

## Supermicro AS-4124GS-TNR-5

# Supermicro A+ Server AS-4124GS-TNR 5U Instruction Manual

Model: AS-4124GS-TNR-5

## INTRODUCTION

This manual provides essential information for the installation, operation, and maintenance of your Supermicro A+ Server AS-4124GS-TNR 5U. This high-performance 5U rack server is designed for demanding applications requiring substantial processing power and advanced GPU capabilities, such as scientific research, AI, machine learning, and deep learning. It supports dual EPYC 7003/7002 Series Processors, multiple GPUs, high memory capacity, and flexible storage options. Please read this manual thoroughly before operating the server.

## SAFETY INFORMATION

Always observe the following safety precautions to prevent injury and damage to the equipment:

- **Electrical Safety:** Ensure the server is connected to a properly grounded power source. Do not operate with damaged power cords.
- **Weight:** The server is heavy (approximately 80 pounds). Use proper lifting techniques or assistance when moving or installing the unit.
- **Electrostatic Discharge (ESD):** Always use an anti-static wrist strap when handling internal components to prevent damage from static electricity.
- **Ventilation:** Ensure adequate airflow around the server. Do not block ventilation openings.
- **Qualified Personnel:** Only qualified service personnel should perform maintenance or repairs.

## SETUP AND INSTALLATION

### 1. Unboxing

Carefully remove the server from its packaging. Inspect for any signs of damage during transit. Retain all packaging materials for future transport.

## 2. Rack Installation

The AS-4124GS-TNR is a 5U rack-mountable server. It includes rails for installation into a standard server rack.

1. Attach the rail kits to the server and the rack posts according to the rail kit instructions.
2. Carefully slide the server into the rack, ensuring it locks securely into place. Due to its weight, it is recommended to have at least two people for this step.

## 3. Component Installation and Verification

This server supports various high-performance components. Verify all components are securely seated.

- **Processors:** The server is equipped with two EPYC 7352 2.3GHz 24-Core Processors. Ensure heatsinks are properly seated.
- **Memory:** 512GB (16x 32GB) DDR4 2933MHz Registered Memory is installed. Verify all DIMMs are correctly seated in their slots.
- **Storage:** Two 480GB SATA 6Gbps 2.5" Solid State Drives are installed. Ensure they are properly connected.
- **GPUs:** The server supports up to 8x Dual Slot GPUs with NVLink Bridge Top (GPUs not included). If installing GPUs, follow the manufacturer's instructions for proper seating and power connections.



*Figure 1: Internal view of the Supermicro AS-4124GS-TNR server. This image displays the layout of the CPU sockets, numerous DDR4 RAM slots, and the extensive array of PCIe slots designed to accommodate up to eight dual-slot GPUs. The internal cabling and cooling solutions are also visible.*

## 4. Cabling

- **Power:** Connect the power cables to the server's power supply units and a grounded power outlet.
- **Network:** Connect network cables to the 2x 1GbE RJ45 LAN ports and the CX516A ConnectX-5 Dual Port 100Gb QSFP PCIe Network Card as required.
- **Peripherals:** Connect any necessary peripherals such as a monitor, keyboard, and mouse for initial setup.



Figure 2: Rear view of the Supermicro AS-4124GS-TNR server. This image highlights the various I/O ports, including network interfaces (1GbE RJ45 and 100GbE QSFP), USB ports, and video output. The multiple hot-swappable power supply units and cooling fan modules are also clearly visible, indicating redundancy and efficient thermal management.

## OPERATING INSTRUCTIONS

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### 1. Power On/Off

- **Power On:** Press the power button on the front panel.
- **Normal Shutdown:** Perform a graceful shutdown through the operating system.
- **Force Shutdown:** Press and hold the power button for 5 seconds. Use only when necessary to prevent data loss.

### 2. Initial Boot and BIOS/UEFI Setup

Upon first power-on, the server will perform a Power-On Self-Test (POST). To access the BIOS/UEFI setup utility, press the designated key (usually **DEL** or **F2**) during POST. Configure boot order, date/time, and other system settings as needed.

### 3. Operating System Installation

Install your preferred operating system (e.g., Linux, Windows Server) from a bootable USB drive or network source. Follow the OS installation prompts. Ensure all necessary drivers for the server's components are installed for optimal performance.

### 4. Remote Management (IPMI)

The server features IPMI 2.0 for remote management. Connect a network cable to the dedicated IPMI port (if available) or one of the shared LAN ports. Access the IPMI web interface via a web browser using the assigned IP address to monitor system status, perform remote power cycles, and manage virtual media.

## MAINTENANCE

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### 1. Cleaning

Regularly inspect and clean the server to ensure proper airflow and prevent overheating.

- Use compressed air to remove dust from fans, heatsinks, and ventilation openings.
- Ensure the server environment is free of excessive dust and debris.

## 2. Firmware Updates

Periodically check the Supermicro website for updated BIOS, BMC (IPMI), and driver firmware. Keeping firmware up-to-date ensures optimal performance, stability, and security. Follow Supermicro's instructions for firmware update procedures.

## 3. Component Checks

Regularly check the status of fans, power supply units, and storage drives. Replace any failing components promptly to avoid system downtime.

## TROUBLESHOOTING

This section provides general guidance for common issues. For detailed troubleshooting, refer to the official Supermicro documentation for the AS-4124GS-TNR series.

- **No Power:** Verify power cables are securely connected to the server and power outlet. Check power supply unit status indicators.
- **No Display/Boot:** Ensure monitor is connected and powered on. Reseat memory modules and expansion cards. Check for POST error codes or beeps.
- **Network Connectivity Issues:** Verify network cables are properly connected. Check network adapter status in the operating system. Confirm IP settings.
- **Overheating:** Ensure proper ventilation and clean any dust from fans and heatsinks. Check fan operation.

## SPECIFICATIONS

Key technical specifications for the Supermicro A+ Server AS-4124GS-TNR-5:

Feature	Specification
Model Name	AS-4124GS-TNR-5
Processor	2x AMD EPYC 7352 2.3GHz 24-Core
RAM	512 GB DDR4 2933MHz Registered Memory
Hard Drive	2x 480 GB SATA 6Gbps 2.5" Solid State Drive
GPU Support	Supports 8x Dual Slot PCIe 4.0 GPUs with NVLink Bridge Top (GPUs not included)
Network Card	2x 1GbE RJ45 LAN ports, CX516A ConnectX-5 Dual Port 100Gb QSFP PCIe Network Card
Management	IPMI 2.0
Hardware Platform	PC
Item Weight	Approximately 80 pounds

Feature	Specification
Product Dimensions (LxWxH)	29 x 18 x 7 inches

## WARRANTY AND SUPPORT

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This product is sold as a renewed item by "The Server Store, by MET". It is covered by a 90-day easy return policy. For any technical support, warranty claims, or assistance with the product, please contact "The Server Store, by MET" directly.

For detailed product documentation and further technical resources, please refer to the official Supermicro website for the AS-4124GS-TNR series.