

MACHINIST H61M-S1

MACHINIST H61 LGA 1155 Motherboard User Manual

Model: H61M-S1

1. INTRODUCTION

This manual provides detailed instructions for the installation, operation, and maintenance of your MACHINIST H61 LGA 1155 Micro ATX Motherboard (Model H61M-S1). Please read this manual thoroughly before proceeding with installation to ensure proper setup and functionality.

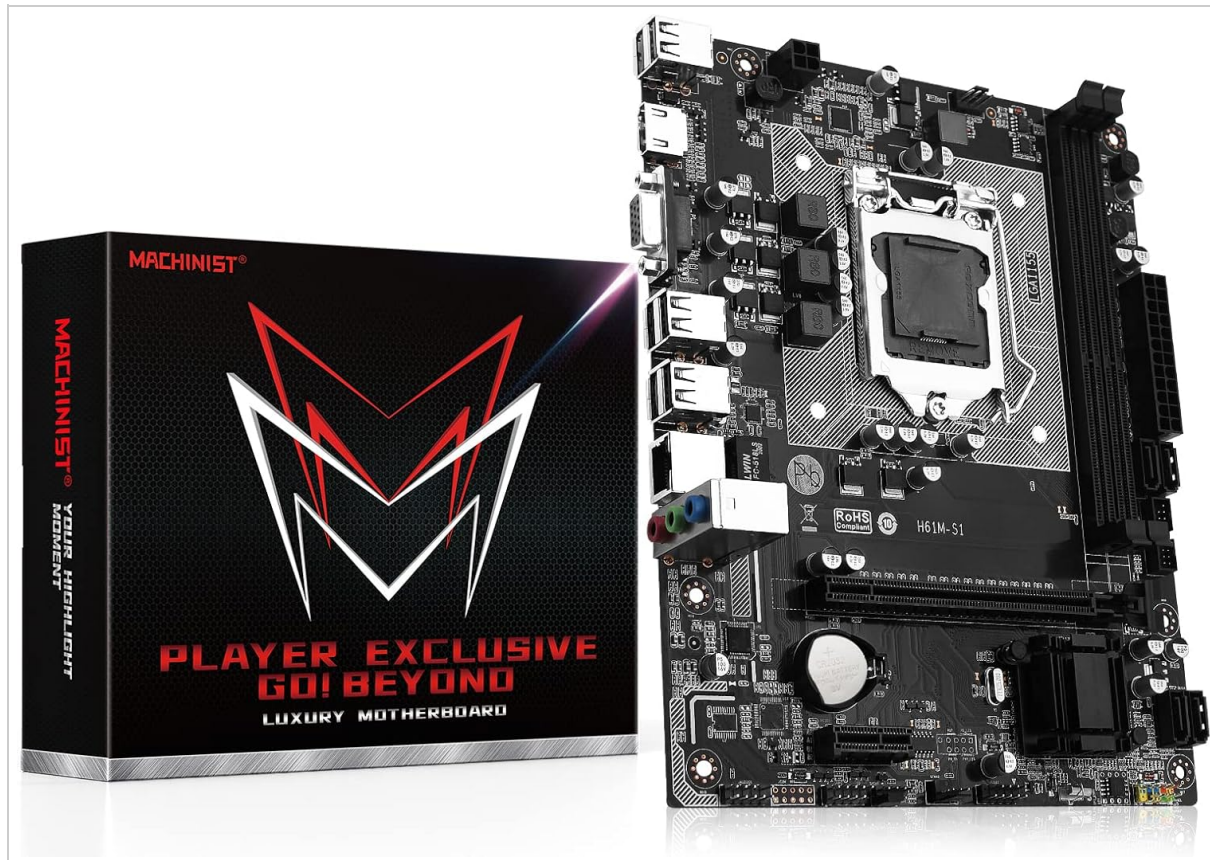


Image 1.1: The MACHINIST H61 LGA 1155 Motherboard and its retail packaging.

2. PRODUCT OVERVIEW

The MACHINIST H61 LGA 1155 Motherboard is designed to support Intel 2nd and 3rd generation processors, offering essential features for a reliable computing experience.

