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- › MSI Computer /
- › MSI H110M PRO-VD PLUS Motherboard User Manual

MSI Computer H110M PRO-VD Plus

MSI H110M PRO-VD PLUS Motherboard User Manual

Model: H110M PRO-VD Plus | Brand: MSI Computer

1. INTRODUCTION

The MSI H110M PRO-VD PLUS is a Micro ATX motherboard designed to fit virtually in any PC build. It offers a stable, reliable, and long-lasting foundation for your system, incorporating quality components and clever business solutions. This motherboard supports 6th Gen Intel Core / Pentium / Celeron LGA 1151 socket processors and DDR4-2133 Memory.

Key features include:

- Supports 6th Gen Intel Core / Pentium / Celeron LGA 1151 socket processors
- Supports DDR4-2133 Memory
- USB 3.1 Gen1 + SATA 6Gb/s connectivity
- Guard-Pro: Improved Protection and Power Efficiency
- Intel SBB Support: Improves Productivity, Management and Security



Figure 1.1: MSI H110M PRO-VD PLUS Motherboard and its retail packaging.

2. SETUP AND INSTALLATION

2.1 Unpacking and Contents

Before beginning installation, ensure all components are present and undamaged. The package should include:

- Motherboard
- Cables and connectors
- Quick setup guide

2.2 Component Installation

Always ensure your system is powered off and unplugged before installing or removing any components. It is recommended to wear an anti-static wrist strap to prevent electrostatic discharge (ESD) damage.

2.2.1 CPU Installation

The motherboard features an LGA 1151 socket for Intel processors. Follow these steps to install your CPU:

1. Locate the CPU socket on the motherboard.
2. Gently push down the load lever and pull it to the side to open the CPU socket cover.
3. Carefully align the triangular mark on the CPU with the corresponding mark on the CPU socket. Ensure the notches on the CPU align with the keys on the socket.
4. Lower the CPU straight down into the socket without applying force. The CPU should sit flush.
5. Close the load plate and secure it by pushing the load lever back into place.

