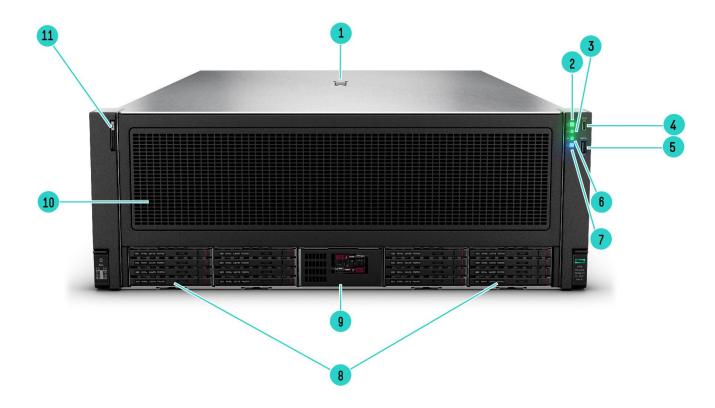
# QuickSpecs

# **Overview**

Shape the Future of QuickSpecs - Your Input Matters

# HPE ProLiant Compute DL380a Gen12

The HPE ProLiant Compute DL380a Gen12 is engineered with an ultra-scalable architecture to deliver next-gen AI performance for your enterprise needs. The "a" stands for accelerator optimized. Powered by Intel® Xeon® 6 Processors and up to 8 cutting-edge double-wide GPUs, the 4U HPE ProLiant DL380a Gen12 server is a cost-effective AI solution. It accelerates AI inferencing for large workloads with unprecedented performance, enterprise-grade reliability, and industry-leading security innovation.



# Front View - 8 SFF drives shown

- 1. Quick removal access panel
- 2. Power On/Standby button and system power LED
- 3. Health LED
- 4. iLO front service port (Type-C)
- 5. USB 3.2 port
- 6. NIC status LED1

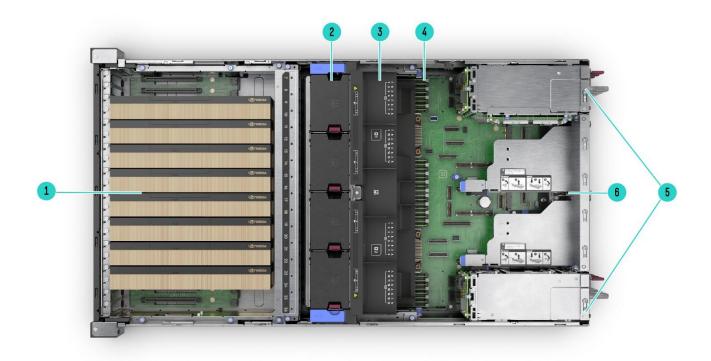
- 7. UID button/LED
- 8. Drive cage (up to 8 SFF NVMe or 16 EDSFF)
- 9. Boot Drive Cage
- 10. GPU cage (up to 8 double-wide PCIe GPUs)
- 11. Serial number label pull tab

### Notes:

1 Front NIC LED display doesn't support NIC LED ACT/LINK indication from ALOM/PCIE/FLOM NIC's



# Overview



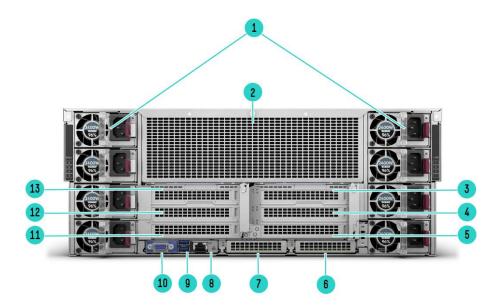
# **Internal View**

4.

- GPU cages for up to 8 double-wide GPUs 1.
- 2. 4 hot-plug fan assemblies (qty: 4 92mm + qty: 8 40mm fans)
- Air baffle and heatsinks 3.

- Qty: 32 DDR5 DIMM Slots + CPU 1 & 2
- 5. Power supplies – MCRPS type 6.
  - PCle Risers

#### **Overview**



### **Rear View**

- Power Supplies (MCRPS) 1-8 1.
- 2. Air ventilation wall
- 3. Slot 4 PCle5 x16<sup>2</sup>
- 4. Slot 5 PCle5 x16 (optional captive riser)
- 5. Slot 6 PCle5 x16 (default 1U CEM riser)
- OCP Slot B 6.
- OCP Slot A 7.