2.1 Key Features

- **Intel LGA 1155 Socket:** Supports Intel Core i3/i5/i7 2nd or 3rd generation processors, as well as Xeon E3 v2, Pentium, and Celeron series processors.
- **Enhanced Power Supply:** Features a 3+1 phase power supply design with a 24+4pin DC power supply slot and 4-layer PCB material for stable power delivery.
- **DDR3 Memory Support:** Dual-channel non-ECC memory slots support up to 2x8GB DDR3 memory at 1066/1333/1600MHz frequencies.
- **High-Definition Video Output:** Compatible with HDMI and VGA interfaces, supporting 4K and 1080P integrated display. Includes a PCIe 2.0 X16 slot for dedicated graphics cards.
- **Multiple Expansion Interfaces:** Includes 1x PCIe 2.0 X16 slot, 1x PCIe X1 slot, 4x SATA 2.0 interfaces, 7x USB 2.0 interfaces (6 rear, 1 front), and 1x USB 3.0 interface (front).
- **Integrated Networking and Audio:** Onboard 100M LAN network interface and 5.1-channel audio interface.

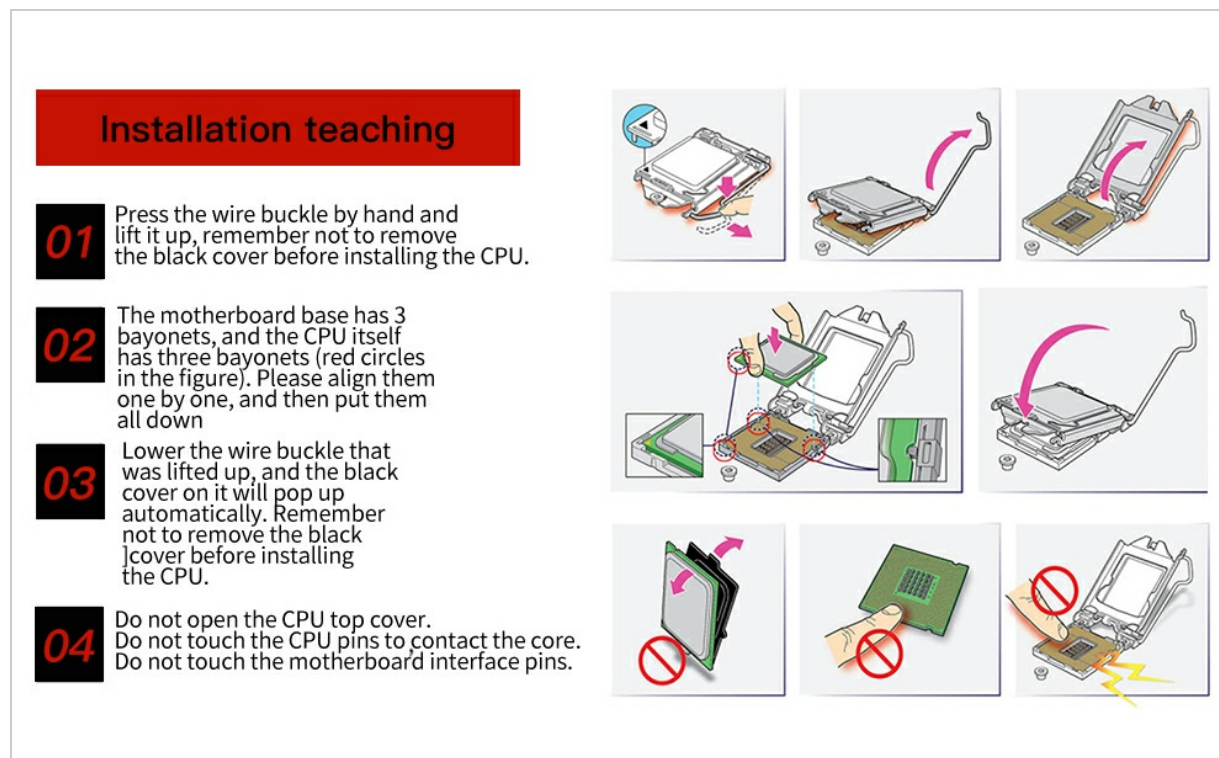


Image 2.1: Overview of key features on the H61-S1 motherboard, highlighting USB 3.0, 100M LAN, heat sink, and solid capacitors.

Enhanced CPU Power Supply Design

Enhanced CPU Power Supply Design

Stable and accurate power supply helps to evenly disperse the heat load between power supply chips and improve CPU performance.

