VBESTLIFE VBESTLIFE60hydko52q

VBESTLIFE Z490 GAMING PLUS Motherboard User Manual

Model: VBESTLIFE60hydko52q | Brand: VBESTLIFE

1. Introduction

This manual provides detailed instructions for the installation, operation, and maintenance of your VBESTLIFE Z490 GAMING PLUS ATX Motherboard. Designed for DIY computer enthusiasts, this motherboard supports 10th and 11th generation Intel Core, Pentium Gold, and Celeron processors with an LGA 1200 socket. Please read this manual thoroughly before proceeding with installation to ensure proper setup and optimal performance.

Image 1.1: Overview of the VBESTLIFE Z490 GAMING PLUS Motherboard.

2. Key Features

- **Processor Support:** Compatible with 10th and 11th Generation Intel Core, Pentium Gold, and Celeron processors for LGA 1200 sockets.
- **Memory:** Features two DDR4 memory slots, supporting up to 64GB of dual-channel DDR4 RAM.
- **Storage:** Includes a full-speed M.2 interface supporting 32GB/s data transfer for NVMe SSDs, and four Serial ATA 3.0 ports for traditional storage devices.
- **Graphics Output:** Integrated DP, HDMI, and VGA video ports for versatile display connectivity.
- **Expansion Slots:** One PCIe Gen 3.0 x16 slot for graphics cards and one PCIe X1 slot for other expansion cards.
- **Networking:** Integrated 1000Mbps Gigabit LAN for high-speed network connectivity.
- **Audio:** Utilizes an independent Realtek HiFi Sound card for enhanced audio experience.
- **USB Connectivity:** Multiple USB 3.2 Gen1 and USB 2.0 interfaces, including front panel headers.
- **Durable Design:** Features pre-installed I/O shielding and stable solid-state components for extended motherboard lifespan and

protection against electrostatic discharge.

3. Setup and Installation

Before beginning installation, ensure your system is powered off and disconnected from the power source. Handle the motherboard by its edges to avoid static discharge. It is recommended to wear an anti-static wrist strap.

3.1. Processor (CPU) Installation

1. Locate the LGA 1200 CPU socket on the motherboard.
2. Gently push down the load lever and pull it away from the socket to open the CPU socket cover.
3. Align the triangular mark on the CPU with the corresponding mark on the socket. Carefully place the CPU into the socket without forcing it.
4. Close the socket cover and push the load lever back into place until it clicks.

