector from your power supply to the motherboard. Ensure all power connections are secure.

7. Front Panel and Peripheral Connections

Connect the front panel headers (power button, reset button, LED indicators, USB 3.2 Gen 1 Type-C, USB 2.0, audio) to their respective pins on the motherboard. Connect peripherals such as USB devices, display cables (HDMI, DisplayPort),

and network cables to the rear I/O panel.



Figure 3: Rear I/O panel showcasing various connectivity options including USB, LAN, and display outputs.

Operating Instructions

Once all components are installed and connected, you can power on your system.

1. Initial Boot-up and BIOS Setup

Upon first boot, enter the BIOS/UEFI setup by pressing the designated key (usually DEL or F2) during POST. Configure essential settings such as boot order, date/time, and enable features like AMD EXPO or Intel XMP for memory optimization. Save and exit the BIOS to proceed with operating system installation.

2. Driver Installation

After installing your operating system, install the necessary drivers for the motherboard's components. This includes chipset drivers, LAN drivers (for 2.5GbE LAN), Wi-Fi 6E drivers, audio drivers (for Hi-Fi Audio), and any other peripheral drivers. Drivers can typically be found on the GIGABYTE official website.

3. Network Connectivity

Utilize the integrated 2.5GbE LAN for high-speed wired network connections or the Wi-Fi 6E module for robust wireless connectivity. Ensure antennas are properly connected for optimal Wi-Fi performance.

4. Smart Fan 6

The Smart Fan 6 feature allows for advanced fan control and monitoring. You can configure fan curves based on multiple temperature sensors to achieve optimal cooling performance and noise levels. This can be accessed through the BIOS/UEFI or a dedicated software utility provided by GIGABYTE.

Maintenance

Regular maintenance helps ensure the longevity and stable operation of your motherboard.

- **Dust Removal:** Periodically clean dust from the motherboard and components using compressed air. Ensure the system is powered off and unplugged before cleaning.
- **BIOS Updates:** Keep your BIOS updated to the latest version. GIGABYTE provides the Q-Flash Plus feature, allowing you to update the BIOS without installing the CPU, memory, or graphics card. This can resolve compatibility issues and improve system stability. Visit the GIGABYTE support website for the latest BIOS versions and instructions.
- **Driver Updates:** Regularly check for updated drivers for your motherboard's components (chipset, LAN, Wi-Fi, audio) on the GIGABYTE website to ensure optimal performance and security.

Troubleshooting

If you encounter issues with your GIGABYTE B650M Gaming Plus WiFi motherboard, consider the following troubleshooting steps:

1. **No Display/Boot Issues:**
    - Ensure all power cables (24-pin ATX, 8-pin CPU, GPU PCIe power) are securely connected.
    - Verify that the RAM modules are correctly seated in their slots. Try reseating them or testing with one module at a time.
    - Confirm that the display cable is connected to the graphics card (if dedicated GPU is used) or the motherboard's integrated graphics port (if CPU has integrated graphics).
    - Utilize the Q-Flash Plus feature to update the BIOS to the latest version, as this can often resolve boot-related issues.
2. **Peripheral Malfunction (USB, Keyboard, Mouse):**
    - Ensure USB devices are connected to the correct ports.
    - Check for updated USB drivers from the GIGABYTE website.
    - Test peripherals on another system to rule out device failure.
3. **Network Connectivity Problems:**
    - For wired connections, ensure the Ethernet cable is properly connected and the LAN driver is installed.
    - For Wi-Fi, ensure the Wi-Fi antennas are securely attached and the Wi-Fi 6E driver is installed. Check your router settings.
4. **System Instability/Crashes:**
    - Check CPU and GPU temperatures using monitoring software. Ensure adequate cooling.
    - Verify that all drivers are up to date.
    - Run memory diagnostic tools to check for RAM errors.

Specifications

Feature	Detail
Brand	GIGABYTE
Model Name	B650M GAMING PLUS WIFI
CPU Socket	Socket AM5
Compatible Processors	AMD Ryzen 7000/8000 Series
Chipset Type	AMD B650
RAM Memory Technology	DDR5
Memory Speed	Up to 4400 MHz (and higher with EXPO/XMP)
Max Memory Capacity	64 GB
PCIe Slots	PCIe 4.0 x16, other PCIe slots
M.2 Connectors	PCIe 4.0 x4 M.2
LAN	2.5GbE LAN
Wireless Connectivity	Wi-Fi 6E

USB Ports	USB 3.2 Gen 1 Type-C, other USB ports
Dimensions (LxWxH)	9.45 x 1.18 x 9.45 inches
Item Weight	3 pounds

Warranty and Support

GIGABYTE provides support for its products. For technical assistance, driver downloads, and BIOS updates, please visit the official GIGABYTE support website.
For information regarding product warranty, please refer to the warranty policy provided with your purchase or visit the GIGABYTE official website. Extended protection plans may also be available for purchase.
Official GIGABYTE Store: GIGABYTE Store on Amazon

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

Open the live page

https://manuals.plus/asin/B0D2V4VH2C

More documents and user manuals: **https://manuals.plus/**