#### **Notes:**

- 8. Dedicated iLO network port 9.
- USB 3.2 Gen 1 ports
- 10. VGA port
- 11. Slot 3 PCle5 x16 (default 1U CEM riser)
- 12. Slot 2 PCle5 x16 (optional captive riser)
- 13. Slot 1 PCle5 x16 (optional captive riser)<sup>1</sup>
- <sup>1</sup>Only available when HPE DL380a G12 4EDSFF Direct Cable for NVD (P74716-B21) is attached. Cannot be used with SFF NVMe drives.
- <sup>2</sup>Not for use with 4 and 8 DW GPU configurations

### What's New

- Supports Intel® Xeon® 6 Processors.
- Support for up to 8 double-wide GPUs in a 4U server for intensive compute acceleration.
- Support for PCle 5.0 for improved bandwidth and throughput.
- Support for well-balanced I/O performance across processors.
- Support for HPE DDR5 Smart Memory.

#### **Platform Information**

#### Form Factor

4U rack

#### **Chassis Types**

8 DW (double-wide GPU) chassis with one drive bay for drive cage options. **Notes:** The DL380a Gen12 comes with qty: 1 4SFF x4 U.3 NVMe drive cage by default.

# **System Fans**

4 hot plug fan assemblies: Each assembly consists of 1 dual-rotor 92x56mm and 2 single-rotor 40x28 fans.



**Processors** – 2 of the following depending on model.

The  $1^{ST}$  digit of the processor model number is used to denote the processor generation (i.e. 6=6th generation Intel Scalable Series Processors).

For more information regarding Intel® Xeon® 6 processors, please see the following

### https://www.intel.com/content/www/us/en/now/xeon-6.html.

This table covers the public Intel offering only.

Intel® Xeon® 6 Processor Family							
Intel Xeon Models	CPU Frequency	Cores	L3 Cache (MB)	Power	UPI	DDR5	SGX Enclave size
6710E Processor	2.4 GHz	64	96	205W	4 @ 16 GT/s	5600 MT/s	512GB
6740E Processor	2.4 GHz	96	96	250W	4 @ 16 GT/s	6400 MT/s	512GB
6746E Processor	2.0 GHz	112	96	250W	4 @ 16 GT/s	5600 MT/s	512GB
6756E Processor	1.8 GHz	128	96	225W	4 @ 16 GT/s	6400 MT/s	512GB
6766E Processor	1.9 GHz	144	108	250W	4 @ 16 GT/s	6400 MT/s	512GB
6780E Processor	2.2 GHz	144	108	330W	4 @ 16 GT/s	6400 MT/s	512GB
6740P Processor	2.1 GHz	48	288	270W	4 @ 16 GT/s	6400 MT/s	128GB
6747P Processor	2.7 GHz	48	288	330W	4 @ 16 GT/s	6400 MT/s	512GB
6760P Processor	2.2 GHz	64	320	330W	4 @ 16 GT/s	6400 MT/s	128GB
6767P Processor	2.4 GHz	64	336	350W	4 @ 16 GT/s	6400 MT/s	512GB
6787P Processor	2.0 GHz	86	336	350W	4 @ 16 GT/s	6400 MT/s	512GB
6505P Processor	2.2 GHz	12	48	150W	4 @ 16 GT/s	6400 MT/s	128GB
6507P Processor	3.5 GHz	8	48	150W	4 @ 16 GT/s	6400 MT/s	512GB
6515P Processor	2.3 GHz	16	72	150W	4 @ 16 GT/s	6400 MT/s	128GB
6517P Processor	3.2 GHz	16	72	190W	4 @ 16 GT/s	6400 MT/s	512GB
6520P Processor	2.4 GHz	24	144	210W	4 @ 16 GT/s	6400 MT/s	128GB
6527P Processor	3.0 GHz	24	144	255W	4 @ 16 GT/s	6400 MT/s	512GB
6530P Processor	2.3 GHz	32	144	225W	4 @ 16 GT/s	6400 MT/s	128GB
6730P Processor	2.5 GHz	32	288	250W	4 @ 16 GT/s	6400 MT/s	512GB
6736P Processor	2.0 GHz	36	144	205W	4 @ 16 GT/s	6400 MT/s	512GB
6737P Processor	2.9 GHz	32	144	270W	4 @ 16 GT/s	6400 MT/s	512GB

# **On System Management Chipset**

**HPE iLO 6 ASIC (ROM ID: U70)** for HPE ProLiant Compute DL380a Gen12 8DW CTO Server – PN: P74461-B21 **HPE iLO 7 ASIC (ROM ID: U72)** for HPE ProLiant Compute DL380a Gen12 8DW/16SW CTO Server – PN: P76706-B21 Read and learn more in the **iLO QuickSpecs**.

