

Intel® Server System D50TNP Family FAQ

1. What makes the Intel® Server System D50TNP Family an ideal choice for HPC and AI?

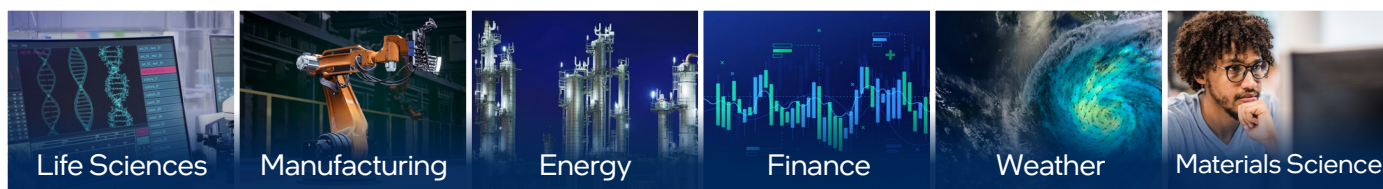
Simply put, the answer is the platform's extraordinary combination of performance density and flexible scalability.

The Intel Server System D50TNP Family features the latest 3rd Generation Intel® Xeon® Scalable processors, delivering more performance and capacity throughout the platform: compute, memory, storage and I/O.

Compared to its predecessor (Intel® Server System S2600BP Family), it delivers the benefits of up to 40 high-speed cores per processor, PCIe 4.0 support for faster storage and networking, and more.

And, the platform's highly-flexible design enables you to integrate four distinct modules to adapt to your HPC and AI needs. The modules enable you to independently scale compute, accelerator, storage and rack management as your needs change and grow. There is also a liquid-cooled version of the compute module enabling faster, higher-performance processors and improved energy efficiency in your data center.

Regardless of your HPC or AI workloads—life sciences, manufacturing, energy, finance, weather, materials science or others—the Intel Server System D50TNP Family is an excellent choice to transform your data into the insights and discoveries you're looking for.



2. What are some of the Intel Server System D50TNP Family's key performance features and enhancements?

Each Intel Server System D50TNP module integrates two 3rd Generation Intel Xeon Scalable processors—with up to 40 cores per processor and outstanding per-core performance.

They are also the only data center CPUs with AI acceleration built in, as well as Intel® Deep Learning Boost for high-speed inferencing.

The processors and server board also feature three Intel® Ultra Path Interconnects (Intel® UPI) to accelerate I/O between processors.

Performance is further improved by more memory and faster memory channels than the prior generation, to fuel more data to the processors, faster.



The platform also supports PCIe 4.0 to provide a significant boost in I/O performance, enabling high-performance storage, faster I/O connectivity, and other applications such as support for high-speed GPUs.

3. How do the four Intel Server System D50TNP Family module types enable greater versatility for HPC and AI workloads?

Every workload can tax your server infrastructure differently. And HPC and AI workloads are two of the biggest examples of that.

That's why the Intel Server System D50TNP Family includes four distinct types of modules—compute, accelerator, storage and management—to enable independent scalability of key resources.

For massively parallel compute workloads, you can add air-cooled or liquid-cooled compute modules. Compute modules can provide up to 320 high-speed cores per 2U chassis, using the latest 3rd Generation Intel Xeon Scalable processors.



For HPC and AI workloads that have an affinity for accelerators, the 2U accelerator module integrates up to two processors with up to 80 total compute cores and up to four full-sized PCIe accelerators.

And for data-intensive workloads that require massive storage capacity, the storage module lets you integrate up to one petabyte of high-performance storage capacity per 2U chassis.

Finally, you can get up to 160 cores per 2U chassis with two management modules.

All modules provide ultra-fast, PCIe 4.0 support to accelerate I/O for all connected components, including high-speed fabric connectivity across your cluster's nodes.

4. How many high-performance PCI accelerator cards can the accelerator module support?

The Intel Server System D50TNP accelerator module supports up to four 300-watt PCIe 4.0 cards, which can include Intel or 3rd-party accelerator cards.

5. What types of network interface cards are supported?

The Intel Server System D50TNP Family enables up to two or up to four 200 Gb network cards (dependent upon module chosen), allowing Ethernet, Intel® Omni-Path or Mellanox InfiniBand support.

6. Is this server part of a broader family of server systems that Intel offers?

Intel offers a variety of servers to handle all your data center and workload requirements. These servers can run everything from entry-level tasks, to mainstream business and cloud workloads, to your most compute-intensive and data-centric workloads on density-optimized platforms.

All Intel® Server Systems provide consistent, enterprise-grade server management to simplify deployment, monitoring, updating and debugging.

The Intel Server System D50TNP Family is the perfect fit for HPC and AI workloads, delivering outstanding performance density and flexibility to scale compute, accelerator or storage capacity to adapt to your ever-changing needs.

7. How do I fit this system into my existing rack infrastructure?

The Intel Server System D50TNP Family is a purpose-built HPC system with front I/O, suited for HPC or AI installations. If you need a more enterprise-level system, Intel has other offerings to choose from, including dense enterprise systems.

8. Why choose Intel Server Systems?



Intel Server Systems provide differentiating, end-to-end innovation across the platform—from the latest generation Intel® processors, to high-value memory, storage, networking and security features.



Intel's server value is about more than just the hardware. The service and support included with every Intel Server System purchase can provide peace of mind after purchase as well.



Intel servers all ship with Intel's highly rated, robust services and support package, delivering differentiating value to every stage of the server lifecycle—from pre-purchase and deployment to operations, management and support.



Intel Server Systems are backed by Intel's world-class service and support* and a default 3-year warranty, with an optional upgrade to 5-year warranty service.

Intel's advanced warranty replacement is available to eligible partners. This premium warranty benefit enables program participants to receive replacement or spare parts without waiting for the returned defective part.



Intel Server Systems are easy to deploy and operate, with comprehensive documentation for integration, configuration, and management.



All Intel Server Systems benefit from Intel's vast ecosystem and partnerships with leading software developers and vendors. Intel's 15,000+ software engineers have optimized or helped to optimize leading software operating environments, virtualization and container frameworks, AI and analytics frameworks, and more, to perform faster on Intel® technologies.



* World class support is rated by an average Net Promoter Score (NPS) of 81 since 2020.

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