Overview

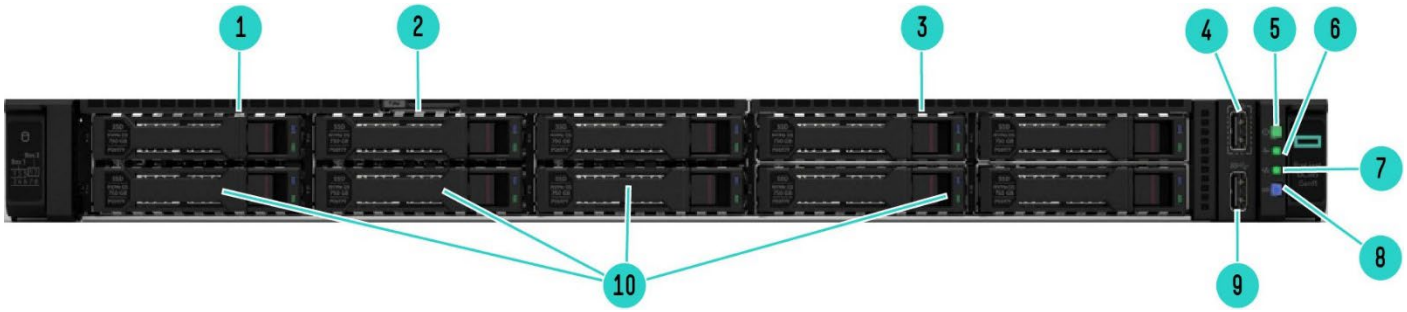
HPE ProLiant DX365 Gen11

Are you looking for a scalable, compute-dense solution for high-performance workloads such as VDI, EDA, or CAD?

The new HPE ProLiant DX365 Gen11 server is a rack-optimized 1U 2P dense solution that delivers exceptional compute performance, upgraded high-speed data transfer rate and memory depth at 2P compute capability. Powered by 4th Generation AMD EPYC™ Processors with up to 96 cores, increased memory bandwidth (up to 6 TB), and high-speed PCIe Gen5 I/O, the HPE ProLiant DX365 Gen11 server is a superb rack-optimized, 1U 2P, dense solution.

The silicon root of trust anchors the server firmware to an HPE-exclusive ASIC, creating an immutable fingerprint for the AMD Secure Processor that must be matched exactly before the server boots.

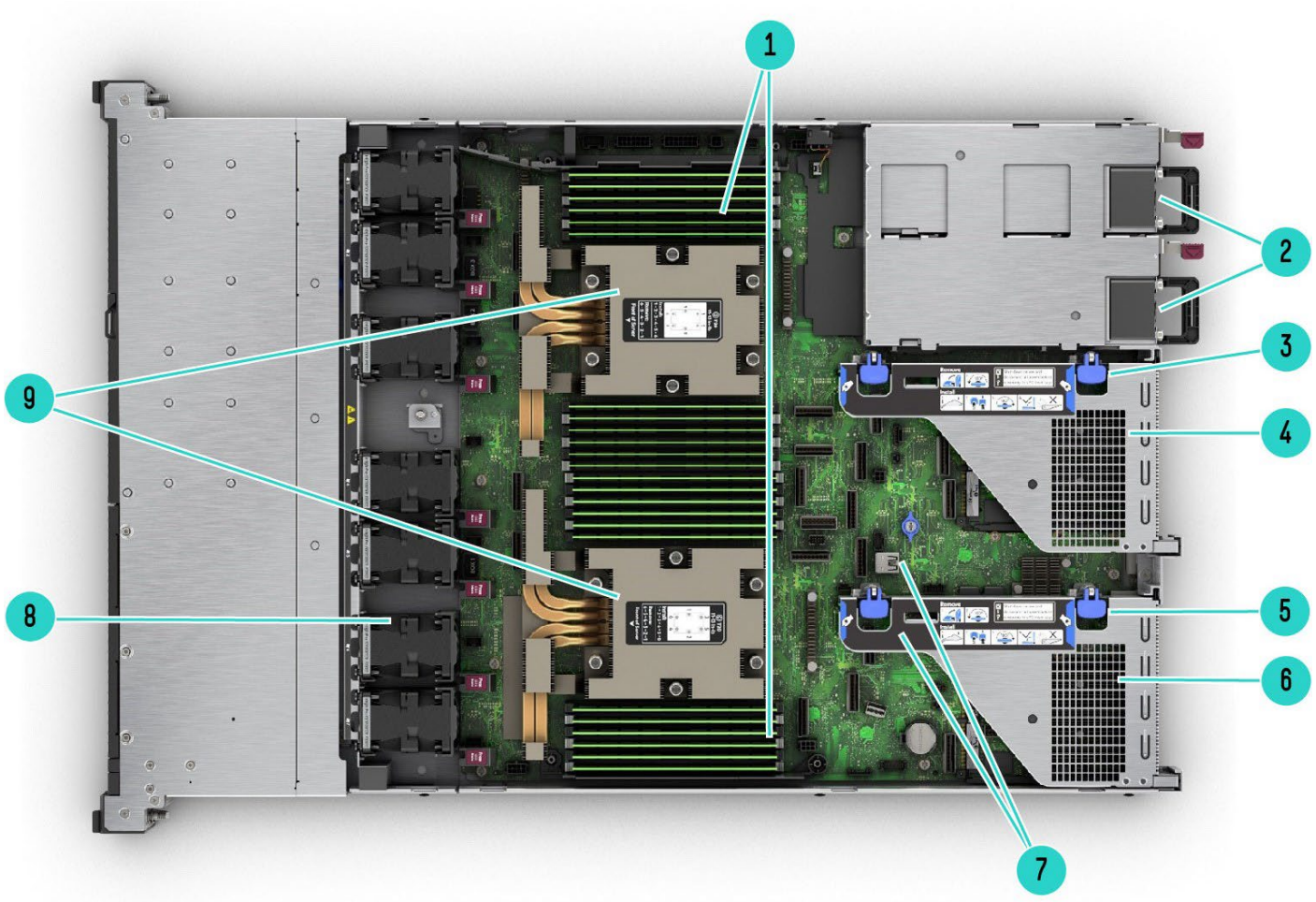
The HPE ProLiant DX365 Gen11 server is an excellent choice for those who require increased compute density with built-in security and flexibility.



10 SFF NVMe Front View

1. Quick removal access panel
2. Serial no. label pull tab
3. Optional Media Bay:
   Option Shown: no media
   Optional: +2 SFF U.3 Tri-mode drive cage (total max 10 SFF)
   Optional: 9.5mm SATA DVD-ROM/RW Optical Drive
4. USB 3.2 Gen1 port
5. Power On/Standby button and system power LED
6. Health LED
7. NIC status LED
8. UID button LED
9. iLO service port
10. 10 NVMe drive bays

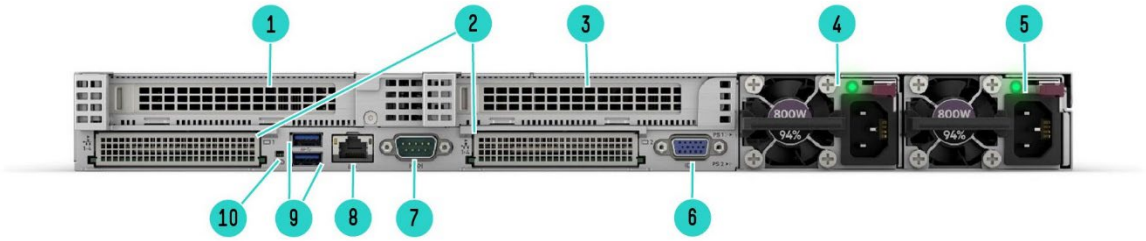
Overview



Internal View

1. DDR5 DIMM slots. Shown populated in 24 slots
2. Hot Plug redundant HPE Flexible Slot Power supplies
3. Secondary Riser connector cage, optional
4. (Under) OCP 3.0 Slot 2
5. Primary PCIe riser cage, standard
6. (Under) OCP 3.0 Slot 1
7. 2x USB 3.2 Gen1 ports
8. Fan cage with 7 High Performance Fans
9. 2 Processors (heatsinks shown)