Notes: P74461-B21 is not upgradeable to iLO 7.

# Memory

Туре	HPE DDR5 Smart Memory, Registered (RDIMM)
DIMM Slots Available	32 DIMM slots (16 DIMM slots per processor), 8 channels per processor with up to 2 DIMMs per channel
Maximum capacity (RDIMM)	8.0 TB (32 x 256 GB RDIMM @5200 MT/s, 2DPC) 4.0 TB (16 x 256 GB RDIMM @6400 MT/s, 1DPC)

- The maximum memory speed is limited by the processor selection.
- Intel® Xeon® 6700-Series Processors with E Core limits DIMM quantities per CPU: 1, 2, 4, 8, and 16.
- Intel® Xeon® 6500/6700-Series Processors with P Core limits DIMM quantities per CPU: 1, 2, 4, 8, 12 and 16.

# **Expansion Slots**

#### **Risers**

Primary Riser					
Slots #	Technology	Bus Width	<b>Connector Width</b>	Slot Form Factor	Notes
1	PCIe 5.0	x16	x16	Full height, half length	Processor 2
2	PCIe 5.0	x16	x16	Full height, half length	Processor 2
3	PCIe 5.0	x16	x16	Full height, half length	Processor 2

#### **Notes:**

- Slot 1 is only available when HPE DL380a G12 4EDSFF Direct Cable for NVD (P74716-B21) is attached. Cannot be used with SFF NVMe drives.
- Slot 3 is available by default with a DL380a Gen12 configuration.
- Bus width indicates the number of physical electrical lanes running to the connector.

Secondary Riser					
Slots #	Technology	Bus Width	Connector Width	Slot Form Factor	Notes
4	PCle 5.0	x16	x16	Full height, half length	Processor 1
5	PCle 5.0	x16	x16	Full height, half length	Processor 1
6	PCle 5.0	x16	x16	Full height, half length	Processor 1

#### **Notes:**

- Slot 4 is not available for 4 and 8 DW configurations.
- Slot 6 is available by default with a DL380a Gen12 configuration.
- Bus Width Indicates the number of physical electrical lanes running to the connector.

# **Graphics**

# **Integrated Video Standard**

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

# HPE iLO 6 on system management memory

- 32 MB Flash
- 8 Gbit DDR 3 with ECC protection

# Maximum Internal Storage

Drive	Capacity	Configuration
Hot Plug SFF NVMe PCle SSD	122.88 TB	8 x 15.36 TB
Hot Plug E3.S NVMe PCle SSD	245.76 TB	16 x 15.36 TB

# Modular Common Redundant Power Supply (M-CRPS)

- HPE 1500W M-CRPS Kit
- HPE 2400W M-CRPS Kit
- HPE 3200W M-CRPS Kit
   Notes: Up to 96% efficiency.



HPE's M-CRPS power supplies are certified for high-efficiency operation and offer multiple power output options, both high-line and low-line, allowing users to "right-size" a power supply for specific server configurations. This flexibility helps to reduce power waste, upgrade security firmware, lower overall energy costs, and avoid "trapped" power capacity in the data center. HPE M-CRPS come in two different physical design options (73.5mm and 60mm width) that allows for hot plug, tool-less installation into HPE ProLiant Gen12 Performance Servers.

For DL380a Gen12 8DW/16SW Server (P76706-B21), power cords must be selected to match quantity of PSUs.

For DL380a Gen12 8DW Server (P74461-B21), the HPE C13-14 2m power cable (P67847-B21) comes with the 1500W supply. The HPE C19-20 2m power cable (P67845-B21) comes with the 2400W supply. 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 <a href="https://www.hpe.com/psnow/doc/4AA6-6836ENW">https://www.hpe.com/psnow/doc/4AA6-6836ENW</a>.