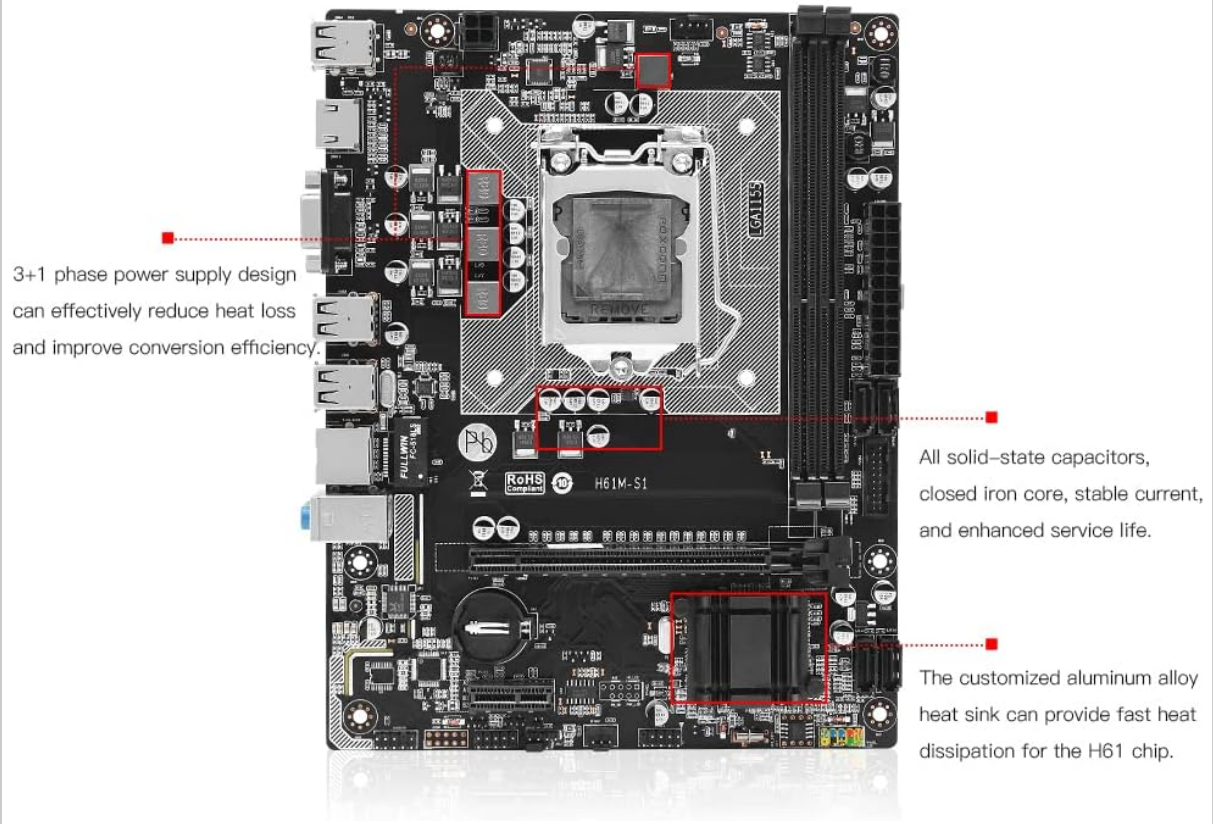


Image 2.2: Enhanced CPU power supply design with 3+1 phases and solid-state capacitors for stable power delivery.

3. SETUP AND INSTALLATION

Follow these steps carefully to install your motherboard and its components.

3.1 CPU Installation

Ensure the CPU socket lever is open before placing the CPU. Align the CPU correctly with the socket's notches.

Intel 2th/3th Gen LGA 1155 CPU Socket

Support intel i3/i5/i7, Xeon E3 v2, Pentium and Celeron series processors
Eg Intel i7-3770K, i5-3470, i5-2500, i3-2125, i3-3240, Xeon E3-1245 V2,
Celeron G1620T, Pentium G530/G620t/G630/G2100T etc.