Overview



Rear View – Standard for all DX365 Gen11

1. Slot 1 PCIe 5.0
2. OCP 3.0 Slots
3. Slot 2 PCIe 5.0
4. Hot-plug Power Supply 2
5. Hot-plug Power Supply 1
6. VGA port
7. Serial port (optional)
8. Dedicated iLO management port
9. USB 3.2 Gen1 ports
10. UID LED

What's New

- New HPE ProLiant DX 365 Gen11 Platform
- Qualified platforms /configurations recognized by both HPE & Nutanix
- Factory tuned & optimized HW settings for Nutanix environments
- Factory pre-installed Nutanix AHV & AOS
- Supports the 4th Generation AMD EPYC™ Processors that supports up to 96 cores, 400W, and 384MB of L3 Cache.
- 12 DIMM channels per processor for up to 6TB total DDR5 memory 4800MT/s.
- Advanced data transfer rate and higher network speed from the PCIe Gen5 serial expansion bus
- Includes HPE Integrated Lights-Out 6 (iLO 6) server management software
- Supports hot-pluggable, high-availability RAID M.2 boot options.

Standard Features

Platform Information

Form Factor

- 1U rack

Chassis Types

- 10 SFF NVMe drives

System Fans

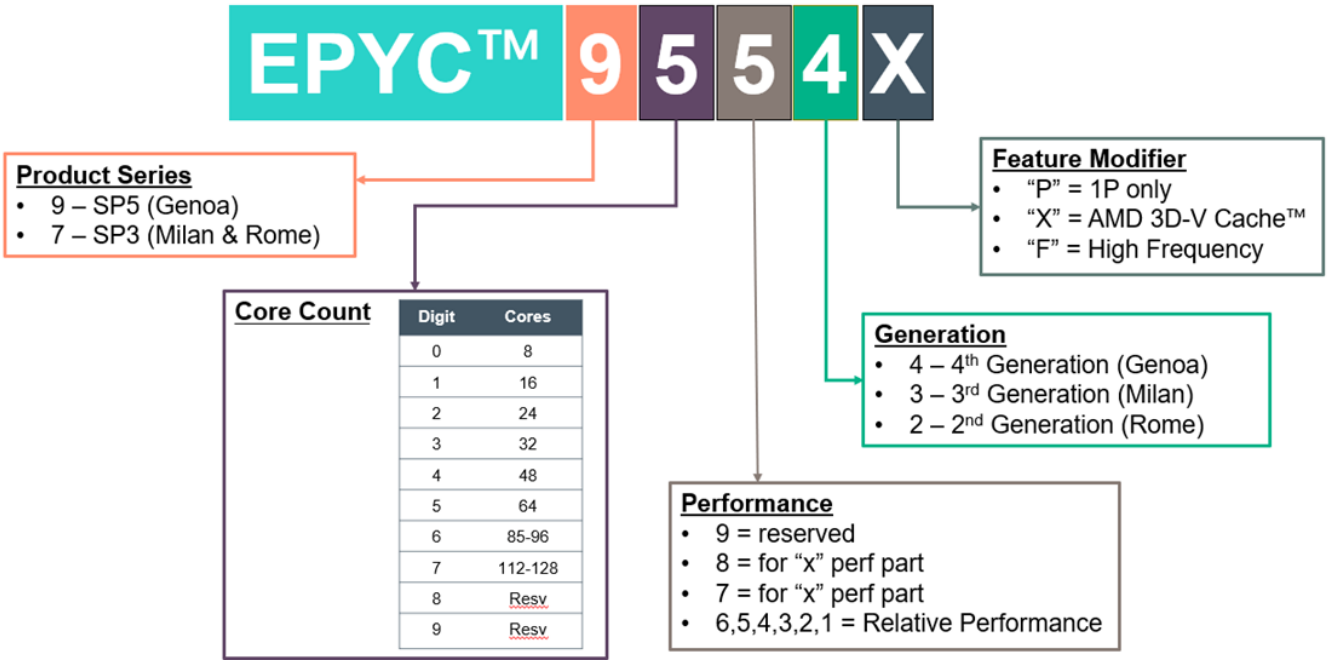
- Performance Fan Kit defaulted.

Notes:

- The DX365 Gen11 supports up to 7 fans with fan redundancy built in. One fan rotor failure will place server in degraded mode but fully functional. Two fan rotor failures could trigger warning and imminent server shutdown.
- Each Fan kits are designated to operate under different configuration. For more information, please refer to the Cooling option message in the Unique option section

Processors Up to 2 of the following depending on model.

Notes: For more information regarding AMD EPYC processors, please see the following:
https://www.amd.com/en/products/processors/server/epyc.html



Standard Features

AMD EPYC Processor	Cores	Base Frequency	Max Frequency	Max Memory	Wattage	Cache	Memory
EPYC 9124	16	3.0 GHz	3.7 GHz	3TB	200W	64MB	4800MT/s
EPYC 9174F	16	4.1 GHz	4.4 GHz	3TB	320W	256MB	4800MT/s
EPYC 9224	24	2.5 GHz	3.7 GHz	3TB	200W	64MB	4800MT/s
EPYC 9254	24	2.9 GHz	4.15 GHz	6TB	200W	128MB	4800MT/s
EPYC 9274F	24	4.05 GHz	4.3 GHz	6TB	280W	256MB	4800MT/s
EPYC 9354	32	3.25 GHz	3.8 GHz	3TB	280W	256MB	4800MT/s
EPYC 9374F	32	3.85 GHz	4.3 GHz	3TB	320W	256MB	4800MT/s
EPYC 9334	32	2.7 GHz	3.9 GHz	6TB	210W	128MB	4800MT/s
EPYC 9454	48	2.75 GHz	3.8 GHz	6TB	290W	256MB	4800MT/s
EPYC 9474F	48	3.6 GHz	4.1 GHz	6TB	360W	256MB	4800MT/s
EPYC 9554	64	3.1 GHz	3.75 GHz	3TB	360W	256MB	4800MT/s
EPYC 9534	64	2.45 GHz	3.7 GHz	6TB	280W	256MB	4800MT/s
EPYC 9634	84	2.25 GHz	3.7 GHz	6TB	290W	384MB	4800MT/s
EPYC 9654	96	2.4 GHz	3.7 GHz	3TB	360W	384MB	4800MT/s

Notes:

- All 4th generation AMD EPYC processors can support up to 3TB of memory each under 1DPC, 12 channel per processor. 6TB of memory per two processors.
- 160 PCIe 5.0 lanes support with two sockets. Motherboard supports 3XGMI two-processor interconnect by default.
- The wattage information indicates the default cTDP (Configurable TDP) of the processor.

Chipset

No chipset – System on Chip (SoC) design.

System Management Chipset

HPE iLO 6 ASIC

Notes: Read and learn more in the **iLO QuickSpecs**.

Memory

One of the following depending on model

Type	HPE DDR5 Smart Memory, Registered (RDIMM)
DIMM Slots Available	24 12 DIMM slots per processor, 12 channels per processor, 1 DIMM per channel
Maximum capacity (RDIMM)	6.0 TB 24 x 256 GB RDIMM* @ 4800 MT/s at 1 DPC

Notes:

- *6.0 TB and 256 GB RDIMM support will be available by Q1 2023. Subject to change.
- All processors support up to 3TB memory per server.
- LRDIMM and Persistent Memory is not supported.
- For additional information, please see the **HPE DDR5 Smart Memory QuickSpecs.**
- For General Server Memory and Persistent Memory Population Rules and Guidelines, see details here: **http://www.hpe.com/docs/memory-population-rules**

Standard Features

Memory Protection

Advanced ECC

Advanced ECC uses single device data correction to detect and correct single and all multibit error that occurs within a single DRAM chip.