# **European Union ErP Lot 9 Regulation**

Beginning on January 1st, 2024, units sold into the European Union (EU), European Economic Area (EEA), the United Kingdom, Ireland, Switzerland or Turkey, must include more efficient AC power supplies: 94% for multi-output and 96% for single-output. HPE Flexible Slot power supplies are single-output, and part numbers 865438-B21, P03178-B21, and P44712-B21 are 96% efficient, thus meeting requirements.

HPE is on target to fulfil compliant systems ahead of time and will begin enforcing these requirements in advance to satisfy requests with the current power supplies by the set deadline.

# **Storage Controllers**

#### **NVMe Boot Devices**

HPE NS204i-u v2 NVMe Hot Plug Boot Optimized Storage Device

#### Notes

- Configured in front chassis slot
- Does not occupy PCle slots on the DL380a Gen12 server

### **Hybrid RAID**

• Intel® Hybrid RAID on CPU (Intel® VROC)

#### **Notes:**

- Supports up to 8 direct attach NVMe bays on the DL380a Gen12 server.
- Intel VROC NVMe is off by default and requires licensing, see options for details.
- RAID support 0/1/5/10, depending on licensing options.
- Intel VROC for HPE ProLiant Gen12 is an enterprise, Hybrid RAID solution specifically designed for NVMe SSDs connected directly to the CPU. Intel VROC is a solution utilizing Intel CPU to RAID or HBA direct connected drives and supports both Intel® SFF SSDs and HPE SFF SSDs.

# **Tri-Mode Controller**

- HPE MR416i-p Gen11 12G Controller
- HPE MR416i-o Gen11 12G Controller

### Interfaces

Serial Port	Optional by connection of rear IX port with Serial Enablement Kit (P71432-B21)
VGA Port	1 standard (rear)
<b>Network Ports</b>	None standard. Choice of OCP networking card or stand-up networking card required.
<b>HPE iLO Remote</b>	1 Gb dedicated (rear)
<b>Management Network Port</b>	
Front iLO Service Port	1 standard (front)
USB 3.2 Gen1 Port	4 (1 front, 2 rear, 1 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 Gen12 servers have a UEFI Class 3 implementation and support UEFI Mode only.

**Notes:** The UEFI System Utilities tool is analogous to the HPE ROM-Based Setup Utility (RBSU) of legacy BIOS. For more information, please visit <a href="http://www.hpe.com/servers/uefi">http://www.hpe.com/servers/uefi</a>.

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

- Secure Boot and Secure Start enable for enhanced security
- Embedded UEFI Shell
- Operating system specific functionality
- Mass Configuration Deployment Tool using iLO RESTful API that is Redfish API Conformant
- Support for > 2.2 TB (using GPT) boot drives
- PXE boot support for IPv6 networks
- USB 3.0 Stack
- Workload Profiles for simple performance optimization

#### **UEFI Boot Mode only**

- TPM 2.0 Support
- iSCSI Software Initiator Support.
- NVMe Boot Support
- HTTP/HTTPs Boot support as a PXE alternative.
- Platform Trust Technology (PTT) can be enabled.
- Boot support for option cards that only support a UEFI option ROM

Notes: For UEFI Boot Mode, boot environment and OS image installations should be configured properly to support UEFI.

# **HPE Compute Ops Management**

HPE is intelligently transforming compute management with an intuitive cloud operating experience through HPE GreenLake cloud platform to streamline and secure operations from edge-to-cloud. Automated key lifecycle tasks, for onboarding, updating, managing, and monitoring HPE servers, brings agility and greater efficiencies to wherever compute devices reside via a unified single browser-based interface. Manage single locations or multiple, distributed sites. Keep tens to thousands of servers secure with batch policy controls and automated updates.

HPE Compute Ops Management is cloud-native software that is continually updated with new services, features, patches, and fixes. The management application resides in the HPE GreenLake cloud platform (access via <a href="https://console.greenlake.hpe.com">https://console.greenlake.hpe.com</a>) and leverages the HPE GreenLake architecture, security, and unified operations.

A 3-year subscription to HPE Compute Ops Management is added by default when ordering an HPE ProLiant Gen12 rack, tower, or micro server.

