

HKUXZR NAS-X99-226*6

HKUXZR C612 NAS Motherboard User Manual

Model: NAS-X99-226*6

1. PRODUCT OVERVIEW

The HKUXZR C612 NAS Motherboard is designed for network-attached storage (NAS), router, and server applications. It supports LGA2011-3 Intel Xeon E5-V3/V4 Series processors and features multiple high-speed connectivity options.

Key features include:

- Support for LGA2011-3 Intel Xeon E5-V3/V4 Series processors.
- Six Intel i226 2.5 Gigabit Ethernet ports for secure, stable, and fast network connections.
- One PCIe 3.0 x16 slot for expansion.
- Two DDR4 memory slots, supporting up to 32GB of 2133/2400/2666MHz RAM.
- Ten SATA 3.0 ports with 6Gbps for extensive storage configurations.
- One M.2 NVMe PCIe slot.
- Integrated VGA output.
- RAID Array Support for 0/1/5/10.

This motherboard is built with an Intel C612 chipset, providing a robust platform for various computing needs.

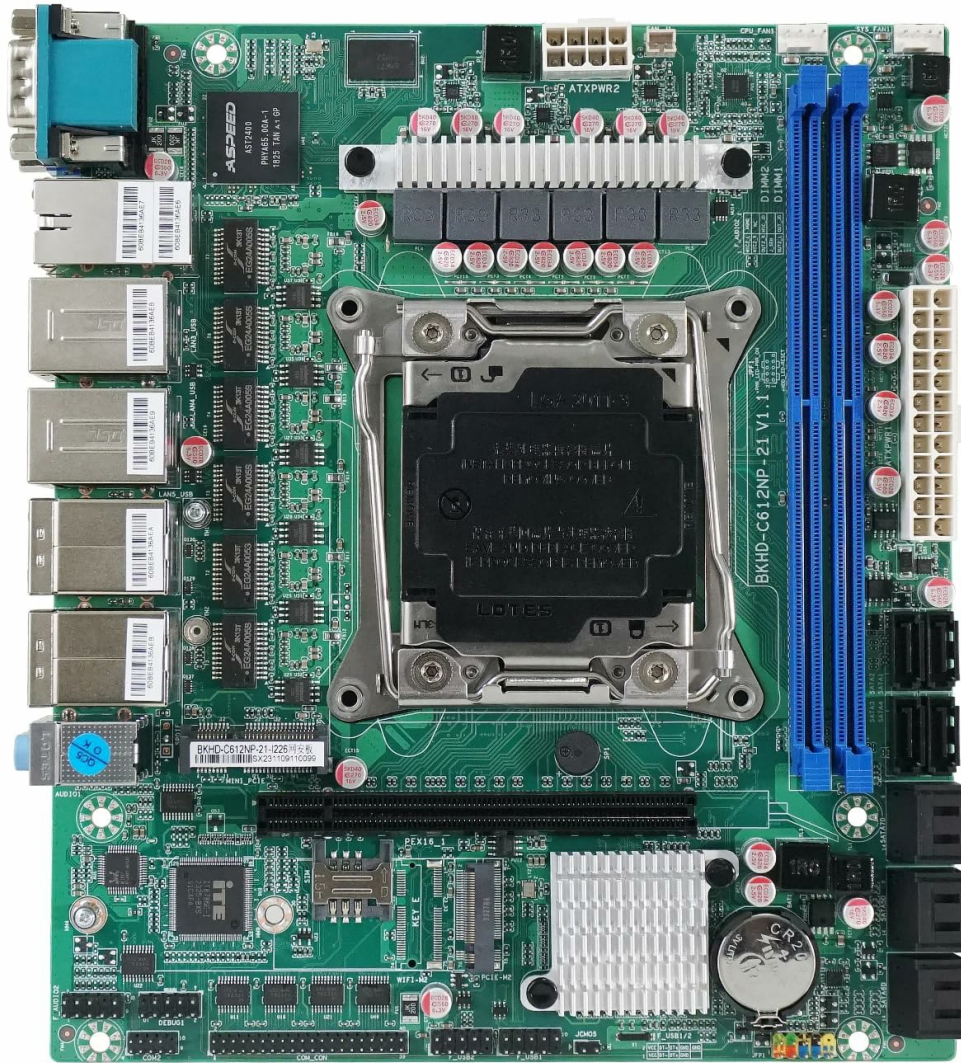


Figure 1: Top-down view of the HKUXZR C612 NAS Motherboard, showcasing the CPU socket, RAM slots, and various ports.

2. SETUP AND INSTALLATION

2.1 Pre-Installation Checks

- Ensure you have a compatible LGA2011-3 Intel Xeon E5-V3/V4 Series processor.
- Verify that your DDR4 RAM modules are compatible with 2133/2400/2666MHz speeds.
- Prepare a suitable radiator for CPU cooling. The motherboard requires a good radiator for proper operation.
- Confirm your power supply has both a 24-pin ATX connector and an 8-pin ATX 12V connector.

2.2 Component Installation

1. **CPU Installation:** Carefully install your LGA2011-3 Intel Xeon processor into the CPU socket. Ensure proper alignment and secure the retention mechanism. Apply thermal paste and install the CPU radiator.
2. **RAM Installation:** Insert DDR4 memory modules into the two available DIMM slots. Ensure they are fully seated until the clips lock into place.
3. **Storage Device Installation:** Connect SATA drives to the 10 SATA 3.0 ports. For M.2 NVMe SSDs,

install them into the M.2 slot.

Important Note: The PCIe x1 slot shares its signal with M.2 NVMe slot 2. These two slots cannot be used simultaneously.

4. **Power Connection:** Connect both the 24-pin ATX power connector and the 8-pin ATX 12V power connector from your power supply to the motherboard. Both connections are required for the motherboard to power on.
5. **Peripheral Connections:** Connect necessary peripherals such as keyboard, mouse, and display to the appropriate ports on the rear I/O panel.

