Intel BX8070110400

Intel Core i5-10400 Desktop Processor User Manual

Model: BX8070110400

INTRODUCTION

The Intel Core i5-10400 is a 10th Generation desktop processor designed for a balanced performance across gaming, content creation, and general productivity tasks. This processor is part of the Intel 400 Series Chipset family and comes with a cooler included in the box, simplifying the setup process for users.

Key features include 6 Cores and 12 Threads, offering efficient multitasking capabilities, and a maximum clock speed of up to 4.3 GHz. It is built on the LGA1200 socket type, ensuring compatibility with a range of modern motherboards.

SETUP AND INSTALLATION

Proper installation of your Intel Core i5-10400 processor is crucial for optimal performance and system stability. Please follow these guidelines carefully.

Compatibility Check

Ensure your motherboard is compatible with the LGA1200 socket and is based on an Intel 400 series chipset. This processor is exclusively designed for these chipsets.

Processor Handling

Always handle the processor by its edges. Avoid touching the gold contacts or the top surface to prevent damage from static electricity or oils from your skin.
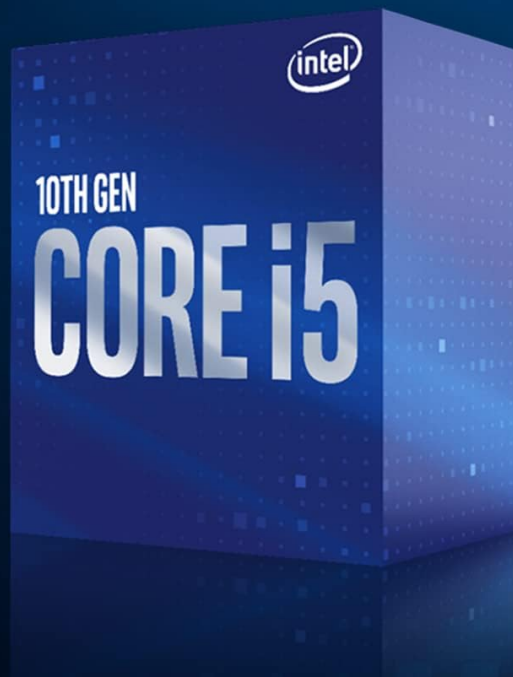
Image: The Intel Core i5-10400 processor, shown in its protective packaging, ready for installation. Note the integrated heat spreader on top and the contact pins on the bottom.

Installation Steps

1. **Prepare Motherboard:** Open the CPU retention arm and lift the load plate on the LGA1200 socket.

2. **Insert Processor:** Carefully align the triangular marker on the processor with the corresponding marker on the motherboard socket. Gently lower the processor into the socket without forcing it.

3. **Secure Processor:** Close the load plate and push down the retention arm until it clicks into place.

4. **Apply Thermal Paste (if not pre-applied):** If your cooler does not have pre-applied thermal paste, apply a small pea-sized amount to the center of the processor's integrated heat spreader.

5. **Install Cooler:** Mount the included Intel cooler onto the motherboard, ensuring all four push-pins are securely fastened. Connect the cooler's fan cable to the CPU_FAN header on the motherboard.

Image: The retail packaging for the 10th Generation Intel Core i5 processor, indicating its generation and model.

10th Gen Intel® Core™ i5-10400 Desktop Processor

Get up to 4.5 GHz clock speed with Intel® Turbo Boost Technology 2.0[1]

Multi-task effortlessly with Intel® Hyper-Threading Technology

Intel® Quick Sync Video allows you to create Ultra HD videos with incredible speed

[1]Maximum turbo frequency using Intel Turbo Boost Technology 2.0

Image: A close-up of the Intel Core i5-10400 processor, highlighting its key features such as clock speed, Hyper-Threading Technology, and Quick Sync Video capabilities.

Image: Visual representation of the Intel Core i5-10400's specifications: up to 4.3 GHz max clock speed, 6 cores, and 12 threads.

Official Product Video: 10th Gen Intel Core Boxed Processor Family

Video: An official overview of the 10th Generation Intel Core Boxed Processor Family, showcasing their features and benefits for various computing needs.

OPERATING PRINCIPLES AND FEATURES

The Intel Core i5-10400 processor leverages Intel's advanced architecture to deliver robust performance for everyday computing and demanding applications.

- **6 Cores** / **12 Threads:** Provides excellent multi-threaded performance for applications that can utilize multiple cores, such as video editing, 3D rendering, and heavy multitasking.
- **Socket Type LGA 1200:** Ensures compatibility with the latest Intel 400 series chipset motherboards, offering a stable and high-bandwidth platform.
- **Up to 4.3 GHz Max Turbo Frequency:** Dynamically increases clock speed when needed, providing a performance

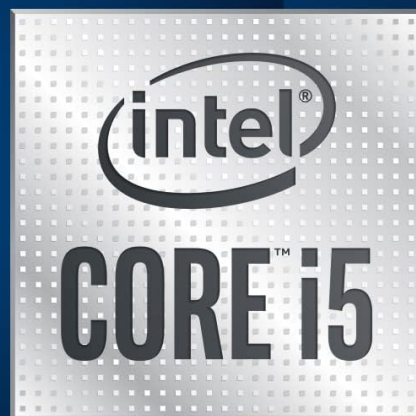boost for single-threaded applications and gaming.

- **Intel Optane Memory Support:** Enhances storage performance by accelerating traditional hard drives, reducing boot times and improving overall system responsiveness.
- **Cooler Included:** A stock cooler is provided in the box, suitable for typical usage scenarios and ensuring adequate thermal management without requiring an immediate aftermarket purchase.

