MSI PRO H610M-G WIFI

MSI PRO H610M-G WiFi Motherboard Instruction Manual

Model: PRO H610M-G WIFI

1. Product Overview

The MSI PRO H610M-G WiFi is a Micro-ATX motherboard engineered to support Intel Core 14th, 13th, and 12th Generation Processors with an LGA 1700 socket. It is built around the Intel H610 chipset, offering essential features for a reliable computing platform. Key capabilities include support for DDR5 memory modules up to 5600MHz, a PCIe 4.0 x16 slot for graphics cards, and an M.2 Gen3 slot for high-speed storage. The motherboard integrates Wi-Fi 6E and Bluetooth 5.3 for wireless connectivity, alongside a 1Gbps LAN controller for wired networking. Display outputs include HDMI 2.1, DisplayPort 1.4, and VGA, providing versatile options for monitor connections. Audio is managed by 7.1 HD Audio with Audio Boost technology.



Figure 1.1: MSI PRO H610M-G WiFi Motherboard and Retail Packaging.

2. Setup and Installation

2.1 Safety Precautions

- Always disconnect power from the system before installation or maintenance.
- Wear an anti-static wrist strap to prevent electrostatic discharge (ESD) damage to components.
- Handle the motherboard by its edges and avoid touching sensitive components.

2.2 Component Installation

1. **CPU Installation:** Carefully open the LGA 1700 socket lever. Align the triangular mark on the CPU with the mark on the socket, then gently place the CPU into the socket. Close the lever to secure the CPU.
2. **DDR5 Memory Installation:** Open the clips on both ends of the DDR5 DIMM slots. Align the notch on the memory module with the key in the slot. Press down firmly on both ends of the module until the clips snap into place.
3. **M.2 SSD Installation:** Locate the M.2 slot. Insert the M.2 SSD into the slot at an angle, then gently push it down and secure it with the provided screw.
4. **PCIe Graphics Card Installation:** Open the retention clip on the PCIe 4.0 x16 slot. Align the graphics card with the slot and press down firmly until it is seated. Ensure the retention clip locks the card in place.
5. **Power Connections:** Connect the 24-pin ATX main power connector and the 8-pin CPU power connector from your power supply to the corresponding ports on the motherboard.
6. **Front Panel Connections:** Connect the power switch, reset switch, HDD LED, and USB/audio headers from your PC case to the appropriate pins on the motherboard. Refer to the motherboard layout diagram for exact locations.

