

fosa fosaobn1aeif5t

fosa Z490 Gaming Plus Motherboard User Manual

Model: fosaobn1aeif5t | Brand: fosa

1. INTRODUCTION

This manual provides detailed instructions for the installation, operation, and maintenance of your fosa Z490 Gaming Plus Motherboard. Designed for LGA 1200 socket processors (10th and 11th Generation Intel Core, Pentium Gold, and Celeron), this ATX motherboard offers robust performance with dual DDR4 memory support, M.2 slots, 1000Mbps LAN, and USB 3.2 Gen1 connectivity. Please read this manual thoroughly before proceeding with installation to ensure proper setup and functionality.

2. SAFETY INFORMATION

- Always disconnect the power cord from the wall outlet before touching any component inside the computer case.
- Wear an anti-static wrist strap or frequently touch a grounded metal object to discharge static electricity before handling components.
- Handle the motherboard by its edges to avoid damaging sensitive components.
- Ensure proper ventilation within the computer case to prevent overheating.
- Keep the motherboard and components away from moisture and extreme temperatures.

3. PACKAGE CONTENTS

Verify that all items are present in your package:

- fosa Z490 Gaming Plus Motherboard
- User Manual (this document)
- I/O Shield
- SATA Cables
- M.2 Screws/Standoffs

4. MOTHERBOARD LAYOUT

The fosa Z490 Gaming Plus Motherboard features a standard ATX form factor with clearly labeled ports and slots for easy assembly.

SERIAL ATA3.0

Serial ATA3.0 high speed interface, Serial ATA3.0 6Gb/S speed booting without waiting, strong compatibility, Serial ATA2.0 upgraded version, to get better read speed.



Figure 4.1: Overall view of the fosa Z490 Gaming Plus Motherboard, showcasing its ATX layout and various components.

4.1 Key Components

- **CPU Socket (LGA 1200):** Supports 10th and 11th Generation Intel Core, Pentium Gold, and Celeron processors.
- **DDR4 Memory Slots:** Two slots supporting up to 64GB of dual-channel DDR4 memory.
- **PCIe X16 Slot:** One PCIe X16 Gen 3.0 slot for graphics cards.
- **M.2 Slots:** One M.2 interface supporting NGFF and NVME protocols for high-speed storage.
- **SATA 3.0 Ports:** Four Serial ATA 3.0 ports for traditional storage devices.
- **Rear I/O Ports:** Includes USB 3.2 Gen1, HD Multimedia Interface, DP, VGA, 1000Mbps LAN, and audio jacks.

UNIQUE DESIGN

Pre installed I/O shielding, convenient and prevent electrostatic discharge. Stable all solid state performance greatly extends the life of the motherboard.



Figure 4.2: The rear I/O panel of the motherboard, featuring various connectivity options including USB, video outputs, and network ports.

5. SETUP

5.1 CPU Installation

1. Locate the LGA 1200 CPU socket on the motherboard.
2. Open the CPU socket lever and lift the load plate.
3. Carefully align the CPU with the socket, ensuring the gold triangle on the CPU matches the triangle on the socket. Do not force the CPU into place.
4. Lower the load plate and push down the lever to secure the CPU.

PROCESSOR SUPPORT

Z490 GAMING PLUS gaming motherboard, 225x190mm ATX type motherboard, supports 10th, 11th generation for Core, for Pentium Gold and for Celeron processors for LGA 1200 slots.

