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> GIGABYTE B550M K Motherboard User Manual

## GIGABYTE B550M K

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Model: B550M K | Brand: GIGABYTE

## 1. PRODUCT OVERVIEW

The GIGABYTE B550M K motherboard is designed to support AMD Ryzen 5000 Series, Ryzen 5000 G-Series, Ryzen 4000 G-Series, and Ryzen 3000 Series Processors with an AM4 socket. It features a Micro-ATX form factor, DDR4 memory support, and dual M.2 slots for high-speed storage. This motherboard is built for reliable performance and offers essential connectivity for personal computing systems.



Figure 1: GIGABYTE B550M K Motherboard and retail packaging.

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Video 1: Official Product Overview of the GIGABYTE B550M K Motherboard, highlighting its key features and capabilities.

## 2. KEY FEATURES

- **AMD AM4 Socket:** Supports AMD Ryzen 5000 Series/ Ryzen 5000 G-Series/ Ryzen 4000 G-Series and Ryzen 3000 Series Processors.
- **DDR4 Compatible:** Features Dual Channel ECC/ Non-ECC Unbuffered DDR4 with 4 DIMM slots for flexible memory configurations.
- **Sturdy Power Design:** Equipped with a 4+2 Phases Digital Twin Power Design and Low RDS(on) MOSFETs for stable power delivery.
- **Advanced Connectivity:** Includes a PCIe 4.0 x16 Slot, Dual Ultra-Fast NVMe PCIe 4.0/3.0 x4 M.2 Connectors, and a Realtek GbE LAN chip for high-speed networking and storage.
- **Fine Tuning Features:** Supports RGB FUSION 2.0 for addressable LED and RGB LED strips, Smart Fan 5 for intelligent cooling control, and Q-Flash Plus for BIOS updates without CPU, memory, or GPU installation.

