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## ASUS ROG Strix B550-A Gaming

# ASUS ROG Strix B550-A Gaming Motherboard User Manual

Model: ROG Strix B550-A Gaming

## INTRODUCTION

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The ASUS ROG Strix B550-A Gaming Motherboard is engineered to deliver exceptional performance and connectivity for your gaming and computing needs. Featuring the AMD B550 chipset and Socket AM4, it provides robust support for 3rd Gen AMD Ryzen™ CPUs and future Zen 3 Ryzen 5000 series processors. This manual provides essential information for setting up, operating, maintaining, and troubleshooting your motherboard.



Figure 1: ASUS ROG Strix B550-A Gaming Motherboard and its retail packaging.

## SETUP AND INSTALLATION

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Before you begin installation, ensure you have all necessary components as outlined in the 'What's in the Box' section. This includes the motherboard itself, SATA cables, M.2 screw packages, and documentation.

# What's in the Box

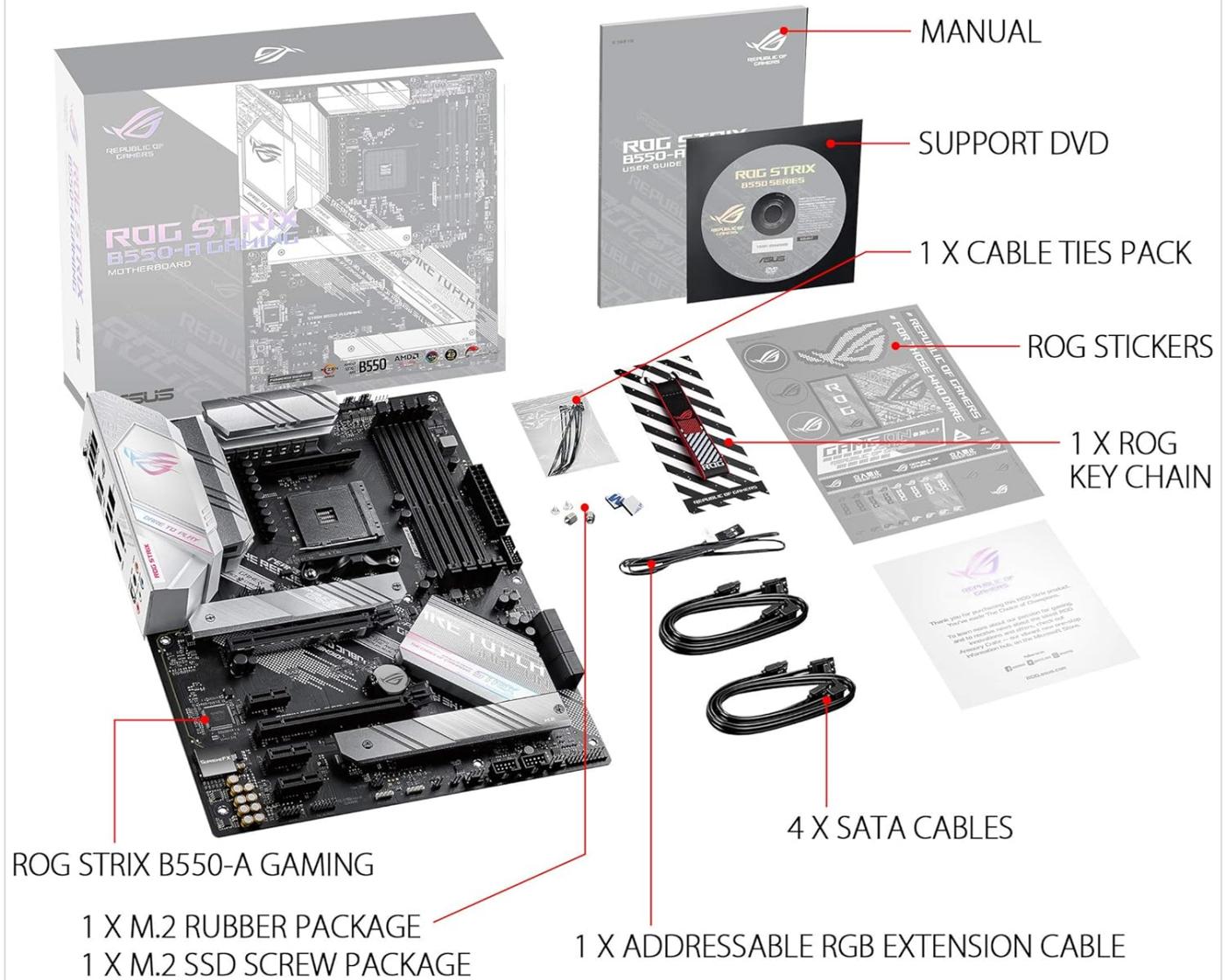


Figure 2: Included accessories and components in the motherboard box.

## Component Installation

- **CPU Installation:** Carefully align your AMD AM4 processor with the socket on the motherboard. Ensure proper orientation before gently lowering the CPU into place and securing the retention lever.
- **RAM Installation:** The motherboard supports up to 128 GB of DDR4 SDRAM across 4 DIMM slots. Install memory modules into the appropriate slots, ensuring they are fully seated until the clips lock into place.
- **Graphics Card Installation:** Insert your PCIe 4.0 x16 graphics card into the primary PCIe slot. Secure it with the case screw.
- **Storage Installation:** Utilize the dual M.2 slots for NVMe SSDs, with one supporting PCIe 4.0 x4 connectivity. Additionally, six SATA 6Gb/s interfaces are available for traditional hard drives and SSDs.
- **Power Connections:** Connect the 24-pin ATX power connector and the 8-pin (or 4+4 pin) CPU power connector from your power supply to the motherboard. Ensure all connections are firm.

