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Product Specification Sheet

BX80768270K

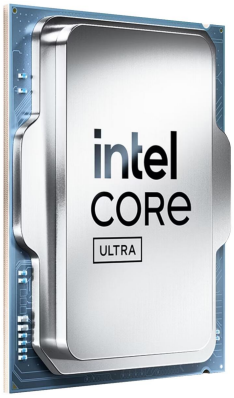
Intel Core Ultra 7 (Series 2) 270K Plus LGA1851 3.70GHz up to 5.5GHz 36MB Cache 24 Core Processor

Product Overview

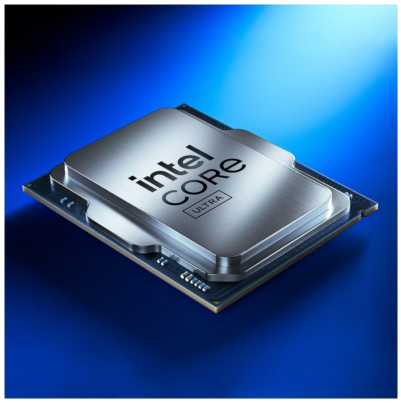
Intel Core Ultra 7 (Series 2) 270K Plus LGA1851 3.70GHz up to 5.5GHz 36MB Cache 24 Core Processor, Arrow Lake code name, 8 Performance-cores, 16 Efficient-cores, 36 MB Intel Smart Cache, 40 MB total L2 Cache, 125 W Processor base Power, 250 W Maximum Turbo Power, Intel Graphics, Intel AI boost, 13 NPU Peak TOPs (Int8), No heatink and fan, BX80768270K











Specifications

Overview Summary:

The Intel Core Ultra 7 270K Plus is a powerful 24-core desktop processor built for demanding workloads, gaming, content creation, software development and AI-enhanced applications. Featuring 8 Performance-cores, 16 Efficient-cores and boost speeds up to 5.5GHz, it delivers responsive multitasking and exceptional processing performance for modern desktop systems.

With support for DDR5 memory, PCIe 5.0 connectivity, integrated Intel Graphics and Intel AI Boost technology, this processor provides a future-ready platform for professionals and enthusiasts looking to build a high-performance PC. Whether you're upgrading a workstation or assembling a new system, the Intel Core Ultra 7 270K Plus is designed to handle intensive workloads with ease. Buy now and shop now to experience next-generation desktop computing performance.

Performance tier: High-End Enthusiast / Professional

Uses: Gaming, content creation, video editing, 3D rendering, software development, AI workloads, multitasking, workstation computing, productivity applications

Overview:

Intel Core Ultra 7 270K PLUS Desktop Processor
Experience next-generation desktop performance with the Intel Core Ultra 7 270K PLUS, engineered to handle demanding workloads with ease. Featuring an advanced hybrid architecture with 24 cores, this processor delivers the power required for content creation, software development, AI-assisted workflows, and intensive multitasking. With turbo speeds reaching up to 5.50GHz and built-in AI acceleration, it is designed for users who refuse to compromise on performance.

Whether you are rendering detailed 3D projects, compiling large applications, editing high-resolution media, or managing complex productivity tasks, this processor provides the responsiveness and efficiency needed to keep your workflow moving without interruption. The Intel Core Ultra 7 270K PLUS represents a new era of desktop computing, balancing raw performance with intelligent workload optimisation.

Description:

The Intel Core Ultra 7 270K PLUS combines 24-core processing power, integrated AI acceleration, Intel Graphics, and support for high-speed DDR5 memory to create a powerful desktop foundation for professionals and enthusiasts alike. Its hybrid design intelligently distributes workloads across Performance-cores and Efficient-cores, while advanced connectivity and PCIe

support ensure compatibility with modern graphics cards and storage solutions. Ideal for creators, developers, and power users, this processor delivers exceptional responsiveness, future-ready performance, and efficient multitasking.

Features:

Built for Modern Productivity and AI Workloads
At the heart of the Intel Core Ultra 7 270K PLUS is an intelligent hybrid architecture featuring 8 Performance-cores and 16 Efficient-cores. This design allows the processor to prioritise demanding applications while efficiently handling background processes, delivering smooth operation across a wide range of tasks.

Integrated Intel AI Boost technology introduces dedicated neural processing capabilities for AI-driven applications. With 13 NPU TOPS and 36 overall peak TOPS (Int8), users can accelerate machine learning workloads, AI-enhanced creative tools, and productivity applications designed for the latest generation of computing.