Online Spare

Memory online spare mode detects a rank that is degrading and switches operation to the spare rank.

Notes: For more information see our **Memory RAS feature technical whitepaper**.

Expansion Slots

Primary Riser					
Slots #	**Technology**	**Bus Width**	**Connector Width**	**Slot Form Factor**	**Notes**
1	PCIe 5.0	X16	X16	Full-height, Full-length slot	Proc 1

Secondary Riser					
Slots #	**Technology**	**Bus Width**	**Connector Width**	**Slot Form Factor**	**Notes**
2	PCIe 5.0	X16	X16	Low Profile	Proc 2

Notes: When NS204i-u Hot Plug Boot Optimized Storage Device is selected, low profile secondary riser (P55029-B21) must be in the configuration.

Storage Controllers

NVMe Boot Device

- HPE NS204i-u Gen11 NVMe Hot Plug Boot Optimized Storage Device

Notes:

- This kit does not occupy a PCIe slot
- NS204i-u is external accessible
- NS204i-u includes embedded 2x 480GB NVMe SSD
- RAID 1 supported on the NS204i-u boot optimized storage device

Graphics

Integrated Video Standard

- Video modes up to 1920 x 1200@60Hz (32 bpp)
- 16MB Video Memory

HPE iLO 6 on system management memory

- 64 MB Flash
- 8 Gbit DDR 4 with ECC protection

Internal Storage Devices

Hard Drives

- None ship standard

Standard Features

Maximum Storage

Storage	Capacity	Configuration
Hot Plug SFF NVMe PCIe U.3 SSD	7.68 TB	(8+2) x 7.68 TB

Power Supply

- HPE 800W Flex Slot Platinum Hot Plug Low Halogen Power Supply Kit
  Notes: Available in 94% Power Efficiency.
- HPE 1600W Flex Slot Platinum Hot Plug Low Halogen Power Supply Kit
  Notes: Available in 94% Power Efficiency.
- HPE 1600W Flex Slot -48VDC Hot Plug Power Supply Kit
  Notes:
  - Available in 94% Power Efficiency.
  - 200-240VAC power input only.

HPE Flexible Slot (Flex Slot) Power Supplies share a common electrical and physical design that allows for hot plug, tool-less installation into HPE ProLiant Gen10 Plus Servers. Flex Slot power supplies are certified for high-efficiency operation and offer multiple power output options, allowing users to "right-size" a power supply for specific server configurations. This flexibility helps to reduce power waste, lower overall energy costs, and avoid "trapped" power capacity in the data center.

All pre-configured servers ship with a standard 6-foot IEC C-13/C-14 jumper cord (A0K02A). This jumper cord is also included with each standard AC power supply option kit. If a different power cord is required, please check the **ProLiant Power Cables** web page.

To review the power requirements for your selected system, please use the **HPE Power Advisor Tool**.

For information on power specifications and technical content visit **HPE Server power supplies**.

Interfaces

Serial Ports	1 port – Optional in rear
Video Ports	1 Rear VGA Port - Standard
Network Ports	None. Choice of OCP or stand up card, supporting a wide arrange of NIC adapters
HPE iLO Remote Management Network Port	1 Gb Dedicated
Front iLO Service Port	1 standard
USB 3.2 Gen1	5 standard on all models: 1 front, 2 rear, 2 internal

Operating Systems and Virtualization Software Support for HPE Servers

HPE servers are designed for seamless integration with partner Operating Systems and Virtualization Software. By collaborating closely with our partners, we ensure that their products are optimized, certified, and fully supported within your HPE server environment.
Access the certified and supported servers for each of the OS and Virtualization software: **HPE Servers Support & Certification Matrices**

HPE Server UEFI

Unified Extensible Firmware Interface (UEFI) is an industry standard that provides better manageability and more secured configuration than the legacy ROM while interacting with your server at boot time. HPE ProLiant Gen11 servers have a UEFI Class 3 implementation.

UEFI enables numerous new capabilities specific to HPE ProLiant servers such as

- Secure Boot and Secure Start enable for enhanced security
- Operating system specific functionality

Standard Features

- Support for > 2.2 TB (using GPT) boot drives
- USB 3.1 Gen1 Stack
- Embedded UEFI Shell
- Mass Configuration Deployment Tool using iLO RESTful API that is Redfish API Conformant
- PXE boot support for IPv6 networks
- Workload Profiles for simple performance optimization
- Embedded TPM Support

UEFI Boot Mode only

- NVMe Boot Support
- iSCSI Software Initiator Support
- HTTP/HTTPs Boot support as a PXE alternative
- Boot support for option cards that only support a UEFI option ROM

Industry Standard Compliance

- ACPI 6.1 Compliant
- PCIe 5.0 Compliant
- WOL Support
- Microsoft® Logo certifications
- PXE Support
- VGA/Display Port
- USB 3.2 Gen1 Compliant
- USB 2.0 Compliant
- SMBIOS 3.1
- UEFI 2.9
- UEFI Class 3
- Redfish API
- IPMI 2.0
- Secure Digital 2.0
- Advanced Encryption Standard (AES)
- Triple Data Encryption Standard (3DES)
- SNMP v3
- TLS 1.2
- DMTF Systems Management Architecture for Server Hardware Command Line Protocol (SMASH CLP)
- Active Directory v1.0
- European Union (EU) eco-design regulations for server and storage products, known as Lot 9, go into effect on March 1st, 2020. Among other requirements, for servers this directive establishes power thresholds for idle state, as well as efficiency and performance in active state which vary among configurations. HPE ProLiant Gen11 servers are compliant with Lot9 requirements. For more information regarding HPE Lot 9 conformance, please visit: **https://www.hpe.com/us/en/about/environment/msds-specs-more.html**
- ASHRAE A3/A4
  Notes: For additional technical thermal details regarding ambient temperatures, humidity and features support please visit: **http://www.hpe.com/servers/ashrae**.
- UEFI (Unified Extensible Firmware Interface Forum)
- APML 1.0

Standard Features

Embedded Management

HPE Integrated Lights-Out (HPE iLO)
Monitor your servers for ongoing management, service alerting, reporting and remote management with HPE iLO.
Learn more at **http://www.hpe.com/info/ilo.**

UEFI
Configure and boot your servers securely with industry standard Unified Extensible Firmware Interface (UEFI).
Learn more at **http://www.hpe.com/servers/uefi**.

Intelligent Provisioning
Hassle free server and OS provisioning for 1 or more servers with Intelligent Provisioning.
Learn more at **https://support.hpe.com/hpesc/public/docDisplay?docId=c04465280&docLocale=en_US**.

iLO RESTful API
iLO RESTful API is Redfish API conformance and offers simplified server management automation such as configuration and maintenance tasks based on modern industry standards. Learn more at **http://www.hpe.com/info/restfulapi**.

Server Utilities

Active Health System
The HPE Active Health System (AHS) is an essential component of the iLO management portfolio that provides continuous, proactive health monitoring of HPE servers. Learn more at **http://www.hpe.com/servers/ahs**.

Smart Update
Keep your servers up to date with the HPE Smart Update solution by using Smart Update Manager (SUM) to optimize the firmware and driver updates of the Service Pack for ProLiant (SPP). Learn more at
https://www.hpe.com/servers/smart-update.html

iLO Amplifier Pack
Designed for large enterprise and service provider environments with hundreds of HPE servers, the iLO Amplifier Pack is a free, downloadable open virtual application (OVA) that delivers the power to discover, inventory and update Gen8, Gen9, Gen10 and Gen10 Plus HPE servers. Use with an iLO Advanced License to unlock full capabilities.
Learn more at **http://www.hpe.com/servers/iLOamplifierpack**.

RESTful Interface Tool
RESTful Interface tool (iLOREST) is a single scripting tool to provision using iLO RESTful API to discover and deploy servers at scale. Learn more at **http://www.hpe.com/info/resttool**.

Scripting Tools
Provision one to many servers using your own scripts to discover and deploy with Scripting Tool (STK) for Windows and Linux or Scripting Tools for Windows PowerShell. Learn more at **http://www.hpe.com/servers/powershell**.

