

Intel CP80617004116AH

Intel Core i3-380M Mobile Processor Instruction Manual

Model: CP80617004116AH

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1. PRODUCT OVERVIEW

The Intel Core i3-380M is a mobile processor designed for laptops. It features a clock speed of 2.53 GHz and is built on the Arrandale architecture using 0.032 micron manufacturing technology. This processor includes two cores and supports Hyper-Threading technology, allowing for improved multitasking performance.

Key features include:

- **Processor Number:** i3-380M
- **Part Number:** CP80617004116AH
- **Frequency:** 2.533 GHz
- **Number of Cores:** 2
- **Socket Type:** Socket G1 (rPGA988A)
- **Cache:** 512 KB L2, 3 MB L3
- **Thermal Design Power (TDP):** 35 Watt



Image 1.1: Intel Core i3-380M Mobile Processor. This image displays the top view of the processor, showing the Intel branding and model number.

2. SETUP AND INSTALLATION

This section provides general guidelines for installing the Intel Core i3-380M mobile processor. Professional installation is recommended. Always consult your laptop's service manual for specific instructions.

1. Preparation:

- Ensure your laptop is powered off and disconnected from all power sources.
- Remove the battery.
- Discharge any static electricity by touching a grounded metal object.
- Gather necessary tools, typically a small Phillips head screwdriver.

2. Accessing the CPU Socket:

- Locate and remove the access panel on the bottom of your laptop that covers the CPU.
- Carefully disconnect any cooling components (heatsink and fan) covering the CPU.

3. Removing the Old CPU (if applicable):

- Identify the CPU retention screw or lever.
- Gently turn the screw or lift the lever to unlock the CPU from its socket.
- Carefully lift the old CPU straight up from the socket. Avoid bending pins.

4. Installing the New CPU:

- Align the triangular marker on the Intel Core i3-380M processor with the corresponding marker on the CPU socket.
- Gently place the processor into the socket. It should sit without force. Do not push down.
- Once seated, secure the CPU by turning the retention screw or lowering the lever.
- Apply a thin, even layer of thermal paste to the top surface of the CPU.

5. Reassembly:

- Reattach the cooling components (heatsink and fan), ensuring proper contact with the CPU.
- Reconnect any cables that were detached.
- Replace the access panel and battery.

6. First Boot:

- Power on your laptop. The system may take longer to boot initially as it recognizes the new hardware.
- Verify the CPU is recognized correctly in the system BIOS/UEFI or operating system.

Caution: Improper installation can damage the processor or your laptop. If you are unsure, seek assistance from a qualified technician.

3. OPERATING CONSIDERATIONS

The Intel Core i3-380M processor is designed for optimal performance within its specified operating parameters. Once installed, the processor operates automatically, managed by your laptop's operating system and BIOS/UEFI.

- **Compatibility:** This processor is compatible with laptops designed for Socket G1 (rPGA988A). Ensure your motherboard chipset supports this processor model.
- **Thermal Management:** Proper cooling is crucial for processor longevity and performance. Ensure the laptop's cooling system (fan and heatsink) is clean and functioning correctly.
- **Power Management:** The processor utilizes Intel's Enhanced SpeedStep technology for efficient power management, adjusting frequency and voltage based on workload to conserve battery life and reduce heat.
- **Virtualization Technology:** Supports Intel Virtualization Technology, enabling the use of virtual machines for enhanced software compatibility and security.

4. MAINTENANCE

Maintaining your processor primarily involves ensuring the laptop's cooling system remains effective.

- **Dust Removal:** Periodically clean the laptop's cooling vents and fan to prevent dust buildup, which can impede airflow and lead to overheating. Use compressed air for this purpose.
- **Thermal Paste:** If the heatsink is ever removed, the thermal paste should be reapplied before reinstallation to ensure efficient heat transfer from the CPU to the heatsink.
- **Software Updates:** Keep your operating system and BIOS/UEFI firmware updated. These updates often include performance enhancements and thermal management improvements.

5. TROUBLESHOOTING

If you encounter issues after installing the processor, consider the following troubleshooting steps:

- **No Power/No Display:**
 - Ensure all components are securely connected, especially the CPU, RAM, and power cables.
 - Verify the CPU is correctly seated in its socket and the retention mechanism is locked.
 - Check for bent pins on the CPU or in the socket.
- **Overheating/System Shutdowns:**
 - Confirm the heatsink and fan are properly installed and making good contact with the CPU.
 - Ensure thermal paste was applied correctly.
 - Clean any dust from the cooling system.

- **System Instability/Crashes:**
 - Verify your laptop's BIOS/UEFI is updated to the latest version that supports the i3-380M processor.
 - Check RAM compatibility and seating.
- **Processor Not Recognized:**
 - Confirm the CPU is fully seated and locked in the Socket G1.
 - Check your laptop manufacturer's website for CPU compatibility lists for your specific model.

If issues persist, contact a qualified technician or Intel support.

6. SPECIFICATIONS

Intel Core i3-380M Processor Specifications

Feature	Detail
CPU Manufacturer	Intel
CPU Model	Core i3-380M
Part Number	CP80617004116AH
Frequency	2.53 GHz
Number of Cores	2
Socket Type	Socket G1 (rPGA988A)
L2 Cache Size	512 KB
L3 Cache Size	3 MB
Thermal Design Power (TDP)	35 Watt
Architecture	Arrandale
Manufacturing Technology	0.032 micron
Features	EM64T, Enhanced SpeedStep, Execute Disable Bit, Hyper-Threading, Virtualization Technology
Maximum Case Temperature	90 °C
Item Weight	2.9 pounds

7. WARRANTY AND SUPPORT

This Intel Core i3-380M processor comes with a **90-day warranty** from the date of purchase. This warranty covers defects in materials and workmanship under normal use.

For technical support, product information, or warranty claims, please refer to the official Intel support

channels or contact your point of purchase.

Online Resources:

- Intel Official Website: www.intel.com
- Intel Support: support.intel.com/processors

Note: Warranty terms may vary based on region and reseller. Please retain your proof of purchase for warranty service.