For more information, visit the HPE Compute Ops Management QuickSpecs: https://www.hpe.com/psnow/doc/a50004263enw

# **Industry Standard Compliance**

- ACPI 6.5 Compliant
- Advanced Encryption Standard (AES)
- Active Directory v1.0

ASHRAE A3/A4

**Notes:** For additional technical, thermal details regarding ambient temperature, humidity, and feature support, please visit <a href="https://www.hpe.com/support/ASHRAEGen12">https://www.hpe.com/support/ASHRAEGen12</a>

- DMTF Systems Management Architecture for Server Hardware Command Line Protocol (SMASH CLP)
- Energy Star
- EU Lot9

#### **Notes:**

- Beginning on January 1st, 2024, units sold into the European Union (EU), European Economic Area (EEA), the
  United Kingdom, Ireland, Switzerland or Turkey, must include more efficient AC power supplies: 94% for multioutput and 96% for single-output. HPE Flexible Slot power supplies are single-output, and part numbers 865438B21, P03178-B21, and P44712-B21 are 96% efficient, thus meeting requirements.
- HPE is on target to fulfil compliant systems ahead of time and will begin enforcing these requirements in advance to satisfy requests with the current power supplies by the set deadline.
- Please visit: <a href="https://www.hpe.com/us/en/about/environment/msds-specs-more.html">https://www.hpe.com/us/en/about/environment/msds-specs-more.html</a> for more information regarding HPE Lot 9 conformance.
- IPMI 2.0
- Microsoft® Logo certifications
- PCle 3.0 Compliant
- PCle 4.0 Compliant
- PCle 5.0 Compliant
- PXE Support
- Redfish API
- Secure Digital 4.0
- SMBIOS 3.7
- SNMP v3
- TLS 1.3
- TPM 2.0 Support
- Triple Data Encryption Standard (3DES)
- UEFI (Unified Extensible Firmware Interface Forum) 2.10
- USB 2.0 Compliant
- USB 3.0 Compliant
- VGA Port

# **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 <a href="http://www.hpe.com/info/ilo">http://www.hpe.com/info/ilo</a>.

#### **UEFI**

Configure and boot your servers securely with industry standard Unified Extensible Firmware Interface (UEFI). Learn more at <a href="http://www.hpe.com/servers/uefi">http://www.hpe.com/servers/uefi</a>.

# **Intelligent Provisioning**

Hassle free server and OS provisioning for 1 or more servers with Intelligent Provisioning. Learn more at <a href="http://www.hpe.com/servers/intelligentprovisioning">http://www.hpe.com/servers/intelligentprovisioning</a>

# **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 <a href="http://www.hpe.com/info/restfulapi">http://www.hpe.com/info/restfulapi</a>

#### **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 <a href="http://www.hpe.com/servers/ahs">http://www.hpe.com/servers/ahs</a>.

# **Active Health System Viewer**

Use the Active Health System Viewer, a web-based portal, to easily read AHS logs and speed problem resolution with HPE self-repair recommendations, to learn more visit: <a href="http://www.hpe.com/servers/ahsv">http://www.hpe.com/servers/ahsv</a>.

# **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).

# **HPE iLO Mobile Application**

Enables the ability to access, deploy, and manage your server anytime from anywhere from select smartphones and mobile devices. For additional information please visit: <a href="http://www.hpe.com/info/ilo/mobileapp">http://www.hpe.com/info/ilo/mobileapp</a>.

#### **RESTful Interface Tool**

RESTful Interface tool (iLO REST) is a single scripting tool to provision using iLO RESTful API to discover and deploy servers at scale. Learn more at <a href="http://www.hpe.com/info/resttool">http://www.hpe.com/info/resttool</a>.

### **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 <a href="http://www.hpe.com/servers/powershell">http://www.hpe.com/servers/powershell</a>.

#### **HPE OneView Standard**

HPE OneView Standard can be used for inventory, health monitoring, alerting, and reporting without additional fees. It can monitor multiple HPE server generations. The user interface is similar to the HPE OneView Advanced version, but the software-defined functionality is not available. Learn more at <a href="http://www.hpe.com/info/oneview">http://www.hpe.com/info/oneview</a>.

#### **HPE Systems Insight Manager (HPE SIM)**

Ideal for environments already using HPE SIM, it allows you to monitor the health of your HPE ProLiant Servers and HPE Integrity Servers. Also provides you with basic support for non-HPE servers. HPE SIM also integrates with Smart Update Manager to provide quick and seamless firmware updates. Learn more at <a href="http://www.hpe.com/info/hpesim">http://www.hpe.com/info/hpesim</a>.