HPE OneView Standard
HPE OneView is an on premises, multi-generational server monitoring and management solution. HPE OneView Standard can be used for inventory, health monitoring, alerting, and reporting without additional fees. Customers can upgrade their management experience with an HPE OneView Advanced license, all provided by the same tool. Learn more at
http://www.hpe.com/info/oneview.

Standard Features

Security

- UEFI Secure Boot and Secure Start support
- Immutable Silicon Root of Trust
- FIPS 140-3 validation (iLO 6 certification in progress)
- Common Criteria certification (iLO 6 certification in progress)
- Configurable for PCI DSS compliance
- Advanced Encryption Standard (AES) and Triple Data Encryption Standard (3DES) on browser
- Support for Commercial National Security Algorithms (CNSA)
- Tamper-free updates – components digitally signed and verified
- Secure Recovery – recover critical firmware to known good state on detection of compromised firmware
- Ability to rollback firmware
- Secure erase of NAND/User data
- TPM (Trusted Platform Module) 2.0 option
- Chassis Intrusion detection option

Warranty

This product is covered by a global limited warranty and supported by HPE Services and a worldwide network of Hewlett Packard Enterprise Authorized Channel Partners resellers. Hardware diagnostic support and repair is available for three years from date of purchase. Support for software and initial setup is available for 90 days from date of purchase. Enhancements to warranty services are available through HPE Services operational services or customized service agreements. Hard drives have either a one year or three year warranty; refer to the specific hard drive QuickSpecs for details.

Notes: Server Warranty includes 3-Year Parts, 3-Year Labor, 3-Year Onsite support with next business day response. Warranty repairs may be accomplished through the use of Customer Self Repair (CSR) parts. These parts fall into two categories: 1) Mandatory CSR parts are designed for easy replacement. A travel and labor charge will result when customers decline to replace a Mandatory CSR part; 2) Optional CSR parts are also designed for easy replacement but may involve added complexity. Customers may choose to have Hewlett Packard Enterprise replace Optional CSR parts at no charge. Additional information regarding worldwide limited warranty and technical support is available at:
https://www.hpe.com/support/ProLiantServers-Warrantieshttps://www.hpe.com/us/en/search-results.html?page=1&q=servers warranty&autocomplete=0

Optional Features

Server Management

HPE iLO Advanced: Standard

HPE iLO Advanced licenses offer smart remote functionality without compromise, for all HPE ProLiant servers. The license includes the full integrated remote console, virtual keyboard, video, and mouse (KVM), multi-user collaboration, console record and replay, and GUI-based and scripted virtual media and virtual folders. You can also activate the enhanced security and power management functionality.

Rack and Power Infrastructure

The story may end with servers, but it starts with the foundation that makes compute go – and business grow. We've reinvented our entire portfolio of rack and power products to make IT infrastructure more secure, more practical, and more efficient. In other words, we have created a stronger, smarter, and simpler infrastructure to help you get the most out of your IT equipment. As an industry leader, Hewlett Packard Enterprise is uniquely positioned to address the key concerns of power, cooling, cable management and system access.

HPE G2 Advanced and Enterprise Racks are perfect for the server room or today's modern data center with enhanced airflow and thermal management, flexible cable management, and a 10 year Warranty to support higher density computing.
HPE G2 PDUs offer reliable power in flexible form factors that operate at temperatures up to 60°C, include color-coded outlets and load segments and a low-profile design for optimal access to the rack and support for dense rack environments.

HPE Uninterruptible Power Systems are cost-effective power protection for any type workload. Some UPSs include options for remote management and extended runtime modules so you're critical dense data center is covered in power outages.

HPE KVM Solutions include a console and switches designed to work with your server and IT equipment reliably. We've got a cost-effective KVM switch for your first rack and multiple connection IP switches with remote management and security capabilities to keep your data center rack up and running.

Learn more about HPE Racks, KVM, PDUs and UPSs at **HPE Rack and Power Infrastructure**.

Service and Support

HPE Services

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

https://www.hpe.com/services

Consulting Services

No matter where you are in your journey to hybrid cloud, experts can help you map out your next steps. From determining what workloads should live where, to handling governance and compliance, to managing costs, our experts can help you optimize your operations.

https://www.hpe.com/services/consulting

HPE Managed Services

HPE runs your IT operations, providing services that monitor, operate, and optimize your infrastructure and applications, delivered consistently and globally to give you unified control and let you focus on innovation.

HPE Managed Services | HPE

Operational services

Optimize your entire IT environment and drive innovation. Manage day-to-day IT operational tasks while freeing up valuable time and resources. Meet service-level targets and business objectives with features designed to drive better business outcomes.

https://www.hpe.com/services/operational

HPE Complete Care Service

HPE Complete Care Service is a modular, edge-to-cloud IT environment service designed to help optimize your entire IT environment and achieve agreed upon IT outcomes and business goals through a personalized experience. All delivered by an assigned team of HPE Services experts. HPE Complete Care Service provides:

- A complete coverage approach -- edge to cloud
- An assigned HPE team
- Modular and fully personalized engagement
- Enhanced Incident Management experience with priority access
- Digitally enabled and AI driven customer experience

https://www.hpe.com/services/completecare

HPE Tech Care Service

HPE Tech Care Service is the operational support service experience for HPE products. The service goes beyond traditional support by providing access to product specific experts, an AI driven digital experience, and general technical guidance to not only reduce risk but constantly search for ways to do things better. HPE Tech Care Service delivers a customer-centric, AI driven, and digitally enabled customer experience to move your business forward. HPE Tech Care Service is available in three response levels. Basic, which provides 9x5 business hour availability and a 2-hour response time. Essential which provides a 15-minute response time 24x7 for most enterprise level customers, and Critical which includes a 6-hour repair commitment where available and outage management response for severity 1 incidents.

https://www.hpe.com/services/techcare

Service and Support

HPE Lifecycle Services

HPE Lifecycle Services provide a variety of options to help maintain your HPE systems and solutions at all stages of the product lifecycle. A few popular examples include:

- Lifecycle Install and Startup Services: Various levels for physical installation and power on, remote access setup, installation and startup, and enhanced installation services with the operating system.
- HPE Firmware Update Analysis Service: Recommendations for firmware revision levels for selected HPE products, taking into account the relevant revision dependencies within your IT environment.
- HPE Firmware Update Implementation Service: Implementation of firmware updates for selected HPE server, storage, and solution products, taking into account the relevant revision dependencies within your IT environment.
- Implementation assistance services: Highly trained technical service specialists to assist you with a variety of activities, ranging from design, implementation, and platform deployment to consolidation, migration, project management, and onsite technical forums.
- HPE Service Credits: Access to prepaid services for flexibility to choose from a variety of specialized service activities, including assessments, performance maintenance reviews, firmware management, professional services, and operational best practices.

Notes: To review the list of Lifecycle Services available for your product go to:
https://www.hpe.com/services/lifecycle

For a list of the most frequently purchased services using service credits, see the **HPE Service Credits Menu**

Other Related Services from HPE Services:

HPE Education Services

Training and certification designed for IT and business professionals across all industries. Broad catalogue of course offerings to expand skills and proficiencies in topics ranging from cloud and cybersecurity to AI and DevOps. 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.
https://www.hpe.com/services/training

Defective Media Retention

An option available with HPE Complete Care Service and HPE Tech Care Service and applies only to Disk or eligible SSD/Flash Drives replaced by HPE due to malfunction.

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

Parts and Materials

HPE will provide HPE-supported replacement parts and materials necessary to maintain the covered hardware product in operating condition, including parts and materials for available and recommended engineering improvements.

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.