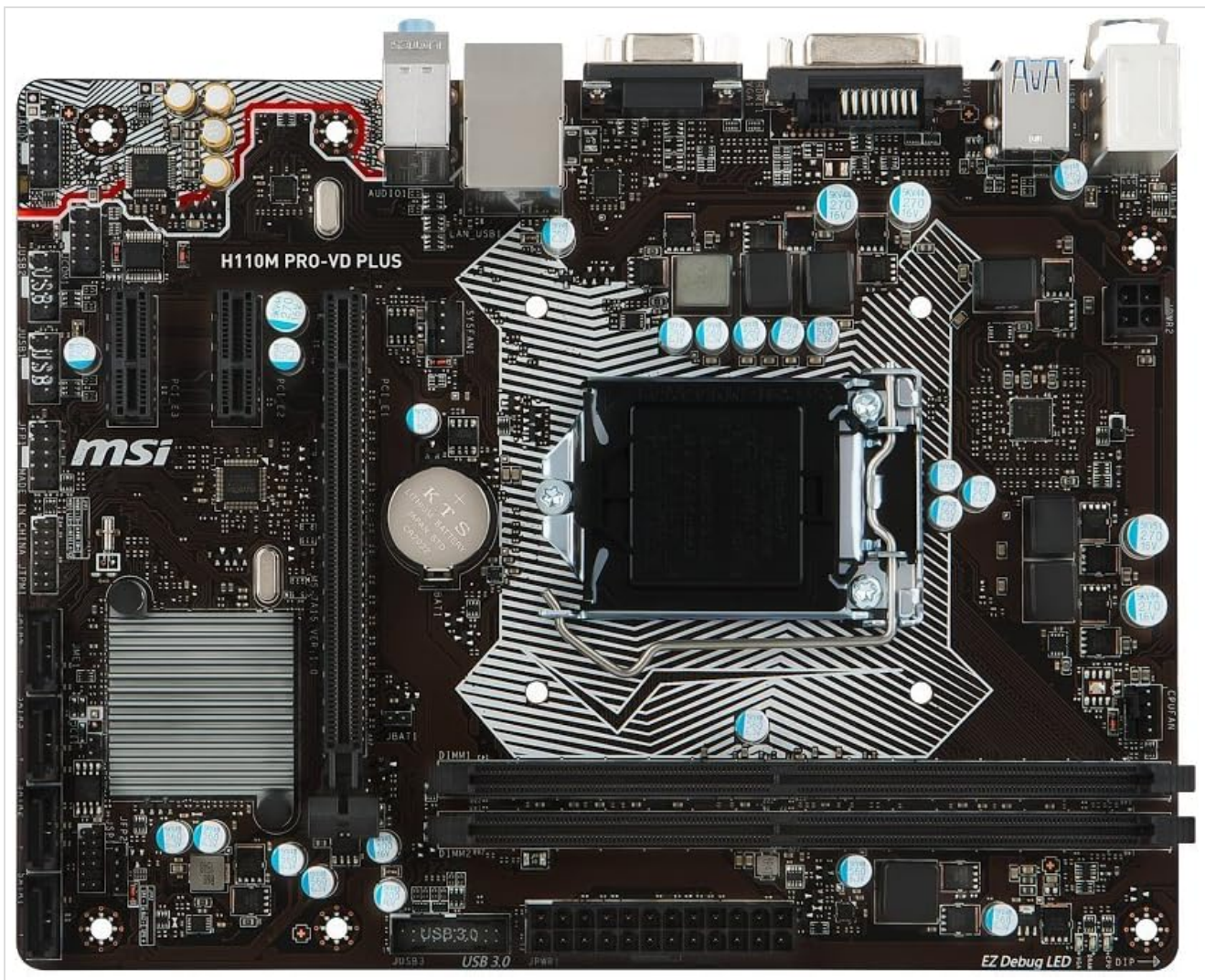


Figure 2.1: Top-down view of the motherboard, highlighting the CPU socket area.

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Video 2.1: General guide on CPU and CPU cooler installation for an MSI motherboard. This video demonstrates the process of opening the CPU socket, aligning and placing the CPU, applying thermal paste, and installing the stock CPU cooler. Note: The specific motherboard model shown in the video may differ, but the installation steps for the CPU and cooler are generally applicable.

2.2.2 CPU Cooler Installation

After installing the CPU, apply a thin, even layer of thermal paste to the CPU's integrated heat spreader (IHS). Then, install the CPU cooler according to its manufacturer's instructions. For stock Intel coolers, align the push pins with the holes on the motherboard and press down firmly until they click into place. Connect the CPU fan cable to the CPU_FAN header on the motherboard.

2.2.3 Memory (RAM) Installation

This motherboard supports DDR4-2133 memory. To install RAM modules:

1. Open the clips at both ends of the DIMM slot.
2. Align the notch on the RAM module with the key in the DIMM slot.
3. Press down firmly on both ends of the RAM module until the clips snap into place.

2.2.4 Storage Devices

Connect your SATA 6Gb/s storage devices (HDDs, SSDs) to the SATA ports on the motherboard using SATA data cables. Ensure power cables from your power supply are also connected to the drives.

2.2.5 Expansion Cards (PCIe)

Install graphics cards or other PCIe expansion cards into the appropriate PCIe slots. Secure them with the case's

retention mechanism.

2.2.6 Power Connections

Connect the 24-pin ATX main power connector and the 8-pin (or 4-pin) CPU power connector from your power supply to the corresponding ports on the motherboard.

2.2.7 Front Panel and Rear I/O Connections

Connect the front panel headers (power button, reset button, HDD LED, power LED) to the motherboard's front panel connector block. Connect USB 3.1 Gen1 and USB 2.0 headers for front panel USB ports. Ensure all external peripherals are connected to the rear I/O panel.



Figure 2.2: Detailed view of the motherboard's rear input/output (I/O) ports, including USB, audio, and video outputs.