#### Security

Experience unparalleled security benefits with HPE ProLiant Gen12 servers, designed to enhance your infrastructure's security and performance. These servers come equipped with cutting-edge embedded security features, ensuring robust protection for your critical data and applications. Key features include:

HPE Integrated Lights-Out (HPE iLO7): This product offers advanced embedded security features for monitoring, service alerting, reporting, and remote management.

Enhanced Server Data Security: Encryption and key management, iLO Managed Encryption, UEFI-managed encryption, and self-encrypting drives (SED) for enhanced data-at-rest protection.

Sanitize Data with One-Button Secure Erase: This method complies with NIST SP 800-88 guidelines for media sanitization, ensuring the secure decommissioning of servers.

Expanded Industry Security Compliance: Adherence to standards such as FIPS 140-3, NIST SP 800-53, NIST SP 800-171, and NIST SP 800-88.

HPE GreenLake for Compute Ops Management: Provides an intuitive cloud operating experience, ensuring streamlined and highly secure operations from the edge to the cloud.

Physical Security Options: System maintenance switch, USB security, rack and power security, bezel lock, and chassis intrusion detection switch.

Trusted Supply Chain: HPE Trusted Supply Chain offers enhanced security and compliance for organizations worldwide. Servers built with this option undergo rigorous inspections and checkpoints to detect and mitigate malicious microcode and counterfeit parts throughout the server build and lifecycle.

Please refer to the HPE ProLiant Gen12 Embedded Security QuickSpecs document for more detailed information at http://psnow.ext.hpe.com/doc/a50009218enw

- UEFI Secure Boot and Secure Start support
- Secure Enclave Silicon Root of Trust 2.0
- Quantum resistant (PQC) readiness for signing firmware CNSA 2.0
- FIPS 140-3 validation (Planned)
- Common Criteria certification (Planned)
- USGv6 ready (Section 508 VPAT)
- Secure Standard Mode default security mode (equivalent of higher security mode in Gen 11)
- Configurable for PCI DSS compliance
- Advanced Encryption Standard (AES) 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
- TPM (Trusted Platform Module) 2.0
- Front bezel key-lock feature standard, available in both Tower and Rack models
- Padlock slot, standard
- Kensington Lock slot, standard
- 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 using 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-Warranties

# **Optional Features**

# Server Management

#### **HPE iLO Advanced**

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.

#### **HPE OneView Advanced**

HPE OneView brings a new level of automation to infrastructure management by taking a template driven approach to provisioning, updating, and integrating compute, storage, and networking infrastructure. It provides full-featured licenses which can be purchased for managing multiple HPE server.

To learn more visit <a href="http://www.hpe.com/info/oneview">http://www.hpe.com/info/oneview</a>.

# **HPE Insight Cluster Management Utility (CMU)**

HPE Insight Cluster Management Utility is a HyperScale management framework that includes software for the centralized provisioning, management and monitoring of nodes and infrastructure. Learn more at <a href="http://www.hpe.com/info/cmu">http://www.hpe.com/info/cmu</a>.

# One Config Simple (OCS/SCE)

SCE is a guided self-service tool to help sales and non-technical people provide customers with initial configurations in 3 to 5 minutes. You may then send the configuration on for configuration help, or use in your existing ordering processes. If you require "custom" rack configuration or configuration for products not available in SCE, please contact Hewlett Packard Enterprise Customer Business Center or an Authorized Partner for assistance. https://h22174.www2.hpe.com/SimplifiedConfig/Welcome

#### **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've 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 of workload. Some UPSs include options for remote management and extended runtime modules so your 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 Al 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, Al 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 <a href="https://ssc.hpe.com/portal/site/ssc/">https://ssc.hpe.com/portal/site/ssc/</a>

# Service and Support

# Al 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 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 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" <a href="https://www.hpe.com/us/en/contact-hpe.html">https://www.hpe.com/us/en/contact-hpe.html</a>

For more information

http://www.hpe.com/services

# Smart Templates from HPE

HPE is releasing new Smart Template technology in the One Config Advanced (OCA) configurator. These Templates represent the CTO equivalents of the top-selling BTO configurations. They are intended to provide simple starting points to assist you in easily creating and customizing your desired Server solutions. HPE Servers that have Platform Templates, developed by HPE Product Managers, will have a separate tab in the HPE OCA configurator.

