

# Intel® Core™ i5-12400F Processor

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[intel ark.intel.com/content/www/us/en/ark/products/134587/intel-core-i5-12400f-processor-18m-cache-up-to-4-40-ghz.html](https://ark.intel.com/content/www/us/en/ark/products/134587/intel-core-i5-12400f-processor-18m-cache-up-to-4-40-ghz.html)

18M Cache, up to 4.40 GHz



## Essentials

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- Product Collection [12th Generation Intel® Core™ i5 Processors](#)
- Processor Number [i5-12400F](#)

## CPU Specifications

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- [Total Cores](#) 6
- # of Performance-cores 6
- # of Efficient-cores 0
- [Total Threads](#) 12
- [Max Turbo Frequency](#) 4.40 GHz
- [Performance-core Max Turbo Frequency](#) 4.40 GHz
- Performance-core Base Frequency 2.50 GHz
- [Cache](#) 18 MB Intel® Smart Cache
- Total L2 Cache 7.5 MB
- [Processor Base Power](#) 65 W
- [Maximum Turbo Power](#) 117 W

## Memory Specifications

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- [Max Memory Size \(dependent on memory type\)](#) 128 GB
- [Memory Types](#) Up to DDR5 4800 MT/s  
Up to DDR4 3200 MT/s
- [Max # of Memory Channels](#) 2
- [Max Memory Bandwidth](#) 76.8 GB/s

## Expansion Options

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- Direct Media Interface (DMI) Revision 4.0
- Max # of DMI Lanes 8
- Scalability 1S Only
- [PCI Express Revision](#) 5.0 and 4.0

- PCI Express Configurations ‡ Up to 1x16+4, 2x8+4
- Max # of PCI Express Lanes 20

## Advanced Technologies

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- Intel® Gaussian & Neural Accelerator 3.0
- Intel® Thread Director No
- Intel® Deep Learning Boost (Intel® DL Boost) Yes
- Intel® Optane™ Memory Supported ‡ Yes
- Intel® Speed Shift Technology Yes
- Intel® Turbo Boost Max Technology 3.0 ‡ No
- Intel® Turbo Boost Technology ‡ 2.0
- Intel® Hyper-Threading Technology ‡ Yes
- 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

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- Intel® Standard Manageability (ISM) ‡ Yes
- Intel® Control-Flow Enforcement Technology Yes
- Intel® AES New Instructions Yes
- Secure Key Yes
- Intel® OS Guard Yes
- Execute Disable Bit ‡ Yes
- Intel® Boot Guard Yes
- Mode-based Execute Control (MBEC) 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