

MACHINIST X99-K9

MACHINIST X99-K9 Motherboard User Manual

Model: X99-K9

1. INTRODUCTION

This manual provides detailed instructions for the installation, operation, maintenance, and troubleshooting of the MACHINIST X99-K9 motherboard. This Micro ATX motherboard is designed to support Intel Xeon E5 V3/V4 and 5th/6th generation Intel Core i7 series processors for LGA 2011-V3 sockets, featuring DDR4 memory support, dual M.2 interfaces, and robust power delivery.

2. 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.

2.1 Processor Installation

The X99-K9 motherboard features an LGA 2011-V3 socket, compatible with Intel Xeon E5 V3/V4 and specific 5th/6th generation Intel Core i7 processors. Carefully align the processor with the socket, ensuring the gold triangle on the CPU matches the indicator on the socket. Gently lower the CPU into place without forcing it, then secure the retention arm.

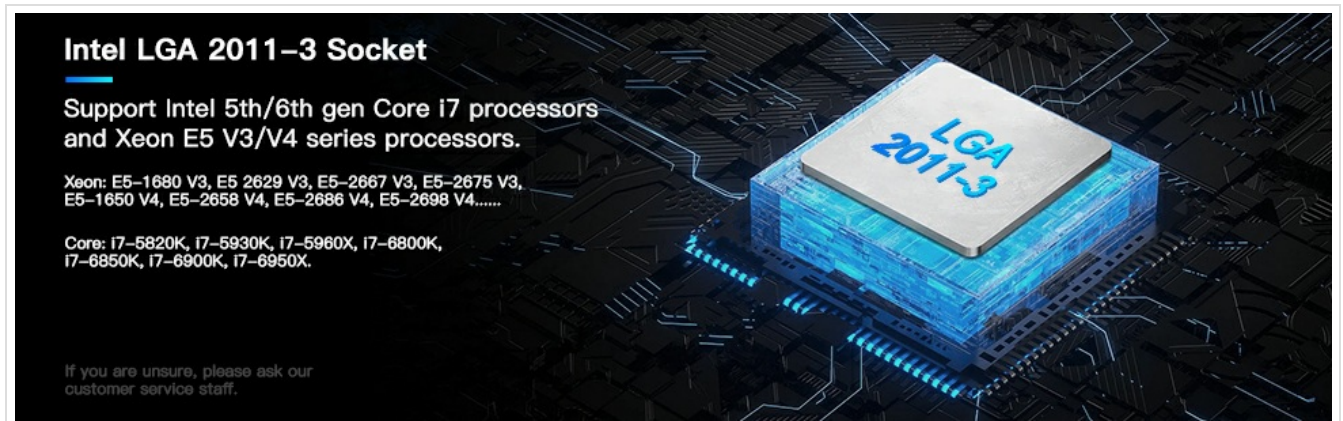


Image: The Intel LGA 2011-3 Socket on the motherboard, ready for processor installation. This socket supports compatible Intel Xeon E5 V3/V4 and Core i7 processors.

2.2 Memory Installation

This motherboard is equipped with four DDR4 memory slots, supporting both ECC and Non-ECC memory types. The maximum supported capacity is 64GB, with speeds ranging from 2133MHz to 3600MHz. Install memory modules by aligning the notch on the module with the key in the DIMM slot, then press down firmly on both ends until the clips snap into place.



Image: Close-up view of the four DDR4 memory slots on the X99-K9 motherboard, indicating support for ECC and Non-ECC memory up to 64GB.

2.3 Storage Device Installation

The X99-K9 motherboard provides versatile storage options:

- **Dual M.2 Interfaces:** Includes one SATA M.2 interface and one NVME M.2 interface. These support PCIe 3.0 standard, offering data transfer speeds up to 32 Gbps.
- **SATA 3.0 Ports:** Six SATA 3.0 ports are available for traditional hard drives and SSDs, providing 6 Gbps transmission.

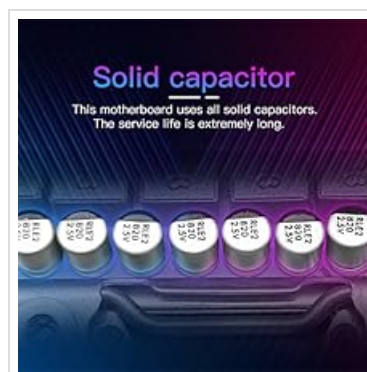


Image: Illustration highlighting the high-speed SATA M.2 and NVME M.2 interfaces on the motherboard.

