

Intel® Core™ i5-13400F Processor (20M Cache-
up to 4.60 GHz)

Essentials

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| Product Collection | 13th Generation Intel® Core™ i5 Processors |
| Code Name | Products formerly Raptor Lake |
| Vertical Segment | Desktop |
| Processor Number | i5-13400F |
| Lithography | Intel 7 |
| Use Conditions | PC/Client/Tablet |
| Recommended Customer Price | \$196.00 |

CPU Specifications

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| Total Cores | 10 |
| # of Performance-cores | 6 |
| # of Efficient-cores | 4 |
| Total Threads | 16 |
| Max Turbo Frequency | 4.60 GHz |
| Performance-core Max Turbo Frequency | 4.60 GHz |
| Efficient-core Max Turbo Frequency | 3.30 GHz |
| Performance-core Base Frequency | 2.50 GHz |
| Efficient-core Base Frequency | 1.80 GHz |
| Cache | 20 MB Intel® Smart Cache |
| Total L2 Cache | 9.5 MB |
| Processor Base Power | 65 W |
| Maximum Turbo Power | 148 W |

Supplemental Information

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| Marketing Status | Launched |
| Launch Date | Q1'23 |
| Embedded Options Available | No |

Memory Specifications

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| Max Memory Size (dependent on memory type) | 128 GB |
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| 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 |
| 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 |

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| Package Specifications | |
| Sockets Supported | FCLGA1700 |
| Max CPU Configuration | 1 |
| Thermal Solution Specification | PCG 2020C |
| TJUNCTION | 100°C |
| Package Size | 45.0 mm x 37.5 mm |

Advanced Technologies

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| Intel® Gaussian & Neural Accelerator | 3 |
| Intel® Thread Director | Yes |

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| Intel® Deep Learning Boost (Intel® DL Boost) | Yes |
| Intel® Speed Shift Technology | Yes |
| Intel® Turbo Boost Max Technology 3.0 ‡ | No |
| Intel® Turbo Boost Technology ‡ | 2 |
| Intel® Hyper-Threading Technology ‡ | Yes |
| Intel® 64 ‡ | Yes |
| Instruction Set | 64-bit |

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| Instruction Set Extensions | Intel® SSE4.1 Intel® SSE4.2 Intel® AVX2 |
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| Idle States | Yes |
| Enhanced Intel SpeedStep® Technology | Yes |
| Thermal Monitoring Technologies | Yes |

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| Intel® Volume Management Device (VMD) | Yes |
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Security & Reliability

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| Intel® Standard Manageability (ISM) ‡ | Yes |
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| 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 |

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| Intel® VT-x with Extended Page Tables (EPT) ‡ | Yes |
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