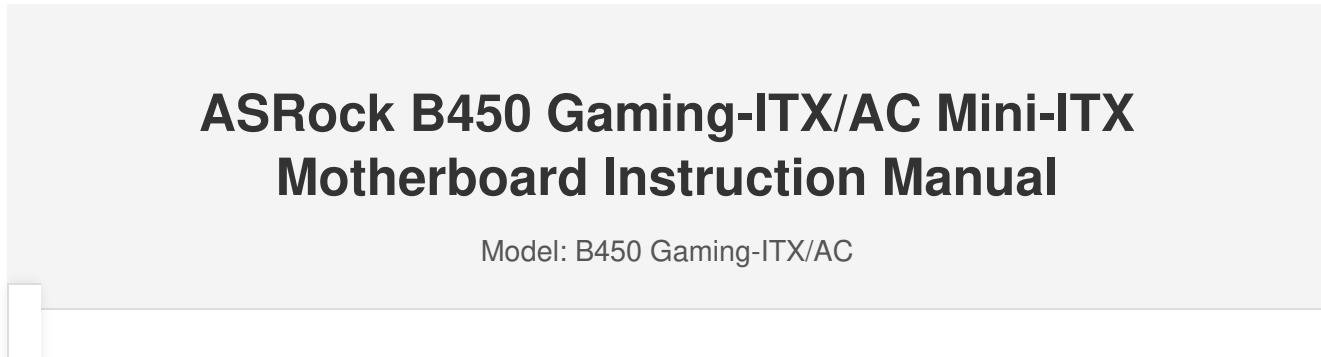


ASRock B450 Gaming-ITX/AC



1. INTRODUCTION

This manual provides comprehensive instructions for the installation, operation, and maintenance of your ASRock B450 Gaming-ITX/AC Mini-ITX Motherboard. Please read this manual thoroughly before proceeding with installation to ensure proper setup and to prevent damage to your components.

Safety Precautions:

- Always disconnect the power cord from the wall outlet before touching any components.
- Wear an anti-static wrist strap or frequently touch a grounded metal object to discharge static electricity.
- Handle components by their edges to avoid touching sensitive parts.
- Keep all components away from moisture and extreme temperatures.



Figure 1: ASRock B450 Gaming-ITX/AC Motherboard and its retail packaging.

2. SETUP AND INSTALLATION

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

2.1. CPU Installation

Carefully open the CPU socket lever. Align the triangular mark on the CPU with the corresponding mark on the socket. Gently place the CPU into the socket without forcing it. Close the lever to secure the CPU.