Realtek ALC897 HD Audio

The onboard ALC 897 chip, supports 5.1-channel audio output. The cool yellow light effect can form an independent audio dividing line to protect the audio from interference and damage!

Image: Detailed view of the dual NVME M.2 slots, emphasizing PCIe 3.0 x4 bandwidth and 32Gbps maximum transmission rate.



Image: A visual representation of multiple SATA 3.0 ports, providing 6Gbps data transmission.

2.4 Power and Peripheral Connections

Connect the 24-pin ATX power connector and the 8-pin CPU power connector from your power supply to the motherboard. Install your graphics card into the PCI-EX16 slot and any other expansion cards into the PCI-EX1 slot. Connect front panel headers (power button, reset button, USB, audio) according to your case manual. The motherboard also features 4 USB 3.0 and 4 USB 2.0 ports on the rear I/O panel, along with Gigabit Ethernet and 5.1 channel audio outputs.

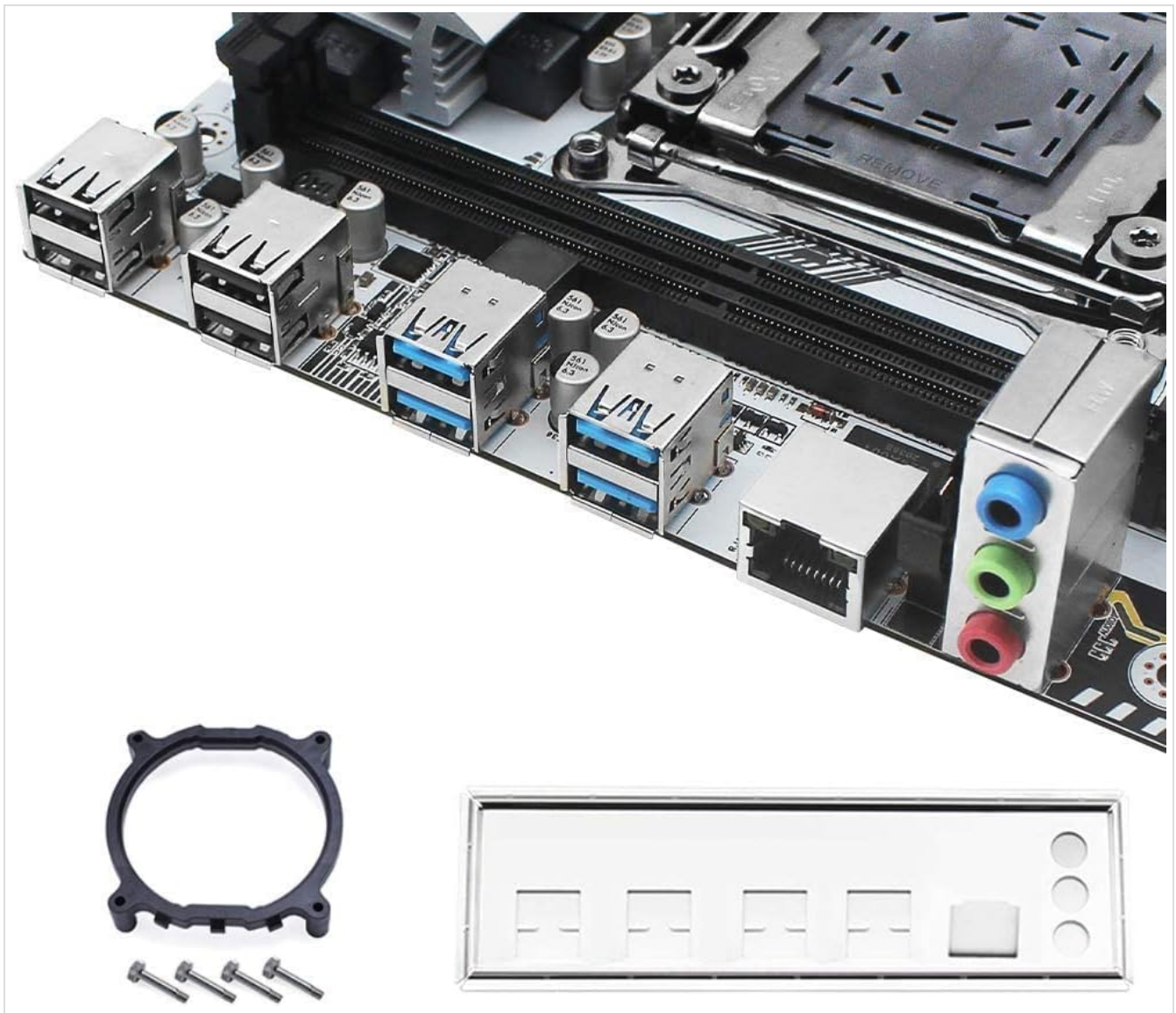


Image: The rear I/O panel of the X99-K9 motherboard, showing USB ports, Ethernet, and audio jacks, alongside the included CPU fan bracket and I/O shield.

2.5 Cooling System

The motherboard incorporates an aluminum heat sink for VRM (Voltage Regulator Module) heat dissipation. This design helps maintain stable operation of the CPU under various loads.



Image: An aluminum heat sink positioned over the VRM area, designed for efficient heat dissipation.

3. OPERATING INSTRUCTIONS

3.1 Initial Boot-up

After completing all hardware installations, connect your display, keyboard, and mouse. Power on your system. The motherboard BIOS/UEFI interface can typically be accessed by pressing a specific key (e.g., DEL, F2) during startup. Refer to the on-screen prompts for the correct key.

3.2 Driver Installation

For optimal performance, install the necessary drivers for your operating system. Windows 10 often provides automatic driver detection and installation for many components. If manual driver installation is required, a recommended tool for driver management is Driver Talent. Alternatively, visit the manufacturer's website for specific driver downloads.



Image: A Gigabit Ethernet port, indicating network connectivity at 1000Mbps.

