Search specifications

Intel® Core™ i3-8300 Processor

8M Cache, 3.70 GHz

Add to Compare

Specifications

- **Essentials**
- Performance
- Supplemental Information
- Memory Specifications
- Processor Graphics
- Expansion Options
- Package Specifications
- Advanced Technologies
- Security & Reliability

Ordering and Compliance

Compatible products

Downloads and Software

Essentials

Export specifications

Product Collection	8th Generation Intel® Core™ i3 Processors
Code Name	Products formerly Coffee Lake
Vertical Segment	Desktop
Processor Number	i3-8300
Status	Launched
Launch Date ?	Q2'18
Lithography ?	14 nm
Recommended Customer Price ?	-

Performance

# of Cores ?	4
# of Threads ?	4
Processor Base Frequency ?	3.70 GHz
Cache ?	8 MB SmartCache
Bus Speed ?	8 GT/s DMI3
TDP ?	62 W

Supplemental Information

Embedded Options Available ?	No
Datasheet	View now

Memory Specifications

Max Memory Size (dependent on memory type) ?	64 GB
Memory Types ?	DDR4-2400
Max # of Memory Channels ?	2
Max Memory Bandwidth ?	37.5 GB/s
ECC Memory Supported ‡ ?	Yes

Processor Graphics

Processor Graphics ‡ ?	Intel® UHD Graphics 630
Graphics Base Frequency ?	350 MHz
Graphics Max Dynamic Frequency ?	1.15 GHz
Graphics Video Max Memory ?	64 GB
4K Support ?	Yes, at 60Hz
Max Resolution (HDMI 1.4)‡ ?	4096x2304@24Hz
Max Resolution (DP)‡ ?	4096x2304@60Hz
Max Resolution (eDP - Integrated Flat Panel)‡ ?	4096x2304@60Hz
DirectX* Support ?	12
OpenGL* Support ?	4.5
Intel® Quick Sync Video ?	Yes
Intel® InTru™ 3D Technology ?	Yes
Intel® Clear Video HD Technology ?	Yes
Intel® Clear Video Technology ?	Yes
# of Displays Supported ‡	3
Device ID	0x3E91

Expansion Options

Scalability	1S Only
PCI Express Revision ?	3.0
PCI Express Configurations ‡ ?	Up to 1x16, 2x8, 1x8+2x4
Max # of PCI Express Lanes ?	16

Package Specifications

Sockets Supported ?	FCLGA1151
Max CPU Configuration	1
Thermal Solution Specification ?	PCG 2015C (65W)
T$_{JUNCTION}$?	100°C
Package Size	37.5mm x 37.5mm
Low Halogen Options Available	No

Advanced Technologies

Intel® Optane™ Memory Supported ‡ ?	Yes
Intel® Turbo Boost Technology ‡ ?	No
Intel® vPro™ Platform Eligibility ‡ ?	No
Intel® Hyper-Threading Technology ‡ ?	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
Intel® TSX-NI ?	No

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® Identity Protection Technology ‡ ?	Yes
Intel® Stable Image Platform Program (SIPP) ?	No

Security & Reliability

Intel® AES New Instructions ?	Yes
Secure Key ?	Yes
Intel® Software Guard Extensions (Intel® SGX) ?	Yes with Intel® ME
Intel® Memory Protection Extensions (Intel® MPX) ?	Yes
Intel® OS Guard	Yes
Intel® Trusted Execution Technology ‡ ?	No
Execute Disable Bit ‡ ?	Yes
Intel® Boot Guard ?	Yes

More support options for Intel® Core™ i3-8300 Processor (8M Cache, 3.70 GHz)

Product Support

Downloads and Software

Support Community

Warranty and Replacement

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Refer to Datasheet for formal definitions of product properties and features.

‡ This feature may not be available on all computing systems. Please check with the system vendor to determine if your system delivers this feature, or refer to the system specifications (motherboard, processor, chipset, power supply, HDD, graphics controller, memory, BIOS, drivers, virtual machine

monitor-VMM, platform software, and/or operating system) for feature compatibility. Functionality, performance, and other benefits of this feature may vary depending on system configuration.

System and Maximum TDP is based on worst case scenarios. Actual TDP may be lower if not all I/Os for chipsets are used.

"Announced" SKUs are not yet available. Please refer to the Launch Date for market availability.

Intel processor numbers are not a measure of performance. Processor numbers differentiate features within each processor family, not across different processor families. See http://www.intel.com/content/www/us/en/processors/processor-numbers.html for details.

Processors that support 64-bit computing on Intel® architecture require an Intel 64 architecture-enabled BIOS.

See http://www.intel.com/content/www/us/en/architecture-and-technology/hyper-threading/hyper-threading-technology.html?wapkw=hyper+threading for more information including details on which processors support Intel® HT Technology.

Check http://ipt.intel.com/ for systems that support Intel® Identity Protection Technology (Intel® IPT).

Max Turbo Frequency refers to the maximum single-core processor frequency that can be achieved with Intel® Turbo Boost Technology. See www.intel.com/technology/turboboost/ for more information.

Some products can support AES New Instructions with a Processor Configuration update, in particular, i7-2630QM/i7-2635QM, i7-2670QM/i7-2675QM, i5-2430M/i5-2435M, i5-2410M/i5-2415M. Please contact OEM for the BIOS that includes the latest Processor configuration update.

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