Key advantages include:

- 24-core architecture with 8 Performance-cores and 16 Efficient-cores
- Up to 5.50GHz maximum turbo frequency
- Intel AI Boost NPU delivering 13 NPU TOPS
- 36 overall peak TOPS (Int8) for AI acceleration
- Optimised task allocation for improved efficiency

Enhanced Visual Performance and Memory Capability
Integrated Intel Graphics ensures capable visual performance without requiring a discrete graphics card for everyday professional workloads. Support for ultra-high-resolution displays enables users to work comfortably with detailed visual content and expansive desktop environments.

Combined with support for high-speed DDR5 memory, the processor is ready to handle demanding applications, large datasets, and extensive multitasking scenarios.

Highlights include:

- Integrated Intel Graphics with 4 Xe-cores
- Graphics frequency up to 2.00GHz
- Support for up to four displays
- Maximum DisplayPort resolution of 7680 x 4320 at 60Hz
- DDR5 memory support up to 7200 MT/s
- Maximum memory capacity of 256GB
- ECC memory support for enhanced reliability

Designed for Future-Ready Systems
The Intel Core Ultra 7 270K PLUS provides the connectivity and expansion options required for modern desktop builds. PCIe 5.0 support enables compatibility with the latest graphics cards and ultra-fast storage devices, while Thunderbolt 4 support enhances connectivity for peripherals and professional workflows.

Business users and enterprise environments also benefit from advanced manageability and security technologies integrated into the platform.

Notable capabilities include:

- PCI Express 5.0 and PCI Express 4.0 support
- Up to 24 PCIe lanes
- Intel Thunderbolt 4 compatibility
- Intel vPro Enterprise eligibility

- Advanced virtualisation technologies
- Comprehensive hardware security technologies

Technical Details

- Product family: Intel Core Ultra Processors (Series 2)
- Processor number: 270K PLUS
- Code name: Arrow Lake
- Socket: LGA1851
- Total cores: 24
- Total threads: 24
- Performance-core base frequency: 3.70GHz
- Performance-core turbo frequency: Up to 5.40GHz
- Efficient-core base frequency: 3.20GHz
- Efficient-core turbo frequency: Up to 4.70GHz
- Maximum turbo frequency: Up to 5.50GHz
- Intel Smart Cache: 36MB
- Total L2 Cache: 40MB
- Processor base power: 125W
- Maximum turbo power: 250W
- Memory support: DDR5 up to 7200 MT/s
- Maximum memory: 256GB
- Memory channels: 2
- Integrated graphics: Intel Graphics
- Graphics output support: HDMI 2.1, DisplayPort 2.1, eDP 1.4b
- DirectX support: DirectX 12
- OpenGL support: OpenGL 4.5
- Intel Quick Sync Video: Supported
- AI frameworks: OpenVINO, WindowsML, DirectML, ONNX RT, WebGPU and WebNN

Platform Intelligence and Advanced Technologies
The processor incorporates a range of technologies designed to maximise performance and responsiveness under demanding conditions. Intelligent scheduling and power management ensure that workloads are handled efficiently while maintaining optimal operating behaviour.

Included technologies:

- Intel Thread Director
- Intel Turbo Boost Max Technology 3.0
- Intel Turbo Boost Technology 2.0
- Intel Speed Shift Technology
- Enhanced Intel SpeedStep Technology
- Intel Volume Management Device
- Thermal Monitoring Technologies
- Intel Deep Learning Boost on GPU

The Intel Core Ultra 7 270K PLUS offers an exceptional balance of computing power, AI capability, graphics performance, and future-ready expansion. For professionals, creators, and enthusiasts building a high-performance desktop platform, it delivers the capability required to tackle today's demanding workloads and tomorrow's emerging applications.

Part Number / SKU: BX80768270K

What's Included

- Intel Core Ultra 7 270K PLUS LGA1851 24-Core Desktop Processor x1

Please note that a heatsink and cooling fan are not included with this processor.

Specifications:

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Specifications	
Product Code	BX80768270K
Product Collection	Intel Core Ultra Processors (Series 2)
Code Name	Products formerly Arrow Lake
Vertical Segment	Desktop
Processor Number	270K PLUS
Overall Peak TOPS (Int8)	36
CPU Specifications	
Total Cores	24
# of Performance-cores	8
# of Efficient-cores	16
# of Low Power Efficient-cores	0
Total Threads	24
Max Turbo Frequency	5.5 GHz
Intel Turbo Boost Max Technology 3.0 Frequency	5.5 GHz
Performance-core Max Turbo Frequency	5.4 GHz
Efficient-core Max Turbo Frequency	4.7 GHz
Performance-core Base Frequency	3.7 GHz
Efficient-core Base Frequency	3.2 GHz
Cache	36 MB Intel Smart Cache
Total L2 Cache	40 MB
Processor Base Power	125 W
Maximum Turbo Power	250 W
Intel Deep Learning Boost (Intel DL Boost) on CPU	Yes
AI Software Frameworks Supported by CPU	OpenVINO , WindowsML, DirectML, ONNX RT, WebNN
CPU Lithography	TSMC N3B
Supplemental Information	