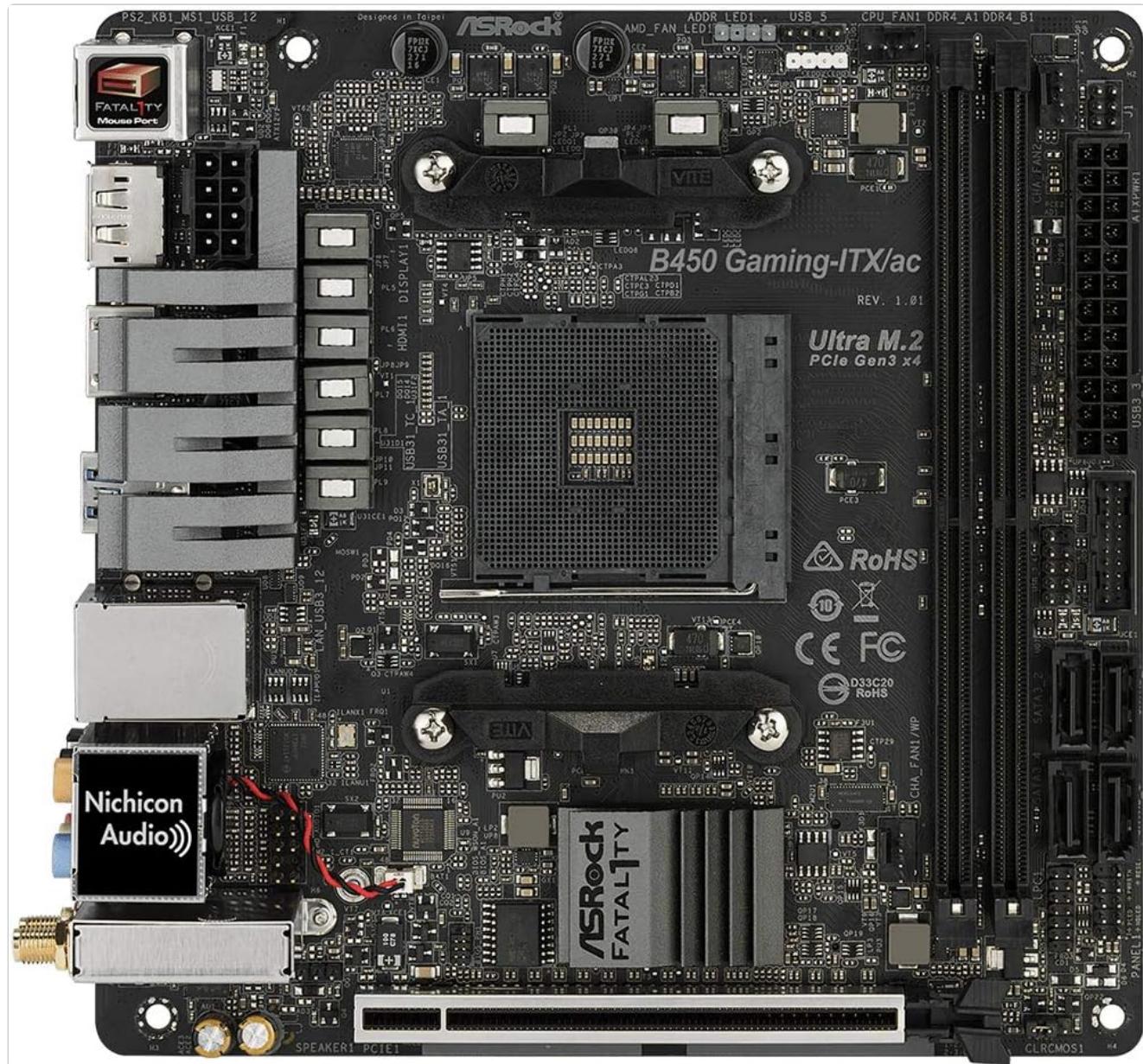


Figure 2: Top-down view of the ASRock B450 Gaming-ITX/AC Motherboard, highlighting the CPU socket and surrounding components.

2.2. RAM (Memory) Installation

Open the clips on both ends of the DIMM slots. Align the notch on the DDR4 memory module with the notch in the DIMM slot. Insert the memory module firmly until the clips snap into place. This motherboard supports 2x DDR4 DIMM slots.

2.3. M.2 SSD Installation

Locate the M.2 slot on the motherboard. Remove the screw and standoff. Insert the M.2 SSD at an angle into the slot. Push down the SSD and secure it with the screw onto the standoff. This motherboard features an Ultra M.2 slot.

2.4. Motherboard Installation into Case

Install the I/O shield into the case's rear opening. Align the motherboard with the standoffs in your PC case. Secure the motherboard with screws. Ensure all ports align correctly with the I/O shield.



Figure 3: Angled view of the ASRock B450 Gaming-ITX/AC Motherboard, showing its compact size and various connectors.

2.5. Power Supply Connections

Connect the 24-pin ATX power connector and the 8-pin CPU power connector from your power supply to the corresponding sockets on the motherboard. Ensure all connections are firm.

2.6. Graphics Card Installation (Optional)

Open the retention clip on the PCI-Express 3.0 x16 slot. Insert your graphics card firmly into the slot until the clip snaps into place. Secure the card to the case with screws.

2.7. Peripheral and Front Panel Connections

Connect SATA drives to the SATA3 ports. Connect front panel USB ports, audio jacks, power button, reset button, and LED indicators to the appropriate headers on the motherboard. Refer to your case manual for specific front panel header pin assignments.