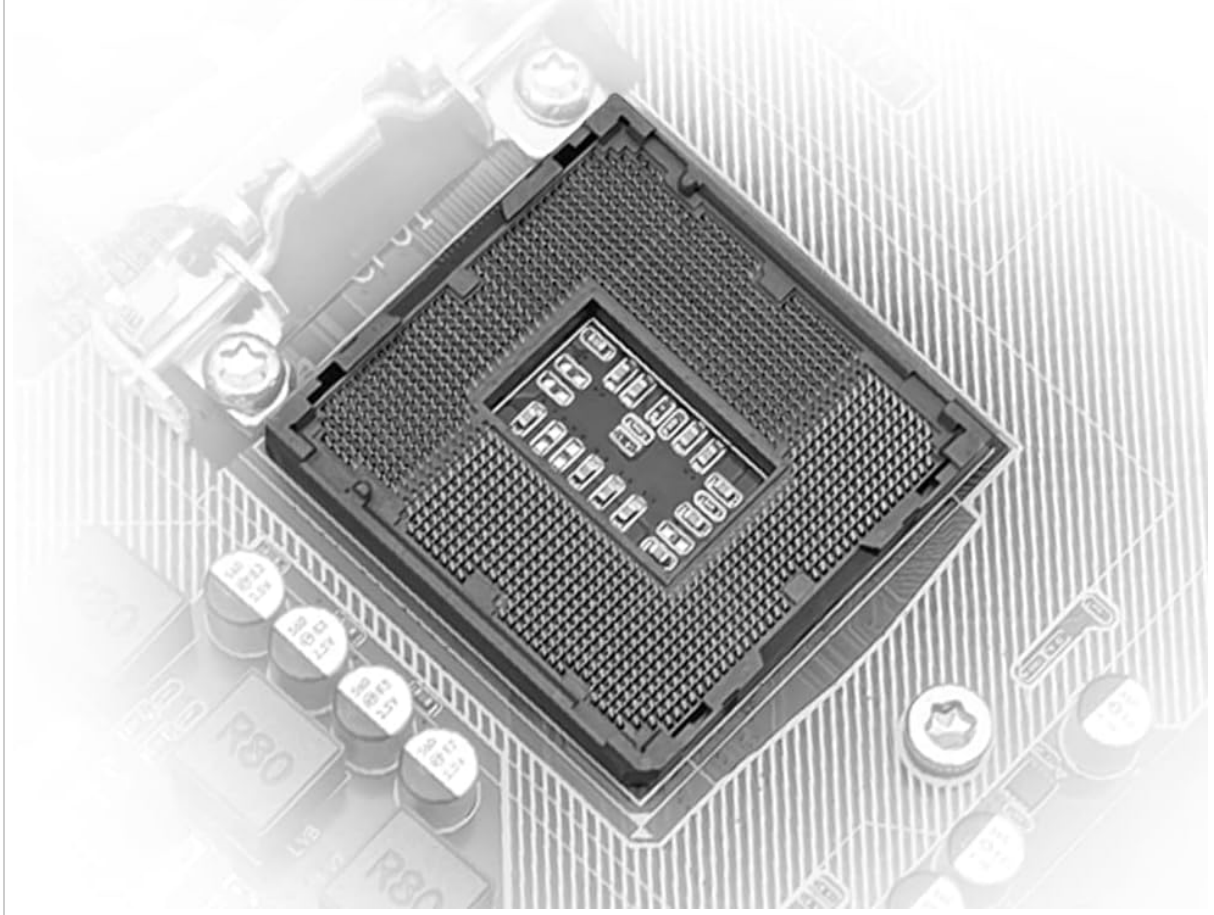


Image 3.1: The LGA 1155 CPU socket, designed for Intel 2nd/3rd Gen processors.

1. Press the wire buckle by hand and lift it up. Do not remove the black cover before installing the CPU.
2. The motherboard base has three bayonets, and the CPU itself has three bayonets. Align them one by one, then gently place the CPU into the socket.
3. Lower the wire buckle that was lifted up. The black cover will pop up automatically. Remember not to remove the black cover before installing the CPU.
4. Do not open the CPU top cover. Do not touch the CPU pins to contact the core. Do not touch the motherboard interface pins.



3.2 Memory Installation

The motherboard features dual-channel DDR3 memory slots. Install memory modules by aligning them with the slots and pressing down until the clips lock into place.