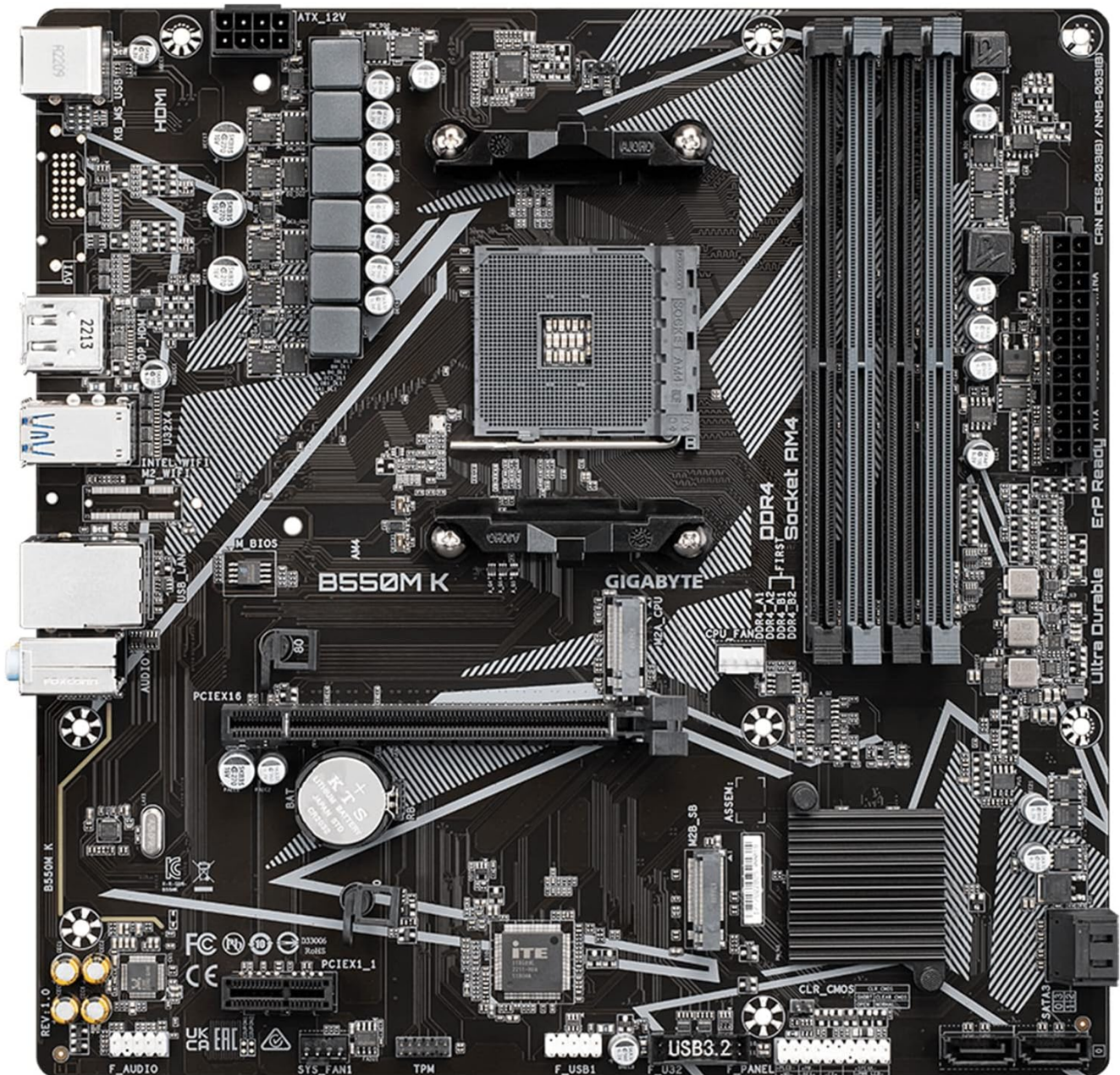


Figure 2: Overview of key features including PCIe 4.0 support, DDR4 memory, dual M.2 slots, and AMD AM4 socket compatibility.



Figure 3: Smart Fan 5 technology, illustrating temperature sensor locations and hybrid fan headers for optimized cooling.