# **Workload Solutions Templates from HPE**

The Workload Solutions Templates build on the Smart Templates technology to easily develop working configurations of the most compelling Workload Solutions. The templates complement the Reference Builds developed by HPE. Workload Solutions templates preconfigure some of the key architecture decisions and make it easier for Sellers to get started and complete a differentiated server solution for your customer's specific workload.

#### Mainstream SKUs

HPE launched the Mainstream SKU initiative as a market-driven approach to Demand Steering. It is a simplified portfolio of our top selling options that meet the current and future market trends. HPE has committed to provide a more predictable and faster experience for these options. Mainstream SKUs enjoy higher safety stock levels and have higher fulfilment service levels than non-Mainstream SKUs. Mainstream orders are fulfilled +30% faster than non-Mainstream orders, have fewer shortages and better recovery dates. This platform has Mainstream SKUs in the options portfolio and is eligible for the improved Mainstream experience. Mainstream SKUs are designated with a Mainstream symbol in our configurators.

# **Mainstream Configurations**

HPE is using the new Smart Templates technology to present Mainstream configurations. All the options in a Mainstream configuration are pre-selected Mainstream SKUs to optimize the performance, predictability, and fulfilment experience. Check the Template section in our configurators for eligible Mainstream configurations.

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**

CTO Server Models	HPE ProLiant Compute DL380a Gen12 8 Double Wide/16 Single Wide Configure-to-order Server
SKU Number	P76706-B21
TAA SKU*	P76706-B21#GTA
Processor	Not included as standard
DIMM Slots	32 DIMM slots
Storage Controller	Embedded Intel VROC NVMe RAID (requires licenses for non-Intel NVMe SSDs)
Rear PCIe	Two standard and four optional
Drive Cage	Defaulted to 4SFF Drive Cage
Network Controller	Choice of OCP 3.0 or stand-up network adapters for primary networking selection plus additional/optional stand-up network adapters Choice of OCP 3.0 or stand-up network adapters Notes: No embedded networking
Fans	4 hot-plug fan assemblies (qty: 4 92mm + qty: 8 40mm fans)
Management (iLO 7) ROM ID: U72	HPE iLO with Intelligent Provisioning (standard), iLO Advanced and OneView (optional) 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)
USB	4 USB 3.0 (1 front, 2 rear, 1 internal) plus iLO front service port
Trusted Platform Module (TPM)	Embedded TPM
CTO Server Models	HPE ProLiant Compute DL380a Gen12 8 Double Wide Configure-to-order Server
SKU Number	P74461-B21
TAA SKU*	P74461-B21#GTA
Processor	Not included as standard
DIMM Slots	32 DIMM slots
Storage Controller	Embedded Intel VROC NVMe RAID (requires licenses for non-Intel NVMe SSDs)
Rear PCle	Two standard and three optional
Drive Cage	Defaulted to 4SFF Drive Cage
Network Controller	Choice of OCP 3.0 or stand-up network adapters for primary networking selection plus additional/optional stand-up network adapters Choice of OCP 3.0 or stand-up network adapters Notes: No embedded networking
Fans	4 hot-plug fan assemblies (qty: 4 92mm + qty: 8 40mm fans)
Management (iLO 6) ROM ID: U70	HPE iLO with Intelligent Provisioning (standard), iLO Advanced and OneView (optional) 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)
USB	4 USB 3.0 (1 front, 2 rear, 1 internal) plus iLO front service port
Trusted Platform Module (TPM)	Embedded TPM

- P74461-B21 ONLY is available with iLO6 and is NOT upgradeable to iLO7.
- HPE offers multiple Trade Agreement Act (TAA) compliant configurations to meet the needs of US Federal Government
  customers. These products are either manufactured or substantially transformed in a designated country. TAA compliance
  is only provided when HPE options are included as part of factory integrated orders (CTO).
- All CTO servers are Energy Star 3.0 compliant. After January 11, 2024, Energy Star 3.0 compliance is no longer valid.
   Energy Star 4.0 certification will be valid upon publication.

# **Step 2: Choose Processors**

Please select two processors from below.