# Built for Performance Gaming

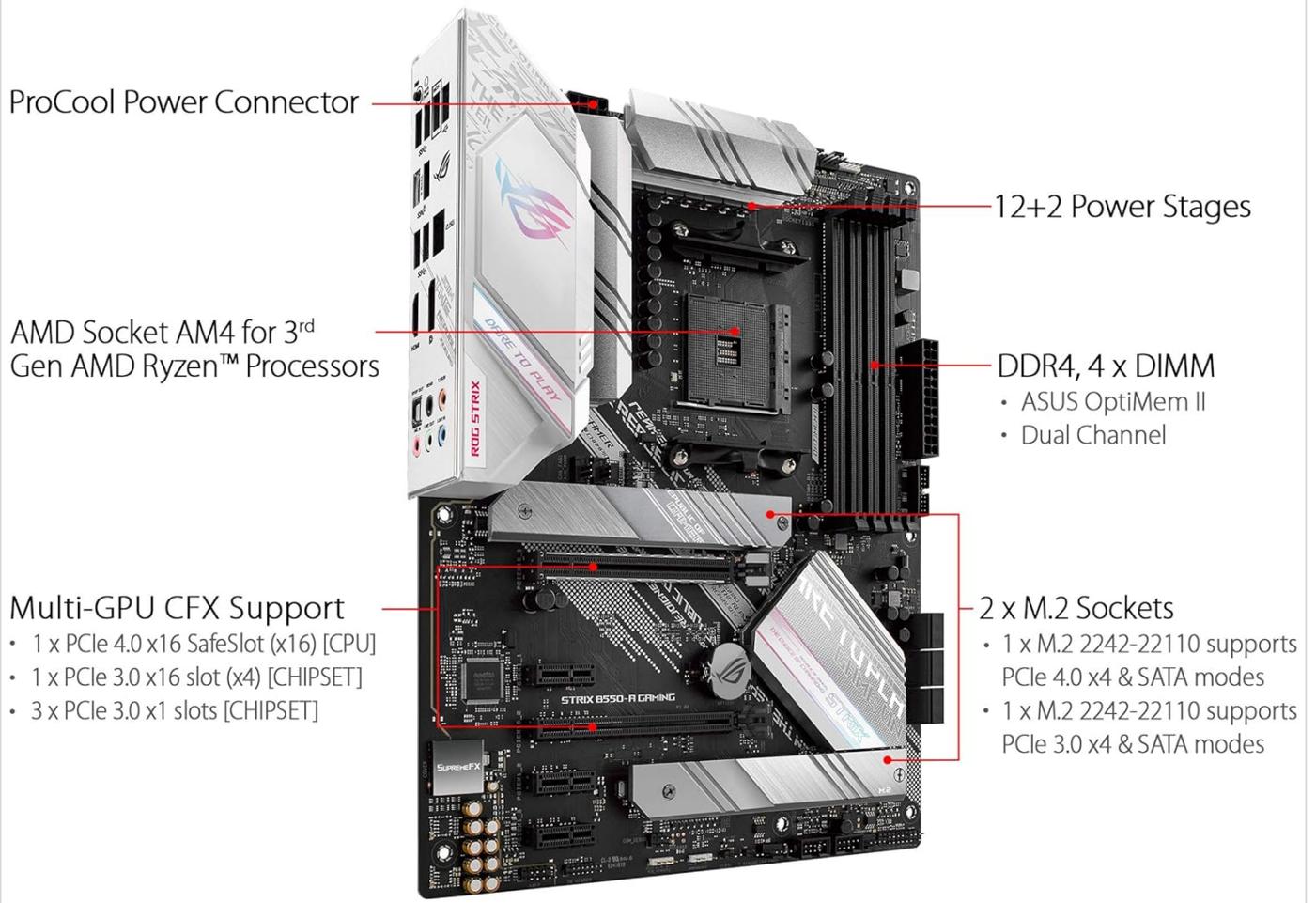


Figure 3: Key components and their locations on the motherboard, including CPU socket, RAM slots, and power stages.