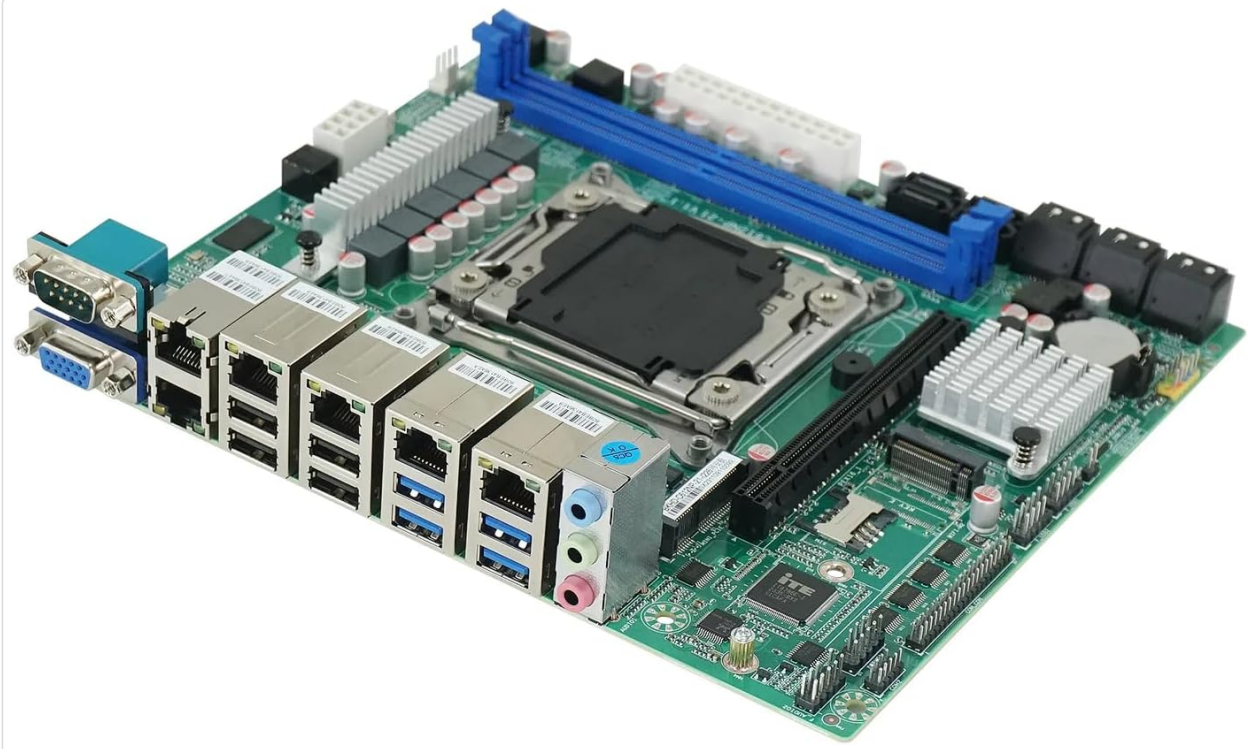


Figure 2: Angled view of the motherboard, showing the rear I/O panel with VGA, Ethernet, USB, and audio ports.



Figure 3: Detailed view of the rear I/O ports, including two VGA ports, six 2.5GbE Ethernet ports, USB ports, and audio jacks.

3. OPERATING INSTRUCTIONS

3.1 Initial Power On

After connecting all components and power, press the power button. During the first boot, the motherboard may take a few minutes to detect and read memory information. Please be patient and allow this process to complete.

3.2 BIOS Access

To enter the BIOS setup utility, continuously press the "**DEL**" key immediately after powering on the system.

3.3 Operating System Installation

The Intel i226-V network card is a newer component. For optimal performance and compatibility, it is recommended to install the newest versions of operating systems with supportable kernels. Compatible systems include:

- pfSense-CE 2.7
- OPNsense 23.x
- pfSense Plus
- OpenWrt
- ESXi
- Proxmox 8.x
- CentOS
- Other Linux and Windows distributions with updated kernel support.

Ensure your chosen operating system version provides native support for the Intel i226-V network controller to avoid driver issues.

4. MAINTENANCE

Proper maintenance ensures the longevity and stable operation of your motherboard.

- **Dust Removal:** Regularly clean dust from the motherboard and cooling components using compressed air. Ensure the system is powered off and unplugged before cleaning.
- **Cooling:** Ensure adequate airflow within your chassis. Verify that all fans (CPU, chassis) are functioning correctly and that the CPU radiator is free from obstructions.
- **Firmware Updates:** Periodically check the manufacturer's website for BIOS/UEFI firmware updates. Apply updates as recommended, following the provided instructions carefully.
- **Cable Management:** Organize internal cables to prevent obstruction of airflow and to ensure secure connections.

5. TROUBLESHOOTING

- **System Does Not Power On:**
 - Verify that both the 24-pin ATX and 8-pin ATX 12V power connectors are securely attached to the motherboard. Both are required.
 - Check the power supply unit (PSU) connection to the wall outlet and ensure the PSU switch is in the 'ON' position.
 - Ensure the front panel power button is correctly connected to the motherboard's header.
- **No Display Output:**
 - Confirm the monitor is connected to the motherboard's VGA port and is powered on.
 - Reseat the RAM modules. Incorrectly seated RAM is a common cause of no display.
 - Ensure the CPU is properly installed and the CPU cooler is making good contact.
- **Long Boot Time on First Power On:**

This is normal. The motherboard takes a few minutes to read memory information during the initial boot sequence. Allow it to complete.
- **M.2 NVMe or PCIe x1 Slot Not Working:**

Remember that the PCIe x1 slot shares its signal with M.2 NVMe slot 2. Ensure only one of these is in use at a time.