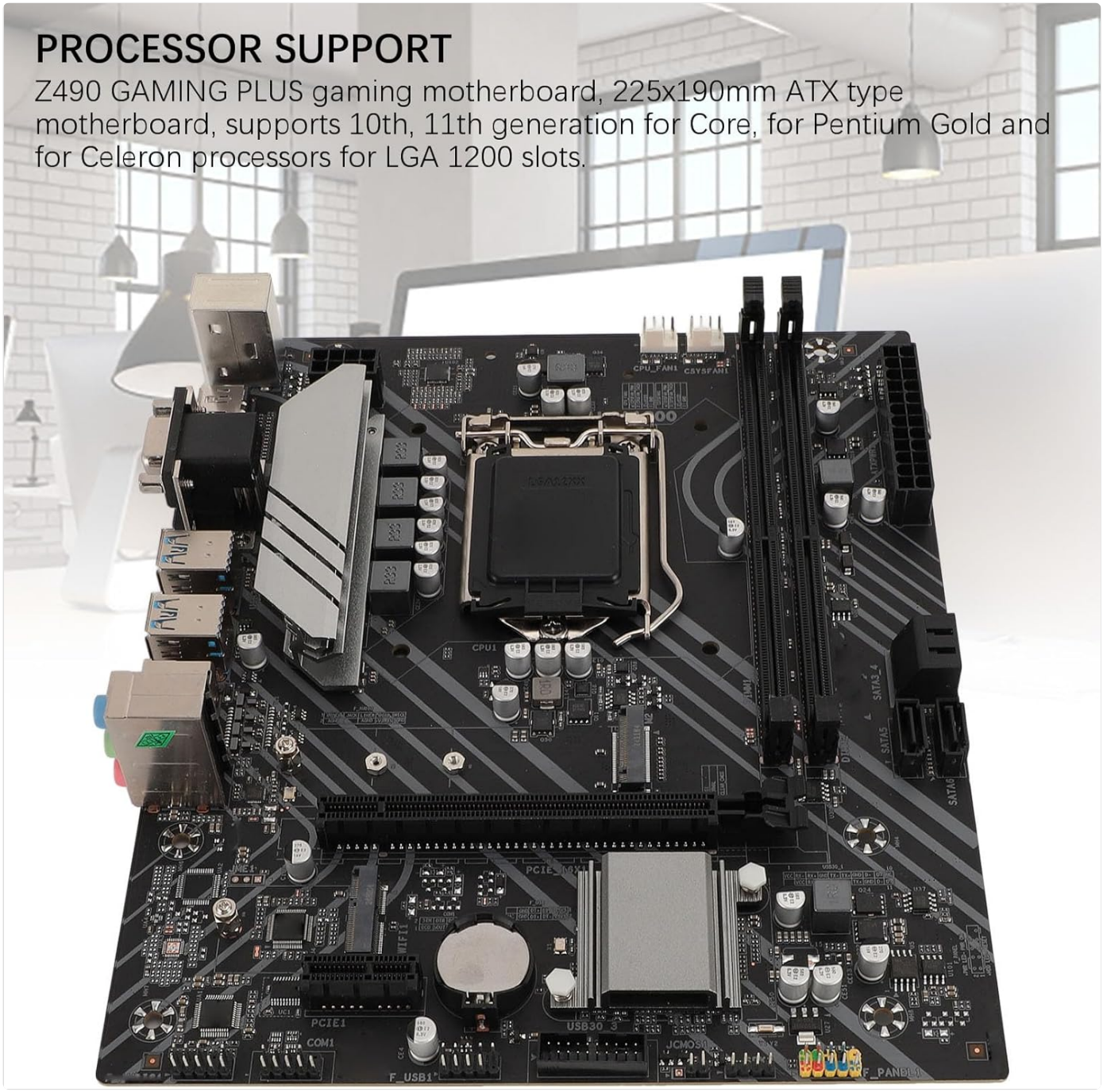

Image 3.1: Close-up view of the LGA 1200 CPU socket, ready for processor installation.

