Data sheet

HPE ProLiant Compute DL380a Gen12



What's new

- Powered by Intel® Xeon® 6 processors with next-generation technology that support up to 144 cores at 250W in a 4U chassis.
- Support for ten double-wide GPUs up to 600W each.
- Ability to boost inference speeds by connecting four neighboring GPUs via NVIDIA's 4-way NVLink Bridge.
- Three power domains, two of which have six power supplies dedicated to GPUs, resulting in more efficient and reliable performance for both the system as well as the GPUs themselves.

Overview

Are you looking for a server with advanced scalability for GPUs that can enhance the performance of your AI inferencing workloads?

The HPE ProLiant Compute DL380a Gen12 server is a rack-optimized, 4U 2P solution that delivers breakthrough performance with advanced GPU accelerators on an ultra-scalable architecture.

Powered by Intel® Xeon® 6 processors with up to 144 cores and ten double-wide GPUs as well as increased memory bandwidth and high-speed PCIe Gen5 I/O, the HPE ProLiant Compute DL380a Gen12 server is a perfect solution for AI inference workloads.

The HPE ProLiant Compute DL380a Gen12 server is engineered to enhance IT with a cloud operating experience, built-in security, and customized performance for workloads to drive your business forward.

- Advanced data transfer rates and higher network speeds from the PCIe Gen5 serial expansion bus, with up to 6 x16 PCIe Gen5 and 2 OCP slots.

- Support for 32 DIMMs of DDR5 memory at speeds up to 6400 MHz, resulting in total memory of up to 4 TB.

Features

Intuitive Cloud Operating Experience: Simple, Self-service, and Automated

The HPE ProLiant Compute DL380a Gen12 is engineered for your hybrid world. The HPE ProLiant Compute DL380a Gen12 simplifies the way you control your business's compute—from edge to cloud—with a cloud operating experience.

Transform business operations and pivot your team from reactive to proactive with global visibility and insight through a self-service console.

Automate tasks for efficiency in deployment, instant scalability, and seamless, simplified support and lifecycle management, reducing tasks and shortening maintenance windows.

These experiences are engineered and built into all HPE ProLiant Gen12 servers, whether purchased as physical servers or consumed as-a-service using GreenLake Flex Solutions as your compute and storage demands grow.

Simplify and secure server management from edge to cloud with HPE Compute Ops Management. HPE Compute Ops Management is an as-a-service compute management experience that delivers greater simplicity, agility, and speed across your entire compute landscape, globally.

Trusted Security by Design: Uncompromising, Fundamental, and Protected

The HPE ProLiant Compute DL380a Gen12 utilizes the HPE Silicon Root of Trust, HPE's fundamental approach to security that provides zero-trust architecture at the silicon level and helps ensure all server essential firmware is free from malware or compromised code.

The server, powered by Intel® Xeon® 6 processors, adds hardware and software-assisted security features, including Intel® Software Guard Extensions and Intel® Boot Guard, which secure the server hardware foundation on which critical apps run and better protect data in memory.

HPE ProLiant Compute Gen12 servers continuously protect healthy servers by providing rapid detection of security-compromised servers, even to the point of not allowing them to boot if they identify and contains malicious code.

HPE ProLiant Compute Gen12 servers provide automated recovery from a security event, including restoration of validated firmware, and facilitating recovery of the operating system, application, and data connections, providing the fastest path to bring a server back online and into normal operations.

From silicon to software, from factory to cloud, and from generation to generation, HPE ProLiant Compute Gen12 is engineered with a fundamental security approach to defend against increasingly complex threats through an uncompromising commitment to constant security advancements.

Customized Performance for your Workloads: Accelerated, Open, and Efficient

The HPE ProLiant Compute DL380a Gen12 server is an excellent choice for AI, compute and graphics-intense workloads requiring maximum core count, GPU capabilities, and network and I/O bandwidth.

Harness major computer performance with the HPE ProLiant Compute DL380a Gen12 which is powered by Intel® Xeon® 6 processors with next-generation technology that supports up to 144 cores per processor, 250W, and up to 4 TB of memory.