- **Network Connectivity Issues:**
If experiencing issues with the 2.5GbE ports, ensure your operating system has the latest kernel and drivers that support the Intel i226-V network card. Refer to Section 3.3 for recommended OS versions.

6. SPECIFICATIONS

The following table details the technical specifications of the HKUXZR C612 NAS Motherboard (Model: NAS-X99-226*6).

 Product Info	
Processor	Support LGA2011-3 Intel Xeon E5- V3/V4 Series processors
Chipset	Intel C612
Memory Slot	2*DDR4 DIMM (support ECC) Maximum Support 32+32GB
Storage Slot	1*M.2 NVMe M.Key 2280/10*SATA
Other Functions	Auto-Start; Scheduled Boot; Wake-on-LAN; PXE Startup Watchdog
Expansion Slot	1*M.2 Key E for WiFi/Bluetooth/4G
	1*PCIe 3.0 x16
Network Card	6*Intel i226 2.5Gigabit Ethernet
Power Supply	ATX 24 Pin+8Pin
Video Output	1*VGA
Raid Array	Support 0/1/5/10

Figure 4: Product information table summarizing key specifications.

Feature	Specification
Brand	HKUXZR
Model Name	NAS-X99-226*6
CPU Socket	LGA 2011-3

Feature	Specification
Compatible Processors	Intel Xeon E5-V3, Intel Xeon E5-V4 Series
Chipset Type	Intel C612
RAM Memory Technology	DDR4
Memory Slots Available	2 (supports ECC)
Memory Clock Speed	2133/2400/2666 MHz
Ram Memory Maximum Size	32 GB
Total SATA Ports	10 (SATA 3.0, 6Gbps)
M.2 Slots	1 (M.2 NVMe M.Key 2280)
Total PCIe Ports	1 (PCIe 3.0 x16)
Ethernet Ports	6 (Intel i226 2.5GbE)
Video Output	1 (VGA)
Main Power Connector Type	24-Pin + 8-Pin ATX
RAID Support	0/1/5/10
Platform Compatibility	Linux, Windows (specific versions recommended for i226-V)
Other Functions	Auto-Start, Scheduled Boot, Wake-on-LAN, PXE Startup, Watchdog