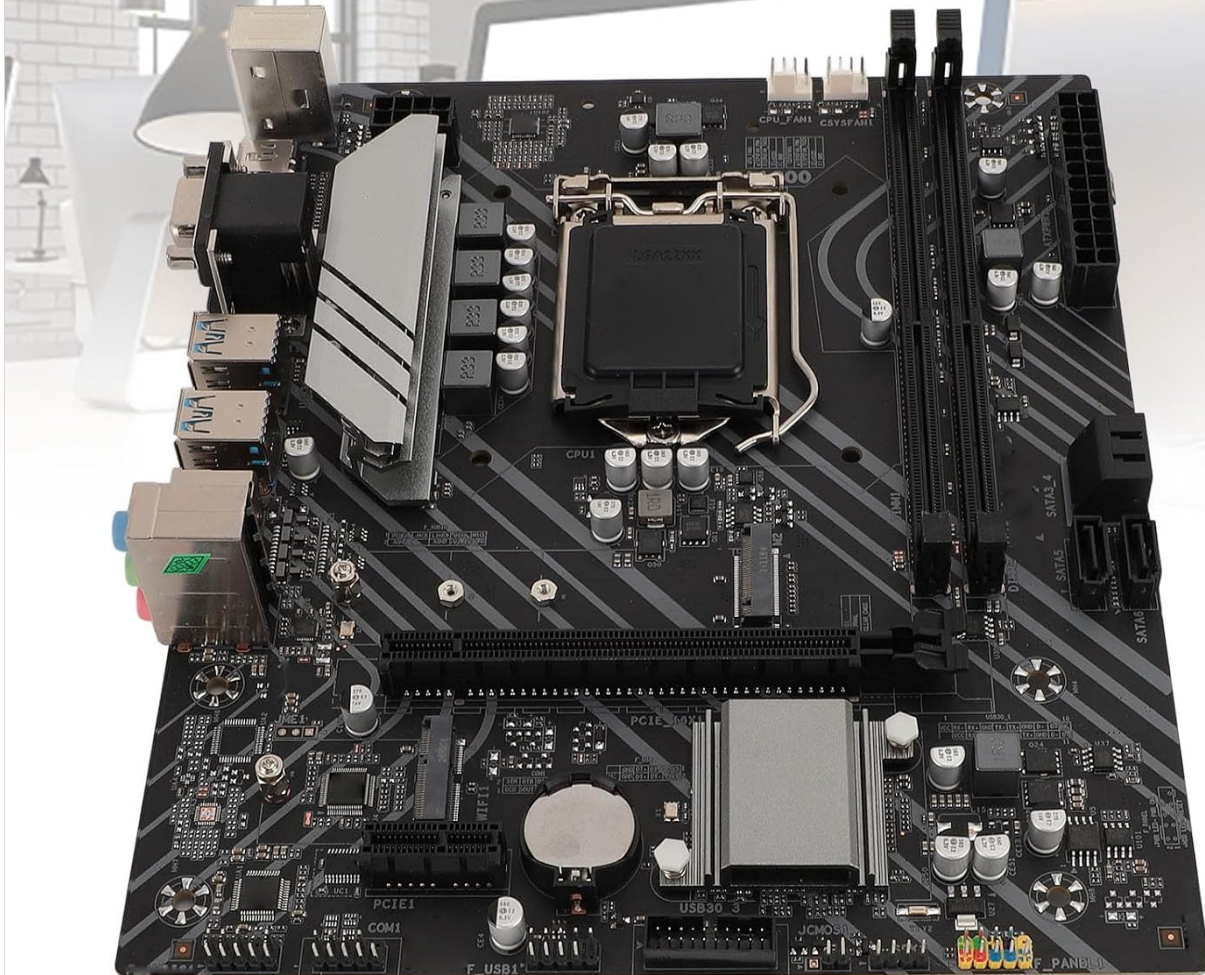


Figure 5.1: The LGA 1200 CPU socket, ready for processor installation. Ensure correct alignment to prevent damage.

5.2 RAM Installation

1. Open the clips on both ends of the DDR4 memory slots.
2. Align the notch on the RAM module with the notch in the memory slot.
3. Press down firmly on both ends of the RAM module until the clips snap into place.

