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› **GOWENIC LGA 1151 Motherboard User Manual (Model: GOWENICom7k5p3irt)**

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GOWENIC LGA 1151 Motherboard User Manual

Model: GOWENICom7k5p3irt

1. INTRODUCTION AND OVERVIEW

This manual provides detailed instructions for the installation, operation, and maintenance of your GOWENIC LGA 1151 Motherboard. Designed to support 8th and 9th generation Intel Core CPUs, this motherboard offers a stable foundation for your personal computer system. Please read this manual thoroughly before proceeding with installation to ensure proper setup and optimal performance.

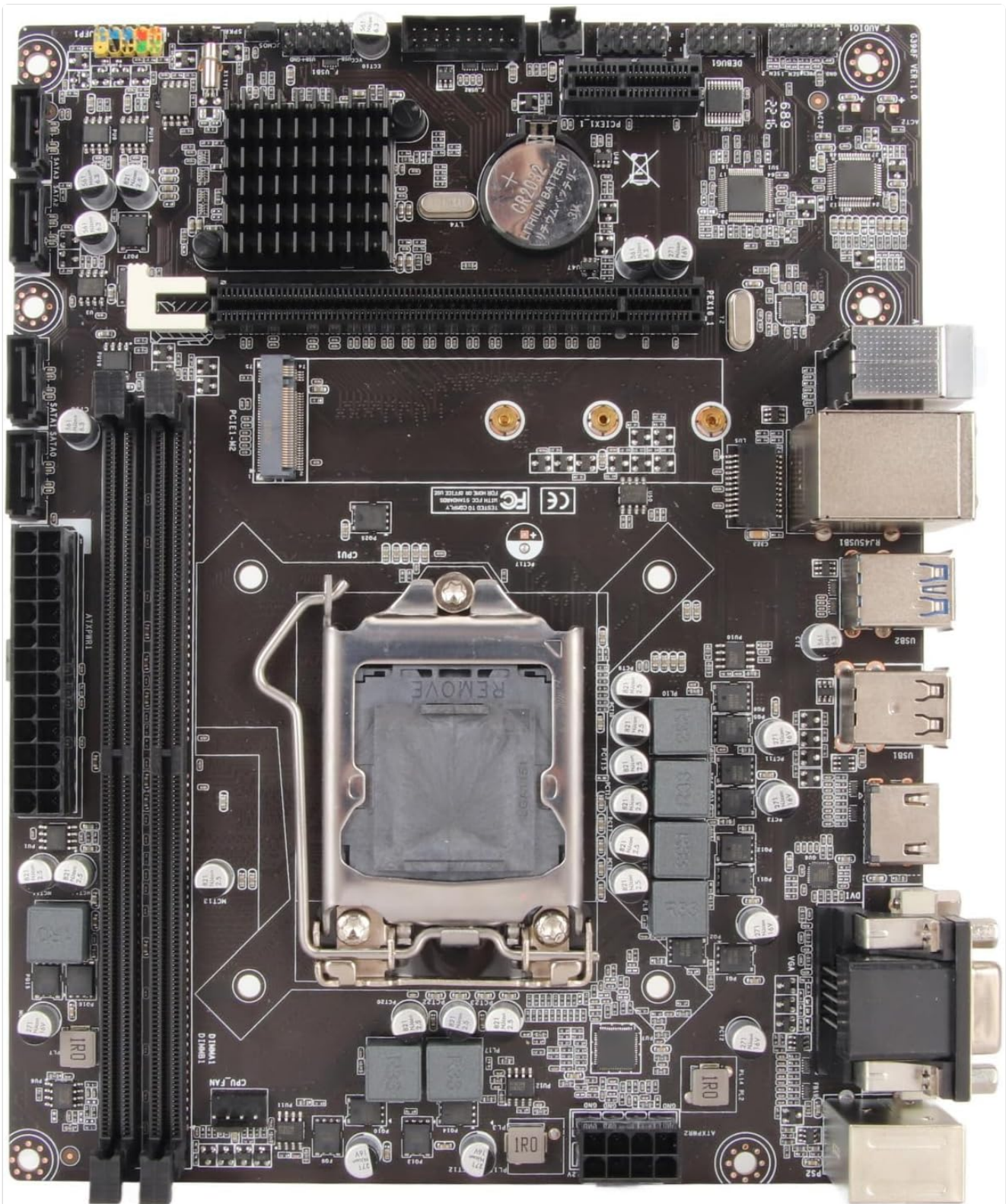


Figure 1.1: GOWENIC LGA 1151 Motherboard (Top View)

Video 1.1: Product overview of the LGA 1151 Motherboard, showcasing its design and various angles.