# Full Connectivity

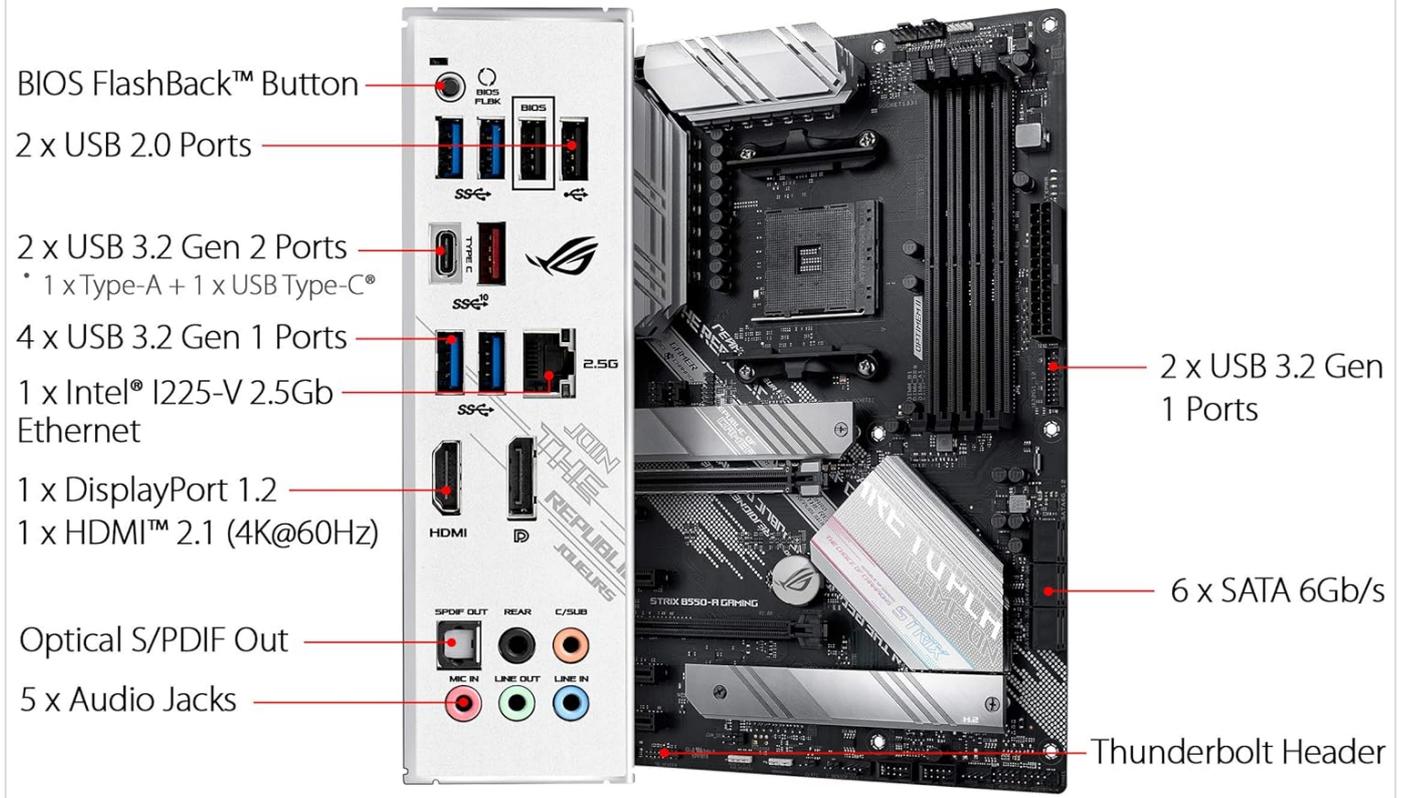


Figure 4: Detailed view of the motherboard's rear input/output panel, highlighting various ports.

## OPERATING FEATURES

The ROG Strix B550-A Gaming Motherboard is designed for high-performance operation. Its 12+2 DrMOS power stages provide stable power delivery to the CPU, crucial for demanding applications and gaming.

### Networking and Connectivity

Benefit from high-speed internet with the integrated 2.5 Gb LAN, enhanced by ASUS LANGuard for improved network security and stability. The rear I/O panel offers comprehensive connectivity, including HDMI 2.1 (supporting 4K at 60Hz) and DisplayPort 1.2 for display output, multiple USB 3.2 Gen 2 Type-C and Type-A ports, and a Thunderbolt 3 header for high-speed peripherals.

### Cooling Solutions

The motherboard incorporates comprehensive cooling features to maintain optimal temperatures during intense usage. These include a VRM heatsink, AIO pump header, chipset heatsink, dual M.2 heatsinks, and multiple 4-pin PWM fan headers for flexible cooling configurations.

