



Intel® Core™ i7-8700T Processor

12M Cache, up to 4.00 GHz

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Product Collection	8th Generation Intel® Core™ i7 Processors
Code Name	Products formerly Coffee Lake
Vertical Segment	Desktop
Processor Number	i7-8700T
Status	Launched
Launch Date	Q2'18
Lithography	14 nm
Recommended Customer Price	
Use Conditions	Embedded Broad Market Commercial Temp, PC/Client/Tablet

Performance

# of Cores	6
# of Threads	12
Processor Base Frequency	2.40 GHz
Max Turbo Frequency	4.00 GHz
Cache	12 MB SmartCache
Bus Speed	8 GT/s DMI3
TDP	35 W
Configurable TDP-down Frequency	1.90 GHz
Configurable TDP-down	25 W

Supplemental Information

Embedded Options Available	Yes
Datasheet	View now

Memory Specifications

Max Memory Size (dependent on memory type)	64 GB
Memory Types	DDR4-2666
Max # of Memory Channels	2
Max Memory Bandwidth	41.6 GB/s
ECC Memory Supported [‡]	No

Processor Graphics

Processor Graphics [‡] 	Intel® UHD Graphics 630
Graphics Base Frequency 	350 MHz
Graphics Max Dynamic Frequency 	1.20 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	0x3E92

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 2015A (35W)
T _{JUNCTION} 	100°C
Package Size	37.5mm x 37.5mm

Advanced Technologies

Intel® Optane™ Memory Supported [‡] 	Yes
Intel® Turbo Boost Technology [‡] 	2.0
Intel® vPro™ Platform Eligibility [‡] 	Yes
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® TSX-NI 	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® Identity Protection Technology ‡ 	Yes
Intel® Stable Image Platform Program (SIPP) 	Yes

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 ‡ 	Yes
Execute Disable Bit ‡ 	Yes
Intel® Boot Guard 	Yes

More support options for Intel® Core™ i7-8700T Processor (12M Cache, up to 4.00 GHz)



Product Support



Downloads and Software



Support Community



Warranty and Replacement



Need more help?

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

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

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.

‡ 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 reference 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.

See <http://www.intel.com/content/www/us/en/architecture-and-technology/hyper-threading/hyper-threading-technology.html>

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including for more information including details on which processors support Intel® HT Technology.

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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.

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

For benchmarking data see <http://www.intel.com/performance>.

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.



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