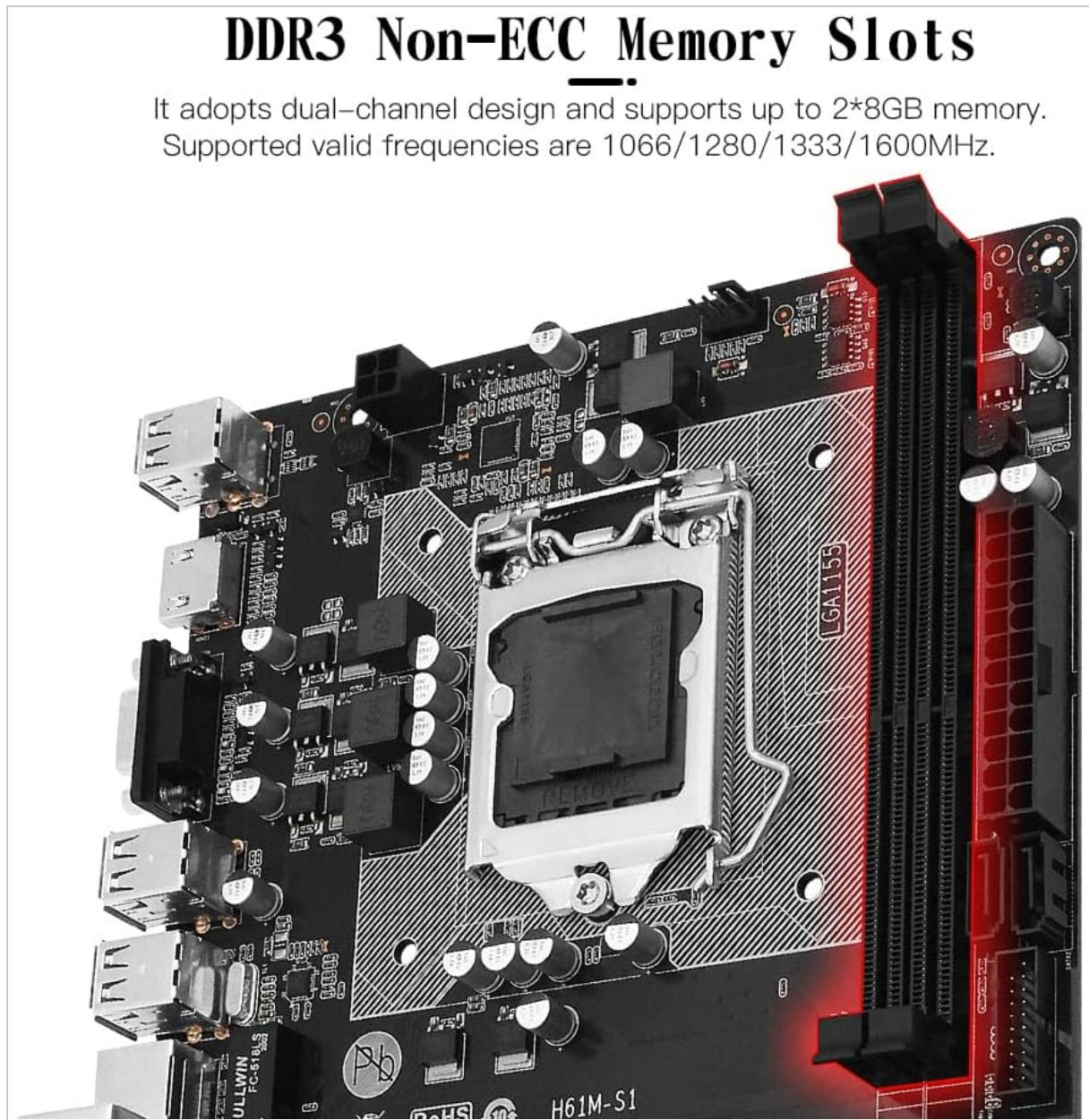


Image 3.3: DDR3 non-ECC memory slots, supporting up to 2x8GB.

3.3 Connecting Peripherals and Power

Connect power supply cables, storage devices, and other peripherals to the appropriate ports on the motherboard.