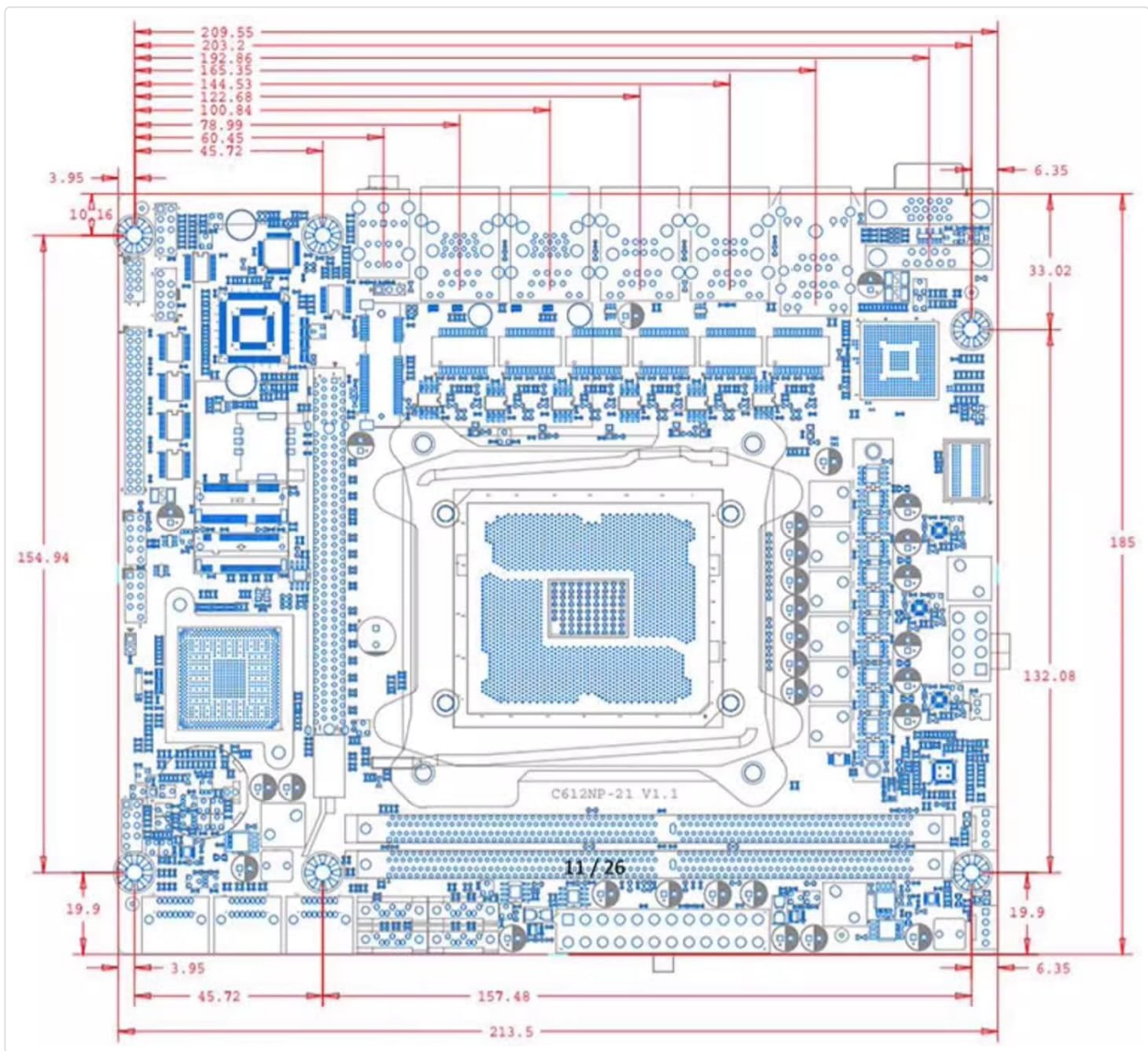