How to Purchase Services

Services are sold by Hewlett Packard Enterprise and Hewlett Packard Enterprise Authorized Service Partners:

- Services for customers purchasing from HPE or an enterprise reseller are quoted using HPE order configuration tools.
- Customers purchasing from a commercial reseller can find services at **https://ssc.hpe.com/portal/site/ssc/**

Service and Support

AI Powered and Digitally Enabled Support Experience
Achieve faster time to resolution with access to product-specific resources and expertise through a digital and data driven customer experience

Sign into the HPE Support Center experience, featuring streamlined self-serve case creation and management capabilities with inline knowledge recommendations. You will also find personalized task alerts and powerful troubleshooting support through an intelligent virtual agent with seamless transition when needed to a live support agent.
https://support.hpe.com/hpesc/public/home/signin

Consume IT On Your Terms

HPE GreenLake edge-to-cloud platform brings the cloud experience directly to your apps and data wherever they are—the edge, colocations, or your data center. It delivers cloud services for on-premises IT infrastructure specifically tailored to your most demanding workloads. With a pay-per-use, scalable, point-and-click self-service experience that is managed for you, HPE GreenLake edge-to-cloud platform accelerates digital transformation in a distributed, edge-to-cloud world.

- Get faster time to market
- Save on TCO, align costs to business
- Scale quickly, meet unpredictable demand
- Simplify IT operations across your data centers and clouds

To learn more about HPE Services, please contact your Hewlett Packard Enterprise sales representative or Hewlett Packard Enterprise Authorized Channel Partner. Contact information for a representative in your area can be found at "Contact HPE"
https://www.hpe.com/us/en/contact-hpe.html

For more information
http://www.hpe.com/services

Configuration Information

European Union (EU) eco-design regulations for server and storage products, known as Lot 9, go into effect on March 1st, 2020. Among other requirements, for servers this directive establishes power thresholds for idle state, as well as efficiency and performance in active state which vary among configurations. HPE ProLiant Gen10 servers are compliant with Lot9 requirements.

For more information regarding HPE Lot 9 conformance, please visit:
https://www.hpe.com/us/en/about/environment/msds-specs-more.html

This section lists some of the steps required to configure a Factory Integrated Model. To ensure only valid configurations are ordered, Hewlett Packard Enterprise recommends the use of an HPE approved configurator. Contact your local sales representative for information on configurable product offerings and requirements.

- Factory Integrated Models must start with a CTO Server.
- FIO indicates that this option is only available as a factory installable option.
- All Factory Integrated Models will be populated with sufficient hard drive blanks based on the number of initial hard drives ordered with the server.

Some options may not be integrated at the factory. Contact your local sales representative for additional information.

Step 1: Base Configuration (choose one of the following configurable models)

CTO Server	**HPE ProLiant DX365 Gen11 10SFF NVMe Configure-to-order Server**
SKU Number	P60288-B21
Processor	Not included as standard
DIMM Slots	24-DIMM slots*
Storage Controller	HPE OCP Smart Array defaulted
PCIe	1 PCIe x16 Primary Riser
Drive Cage - included	10 SFF
Network Controller	OCP defaulted
Fans	Included
Management	HPE iLO Advanced Included.
USB	Front: 1x USB 3.2 Gen1 + 1x iLO service port Rear: 2x USB 3.2 Gen1 Internal: 2x USB 3.2 Gen1

Notes: HPE DX ProLiant platforms are a Server Appliance: and Energy Star except.
Server Appliance:
– A computer server that is bundled with a pre-installed OS and application
– software that is used to perform a dedicated function or set of tightly coupled functions.
– Server appliances deliver services through one or more networks (e.g., IP or SAN), and are
– typically managed through a web or command line interface. Server appliance hardware and
– software configurations are customized by the vendor to perform a specific task (e.g., name
– services, firewall services, authentication services, encryption services, and voice-over-IP
– (VoIP) services), and are not intended to execute user-supplied software.

CTO Server	10 SFF CTO Chassis
Included Drive Cage	10 SFF
8 SFF NVMe	Standard
2 SFF NVMe	Standard

Notes: This applies to CTO configurations, field upgrades may differ depending field configuration.

Configuration Information

Step 2: Choose Required Options (only one of the following unless otherwise noted)

Please select one –B21 processor required below.
For second processor, please select the same processor model with –B21 from Core Options – HPE Processors section.

Notes:

- Mixing of 2 different processor models are NOT allowed. For example: first processor, select P60040-B21 then for second processor, select P60040-B21 as well.
- Processor kits don't include heat sink and fans.

Step 2a: Choose Processors

Processor Option Kits

AMD EPYC 9124 2.7GHz 16-core 240W FIO Processor for HPE DX	P60040-B21
AMD EPYC 9224 2.5GHz 24-core 200W FIO Processor for HPE DX	P60048-B21
AMD EPYC 9354 3.25GHz 32-core 280W FIO Processor for HPE DX	P60039-B21
AMD EPYC 9554 3.1GHz 64-core 360W FIO Processor for HPE DX	P60038-B21
AMD EPYC 9654 2.4GHz 96-core 360W FIO Processor for HPE DX	P60035-B21
AMD EPYC 9174F 4.1GHz 16-core 320W FIO Processor for HPE DX	P60036-B21
AMD EPYC 9374F 3.85GHz 32-core 320W FIO Processor for HPE DX	P60045-B21
AMD EPYC 9534 2.45GHz 64-core 280W FIO Processor for HPE DX	P60037-B21
AMD EPYC 9634 2.25GHz 84-core 290W FIO Processor for HPE DX	P60041-B21
AMD EPYC 9474F 3.6GHz 48-core 360W FIO Processor for HPE DX	P60042-B21
AMD EPYC 9254 2.9GHz 24-core 200W FIO Processor for HPE DX	P60043-B21
AMD EPYC 9454 2.75GHz 48-core 290W FIO Processor for HPE DX	P60044-B21
AMD EPYC 9274F 4.05GHz 24-core 320W FIO Processor for HPE	P60046-B21
AMD EPYC 9334 2.7GHz 32-core 210W FIO Processor for HPE DX	P60047-B21
AMD EPYC 9684X 2.55GHz 96-core 400W FIO Processor for HPE DX	P69691-B21
AMD EPYC 9384X 3.1GHz 32-core 320W FIO Processor for HPE DX	P69690-B21
AMD EPYC 9184X 3.55GHz 16-core 320W FIO Processor for HPE DX	P69689-B21

Step 2b: Choose Memory Options

Please select one or more memory from below.

For new Gen11 memory population rule whitepaper and optimal memory performance guidelines, please go to:
http://www.hpe.com/docs/amd-population-rules-Gen10Plus

For additional information, please see the **HPE DDR5 Smart Memory QuickSpecs**.

Notes:

- Memory DIMM availability with a server platform is dependent upon completion of certification testing.
- The maximum memory speed is a function of the memory type, memory configuration, and processor model.
- Memory compatibility may vary or be limited within a specific server family depending upon the specific configuration being requested. Because each server environment and requirements can vary, memory compatibility is based not only upon the server family, but may also be affected by the amount and type of additional hardware options installed within a specific server configuration. For this reason, some HPE memory DIMMs may be qualified for a server model or family and yet occasionally not be supported with limited configurations within that server family. Please consult with the HPE server Quickspecs or your HPE representative if you have any questions regarding memory compatibility with a specific HPE server configuration.

Configuration Information

Registered DIMMs (RDIMMs)

HPE DX 16GB (1x16GB) Single Rank x8 DDR5-4800 CAS-40-39-39 EC8 Registered Smart FIO Memory Kit	P60327-B21
HPE DX 32GB (1x32GB) Dual Rank x8 DDR5-4800 CAS-40-39-39 EC8 Registered Smart FIO Memory Kit	P60329-B21
HPE DX 64GB (1x64GB) Dual Rank x4 DDR5-4800 CAS-40-39-39 EC8 Registered Smart FIO Memory Kit	P60330-B21
HPE DX 128GB (1x128GB) Quad Rank x4 DDR5-4800 CAS-46-39-39 EC8 Registered 3DS Smart FIO Memory Kit	P60331-B21
HPE DX 256GB (1x256GB) Octal Rank x4 DDR5-4800 Registered 3DS FIO Memory Kit for AMD CPU	P60332-B21
HPE 96GB (1x96GB) Dual Rank x4 DDR5-4800 CAS-46-45-45 EC8 Registered Smart Memory Kit	P66676-B21

Notes:

- Mixing of x4 & x8 memory is not allowed
- For more detailed information regarding memory population rules, please visit **https://www.hpe.com/docs/server-memory**
- If 256GB Memory Qty is more than 12, then below Networking/OCP options cannot be selected.
  - MLX MCX623106A 100G 2p QSFP56 FIO Adp DX
  - DX INT E810 10/25GbE 4p SFP28 FIO Adptr

Step 2c: Choose Power Supplies

Select one or two power supplies from below.

