

## HPE PROLIANT DL560 GEN10 6230 2.1GHZ 20-CORE 2P 128GB-R 8SFF 2X1600W RPS SERVER (P40455-B21)

### **ProLiant DL500 Servers**



### **WHAT'S NEW**

- Supporting the second generation Intel®
   Xeon® Scalable processor family with up to
   a 7% per-core performance gain [4] over
   first generation and with memory speeds
   up to 2933 MT/s [6].
- HPE Persistent Memory offers the flexibility to deploy as dense memory or fast storage using Intel® Optane™ DC Persistent Memory and enables per-socket memory capacity of up to 3.0 TB. [5]
- Enhanced iLO 5 security features such as Server Configuration Lock, iLO Security Dashboard and Workload Performance Advisor.
- HPE InfoSight provides a cloud-based

### **OVERVIEW**

Looking for a dense but highly scalable server for your data center application and virtualization needs?

HPE ProLiant DL560 Gen10 server is a high-density, 4P server with high-performance, scalability, and reliability, in a 2U chassis. Supporting the Intel® Xeon® Scalable processors with up to a 61% performance gain [1], the HPE ProLiant DL560 Gen10 server offers greater processing power, up to 6 TB of faster memory, and I/O of up to eight PCle 3.0 slots. HPE Persistent Memory offers unprecedented levels of performance for structured data management and analytics workloads. In addition, it offers the intelligence and simplicity of automated management with HPE OneView and HPE Integrated Lights Out 5 (iLO 5). The HPE ProLiant DL560 Gen10 server is the ideal server for business-critical workloads, virtualization, server consolidation, database, business processing, and

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analytics tool that predicts and prevents problems before your business is impacted.

 Segment-optimized processors that offer flexibility and improved performance for specific workloads. general 4P data-intensive applications where data center space and the right performance are paramount.

### **FEATURES**

#### Scalable 4P Performance in a Dense 2U Form Factor

HPE ProLiant DL560 Gen10 server provides 4P computing in a dense 2U form factor with support for Intel Xeon Platinum (8200,8100 series) and Gold (6200,6100,5200 and 5100 series) processors which provide up to 61% [1] more processor performance and 27% [2] more cores than the previous generation.

Up to 48 DIMM slots which support up to 6 TB for 2933 MT/s DDR4 HPE SmartMemory. HPE DDR4 SmartMemory improves workload performance and power efficiency while reducing data loss and downtime with enhanced error handling.

Up to 12 TB of HPE Persistent Memory that works with DRAM to provide fast, high capacity, cost effective memory and enhances compute capability for memory intensive workloads such as structured data management and analytics.

Support for processors with Intel® Speed Select technology that offer configuration flexibility and granular control over CPU performance and VM density optimized processors that enable support of more virtual machines per host.

HPE enhances performance by taking server tuning to the next level. Workload Performance Advisor adds real-time tuning recommendations driven by server resource usage analytics and builds upon existing tuning features such as Workload Matching and Jitter Smoothing.

### Flexible New Generation Expandability and Reliability for Multiple Workloads

HPE ProLiant DL560 Gen10 server has a flexible processor tray allowing to scale up from two to four processors only when you need, saving on upfront costs. The flexible drive cage design supports up to 24 SFF SAS/SATA with a maximum of 12 NVMe drives.

Supports up to eight PCle 3.0 expansion slots for graphical processing units (GPUs) and networking cards offering increased I/O bandwidth and expandability.

Up to four, 96% efficient HPE 800W or 1600W Flexible Slot Power Supplies [3], which enable higher power redundant configurations and flexible voltage ranges. The slots provide the capability to trade-off between 2+2 power supplies or use as extra PCle slots.

Choice of HPE FlexibleLOM adapters offers range of networking bandwidth (1GbE to 25GbE) and fabric so you can adapt and grow to changing business needs.

#### **Secure and Reliable**

HPE iLO 5 enables the world's most secure industry standard servers with HPE Silicon Root of Trust technology to protect your servers from attacks, detect potential intrusions and recover your essential server firmware securely.

New features include Server Configuration Lock that ensures secure transit and locks server hardware configuration, iLO Security Dashboard helps detect and address possible security vulnerabilities and Workload Performance Advisor

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provides server tuning recommendations for better server performance.

With Runtime Firmware Verification the server firmware is checked every 24 hours verifying validity and credibility of essential system firmware. Secure Recovery allows server firmware to rollback to the to last known good state or factory settings after detection of compromised code.

Additional security options are available with, Trusted Platform Module (TPM), to prevent unauthorized access to the server and safely stores artifacts used to authenticate the server platforms while the Intrusion Detection Kit logs and alerts when the server hood is removed.

## Agile Infrastructure Management for Accelerating IT Service Delivery

With HPE ProLiant DL560 Gen10 server, HPE OneView provides infrastructure management for automation simplicity across servers, storage and networking.

HPE InfoSight brings artificial intelligence to HPE Servers with predictive analytics, global learning and recommendation engine to eliminate performance bottlenecks.

A suite of embedded and downloadable tools is available for server lifecycle management including Unified Extensible Firmware Interface (UEFI), Intelligent Provisioning; HPE iLO 5 to monitor and manage; HPE iLO Amplifier Pack, Smart Update Manager (SUM), and Service Pack for ProLiant (SPP).

Services from HPE Pointnext simplify the stages of the IT journey. Advisory and Transformation Services professionals understand customer challenges and design a better solution. Professional Services enable rapid deployment of solutions and Operational Services provide ongoing support.