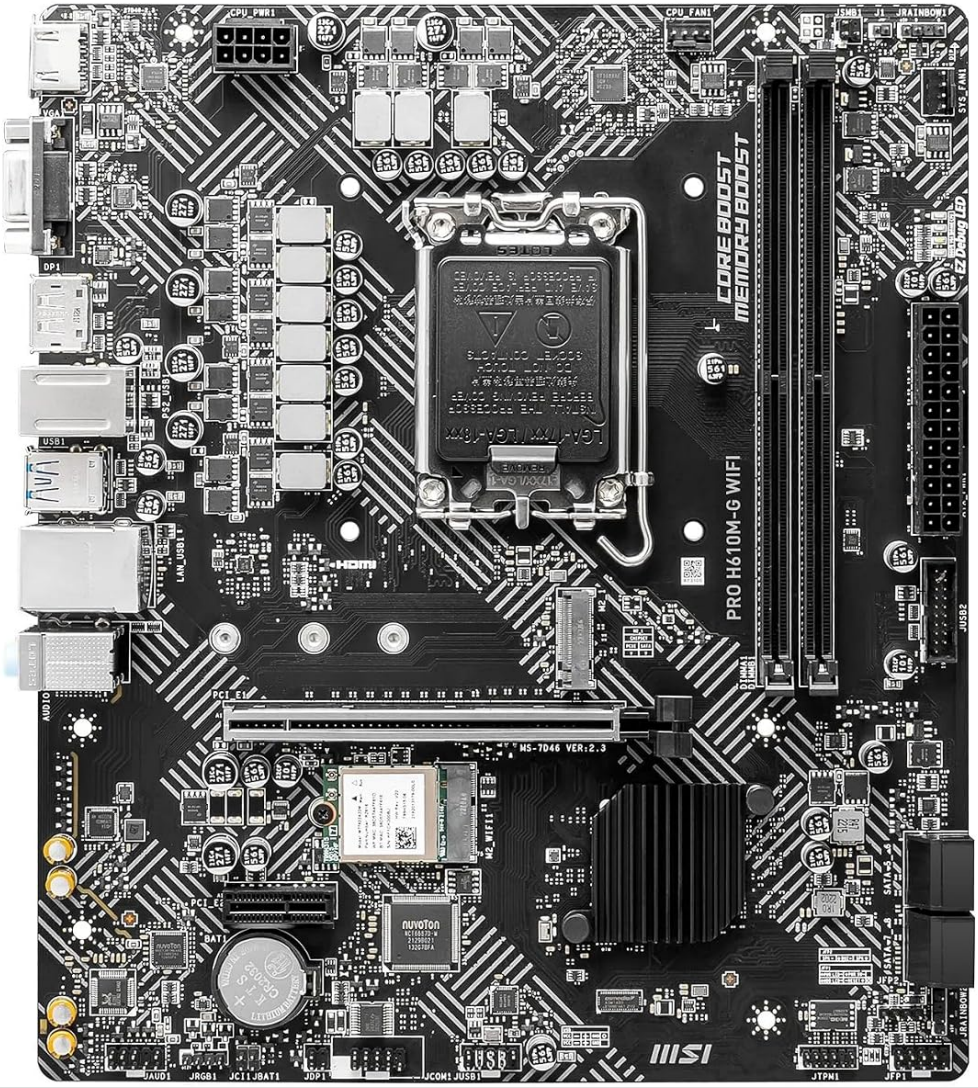


Figure 2.1: Top-down view of the motherboard showing component layout.



Figure 2.2: Included accessories: I/O Shield, SATA Cable, Wi-Fi Bracket, and M.2 Screw.

3. Operating Instructions

3.1 First Boot and BIOS/UEFI Setup

After assembling your system, connect a monitor, keyboard, and mouse. Power on the system. During startup, repeatedly press the **DEL** key to enter the BIOS/UEFI setup utility. Here, you can configure boot order, system time, and other advanced settings. Save and exit the BIOS after making changes.

3.2 Driver Installation

For optimal performance and functionality, install the latest drivers for your motherboard. These typically include chipset drivers, LAN drivers, Wi-Fi/Bluetooth drivers, and audio drivers. Drivers can be found on the MSI official website for your specific motherboard model.

3.3 Operating System Installation

Once drivers are installed, proceed with the installation of your preferred operating system (e.g., Windows 11). Ensure your boot device (USB drive or DVD) containing the OS installer is set as the primary boot option in BIOS.

4. Maintenance

- **Dust Removal:** Regularly clean dust from the motherboard and other components using compressed air. Ensure the system is powered off and unplugged before cleaning.
- **BIOS/UEFI Updates:** Periodically check the MSI website for BIOS/UEFI updates. Updates can improve stability, compatibility, and performance. Follow MSI's specific instructions for BIOS flashing carefully to avoid system damage.
- **Driver Updates:** Keep your drivers updated to ensure compatibility with new software and to benefit from performance improvements and bug fixes.

5. Troubleshooting

5.1 Common Issues and Solutions

- **No Power:**
  - Verify all power cables (24-pin ATX, 8-pin CPU) are securely connected to the motherboard and power supply.
  - Ensure the power supply switch is in the 'ON' position.
  - Check if the front panel power button cable is correctly connected to the motherboard header.
- **No Display:**
  - Ensure the monitor cable is securely connected to the graphics card or motherboard's integrated graphics port.
  - Reseat the graphics card and memory modules.
  - If using a dedicated graphics card, ensure it is properly powered.
- **No Audio Output:**
  - Verify audio cables are correctly plugged into the rear I/O ports or front panel audio header.
  - Ensure audio drivers are installed and updated.
  - Check Windows sound settings to ensure the correct output device is selected and not muted.
  - *Note: Some users have reported intermittent audio issues requiring a full system shutdown and restart to resolve. Ensure all drivers are up to date and consider checking for BIOS updates if the issue persists.*
- **Network Connectivity Issues:**
  - For wired connections, ensure the Ethernet cable is properly connected and the LAN driver is installed.
  - For Wi-Fi, ensure the Wi-Fi antennas are securely attached and the Wi-Fi driver is installed. Check network settings in your operating system.