Notes: Mixing of 2 different power supplies is NOT allowed.

HPE Flex Slot Power Supplies

HPE DX 1600W Flex Slot Platinum Hot Plug Low Halogen FIO Power Supply Kit	P18222-B21
HPE DX 1600W Flex Slot -48VDC Hot Plug FIO Power Supply Kit	P60246-B21
HPE DX 800W Flex Slot Platinum Hot Plug Low Halogen FIO Power Supply Kit	P18223-B21

Notes:

- Mixing of different Power Supply SKU is not allowed
- If 1600W DC Power supply is selected, then either ""HPE DX 1600W DC PSU Pwr Lug Opt Kit"" or ""HPE DX 1600W DC PSU power cable kit"" must be selected and Vice versa. Quantity of Power supply and Power cord/Power Lug option must match.
- Prior to making a power supply selection it is highly recommended that the HPE Power Advisor is run to determine the right size power supply for your server configuration. The HPE Power Advisor is located at: **https://poweradvisorext.it.hpe.com/?Page=Index**.
- HPE ProLiant servers ship with an IEC-IEC power cord used for rack mounting with Power Distribution Units (PDUs). Visit **HPE power cords** for a full list of optional power cords.

Step 3: Choose Additional Factory Integratable Options

One of the following from each list may be selected if desired at time of factory integration

HPE ProLiant DX365 Gen11 NVMe FIO Trigger Kit	P58763-B21

Notes:

- This trigger kit provides support for 10 SFF NVMe direct attach
- This trigger kit will select 8SFF x4 and 2SFF x4 drive cages
- NVMe drives need to be selected separately

Step 4: Choose additional options for Factory Integration from Core and Additional Options sections below

Core Options

Some options may not be integrated at the factory. To ensure only valid configurations are ordered, Hewlett Packard Enterprise recommends the use of a Hewlett Packard Enterprise approved configurator. Contact your local sales representative for additional information.

HPE Unique Options

Riser Kits

The CTO server has 1x Primary riser by default. Here are the additional risers available to select

HPE ProLiant DX3X5 Gen11 1U x16 Low Profile Secondary FIO Riser Kit	P60290-B21

Software Skus

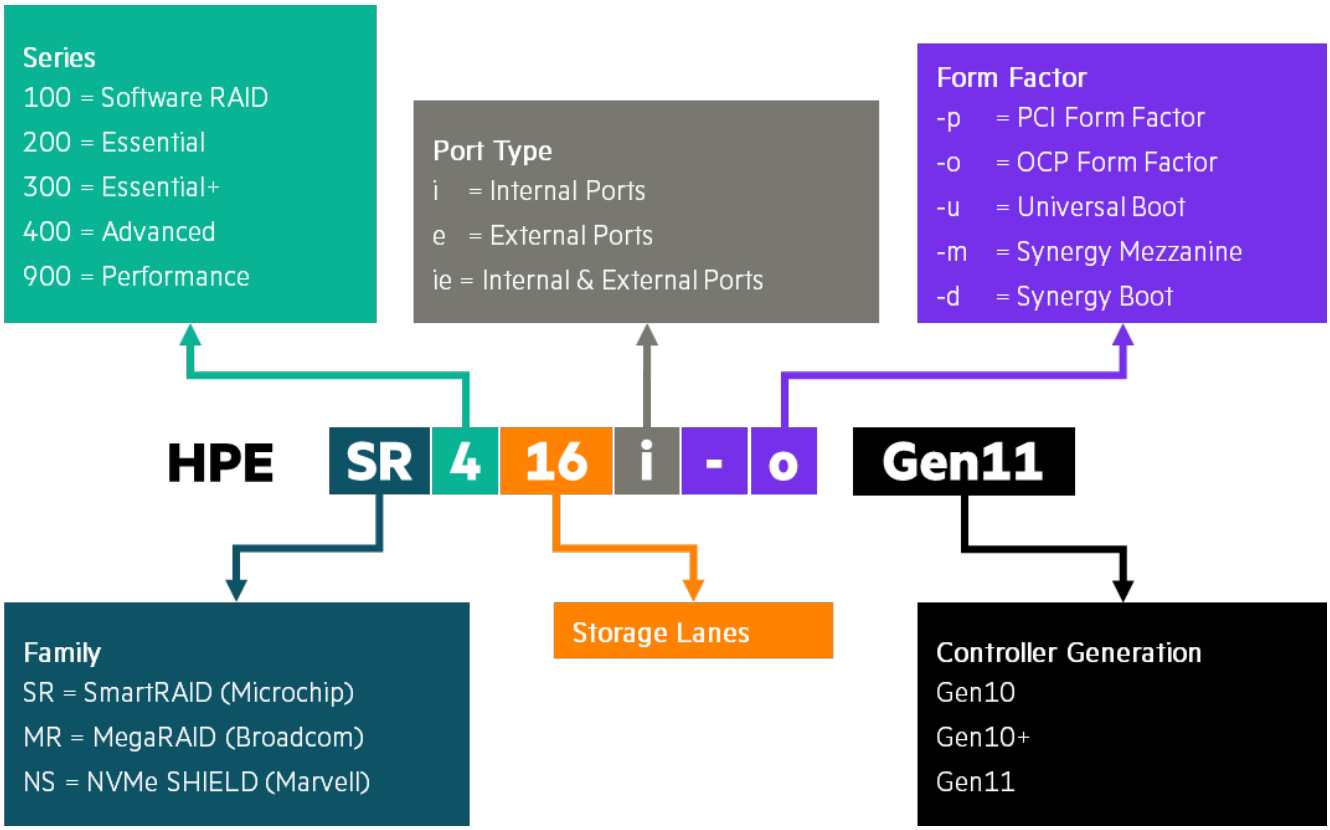
Nutanix AOS Pre-installed FIO Software for HPE	R6T15A

HPE Boot Controllers

HPE DX NS204i-u Gen11 NVMe Hot Plug Boot Optimized FIO Storage Device	P60454-B21
HPE ProLiant DL3X5 Gen11 NS204i-u NVMe Hot Plug Boot Device Cable Kit	P57013-B21

Notes: NS204i-u is the HPE Gen11 Hot Pluggable M.2 NVMe RAIDed Boot Device

HPE Smart Array Controllers



Core Options

SSD Selection

Read Intensive - NVMe - SFF - Solid State Drives

HPE DX 1.92TB NVMe Gen4 High Performance Read Intensive SFF BC U.3 PM9A3 FIO SSD	P71210-B21
Notes: Standalone: P71217-B21	
HPE DX 3.84TB NVMe Gen4 High Performance Read Intensive SFF BC U.3 PM9A3 FIO SSD	P71213-B21
Notes: Standalone: P71218-B21	
HPE DX 7.68TB NVMe Gen4 High Performance Read Intensive SFF BC U.3 PM9A3 FIO SSD	P71215-B21
Notes: Standalone: P71219-B21	

HPE Networking

1 Gigabit Ethernet adapters

Intel I350-T4 Ethernet 1Gb 4-port BASE-T FIO Adapter for HPE DX	P43270-B21

10 Gigabit Ethernet adapters

Broadcom BCM57416 Ethernet 10Gb 2-port BASE-T FIO Adapter for HPE DX	P43271-B21

10/25 Gigabit Ethernet adapters

Broadcom BCM57414 Ethernet 10/25Gb 2-port SFP28 Adapter for HPE DX	P53862-B21
Mellanox MCX631102AS-ADAT Ethernet 10/25Gb 2-port SFP28 FIO Adapter for HPE DX	P60340-B21
Intel E810-XXVDA2 Ethernet 10/25Gb 2-port SFP28 Adapter for HPE	P08443-B21
Intel E810-XXVDA4 Ethernet 10/25Gb 4-port SFP28 FIO Adapter for HPE DX	P60341-B21