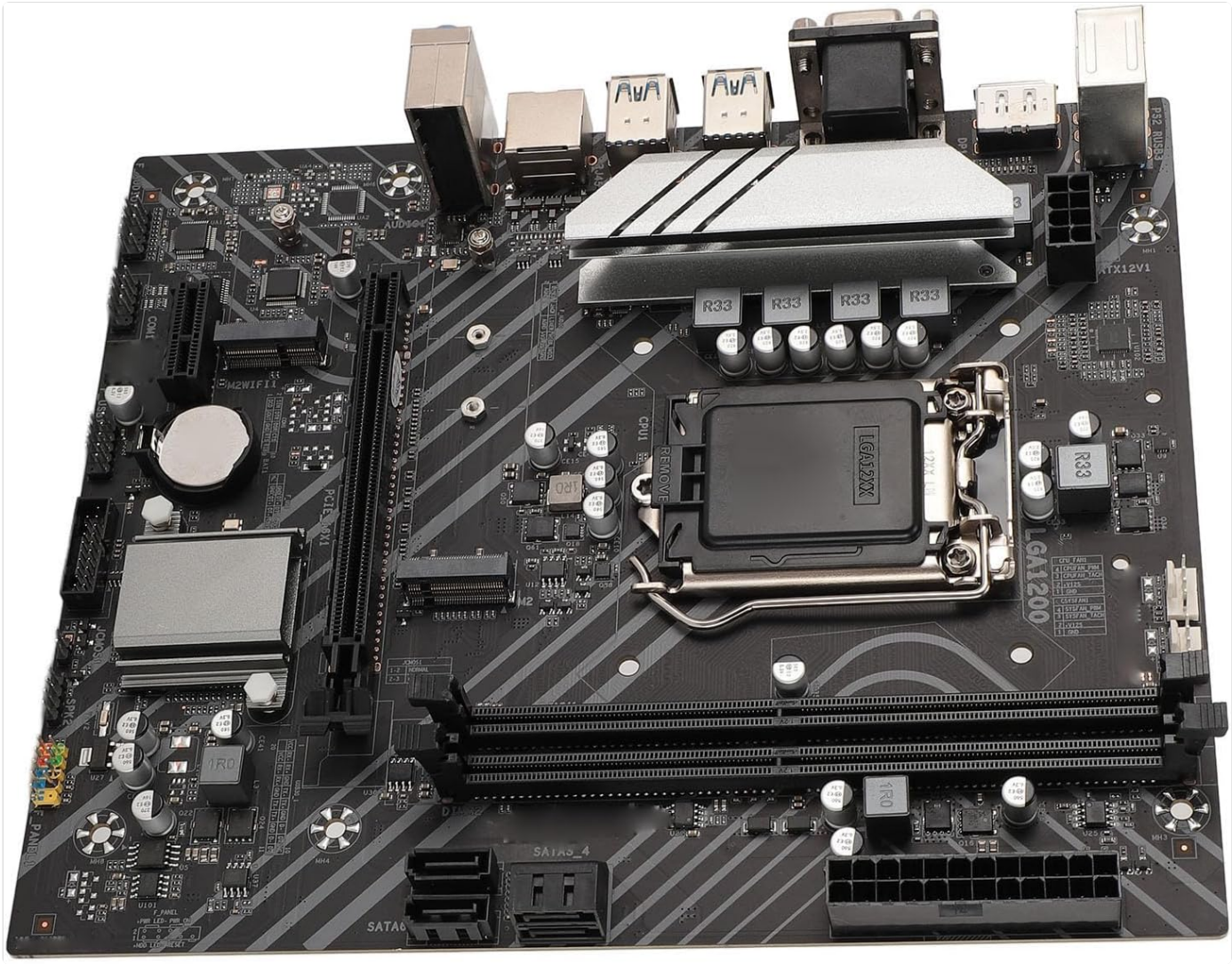

Image 3.2: Detailed view of the CPU socket area, showing power delivery components.

3.2. Memory (RAM) Installation

1. Open the clips at both ends of the DDR4 memory slots.
2. Align the notch on the DDR4 memory module with the key in the memory slot.
3. Insert the memory module firmly into the slot until the clips snap into place. Ensure both clips are fully closed.

3.3. Storage Device Installation

3.3.1. M.2 SSD Installation

1. Locate the M.2 slot on the motherboard.
2. Remove the M.2 standoff screw.
3. Insert the M.2 SSD into the slot at a 30-degree angle.
4. Gently push down the M.2 SSD and secure it with the standoff screw.

Image 3.3: The M.2 interface, designed for high-speed NVMe SSDs.

Image 3.4: Close-up of the M.2 slot and surrounding expansion slots and headers.

3.3.2. SATA Device Installation

1. Connect one end of the SATA data cable to a SATA 3.0 port on the motherboard.
2. Connect the other end of the SATA data cable to your SATA hard drive or SSD.
3. Connect a SATA power cable from your power supply unit (PSU) to the storage device.

Image 3.5: The Serial ATA 3.0 ports for connecting traditional hard drives and SSDs.

3.4. Expansion Card Installation (PCIe)

1. Locate the PCIe x16 slot for your graphics card or PCIe x1 slot for other expansion cards.
2. Remove the corresponding expansion slot cover from your PC case.
3. Align the card with the slot and press down firmly until it is seated correctly.
4. Secure the card with a screw to the PC case.

3.5. Power Connections

- Connect the 24-pin ATX power connector from your PSU to the 24-pin ATXPWR socket on the motherboard.
- Connect the 8-pin ATX 12V power connector from your PSU to the 8-pin ATX12V socket on the motherboard.

3.6. I/O Panel Connections

Connect your peripherals to the appropriate ports on the motherboard's rear I/O panel.