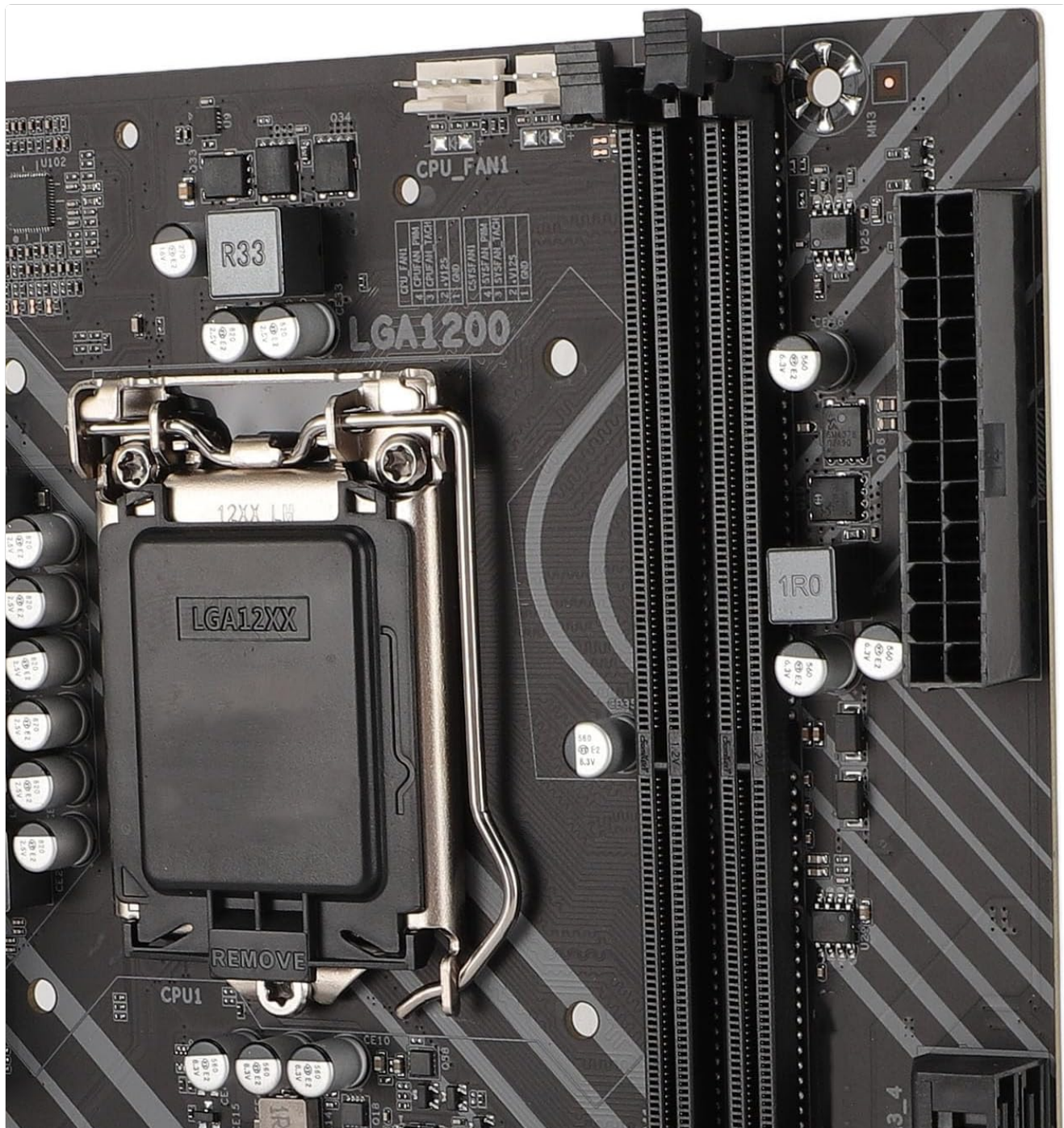


Figure 5.2: A detailed view of the DDR4 memory slots and the CPU socket, illustrating the areas for RAM and CPU installation.

5.3 Storage Installation (M.2 & SATA)

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. Push the SSD down and secure it with the standoff screw.