100 Gigabit Ethernet adapters

Mellanox MCX623106AS-CDAT Ethernet 100Gb 2-port QSFP56 FIO Adapter for HPE DX	P43273-B21

OCP Adapter

1 Gigabit Ethernet OCP adapters

Intel I350-T4 Ethernet 1Gb 4-port BASE-T OCP3 FIO Adapter for HPE DX	P43269-B21

10 Gigabit Ethernet OCP Adapters

Broadcom BCM57416 Ethernet 10Gb 2-port BASE-T OCP3 FIO Adapter for HPE DX	P43272-B21

10/25 Gigabit Ethernet OCP adapters

Broadcom BCM57414 Ethernet 10/25Gb 2-port SFP28 OCP3 Adapter for HPE DX	P53861-B21
Mellanox MCX631432AS-ADAI Ethernet 10/25Gb 2-port SFP28 OCP3 FIO Adapter for HPE DX	P60339-B21

Core Options

HPE Power Supplies

HPE Flexible Slot (Flex Slot) Power Supplies share a common electrical and physical design that allows for hot plug, tool-less installation into HPE ProLiant Gen10 Plus Performance Servers. Flex Slot power supplies are certified for high-efficiency operation and offer multiple power output options, allowing users to "right-size" a power supply for specific server configurations. This flexibility helps to reduce power waste, lower overall energy costs, and avoid "trapped" power capacity in the data center.

Notes:

- Prior to making a power supply selection it is highly recommended that the HPE Power Advisor is run to determine the right size power supply for your server configuration. The HPE Power Advisor is located at: **https://poweradvisorext.it.hpe.com/?Page=Index**
- HPE ProLiant servers ship with an IEC-IEC power cord used for rack mounting with Power Distribution Units (PDUs). Visit **HPE Power Cords and Cables for** a full list of optional power cords.

HPE DX 1000W Flex Slot Titanium Hot Plug FIO Power Supply Kit P44807-B21

Notes:

- Flex Slot Titanium power supplies support power efficiency of up to 96% and include a C-14 power inlet connector that can support HPE Power Discovery Services (blue connector).
- The power supply selected only supports high line voltage (200VAC to 240VAC)

HPE DX 800W Flex Slot Platinum Hot Plug Low Halogen FIO Power Supply Kit P18223-B21

Notes: Flex Slot Platinum Plus power supplies support power efficiency of up to 94% and include a C-14 power inlet connector that can support HPE Power Discovery Services (blue connector).

HPE DX 1600W Flex Slot -48VDC Hot Plug FIO Power Supply Kit P60246-B21

Notes:

- Flex Slot universal power supplies support power efficiency of up to 94% and support both 277VAC/380VDC power inputs.
- HPE 1600W DC PSU Power Lug Option Kit (P60247-B21) must be selected along with this power supplies.

HPE DX 1600W Flex Slot Platinum Hot Plug Low Halogen FIO Power Supply Kit P18222-B21

Notes:

- Flex Slot Platinum Plus power supplies support power efficiency of up to 94% and include a C-14 power inlet connector that can support HPE Power Discovery Services (blue connector).
- The power supply selected only supports high line voltage (200VAC to 240VAC)

HPE DX 1600W -48VDC Power Lug Option Kit P60247-B21

Notes: If 1600W DC Power supply is selected, then either ""HPE DX 1600W DC PSU Pwr Lug Opt Kit"" or ""HPE DX 1600W DC PSU power cable kit"" must be selected and Vice versa. Quantity of Power supply and Power cord/Power Lug option must match.

Additional Options

Some options may not be integrated at the factory. To ensure only valid configurations are ordered, Hewlett Packard Enterprise recommends the use of an HPE approved configurator. Contact your local sales representative for additional information.

HPE Security

HPE ProLiant DX3XX Gen11 Intrusion FIO Cable Kit	P60291-B21
HPE ProLiant Gen11 1U Common Bezel Kit	P50450-B21

HPE Rail Kits

Notes:

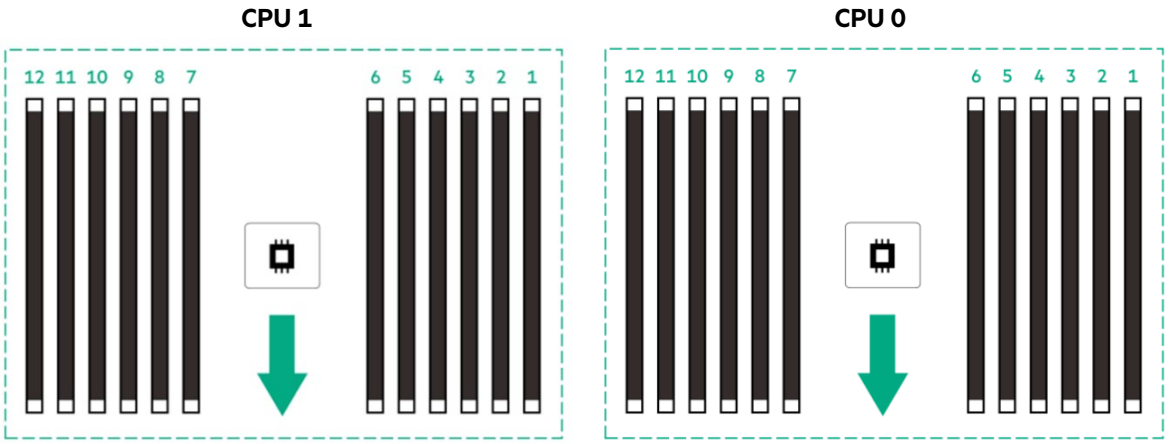
- Hewlett Packard Enterprise recommends that a minimum of two people are required for all Rack Server installations. Please refer to your installation instructions for proper tools and number of people to use for any installation.
- CTO Models do not ship with rail kits, they need to be ordered separately
- HPE rail kits are designed to work with HPE racks in compliance with industry standard EIA-310-E. In the event a customer elects to purchase a third-party rack for use with an HPE rail kit, any such use is at customer's own risk. HPE makes no express or implied warranties with respect to such third-party racks and specifically disclaims any implied warranties of merchantability and fitness for a particular purpose. Furthermore, HPE has no obligation and assumes no liability for the materials, design, specifications, installation, safety, and compatibility of any such third-party racks with any rail kits, including HPE rail kits.

HPE ProLiant DX3XX Gen11 Easy Install FIO Rail 2 Kit	P60221-B21
HPE ProLiant DX3XX Gen11 1U FIO Cable Management Arm for Rail Kit	P60633-B21

Notes: Supportable when rail kit is selected

Memory

Memory Population guidelines



Front side of the server

General Memory Population Rules and Guidelines

- Install DIMMs only if the corresponding processor is installed.
- If only one processor is installed in a two-processor system, only half of the DIMM slots are available.
- To maximize performance, it is recommended to balance the total memory capacity between all installed processors.
- When two processors are installed, balance the DIMMs across the two processors.
- The maximum memory speed is a function of the memory type, memory configuration, and processor model.
- The maximum memory capacity is a function of the number of DIMM slots on the platform, the largest DIMM capacity qualified on the platform, the number and model of installed processors qualified on the platform.
- To realize the performance memory capabilities listed in this document, HPE DDR5 Smart Memory is required. For additional information, please see the: **HPE DDR5 Smart Memory QuickSpecs**
- For General Server Memory and Persistent Memory Population Rules and Guidelines, see details here: **http://www.hpe.com/docs/memory-population-rules**
- For details on the HPE Server Memory speed, visit: **http://www.hpe.com/docs/amd-speed-tables**

