

Intel OEM Tray Processors SRFBM

Intel Xeon Silver 4208 Processor User Manual

Model: SRFBM

1. INTRODUCTION

This document serves as a comprehensive guide for the Intel Xeon Silver 4208 Processor. It provides detailed instructions for proper installation, operational considerations, maintenance procedures, and troubleshooting steps. The Intel Xeon Silver 4208 is an 8-core, 16-thread processor with a base clock speed of 2.10 GHz, 11MB cache, and an 85W Thermal Design Power (TDP), designed for server and workstation applications requiring reliable performance and efficiency.

2. SAFETY INFORMATION

Always observe the following safety precautions when handling and installing the processor:

- **Electrostatic Discharge (ESD) Protection:** Processors are sensitive to static electricity. Always use an anti-static wrist strap and work on an anti-static mat when handling the CPU.
- **Handle with Care:** Avoid touching the gold contact pads (pins) on the underside of the processor. Hold the CPU by its edges.
- **Power Off:** Ensure the system is completely powered off and disconnected from the power source before installation or removal.
- **Ventilation:** Ensure adequate airflow within the system chassis to prevent overheating.
- **Thermal Paste:** Always apply a thin, even layer of thermal paste between the CPU and the heatsink for efficient heat transfer.

3. PACKAGE CONTENTS

As an OEM (Original Equipment Manufacturer) tray processor, the package typically includes:

- Intel Xeon Silver 4208 Processor (Model: SRFBM)
- Protective plastic tray/clamshell for safe transport

Note: Heatsink/cooler, thermal paste, and other accessories are generally not included with OEM tray processors

and must be acquired separately.

4. SETUP AND INSTALLATION

Follow these steps for proper installation of your Intel Xeon Silver 4208 Processor:

1. **Compatibility Check:** Verify that your motherboard supports the Intel Xeon Silver 4208 processor and has an LGA 3647 socket. Consult your motherboard's documentation for CPU compatibility lists and BIOS/UEFI version requirements.
2. **Prepare the Motherboard:**
 - Ensure the system is powered off and unplugged.
 - Open the CPU socket retention mechanism on the motherboard. This typically involves releasing a lever or multiple levers.
3. **Install the Processor:**



Figure 1: Underside of the Intel Xeon Silver 4208 processor. This image displays the underside of the Intel Xeon Silver 4208 processor, highlighting the numerous gold-plated contact pads (pins) designed to interface with the LGA 3647 socket on a compatible motherboard. Proper alignment and careful handling are crucial during installation to prevent damage to these contacts.

- Carefully align the processor with the socket. Look for alignment notches or triangles on the CPU and socket to ensure correct orientation.
- Gently place the processor into the socket. Do not force it. If it does not seat easily, re-check alignment.
- Close the CPU socket retention mechanism to secure the processor.

4. **Apply Thermal Paste:** Apply a small amount (pea-sized dot) of high-quality thermal paste to the center of the CPU's Integrated Heat Spreader (IHS).
5. **Install CPU Cooler:** Mount the compatible CPU heatsink and fan (or liquid cooler) according to its manufacturer's instructions. Ensure it makes firm, even contact with the CPU's IHS. Connect the CPU fan cable to the designated header on the motherboard.
6. **Connect Power:** Reconnect all necessary power cables to the motherboard and components.

5. OPERATING INSTRUCTIONS

Once the processor is physically installed and the system is assembled, follow these steps:

1. **Initial Boot:** Power on the system. The system should POST (Power-On Self-Test) and display information on the screen.
2. **BIOS/UEFI Configuration:** Access the system's BIOS/UEFI setup (usually by pressing DEL, F2, or F10 during boot).
 - Verify that the CPU is correctly detected (model name, speed, core count).
 - Ensure memory is detected and configured correctly.
 - Adjust any necessary settings for your operating system or specific applications.
 - Save changes and exit BIOS/UEFI.
3. **Operating System:** Proceed with operating system installation or boot into an existing OS. Ensure all necessary drivers (chipset, etc.) are installed for optimal performance.

6. MAINTENANCE

Regular maintenance helps ensure the longevity and stable performance of your processor and system:

- **Dust Removal:** Periodically clean dust from the CPU heatsink and system fans using compressed air. Dust accumulation can impede airflow and lead to overheating.
- **Thermal Paste Check:** If CPU temperatures are consistently high, consider reapplying thermal paste. This typically involves removing the CPU cooler, cleaning off old paste, and applying new paste.
- **Firmware Updates:** Keep your motherboard's BIOS/UEFI firmware updated. Manufacturers often release updates that improve CPU compatibility, stability, and performance.
- **Monitor Temperatures:** Use system monitoring software to keep track of CPU temperatures, especially under load, to ensure it operates within safe limits.

7. TROUBLESHOOTING

If you encounter issues, consider the following troubleshooting steps:

- **No Power/No POST:**
 - Verify all power connections (24-pin ATX, 8-pin CPU power).
 - Ensure the CPU is correctly seated in its socket.
 - Check for bent pins on the CPU or socket (if applicable).
 - Test with minimal components (CPU, one RAM stick, GPU if no integrated graphics).
- **Overheating:**

- Ensure the CPU cooler is properly installed and making good contact.
 - Verify thermal paste application.
 - Check if CPU fan is spinning and connected to the correct header.
 - Clean dust from heatsink and case fans.
- **System Instability/Crashes:**
 - Ensure motherboard BIOS/UEFI is up to date.
 - Run memory diagnostic tests.
 - Check power supply stability.

8. SPECIFICATIONS

Key specifications for the Intel Xeon Silver 4208 Processor (Model: SRFBM):

Feature	Detail
CPU Manufacturer	Intel
CPU Model	Xeon Silver 4208
Cores / Threads	8 Cores / 16 Threads
Base Clock Speed	2.1 GHz
Cache	11 MB Intel Smart Cache
Thermal Design Power (TDP)	85 W
CPU Socket	LGA 3647
Item Model Number	SRFBM
Package Dimensions	2.5 x 1.4 x 1 inches
Item Weight	14.4 ounces

9. WARRANTY AND SUPPORT

As an OEM (Original Equipment Manufacturer) tray processor, warranty and support are typically provided by the system integrator or reseller from whom the complete system or processor was purchased. Intel provides direct warranty support for boxed processors, but OEM processors usually fall under the warranty terms of the system manufacturer.

For technical assistance, driver downloads, and further information, please refer to the official Intel support website or contact your system vendor.

Intel Support: <https://www.intel.com/content/www/us/en/support/products/processors.html>