The HPE ProLiant Compute DL380a Gen12 provides advanced data transfer rates and higher network speeds from the PCIe Gen5 serial expansion bus, with up to 6 x16 PCIe Gen5 and 2 OCP slots to improve I/O throughput and reduce latency.

It provides 16 DIMM channels per processor for up to 4 TB total DDR5 memory with increased memory bandwidth and performance, and lower power requirements.

It provides real-time operational feedback on server performance plus recommendations for fine-tuning BIOS settings to customize for changing business needs.

Technical specifications	HPE ProLiant Compute DL380a Gen12
Processor type	Intel
Processor family	6th Generation Intel® Xeon® Scalable Processors
Processor core available	64 to 144 core, depending on processor
Processor number	2
Processor speed	2.4 GHz maximum, depending on processor
Maximum memory	4 TB - RDIMM (2 TB per processor)
Memory slots	32 DIMM slots
Memory type	HPE DDR5 Smart Memory
Memory protection features	RAS – Advanced ECC, online spare, mirroring, combined channel (lockstep) functionality, and HPE Fast Fault Tolerant Memory (ADDDC)
Drive supported	SFF NMVE and EDSFF
Security	Optional locking Bezel kit, Intrusion Detection kit, and embedded HPE TPM 2.0
Infrastructure management	HPE iLO Standard with intelligent provisioning (embedded), HPE OneView Standard (requires download) (standard) HPE iLO Advanced, and HPE OneView Advanced (optional, requires licenses)
Power supply type	Up to 8 M-CRPS. Single 1+1 redundancy for system board. Dual 2+1 redundancy for GPUs.
Expansion slots	6, for detailed descriptions refer to the QuickSpecs
System fan features	4 dual-rotor and 8 single-rotor hot plug fans included
Form factor	4U Rack
Warranty	3/3/3: Server Warranty includes three years of parts, three years of labor, and three years of on-site support coverage. Additional information regarding worldwide limited warranty and technical support is available at: https://support.hpe.com/hpesc/public/docDisplay?docId=sd00004309en_us. Additional HPE support and service coverage, to supplement the product warranty, is available. For more information, visit: https://www.hpe.com/support.
Accelerators	Support for ten double-wide GPUs up to 600W each

HPE Services

No matter where you are in your transformation journey, you can count on HPE Services to deliver the expertise you need when, where and how you need it. From strategy and planning to deployment, ongoing operations and beyond, our experts can help you realize your digital ambitions.

Advisory & Professional services

Experts can help you map out your path to hybrid cloud and optimize your operations.

Managed services

HPE runs your IT operations, giving you unified control, so can focus on innovation.

Support services

Optimize your entire IT environment and drive innovation. Manage day-to-day IT operational tasks while freeing up valuable time and resources.

— **HPE Complete Care Service:** a modular service designed to help optimize your entire IT environment and achieve agreed upon IT outcomes and business goals. All delivered by an assigned team of HPE experts.

— **HPE Tech Care Service:** the operational service experience for HPE products. The service provides access to product specific experts, an AI driven digital experience, and general technical guidance to help reduce risk and search for ways to do things better.

— **HPE Multivendor Services:** Single point of accountability for managing on-site hardware and software support for multivendor products. HPE experts help manage your IT across technologies and platforms for HPE and non-HPE technologies, acting as the single point of contact for your IT operational needs.

Lifecycle Services

Address your specific IT deployment project needs with tailored project management and deployment services.

HPE Education Services

Training and certification designed for IT and business professionals across all industries. Create learning paths to expand proficiency in a specific subject. Schedule training in a way that works best for your business with flexible continuous learning options

Defective Media Retention is optional and allows you to retain Disk or eligible SSD/Flash Drives replaced by HPE due to malfunction.

GreenLake

GreenLake is the cloud to run and manage your entire hybrid landscape—private, public, and edge. It helps you to:

— Streamline IT Operations across compute, storage, and networking without the chaos

— Unify and secure data, as you move faster

— Accelerate AI, from pilot to production

The result: greater operational efficiency, lower TCO, and faster AI delivery—all from one unified, intelligent platform built for today's hybrid enterprise.

For additional technical information, available models and options, please reference the QuickSpecs

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