

Intel T7300

Intel Core 2 Duo T7300 Processor User Manual

Model: SLAMD

1. PRODUCT OVERVIEW

The Intel Core 2 Duo T7300 is a mobile processor designed for laptops and other portable computing devices. It features a dual-core architecture, providing efficient performance for everyday computing tasks. This processor operates at a frequency of 2 GHz and includes a 4 MB L2 Cache, enhancing data access speeds. It is compatible with Socket P motherboards.

This manual provides essential information for the proper installation, operation, and maintenance of your Intel Core 2 Duo T7300 processor.

2. SPECIFICATIONS

Feature	Detail
Processor Number	T7300
Cores	2
Threads	2
Clock Speed	2 GHz
L2 Cache	4 MB
FSB Speed	800 MHz
Lithography	65 nm
Max TDP	35 W
TJUNCTION	100°C
Package Size	35mm x 35mm

Feature	Detail
Sockets Supported	PBGA479, PPGA478 (Socket P)
Instruction Set	64-bit
Intel Virtualization Technology (VT-x)	Yes
Intel 64	Yes
Enhanced Intel SpeedStep Technology	Yes
Platform	Windows 10 (Compatible)

Note: Specifications are subject to change without notice. For the most current information, please refer to the official Intel product documentation.

3. INSTALLATION

Installing a processor requires careful handling and adherence to proper procedures. Incorrect installation can damage the CPU or motherboard. It is recommended that installation be performed by a qualified technician.

3.1 Before You Begin

- Ensure your motherboard supports the Intel Core 2 Duo T7300 processor (Socket P). Consult your motherboard's manual for compatibility.
- Gather necessary tools: thermal paste, screwdriver (if required for heatsink), anti-static wrist strap.
- Disconnect power from your system and discharge any static electricity before handling components.

3.2 Processor Installation Steps

1. **Prepare the Socket:** Locate the CPU socket on your motherboard. Gently lift the retention lever to open the socket.
2. **Align the Processor:** Carefully align the processor with the socket. The processor has a "key" or triangle marking that must match the corresponding mark on the socket. Do not force the processor into the socket. It should drop in with minimal pressure.
3. **Secure the Processor:** Once the processor is seated correctly, lower the retention lever to lock it into place.
4. **Apply Thermal Paste:** Apply a small amount of high-quality thermal paste to the center of the CPU's integrated heat spreader (IHS). Follow the thermal paste manufacturer's instructions for application.
5. **Install Heatsink/Fan:** Carefully place the heatsink/fan assembly onto the CPU, ensuring proper contact. Secure the heatsink according to its manufacturer's instructions. Connect the heatsink fan cable to the designated header on the motherboard.