H61M Gaming DDR3 Motherboard

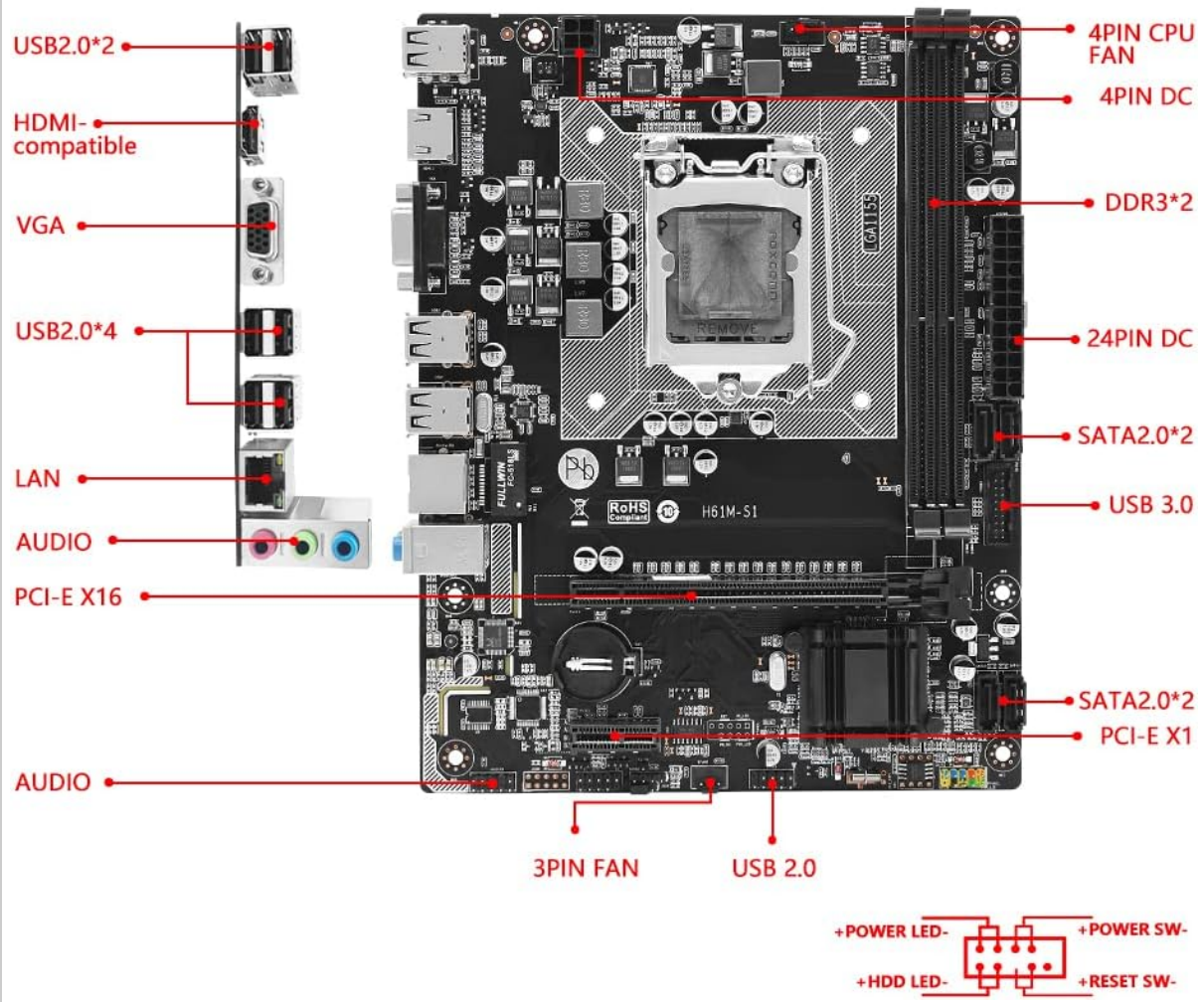
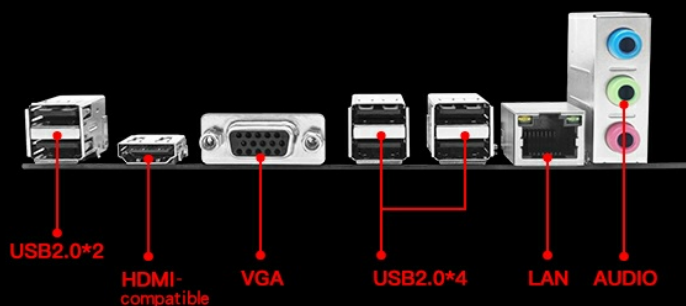


Image 3.4: Motherboard layout with labeled ports and connectors.

- **Power Connectors:** Connect the 24-pin ATX power connector and the 4-pin CPU power connector from your power supply unit.
- **SATA Ports:** Connect SATA 2.0 devices (HDDs, SSDs) to the available SATA ports.
- **Expansion Slots:** Install graphics cards in the PCIe 2.0 X16 slot and other expansion cards in the PCIe X1 slot.
- **Front Panel Connectors:** Connect your case's front panel USB, audio, power, and reset headers according to the motherboard manual.
- **Rear I/O Ports:** Connect USB devices, display cables (HDMI/VGA), Ethernet cable, and audio devices to the rear panel ports.

Numerous Interfaces Complete Functions

More interfaces than others, more cost-effective, to meet your daily office needs. Each interface has been refined, saving money and worry!



4. OPERATING INSTRUCTIONS

After successful hardware installation, proceed with operating system and driver installation.

4.1 Driver Installation

For optimal performance, install the necessary drivers for your motherboard components. It is recommended to use Windows 10, which often automatically installs most required drivers. If manual driver installation is needed, drivers can typically be found on the manufacturer's website or included on a driver disc (if provided).

4.2 Integrated Graphics Support

The motherboard supports integrated graphics via HDMI and VGA interfaces. Note that some Intel Xeon E3 V1 and V2 series CPUs, particularly those without a "5" suffix or with an "F" suffix (e.g., E3-1230, i7-xxxxF), do not have integrated graphics and require a dedicated graphics card.



Image 4.1: HDMI and VGA ports for high-definition video output.

5. MAINTENANCE

To ensure the longevity and stable operation of your motherboard, consider the following maintenance tips:

- Keep the computer case clean and free of dust. Dust accumulation can lead to overheating and component failure.
- Ensure adequate airflow within the computer case by properly managing cables and using appropriate cooling solutions.
- Regularly check for and install updated drivers and BIOS versions from the manufacturer's website to improve stability and performance.
- Avoid exposing the motherboard to extreme temperatures or humidity.