MULTI INTERFACE

Supports up to 64GB of dual channel DDR4 memory, onboard M.2 Wireless Fidelity, DP, HD Multimedia Interface and VGA video ports, PCIe Gen 3.0 x16 graphics slot, 1000Mbps LAN Gigabit LAN card.

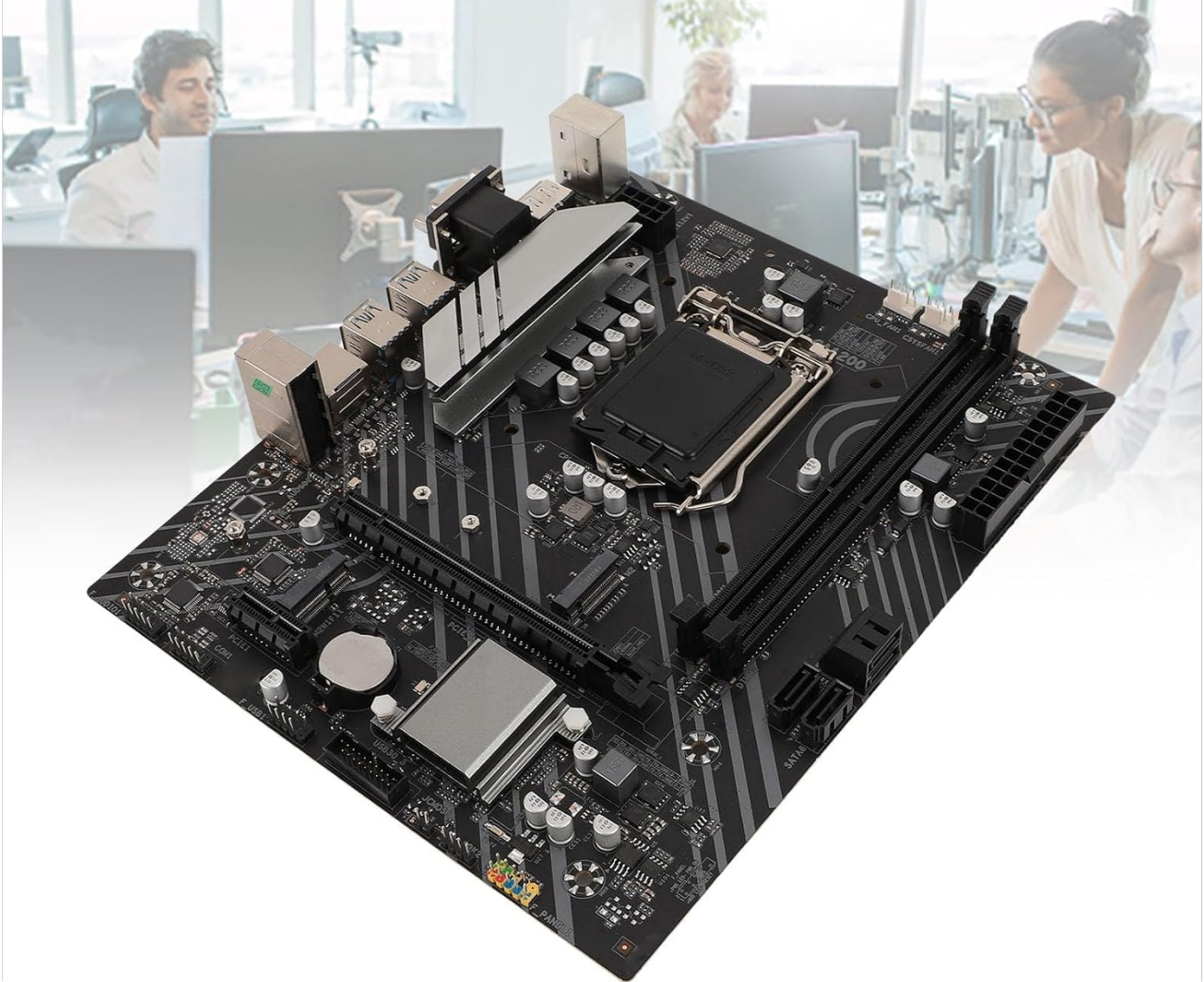


Figure 5.3: The M.2 interface, designed for high-speed NGFF and NVME SSDs, offering fast data transfer.

