GIGABYTE GA-990X-Gaming SLI

GIGABYTE GA-990X-GAMING SLI Motherboard User Manual

Model: GA-990X-Gaming SLI | Brand: GIGABYTE

1. Introduction

This manual provides detailed instructions for the installation, configuration, and operation of your GIGABYTE GA-990X-GAMING SLI Motherboard. Designed for AMD AM3+/AM3 processors, this motherboard offers robust performance and a range of features for a stable computing experience. Please read this manual thoroughly before beginning the installation process to ensure proper setup and functionality.

2. Product Overview

The GIGABYTE GA-990X-GAMING SLI Motherboard is engineered to support AMD AM3+/AM3 processors and features dual-channel DDR3 memory with four DIMM slots. It incorporates advanced connectivity options and robust design elements for enhanced durability and performance.

- Supports AMD AM3+/AM3 Processors.
- Dual Channel DDR3 memory support across 4 DIMMs.
- Fast USB 3.1 connectivity for high-speed data transfer.
- PCIe Gen2 x4 22110 M.2 Connector, offering up to 20Gb/s data transfer rates, compatible with PCIe NVMe and SATA SSDs.
- 2-Way Graphics Support with Ultra Durable Metal Shielding over the PCIe Slots for enhanced strength.
- 115dB SNR HD Audio with a built-in rear audio amplifier.
- Intel Gigabit LAN with cFosSpeed Internet Accelerator Software.
- High-Quality Audio Capacitors and Audio Noise Guard with Ambient LED Trace Path Lighting.
- GIGABYTE USB DAC-UP ports for cleaner power delivery to USB devices.
- GIGABYTE UEFI Dual BIOS Technology for system stability and recovery.
- ATX Form Factor: 30.5cm x 24.4cm.

This image displays the Gigabyte GA-990X-GAMING SLI Motherboard alongside its retail box. The motherboard features a black PCB with red accents on the heatsinks and DIMM slots, indicating its gaming-oriented design. Key components visible include the AM3+ CPU socket, four DDR3 DIMM slots, multiple PCIe slots (some reinforced), SATA ports, and an M.2 slot. The retail box prominently displays the 'GIGABYTE 990X-GAMING SLI' branding and highlights features like G1 Gaming, AMD FX support, DDR3, and USB 3.1.

3. Setup and Installation

Before installing the motherboard, ensure you have a static-free environment and all necessary components. Always handle the motherboard by its edges to avoid damaging components.

3.1. Safety Precautions

- Wear an anti-static wrist strap to prevent electrostatic discharge (ESD).
- Unplug the power cord from the wall outlet before touching any components.
- Avoid touching pins or circuits on the motherboard.

3.2. CPU Installation

1. Locate the AM3+ CPU socket on the motherboard.
2. Lift the load lever on the socket.

3. Align the CPU with the socket, ensuring the golden triangle on the CPU matches the triangle on the socket.
4. Gently place the CPU into the socket without forcing it.
5. Lower the load lever to secure the CPU.
6. Apply thermal paste and install the CPU cooler according to its manufacturer's instructions.

3.3. Memory (RAM) Installation

1. Open the clips at both ends of the DIMM slot.
2. Align the notch on the DDR3 memory module with the key on the DIMM slot.
3. Insert the memory module firmly into the slot until the clips snap into place.
4. For dual-channel operation, refer to the motherboard layout for recommended slot pairings.

3.4. Motherboard Mounting

1. Install the I/O shield into your computer case.
2. Align the motherboard with the standoffs in the case.
3. Secure the motherboard with screws, ensuring not to overtighten.

3.5. Connecting Power and Peripherals

1. Connect the 24-pin ATX main power connector and the 8-pin ATX 12V power connector from your power supply to the motherboard.
2. Connect SATA devices (HDDs, SSDs) to the SATA 3.0 ports.
3. Install graphics cards into the PCIe x16 slots and secure them. Connect PCIe power cables if required by the graphics card.
4. Connect front panel connectors (power button, reset button, USB, audio) to their respective headers on the motherboard. Refer to the motherboard diagram for correct pin assignments.
5. Connect case fans to the fan headers.

4. Operating Instructions

4.1. BIOS/UEFI Setup

Upon initial power-on, press the **DEL** key repeatedly during the POST (Power-On Self-Test) to enter the BIOS/UEFI Setup Utility. Here you can configure system settings such as boot order, CPU/memory frequencies, and various peripheral options. The GIGABYTE UEFI Dual BIOS provides a user-friendly graphical interface.

4.2. GIGABYTE APP Center

The GIGABYTE APP Center is a unified interface that allows you to launch all GIGABYTE utilities installed on your system. This includes tools for system monitoring, overclocking, fan control, and BIOS updates. Install the APP Center from the provided driver CD or GIGABYTE's official website.

5. Maintenance

Regular maintenance helps ensure the longevity and optimal performance of your motherboard.

- **Dust Removal:** Periodically clean dust from the motherboard and case fans using compressed air. Ensure the system is powered off and unplugged before cleaning.
- **BIOS Updates:** Check the GIGABYTE website for the latest BIOS updates. Updating the BIOS can improve system stability, compatibility, and performance. Follow the instructions provided by GIGABYTE carefully when performing a BIOS update.
- **Cable Management:** Ensure internal cables are neatly routed to improve airflow and prevent interference.

6. Troubleshooting

If you encounter issues with your motherboard, consider the following troubleshooting steps:

- **No Power/No Boot:**
  - Verify all power cables (24-pin ATX, 8-pin ATX 12V, PCIe power) are securely connected.
  - Ensure the power supply is functional and switched on.
  - Check front panel connections (power button).
- **No Display:**
  - Ensure the graphics card is properly seated in its PCIe slot and any required power cables are connected.
  - Verify the monitor cable is securely connected to the graphics card and the monitor.
  - Test with a different graphics card or monitor if possible.
- **System Instability/Crashes:**
  - Check RAM modules for proper seating; try reseating them or testing one module at a time.
  - Ensure CPU cooler is properly installed and making good contact with the CPU. Monitor CPU temperatures.
  - Update BIOS and drivers to the latest versions.
- **Peripheral Issues:**
  - Ensure drivers for all peripherals are installed correctly.
  - Test USB devices in different ports.

If these steps do not resolve the issue, please refer to the GIGABYTE support website or contact their customer service for further assistance.

7. Specifications

Feature	Specification
Brand	GIGABYTE

Feature	Specification
Model Number	GA-990X-Gaming SLI
CPU Socket	Socket AM3+
Compatible Devices	Gaming Console, Personal Computer
RAM Memory Technology	DDR3
Memory Clock Speed	1333 MHz
RAM Memory Maximum Size	64 GB
Chipset Type	AMD 785E
Graphics Card Interface	PCI-Express x16
Number of USB 2.0 Ports	6
Product Dimensions (LxWxH)	12.79 x 10.23 x 2.75 inches
Item Weight	2.71 pounds
Batteries	1 CR2 batteries required (included)
Date First Available	March 22, 2016

8. Warranty and Support

GIGABYTE products are covered by a limited warranty. For detailed warranty terms and conditions, please refer to the warranty card included with your product or visit the official GIGABYTE website. For technical support, driver downloads, and BIOS updates, please visit the GIGABYTE support page at www.gigabyte.com/support. You may also contact GIGABYTE customer service for direct assistance.