

BX80768265F

Intel Core Ultra 7 265F 2.4Ghz up to 5.3GHz LGA1851 20-core Processor

Product Overview

Intel Core Ultra 7 265F LGA1851 2.4GHz up to 5.3GHz 20-core Processor, Intel Core Ultra Processor (Series 2), Code name Arrow Lake, 8 Performance-cores, 12 Efficient-cores, 30 MB Intel Smart Cache, 36 MB total L2 Cache, 65 W Processor base Power, 182 W Maximum Turbo Power, No Intel Graphics, Intel AI boost NPU, 13 NPU Peak TOPS (Int8), No Heatsink and fan



Specifications

About this product

Buy the Intel Core Ultra 7 265F processor, a high-performance 20-core CPU designed for demanding desktop applications in South Africa. Featuring 8 performance cores, 12 efficient cores, Intel AI boost NPU, and up to 5.3GHz turbo speed, this LGA1851 processor delivers exceptional multitasking and computing power. Shop now and elevate your PC performance with this next-generation Intel CPU.

Overview Summary

Product:Intel Core Ultra 7 265F Processor

The Intel Core Ultra 7 265F is a state-of-the-art 20-core processor engineered for high-end computing tasks. With 8 performance cores and 12 efficient cores, it balances raw speed and power efficiency, making it ideal for content creation, software development, and intensive multitasking.

This CPU operates at a base frequency of 2.4GHz and can boost up to 5.3GHz, providing fast response times and smooth performance under heavy loads. The processor includes Intel AI boost NPU for enhanced AI processing, along with 30 MB Intel Smart Cache and 36 MB total L2 cache for faster data access.

Built for enthusiasts and professional users, the Intel Core Ultra 7 265F supports advanced AI acceleration, high throughput, and scalable desktop performance. Buy from this store today for quick delivery in South Africa.

Performance tier:High-end / Enthusiast

Uses:Gaming, Content creation, Software development, AI applications, Multitasking

Quick Specifications:

- CPU model: Intel Core Ultra 7 265F

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Product Specification Sheet

- Series: Intel Core Ultra Processor (Series 2)
- Code name: Arrow Lake
- Performance cores: 8
- Efficient cores: 12
- Total cores: 20
- Intel Smart Cache: 30 MB
- Total L2 cache: 36 MB
- Base frequency: 2.4GHz
- Maximum turbo frequency: 5.3GHz
- Processor base power: 65 W
- Maximum turbo power: 182 W
- Integrated graphics: None
- AI Boost NPU: Yes, 13 TOPS (Int8)
- Cooling solution: Not included (no heatsink or fan)
- Socket type: LGA1851
- Performance tier: High-end / Enthusiast
- Uses: Gaming, Content creation, AI tasks, Software development, Multitasking

Description

The Intel Core Ultra 7 265F is engineered to deliver exceptional desktop computing performance. Its hybrid architecture combines 8 high-performance cores with 12 efficient cores, enabling fast execution of demanding workloads while maintaining energy efficiency. With Intel AI boost NPU, this processor accelerates AI-driven applications, making it suitable for modern workloads that rely on machine learning and advanced computation.

Designed for high-end desktops, the 265F provides extensive cache memory for fast data retrieval and low latency, ensuring smooth multitasking and optimal responsiveness. Its 65W base power and 182W maximum turbo power allow consistent high-speed performance without compromising reliability.

This processor is ideal for professionals and enthusiasts looking to build a next-generation PC capable of gaming, content creation, software development, and AI applications. Please note that no heatsink or fan is included, so a compatible cooling solution is required.

Features

- 20-core hybrid design with 8 performance cores and 12 efficient cores for balanced performance
- Intel AI boost NPU with 13 TOPS (Int8) for accelerated AI tasks
- High-speed processing with 2.4GHz base and up to 5.3GHz turbo frequency
- Large cache memory: 30 MB Intel Smart Cache and 36 MB total L2 Cache for faster data access
- Supports LGA1851 socket motherboards for modern high-end desktop builds
- No integrated graphics, designed for discrete GPU setups
- Optimized for multitasking, gaming, content creation, and AI applications

What's in the Box

- Intel Core Ultra 7 265F Processor
- Protective CPU case
- Documentation and warranty card

Specifications

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Product Specification Sheet

Essentials	
Product Collection	Intel Core Ultra Processors (Series 2)
Code Name	Products formerly Arrow Lake
Vertical Segment	Desktop
Processor Number	265F
Overall Peak TOPS (Int8)	25
CPU Specifications	
Total Cores	20
# of Performance-cores	8
# of Efficient-cores	12
# of Low Power Efficient-cores	0
Total Threads	20
Max Turbo Frequency	5.3 GHz
Intel Turbo Boost Max Technology 3.0 Frequency	5.3 GHz
Performance-core Max Turbo Frequency	5.2 GHz
Efficient-core Max Turbo Frequency	4.6 GHz
Performance-core Base Frequency	2.4 GHz
Efficient-core Base Frequency	1.8 GHz
Cache	30 MB Intel Smart Cache
Total L2 Cache	36 MB
Processor Base Power	65 W
Maximum Turbo Power	182 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	
Embedded Options Available	No
Use Conditions	PC/Client/Tablet
Memory Specifications	
Max Memory Size (dependent on memory type)	256 GB
Memory Types	Up to DDR5 6400 MT/s
Max # of Memory Channels	2
ECC Memory Supported	No

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Product Specification Sheet

GPU Specifications	
Graphics Output	n/a
Xe-cores	0
Intel Quick Sync Video	No
# of Displays Supported	0
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 2022C
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

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Product Specification Sheet

Enhanced Intel SpeedStep Technology	Enhanced Intel SpeedStep Technology
Thermal Monitoring Technologies	Yes
Intel Volume Management Device (VMD)	Yes
Security & Reliability	
Intel Threat Detection Technology (TDT)	Yes
Intel Active Management Technology (AMT)	No
Intel Standard Manageability (ISM)	Yes
Intel Remote Platform Erase (RPE)	No
Intel One-Click Recovery	No
Intel Secure Key	Yes
Intel Control-Flow Enforcement Technology	Yes
Intel Total Memory Encryption - Multi Key	No
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)	No
Intel Virtualization Technology with Redirect Protection (VT-rp)	No
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

FAQ

Does the Intel Core Ultra 7 265F include a cooling solution?

No, the Intel Core Ultra 7 265F does not come with a heatsink or fan. A compatible cooling solution is required for safe operation.

What type of motherboard socket is required?

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Product Specification Sheet

This processor requires an LGA1851 socket motherboard.

Can I use this CPU for gaming and content creation?

Yes, with 20 cores and Intel AI boost NPU, this processor is ideal for gaming, content creation, software development, and AI applications.

Does it have integrated graphics?

No, the Intel Core Ultra 7 265F does not include integrated graphics and requires a discrete GPU.

What is the maximum turbo frequency of this CPU?

The CPU can reach up to 5.3GHz under maximum turbo conditions for demanding workloads.

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/BX80768265F-Intel-Core-Ultra-7-265F-2-4Ghz-up-to-5-Buy-p-319818.php>

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