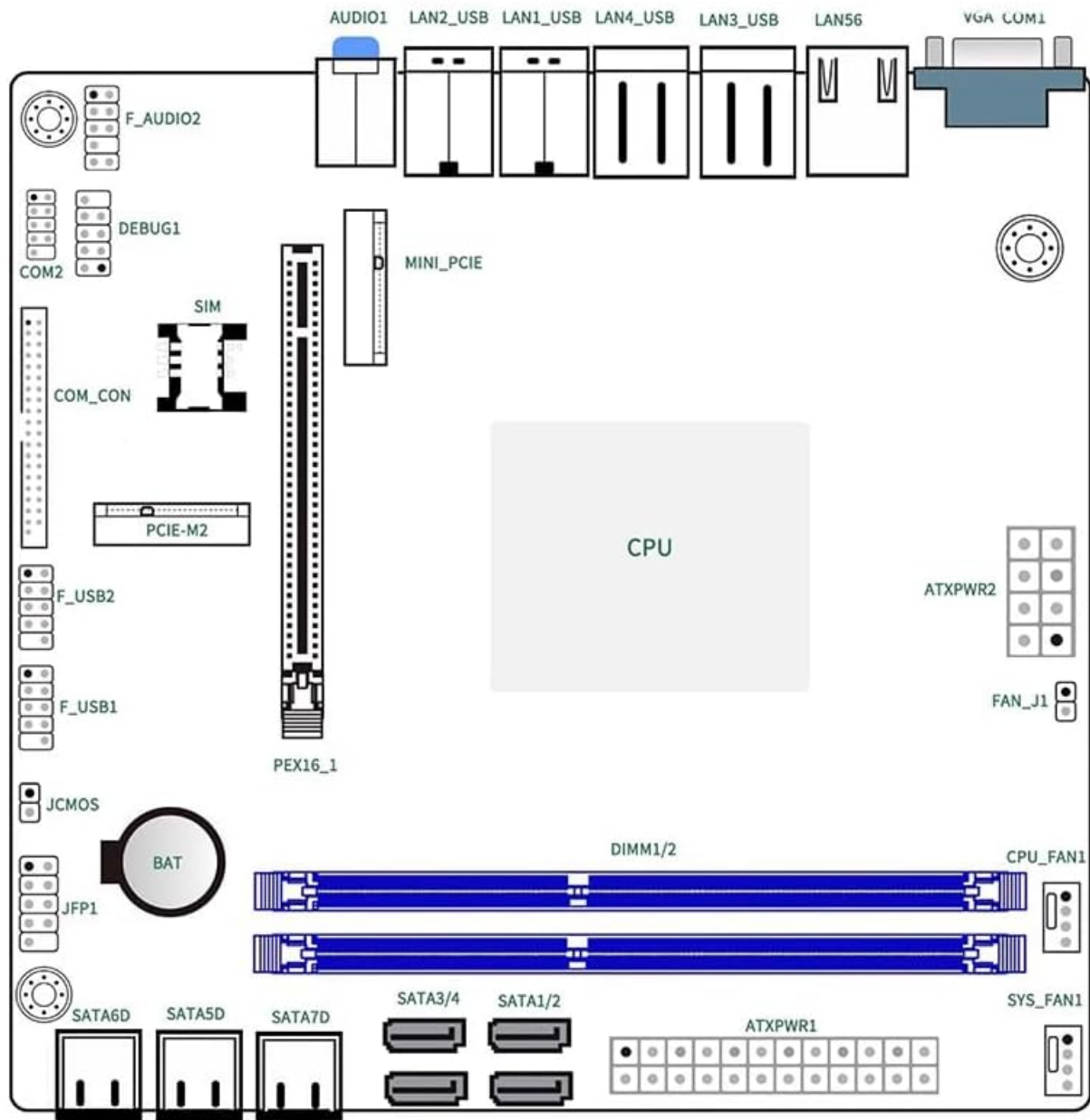