2. KEY FEATURES

- **Wide CPU Compatibility:** This H310 motherboard utilizes the LGA 1151 socket, supporting 8th and 9th generation Intel Core CPUs, offering versatility for various processor choices.
- **Dual Channel DDR4 Memory:** Supports two 16GB DDR4 memory modules with effective frequencies of 1066, 1333, and 1600MHz. The dual-channel architecture supports up to 32GB across two DIMM slots.
- **Stable Power Supply:** Features a three-phase power supply design with all solid-state capacitors and 24+

power sockets to ensure stable operation of all motherboard components.

- **High-Speed H310 Chipset:** Incorporates the high-speed Intel H310 chipset, providing robust performance and stability for a wide range of computing tasks and applications.
- **Integrated Graphics Support:** Equipped with an integrated graphic processor and multiple display outputs including DVI, HD Multimedia Interface (HDMI compatible), and VGA, allowing for easy connection to multiple monitors.

DDR4 Gaming Motherboard

Equipped with an integrated graphic processor and DVI, HDMI VGA Ports.

LGA 1151 Socket:

H310 motherboard can support 8th/9th generation (Ivy Bridge) Intel Core CPUs, providing versatility and flexibility for different CPU selections.



Double Channel DDR4 Memory Slot:

Supports two 16GB DDR4 memory and 1066 1333 1600MHz effective frequency standard, double channel architecture supports up to 32GB x 2 DIMM slots.

Figure 2.1: Key features of the GOWENIC LGA 1151 Motherboard, including CPU socket, memory, and display outputs.

3. PACKAGE CONTENTS

Please verify that all items listed below are included in your product package. If any items are missing or damaged, contact your retailer for assistance.

- GOWENIC LGA 1151 Motherboard
- I/O Shield
- SATA Data Cable(s)

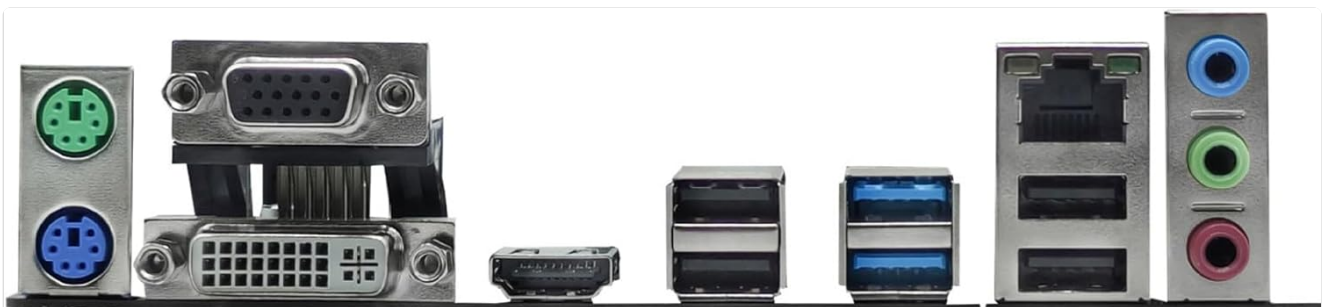


Figure 3.1: Included accessories: I/O shield and SATA cables.

4. SETUP INSTRUCTIONS

Follow these steps carefully to install your GOWENIC LGA 1151 Motherboard into your computer case.