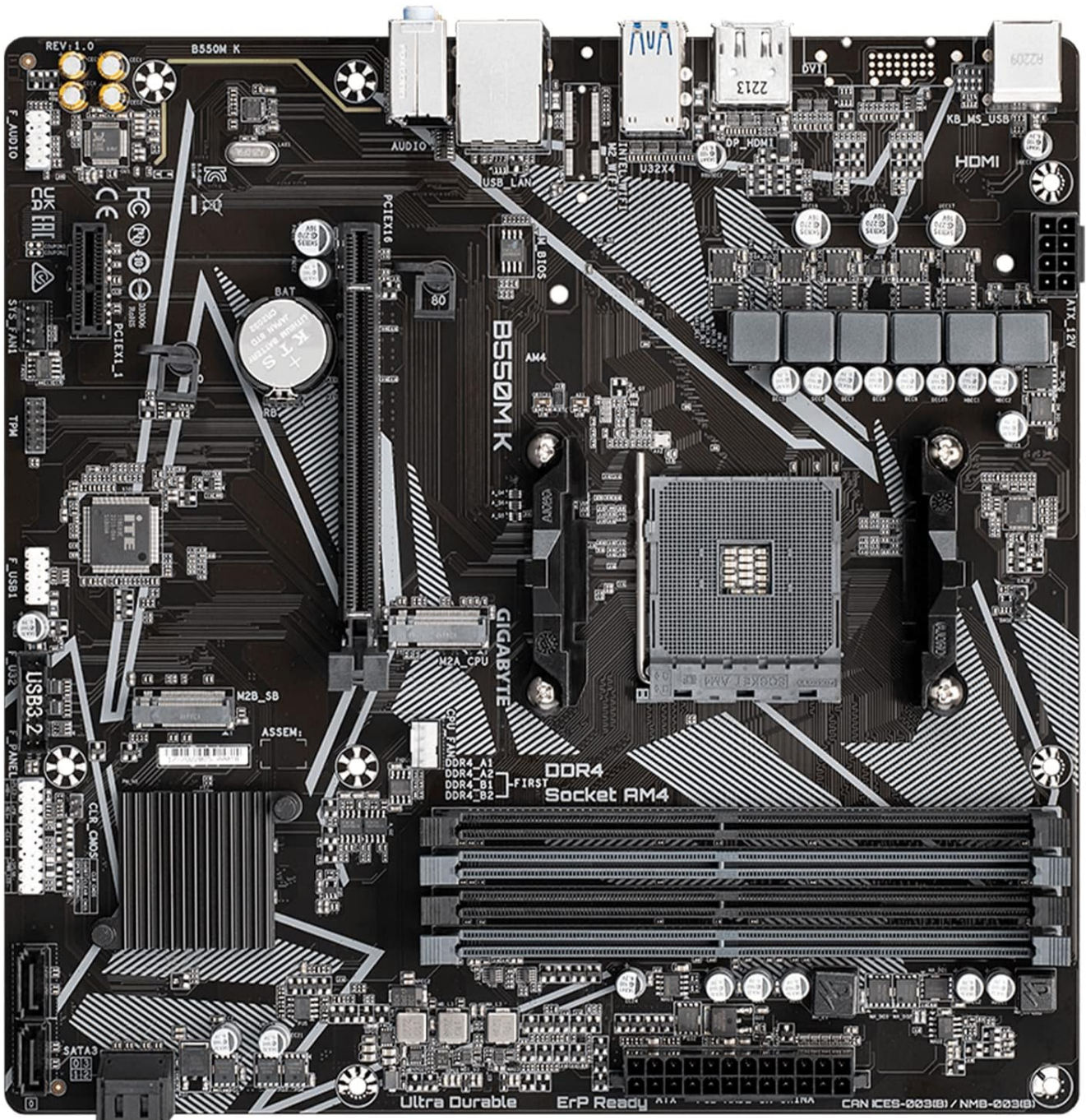


Figure 4: GIGABYTE's leading LAN static-electricity and surge protection, ensuring network stability and durability.

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Video 2: Product Demonstration Video showcasing various features and functionalities of the GIGABYTE B550M K Motherboard.

### 3. TECHNICAL SPECIFICATIONS

Attribute	Value
Product Dimensions	10.43 x 10.43 x 2.12 inches
Item Weight	1.68 pounds

Manufacturer	GIGABYTE
ASIN	B0BTTZFQTP
Country of Origin	China
Item Model Number	B550M K
CPU Socket	Socket AM4
Compatible Devices	Personal Computer
RAM Memory Technology	DDR4
Compatible Processors	AMD Ryzen 5000 Series/ Ryzen 5000 G-Series/ Ryzen 4000 G-Series and Ryzen 3000 Series Processors
Chipset Type	AMD AM4
Memory Clock Speed	3200 MHz
Platform	Windows
Memory Storage Capacity	128 GB

## 4. SETUP AND INSTALLATION

Before beginning installation, ensure your system is powered off and disconnected from the power source. It is recommended to wear an anti-static wrist strap to prevent electrostatic discharge (ESD) damage to components.

### 4.1 Component Installation Order:

- CPU Installation:** Carefully align your AMD AM4 processor with the socket on the motherboard. Ensure the triangle on the CPU matches the triangle on the socket. Lower the retention arm to secure the CPU.
- CPU Cooler Installation:** Install your chosen CPU cooler according to its manufacturer's instructions. Apply thermal paste if not pre-applied.
- Memory (RAM) Installation:** Open the clips on the DDR4 DIMM slots. Align the memory modules with the notches in the slots and press firmly until the clips snap into place. For dual-channel performance, refer to your specific memory kit's instructions for optimal slot population.
- M.2 SSD Installation:** Insert your NVMe M.2 SSD into one of the dual M.2 connectors. Secure it with the provided screw.
- Graphics Card (GPU) Installation:** Insert your graphics card into the PCIe 4.0 x16 slot. Ensure it is seated firmly and secure it with the case's retention mechanism.
- Power Supply Connections:** Connect the 24-pin ATX power connector and the 8-pin (or 4-pin) CPU power connector from your power supply to the motherboard. Connect SATA power cables to your storage drives.

