

Intel Core Ultra 5 245KF / 4.2 GHz processor - OEM(AT8076806414)

Intel Core Ultra 5 245KF - 4.2 GHz - 14-core - 14 threads - 24 MB cache - FCLGA1851 Socket - OEM



The Intel Core Ultra 5 processor is designed to enhance your computing experience with features that improve performance and security. Featuring Smart Cache technology, this processor supports a variety of functionalities, including Intel Quick Sync Video, which enables efficient video processing for content creators and multimedia enthusiasts. With its robust thermal monitoring technologies and integrated virtualization capabilities, users can enjoy a stable and versatile computing environment that caters to both everyday use and demanding applications.

This processor includes an array of security features such as Intel Trusted Execution Technology and Intel AES New Instructions, ensuring that sensitive data remains protected. Intel Deep Learning Boost and Intel Thread Director efficiently manage workload demands, making it suitable for personal and professional applications. Experience a secure computing journey with the Intel Core Ultra 5 processor, tailored for those looking for reliability and efficiency in their devices.

Key Selling Points

- Smart Cache technology enhances performance
- Integrated Intel Quick Sync Video for efficient video processing
- Robust thermal monitoring technologies for stable operation
- Advanced security features for data protection
- Efficient management of workloads with Intel Thread Director

Product Features

- Versatile virtualization technology**
Intel Virtualization Technology for Directed I/O (VT-d) enables efficient management of multiple virtual machines, improving resource allocation and enhancing overall performance.
- Enhanced security capabilities**
Features like Intel Trusted Execution Technology and Intel Secure Key provide advanced protection against potential threats, ensuring data integrity and privacy.
- Efficient video processing**
Integrated Intel Quick Sync Video allows for fast and efficient video encoding and decoding, catering to content creators and media professionals.
- Robust performance optimization**
Intel Speed Shift Technology improves responsiveness by allowing the processor to adjust its performance and power states more rapidly, resulting in a smoother user experience.
- Deep learning support**
Intel Deep Learning Boost (DL Boost) improves performance for AI and machine learning workloads, enabling faster processing and better efficiency for data-intensive applications.

Main Specifications

Product Description	Intel Core Ultra 5 245KF / 4.2 GHz processor - OEM
Product Type	Processor
Processor Type	Intel Core Ultra 5 245KF (Series 2)
Number of Cores	14-core / 14 threads
Cache	24 MB
Compatible Processor Socket	FCLGA1851 Socket
Processor Qty	1
Clock Speed	4.2 GHz (P-core) / 3.6 GHz (E-core)
Max Turbo Speed	5.2 GHz (P-core) / 4.6 GHz (E-core)

Features	Enhanced SpeedStep technology, Execute Disable Bit capability, Intel 64 Technology, Intel Trusted Execution Technology, Intel Turbo Boost Technology 2.0, Intel AES New Instructions (AES-NI), Thermal Monitoring Technologies, Intel Virtualization Technology for Directed I/O (VT-d), Intel Smart Cache, Idle States, Intel VT-x with Extended Page Tables (EPT), Intel Secure Key, Intel Advanced Vector Extensions 2 (AVX2.0), Intel OS Guard, Intel Speed Shift Technology, Intel Volume Management Device (VMD), Intel Boot Guard, Intel Deep Learning Boost (DL Boost), Intel vPro Platform Eligibility, Intel Control-Flow Enforcement Technology, Intel Thread Director, Instruction Set 64-bit, Intel SSE4.1, Intel SSE4.2, Intel Stable IT Platform Program (SIPP), Intel vPro Enterprise Platform Eligibility, Intel Threat Detection Technology (TDT), Intel Standard Manageability (ISM), Intel One-Click Recovery, Intel Hardware Shield Eligibility, Intel Total Memory Encryption - Multi Key, Intel Virtualization Technology with Redirect Protection (VT-rp), Mode-based Execute Control (MBEC), Intel Virtualization Technology for Directed (VT-x), Intel Remote Platform Erase (RPE), Intel Gaussian and Neural Accelerator 3.5
Neural Processor Unit (NPU)	Intel AI Boost

Extended Specification

General

Product Type	Processor
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Processor

Type / Form Factor	Intel Core Ultra 5 245KF (Series 2)
Number of Cores	14-core
Number of Threads	14 threads
Cache	24 MB
Cache Memory Details	Smart Cache - 24 MB L2 - 26 MB
Processor Qty	1
Clock Speed	4.2 GHz (P-core) / 3.6 GHz (E-core)
Max Turbo Speed	5.2 GHz (P-core) / 4.6 GHz (E-core)
Compatible Processor Socket	FCLGA1851 Socket
Thermal Design Power	159 W
Thermal Specification	105 °C
PCI Express Revision	4.0/5.0
PCI Express Configurations	1x16+2x4, 2x8+2x4, 1x8+4x4
PCI Express Lanes Qty	24

Architecture Features	Enhanced SpeedStep technology, Execute Disable Bit capability, Intel 64 Technology, Intel Trusted Execution Technology, Intel Turbo Boost Technology 2.0, Intel AES New Instructions (AES-NI), Thermal Monitoring Technologies, Intel Virtualization Technology for Directed I/O (VT-d), Intel Smart Cache, Idle States, Intel VT-x with Extended Page Tables (EPT), Intel Secure Key, Intel Advanced Vector Extensions 2 (AVX2.0), Intel OS Guard, Intel Speed Shift Technology, Intel Volume Management Device (VMD), Intel Boot Guard, Intel Deep Learning Boost (DL Boost), Intel vPro Platform Eligibility, Intel Control-Flow Enforcement Technology, Intel Thread Director, Instruction Set 64-bit, Intel SSE4.1, Intel SSE4.2, Intel Stable IT Platform Program (SIPP), Intel vPro Enterprise Platform Eligibility, Intel Threat Detection Technology (TDT), Intel Standard Manageability (ISM), Intel One-Click Recovery, Intel Hardware Shield Eligibility, Intel Total Memory Encryption - Multi Key, Intel Virtualization Technology with Redirect Protection (VT-rp), Mode-based Execute Control (MBEC), Intel Virtualization Technology for Directed (VT-x), Intel Remote Platform Erase (RPE), Intel Gaussian and Neural Accelerator 3.5
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Miscellaneous

Package Type	OEM/tray
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Neural Processor Unit (NPU)

Neural Processor Unit (NPU)	Intel AI Boost
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