HP Intel Core i7-9700 processor 3 GHz 12 MB Smart Cache Box

Brand : HP

Product code: 7AD11AV

Product name : Intel Core i7-9700

Intel Core i7-9700 Processor (12MB Cache, up to 4.7 GHz)
HP Intel Core i7-9700. Processor family: Intel® Core™ i7, Processor socket: LGA 1151 (Socket H4), Processor lithography: 14 nm. Memory channels: Dual-channel, Maximum internal memory supported by processor: 128 GB, Memory types supported by processor: DDR4-SDRAM. On-board graphics card model: Intel® UHD Graphics 630, Maximum on-board graphics card memory: 64 GB, On-board graphics card base frequency: 350 MHz. PCI Express configurations: 1x16, 1x8+2x4, 2x8, Supported instruction sets: AVX 2.0, SSE4.1, SSE4.2, Scalability: 1S. Processor package size: 37.5 x 37.5 mm

Processor	
Processor generation	9th gen Intel® Core™ i7
Processor model *	i7-9700
Processor base frequency *	3 GHz
Processor family *	Intel® Core™ i7
Processor cores *	8
Processor socket *	LGA 1151 (Socket H4)
Processor lithography *	14 nm
Processor threads	8
System bus rate	8 GT/s
Processor operating modes *	64-bit
Processor boost frequency	4,7 GHz
Processor cache	12 MB
Processor cache type	Smart Cache
Thermal Design Power (TDP)	65 W
Package type *	Box
Memory bandwidth supported by processor (max)	41,6 GB/s
Processor codename	Coffee Lake

Memory	
Maximum internal memory supported by processor	128 GB
Memory types supported by processor	DDR4-SDRAM
Memory clock speeds supported by processor	2666 MHz
Memory channels *	Dual-channel
ECC	✗

Graphics	
On-board graphics card *	✓
Discrete graphics card *	✗
On-board graphics card model *	Intel® UHD Graphics 630
Maximum on-board graphics card memory	64 GB
On-board graphics card base frequency	350 MHz
On-board graphics card dynamic frequency (max)	1200 MHz
Number of displays supported (on-board graphics)	3
On-board graphics card 4K support	✓

Features	
Execute Disable Bit	✓
Idle States	✓
Thermal Monitoring Technologies	✓
Maximum number of PCI Express lanes	16
PCI Express slots version	3.0
PCI Express configurations	1x16, 1x8+2x4, 2x8
Supported instruction sets	AVX 2.0, SSE4.1, SSE4.2
Scalability	1S
CPU configuration (max)	1
Embedded options available	✗
Thermal solution specification	PCG 2015C
PCI Express CEM revision	3.0

Processor special features	
Intel® Hyper Threading Technology (Intel® HT Technology)	✗
Intel® Identity Protection Technology (Intel® IPT)	✓
Intel® Turbo Boost Technology	2.0
Intel® Quick Sync Video Technology	✓
Intel® InTru™ 3D Technology	✓
Intel® Clear Video HD Technology (Intel® CVT HD)	✓
Intel® AES New Instructions (Intel® AES-NI)	✓
Enhanced Intel SpeedStep Technology	✓
Intel Trusted Execution Technology	✓
Intel® Memory Protection Extensions (Intel® MPX)	✓
Intel VT-x with Extended Page Tables (EPT)	✓
Intel® Secure Key	✓
Intel TSX-NI	✓
Intel Stable Image Platform Program (SIPP)	✓
Intel® OS Guard	✓
Intel Clear Video Technology	✓
Intel Software Guard Extensions (Intel SGX)	✓

Graphics	
On-board graphics card DirectX version	12.0
On-board graphics card OpenGL version	4.5
On-board graphics card maximum resolution (DisplayPort)	4096 x 2304 pixels
On-board graphics card maximum resolution (eDP - Integrated Flat Panel)	4096 x 2304 pixels
On-board graphics card maximum resolution (HDMI)	4096 x 2304 pixels
On-board graphics card refresh rate at maximum resolution (DisplayPort)	60 Hz
On-board graphics card refresh rate at maximum resolution (eDP - Integrated Flat Panel)	60 Hz
On-board graphics card refresh rate at maximum resolution (HDMI)	24 Hz
On-board graphics card ID	0x3E98
Discrete graphics card model *	Not available

Processor special features	
Intel 64	✔
Intel Virtualization Technology (VT-x)	✔
Intel Virtualization Technology for Directed I/O (VT-d)	✔
Intel® Optane™ Memory Ready	✔
Intel® Boot Guard	✔
Intel® vPro™ Platform Eligibility	✔

Operational conditions	
Tjunction	100 °C

Weight & dimensions	
Processor package size	37.5 x 37.5 mm

Disclaimer. The information published here (the "Information") is based on sources that can be considered reliable, typically the manufacturer, but this Information is provided "AS IS" and without guarantee of correctness or completeness. The Information is only indicative and can be changed at any time without notification. No rights can be based on the Information. Suppliers or aggregators of this Information do not accept any liability with regard to the content of (web)pages and other documents, including its Information. The publisher of the Information can not be held liable for the content of 3rd party websites that are linking this Information or are linked to from this Information. You as the User of the Information are solely responsible for the choice and usage of this Information. You are not entitled to transfer, copy or otherwise multiply or distribute the Information. You are obliged to follow the directions of the copyright owner(s) with regard to the use of the Information. Exclusively Dutch law is applicable. With regard to price and stock data on the site, the publisher followed a number of starting points, which are not necessarily relevant for your private or business circumstances. Therefore, the price and stock data are only indicative and are subject to changes. You are personally responsible for the way you use and apply this information. As a user of the Information or sites or documents in which this Information is included, you will adhere to standard fair use including avoidance of spamming, ripping, intellectual-property violations, privacy violations, and any other illegal activity.

Publication date: 17-JUL-2025. Prints or copies of Information are only valid on the printed Publication date