

Intel® Xeon® D-1747NTE Processor
15M Cache, up to 3.50 GHz

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Essentials

Product Collection	Intel® Xeon® D Processor
Code Name	Products formerly Ice Lake
Vertical Segment	Server
Processor Number	D-1747NTE
Lithography	10 nm
Recommended Customer Price	\$1320.00

CPU Specifications

Total Cores	10
# of Performance-cores	10
Total Threads	20
Max Turbo Frequency	3.50 GHz
Processor Base Frequency	2.50 GHz
Cache	15 MB
Max # of UPI Links	0
TDP	80 W
Intel® Deep Learning Boost (Intel® DL Boost) on CPU	Yes

Supplemental Information

Marketing Status	Launched
Launch Date	Q1'22
Embedded Options Available	No
Use Conditions	Automotive, Base Transceiver Station, Communications Commercial Temp, Communications Extended Temp, Embedded Broad Market Commercial Temp, Embedded Broad Market Extended Temp, Industrial Commercial Temp, Industrial Extended Temp, Server/Enterprise
Product Brief	View now

Memory Specifications

Max Memory Size (dependent on memory type)	384 GB
Memory Types	DDR4
Maximum Memory Speed	2933 MHz
Max # of Memory Channels	3
Intel® Optane™ Persistent Memory Supported	No
ECC Memory Supported ¹	Yes

Expansion Options

Scalability	1S Only
PCI Express Revision	4.0
Microprocessor PCIe Revision	Gen 4
Chipset / PCH PCIe Revision	Gen 3
Max # of PCI Express Lanes	16

I/O Specifications

# of USB Ports	4
USB Revision	3.0
Integrated LAN	Yes
Max # of SATA 6.0 Gb/s Ports	24

Package Specifications

Sockets Supported	FCBGA2227
Package Size	45mm x 45mm

Advanced Technologies

Intel® Volume Management Device (VMD)	Yes
Intel® Resource Director Technology (Intel® RDT)	Yes
Intel® Optane™ Memory Supported ¹	No
Intel® Turbo Boost Technology ¹	2.0
Intel® Hyper-Threading Technology ¹	Yes
Intel® 64 ¹	Yes
Instruction Set	64-bit
Instruction Set Extensions	Intel® AVX-512
# of AVX-512 FMA Units	1
Enhanced Intel SpeedStep® Technology	Yes
Thermal Monitoring Technologies	Yes
Integrated Intel® QuickAssist Technology	Yes

Security & Reliability

Intel® Software Guard Extensions (Intel® SGX)	Yes with Intel® SPS
Default Maximum Enclave Page Cache (EPC) Size for Intel® SGX	64 GB
Intel® QuickAssist Software Acceleration	Yes
Intel® Total Memory Encryption	Yes
Intel® AES New Instructions	Yes
Intel® Trusted Execution Technology ¹	Yes
Execute Disable Bit ¹	Yes
Intel® Boot Guard	Yes
Intel® Platform Firmware Resilience Support	Yes
Intel® Crypto Acceleration	Yes
Intel® Virtualization Technology (VT-x) ¹	Yes
Intel® Virtualization Technology for Directed I/O (VT-d) ¹	Yes

or warranty regarding the proper EECN or HTS. Your company as an importer and/or exporter is responsible for determining the correct classification of your transaction.
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 reference the system specifications (motherboard, processor, chipset, power supply, HDD, graphics controller, memory, BIOS, drivers, virtual machine monitor, I/O, platform software and/or operating system) for feature compatibility. Functionality, performance and other benefits of this feature may vary depending on system configuration.

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.

Recommended Customer Price (RCP) is pricing guidance only for Intel products. Prices are for direct Intel customers, usually represent 1,000-unit purchase quantities, and are subject to change without notice. Prices may vary for other package types and shipment quantities. In bulk, price represents individual unit. Listing of RCP does not constitute a formal pricing offer from Intel.

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.

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 and applicability of this technology.

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

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

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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