Data sheet

HPE ProLiant Compute DL320 Gen12

Overview

Do you need a 1U single socket rackmount server, that maximizes rack utilization while mitigating virtualization risks in power-constrained environments?

The HPE ProLiant DL320 Gen12 maximizes your rack utilization while mitigating virtualization risks in power-constrained environments. Power your workloads with a server providing greater expansion capabilities compared to previous generations. The latest Intel® Xeon® 6 processors with up to 144 cores, increased memory capability (up to 4 TB), and high-speed PCIe Gen5 help provide a high performance solution with better datacenter efficiency.

Features

Next-Level Security, Chip to Cloud

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.

Silicon root of trust from HPE establishes a zero-trust security framework at the silicon level to ensure firmware integrity. Continuous protection detects compromised servers and prevents them from booting if malicious code is found. Edge servers are safeguarded with default IDevID certificates.

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

Intel® Xeon® 6 processors add hardware- and software-assisted security features such as Intel® Software Guard Extensions (SGX) for application isolation and Trusted Domain Extensions (TDX) for VM isolation, which help protect the server hardware foundation and safeguard data in memory.

HPE iLO 7 supports quantum-resistant (PQC) algorithms and signs HPE ProLiant Compute Gen12 firmware with algorithms approved by CNSA 2.0, which enhances resilience against potential future attacks by quantum computers.

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

The HPE ProLiant Compute DL320 Gen12 server is an excellent choice for cloud-native, containerized, and scale-out environments and other workloads that require high core density and efficient multi-threading.

Harness major compute performance. The HPE ProLiant Compute DL320 Gen12 server is powered by Intel® Xeon® 6700P/6500P-series processors that support up to 86 P-cores or up to 144 E-cores.

Enjoy advanced data transfer rates and higher network speeds from the PCIe Gen5 serial expansion bus, with up to 2 x16 PCIe Gen5 and and front or rear OCP NIC or controller add-in cards slots to improve I/O throughput and reduce latency.

Utilize 16 DIMM slots for up to 4 TB DDR5 memory with increased memory bandwidth and performance.

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

HPE ProLiant Compute DL320 Gen12 servers are engineered for your hybrid world. The new ProLiant Compute Gen12 servers simplify 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.

Industry-leading Services and Ease of Deployment

The HPE ProLiant Compute DL320 Gen12 server comes with a complete set of HPE Services, delivering confidence, reducing risk, and helping you realize agility and stability.

HPE Services simplify all stages of the IT journey. Advisory and Transformation Services professionals understand your challenges and design an effective solution. Professional Services enable rapid deployment of solutions and Operational Services provide ongoing support.

Services provided under Operational Services include: HPE Flexible Capacity, HPE Datacenter Care, HPE Infrastructure Automation, HPE Campus Care, HPE Proactive Services, and multi-vendor coverage.

HPE IT investment solutions help you transform into a digital business with IT economics that align with your business goals.

Benefit from 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 DL320 Gen12
Processor type	Intel
Processor family	Intel® Xeon® 6 processors
Processor core available	8 to 144 core, depending on processor
Processor cache	48 to 336 MB L3, total, depending on processor
Processor number	1
Processor speed	3.5 GHz maximum, depending on processor
Maximum memory	4.0 TB, when populated with 256 GB DDR5 Memory
Memory slots	16
Memory type	HPE DDR5 Smart Memory
Drive supported	Up to 8+2 SFF SAS/SATA HDDs or SATA/SAS/NVMe U.2 or U.3 SDDs, depending on model. Up to 12 LFF SAS/SATA HDDs or SSDs, depending on the model. Up to 20 EDSFF E3.s 1T, depending on model. Optional RAID 1 NVMe M.2 Boot device (Internal or external accessible from rear wall or front cage with 2x NVMe M.2 incorporated, depending on model).
Optical drive type	Optional DVD-ROM / DVD-RW Optical Drive
Security	UEFI Secure Boot and Secure Start support. Intel® Software Guard Extensions (SGX) support. Intel® Trust Domain Extensions (Intel® TDX) . Immutable Silicon Root of Trust. Optional Trusted Supply Chain, iLO Security modes, TPM, Chassis Intrusion detection and Bezel Locking kits.
Infrastructure management	HPE iLO Standard with Intelligent Provisioning (embedded), HPE OneView Standard (requires download), HPE iLO Advanced, HPE iLO Advanced Premium Security Edition, and HPE OneView Advanced (require licenses), HPE Compute Ops Management (subscription included)
Power supply type	1000W, 1500W, or 2400W Titanium Hot Plug Modular - Common Redundant Power Supply (M-CRPS)
Expansion slots	Up to 6 PCIe Gen5, and 2 OCP 3.0 with Rich IO Processor, for detailed descriptions reference the QuickSpecs
Network controller	Wide range of speeds, cabling, chipsets and form factors (PCIe stand-up adapter and OCP3.0). Please refer to the QuickSpecs for network card choices.
Storage controller	Optional - HPE MR216i-o, MR216i-p, MR408i-o, MR408i-p, MR416i-o, and MR416i-p storage controllers. Please refer to the QuickSpecs for storage controller selection.
System fan features	Standard Fan Kit or High Performance Fan Kit, depending on model
Form factor	1U Rack

Technical specifications	HPE ProLiant Compute DL320 Gen12
Warranty	3/3/3: Server Warranty includes three years of parts, three years of labor, and three years of onsite support coverage. Additional information regarding worldwide limited warranty and technical support is available at:https://www.hpe.com/support/ProLiantServers-Warranties. Additional HPE support and service coverage, to supplement the product warranty, is available at: https://www.hpe.com/support.
Accelerators	Maximum of 2 double-wide or 4 single-wide in the front or 1 single-wide in the rear, depending on model

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.

HPE GreenLake

HPE GreenLake edge-to-cloud platform is HPE's market-leading as-a-Service offering that brings the cloud experience to apps and data everywhere – data centers, multi-clouds, and edges – with one unified operating model, on premises, fully managed in a pay per use model.

If you are looking for more services, like **IT financing solutions**, please explore them here.

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

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Parts and Materials: HPE will provide HPE-supported replacement parts and materials required to maintain the covered hardware.

Parts and components that have reached their maximum supported lifetime and/or the maximum usage limitations as set forth in the manufacturer's operating manual, product quick-specs, or the technical product data sheet will not be provided, repaired, or replaced as part of these services.

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