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# Intel Core i5-12500 3 GHz Processor Instruction Manual

Model: BX8071512500

## 1. PRODUCT OVERVIEW

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The Intel Core i5-12500 processor is a 12th Generation Intel Core CPU designed for high performance in demanding applications. It features a hybrid architecture, offering a balance of performance and efficiency for various tasks including gaming, content creation, streaming, and everyday computing.

- **Hyper-threading Architecture:** Delivers high performance for demanding applications with improved onboard graphics and Turbo Boost technology.
- **LGA-1700 Socket:** Designed for compatibility with motherboards featuring the LGA-1700 socket.
- **18 MB L3 Cache:** Rapidly retrieves frequently used data to enhance system performance.

# 革革命的なパフォーマンスと マルチタスク処理

インテルの新しいパフォーマンスハイブリッドアーキテクチャーサーファミリーによりゲームもマルチタスクも妥協なくこなすことができます。



Image: Retail packaging of the Intel Core i5-12500 processor, showing the CPU and its box.

## 2. INSTALLATION GUIDE

This section provides general guidelines for installing your Intel Core i5-12500 processor. Always refer to your motherboard's manual for specific installation instructions and safety precautions.

### 2.1 Safety Precautions

- Ensure your system is powered off and unplugged from the wall outlet before beginning installation.
- Discharge static electricity by touching a grounded metal object (e.g., your PC case) before handling components. Consider using an anti-static wrist strap.
- Handle the processor by its edges to avoid touching the gold contacts or the top surface.
- Do not force the processor into the socket. It should sit easily.

### 2.2 Required Tools and Components

- Intel Core i5-12500 Processor
- Compatible Motherboard with LGA-1700 Socket

- CPU Cooler (stock or aftermarket)
- Thermal Paste (if not pre-applied to cooler)
- Phillips Head Screwdriver

## 2.3 Installation Steps

1. **Prepare the Motherboard:** Locate the CPU socket on your motherboard. Lift the load plate lever and open the load plate.
2. **Install the Processor:** Carefully align the notches on the processor with the keys on the socket. Gently place the processor into the socket. Do not force it.
3. **Secure the Processor:** Close the load plate and push the lever back into its locked position.
4. **Apply Thermal Paste:** If your CPU cooler does not have pre-applied thermal paste, apply a small amount (pea-sized dot) to the center of the CPU's integrated heat spreader (IHS).
5. **Install the CPU Cooler:** Mount your CPU cooler according to its manufacturer's instructions. Ensure it is securely fastened and makes good contact with the CPU's IHS.
6. **Connect Cooler Fan:** Connect the CPU cooler's fan cable to the "CPU\_FAN" header on your motherboard.

# インテル スレッド・ディレクター

ワークLOADの優先順位付けと管理を行い処理内容に最も適したコアにタスクを送信します。



### 3. OPERATING INSTRUCTIONS

Once installed, the Intel Core i5-12500 processor operates automatically within your system. Its performance is managed by the operating system and motherboard BIOS/UEFI settings.

#### 3.1 Performance Hybrid Architecture

The 12th Gen Intel Core processors feature a performance hybrid architecture, combining Performance-cores (P-cores) and Efficient-cores (E-cores). The Intel Thread Director dynamically assigns tasks to the most appropriate core, optimizing performance for both demanding applications and background tasks.



Thunderbolt 4テクノロジーとインテルKiller Wi-Fi 6/6(Gig+)が実現する優れた転送速度により周囲機器に高速接続できます。

オーバークロックの制御をコアのタイプ毎に分けていたため細やかなパーソナライゼーションが可能。

Image: A multi-monitor computer setup, illustrating the Intel Core i5-12500 processor's capability for demanding tasks like gaming, streaming, and content creation.

