

Intel BX80768265F

Intel Core Ultra 7 Desktop Processor 265F User Manual

1. INTRODUCTION

This manual provides essential information for the installation, operation, and maintenance of your Intel Core Ultra 7 Desktop Processor 265F. Please read these instructions carefully before proceeding with installation to ensure optimal performance and system stability.

The Intel Core Ultra 7 265F is a high-performance desktop processor designed for demanding applications, gaming, and productivity. It features a hybrid architecture with 20 cores (8 Performance-cores and 12 Efficient-cores) and 20 threads, capable of reaching up to 5.3 GHz. This processor requires a discrete graphics card for display output.

2. KEY FEATURES

- **Core Configuration:** 20 cores (8 P-cores + 12 E-cores) and 20 threads for advanced multitasking and performance.
- **Performance Hybrid Architecture:** Integrates two core microarchitectures to intelligently prioritize and distribute workloads.
- **Clock Speed:** Up to 5.3 GHz Max Turbo Frequency.
- **Cache:** 36 MB Intel Smart Cache.
- **Compatibility:** Designed for Intel 800 series chipset-based motherboards with LGA 1851 socket.
- **Memory Support:** Supports DDR5 memory.
- **PCIe Support:** Features PCIe 5.0 and 4.0 for high-speed peripheral connectivity.
- **Intel Optane Memory Support:** Enhances system responsiveness.
- **Thermal Solution:** Includes Intel Laminar RM2 cooler in the box.
- **Graphics:** Requires discrete graphics card (no integrated graphics).

3. SETUP AND INSTALLATION

Proper installation is crucial for the functionality and longevity of your processor. If you are unsure about any step, consult a qualified technician.

3.1. Before You Begin

- Ensure your motherboard is compatible with the Intel Core Ultra 7 265F processor (LGA 1851 socket and Intel 800 series chipset).

- Gather necessary tools: Phillips-head screwdriver, thermal paste (if not pre-applied on cooler), anti-static wrist strap.
- Unplug your computer from the power outlet and discharge any static electricity before handling components.

3.2. Processor Installation Steps

1. **Prepare the Motherboard:** Open the CPU socket retention lever on your motherboard.
2. **Align the Processor:** Carefully align the processor with the socket. Note the triangular alignment marks on both the processor and the socket. Do not force the processor into the socket; it should drop in easily.
3. **Secure the Processor:** Close the CPU socket retention lever to secure the processor in place.
4. **Apply Thermal Paste (if necessary):** If your cooler does not have pre-applied thermal paste, apply a small amount (pea-sized) to the center of the processor's integrated heat spreader (IHS).
5. **Install the Cooler:** Mount the Intel Laminar RM2 cooler onto the motherboard, ensuring proper contact with the processor. Follow the cooler's specific instructions for secure attachment.
6. **Connect Cooler Fan:** Connect the cooler's fan cable to the CPU_FAN header on your motherboard.



Image: The Intel Core Ultra 7 branding logo, typically found on product packaging and the processor itself. This image helps identify the

4. OPERATING CONSIDERATIONS

Once installed, the processor operates as part of your computer system. Here are key considerations for optimal performance:

- **BIOS/UEFI Configuration:** After initial boot, enter your motherboard's BIOS/UEFI settings to verify the processor is recognized correctly and to configure memory settings (e.g., XMP profiles for DDR5).
- **Driver Installation:** Ensure all motherboard chipset drivers are installed from your motherboard manufacturer's website.
- **Operating System:** Install a compatible operating system (e.g., Windows 10/11 64-bit) and keep it updated.
- **Discrete Graphics:** Remember that this processor requires a separate graphics card for any display output. Ensure your graphics card is properly installed and its drivers are up to date.
- **Power Supply:** Use a power supply unit (PSU) with sufficient wattage to support your entire system, including the processor and discrete graphics card.

5. MAINTENANCE

Processors generally require minimal maintenance. However, periodic checks can help ensure long-term stability:

- **Dust Removal:** Periodically clean dust from your computer case, especially around the CPU cooler, using compressed air. Excessive dust can impede airflow and lead to higher temperatures.
- **Thermal Paste:** Over several years, thermal paste can degrade. If you notice consistently high CPU temperatures, consider reapplying fresh thermal paste.
- **BIOS/UEFI Updates:** Keep your motherboard's BIOS/UEFI firmware updated to ensure compatibility with the latest hardware and software, and to benefit from performance improvements or bug fixes.