1. **Prepare the Case:** Ensure your computer case is compatible with Micro ATX motherboards. Install the I/O shield into the designated opening at the rear of the case.
2. **Install the CPU:** Open the CPU socket lever. Carefully align your 8th or 9th generation Intel Core CPU with the socket, ensuring the gold triangle on the CPU matches the indicator on the socket. 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 to the cooler) and install your compatible CPU cooler according to its manufacturer's instructions. Connect the CPU fan cable to the 'CPU_FAN' header on the motherboard.
4. **Install RAM:** Open the clips on the DDR4 memory slots. Align your DDR4 memory modules with the slots and press down firmly on both ends until the clips snap into place. For dual-channel performance, refer to your CPU cooler's manual for optimal slot configuration.
5. **Mount the Motherboard:** Carefully place the motherboard into the computer case, aligning the screw holes with the standoffs. Secure the motherboard with screws.
6. **Connect Power Cables:** Connect the 24-pin ATX main power connector and the 8-pin (or 4-pin) CPU power connector from your power supply to the motherboard.
7. **Connect Storage Devices:** Connect your SATA storage devices (HDDs/SSDs) to the SATA 6Gb/s ports using the provided SATA cables. Connect the power cables from your power supply to these devices.
8. **Connect Front Panel Cables:** Connect the front panel headers (Power Button, Reset Button, HDD LED, Power LED, USB, Audio) to their respective pins on the motherboard. Refer to the motherboard diagram for correct pin assignments.
9. **Install Expansion Cards:** If using a dedicated graphics card or other PCIe expansion cards, insert them into the appropriate PCIe slots and secure them. Connect any necessary power cables to the graphics card.