- **Display:** Connect your monitor to the DP, HDMI, or VGA ports.
- **USB Devices:** Connect keyboards, mice, and other USB devices to the USB 3.2 Gen1 or USB 2.0 ports.
- **Network:** Connect an Ethernet cable to the LAN port for internet access.

- **Audio:** Connect speakers or headphones to the audio jacks.

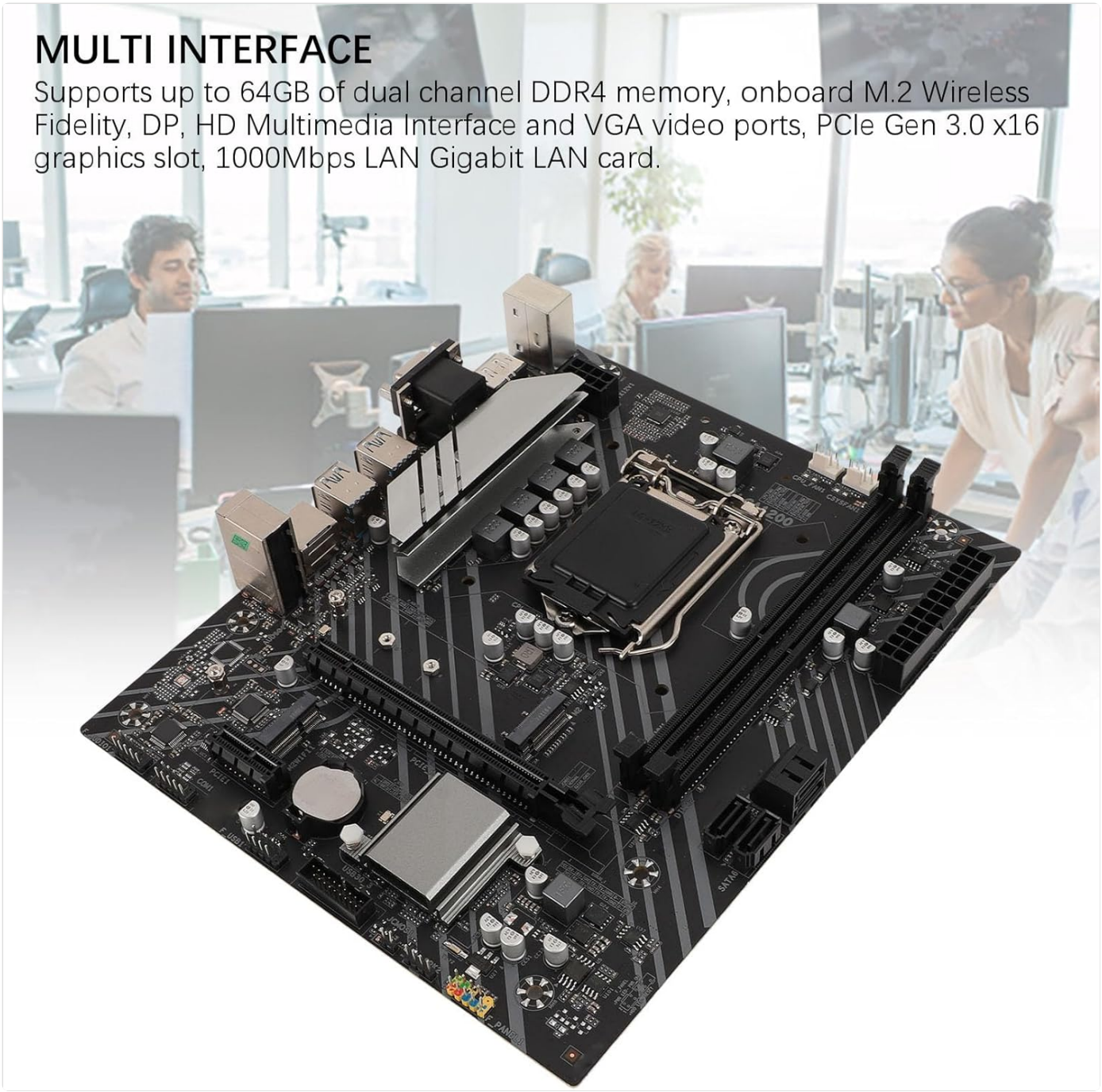

Image 3.6: The rear I/O panel featuring DP, HDMI, VGA, USB, LAN, and audio ports.

