

Intel Core Ultra 9 285K / 3.7 GHz processor - Box(BX80768285K)

Intel Core Ultra 9 285K - 3.7 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 285K / 3.7 GHz processor - Box |
| Product Type                | Processor                                         |
| Processor Type              | Intel Core Ultra 9 285K (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                 | 3.7 GHz (P-core) / 3.2 GHz (E-core)               |
| Max Turbo Speed             | 5.7 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 285K (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                 | 3.7 GHz (P-core) / 3.2 GHz (E-core) |
| Max Turbo Speed             | 5.7 GHz (P-core) / 4.6 GHz (E-core) |
| Compatible Processor Socket | FCLGA1851 Socket                    |
| Thermal Design Power        | 250 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                                  |

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|-----------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 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                            |
| Max Dynamic Frequency | 2 GHz                                        |
| Features              | Intel Quick Sync Video, Quad Display Capable |

**Neural Processor Unit (NPU)**

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

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