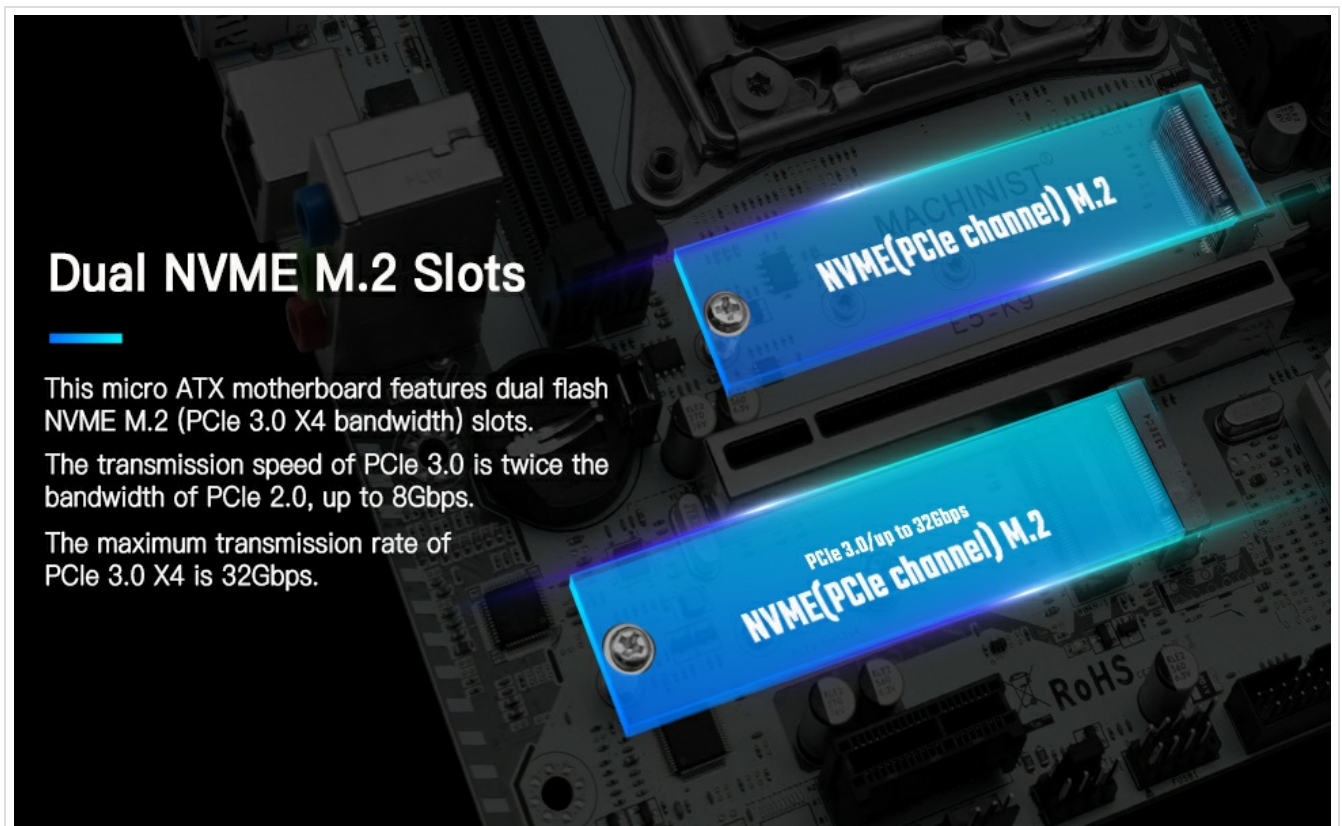


Image: The Realtek ALC897 HD Audio chip, providing 5.1-channel audio output with an independent audio dividing line for interference protection.



Image: USB 3.0 ports, capable of file transfer rates up to 5Gbps.

4. MAINTENANCE

To ensure the longevity and stable performance of your MACHINIST X99-K9 motherboard, regular maintenance is recommended:

- **Dust Removal:** Periodically clean dust from the motherboard and components using compressed air. Ensure proper ventilation within your PC case.
- **Component Security:** Verify that all cables and components are securely seated to prevent poor connections.
- **Solid Capacitors:** The motherboard utilizes solid capacitors, which contribute to a longer service life and enhanced stability.



Image: Close-up view of solid capacitors, indicating their use for enhanced durability and extended service life.

5. TROUBLESHOOTING

If you encounter issues such as no display, no boot, no picture, or problems with network or sound after normal installation, consider the following troubleshooting steps:

- **Restore Factory Settings:** Access the BIOS/UEFI and restore the motherboard to its factory default settings.
- **Reset CMOS:** Clear the CMOS (Complementary Metal-Oxide-Semiconductor) memory. This can typically be done by removing the CMOS battery for a few minutes or using a dedicated jumper on the motherboard.