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

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### **Technical specifications**

# HPE ProLiant DL560 Gen10 6230 2.1GHz 20-core 2P 128GB-R 8SFF 2x1600W RPS Server

Product Number (SKU)	
Troduct Number (5/0)	P40455-B21
Processor Name	Intel® Xeon® Scalable 6230 (2.1GHz/20-core/125W)
Processor core available	20, per processor
Processor cache	27.5 MB L3
Processor speed	2.1 GHz
Power supply type	2 1600W Flex Slot Platinum hot plug power supply
Expansion slots	3 PCIe 3.0, Additional slots available via optional riser kit. Please reference QuickSpecs.
Memory, standard	128 GB (4x 32 GB) RDIMM
Memory type	HPE DDR4 SmartMemory and HPE Persistent Memory
Included hard drives	None ship standard, 8 SFF drives supported
Optical drive type	Optional
System fan features	6 hot plug redundant fans, standard
Network controller	HPE Ethernet 10Gb 2-port FLR-T BCM57416 Adapter
Storage controller	1 HPE Smart Array P408i-a SR Gen10 Controller
Product Dimensions (metric)	8.75 x 44.55 x 75.47 cm
Weight	34.12 kg
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 (optional require licenses)
Warranty	3/3/3 - Server Warranty includes three years of parts, three years of labor, three years of onsite support coverage. Additional information regarding worldwide limited warranty and technical support is available at: http://h20564.www2.hpe.com/hpsc/wc/public/home. Additional HPE support and service coverage for your product can be purchased locally. For information on availability of service upgrades and the cost for these service upgrades, refer to the HPE website at http://www.hpe.com/support

### **HPE POINTNEXT SERVICES**

Most, if not all IT organizations are on a digital transformation journey — each at a different stage. With over 11,000 IT projects conducted and 1.4 million customer interactions each year, HPE Pointnext Services' 15,000+ experts and its vast ecosystem of solution partners and channel partners are uniquely able to help you at every stage of your digital transformation. We bring together technology and expertise to help you drive your business forward and prepare for whatever is next.

Advisory and Professional Services help you accelerate your digital transformation. Operational Services help you remove complexity and respond rapidly to business demands.

### **Operational Services from HPE Pointnext Services**

<u>HPE Pointnext Tech Care</u> provides fast access to product-specific experts, an Al-driven digital experience, and general technical guidance to help enable constant innovation. We have reimagined IT support from the ground up to deliver faster answers and greater value. By continuously searching for better ways to do things—as opposed to just fixing things that break—HPE Pointnext Tech Care helps you focus on achieving your business goals.

- HPE Datacenter Care helps modernize and simplify IT operations. Partner with an
  assigned account team, access technical expertise, an enhanced call experience gives
  you priority access, choose hardware and software support, implement proactive
  monitoring to help stay ahead of issues, and access HPE IT best practices and IP.
- HPE Proactive Care offers an enhanced call experience and helps reduce problems with personalized proactive reports and advice. This also includes collaborative software support for Independent Software Vendors (ISVs), (Red Hat, VMWare, Microsoft, etc.). Read more
- HPE Foundation Care helps when there is a problem and has a choice of response levels. Collaborative software support is included and provides troubleshooting help for ISVs running on your server. Read more.

#### Other related services

**Defective Media Retention** is optional and applies only to Disk or eligible SSD/Flash Drives replaced by HPE due to malfunction.

**HPE Service Credits** offers a menu of technical services, access additional resources, and specialist skills.

**HPE Education Services** delivers a comprehensive range of services to support your people as they expand their skills required for a digital transformation.

Consult your HPE Sales Representative or Authorized Channel Partner of choice for any additional questions and support options.

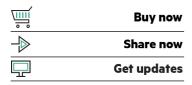
For additional technical information, available models and options, please reference the QuickSpecs

Make the right purchase decision. Contact our presales specialists.

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### **HPE GREENLAKE**

<u>HPE Greenlake</u> is HPE's market-leading IT 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. HPE GreenLake delivers public cloud services and infrastructure for workloads 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.

- [1] HPE measurements: Up to 61% performance increase of Intel Xeon Platinum vs. previous generation E5-4600 v4 average gains of STREAM, Linpack, SPEC CPU2006 & SPEC CPU2017 metrics on HPE servers comparing 4-socket Intel Xeon Platinum 8280 to E5-4699 v4 family processors. Any difference in system hardware or software design or configuration may affect actual performance. April 2019.
- [2] Up to 27% increase in cores of Intel Xeon Platinum versus previous generation comparing 4-socket Intel Xeon Platinum 8280 (28 cores) to E5-4669 v4 (22 cores). Calculation 28 cores / 2x cores = 1.27 = 27%. Apr 2019.
- [3] 1600W Power supplies only support high line voltage (200V AC to 240V AC)
- [4] HPE measurements: Up to 7% performance increase of Intel Xeon Platinum vs. previous generation average gains of STREAM, Linpack, & SPEC CPU2017 metrics on HPE servers comparing 4-socket Intel Xeon Platinum 8180 family processors. Any difference in system hardware or software design or configuration may affect actual performance. April 2019.
- [5] 3.0 TB per socket with HPE 512GB 2666 Persistent Memory Kit
- [6] HPE DDR4 SmartMemory LRDIMM on HPE ProLiant DL560 Gen10 server can support 2933 MT/s @ 2DPC

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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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