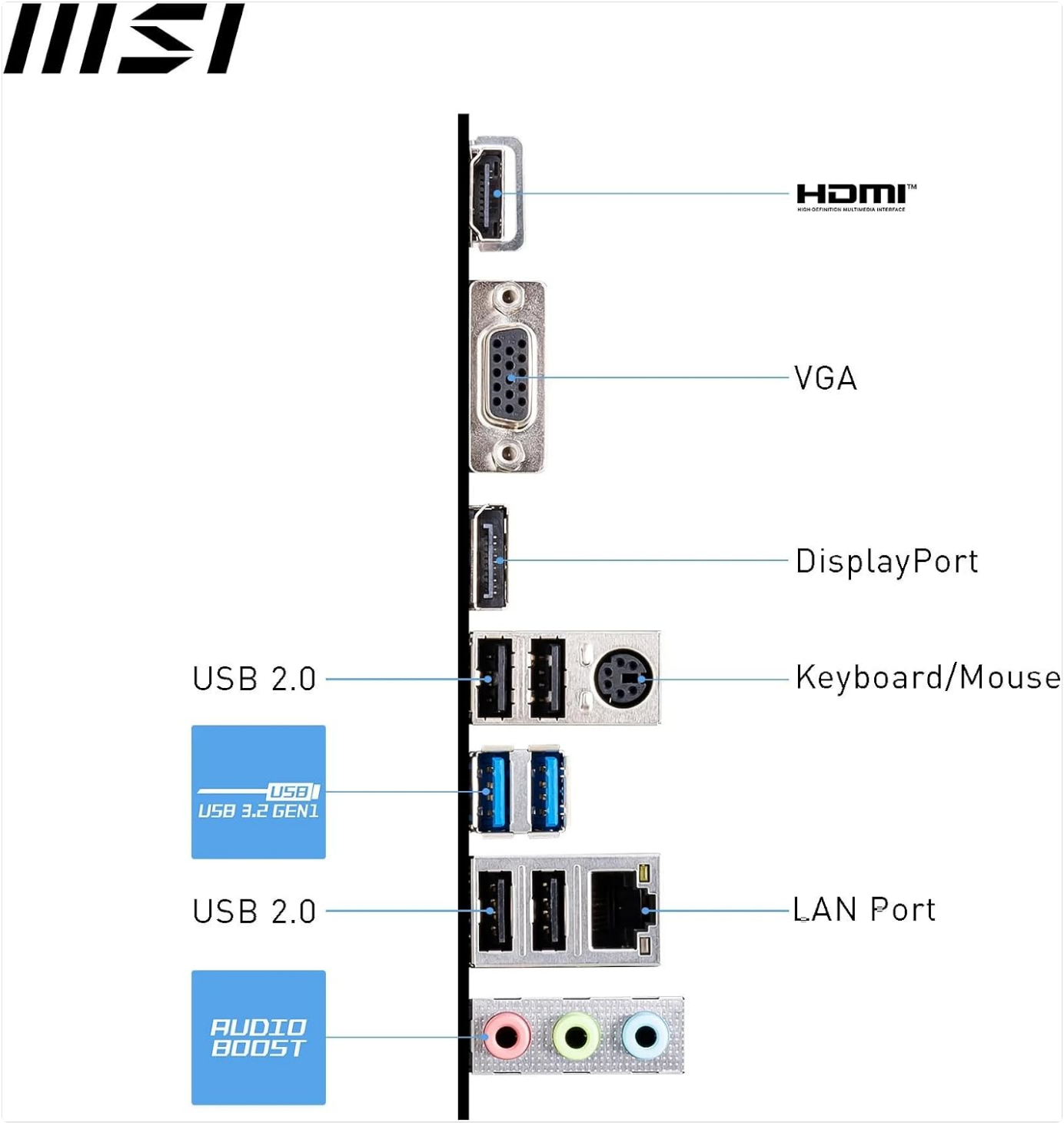


Figure 5.1: Rear I/O ports including HDMI, VGA, DisplayPort, USB, LAN, and Audio ports.

6. Specifications

Feature	Detail
Brand	MSI
Model Name	PRO H610M-G WIFI
CPU Socket	LGA 1700
Compatible Processors	Intel Core 14th/ 13th/ 12th Gen Processors, Intel Pentium Gold and Celeron Processors
Chipset Type	Intel H610

Feature	Detail
RAM Memory Technology	DDR5
Memory Clock Speed	5600 MHz
Product Dimensions	10.4 x 10.3 x 2.3 inches
Item Weight	1.76 pounds
Connectivity	Wi-Fi 6E, Bluetooth 5.3, 1Gbps LAN
Video Outputs	HDMI 2.1, DisplayPort 1.4, VGA

7. Warranty and Support

For warranty information, technical support, and driver downloads, please visit the official MSI website. MSI provides support resources including FAQs, troubleshooting guides, and contact options for customer service. Refer to your product packaging or the MSI website for specific warranty terms and conditions applicable to your region.

Online Resources: www.msi.com

Ask a question about this manual

Ask about setup, troubleshooting, compatibility, parts, safety, or missing instructions. Manuals+ will review the question and use this page's manual context to help answer it.

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Question

Example: How do I reset this device or fix this error?

Details

Model number, symptoms, what you tried, or the section of the manual you are using.

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