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> [ASUS TUF GAMING B550M-PLUS WiFi II AMD AM4 \(3rd Gen Ryzen\) microATX motherboard \(PCIe 4.0, WiFi 6 2.5Gb LAN, BIOS FlashBack, HDMI 2.1, USB 3.2 Gen 2, Addressable Gen 2 RGB header and AURA Sync\) User Manual](#)

ASUS TUF GAMING B550M-PLUS WiFi II

ASUS TUF GAMING B550M-PLUS WiFi II Motherboard User Manual

Model: TUF GAMING B550M-PLUS WiFi II | Brand: ASUS

PRODUCT OVERVIEW

The ASUS TUF GAMING B550M-PLUS WiFi II is a microATX motherboard designed for AMD 3rd Gen Ryzen CPUs, offering robust performance and durability. It features military-grade components, an upgraded power solution, and comprehensive cooling options to ensure stable operation, especially during gaming.



Image: The ASUS TUF GAMING B550M-PLUS WiFi II Motherboard shown alongside its retail packaging and Wi-Fi antenna.

Key Features

- **AMD AM4 Socket and PCIe 4.0:** Optimized pairing for 3rd Gen AMD Ryzen CPUs.

- **Robust Power Design:** Features 8+2 DrMOS power stages with high-quality alloy chokes and durable capacitors for reliable power delivery.
- **Optimized Thermal Solution:** Includes fanless VRM and PCH heatsinks, multiple hybrid fan headers, and Fan Xpert 4 / UEFI Q-Fan Control for efficient cooling.
- **High-performance Gaming Networking:** Equipped with WiFi 6 (802.11ax) and 2.5 Gb LAN with ASUS LANGuard.
- **Best Gaming Connectivity:** Supports HDMI 2.1 (4K@60Hz) and DisplayPort 1.2 output, dual M.2 slots (NVMe SSD) with PCIe 4.0 x4, front panel USB 3.2 Gen 1, and USB 3.2 Gen 2 Type-C & Type-A ports.
- **Industry-leading Gaming Audio & AI Noise Cancelling Mic Technology:** High fidelity audio from a SupremeFX S1220A codec with DTS Sound Unbound and Sonic Studio III, plus ASUS AI Noise Cancelling Mic technology for clear communication.
- **Gaming Look and Feel:** Features ASUS-exclusive Aura Sync RGB lighting, including RGB headers and a Gen 2 addressable RGB header for extensive customization.

SETUP GUIDE

Before You Begin

- Ensure you have a clean, well-lit workspace.
- Gather all necessary components: CPU, CPU cooler, RAM, M.2 SSDs (if applicable), graphics card, power supply, and PC case.
- Always handle the motherboard and components by their edges to avoid static discharge. Consider using an anti-static wrist strap.

Component Installation

1. CPU Installation:

Locate the AM4 socket on the motherboard. Open the CPU retention lever. Carefully align the triangular mark on the CPU with the mark on the socket and gently place the CPU into the socket. Close the retention lever to secure the CPU.



Image: A top-down view of the ASUS TUF GAMING B550M-PLUS WiFi II Motherboard, highlighting the CPU socket and RAM slots.

2. CPU Cooler Installation:

Install your chosen CPU cooler according to its manufacturer's instructions. Ensure proper thermal paste application and secure mounting for optimal cooling.

3. RAM (Memory) Installation:

The motherboard supports 4 x DIMM, Max. 128GB, DDR4 memory. For dual-channel memory architecture, install memory modules into the gray-colored DIMM slots (A2 and B2) first. Open the clips on both ends of the DIMM slot, align the memory module's notch with the slot's key, and press firmly until the clips snap into place.

4. M.2 SSD Installation:

This motherboard features dual M.2 slots. Locate the M.2 slots (one with PCIe 4.0 x4 connectivity). Remove the M.2 heatsink (if present), insert the M.2 SSD at an angle, and then gently push it down. Secure it with the provided screw. Reattach the heatsink if applicable.

5. Graphics Card (GPU) Installation:

Locate the PCIe 4.0 x16 slot. Open the retention clip at the end of the slot. Align your graphics card with the slot and press firmly until it is fully seated and the clip snaps shut. Secure the card to your PC case with screws.

