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ASUS ROG STRIX B550-F GAMING WIFI II

ASUS ROG Strix B550-F Gaming WiFi II Motherboard User Manual

Experience next-level performance and connectivity with the ASUS ROG Strix B550-F Gaming WiFi II, featuring PCIe 4.0, WiFi 6E, and 2.5Gb Ethernet. This motherboard provides robust power delivery and effective cooling, making it an ideal partner for 3rd Gen AMD Ryzen CPUs. Its futuristic aesthetics, intuitive software, and reliable design ensure a high-performance computing experience.



Image: The ASUS ROG Strix B550-F Gaming WiFi II ATX Motherboard, a high-performance component for gaming PCs.

1. PACKAGE CONTENTS

Verify that all components are present in your package:

- ASUS ROG Strix B550-F Gaming WiFi II Motherboard
- ASUS 2x2 Dual Band WiFi Antenna
- SATA 6Gb/s cables
- M.2 screw package
- Addressable RGB extension cable
- Support CD
- User Manual
- ROG Sticker

Total Gaming Immersion

AURA RGB LED I/O & Armor , AURA Sync RGB lighting,
Addressable Gen 2 RGB Header, Immersive Gaming Audio

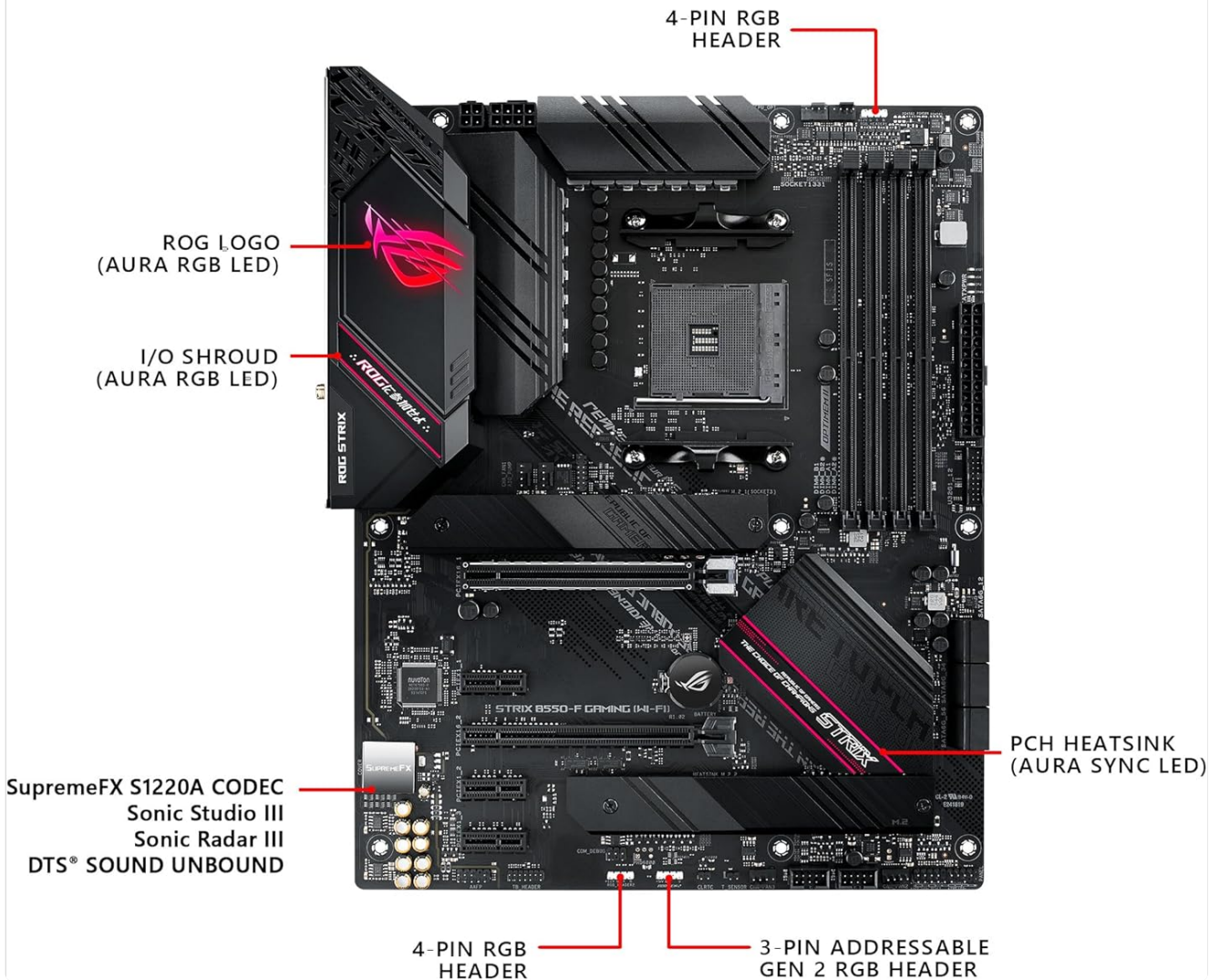


Image: ASUS ROG Strix B550-F Gaming WiFi II Motherboard and its accessories, including the WiFi antenna, cables, and documentation.

2. MOTHERBOARD LAYOUT AND FEATURES

Familiarize yourself with the key areas and features of your motherboard:

Robust Power & Comprehensive Cooling

Featuring 12+2 Power Stages, Fanless VRM & M.2 & PCH Heatsink,
Multiple Fan & Liquid Cooling Headers