6. TROUBLESHOOTING

If you encounter issues, consider the following common troubleshooting steps:

- **No Display Output:**
 - Verify that a discrete graphics card is installed and properly seated in its PCIe slot.
 - Ensure the monitor cable is connected to the graphics card, not the motherboard's video output (as this processor has no integrated graphics).
 - Check that the graphics card has sufficient power connections from the PSU.
- **System Not Booting/POST Errors:**
 - Re-seat the CPU, RAM, and graphics card to ensure they are properly installed.
 - Check all power connections to the motherboard (24-pin ATX, 8-pin CPU) and graphics card.
 - Clear the CMOS (refer to your motherboard manual for instructions).
- **High CPU Temperatures:**
 - Ensure the CPU cooler is correctly installed and making good contact with the processor.
 - Verify the CPU cooler fan is spinning and connected to the CPU_FAN header.
 - Check for proper airflow within your computer case.
 - Consider reapplying thermal paste.

- **System Instability/Crashes:**
 - Update motherboard BIOS/UEFI to the latest version.
 - Ensure all drivers (chipset, graphics) are up to date.
 - Test RAM modules individually or with a memory diagnostic tool.

7. SPECIFICATIONS



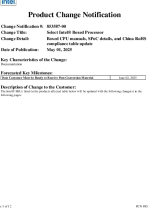


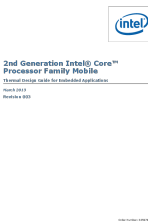
Feature	Detail
Processor Model	Intel Core Ultra 7 265F
Product Code	BX80768265F
Total Cores	20 (8 P-cores + 12 E-cores)
Total Threads	20
Max Turbo Frequency	Up to 5.3 GHz
Processor Base Frequency	4.6 GHz
Cache	36 MB Intel Smart Cache
Processor Base Power	65W
CPU Socket	LGA 1851
Motherboard Chipset Compatibility	Intel 800 Series Chipset
Memory Type Support	DDR5
PCI Express Revision	5.0 & 4.0
Integrated Graphics	None (Discrete graphics required)
Included Thermal Solution	Intel Laminar RM2
Item Weight	15.8 ounces (approx. 448 grams)
Product Dimensions (LxWxH)	5.91 x 5.91 x 3.94 inches (approx. 15 x 15 x 10 cm)

8. WARRANTY AND SUPPORT

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

Intel Support Website: www.intel.com/support

Related Documents - BX80768265F

	<p>Intel Desktop Processor Warranty FAQ: Eligibility, Exchange, and Troubleshooting</p> <p>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.</p>
	<p>Intel Core i7-4790K Processor User Manual and Technical Specifications</p> <p>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.</p>
	<p>Intel Product Change Notification 853587-00: Boxed Processor Updates</p> <p>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.</p>
	<p>Intel Xeon E5-2680 v4 Processor: User Manual and Installation Guide</p> <p>Detailed user manual and installation guide for the Intel Xeon E5-2680 v4 processor. Covers specifications, compatible components, installation steps, troubleshooting, and performance optimization for server and workstation environments.</p>
	<p>Intel DX58SO2/DX58OG Desktop Board Performance Tuning Guide</p> <p>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.</p>
	<p>2nd Generation Intel Core Mobile Processor Family Mobile Thermal Design Guide for Embedded Applications</p> <p>This guide from Intel provides comprehensive thermal and mechanical design specifications and recommendations for the 2nd Generation Intel® Core™ Processor Family Mobile, focusing on embedded applications. It covers thermal management, package details, reference solutions, and metrology to ensure optimal system performance and reliability.</p>



Product Change Notification

Change Notification #: 853587-00
Change Title: Select Intel® Based Processor
Change Detail: Based CPU manuals, SPoC details, and China RoHS compliance table update
Date of Publication: May 01, 2025

Key Characteristics of the Change:

Discontinuation

Forecasted Key Milestones:

Date Customer Must be Ready to Receive Post-Consumption Material	June 02, 2025
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Description of Change to the Customer:

The Intel® SKUs listed in the product-related table below will be updated with the following change(s) in the following pages:

[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.

lang:en score:22 filesize: 351.03 K page_count: 12 document date: 2025-05-02