6. Power Supply Connections:

Connect the 24-pin ATX power connector and the 8-pin EATX 12V power connector from your power supply to the corresponding ports on the motherboard. Connect SATA power cables to your storage drives and PCIe power cables to your graphics card.

7. Front Panel Connections:

Connect the front panel headers (power button, reset button, HDD LED, power LED, USB ports, audio jacks) to the corresponding pins on the motherboard. Refer to the motherboard's user guide for the exact pin layout.



Image: A close-up view of the rear I/O panel of the ASUS TUF GAMING B550M-PLUS WiFi II Motherboard, showing various ports including USB, HDMI, DisplayPort, Ethernet, and audio jacks.

OPERATING INSTRUCTIONS

BIOS/UEFI Configuration

To access the BIOS/UEFI setup utility, power on your computer and repeatedly press the **DEL** key or **F2** key during the Power-On Self-Test (POST). From here, you can configure system settings, boot order, and enable features like DOCP (XMP) for memory overclocking.

Driver Installation

After installing your operating system, it is crucial to install the latest drivers for your motherboard components to ensure optimal performance and stability. You can download these drivers from the official ASUS support website for your specific motherboard model.

- **Chipset Drivers:** Essential for proper communication between the CPU and other components.
- **LAN Drivers:** For the 2.5 Gb Ethernet port.
- **Wi-Fi Drivers:** For the integrated WiFi 6 module.
- **Audio Drivers:** For the SupremeFX S1220A codec.
- **Graphics Drivers:** For your dedicated graphics card (if installed).

MAINTENANCE

- **Regular Cleaning:** Periodically clean dust from the motherboard and components using compressed air. Ensure the system is powered off and unplugged before cleaning.
- **BIOS Updates:** Check the ASUS support website regularly for BIOS/UEFI updates. Updating the BIOS can improve compatibility, stability, and performance. Follow the instructions provided by ASUS carefully when performing a BIOS update.

- **Driver Updates:** Keep your drivers updated to the latest versions from the ASUS website to ensure optimal performance and resolve potential compatibility issues.
- **Cable Management:** Ensure internal cables are neatly managed to improve airflow and prevent interference.

TROUBLESHOOTING

Issue	Possible Cause	Solution
System does not power on	Loose power connections, faulty power supply, incorrect front panel wiring.	Check all power cables (24-pin, 8-pin CPU, GPU). Verify front panel header connections. Test power supply.
No display output	Graphics card not seated correctly, monitor cable issue, incorrect display output selected.	Reseat graphics card. Check monitor cable connections. Ensure monitor is connected to the graphics card, not the motherboard (unless using an APU).
System reboots unexpectedly	Overheating, unstable power, faulty RAM.	Check CPU/GPU temperatures. Ensure adequate cooling. Test RAM modules individually.
Wi-Fi/LAN connectivity issues	Missing/outdated drivers, antenna not connected, router issues.	Install/update Wi-Fi/LAN drivers from ASUS website. Ensure Wi-Fi antenna is securely connected. Restart router.
Audio not working	Missing/outdated audio drivers, incorrect audio output selected.	Install/update audio drivers from ASUS website. Check Windows sound settings and ensure correct output device is selected.

TECHNICAL SPECIFICATIONS

Feature	Specification
Product Dimensions	10.83 x 10.83 x 2.64 inches
Item Weight	3.09 pounds
ASIN	B09WJMC995
Item Model Number	TUF GAMING B550M-PLUS WIFI II
CPU Socket	Socket AM4
Compatible Devices	Personal Computer

Feature	Specification
RAM Memory Technology	DDR4
Compatible Processors	AMD 3rd Generation Ryzen
Chipset Type	AMD B550
Memory Clock Speed	4400 MHz
Platform	Windows 10
Manufacturer	ASUS
First Available Date	March 26, 2022

WARRANTY AND SUPPORT

For detailed warranty information and support, please refer to the official ASUS resources:

- **User Guide (PDF):** [Download User Guide](#)
- **User Manual (PDF):** [Download User Manual](#)
- **ASUS Official Store:** [Visit the ASUS Store on Amazon](#)

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