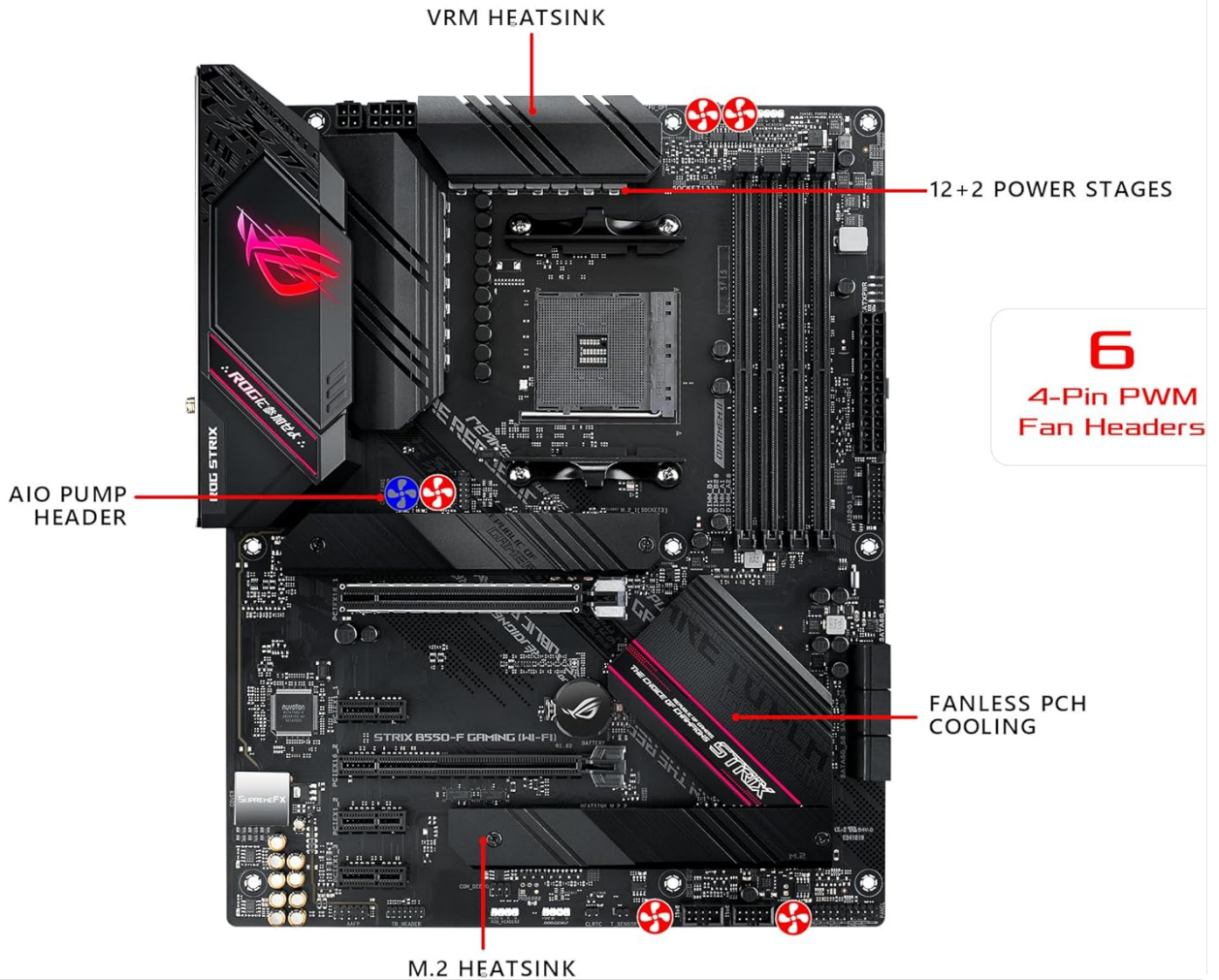


Image: Overview of the motherboard highlighting Aura RGB LED I/O & Armor, Aura Sync RGB lighting, Addressable Gen 2 RGB Header, and Immersive Gaming Audio components like SupremeFX S1220A CODEC.

Build for Gaming Connectivity & Speed

PCIe 4.0 Ready, 2x M.2 NVMe SSD (1x PCIe 4.0 x4) , 2x PCIe 4.0 x16
1x USB3.2 Gen 2 Front Panel Connector