# Comprehensive Cooling

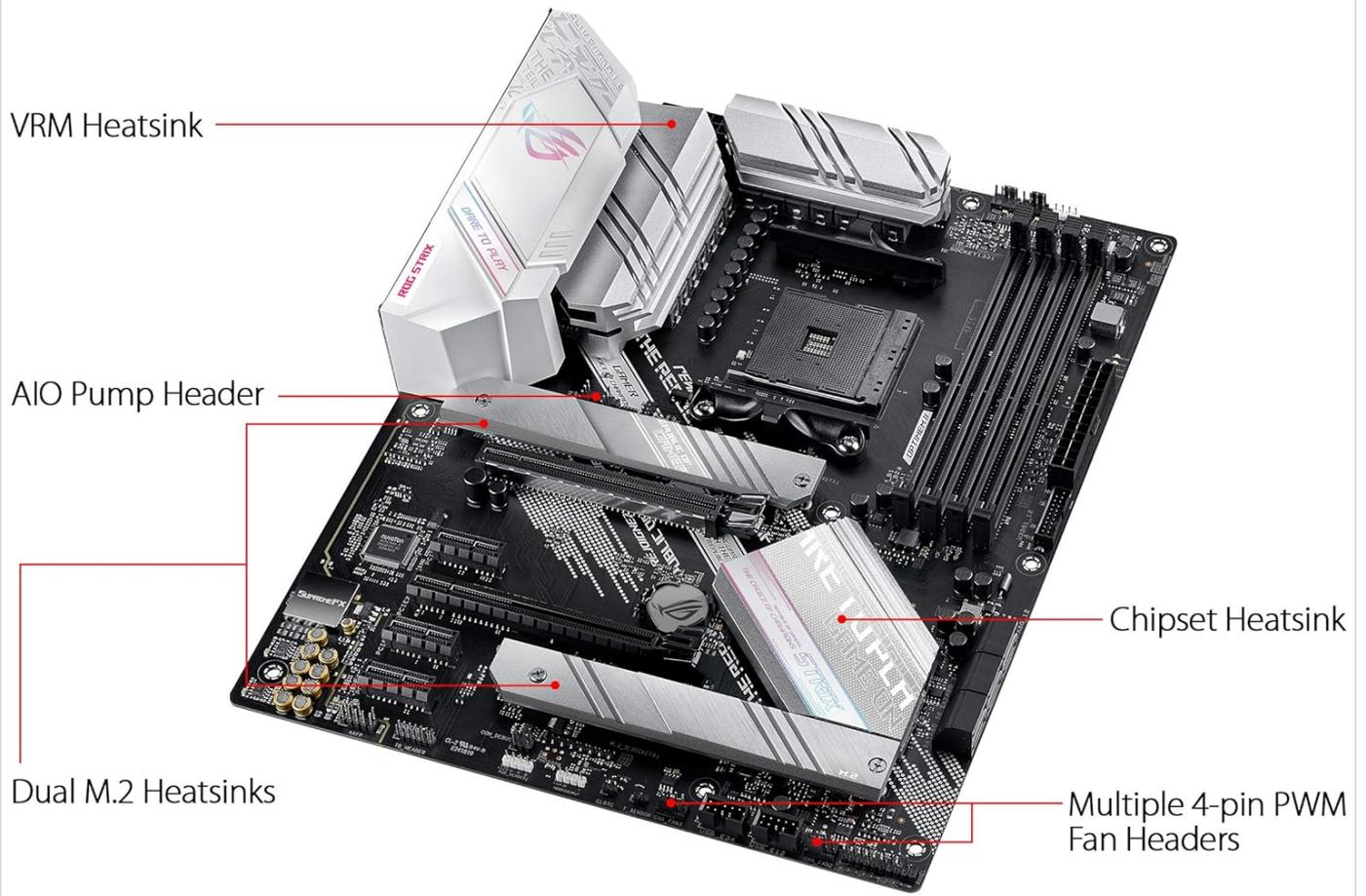


Figure 5: Overview of the motherboard's cooling components, including heatsinks and fan headers.

## Audio and Immersion

Experience immersive sound with the SupremeFX S1220A codec, featuring DTS Sound Unbound and Sonic Studio III. This high-fidelity audio solution provides clear and powerful sound for gaming and multimedia. The board also includes RGB headers for customizable lighting effects.

# Total Gaming Immersion

1 x 3-pin Addressable Gen 2 RGB Header  
2 x 4-pin AURA RGB Headers



SupremeFX S1220A CODEC

- Impedance sense
- High quality output and input
- SupremeFX shielding
- Dual OP amplifiers

Sonic Studio III  
+ Sonic Studio Virtual Mixer  
Sonic Radar III  
DTS® Sound Unbound



Figure 6: Details on the motherboard's audio components and RGB lighting headers for enhanced gaming immersion.

## MAINTENANCE

- **BIOS Updates:** Regularly check the ASUS support website for the latest BIOS updates to ensure optimal performance and compatibility. The motherboard features a BIOS FlashBack™ button for convenient updates without a CPU or RAM installed.
- **Dust Management:** Keep your system clean by regularly removing dust from the motherboard and cooling components to prevent overheating and maintain performance. Use compressed air to clear vents and heatsinks.

