



# Intel® Core™ i3-12100 Processor

12M Cache, up to 4.30 GHz

Spec Code

SRL62

Ordering Code

CM8071504651012

<a href="#">Intel® Core™ i3-12100 Processor (12M Cache- up to 4.30 GHz)</a>	
<b>Essentials</b>	
Product Collection	<a href="#">12th Generation Intel® Core™ i3 Processors</a>
Code Name	Products formerly Alder Lake
Vertical Segment	Desktop
Processor Number	i3-12100
Status	Launched
Launch Date	Q1'22
Lithography	Intel 7
Use Conditions	PC/Client/Tablet
Recommended Customer Price	<a href="#">\$122.00 - \$129.00</a>
<b>CPU Specifications</b>	
Total Cores	4
# of Performance-cores	4
# of Efficient-cores	0
Total Threads	8
Max Turbo Frequency	4.30 GHz
<u>Performance-core Max Turbo Frequency</u>	<a href="#">4.30 GHz</a>
Performance-core Base Frequency	3.30 GHz
<u>Cache</u>	<a href="#">12 MB Intel® Smart Cache</a>
Total L2 Cache	5 MB
Processor Base Power	60 W
Maximum Turbo Power	89 W
<b>Supplemental Information</b>	
Embedded Options Available	Yes
<u>Datasheet</u>	<a href="#">View now</a>
<b>Memory Specifications</b>	
Max Memory Size (dependent on memory type)	128 GB
<u>Memory Types</u>	<a href="#">Up to DDR5 4800 MT/s Up to DDR4 3200 MT/s</a>
Max # of Memory Channels	2
Max Memory Bandwidth	76.8 GB/s
<b>Processor Graphics</b>	

Processor Graphics ‡	Intel® UHD Graphics 730
Graphics Base Frequency	300 MHz
Graphics Max Dynamic Frequency	1.40 GHz
Graphics Output	eDP 1.4b   DP 1.4a   HDMI 2.1
Execution Units	24
Max Resolution (HDMI)‡	4096 x 2160 @ 60Hz
Max Resolution (DP)‡	7680 x 4320 @ 60Hz
Max Resolution (eDP - Integrated Flat Panel)‡	5120 x 3200 @ 120Hz
DirectX* Support	12
OpenGL* Support	4.5
Multi-Format Codec Engines	1
Intel® Quick Sync Video	Yes
Intel® Clear Video HD Technology	Yes
# of Displays Supported ‡	4
Device ID	0x4692
OpenCL* Support	2.1
Expansion Options	
<u>Direct Media Interface (DMI) Revision</u>	<u>4</u>
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
Package Specifications	
Sockets Supported	FCLGA1700   FCBGA1700
Max CPU Configuration	1
Thermal Solution Specification	PCG 2020C
TJUNCTION	100°C
Package Size	45.0 mm x 37.5 mm
Advanced Technologies	
Intel® Gaussian & Neural Accelerator	3
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
Intel® Hyper-Threading Technology ‡	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
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® 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® Control-Flow Enforcement Technology	Yes