Marketing Status	Launched
Launch Date	Q1'26
Embedded Options Available	No
Use Conditions	PC/Client/Tablet, Workstation
Memory Specifications	
Max Memory Size (dependent on memory type)	256 GB
Memory Types	Up To DDR5 7200 MT/s
Max # of Memory Channels	2
ECC Memory Supported	Yes
GPU Specifications	
GPU Name	Intel Graphics
Graphics Base Frequency	300 MHz
Graphics Max Dynamic Frequency	2 GHz
GPU Peak TOPS (Int8)	8
Graphics Output	eDP1.4b, DP 2.1 UHBR20, HDMI 2.1 FRL
Xe-cores	4
Max Resolution (HDMI)	4096 x 2304 @ 60Hz (HDMI 2.1 TMDS)
	7680 x 4320 @ 60Hz (HDMI 2.1 FRL)
Max Resolution (DP)	7680 x 4320 @ 60Hz
Max Resolution (eDP - Integrated Flat Panel)	3840 x 2400 @ 120Hz
DirectX* Support	12
OpenGL* Support	4.5
OpenCL* Support	3
H.264 Hardware Encode/Decode	Yes
H.265 (HEVC) Hardware Encode/Decode	Yes
AV1 Encode/Decode	Yes
Intel Quick Sync Video	Yes
# of Displays Supported	4
Device ID	0x7D67
Intel Deep Learning Boost (Intel DL Boost) on GPU	Yes
AI Software Frameworks Supported by GPU	OpenVINO , WindowsML, DirectML, ONNX RT, WebGPU
NPU Specifications	
NPU Name	Intel AI Boost

NPU Peak TOPS (Int8)	13
Sparsity Support	Yes
Windows Studio Effects Support	Yes
AI Software Frameworks Supported by NPU	OpenVINO , WindowsML, DirectML, ONNX RT, WebNN
Expansion Options	
Direct Media Interface (DMI) Revision	4
Max # of DMI Lanes	8
Intel Thunderbolt 4	Yes
Scalability	1S Only
PCI Express Revision	5.0 and 4.0
PCI Express Configurations	Up to 1x16+2x4, 2x8+2x4, 1x8+4x4
Max # of PCI Express Lanes	24
Package Specifications	
Sockets Supported	FCLGA1851
Thermal Solution Specification	PCG 2020A
Max Operating Temperature	105 degreesC
Package Size	45 mm x 37.5 mm
Advanced Technologies	
Intel Gaussian & Neural Accelerator	3.5
Intel Thread Director	Yes
Intel Speed Shift Technology	Yes
Intel Turbo Boost Max Technology 3.0	Yes
Intel Turbo Boost Technology	2
Intel Hyper-Threading Technology	No
Intel 64	Yes
Instruction Set	64-bit
Instruction Set Extensions	Intel SSE4.1, Intel SSE4.2, Intel AVX2
Idle States	Yes
Enhanced Intel SpeedStep Technology	Yes
Thermal Monitoring Technologies	Yes
Intel Volume Management Device (VMD)	Yes
Security & Reliability	
Intel vPro Eligibility	Intel vPro Enterprise

Intel Threat Detection Technology (TDT)	Yes
Intel Active Management Technology (AMT)	Yes
Intel Standard Manageability (ISM)	Yes
Intel Remote Platform Erase (RPE)	Yes
Intel One-Click Recovery	Yes
Intel Secure Key	Yes
Intel Control-Flow Enforcement Technology	Yes
Intel Total Memory Encryption - Multi Key	Yes
Intel AES New Instructions	Yes
Intel Trusted Execution Technology	Yes
Execute Disable Bit	Yes
Intel OS Guard	Yes
Intel Boot Guard	Yes
Mode-based Execute Control (MBEC)	Yes
Intel Stable IT Platform Program (SIPP)	Yes
Intel Virtualization Technology with Redirect Protection (VT-rp)	Yes
Intel Virtualization Technology (VT-x)	Yes
Intel Virtualization Technology for Directed I/O (VT-d)	Yes
Intel VT-x with Extended Page Tables (EPT)	Yes

Product Information Online

For the latest product information, availability and purchasing details, please visit the product page:

Product page:
https://www.comx-computers.co.za/BX80768270K-Intel-Core-Ultra-7-Series-2-270K-Plus-LGA1851-3-70GHz-up-to-5-5GHz-36MB-p-337815.php

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