Figure 5: Technical drawing illustrating the dimensions of the motherboard in millimeters.

主板摆位图



后背板接口

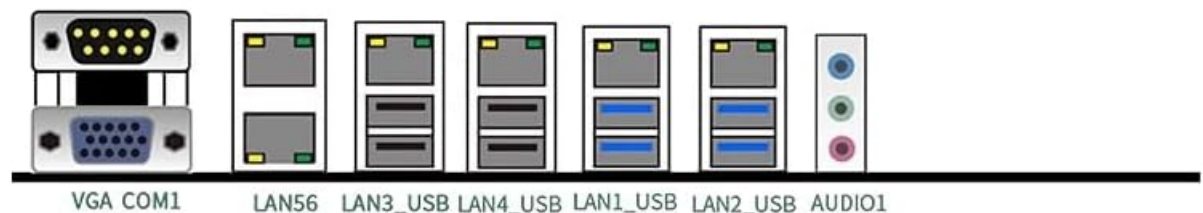


Figure 6: Diagram showing the layout of the motherboard, including locations for CPU, DIMM slots, SATA ports, and various headers.

7. WARRANTY INFORMATION

The HKUXZR C612 NAS Motherboard comes with a **one-year warranty** from the date of purchase. This warranty covers manufacturing defects and malfunctions under normal use conditions.

For warranty claims or detailed terms and conditions, please refer to the official HKUXZR support channels or your point of purchase.

8. SUPPORT

For further assistance, technical support, or inquiries regarding the HKUXZR C612 NAS Motherboard, please contact HKUXZR customer service through their official website or the retailer from whom the product was purchased.

When contacting support, please have your product model number (NAS-X99-226*6) and purchase information readily available.

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This manual is for informational purposes only. Specifications are subject to change without notice.