PERFORMANCE OVERVIEW

The Intel Core i5-10400 is optimized to provide a smooth experience across various computing tasks:

- **Gaming:** Capable of running popular game titles at good frame rates, especially when paired with a capable graphics card. Its 6 cores and 12 threads contribute to stable performance in many modern games.
- **Content Creation:** Handles tasks like photo editing, video rendering, and graphic design efficiently due to its multi-core architecture and Hyper-Threading technology.
- **Productivity:** Excels in everyday tasks such as web browsing, office applications, and virtual meetings, providing a responsive and fluid user experience.

Image: A performance metric showing up to 51% more FPS when playing PUBG on a 10th Gen Intel Core i5-10400 powered desktop

MAINTENANCE

To ensure the longevity and continued performance of your Intel Core i5-10400 processor, consider the following maintenance tips:

- **Dust Removal:** Regularly clean your computer case and CPU cooler to prevent dust buildup, which can impede airflow and lead to higher temperatures. Use compressed air for best results.
- **Thermal Paste:** Over time, thermal paste can dry out. If you notice consistently high CPU temperatures, consider reapplying fresh thermal paste to the CPU and cooler contact surface.
- **Airflow:** Ensure your PC case has adequate airflow. Proper fan placement (intake and exhaust) helps dissipate heat effectively from the processor and other components.
- **Software Updates:** Keep your operating system, motherboard drivers (especially chipset drivers), and BIOS/UEFI updated. These updates often include performance optimizations and bug fixes that can affect CPU operation.

TROUBLESHOOTING

If you encounter issues with your Intel Core i5-10400 processor, refer to the table below for common problems and potential solutions.

Problem	Possible Cause	Solution
System does not boot / No display	Improper CPU installation, incompatible motherboard, bent pins on CPU/socket.	Re-seat CPU, verify motherboard compatibility, check for bent pins (handle with extreme care).
Overheating / System shutdowns	Improper cooler installation, insufficient thermal paste, poor case airflow, dust buildup.	Ensure cooler is properly seated, reapply thermal paste, clean dust, improve case airflow.
Poor performance / Lag	Outdated drivers, background processes, insufficient RAM, thermal throttling.	Update chipset and graphics drivers, close unnecessary background applications, ensure adequate RAM, check CPU temperatures.
System instability / Crashes	Overheating, corrupted drivers, faulty RAM, power supply issues.	Monitor temperatures, update drivers, test RAM modules, check power supply connections.

For more detailed troubleshooting or complex issues, please consult Intel's official support resources or a qualified technician.

SPECIFICATIONS

Feature	Detail
Processor Base Frequency	2.9 GHz
Max Turbo Frequency	4.3 GHz
Cores / Threads	6 Cores / 12 Threads

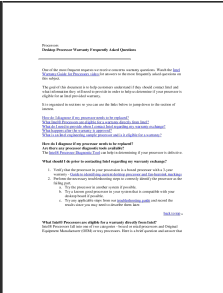| Feature	Detail
Socket Type	LGA 1200
Compatible Chipsets	Intel 400 Series Chipset
TDP	65W
Intel Optane Memory Support	Yes
Included Cooler	Yes
Item Model Number	BX8070110400
Item Weight	9.3 ounces
Product Dimensions	2.91 x 4.17 x 4.72 inches

WARRANTY AND SUPPORT

Intel provides a standard warranty for its boxed processors. For specific warranty terms and conditions, please refer to the documentation included with your product or visit the official Intel website.

For technical support, driver downloads, and additional resources, please visit the Intel Support Website. You may also find helpful information and community support on the Intel Store on Amazon.

Related Documents - BX8070110400

[Intel Desktop Processor Warranty FAQ: Eligibility, Exchange, and Troubleshooting](#)
Comprehensive FAQ guide on Intel desktop processor warranties. Covers eligibility for boxed vs. OEM processors, warranty exchange procedures, troubleshooting steps, and identification of engineering samples. Get answers to common warranty questions for Intel CPUs.

[Intel® Desktop Board DP67DE Product Guide | Features, Installation, and Specifications](#)
Comprehensive product guide for the Intel® Desktop Board DP67DE. Learn about its features, installation procedures for components like processors and memory, BIOS updates, and regulatory compliance information.

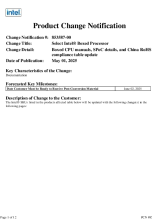[6th Generation Intel® Processor Families for S-Platforms Datasheet](#)
Detailed technical datasheet for Intel® Core™, Pentium®, and Celeron® 6th Generation processors designed for Desktop S-Platforms. Covers specifications, interfaces, technologies, power management, and thermal management.

[Intel Core i7-4790K Processor User Manual and Technical Specifications](#)
Comprehensive user manual and technical specifications for the Intel Core i7-4790K desktop processor, codenamed Haswell. Includes product overview, installation guide, overclocking guidelines, and troubleshooting tips for PC enthusiasts and builders.

[Intel DX58SO2/DX58OG Desktop Board Performance Tuning Guide](#)
A comprehensive guide from Intel detailing how to optimize the performance of Intel Desktop Boards DX58SO2 and DX58OG. It covers tuning using BIOS settings and the Intel Extreme Tuning Utility, focusing on processor, memory, and QPI configurations, along with recovery methods for unstable systems.

[Intel Product Change Notification 853587-00: Boxed Processor Updates](#)
Notification regarding updates to Intel Boxed Processor manuals, Single Point of Contact (SPoC) details, and China RoHS compliance tables, affecting various Intel Core and Xeon processors.