7. **Storage Drive (SATA) Installation:** Connect SATA data cables from your SATA drives (HDDs/SSDs) to the SATA 6Gb/s ports on the motherboard.
8. **Front Panel Connections:** Connect the front panel headers (power button, reset button, USB ports, audio jacks, LED indicators) to the corresponding pins on the motherboard. Refer to the motherboard manual for exact pin layouts.

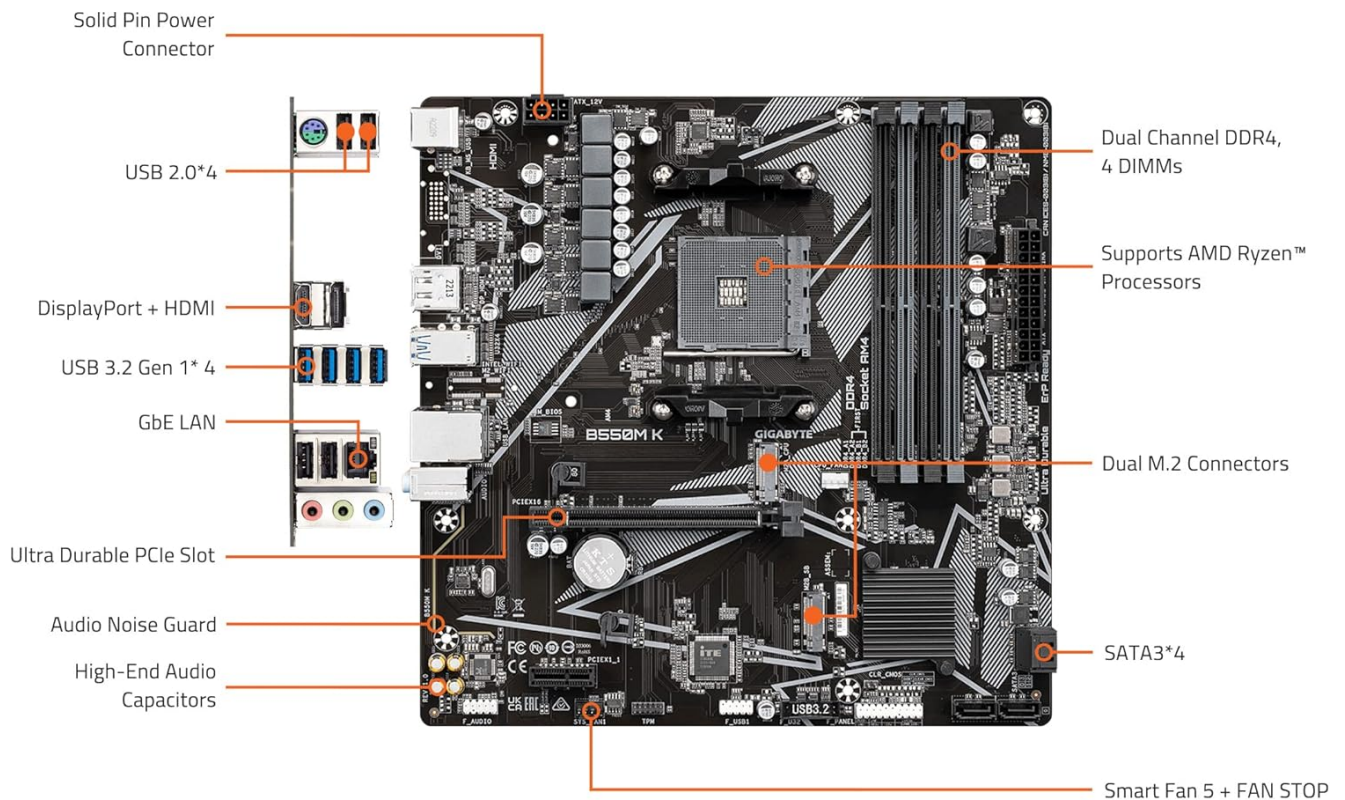


Figure 5: Detailed diagram of the GIGABYTE B550M K motherboard, showing key components and connection points for installation.

## 5. OPERATING YOUR MOTHERBOARD

### 5.1 BIOS Setup:

Upon first boot, or if you encounter issues, you may need to enter the BIOS (Basic Input/Output System) setup. Typically, this is done by pressing the **DEL** key repeatedly during the initial boot sequence. The BIOS allows you to configure system settings, boot order, and monitor hardware status.

### 5.2 Driver Installation:

After installing your operating system, it is crucial to install the latest drivers for your motherboard components. These include chipset drivers, LAN drivers, audio drivers, and any other specific drivers for integrated peripherals. Drivers can be downloaded from the official GIGABYTE website for your specific model.

*Note: Some users have reported needing to use an Ethernet connection initially to download Wi-Fi drivers if the motherboard variant includes Wi-Fi.*

## 6. MAINTENANCE

- **BIOS Updates:** Periodically check the GIGABYTE website for BIOS updates. BIOS updates can improve system stability, add support for new hardware, and enhance performance. Utilize the Q-Flash Plus feature for convenient BIOS updates without needing a CPU, memory, or graphics card installed.
- **Driver Updates:** Keep your system drivers updated to ensure optimal performance and compatibility. Use GIGABYTE's official software (e.g., GIGABYTE Control Center) to manage and update drivers.