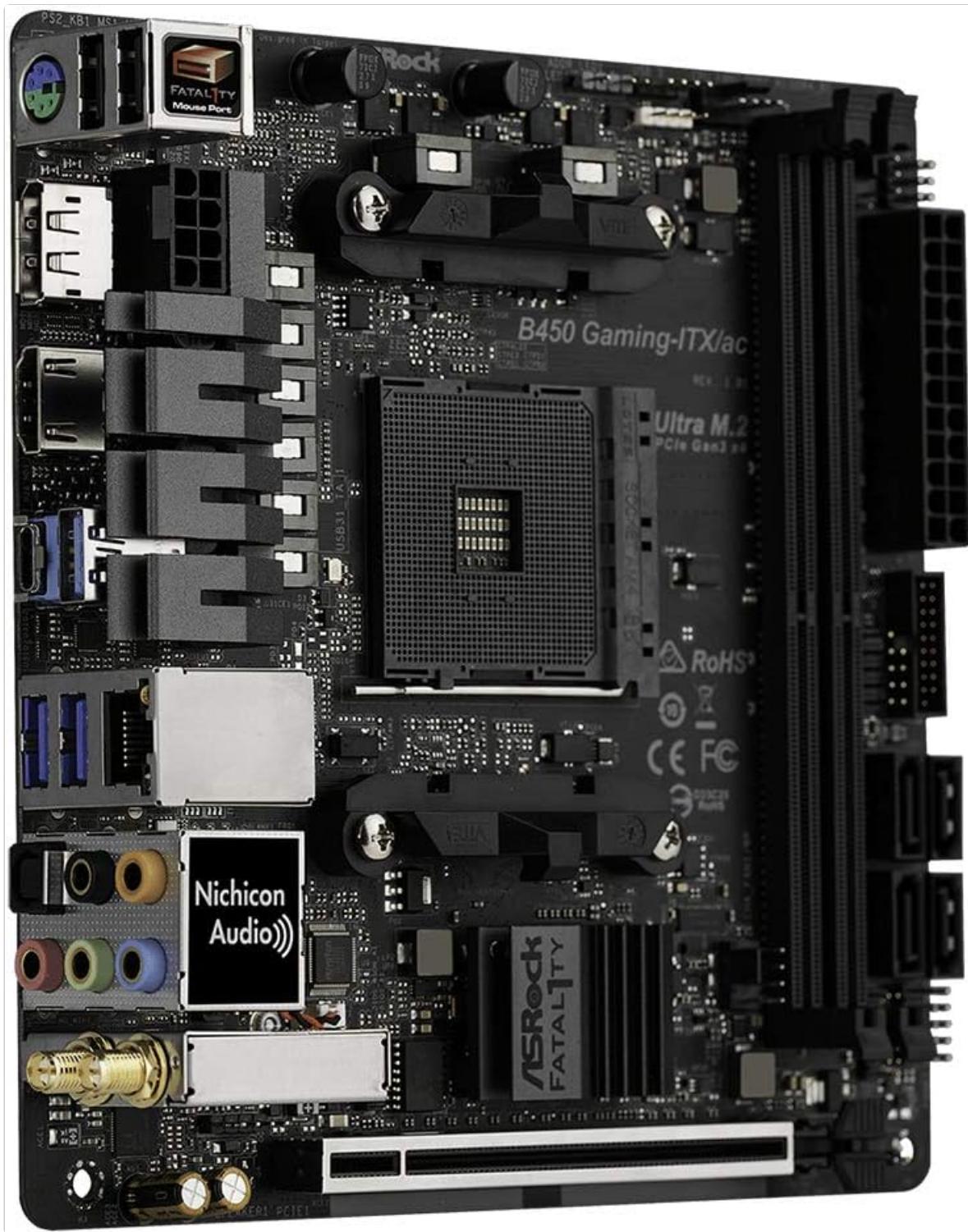


Figure 4: Close-up of the rear I/O panel of the ASRock B450 Gaming-ITX/AC Motherboard, displaying various connectivity options.