Technical Specifications

System Unit

- **Dimensions (Height x Width x Depth)**
  4.29 X 44.89 X 64.94 cm
  1.69 X 17.67 X 25.57 in
- **Packaging**
  91.6 X 60 X 24.2 cm
  36.06 X 23.63 X 9.53 in
- **Weight** (approximate)
  12.70 kg
  27.94 lb
  - **SFF Minimum:** 8 SFF chassis with 8 HDD blanks, 2x Drive Bay blanks, 1x processor including standard heat sink, 2x DIMMs, 1x power supply (plus blank), 1x Smart Array, 1x Riser installed, cables for the above)
    - 12.70 kg
    - 27.94 lb
- **Packaged weight**
    - 24.36 kg
    - 53.7 lb
  - **SFF Maximum:** 10x SFF hard drives, 2x processors, 2 heat sinks, 2x power supplies, 1x Smart Array, 2x Risers installed, 16x DIMMs, 2x power supply, cables for the above
    - 18.39 kg
    - 40.46 lb
- **Packaged weight**
    - 29.36 kg
    - 64.73 lb

Input Requirements(per power supply)

Rated Line Voltage

- 100 to 120 VAC
- 200 to 240 VAC

BTU Rating

Maximum

- For 1600W Power Supply: 5918 BTU/hr (at 200 VAC), 5884 BTU/hr (at 240 VAC) for China
- For 800W Power Supply: 3207 BTU/hr (at 100 VAC), 3071 BTU/hr (at 200 VAC), 3112 BTU/hr (at 240 VAC) for China Only
- For 500W Power Supply: 1979 BTU/hr (at 100 VAC), 1911 BTU/hr (at 200 VAC), 1965 BTU/hr (at 240 VAC) for China Only

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Power Supply Output(per power supply)

- **Rated Steady-State Power**
  - For 1600W Power Supply: 1600W (at 240 VAC), 1600W (at 240 VAC)
  - For 800W Power Supply: 800W (at 100 VAC), 800W (at 240 VAC), 800W (at 240 VAC) input for China only
  - For 500W Power Supply: 500W (at 100 VAC), 500W (at 240 VAC), 500W (at 240 VAC) input for China only

Technical Specifications

- **Maximum Peak Power**
  - For 1600W Power Supply: 1600W (at 200 to 240 1VAC), 1600W (at 240 VAC) input for China only
  - For 800W Power Supply: 800W (at 100 to 127 VAC), 800W (at 200 to 240 1VAC), 800W (at 240 VAC) input for China only
  - For 500W Power Supply: 500W (at 100 to 127 VAC), 500W (at 200 to 240 VAC), 500W (at 240 VAC) input for China only

System Inlet Temperature

- **Standard Operating Temperature**
  10° to 35°C (50° to 95°F) at sea level with an altitude derating of 1.0°C per every 305 m (1.8°F per every 1000 ft) above sea level to a maximum of 3050 m (10,000 ft), no direct sustained sunlight. Maximum rate of change is 10°C/hr (18°F/hr). The upper limit and rate of change may be limited by the type and number of options installed.

  System performance during standard operating support may be reduced if operating with a fan fault or above 30°C (86°F).
- **Extended Ambient Operating Temperature**
  For approved hardware configurations, the supported system inlet range is extended to be: 5° to 10°C (41° to 50°F) and 35° to 40°C (95° to 104°F) at sea level with an altitude derating of 1.0°C per every 175 m (1.8°F per every 574 ft) above 900 m (2953 ft) to a maximum of 3050 m (10,000 ft). The approved hardware configurations for this system are listed at the URL:**http://www.hpe.com/servers/ashrae**

  For approved hardware configurations, the supported system inlet range is extended to be: 40° to 45°C (104° to 113°F) at sea level with an altitude derating of 1.0°C per every 125 m (1.8°F per every 410 ft) above 900 m (2953 ft) to a maximum of 3050 m (10,000 ft). The approved hardware configurations for this system are listed at the URL: **http://www.hpe.com/servers/ashrae**

  System performance may be reduced if operating in the extended ambient operating range or with a fan fault.
- **Non-operating**
  -30° to 60°C (-22° to 140°F). Maximum rate of change is 20°C/hr (36°F/hr).

Relative Humidity(non-condensing)

- **Operating**
  10% to 90% - Relative humidity (Rh), 28°C maximum wet bulb temperature, non-condensing.
- **Non-operating**
  5 to 95% relative humidity (Rh), 38.7°C (101.7°F) maximum wet bulb temperature, non-condensing.

Altitude

- **Operating**
  3050 m (10,000 ft). This value may be limited by the type and number of options installed. Maximum allowable altitude change rate is 457 m/min (1500 ft/min).
- **Non-operating**
  9144 m (30,000 ft). Maximum allowable altitude change rate is 457 m/min (1500 ft/min).

Emissions Classification (EMC) – Regulatory Information

To view the regulatory information for your product, view the Safety and Compliance Information for Server, Storage, Power, Networking, and Rack Products, available at the Hewlett Packard Enterprise Support Center:
http://www.hpe.com/support/Safety-Compliance-EnterpriseProducts

Technical Specifications

Environment-friendly Products and Approach - End-of-life Management and Recycling

Hewlett Packard Enterprise offers **end-of-life product return, trade-in, and recycling programs**, in many geographic areas, for our products. Products returned to Hewlett Packard Enterprise will be recycled, recovered or disposed of in a responsible manner.

The EU WEEE directive (2002/95/EC) requires manufacturers to provide treatment information for each product type for use by treatment facilities. This information (product disassembly instructions) is posted on the Hewlett Packard Enterprise web site. These instructions may be used by recyclers and other WEEE treatment facilities as well as Hewlett Packard Enterprise OEM customers who integrate and re-sell Hewlett Packard Enterprise equipment.

Acoustic Noise

Listed are the declared A-Weighted sound power levels (L_{WAd}) and declared average bystander position A-Weighted sound pressure levels (L_{pAm}) when the product is operating in a 23°C ambient environment. Noise emissions were measured in accordance with ISO 7779 (ECMA 74) and declared in accordance with ISO 9296 (ECMA 109). The listed sound levels apply to standard shipping configurations. Additional options may result in increased sound levels. Please have your HPE representative provide information from the HPE EMESC website for further technical details regarding the configurations listed below.

Idle	
LWAd	4.9 B Base
LpAm	35 dBA Base
Operating	
LWAd	5.9 B Base
LpAm	46 dBA Base

Notes:

- Acoustics levels presented here are generated by the test configuration only. Acoustics levels will vary depending on system configuration. Values are subject to change without notification and are for reference only.
- Product conformance to cited product specifications is based on sample (type) testing, evaluation, or assessment. This product or family of products is eligible to bear the appropriate compliance logos and statements.
- The Listed sound levels apply to standard shipping configurations. Additional options may result in increased sound levels.

Summary of Changes

Date	Version History	Action	Description of Change
27-May-2025	Version 7	Changed	Core Options and Additional Options sections were updated. Added: 10/25 Gigabit Ethernet adapters SKU and Nutanix AOS Pre-installed FIO Software for HPE SKU.
21-Oct-2024	Version 6	Changed	Configuration Information section was updated. (Power supply rule).
16-Sep-2024	Version 5	Changed	Standard Features (Operating Systems and Virtualization Software Support for HPE Servers) section was updated.
05-Aug-2024	Version 4	Changed	Configuration Information and Core Options sections were updated. SKUs were added/removed, also networking OCP option info was added
01-Jul-2024	Version 3	Changed	Core Options section was updated.
18-Mar-2024	Version 2	Changed	Standard Features and Additional options sections were updated.
05-Jun-2023	Version 1	New	New QuickSpecs

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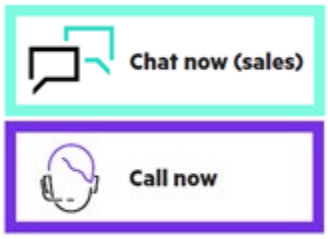

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