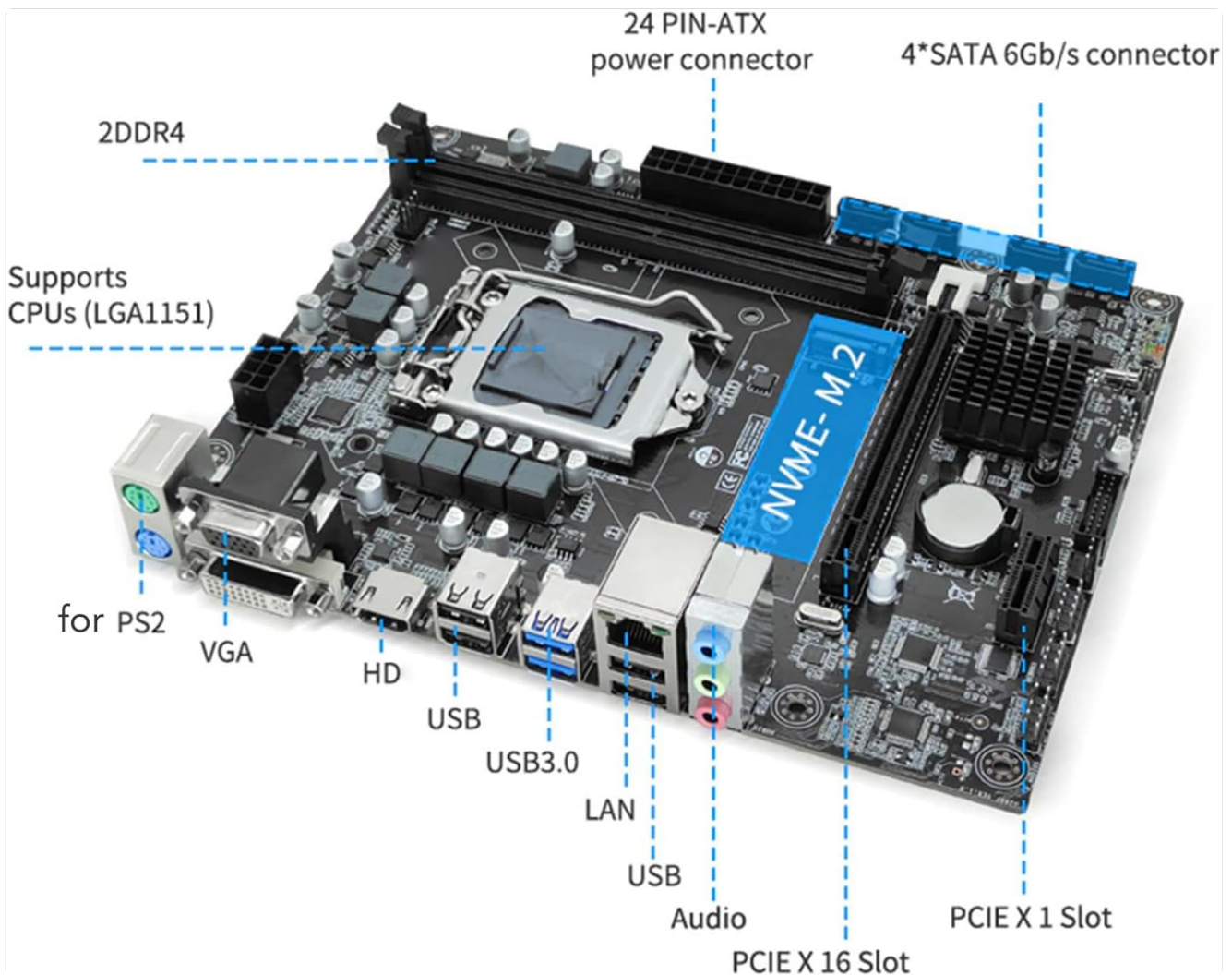


Figure 4.1: Motherboard layout with key connectors and slots labeled.

5. OPERATING INSTRUCTIONS

After completing the physical installation, follow these steps to prepare your system for operation:

1. **Initial Boot:** Connect your monitor, keyboard, and mouse. Power on your computer. The system should display the BIOS/UEFI splash screen.
2. **BIOS/UEFI Setup:** Press the designated key (usually DEL or F2) during startup to enter the BIOS/UEFI setup utility. Configure basic settings such as date, time, boot order, and enable XMP for your RAM if applicable. Save changes and exit.
3. **Operating System Installation:** Insert your operating system installation media (USB drive or DVD) and follow the on-screen prompts to install your preferred operating system.
4. **Driver Installation:** After the operating system is installed, install all necessary drivers for the motherboard chipset, integrated graphics, audio, and network. These drivers are typically provided on a support CD or can be downloaded from the GOWENIC website.
5. **System Updates:** Ensure your operating system and all drivers are up to date for optimal performance and security.

6. MAINTENANCE

Regular maintenance helps ensure the longevity and stable performance of your motherboard and computer 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/UEFI Updates:** Check the GOWENIC support website for the latest BIOS/UEFI updates. Updates can improve compatibility, stability, and performance. Follow the provided instructions carefully when updating the BIOS/UEFI.
- **Cable Management:** Ensure all cables are neatly routed and secured to prevent obstruction of airflow and accidental disconnections.

7. TROUBLESHOOTING

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

- **No Power:**
 - Check if the power supply is connected correctly to the motherboard (24-pin and 8-pin/4-pin CPU power).
 - Ensure the power supply switch is in the 'ON' position.
 - Verify that the front panel power button cable is correctly connected to the motherboard.
- **No Display:**
 - Ensure the monitor is connected to the correct display output (motherboard or graphics card).
 - Reseat the RAM modules. Try booting with only one RAM module installed.
 - If using a dedicated graphics card, ensure it is properly seated in the PCIe slot and any required power cables are connected.
- **System Instability/Crashes:**
 - Check CPU and GPU temperatures. Overheating can cause instability.
 - Ensure all drivers are installed and up to date.
 - Run memory diagnostic tools to check for faulty RAM.
- **Peripheral Not Detected:**
 - Try connecting the peripheral to a different port.
 - Ensure the peripheral's drivers are installed.
 - Check BIOS/UEFI settings to ensure the port is enabled.

8. SPECIFICATIONS

Detailed technical specifications for the GOWENIC LGA 1151 Motherboard (Model: GOWENICom7k5p3irt).

Feature	Specification
Brand	GOWENIC
Model Name	GOWENICom7k5p3irt
CPU Socket	LGA 1151
Compatible Processors	8th and 9th Generation Intel Core (e.g., Core i5)
Chipset Type	Intel H310

RAM Memory Technology	DDR4
Memory Slots	2 x DIMM slots (supports up to 32GB)
Memory Clock Speed	1066, 1333, 1600 MHz
Compatible Devices	Personal Computer
Integrated Graphics	Yes, with DVI, HD Multimedia Interface (HDMI compatible), VGA outputs
Storage Interfaces	SATA 6Gb/s ports
Expansion Slots	PCIe X16 slot, PCIe X1 slot
Form Factor	Micro ATX (approx. 21.5cm x 17cm / 8.5in x 6.7in)
Item Weight	1.06 ounces
Platform	Windows XP (and newer operating systems)