Figure 5: Detailed view of the ASRock B450 Gaming-ITX/AC Motherboard's rear I/O ports, including USB, LAN, audio, and Wi-Fi antenna connectors.

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Video 1: ASRock B450 Gaming-ITX/AC Motherboard Product Overview. This video provides a general look at the motherboard's features and design.

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Video 2: ASRock B450 Gaming-ITX/AC Motherboard Product Demonstration. This video demonstrates key aspects of the motherboard's functionality and features.

3. OPERATING INSTRUCTIONS

After successful hardware installation, connect your display, keyboard, and mouse. Power on your system. The system should boot to the BIOS/UEFI interface or begin operating system installation if a bootable drive is detected. To enter the BIOS/UEFI setup utility, press the **Del** or **F2** key during the Power-On Self-Test (POST) sequence. Here you can configure system settings, boot order, and monitor hardware status. Install your preferred operating system (e.g., Microsoft Windows 10 64-bit) from a bootable USB drive or DVD. Ensure all necessary drivers are installed for optimal performance. Drivers can typically be found on the ASRock support website for your specific motherboard model.

4. MAINTENANCE

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

- **Cleaning:** Periodically clean dust from the motherboard and case fans using compressed air. Ensure the system is powered off and unplugged before cleaning.
- **Driver Updates:** Keep your motherboard drivers (chipset, audio, LAN, Wi-Fi) updated. Visit the ASRock official website for the latest driver versions.
- **BIOS Updates:** Only update the BIOS if necessary, following the instructions provided by ASRock carefully. Incorrect BIOS updates can render the motherboard inoperable.
- **Component Checks:** Ensure all cables and components are securely connected.

5. TROUBLESHOOTING

If you encounter issues, refer to the following common troubleshooting steps:

- **No Power/No Boot:**
 - Check all power connections (24-pin ATX, 8-pin CPU, GPU).
 - Ensure the power supply is switched on.
 - Verify the front panel power button connection.
- **No Display:**
 - Ensure the monitor is connected to the graphics card (or motherboard if using an APU).
 - Reseat the graphics card and RAM modules.
 - Test with a single RAM stick.
- **System Instability/Crashes:**
 - Check CPU and GPU temperatures.
 - Ensure RAM is correctly installed and compatible.
 - Update drivers and BIOS to the latest stable versions.
- **Peripheral Not Detected:**

- Verify cable connections.
- Install or update relevant drivers.
- Test the peripheral on another port or system.

6. SPECIFICATIONS

ASRock B450 Gaming-ITX/AC Motherboard Key Specifications

Feature	Detail
CPU Socket	Socket AM4
Chipset	AMD Promontory B450
Memory	2x DDR4 DIMM Slots, Dual Channel, ECC/Non-ECC, Unbuffered, Max 32GB (DDR4-3466+(OC)/3200(OC)/2933/2667/2400/2133)
Expansion Slots	2x PCI-Express 3.0 x16 Slots (one runs at x8)
Storage	4x SATA3 Ports (RAID 0, 1, 10), 1x Ultra M.2 Slot
Wireless	Dual-Band (2.4/5 GHz) 802.11ac Wi-Fi, Bluetooth 4.2/3.0
LAN	Gigabit Ethernet
USB Ports	USB 3.1 Gen2 (Type-A, Type-C), USB 3.1 Gen1, USB 2.0
Operating System	Microsoft Windows 10 64-bit
Form Factor	Mini-ITX
Dimensions	6.69 x 6.69 x 1.57 inches

7. WARRANTY AND SUPPORT

Your ASRock B450 Gaming-ITX/AC Motherboard is covered by a manufacturer's warranty. For detailed warranty terms and conditions, please refer to the warranty card included with your product or visit the official ASRock website.

For technical support, driver downloads, and BIOS updates, please visit the ASRock support page:

www.asrock.com/support

Always ensure you are using official ASRock resources for support and downloads to maintain product integrity and performance.