# サポート及び保証の対象について

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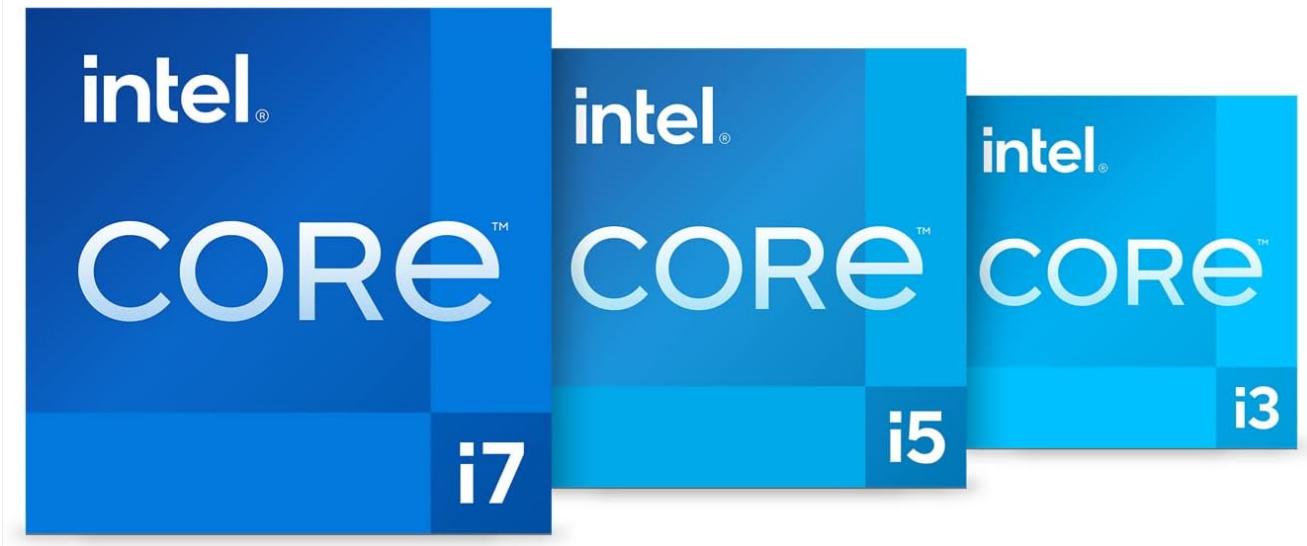


Image: A conceptual diagram illustrating the Intel Thread Director dynamically managing various workloads and assigning them to optimized processor cores for efficient performance.

## 3.2 BIOS/UEFI Settings

Access your motherboard's BIOS/UEFI settings during system startup (usually by pressing DEL or F2) to configure CPU-related options such as:

- XMP/DOCP:** Enable for optimal memory performance.
- Fan Control:** Adjust CPU fan speeds for cooling and noise management.
- Virtualization Technology:** Enable if you plan to run virtual machines.
- Overclocking (Advanced Users):** While the i5-12500 is not a K-series processor, some motherboards may offer limited power limit adjustments. Exercise caution and consult expert resources if attempting.

## 4. MAINTENANCE

Proper maintenance ensures the longevity and optimal performance of your processor.

- **Dust Removal:** Regularly clean your PC case and CPU cooler to prevent dust buildup, which can impede airflow and lead to overheating. Use compressed air for this purpose.
- **Thermal Paste:** Over several years, thermal paste can dry out. If you notice increased CPU temperatures, consider reapplying fresh thermal paste. This requires removing the CPU cooler.
- **Software Updates:** Keep your operating system, motherboard BIOS/UEFI, and chipset drivers updated. These updates often include performance optimizations and bug fixes for your processor.

## 5. TROUBLESHOOTING

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

- **No Display/System Not Booting:**
  - Ensure the CPU is correctly seated in its socket and the lever is locked.
  - Verify that the CPU power cable (usually 8-pin or 4+4-pin) is securely connected to the motherboard.
  - Check that RAM modules are properly seated in their slots.
  - Confirm that your monitor is connected to the correct display output (either motherboard integrated graphics or dedicated GPU).
- **Overheating/High Temperatures:**
  - Ensure the CPU cooler is properly installed and making good contact with the CPU.
  - Verify that the CPU cooler fan is spinning and connected to the correct header.
  - Check for adequate airflow within your PC case.
  - Confirm that thermal paste was applied correctly.
- **System Instability/Crashes:**
  - Update your motherboard BIOS/UEFI to the latest version.
  - Ensure all drivers (chipset, graphics) are up to date.
  - Run memory diagnostic tools to check for RAM issues.

## 6. SPECIFICATIONS

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Key technical specifications for the Intel Core i5-12500 processor:

Feature	Detail
Processor Model	Intel Core i5-12500
CPU Manufacturer	Intel
CPU Speed	3 GHz (Base Clock)
CPU Socket	LGA 1700
Number of Processors (Cores)	6 (Performance Cores)
L3 Cache	18 MB
Integrated Graphics	Intel UHD Graphics 770
Item Model Number	BX8071512500
Product Dimensions	5.2 x 4.8 x 3.1 inches

Feature	Detail
Item Weight	15.8 ounces
First Available Date	November 30, 2021

## 7. WARRANTY AND SUPPORT

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For warranty claims and technical support, please refer to the official Intel support channels. The warranty for this product typically applies only to new products sold by authorized retailers, such as Amazon.co.jp or other domestic authorized dealers.

For detailed warranty terms and conditions, please visit the official Intel website or contact their customer support.

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