

# HPE ProLiant DL380 Gen10 server

HPE ProLiant DL380 Gen10 5218R 2.1GHz 20-core 1P 32GB-R S100i NC 8SFF 800W PS Server (P24844-B21)



## What's new

- Defend applications and data before your server is built with the new HPE Trusted Supply Chain offering.
- Supporting additional second generation Intel® Xeon® Scalable processor family offerings.
- Increased Single-Width GPU Density with up to 7 NVIDIA Tesla T4 16GB Computational Accelerators or 7 Xilinx Alveo U50 Accelerators supported in a standard-depth 2U rack form factor
- Networking Choice (NC) server models provide greater flexibility in the primary networking selection.
- Intel® Optane™ persistent memory 100

## Overview

Where is your server bottlenecked...storage, compute, expansion?

The HPE ProLiant DL380 Gen10 server delivers the latest in security, performance and expandability, backed by a comprehensive warranty. Standardize on the industry's most trusted compute platform. The HPE ProLiant DL380 Gen10 server is securely designed to reduce costs and complexity, featuring the First and Second Generation Intel® Xeon® Processor Scalable Family with up to a 60% performance gain [1] and 27% increase in cores [2], plus the HPE 2933 MT/s DDR4 SmartMemory supporting 3.0 TB. It supports 12 Gb/s SAS, and up to 20 NVMe drive plus a broad range of compute options. Intel® Optane™ persistent memory 100 series for HPE offers unprecedented levels of performance for databases and analytic workloads. Run everything from the most basic to mission-critical applications and deploy with confidence.

series for HPE offers the flexibility to deploy as dense memory or fast storage and enables per-socket memory capacity of up to 3.0 TB. [3]

- iLO 5 security enhancements: Server Configuration Lock, iLO Security Dashboard and Workload Performance Advisor. HPE InfoSight provides cloud-based analytics to predict and prevent issues proactively.

## Features

### Defend Applications and Data Before Your Server is Built with HPE Trusted Supply Chain

A new first line of defense against cyber-attackers with select servers built to the world's toughest security standards in secured facilities, bringing together security, processes and people to deliver protection for your most sensitive applications and data even before your server is built.

Built in secure HPE facilities to the most stringent Country of Origin USA and conformance requirements, HPE Trusted Supply Chain servers are inspected to be free from malicious microcode and counterfeit parts, safeguarding it against cyber-exploits throughout its life cycle.

With hardened security built in, HPE Trusted Supply Chain hardens the protections designed into select HPE products with unrivaled supply chain visibility and standards compliance providing a 360-degree view and mitigation plan for current and emerging cyber-threats.

Allied to ensure authenticity, HPE Trusted Supply Chain doubles down on your protection with vetted HPE employees assigned to the product build to manage the product manufacturing process that adheres to the strictest sourcing, inspection and traceability standards.

Learn more about HPE Trusted Supply Chain

### World-Class Performance featuring Enhanced Compute Density

The ProLiant DL380 now features significantly enhanced GPU density, expanding support from five to seven Full-Height, Half-Length, Single-Width Accelerators/GPUs; or up to six in a balanced configuration with additional PCIe expansion via the tertiary riser.

Leveraging HPE's most popular 2U rackmount server, fitting standard depth racks, customers can benefit from one of the densest Accelerator/GPU platforms with an extensive set of Accelerator options, enabling diverse cloud workload performance and optimization of AI and deep learning experiences.

Supported on the ProLiant DL380, the NVIDIA T4 GPU is ideal for Deep learning, Inferencing, Machine Learning, HPC, Rendering, VDI, Virtual Workstations and combinations thereof for mixed workloads - maximizing utilization of data center resources and lowering TCO.

### Flexible Design Making Your Investment Expand As Your Business Needs Grow

The HPE ProLiant DL380 Gen10 server has an adaptable chassis, including new Hewlett Packard Enterprise modular drive bay configuration options with up to 30 SFF, up to 19 LFF or up to 20 NVMe drive options along with support for up to three double wide GPU options.

Adapting and growing to changing business needs, Networking Choice (NC) server models provide flexibility in the primary networking choice while Embedded LOM server models offer an embedded 4x1GbE by default; both provide network options (1GbE to 100GbE) via HPE FlexibleLOM or PCIe standup adapters.

