Intel Core i3-12100 processor 12 MB Smart Cache

Brand : Intel

Product family: Core

Product code: CM8071504651012

Product name : i3-12100

Intel[®] Core[™] i3-12100 Processor (12M Cache, up to 4.30 GHz)

Intel Core i3-12100. Processor family: Intel® Core™ i3, Processor socket: LGA 1700, Processor manufacturer: Intel. Memory channels: Dual-channel, Maximum internal memory supported by processor: 128 GB, Memory types supported by processor: DDR4-SDRAM, DDR5-SDRAM. On-board graphics card model: Intel UHD Graphics 730, On-board graphics card outputs supported: Embedded DisplayPort (eDP) 1.4b, DisplayPort 1.4a, HDMI 2.1, On-board graphics card base frequency: 300 MHz. Market segment: Desktop, Use conditions: PC/Client/Tablet, PCI Express slots version: 5.0, 4.0. Package type: Retail box





Processor		Features	
Processor manufacturer *	Intel	Maximum number of PCI Express	20
Processor generation	12th gen Intel® Core™ i3	lanes	
Processor model *	i3-12100	PCI Express slots version	5.0, 4.0
Processor family *	Intel® Core™ i3	PCI Express configurations	1x16+1x4, 2x8+1x4
Processor cores *	4	Supported instruction sets	SSE4.1, SSE4.2, AVX 2.0
Processor socket *	LGA 1700	Scalability	15
Processor threads	8	CPU configuration (max)	1
Processor operating modes *	64-bit	Embedded options available	×
Performance cores	4	Direct Media Interface (DMI) Revision	4.0
Processor boost frequency	4.3 GHz	Export Control Classification	
Performance-core boost frequency	4.3 GHz	Number (ECCN)	5A992CN3
Performance-core base frequency	3.3 GHz	Commodity Classification	
Processor cache	12 MB	Automated Tracking System	G167599
Processor cache type	Smart Cache	(CCATS)	
Box *	×	Processor special features	
Processor base power	60 W	Intel [®] Hyper Threading Technology	1
Maximum turbo power	89 W	(Intel® HT Technology)	4
Bus type	DMI4	Intel® Turbo Boost Technology	2.0
Maximum number of DMI lanes	8	Intel [®] Quick Sync Video Technology	/ 🗸
Memory bandwidth supported by processor (max)	76.8 GB/s	Intel® Clear Video HD Technology (Intel® CVT HD)	1
Processor codename	Alder Lake	Intel® AES New Instructions (Intel®	1
Processor ARK ID	134584	AES-NI)	•
Memory		Enhanced Intel SpeedStep Technology	1
Maximum internal memory	128 GB	Intel [®] Speed Shift Technology	4
supported by processor Memory types supported by	DDR4-SDRAM, DDR5-SDRAM	Intel® Gaussian & Neural Accelerator (Intel® GNA) 3.0	1
processor		Intel [®] Control-flow Enforcement	1
Memory channels *	Dual-channel	Technology (CET)	
Memory bandwidth (max)	76.8 GB/s	Intel® Thread Director	×
Graphics		Intel VT-x with Extended Page Tables (EPT)	4
On-board graphics card *	4	Intel [®] Secure Key	✓
Discrete graphics card *	×	Intel [®] OS Guard	✓
On-board graphics card model *	Intel UHD Graphics 730	Intel 64	✓
On-board graphics card outputs supported	Embedded DisplayPort (eDP) 1.4b, DisplayPort 1.4a, HDMI 2.1	Intel Virtualization Technology (VT- x)	✓
On-board graphics card base frequency	300 MHz	Intel Virtualization Technology for Directed I/O (VT-d)	1
On-board graphics card dynamic frequency (max)	1400 MHz	Intel Turbo Boost Max Technology 3.0	×
Number of displays supported (on-	4	Intel® Optane [™] Memory Ready	✓
board graphics)		Intel [®] Boot Guard	✓

Graphics		Processor special features	
On-board graphics card DirectX version	12.0	Intel® Deep Learning Boost (Intel® DL Boost)	4
On-board graphics card OpenGL version	4.5	Intel® Volume Management Device (VMD)	4
On-board graphics card maximum resolution (DisplayPort)	7680 x 4320 pixels	Mode-based Execute Control (MBE) Intel® Standard Manageability (ISM)	1
On-board graphics card maximum resolution (eDP - Integrated Flat Panel)	5120 x 3200 pixels	Intel® Threat Detection Technology (TDT)	4
On-board graphics card maximum resolution (HDMI)	4096 x 2160 pixels	Operational conditions	
		Tjunction	100 °C
On-board graphics card refresh rate at maximum resolution (DisplayPort)	60 Hz	Technical details	
On-board graphics card refresh rate at maximum resolution (eDP - Integrated Flat Panel)	120 Hz	OpenCL version Launch date Status	2.1 Q1'22 Launched
On-board graphics card refresh rate at maximum resolution (HDMI)	60 Hz	Logistics data	
On-board graphics card ID	0x4692	Harmonized System (HS) code	85423119
Discrete graphics card model *	Not available	Packaging data	
Number of execution units	24	Package type	Retail box
Multi-Format Codec Engines	1	Weight & dimensions	
Features		Processor package size	45 x 37.5 mm
Execute Disable Bit	1	Other features	
ldle States Thermal Monitoring Technologies Market segment Use conditions	✓ ✓ Desktop PC/Client/Tablet	Maximum internal memory Graphics output	128 GB eDP 1.4b, DP 1.4a, HDMI 2.1





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