Image 3.7: The motherboard's unique design with pre-installed I/O shielding for convenience and protection.

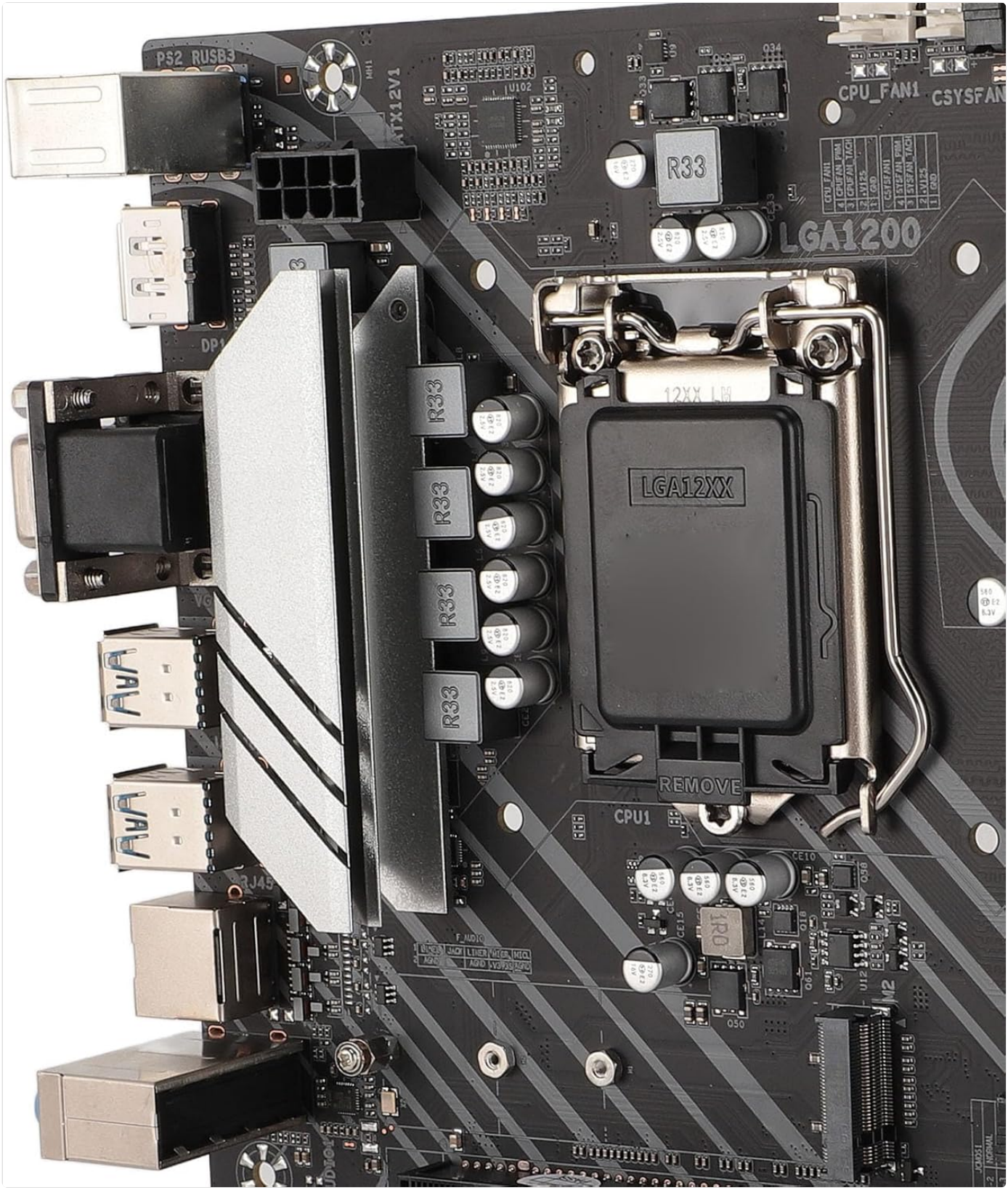

Image 3.8: Detailed view of the I/O ports and the CPU socket area.