- **Clean Contacts:** Gently wipe the metal contacts on your memory modules, CPU, and graphics card with a clean, soft eraser. This can resolve issues caused by poor contact.

- **Component Re-seating:** Ensure all components (CPU, RAM, graphics card, power cables) are properly and firmly seated in their respective slots and connectors.

6. SPECIFICATIONS

The following table details the technical specifications of the MACHINIST X99-K9 motherboard:

Feature	Specification
Brand	MACHINIST
Model Number	X99-K9
CPU Socket	LGA 2011 V3 Socket
Compatible Processors	Intel Xeon E5 V3/V4, Intel Core i7 (5th/6th Gen)
Chipset Type	Intel X99
RAM Memory Technology	DDR4 (ECC and Non-ECC)
Memory Slots	4 (Quad-channel support)
Maximum Memory Capacity	64 GB
Memory Clock Speed	2133/2400/2666/3200/3600 MHz
M.2 Interfaces	1x SATA M.2, 1x NVME M.2 (PCIe 3.0, up to 32 Gbps)
SATA Ports	6x SATA 3.0 (6 Gbps)
Expansion Slots	1x PCI-EX16, 1x PCI-EX1
USB Ports	4x USB 3.0, 4x USB 2.0
Audio	Realtek ALC897 HD Audio (5.1 Channel)
Ethernet	Gigabit Ethernet (1000 Mbps)
Power Interface	24+8 pin
Form Factor	Micro ATX
Item Weight	1.97 pounds
Package Dimensions	10.75 x 8.31 x 2.17 inches
First Available Date	May 14, 2021

7. SUPPORT

For any uncertainties regarding installation, operation, or troubleshooting that are not covered in this manual, please contact MACHINIST customer service for assistance. For driver downloads, consider using a reputable driver management tool like Driver Talent or checking the official MACHINIST support website.