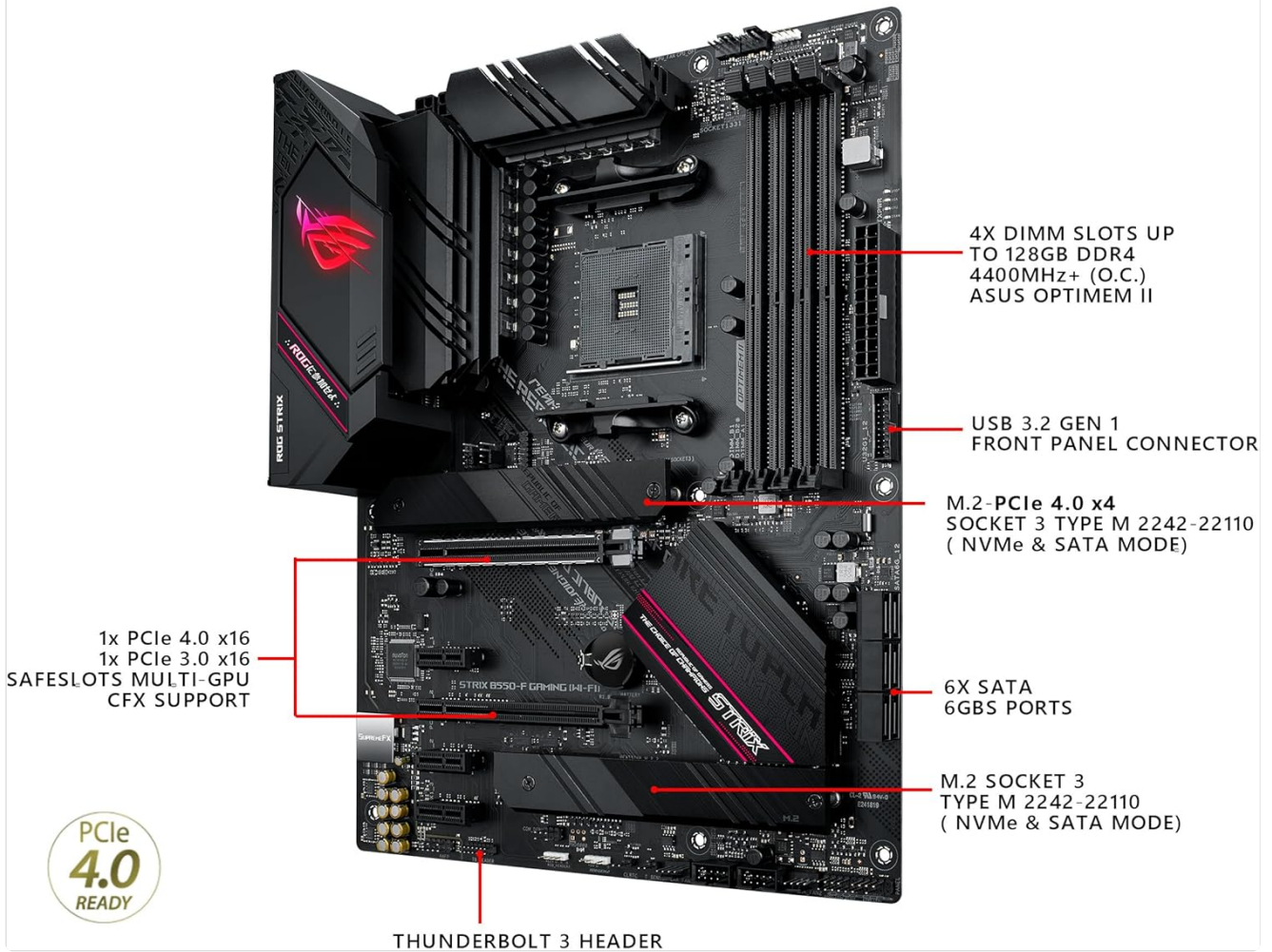


Image: Detailed view of the motherboard's robust power and cooling solutions, including 12+2 power stages, VRM heatsinks, fanless PCH cooling, M.2 heatsinks, and multiple 4-pin PWM fan headers.

Full Gaming Connectivity

WiFi 6E, Intel® 2.5Gb LAN, USB 3.2 Gen 2, HDMI 2.1
SupremeFX 8-Channel HD Audio and BIOS FlashBack