HPE Persistent Memory works with DRAM to provide fast, high capacity, cost effective memory and storage to transform big data workloads and analytics by enabling data to be stored, moved, and processed quickly.

In conjunction with the embedded SATA HPE Dynamic Smart Array S100i Controller for boot, data and media needs, the redesigned HPE Smart Array Controllers allow you the flexibility to choose the optimal 12 Gb/s controller most suited to your environment, and operate in both SAS and HBA mode.

Supporting a wide range of operating environments from Azure to Docker to ClearOS in addition to traditional operating systems.

### Industry Leading Services and Ease of Deployment

The HPE ProLiant DL380 Gen10 server comes with a complete set of HPE Technology Services, delivering confidence, reducing risk, and helping customers realize agility and stability.



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

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; Smart Update Manager (SUM), and Service Pack for ProLiant (SPP).

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



**Technical specifications****HPE ProLiant DL380 Gen10 5218R 2.1GHz 20-core 1P 32GB-R S100i NC 8SFF 800W PS Server**

|                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|----------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Product Number</b>            | P24844-B21                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| <b>Processor core available</b>  | 20 core                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>Processor cache</b>           | 27.5 MB L3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| <b>Processor name</b>            | Intel® Xeon® Gold 5218R (20 core, 2.10 GHz, 27.5 MB L3, 125W)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>Processor number</b>          | 1 processor included                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>Processor speed</b>           | 2.10 GHz                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>Memory type</b>               | HPE DDR4 Smart Memory with optional Intel Optane Persistent Memory for HPE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| <b>NVDIMM type</b>               | HPE NVDIMM-N *Only available on 1st Generation Intel® Xeon® Scalable Processors                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>NVDIMM rank</b>               | Single rank                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| <b>NVDIMM capacity</b>           | 16 GB                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>Included drives</b>           | None ship standard, 8 SFF supported                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <b>Optical drive type</b>        | Optional                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>Security</b>                  | Optional locking Bezel Kit, Intrusion Detection Kit, and HPE TPM 2.0                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>Infrastructure management</b> | HPE iLO Standard with Intelligent Provisioning (embedded), HPE OneView Standard (requires download) (standard) HPE iLO Advanced, and HPE OneView Advanced (optional requires licenses)                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <b>Power supply type</b>         | 1x HPE 800W Flex Slot Platinum Hot Plug Low Halogen Power Supply Kit                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>Expansion slots</b>           | 3 PCIe 3.0, for detailed descriptions reference the QuickSpecs                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>Network controller</b>        | HPE Ethernet 10Gb 2-port FLR-SFP+ X710-DA2 Adapter                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>Storage controller</b>        | 1 HPE Smart Array S100i                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>System fan features</b>       | 4 single-rotor, standard fans included                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <b>Form factor</b>               | 2U Rack                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>Warranty</b>                  | 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: <a href="http://h20564.www2.hpe.com/hpsc/wc/public/home">http://h20564.www2.hpe.com/hpsc/wc/public/home</a> . 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 <a href="http://www.hpe.com/support">http://www.hpe.com/support</a> |
| <b>Product dimensions</b>        | 44.55 x 73.03 x 8.74 cm                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>Weight</b>                    | 14.76 kg                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |



[1] HPE measurements: Up to 60% performance increase of Intel Xeon Platinum vs. previous generation E5-2600 v4 average gains of STREAM, LINPACK, SPEC CPU 2006 & SPEC CPU2017 metrics on HPE servers comparing 2-socket Intel Xeon Platinum 8280 to E5-2699 v4 family processors. Any difference in system hardware or software design or configuration may affect actual performance. April 2019.

[2] Up to 27% cores increase of Intel Xeon Platinum vs. previous generation comparing 2-socket Intel Xeon Platinum 8280 (28 cores) to E5-2699 v4 (22 cores). Calculation  $28 \text{ cores} / 22 \text{ cores} = 1.27 = 27\%$ . April 2019.

[3] 3.0 TB per socket with 512GB 2666 Persistent Memory Kit

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

## 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.

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