ARK | Compare Intel® Products	
	Intel® Core™ i7-9700F Processor (12M Cache, up to 4.70 GHz)
Essentials	
Product Collection	9th Generation Intel® Core™ i7 Processors
Code Name	Products formerly Coffee Lake
Vertical Segment	Desktop
Processor Number	i7-9700F
Status	Launched
Launch Date	Q2'19
Lithography	14 nm
Use Conditions	PC/Client/Tablet
Recommended Customer Price	$298.00 - $310.00
Performance Specifications	
# of Cores	8
# of Threads	8
Processor Base Frequency	3.00 GHz
Max Turbo Frequency	4.70 GHz
Cache	12 MB Intel® Smart Cache
Bus Speed	8 GT/s
Intel® Turbo Boost Technology 2.0 Frequency‡	4.70 GHz
TDP	65 W
Supplemental Information	
Embedded Options Available	No
Description	View now
Datasheet	View now
Memory Specifications	
Max Memory Size (dependent on memory type)	128 GB
Memory Types	DDR4-2666
Max # of Memory Channels	2
Max Memory Bandwidth	41.6 GB/s
ECC Memory Supported ‡	No
Expansion Options	
Scalability	1S Only
PCI Express Revision	3
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)
TJUNCTION	100°C
Package Size	37.5mm x 37.5mm
Advanced Technologies	
Intel® Optane™ Memory Supported ‡	Yes
Intel® Turbo Boost Technology ‡	2
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® Transactional Synchronization Extensions	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)	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