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 storage device (HDD/SSD).
3. Connect a SATA power cable from your power supply unit (PSU) to the storage device.

5.4 Graphics Card Installation

1. Locate the PCIe X16 slot.
2. Remove the corresponding expansion slot cover from your PC case.
3. Align the graphics card with the PCIe X16 slot and press down firmly until it is seated correctly and the retention clip locks.
4. Secure the graphics card to the case with a screw.
5. Connect any necessary PCIe power cables from your PSU to the graphics card.

5.5 Power Connections

- **24-pin ATXPWR:** Connect the main 24-pin power cable from your PSU to the motherboard.
- **8-pin ATX12V:** Connect the 8-pin CPU power cable from your PSU to the motherboard.

5.6 Front Panel Connections

Connect the front panel cables (Power LED, HDD LED, Power Switch, Reset Switch, USB, Audio) to their respective headers on the motherboard. Refer to the motherboard diagram for exact pin locations.

6. OPERATING

6.1 First Boot

After assembling all components, connect your monitor, keyboard, and mouse. Power on your system. The system should display the BIOS/UEFI screen or begin the operating system installation process.

6.2 BIOS/UEFI Setup

To enter the BIOS/UEFI setup, press the designated key (usually **DEL** or **F2**) during startup. Here you can configure boot order, system time, and other advanced settings.

6.3 Driver Installation

After installing your operating system, install the necessary drivers for the motherboard chipset, LAN, audio, and any other integrated components. These drivers are typically provided on a support CD or can be downloaded from the manufacturer's website.

7. MAINTENANCE

7.1 Cleaning

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

7.2 BIOS Updates

Periodically check the fosa support website for BIOS/UEFI updates. Updates can improve system stability, add support for new hardware, or fix bugs. Follow the instructions provided by fosa carefully when performing a BIOS update.

8. TROUBLESHOOTING

- **No Power:** Ensure all power cables (24-pin ATXPWR, 8-pin ATX12V) are securely connected. Check the PSU and power outlet.
- **No Display:** Verify that the graphics card is properly seated and connected to power (if required). Ensure the monitor cable is connected to the graphics card (not the motherboard's integrated graphics ports, unless using an integrated GPU).
- **System Instability/Crashes:** Check RAM seating and compatibility. Ensure CPU cooler is properly installed. Update drivers and BIOS.
- **Device Not Detected:** Check cable connections for storage devices and peripherals. Ensure M.2 SSDs are correctly installed and secured.
- **Slow Performance:** Verify that all drivers are installed. Check for background processes consuming resources. Ensure adequate cooling.

9. SPECIFICATIONS

Feature	Specification
Model	Z490 GAMING PLUS
Motherboard Architecture	ATX
Motherboard Size	Approx. 225x190mm / 8.9x7.5in
CPU Socket Type	LGA 1200
Supported Processors	10th/11th Gen Intel Core, Pentium Gold, Celeron
Memory Type	2 x DDR4 DIMM slots
Max Memory Capacity	64GB (32GB x 2)
Graphics Card Slot	1 x PCIE X16 Gen 3.0
M.2 Interface	1 x M.2 (NGFF, NVME Protocol)
Serial ATA Interface	4 x Serial ATA3.0
USB Interface	4 x USB3.2 Gen1 (Rear), 1 x Front USB2.0 Pin, 1 x Front USB3.0 Pin
Video Output	1 x DP, 1 x HD Multimedia Interface, 1 x VGA
Network Card	1000Mbps LAN
Onboard Sound Card	Realtek HiFi Sound
Power Supply Interface	1 x 24PIN ATXPWR, 1 x 8PIN ATX12V
Battery Type	240mAh CR2032 Cell (built-in)

10. WARRANTY AND SUPPORT

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