- **Dust Removal:** Regularly clean dust from your computer case and motherboard components using compressed air. Dust accumulation can lead to overheating and reduced performance.
- **Cable Management:** Ensure proper cable management within your PC case to improve airflow and prevent interference.

## 7. TROUBLESHOOTING

### 7.1 Common Issues and Solutions:

- **System Fails to Boot (No POST):**
  - Check all power connections (24-pin ATX, 8-pin CPU, GPU).
  - Reseat RAM modules. Try booting with only one RAM stick.
  - Ensure CPU is correctly seated and cooler is properly installed.
  - Clear CMOS (refer to motherboard manual for jumper location or battery removal).
- **No Display Output:**
  - Ensure monitor cable is securely connected to the graphics card (or motherboard if using integrated graphics).
  - Reseat the graphics card in its PCIe slot.
  - Test with a different display cable or monitor.
- **Network Connectivity Issues:**
  - Install the latest LAN/Wi-Fi drivers from the GIGABYTE website.
  - Check Ethernet cable connection or Wi-Fi antenna connections.
  - Verify network settings in your operating system.
- **System Instability/Crashes:**
  - Update BIOS and all drivers to the latest versions.
  - Check CPU and GPU temperatures to ensure they are within safe operating limits.
  - Run memory diagnostic tools to check for RAM errors.

For more detailed troubleshooting steps, please refer to the official GIGABYTE B550M K User Manual (PDF) available on the GIGABYTE support website.

## 8. WARRANTY AND SUPPORT

GIGABYTE products are covered by a limited warranty. For specific warranty terms and conditions, please visit the official GIGABYTE website or contact their customer support.

## 8.1 Official Resources:

- **Safety Information (PDF):** [Download Safety Information](#)
- **User Guide (PDF):** [Download User Guide](#)
- **User Manual (PDF):** [Download User Manual](#)
- **GIGABYTE Support Website:** Visit [www.gigabyte.com](http://www.gigabyte.com) for drivers, utilities, and further support.