6. TROUBLESHOOTING

This section provides general guidance for common issues. For specific problems, consult the manufacturer's support resources.

6.1 No Display Output

- Verify that the monitor is correctly connected to the motherboard's video output (HDMI/VGA) or to a dedicated graphics card.
- Ensure that your CPU has integrated graphics if you are not using a dedicated graphics card. Some Xeon E3 and Core iX-F series CPUs lack integrated graphics.
- Check that all power cables (24-pin ATX, 4-pin CPU, graphics card PCIe power) are securely connected.
- Reseat the RAM modules and graphics card (if installed).

6.2 USB Ports Not Functioning

- Ensure that the USB devices are properly connected to the ports.
- Check if the USB drivers are correctly installed. Windows 10 typically handles this automatically, but manual installation might be required in some cases.
- Test the USB devices on another computer to rule out device failure.
- Try connecting devices to different USB ports (both rear I/O and front panel).

6.3 System Instability or Random Restarts

- Ensure all components (CPU, RAM, graphics card) are properly seated.
- Check CPU and case temperatures to prevent overheating.
- Verify that your power supply unit (PSU) provides sufficient and stable power for all components.
- Run memory diagnostic tools to check for RAM errors.

7. SPECIFICATIONS

Feature	Specification
Brand	MACHINIST
Model Number	H61M-S1
CPU Socket	LGA 1155
Compatible Processors	Intel Core i3/i5/i7 (2nd/3rd Gen), Xeon E3 V2, Pentium, Celeron
Chipset Type	H61

RAM Memory Technology	DDR3 (Non-ECC)
Memory Slots	2 (Dual-channel)
Max Memory Capacity	16 GB (2x8GB)
Supported Memory Frequencies	1066/1333/1600MHz
PCIe 2.0 X16 Slot	1
PCIe X1 Slot	1
SATA 2.0 Interfaces	4
USB 2.0 Interfaces	7 (6 rear, 1 front header)
USB 3.0 Interfaces	1 (front header)
Video Output	HDMI, VGA (supports 4K/1080P with compatible CPU)
LAN	100M Ethernet
Audio	5.1 Channel
Form Factor	Micro ATX
Product Dimensions	8.66 x 6.69 x 1.5 inches
Item Weight	1.39 pounds

8. PACKAGE CONTENTS

The following items are included in the product package:

- 1x MACHINIST H61 Motherboard (Model H61M-S1)
- 1x SATA Cable
- 1x I/O Baffle

What' in the Box

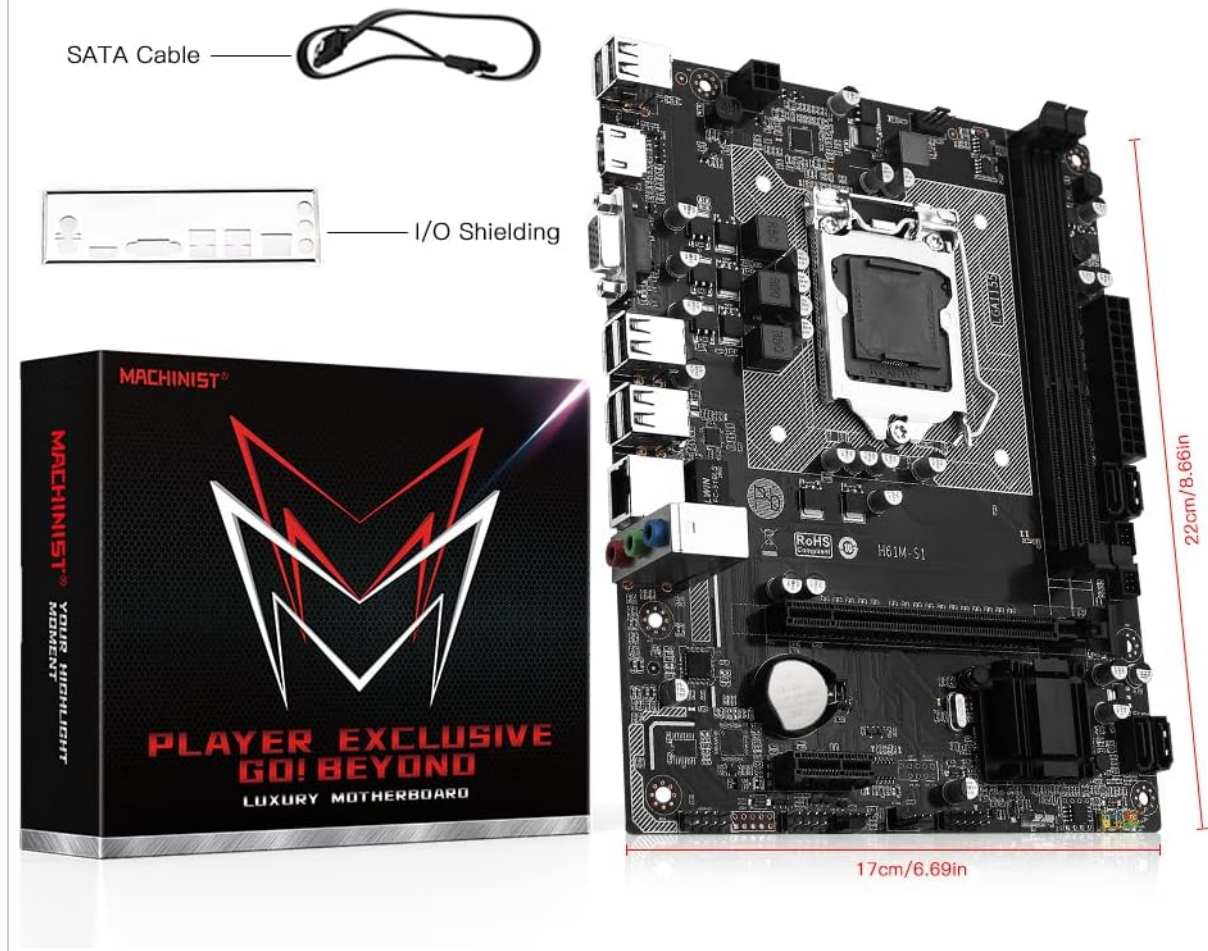


Image 8.1: Included accessories: SATA cable and I/O shielding.

9. WARRANTY AND SUPPORT

For warranty information and technical support, please refer to the official MACHINIST website or contact your retailer. Keep your purchase receipt for warranty claims.

<div><div>MACHINIST</div><div>B75-PRO-U5 User's Manual</div></div>	<p>MACHINIST B75-PRO-U5 Motherboard User's Manual</p> <p>User's manual for the MACHINIST B75-PRO-U5 motherboard, detailing specifications, component overview, installation procedures for CPU, memory, and expansion cards, connector descriptions, and BIOS setup. Includes essential technical information for system builders.</p>
<div><div>MACHINIST</div><div>B75-PRO-U5 User's Manual</div></div>	<p>MACHINIST B75-PRO-U5 User's Manual: Installation and Specifications</p> <p>Comprehensive user manual for the MACHINIST B75-PRO-U5 motherboard, covering specifications, component overview, installation guides for CPU, RAM, and expansion cards, connector details, and BIOS setup.</p>
<div><div>MACHINIST</div><div>H81M-PRO-S1 User's Manual</div></div>	<p>MACHINIST H81M-PRO-S1 Motherboard User's Manual</p> <p>Comprehensive user's manual for the MACHINIST H81M-PRO-S1 motherboard. This guide covers detailed specifications, component installation procedures for CPU, RAM, and expansion cards, explanations of rear and internal connectors, and instructions for BIOS setup and resetting. It is designed for users needing to assemble or configure their PC with this motherboard.</p>
<div><div>MACHINIST</div><div>H81M-PRO-S1 User's Manual</div></div>	<p>MACHINIST H81M-PRO-S1 User's Manual - Motherboard Installation and Setup Guide</p> <p>Comprehensive user manual for the MACHINIST H81M-PRO-S1 motherboard, detailing specifications, component installation (CPU, RAM, expansion cards), connector descriptions, BIOS setup, and troubleshooting.</p>
<div><div>X79 S7 User Manual (English)</div></div>	<p>MACHINIST X79 S7 Motherboard User Manual</p> <p>Comprehensive user manual for the MACHINIST X79 S7 Motherboard, covering item specifications, structure, installation of CPU, fan, memory, and expansion cards, back panel and internal connectors, BIOS settings, troubleshooting FAQs, and product safety information.</p>
<div><div>*B85M PRO User Manual (English) *B85M PRO Benutzerhandbuch (Deutsch) *B85M PRO Manual do usuário (Português) *B85M PRO Manual del usuario (Español europeo)</div></div>	<p>MACHINIST B85M PRO Motherboard User Manual</p> <p>User manual for the MACHINIST B85M PRO motherboard. Provides detailed instructions on installing components like CPU, memory, and expansion cards, along with specifications, BIOS setup guide, and troubleshooting tips for common issues.</p>