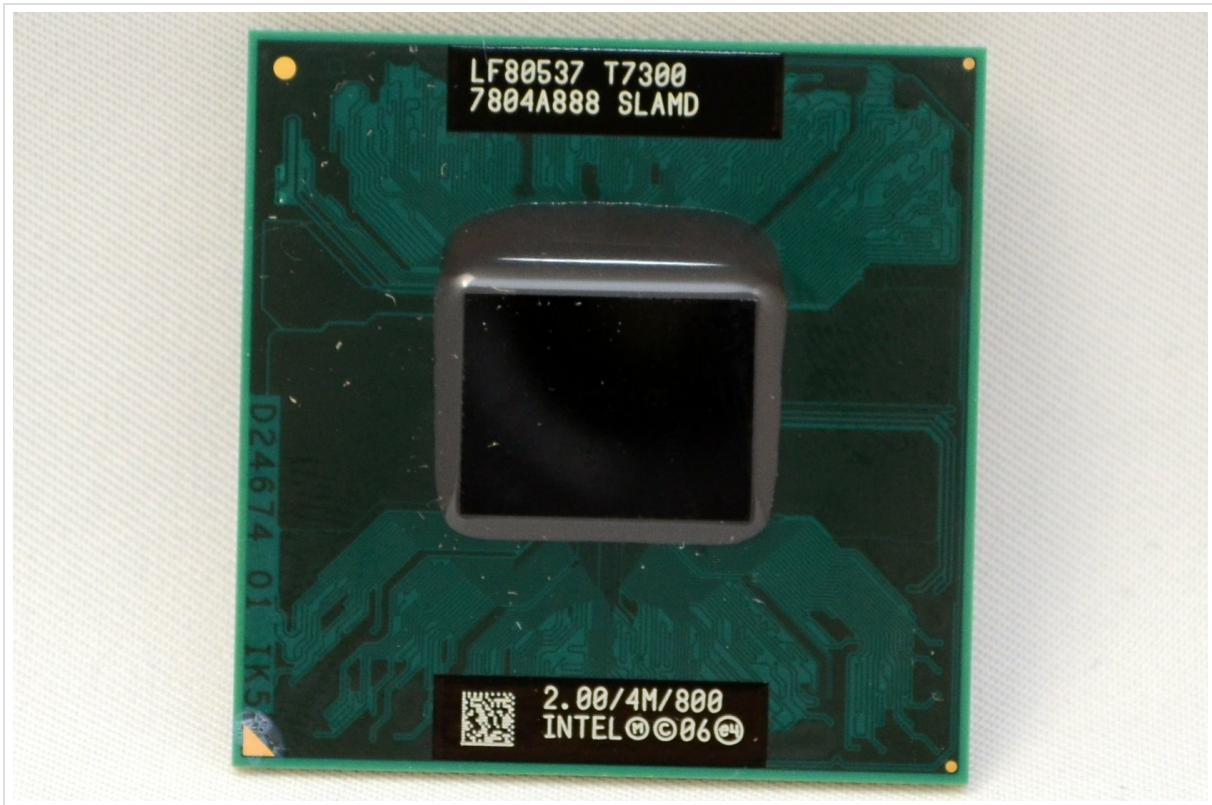


Image: Bottom view of the Intel Core 2 Duo T7300 processor, illustrating the pin grid array (PGA) and contact pads. This side connects to the motherboard socket.

4. OPERATING CONSIDERATIONS

- **Thermal Management:** Ensure adequate cooling for the processor. Overheating can lead to system instability and reduced lifespan. Regularly check fan operation and heatsink cleanliness.
- **Power Supply:** Verify that your system's power supply unit (PSU) meets the power requirements of all components, including the CPU.
- **BIOS/UEFI Settings:** After installation, it may be necessary to update your system's BIOS/UEFI or adjust settings to ensure optimal recognition and performance of the new processor.
- **Driver Installation:** Ensure all necessary chipset drivers are installed and up-to-date for proper system functionality.

5. MAINTENANCE

- **Dust Removal:** Periodically clean dust from the heatsink and fan using compressed air. Ensure the system is powered off and unplugged before cleaning.
- **Thermal Paste Replacement:** Over time, thermal paste can dry out and lose effectiveness. Consider reapplying thermal paste every few years or if you notice increased operating temperatures.
- **System Updates:** Keep your operating system and drivers updated to benefit from performance improvements and security patches.

6. TROUBLESHOOTING

6.1 Common Issues and Solutions

- **System Fails to Boot:**
 - Check if the CPU is correctly seated in the socket.

- Verify that the heatsink is properly installed and its fan is connected.
- Ensure your motherboard BIOS/UEFI is compatible with the T7300 processor.
- **Overheating/System Shutdowns:**
 - Confirm the heatsink is making good contact with the CPU.
 - Check if thermal paste was applied correctly.
 - Clean any dust from the heatsink and fan.
 - Ensure proper airflow within the system chassis.
- **Performance Issues:**
 - Verify that the latest chipset drivers are installed.
 - Check system temperatures to rule out thermal throttling.
 - Ensure the operating system is configured for optimal power management.

If you continue to experience issues, consult your motherboard's manual or contact Intel support for further assistance.

7. SAFETY INFORMATION

- Always disconnect power from your computer before installing or removing any components.
- Use anti-static precautions (e.g., an anti-static wrist strap) when handling the processor and other internal components to prevent electrostatic discharge (ESD) damage.
- Handle the processor by its edges to avoid touching the pins or contact pads.
- Keep the processor and all computer components away from liquids and excessive moisture.
- Do not attempt to modify the processor in any way.

8. WARRANTY AND SUPPORT

For information regarding the warranty of your Intel processor, please refer to the official Intel warranty policy available on the [Intel Support website](#). Warranty terms and conditions may vary based on region and purchase method.

For technical support, driver downloads, and additional product information, visit the official Intel support portal:

- [Intel Core 2 Duo Processors Support](#)
- [Intel Official Support Page](#)