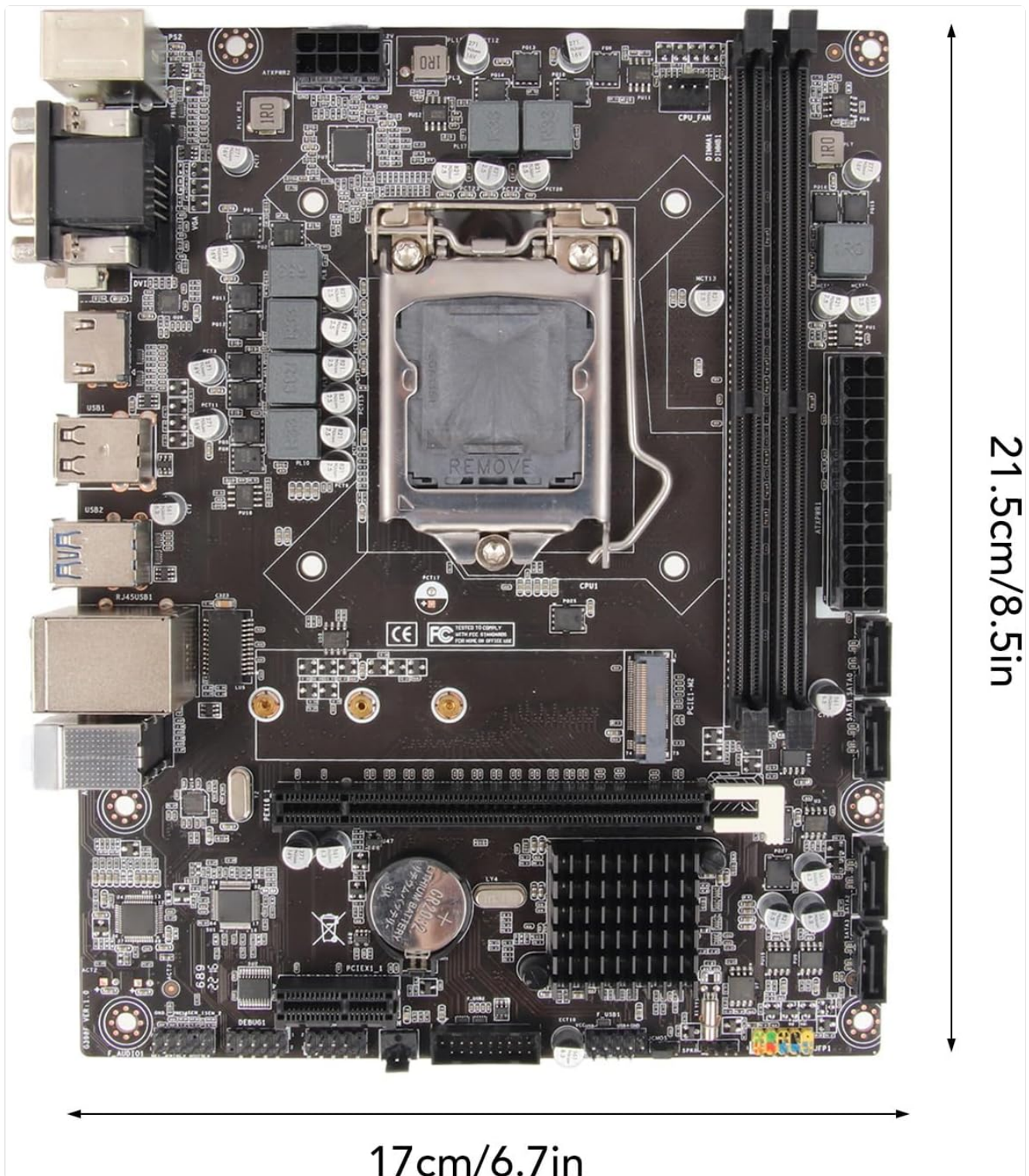


Figure 8.1: Motherboard dimensions for case compatibility.

9. WARRANTY AND SUPPORT

For warranty information and technical support, please refer to the documentation included with your purchase or visit the official GOWENIC website. Keep your proof of purchase for warranty claims.

