

Intel SR009

Intel Core i5-2500S Processor SR009 User Manual

Model: SR009 | Brand: Intel

1. INTRODUCTION

This manual provides essential instructions for the proper installation, operation, and maintenance of your Intel Core i5-2500S Quad Core Processor (Model SR009). This processor is designed for LGA1155 socket motherboards, offering a base clock speed of 2.7GHz and a maximum turbo frequency of 3.7GHz, with 6MB of Smart Cache and a 65W TDP. Please read this manual thoroughly before proceeding with installation to ensure optimal performance and system stability.

2. SAFETY INFORMATION

Always observe the following safety precautions when handling computer components:

- **Electrostatic Discharge (ESD) Protection:** Always wear an anti-static wrist strap or frequently touch a grounded metal object (like your computer case) before handling the processor or other internal components. ESD can severely damage electronic parts.
- **Power Disconnection:** Ensure your computer is completely powered off and unplugged from the wall outlet before opening the case or installing any components.
- **Handle with Care:** The processor pins (or pads on the CPU and socket pins on the motherboard) are extremely delicate. Avoid touching them directly. Hold the processor by its edges.
- **Ventilation:** Ensure adequate ventilation around your computer to prevent overheating.

3. PACKAGE CONTENTS

Verify that your package contains the following items:

- Intel Core i5-2500S Processor (Model SR009)
- *(Optional, depending on retail packaging)* Intel Stock CPU Cooler

- (Optional, depending on retail packaging) Thermal Paste (pre-applied on cooler or in a small tube)
- This User Manual

If any items are missing or damaged, please contact your retailer.

4. SETUP AND INSTALLATION

4.1 Pre-Installation Checks

- **Motherboard Compatibility:** Ensure your motherboard has an LGA1155 socket and supports the Intel Core i5-2500S processor. Refer to your motherboard's manual or manufacturer's website for CPU compatibility lists.
- **BIOS/UEFI Update:** Some motherboards may require a BIOS/UEFI update to support newer processors, even within the same socket generation. Check your motherboard manufacturer's support page.
- **Cooling Solution:** A CPU cooler is essential. Ensure you have a compatible LGA1155 cooler and thermal paste.
- **Power Supply:** Verify your power supply unit (PSU) has sufficient wattage and the necessary CPU power connectors.

4.2 Processor Installation Steps

1. **Prepare the Motherboard:** Place the motherboard on a non-conductive, flat surface (e.g., an anti-static mat or the motherboard box).
2. **Open the CPU Socket:** Locate the LGA1155 socket on the motherboard. Gently push down the small metal lever on the side of the socket and pull it outwards to release the retention frame. Lift the retention frame.
3. **Install the Processor:** Carefully remove the processor from its packaging, holding it by the edges. Align the two notches on the sides of the processor with the corresponding keys on the socket. The golden triangle on one corner of the CPU should align with the triangle mark on the socket. *Do not force the CPU into the socket.* It should drop in easily.
4. **Close the CPU Socket:** Lower the retention frame back into place over the processor. Push the metal lever back down and under the hook to secure the processor.
5. **Apply Thermal Paste (if not pre-applied):** If your cooler does not have pre-applied thermal paste, apply a small pea-sized dot of thermal paste to the center of the CPU's integrated heat spreader (IHS).
6. **Install the CPU Cooler:** Carefully place the CPU cooler onto the processor, ensuring it makes even contact. Follow the cooler manufacturer's instructions for securing it to the motherboard. Connect the CPU cooler's fan cable to the "CPU_FAN" header on the motherboard.

5. OPERATING

5.1 Initial Boot and BIOS/UEFI Configuration

- After installing all components, connect your monitor, keyboard, and mouse. Power on the system.
- Enter the BIOS/UEFI setup utility (usually by pressing `Del`, `F2`, or `F10` during boot-up).
- Verify that the system recognizes the Intel Core i5-2500S processor.
- Load optimized defaults and save changes before exiting.

5.2 Driver Installation

Once the operating system is installed, install the latest chipset drivers from your motherboard manufacturer's website. These drivers ensure proper communication between the CPU and other system components.

6. MAINTENANCE

Proper maintenance helps prolong the life and performance of your processor:

- **Dust Removal:** Periodically clean dust from your CPU cooler and case fans using compressed air. Dust buildup can impede airflow and lead to higher temperatures.
- **Thermal Paste:** Over several years, thermal paste can dry out. If you notice consistently high CPU temperatures, consider reapplying fresh thermal paste. This requires removing the CPU cooler.
- **Temperature Monitoring:** Use software utilities to monitor your CPU temperatures, especially under load. Keep temperatures within safe operating limits (typically below 80-90°C under heavy load).

7. TROUBLESHOOTING

If you encounter issues, consider the following:

- **No Boot/No Display:**
 - Double-check all power connections, especially the 8-pin (or 4-pin) CPU power connector.
 - Ensure the CPU is seated correctly in its socket and the retention lever is locked.
 - Verify the CPU cooler fan is connected to the "CPU_FAN" header.
 - Try reseating RAM modules.
- **Overheating:**
 - Ensure the CPU cooler is properly installed and making good contact with the CPU.
 - Verify thermal paste application.
 - Check for adequate case airflow and clean any dust buildup.
- **System Instability/Crashes:**
 - Ensure your motherboard BIOS/UEFI is up to date.
 - Run memory diagnostic tools to rule out RAM issues.
 - Check for driver conflicts.

For persistent issues, consult your motherboard's troubleshooting guide or contact Intel support.

8. SPECIFICATIONS

Feature	Detail
Model Number	SR009
Brand	Intel
CPU Series	Core i5
CPU Model	i5-2500S

Feature	Detail
CPU Socket	LGA 1155
Core Count	4 (Quad Core)
Base Clock Speed	2.7 GHz
Max Turbo Frequency	3.7 GHz
Cache Memory	6 MB Smart Cache
Thermal Design Power (TDP)	65 Watts
Platform Support	Windows 10 (and earlier compatible OS)
UPC	722851870518

9. WARRANTY AND SUPPORT

For warranty information and technical support, please refer to the official Intel website or contact your point of purchase. Keep your proof of purchase for warranty claims.

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