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› GIGABYTE GA-AX370-Gaming K5 Motherboard User Manual

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Model: GA-AX370-Gaming K5

1. INTRODUCTION

This manual provides detailed instructions for the installation, operation, and maintenance of your GIGABYTE GA-AX370-Gaming K5 motherboard. Designed for AMD Ryzen and 7th Generation A-series/Athlon processors, this ATX form factor motherboard offers robust performance and advanced features for a superior computing experience. Please read this manual thoroughly before beginning installation to ensure proper setup and functionality.

2. KEY FEATURES

- Supports AMD Ryzen & 7th Generation A-series/Athlon Processors.
- Dual Channel ECC/Non-ECC Unbuffered DDR4 memory support across 4 DIMMs.
- Fast USB 3.1 Gen 2 with both USB Type-C and Type-A ports.
- 2-Way CrossFire/SLI Multi-Graphics Support with Dual Armor and Ultra Durable Design for enhanced durability.
- Ultra-Fast PCIe Gen3 x4 M.2 slot with support for PCIe NVMe & SATA mode SSDs.
- Integrated Realtek ALC 1220 audio codec for high-quality sound.
- Intel Gigabit LAN for stable and high-speed network connectivity.
- RGB FUSION with Multi-Zone LED Light Show design and Swappable Overlay for Accent LED customization.
- Smart Fan 5 for advanced fan control and temperature monitoring.
- GIGABYTE UEFI Dual BIOS for system stability and recovery.
- APP Center including Easy Tune and Cloud Station Utilities for system management.

3. SETUP AND INSTALLATION

Before installing the motherboard, ensure your system is powered off and disconnected from the power source. Handle the motherboard by its edges to avoid static discharge.

3.1 Motherboard Layout



This image displays the top-down view of the GIGABYTE GA-AX370-Gaming K5 motherboard, highlighting key components such as the AM4 CPU socket, four DDR4 DIMM slots, PCIe expansion slots, M.2 slot, SATA ports, and various headers for power and peripherals. Familiarize yourself with these locations before proceeding with component installation.

3.2 Rear I/O Panel



The rear I/O panel provides connectivity for external devices. It includes PS/2 ports for keyboard/mouse, multiple USB 3.1 Gen 1 and Gen 2 ports (including Type-C), an HDMI port (for use with APUs), an Intel Gigabit LAN port, and audio jacks for 7.1 channel sound. An optical S/PDIF Out connector is also present.

3.3 Component Installation Steps

1. **CPU Installation:** Carefully open the CPU socket lever, align the AMD Ryzen or 7th Gen A-series/Athlon processor with the triangle mark on the socket, and gently place it in. Close the lever to secure the CPU.
2. **CPU Cooler Installation:** Install your compatible CPU cooler according to its manufacturer's instructions. Ensure proper thermal paste application.
3. **Memory (RAM) Installation:** Insert DDR4 memory modules into the DIMM slots. For dual-channel operation, refer to the motherboard manual for recommended slot configurations. Press down firmly until the clips on both sides lock into place.
4. **Graphics Card (GPU) Installation:** Insert your PCI Express graphics card into the primary PCIe x16 slot. Ensure it is seated firmly and secured with the case latch or screw.
5. **Storage Device Installation:** Connect SATA drives to the SATA 6Gb/s ports. For M.2 SSDs, insert the module into the M.2 slot and secure it with the provided screw.

6. **Power Supply Connections:** Connect the 24-pin ATX main power connector and the 8-pin ATX 12V CPU power connector from your power supply to the motherboard. Connect power to other components as needed.
7. **Front Panel Connections:** Connect the front panel headers (power button, reset button, USB ports, audio jacks) to their respective pins on the motherboard. Refer to the motherboard manual for pin assignments.

4. OPERATING THE MOTHERBOARD

4.1 BIOS/UEFI Setup

The GIGABYTE GA-AX370-Gaming K5 features a UEFI Dual BIOS. To enter the BIOS setup, press the **DEL** key during system startup. The BIOS allows you to configure system settings, boot order, overclocking parameters, and monitor hardware status. Regular BIOS updates are recommended for optimal compatibility and performance.

