Saved from manuals.plus.
Open the live page for links to other documents and user manuals.

GIGABYTE Z790 S WIFI DDR4

GIGABYTE Z790 S WiFi DDR4 LGA 1700 ATX Motherboard User Manual

Model: Z790 S WIFI DDR4

Introduction

This manual provides essential information for the installation, operation, and maintenance of your GIGABYTE Z790 S WiFi DDR4 LGA 1700 ATX Motherboard. Designed to support 14th and 13th Gen Intel Core Processors, this motherboard features a robust power design, high-grade storage standards, and advanced connectivity options to optimize system performance.

Setup and Installation

Proper installation is crucial for the stable operation of your system. Follow these steps carefully.

1. Pre-Installation Checklist

- Ensure all components (CPU, RAM, storage, power supply, case) are compatible with the LGA 1700 socket and DDR4 memory.
- Prepare a clean, static-free workspace. Use an anti-static wrist strap if available.
- Unpack the motherboard and inspect for any physical damage.

2. Motherboard Overview



Figure 1: GIGABYTE Z790 S WiFi DDR4 Motherboard and Packaging. This image displays the GIGABYTE Z790 S WiFi DDR4 motherboard alongside its retail packaging. The motherboard features the LGA 1700 CPU socket, four DDR4 DIMM slots, multiple PCIe slots, and M.2 slots. The packaging highlights the "Ultra Durable" branding and the model name.

3. Component Installation

1. **CPU Installation:** Carefully open the CPU socket lever, align the CPU with the triangular mark on the socket, gently place the CPU into the socket, and close the lever to secure it.
2. **CPU Cooler Installation:** Install the CPU cooler according to its manufacturer's instructions. Ensure proper thermal paste application.
3. **Memory (RAM) Installation:** Open the clips on the DDR4 DIMM slots. Align the memory modules with the key notch and press firmly until the clips snap into place. For dual-channel operation, refer to the motherboard manual for recommended slot configurations (typically slots A2 and B2).
4. **M.2 SSD Installation:** Locate the Triple PCIe 4.0 x4 M.2 slots. Insert the M.2 SSD at an angle and secure it with the provided screw or EZ-Latch mechanism.
5. **Graphics Card (GPU) Installation:** Insert your PCIe graphics card into the primary PCIe x16 slot until it clicks into place. Secure it with the case screw.
6. **Power Supply Connections:** Connect the 24-pin ATX power connector and the 8-pin (or 4+4-pin) CPU power connector from your power supply to the motherboard. Connect power to other components as needed.
7. **Front Panel Connectors:** Connect the case's front panel cables (power button, reset button, USB, audio) to the corresponding headers on the motherboard. Refer to the motherboard's detailed diagram for correct pin assignments.

4. Initial Boot and BIOS Setup

After assembling your system, connect a monitor, keyboard, and mouse. Power on the system and press the designated key (usually **DEL** or **F2**) repeatedly during startup to enter the BIOS/UEFI setup.

- **XMP Profile Activation:** For optimal memory performance, ensure your memory module is XMP capable. Navigate to the

memory settings in the BIOS and activate the XMP function. This will configure your RAM to its advertised speed (e.g., 3200 MHz).

- Save changes and exit the BIOS. The system will restart.

Operating Instructions

Once the operating system is installed, ensure all necessary drivers and utilities are in place for full functionality.

- **Driver Installation:** Install the latest chipset, LAN (2.5GbE), Wi-Fi, audio, and graphics drivers from the GIGABYTE official website or the provided driver disc.
- **GIGABYTE Utilities:** Consider installing GIGABYTE's utility software for system monitoring, fan control, and other optimizations.
- **Operating System Updates:** Keep your operating system (e.g., Windows) updated to ensure security and compatibility.

Maintenance

Regular maintenance helps prolong the lifespan and maintain the performance of your motherboard.

- **Dust Removal:** Periodically clean dust from the motherboard and components using compressed air. Ensure the system is powered off and unplugged before cleaning.
- **BIOS/UEFI Updates:** Check the GIGABYTE website for the latest BIOS/UEFI versions. Updates can improve stability, compatibility, and performance. Follow the provided instructions carefully to avoid damaging the motherboard.
- **Driver Updates:** Regularly update drivers for all components to ensure optimal performance and compatibility with new software.

Troubleshooting

If you encounter issues, refer to the following common troubleshooting steps.

- **No Power/No Boot:**
  - Verify all power cables (24-pin ATX, 8-pin CPU) are securely connected.
  - Check if the power supply is switched on.
  - Ensure the front panel power button connector is correctly installed.
- **No Display:**
  - Ensure the monitor is connected to the graphics card (not the motherboard's integrated graphics ports, unless using an Intel CPU with integrated graphics).
  - Reseat the graphics card and memory modules.
  - Check for any diagnostic LEDs (VGA, DRAM, CPU, BOOT) on the motherboard that might indicate a specific component failure.
- **Component Not Detected:**
  - Reseat the component (e.g., M.2 SSD, RAM).
  - Check BIOS settings to ensure the component is enabled.
  - Verify drivers are correctly installed.
- **System Instability/Crashes:**
  - Ensure CPU and GPU temperatures are within safe limits.
  - Verify RAM is stable, especially if XMP is enabled. Try disabling XMP as a test.

- Run memory diagnostic tools.

For more detailed troubleshooting or persistent issues, please refer to the comprehensive manual available on the GIGABYTE support website or contact GIGABYTE technical support.

Specifications

Key technical specifications for the GIGABYTE Z790 S WiFi DDR4 Motherboard:

Feature	Specification
CPU Socket	LGA 1700
Compatible Processors	14th and 13th Gen Intel Core Series Processors
Chipset	Intel Z790
RAM Type	DDR4 (Dual Channel, 4 DIMMs)
Memory Speed	Up to 3200 MHz (XMP support)
Storage	Triple PCIe 4.0 x4 M.2 slots
Networking	2.5GbE LAN, Wi-Fi
USB Ports	USB 3.2 Gen2 Type-C, USB 2.0 (2 ports)
Power Design	Hybrid 8+1+1 Phases Digital VRM Solution
Thermal Design	Fully Covered MOSFET Heatsinks, M.2 Thermal Guard, Ultra Durable Armor
Form Factor	ATX
Item Weight	3.54 pounds
Package Dimensions	13.3 x 10.75 x 3.31 inches

Warranty Information

GIGABYTE motherboards typically come with a limited warranty. For specific warranty terms, conditions, and duration, please refer to the warranty card included with your product or visit the official GIGABYTE website. Keep your proof of purchase for warranty claims.

Support

For technical assistance, driver downloads, BIOS updates, or further inquiries, please visit the official GIGABYTE support website. You can often find FAQs, troubleshooting guides, and contact information for customer service there.
GIGABYTE Support Website: www.gigabyte.com/support

© 2025 GIGABYTE. All rights reserved.

Ask a question about this manual

Ask about setup, troubleshooting, compatibility, parts, safety, or missing instructions. Manuals+ will review the question

and use this page's manual context to help answer it.

Name

Anonymous

Email

you@example.com

After a successful submission, we securely hash the supplied account or form email before sending it to Microsoft Advertising for conversion attribution. Privacy details.

Question

Example: How do I reset this device or fix this error?

Details

Model number, symptoms, what you tried, or the section of the manual you are using.

Submit question

Open the live page

https://manuals.plus/asin/B0D2RL4PT6

More documents and user manuals: **https://manuals.plus/**