Essentials
Product Collection
Code Name
Vertical Segment
Processor Number
Status
Launch Date
Lithography
Included Items
Recommended Customer Price

CPU Specifications
Total Cores
Total Threads
Max Turbo Frequency
Intel® Turbo Boost Max Technology 3.0 Frequency ‡
Processor Base Frequency
Cache
Bus Speed
TDP

Supplemental Information
Embedded Options Available
Datasheet

Memory Specifications
Max Memory Size (dependent on memory type)
Memory Types
Max # of Memory Channels
Max Memory Bandwidth
ECC Memory Supported   ‡

Expansion Options
Scalability

PCI Express Revision

Max # of PCI Express Lanes

Package Specifications

Sockets Supported

Max CPU Configuration

Thermal Solution Specification

TJUNCTION

Advanced Technologies

Intel® Deep Learning Boost (Intel® DL Boost)

Intel® Optane™ Memory Supported ‡

Intel® Turbo Boost Max Technology 3.0 ‡

Intel® Turbo Boost Technology ‡

Intel® Hyper-Threading Technology ‡

Intel® 64 ‡

Instruction Set Extensions

# of AVX-512 FMA Units

Enhanced Intel SpeedStep® Technology

Security & Reliability

Intel® AES New Instructions

Execute Disable Bit ‡

Intel® Virtualization Technology (VT-x) ‡

Intel® Virtualization Technology for Directed I/O (VT-d) ‡

Intel® Core™ i9-10900X X-series Processor (19.25M Cache- 3.70 GHz)

Intel® Core™ X-series Processors
Products formerly Cascade Lake
Desktop
i9-10900X
Launched
Q4'19
14 nm
Please note: The boxed product does not include a fan or heat sink
$590.00 - $599.00

10
20
4.50 GHz
4.70 GHz
3.70 GHz
19.25 MB Intel® Smart Cache
8 GT/s DMI3
165 W

No
View now

256 GB
DDR4-2933

4
94 GB/s
No

1S Only

3
                                                                                            48

FCLGA2066
                                                                                            1

PCG 2017X
94°C

Yes
Yes
Yes
                                                                                            2
Yes
Yes
Intel® SSE4.1 | Intel® SSE4.2 | Intel® AVX2 | Intel® AVX-512
                                                                                            2
Yes

Yes
Yes
Yes
Yes