4.2 RGB FUSION



This image shows the GIGABYTE GA-AX370-Gaming K5 motherboard with its RGB FUSION lighting active, particularly illuminating the DDR4 memory slots. The RGB FUSION feature allows users to customize the motherboard's lighting effects and colors. Utilize the GIGABYTE APP Center software to control the multi-zone LED light show and personalize your system's aesthetics. The motherboard also supports swappable overlays for accent LEDs.

4.3 Smart Fan 5

Smart Fan 5 provides advanced control over your system's cooling. Through the BIOS or GIGABYTE's software utilities, you can monitor temperature sensors, configure fan curves, and ensure efficient cooling while minimizing noise levels.

4.4 GIGABYTE APP Center

The GIGABYTE APP Center provides a unified interface for various GIGABYTE utilities, including Easy Tune for system performance optimization and Cloud Station for seamless device connectivity and data management.

5. MAINTENANCE

- **Cleaning:** Periodically clean dust from the motherboard and components using compressed air. Ensure the system is powered off and unplugged before cleaning.
- **BIOS Updates:** Check the GIGABYTE website regularly for the latest BIOS updates. Updating the BIOS can improve system stability, compatibility, and performance. Utilize the Q-Flash utility in the BIOS or GIGABYTE's @BIOS software for safe updates. The Dual BIOS feature provides a backup in case of a failed update.
- **Driver Updates:** Keep all drivers for your motherboard chipset, audio, LAN, and other integrated components updated to ensure optimal performance and compatibility.

6. TROUBLESHOOTING

- **No Power/No POST:** Double-check all power connections (24-pin ATX, 8-pin CPU, GPU). Ensure CPU, RAM, and GPU are correctly seated. Try booting with only essential components (CPU, one RAM stick, GPU). Clear CMOS by removing the battery for a few minutes or using the designated jumper.
- **RAM Issues:** If experiencing instability or incorrect RAM speed, ensure your DDR4 modules are compatible with the motherboard's QVL (Qualified Vendor List). Adjust RAM frequency and timings in the BIOS, or enable XMP/DOCP profiles.
- **Display Issues:** If no display, ensure your monitor is connected to the graphics card (if dedicated) or the motherboard's HDMI port (if using an AMD APU with integrated graphics). Check graphics card power connections.
- **BIOS Unresponsiveness:** If the BIOS interface is slow or unresponsive, ensure you are on the latest stable BIOS version. If issues persist, try resetting the CMOS.
- **System Instability:** Ensure all drivers are up to date. Monitor temperatures using Smart Fan 5 or other utilities. If overclocking, revert to default settings to check for stability.

7. SPECIFICATIONS

Feature	Specification
Brand	GIGABYTE
Model Name	GA-AX370-Gaming K5
CPU Socket	Socket AM4
Compatible Processors	AMD Ryzen, 7th Generation A-series/Athlon
Chipset Type	AMD X370
RAM Memory Technology	DDR4
Memory Clock Speed	Up to 3200 MHz (OC)
Memory Slots Available	4
Maximum Memory Capacity	64 GB
Graphics Card Interface	PCI Express
Total PCIe Ports	3 (1x PCIe x16, 1x PCIe x16 (8x), 1x PCIe x16 (4x)) and 3x PCIe x1 slots
Total SATA Ports	6
USB 3.1 Gen 2 Ports	2 (1x Type-C, 1x Type-A)
USB 2.0 Ports	2 (rear)
Ethernet Ports	1 (Intel Gigabit LAN)

HDMI Ports	1
Audio	Realtek ALC 1220 Codec, 7.1-Channel High Definition Audio
Form Factor	ATX (305mm x 244mm)
Item Weight	1.45 Kilograms

8. WARRANTY AND SUPPORT

This product comes with a 3-year warranty. For technical support, driver downloads, and further information, please visit the official GIGABYTE website or contact their customer service. Keep your proof of purchase for warranty claims.