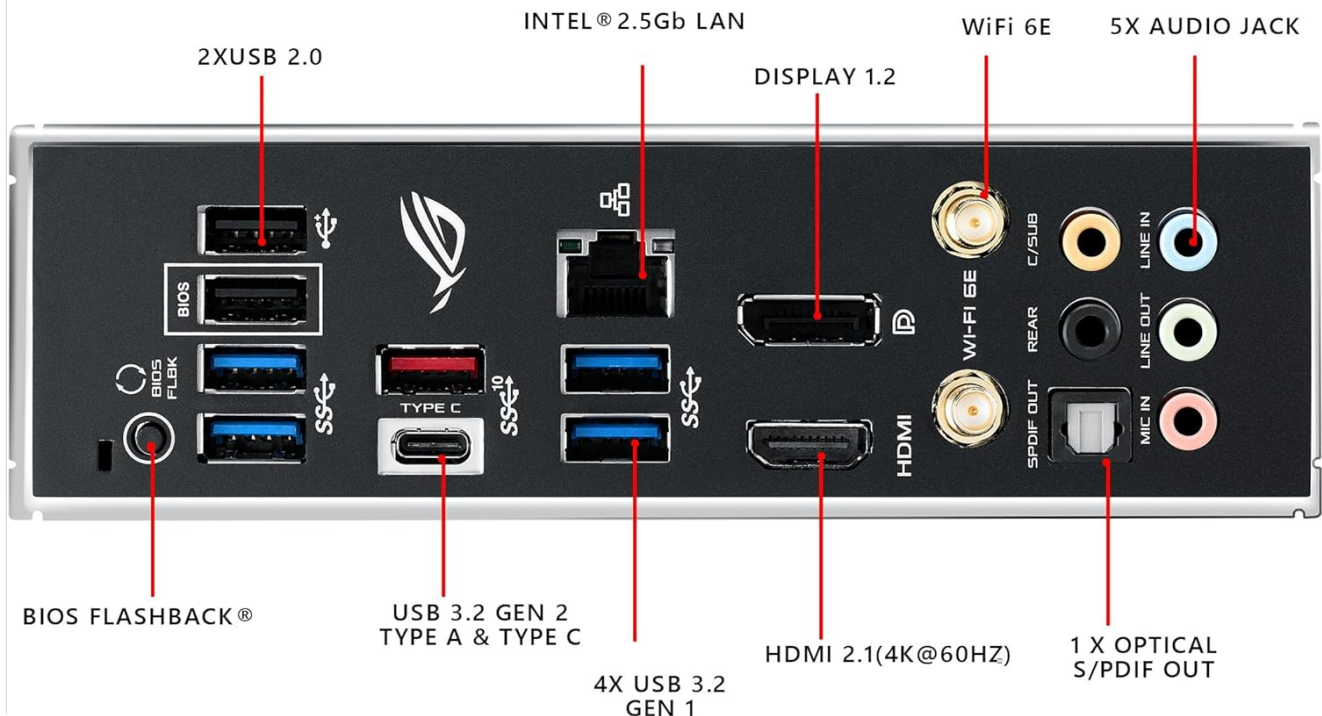


Image: Close-up of the motherboard's gaming connectivity and speed features, such as PCIe 4.0 readiness, 4x DIMM slots supporting up to 128GB DDR4 4400MHz (O.C.), dual M.2 NVMe SSD slots, and various USB headers.

3. CPU INSTALLATION

This motherboard supports AMD Ryzen 3000, 5000 series, and 5000/4000 G-series desktop processors. Ensure your CPU is compatible with the AM4 socket.

1. Unlock the CPU socket lever.
2. Align the golden triangle on the CPU with the triangle on the socket.
3. Gently place the CPU into the socket without forcing it.
4. Lower the socket lever to secure the CPU.
5. Install your CPU cooler according to its manufacturer's instructions.

4. MEMORY (RAM) INSTALLATION

The motherboard features four DIMM slots supporting up to 128GB of DDR4 memory at speeds up to 4400MHz (O.C.). For optimal performance, install memory modules in matched pairs for dual-channel operation.

1. Open the clips at both ends of the DIMM slot.
2. Align the notch on the memory module with the key in the DIMM slot.

3. Press down firmly on both ends of the memory module until the clips snap into place.

5. STORAGE (M.2 AND SATA) INSTALLATION

This motherboard provides dual M.2 slots for NVMe SSDs and six SATA 6Gb/s ports for traditional hard drives or SSDs.

M.2 SSD Installation:

1. Locate the M.2 slot(s) and remove any pre-installed heatsink or cover.
2. Insert the M.2 SSD into the slot at a 30-degree angle.
3. Gently push down the SSD and secure it with the provided M.2 screw.
4. If applicable, reattach the M.2 heatsink/cover.

SATA Drive Installation:

1. Connect one end of a SATA data cable to a SATA 6Gb/s port on the motherboard.
2. Connect the other end of the SATA data cable to your storage drive.
3. Connect a SATA power cable from your power supply to the storage drive.

6. GRAPHICS CARD INSTALLATION

The motherboard supports PCIe 4.0, offering high bandwidth for modern graphics cards.

1. Open the retention clip on the PCIe x16 slot.
2. Align your graphics card with the slot and press down firmly until it clicks into place.
3. Secure the graphics card to your PC case with screws.
4. Connect any necessary PCIe power cables from your power supply to the graphics card.

7. CONNECTING PERIPHERALS

Connect your display, USB devices, network cable, and audio devices to the rear I/O panel:

Exclusive ROG STRIX B550-F GAMING WiFi II Bundle

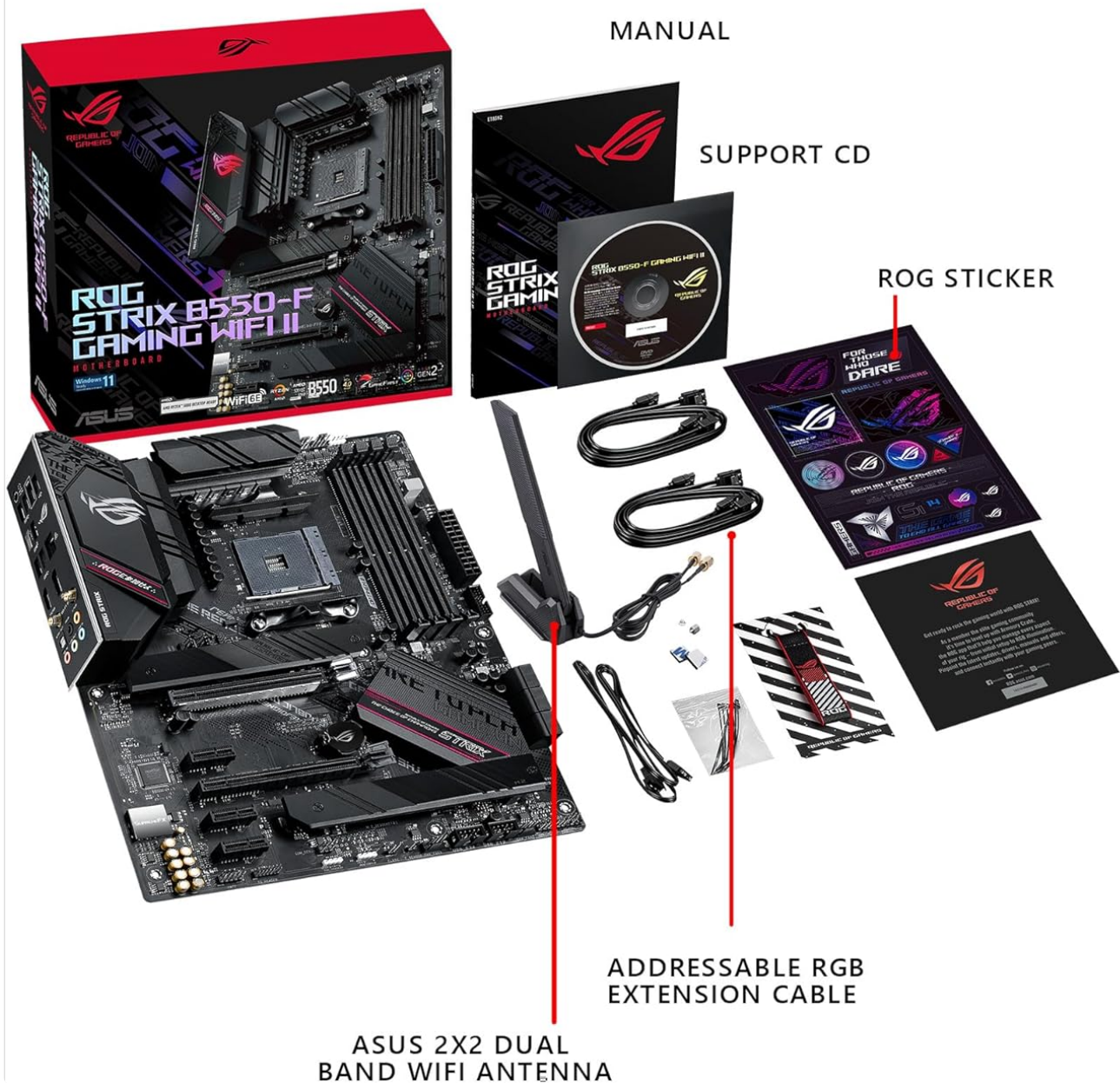


Image: The rear I/O panel featuring various ports including USB 2.0, USB 3.2 Gen 2 Type-A and Type-C, Intel 2.5Gb LAN, WiFi 6E antenna connectors, HDMI 2.1, DisplayPort 1.2, and 8-channel audio jacks.

- **Display:** Connect your monitor to the HDMI 2.1 or DisplayPort 1.2 outputs.
- **USB Devices:** Use the available USB 2.0, USB 3.2 Gen 1, and USB 3.2 Gen 2 Type-A/Type-C ports for your keyboard, mouse, and other peripherals.
- **Network:** Connect an Ethernet cable to the Intel 2.5Gb LAN port for wired internet, or attach the included WiFi antenna for wireless connectivity.
- **Audio:** Connect speakers or headphones to the appropriate audio jacks.

8. BIOS SETUP

The UEFI BIOS allows you to configure system settings, monitor hardware, and update firmware.

- **Accessing BIOS:** Power on your system and repeatedly press the **DEL** key or **F2** key during the boot process to enter the UEFI BIOS.
- **Navigation:** Use your keyboard or mouse to navigate the BIOS interface.
- **BIOS Flashback:** This feature allows you to update the BIOS without a CPU or RAM installed. Refer to the detailed instructions in the full user manual for this process.

9. DRIVER INSTALLATION

For optimal performance and stability, install the latest drivers for your motherboard components. These can be found on the included support CD or downloaded from the ASUS official website.