3. OPERATING INSTRUCTIONS

3.1 Initial Boot and BIOS/UEFI Setup

After assembling your system, connect a monitor, keyboard, and mouse. Power on the system. Press the **DEL** key during startup to enter the BIOS/UEFI setup utility. Here you can configure boot order, system time, and other advanced settings.

Note: For optimal performance and compatibility, especially with newer Kaby Lake CPUs, a BIOS update may be required. Refer to the official MSI website for the latest BIOS versions and update instructions.

3.2 Driver Installation

After installing your operating system, install the necessary drivers for the motherboard's components (chipset, audio, LAN, etc.). These drivers are typically provided on a support CD included with the motherboard or can be downloaded from the MSI website. Installing the correct drivers ensures proper functionality and performance of your system.

3.3 Operating System Installation

Insert your operating system installation media (USB drive or DVD) and follow the on-screen prompts to install the operating system. Ensure the boot order in BIOS/UEFI is set to prioritize your installation media.

4. MAINTENANCE

4.1 System Cleaning

Regularly clean your computer system to prevent dust buildup, which can lead to overheating and reduced performance. Use compressed air to clear dust from fans, heatsinks, and other components. Ensure the system is powered off and unplugged before cleaning.

4.2 BIOS Updates

Periodically check the MSI website for updated BIOS versions. BIOS updates can improve system stability, add support for new hardware, and fix bugs. Follow MSI's official instructions carefully when performing a BIOS update to avoid potential issues.

5. TROUBLESHOOTING

If you encounter issues with your MSI H110M PRO-VD PLUS motherboard, consider the following troubleshooting steps:

- **No Power/No POST:** Ensure all power cables (24-pin ATX, 8-pin CPU) are securely connected. Verify that the power supply is functioning correctly. Check front panel connections.
- **Display Issues:** Confirm that the monitor is connected to the correct video output (onboard or discrete graphics card). Reseat the graphics card if applicable.
- **Memory Errors:** Ensure RAM modules are properly seated in their slots. Try booting with one RAM stick at a time to identify a faulty module.
- **System Instability/Crashes:** Check CPU and GPU temperatures. Ensure all drivers are up-to-date. Run memory diagnostic tools.
- **BIOS/Boot Issues:** If the system POSTs but doesn't boot into the OS, check the boot order in BIOS. If you experience issues after a component change or power loss, try clearing the CMOS. This can often resolve boot-related problems by resetting BIOS settings to default. To clear CMOS, refer to the motherboard's detailed manual for specific jumper locations or battery removal instructions.
- **Peripheral Not Detected:** Verify connections for USB devices, SATA drives, etc. Check device manager in your operating system for driver issues.

For more detailed troubleshooting, refer to the comprehensive user manual available on the MSI website or the PDF linked in the support section.

6. SPECIFICATIONS

Feature	Specification
Brand	MSI Computer
Model Name	H110M PRO-VD PLUS
CPU Socket	LGA 1151
Compatible Processors	Intel 6th Gen Core / Pentium / Celeron
Chipset Type	Intel H110
RAM Memory Technology	DDR4 SDRAM (DIMM)
Memory Clock Speed	2133 MHz
Number of USB 2.0 Ports	2 (rear I/O, plus internal headers)
USB 3.1 Gen1	Supported (rear I/O, plus internal headers)
SATA	SATA 6Gb/s
Form Factor	Micro ATX (uATX)
Product Dimensions	11 x 11 x 2.6 inches
Item Weight	15.9 ounces
Platform	Windows 10

7. WARRANTY AND SUPPORT

For detailed warranty information, please refer to the warranty card included with your product or visit the official MSI website. MSI provides technical support and resources to assist with product inquiries and troubleshooting.

Official User Manual (PDF): You can download the complete user manual in PDF format from the following link:
MSI H110M PRO-VD PLUS User Manual

For further assistance, visit the MSI Store on Amazon or the official MSI global support website.