

Intel Core Ultra 9 285 / 2.5 GHz processor - Box(BX80768285)

Intel Core Ultra 9 285 - 2.5 GHz - 24-core - 24 threads - 36 MB cache - FCLGA1851 Socket - Box



The Intel Core Ultra 9 processor offers performance with a clock speed of 2.3 GHz and the capability to boost up to 5.1 GHz. This processor is built on Smart Cache technology, featuring 24 MB of cache memory for efficiency in data processing. With 16 cores and 22 threads, it manages multi-threaded applications, ensuring smooth operation across demanding tasks.

Integrated Intel Arc Graphics elevate the visual experience, supporting up to 7680 x 4320 @ 60 Hz (HDMI) resolution. The ability to handle quad display setups means improved multitasking capabilities. Additional features, such as Intel Quick Sync Video and advanced security technologies, enhance this processor, making it a versatile choice for professionals and enthusiasts alike.

Key Selling Points

- 16 cores and 22 threads for efficient multitasking
- Max Turbo Speed of 5.1 GHz for high-performance operations
- 24 MB Smart Cache for enhanced data processing
- Integrated Intel Arc Graphics with 7680 x 4320 resolution support
- Supports quad display setups for improved multitasking

Product Features

- High-performance processing power**
With a base clock speed of 2.3 GHz and a maximum turbo speed of 5.1 GHz, this processor is designed to handle intensive workloads efficiently.
- Advanced graphics capabilities**
The Intel Arc Graphics provide high-resolution output and support for quad display, enhancing the user experience with stunning visuals.
- Extensive cache memory**
Equipped with 24 MB of Smart Cache, this processor significantly reduces latency and improves speed during data-intensive tasks.
- Robust multi-threading**
With 16 cores and 22 threads, the processor effectively manages parallel tasks, providing improved performance for multi-threaded applications.
- Enhanced security features**
Includes technologies like Intel Trusted Execution Technology and Intel Secure Key, ensuring a secure computing experience for users.

Main Specifications

Product Description	Intel Core Ultra 9 285 / 2.5 GHz processor - Box
Product Type	Processor
Processor Type	Intel Core Ultra 9 285 (Series 2)
Number of Cores	24-core / 24 threads
Cache	36 MB
Integrated Graphics	Intel HD Graphics
Compatible Processor Socket	FCLGA1851 Socket
Processor Qty	1
Clock Speed	2.5 GHz (P-core) / 1.9 GHz (E-core)
Max Turbo Speed	5.6 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), Idle States, Intel VT-x with Extended Page Tables (EPT), Intel Secure Key, Intel Advanced Vector Extensions 2 (AVX2.0), Intel OS Guard, Intel Turbo Boost Max Technology 3.0, Intel Speed Shift Technology, Intel Volume Management Device (VMD), Intel Boot Guard, Intel Thermal Velocity Boost, 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
--------------	-----------

Processor

Type / Form Factor	Intel Core Ultra 9 285 (Series 2)
Number of Cores	24-core
Number of Threads	24 threads
Cache	36 MB
Cache Memory Details	Smart Cache - 36 MB L2 - 40 MB
Processor Qty	1
Clock Speed	2.5 GHz (P-core) / 1.9 GHz (E-core)
Max Turbo Speed	5.6 GHz (P-core) / 4.6 GHz (E-core)
Compatible Processor Socket	FCLGA1851 Socket
Thermal Design Power	182 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), Idle States, Intel VT-x with Extended Page Tables (EPT), Intel Secure Key, Intel Advanced Vector Extensions 2 (AVX2.0), Intel OS Guard, Intel Turbo Boost Max Technology 3.0, Intel Speed Shift Technology, Intel Volume Management Device (VMD), Intel Boot Guard, Intel Thermal Velocity Boost, 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
-----------------------	--

Miscellaneous

Package Type	Intel Boxed
--------------	-------------

Integrated Graphics

Type	Intel HD Graphics
Base Frequency	300 MHz
Max Dynamic Frequency	2 GHz
Features	Intel Quick Sync Video, Quad Display Capable

Neural Processor Unit (NPU)

Neural Processor Unit (NPU)	Intel AI Boost
-----------------------------	----------------

Product data is provided by CNET, we do not warrant the accuracy and completeness of the material contained in this data sheet