- Chipset Drivers
- LAN Drivers (Intel 2.5Gb Ethernet)
- WiFi Drivers (WiFi 6E)
- Audio Drivers (SupremeFX 8-Channel HD Audio)
- Graphics Drivers (for integrated graphics, if applicable, or your dedicated GPU)

10. ASUS UTILITIES

ASUS provides several utilities to enhance your system's performance and user experience:

- **Armoury Crate:** A centralized software suite for managing Aura Sync RGB lighting, fan control, driver updates, and more.
- **Aura Sync:** Synchronize RGB lighting across compatible devices for a unified aesthetic.
- **Fan Xpert 4:** Advanced fan control for precise cooling and noise optimization.
- **GameFirst VI:** Network optimization software to prioritize game traffic for lower latency.

11. CLEANING AND DUST REMOVAL

Regular cleaning helps maintain optimal performance and extends the lifespan of your motherboard and components.

- Always power off your PC and unplug it from the wall before cleaning.
- Use compressed air to remove dust from heatsinks, fans, and other components.
- For stubborn dust, use a soft brush or lint-free cloth. Avoid using liquids directly on components.

12. BIOS UPDATES

Keeping your BIOS updated can improve system stability, compatibility with new hardware, and introduce new features. Always download BIOS updates from the official ASUS support website for your specific motherboard model.

- Download the latest BIOS file.
- Extract the BIOS file to a USB flash drive (FAT32 format).
- Enter the BIOS and use the EZ Flash utility to update. Follow on-screen instructions carefully.
- Do NOT power off or restart your system during the BIOS update process.

13. COMMON ISSUES AND SOLUTIONS

This section provides solutions for common problems you might encounter.

No Power / No Boot:

- Ensure all power cables (24-pin ATX, 8-pin CPU) are securely connected to the motherboard and power supply.
- Check the power supply switch is in the ON position.
- Verify that the front panel power button cable is correctly connected to the motherboard.
- Reseat RAM modules. Try booting with only one RAM stick.
- Clear CMOS (refer to the full manual for jumper location).

Display Issues (No Signal):

- Ensure your monitor is connected to the correct display output (either motherboard's integrated graphics port or dedicated graphics card).
- Reseat your graphics card in its PCIe slot.
- Check if the monitor is set to the correct input source.

Network Connectivity Problems:

- For wired connections, ensure the Ethernet cable is properly connected and the router/modem is working.
- For wireless connections, ensure the WiFi antenna is securely attached and drivers are installed.
- Update LAN/WiFi drivers from the ASUS support website.

Audio Problems:

- Ensure speakers/headphones are connected to the correct audio jacks.
- Check audio settings in your operating system.
- Reinstall or update audio drivers.

14. TECHNICAL SPECIFICATIONS

| Feature | Specification |
|-----------------------|---|
| Brand | ASUS |
| Model Name | ROG STRIX B550-F GAMING WIFI II |
| CPU Socket | Socket AM4 |
| Compatible Processors | AMD 3rd Generation Ryzen, 5000 series, 5000 and 4000 G-series |
| Chipset Type | AMD B550 |
| RAM Memory Technology | DDR4 |
| Memory Clock Speed | 2133 MHz (up to 4400MHz O.C.) |
| Wireless Type | 802.11a/b/g/n/ac, 802.11ax (WiFi 6E) |
| Ethernet | Intel 2.5 Gb Ethernet |
| PCIe Support | PCIe 4.0 |

| Feature | Specification |
|--------------------|--|
| M.2 Slots | Dual M.2 slots |
| USB Ports | USB 3.2 Gen 2 Type-C, USB 3.2 Gen 2 Type-A, USB 3.2 Gen 1, USB 2.0 |
| Video Outputs | HDMI 2.1, DisplayPort 1.2 |
| Audio | SupremeFX 8-Channel HD Audio |
| Form Factor | ATX |
| Item Weight | 2.2 pounds |
| Product Dimensions | 10.75 x 2.76 x 13.39 inches |

15. WARRANTY AND SUPPORT

For detailed warranty information, please refer to the warranty card included with your product or visit the official ASUS support website.

For comprehensive technical support, driver downloads, and the complete user manual, please visit the ASUS support page for your model:

[ASUS Official Support Website](#)

You can also download the official PDF user manual directly from Amazon: [User Manual \(PDF\)](#)