## TROUBLESHOOTING

The motherboard is equipped with Q-LED indicators (CPU, DRAM, VGA, BOOT) that light up to indicate the status of key components during startup. If an issue occurs, the corresponding LED will remain lit, helping to diagnose the problem. For common issues, refer to the official ASUS support website or the comprehensive user manual (PDF) available online. Ensure all power cables and components are securely connected before troubleshooting further.

## SPECIFICATIONS

Feature	Detail
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Feature	Detail
Brand	ASUS
Series	ROG STRIX B550-A GAMING
Model Number	ROG Strix B550-A Gaming
CPU Socket	Socket AM4
Chipset Type	AMD B550
Compatible Processors	AMD 3rd Generation Ryzen
Maximum RAM	128 GB DDR4 SDRAM
Memory Slots	4 x DIMM, UDIMM
Memory Clock Speed	2666 MHz
PCIe Support	PCIe 4.0
M.2 Slots	Dual (one with PCIe 4.0 x4 connectivity)
SATA Interfaces	6 x SATA 6Gb/s
Video Output	HDMI 2.1 (4K@60Hz), DisplayPort 1.2
LAN	2.5 Gb Ethernet
USB Ports	USB 3.2 Gen 2 Type-C, USB 3.2 Gen 1, USB 2.0
Audio	SupremeFX S1220A Codec
Dimensions (LxWxH)	9.6 x 2 x 12 inches
Item Weight	2.2 pounds
Platform	Windows 10

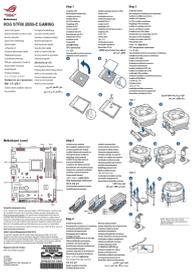
## WARRANTY AND SUPPORT

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For detailed technical support, warranty information, and additional resources, please visit the official ASUS support website. You can find drivers, FAQs, and contact information for customer service.

A comprehensive User Manual (PDF) is also available for download, providing in-depth instructions and diagrams for your motherboard:

[Download User Manual \(PDF\)](#)

 <p>ROG STRIX B550-E GAMING</p>	<p><a href="#">ASUS ROG STRIX B550-E GAMING Motherboard User Manual</a></p> <p>This comprehensive user manual for the ASUS ROG STRIX B550-E GAMING motherboard provides detailed installation instructions, technical specifications, BIOS setup guidance, and troubleshooting information for PC builders and enthusiasts. It covers CPU, memory, storage, and expansion card installation, along with features like PCIe 4.0, Wi-Fi 6, and advanced audio.</p>
 <p>ROG STRIX B550-A GAMING</p>	<p><a href="#">ASUS ROG STRIX B550-A GAMING Motherboard User Manual</a></p> <p>Comprehensive user guide for the ASUS ROG STRIX B550-A GAMING motherboard, covering installation, specifications, BIOS, and system building for AMD AM4 platforms.</p>
 <p>PRIME B550M-A</p>	<p><a href="#">ASUS PRIME B550M-A Motherboard User Manual and Specifications</a></p> <p>Comprehensive guide to the ASUS PRIME B550M-A motherboard, covering installation, BIOS setup, specifications, safety, and compliance information for AMD Ryzen processors.</p>
 <p>PRIME B550M-A AC</p>	<p><a href="#">ASUS PRIME B550M-A AC Motherboard User Manual</a></p> <p>User manual for the ASUS PRIME B550M-A AC motherboard, covering product introduction, BIOS and RAID support, safety information, package contents, and specifications.</p>
	<p><a href="#">ASUS ROG STRIX B550-E GAMING Quick Start Guide</a></p> <p>Quick start guide for installing the ASUS ROG STRIX B550-E GAMING motherboard, covering CPU, fan, memory, storage, expansion card installation, and system setup.</p>

ROG STRIX B550-F  
GAMING (WI-FI)

ASUS  
Motherboard

[ROG STRIX B550-F GAMING \(WI-FI\) Motherboard User Manual](#)

Comprehensive user manual for the ASUS ROG STRIX B550-F GAMING (WI-FI) motherboard, covering installation, BIOS setup, and specifications.