ASUS H110I-PLUS/CSM

ASUS H110I-PLUS Motherboard Mini-ITX User Manual

Model: H110I-PLUS/CSM | Brand: ASUS

1. INTRODUCTION AND OVERVIEW

The ASUS H110I-PLUS/CSM is a Mini-ITX motherboard designed to support 6th Generation Intel Processors. It features DDR4 memory compatibility and incorporates ASUS 5X Protection II hardware safeguards for enhanced durability. This motherboard is suitable for various system deployments, including home theater PCs and space-constrained builds. Key features include:

- DDR4 memory compatibility for modern system builds.
- ASUS 5X Protection II for advanced hardware safeguards.
- UEFI BIOS with EZ Flash 3 for intuitive system management and updates.
- Fan Xpert 2+ for advanced fan controls, optimizing cooling and noise levels.
- Integrated HDMI, DVI, and VGA ports supporting dual monitor setups.

Figure 1: The ASUS H110I-PLUS Mini-ITX Motherboard. This image displays the compact form factor and various components of the motherboard, including the CPU socket, RAM slots, and I/O ports.

2. PACKAGE CONTENTS

Verify that all items are present in your package. If any items are damaged or missing, contact your retailer.

- 2 x Serial ATA 6.0Gb/s cables
- 1 x I/O shield
- 1 x User's manual
- 1 x ASUS H110I-PLUS/CSM Motherboard

3. SETUP AND INSTALLATION

This section provides general guidelines for installing your ASUS H110I-PLUS/CSM motherboard. For detailed, step-by-step instructions, refer to the included user's manual.

3.1 Safety Precautions

- Always disconnect the power cord from the wall outlet before touching any components.
- Use 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.

3.2 Motherboard Installation

1. **Prepare the Chassis:** Install the I/O shield into the chassis opening. Ensure the motherboard standoffs are correctly aligned with the screw holes on the motherboard.

2. **Install the CPU:** Carefully open the CPU socket (LGA 1151) lever. Align the CPU (6th Gen Intel Processors) with the socket, ensuring the notches match. Gently place the CPU into the socket without forcing it. Close the lever to secure the CPU.

3. **Install the CPU Cooler:** Apply thermal paste (if not pre-applied) and install the CPU cooler according to its manufacturer's instructions. Connect the CPU fan cable to the designated header on the motherboard.

4. **Install Memory Modules:** Open the clips on the DDR4 DIMM slots. Align the memory modules with the slots, ensuring the notch on the module matches the key in the slot. Press down firmly on both ends until the clips snap into place.

5. **Mount the Motherboard:** Carefully place the motherboard into the chassis, aligning it with the standoffs and I/O shield. Secure the motherboard with screws.

6. **Connect Power Cables:** Connect the 24-pin ATX power connector and the 4-pin CPU power connector from your power supply to the motherboard.

7. **Connect Storage Devices:** Use the provided Serial ATA 6.0Gb/s cables to connect your storage drives (HDDs/SSDs) to the SATA ports on the motherboard.

8. **Connect Front Panel Cables:** Connect the chassis's front panel connectors (power button, reset button, USB ports, audio jacks, LED indicators) to the corresponding headers on the motherboard. Refer to the user's manual for header locations.

9. **Install Expansion Cards:** If applicable, install any PCIe expansion cards (e.g., graphics card) into the available PCIe slot.

4. OPERATING INSTRUCTIONS

4.1 First Boot and BIOS Setup

Upon the first power-on, the system will typically enter the UEFI BIOS utility. Here you can configure system settings, boot order, and monitor hardware status. Press the **Delete** key during startup to enter the BIOS setup. The ASUS UEFI BIOS with EZ Flash 3 provides an intuitive interface for these configurations.

- **Boot Device Priority:** Set the primary boot device (e.g., USB drive for OS installation, SSD/HDD).
- **System Time/Date:** Adjust the system clock if necessary.
- **Fan Control:** Utilize Fan Xpert 2+ settings within the BIOS to customize fan speeds for optimal cooling and noise levels.
- **Save and Exit:** Always save your changes before exiting the BIOS.

4.2 Operating System and Driver Installation

After configuring the BIOS, proceed with installing your preferred operating system. Once the OS is installed, install the necessary drivers for the motherboard components. These drivers are typically found on the ASUS support website for your specific model (H110I-PLUS/CSM).

- **Chipset Drivers:** Essential for proper communication between the CPU and other components.
- **Audio Drivers:** For sound functionality.
- **LAN Drivers:** For network connectivity.
- **Graphics Drivers:** If using integrated graphics, or for any dedicated graphics card.

5. MAINTENANCE

Regular maintenance helps ensure the longevity and optimal performance of your motherboard and system.

- **Dust Removal:** Periodically clean dust from inside your computer case, especially from fans and heatsinks, using compressed air. Ensure the system is powered off and unplugged before cleaning.
- **BIOS Updates:** Check the ASUS support website for BIOS updates. BIOS updates can improve system stability,

compatibility, and performance. Use the EZ Flash 3 utility within the BIOS for safe updating.

- **Driver Updates:** Keep your drivers updated to ensure compatibility and access to the latest features and bug fixes.
- **Cable Management:** Ensure internal cables are neatly routed to improve airflow and prevent interference.

6. TROUBLESHOOTING

If you encounter issues with your system, consider the following troubleshooting steps:

- **No Power/No Boot:**
  - Verify all power cables (24-pin ATX, 4-pin CPU) are securely connected to the motherboard and power supply.
  - Ensure the power supply switch is in the ON position.
  - Check front panel power button connection to the motherboard.

- **No Display:**
  - Ensure the monitor is connected to the correct video output (integrated or dedicated graphics card).
  - Reseat the memory modules and any graphics cards.
  - Try booting with only one memory module installed.

- **System Instability/Crashes:**
  - Check CPU and GPU temperatures. Ensure cooling solutions are properly installed.
  - Run memory diagnostic tools to check for faulty RAM.
  - Ensure all drivers are up to date.

- **BIOS Reset:** If system settings become problematic, you can reset the BIOS to default settings. This can usually be done via a jumper on the motherboard (Clear CMOS) or through the BIOS menu itself. Refer to the user's manual for specific instructions.

For more advanced troubleshooting, consult the comprehensive user manual or the ASUS support website.

7. TECHNICAL SPECIFICATIONS

Feature	Specification
Brand	ASUS
Model Name	H110I-PLUS/CSM
CPU Socket	LGA 1151
Compatible Processors	Intel Core i3-6100, Intel Core i5-6400, Intel Core i7-6700, Intel Core i3-7100, Intel Core i5-7400, Intel Core i7-7700 (*Note: 7th Gen CPUs may require BIOS update*)
Chipset Type	Intel H110
RAM Memory Technology	DDR4
Memory Speed	2133 MHz
Number of USB 2.0 Ports	2 (rear panel)

Feature	Specification
Number of USB 3.0 Ports	2 (rear panel)
Product Dimensions (LxWxH)	9 x 7.2 x 2.4 inches
Item Weight	1.16 pounds
Date First Available	January 18, 2016

8. WARRANTY AND SUPPORT

For detailed warranty information, including terms, conditions, and duration, please refer to the warranty card included with your product or visit the official ASUS support website. ASUS provides technical support and resources for its products.

Online Support: For drivers, manuals, FAQs, and troubleshooting guides, visit the ASUS support website:

www.asus.com/support/

Contact Support: Contact information for technical assistance can be found on the ASUS support website for your region.