4. Operating Instructions

4.1. Initial Boot-up

After completing all hardware installations, connect your monitor, keyboard, and mouse. Power on your system. The motherboard will perform a Power-On Self-Test (POST). If all components are detected correctly, the system will proceed to boot from your installed operating system or prompt for OS installation.

4.2. BIOS/UEFI Setup

To access the BIOS/UEFI setup utility, press the designated key (commonly **DEL** or **F2**) repeatedly during the initial boot-up sequence. Within the BIOS/UEFI, you can configure system settings such as boot order, date/time, fan speeds, and other advanced options.

5. Technical Specifications

Feature	Specification
Model	Z490 GAMING PLUS
Motherboard Architecture	ATX
Motherboard Size	Approx. 225x190mm / 8.9x7.5in
CPU Socket Type	LGA 1200 (Supports 10th/11th Gen Intel Core, Pentium Gold, Celeron Processors)
Chipset	Intel Z490
Network Card	1000Mbps LAN
Integrated Sound Card	Realtek HiFi Sound
Graphics Card Slot	PCIE X16 Gen 3.0
Supported Memory Type	2 x DDR4 DIMM slots
Maximum Memory Capacity	64GB (32GB x 2)
Serial ATA Interface	Serial ATA3.0 x 4
USB Interface	USB3.2 Gen1 x 4, Front USB2.0 pin x 1, Front USB3.0 pin x 1
Expansion Interfaces	DP x 1, HDMI x 1, VGA x 1, M.2 Interface x 1 (Supports NGFF, NVME protocol), M.2 Wireless Fidelity Interface x 1, PCIE X1 x 1
Power Interface	1 x 24PIN ATXPWR, 1 x 8PIN ATX12V
Battery Type	CR2032 button cell battery (240 mAh, integrated)
Manufacturer	VBESTLIFE
Model Number	VBESTLIFE60hydko52q
Country of Origin	China

6. Maintenance

- **Cleaning:** Regularly clean dust from the motherboard and components using compressed air. Ensure the system is powered off and unplugged before cleaning.
- **Handling:** Always handle the motherboard by its edges. Avoid touching components directly to prevent electrostatic discharge.

- **Environment:** Operate the motherboard in a well-ventilated area to prevent overheating. Avoid extreme temperatures and humidity.
- **BIOS Updates:** Periodically check the manufacturer's website for BIOS/UEFI updates. Follow update instructions carefully to avoid system instability.

7. Troubleshooting

7.1. No Power / No Boot

- Ensure all power cables (24-pin ATX, 8-pin ATX12V) are securely connected to the motherboard and PSU.
- Verify that the power supply unit (PSU) is switched on and functioning correctly.
- Check front panel connections (power button, reset button) to ensure they are correctly plugged into the motherboard headers.
- Try booting with minimal components (CPU, one RAM stick, graphics card if no integrated graphics) to isolate the issue.

7.2. No Display Output

- Ensure your monitor is connected to the correct display output port (DP, HDMI, or VGA) on the motherboard or dedicated graphics card.
- Verify that the graphics card (if installed) is properly seated in its PCIe slot and has adequate power connected.
- Test with a different display cable or monitor if possible.

7.3. System Instability / Crashes

- Check that all memory modules are correctly seated in their slots.
- Ensure CPU cooler is properly installed and making good contact with the CPU. Monitor CPU temperatures.
- Verify that your power supply unit (PSU) provides sufficient wattage for all installed components.
- Run memory diagnostic tools to check for faulty RAM.

8. Warranty and Support

This VBESTLIFE Z490 GAMING PLUS Motherboard comes with a **2-year manufacturer's warranty**. This warranty covers defects in materials and workmanship under normal use. For warranty claims or technical support, please contact your retailer or the VBESTLIFE customer service directly. Please retain your proof of purchase for warranty validation.
For further assistance, please refer to the official VBESTLIFE website or contact their support channels.