#### Intel® Xeon® 6700-Series Processors with E Core

iller Aeoli 0700-Series Processors will E Core	
Intel Xeon 6710E 2.4GHz 64-core 205W Processor for HPE	P71117-B21
Intel Xeon 6740E 2.4GHz 96-core 250W Processor for HPE	P71119-B21
Intel Xeon 6746E 2.0GHz 112-core 250W Processor for HPE	P71120-B21
Intel Xeon 6756E 1.8GHz 128-core 225W Processor for HPE	P71121-B21
Intel Xeon 6766E 1.9GHz 144-core 250W Processor for HPE	P71122-B21
Intel Xeon 6780E 2.2GHz 144-core 330W Processor for HPE	P71124-B21
Intel® Xeon® 6500-Series Processors with P Core (HCC, LCC)	
Intel Xeon 6507P 3.5GHz 8-core 150W Processor for HPE	P74504-B21
Intel Xeon 6740P 2.1GHz 48-core 270W Processor for HPE	P73829-B21
Intel Xeon 6515P 2.3GHz 16-core 150W Processor for HPE	P74506-B21
Intel Xeon 6517P 3.2GHz 16-core 190W Processor for HPE	P74507-B21
Intel Xeon 6520P 2.4GHz 24-core 210W Processor for HPE	P74568-B21
Intel Xeon 6527P 3.0GHz 24-core 255W Processor for HPE	P74570-B21
Intel Xeon 6530P 2.3GHz 32-core 225W Processor for HPE	P74571-B21
Intel® Xeon® 6700-Series Processors with P Core (XCC)	
Intel Xeon 6730P 2.5GHz 32-core 250W Processor for HPE	P74573-B21
Intel Xeon 6737P 2.9GHz 32-core 270W Processor for HPE	P74576-B21
Intel Xeon 6736P 2.0GHz 36-core 205W Processor for HPE	P74575-B21
Intel Xeon 6740P 2.1GHz 48-core 270W Processor for HPE	P73829-B21
Intel Xeon 6747P 2.7GHz 48-core 330W Processor for HPE	P73831-B21
Intel Xeon 6760P 2.2GHz 64-core 330W Processor for HPE	P73832-B21
Intel Xeon 6767P 2.4GHz 64-core 350W Processor for HPE	P73834-B21
Intel Xeon 6787P 2.0GHz 86-core 350W Processor for HPE	P73837-B21
ALC:	

#### **Notes:**

- DL380a Gen12 only supports dual processor configurations, not single processor configurations.
- Mixing of 2 different processor models is NOT supported.
- DDR5 speed is the maximum memory speed of the processor. Actual memory speed may depend on the quantity and type
  of DIMMs installed.
- Intel® Xeon® 6500/6700-Series Processors with P Core not available on P74461-B21 server SKU.

# **Step 3: Choose GPUs**

Please select the GPU from the options below. For memory population rule whitepaper and optimal memory performance guidelines, please go to: **HPE Memory Population Rules** 

# **Computational and Graphics Accelerators**

NVIDIA H200 NVL 141GB PCIe Accelerator for HPE	S3U30C
NVIDIA H100 NVL 94GB PCIe Accelerator for HPE	S2D86C
NVIDIA L40S 48GB PCIe Accelerator	S2L70C
NVIDIA L20 48GB PCIe GPU Accelerator for HPE	S4A92C
NVIDIA Ampere 2-way 2-slot Bridge for HPE	R6V66A
NVIDIA 2-way NVLink Bridge for H200 NVL	S4A90C
NVIDIA 4-way NVLink Bridge for H200 NVL	S4A91C
HPE ProLiant Compute DL380a Gen12 GPU 16-pin FIO Cable Kit	P74700-B21

- 0-GPU configurations are not allowed.
- Quantity 1 of 16-pin Cable Kit will support quantity 2 of double-wide GPU.

- 2400W or 3200W PSUs must be selected if H100 NVL or H200 NVL GPUs are configured.
- NVIDIA 4-way and 2-way Bridge for H200 NVL can only be supported with H200 NVL GPUs.
- NVIDIA Ampere 2-way Bridge can only be paired with the H100 NVL on this platform. If selected, quantity 3 must be selected per pair of H100 NVL GPUs.
- Double Wide GPU can be selected in quantities 2, 4, or 8.
- Mixing of different GPU models is not supported.
- Recommended system memory capacity is recommended to be 2x GPU memory capacity.

### **Step 4: Choose Memory Options**

Please select two or more memory kits from below.

For new Gen12 memory population rule whitepaper and optimal memory performance guidelines, please go to:

#### **HPE Memory Population Rules**

#### **Notes:**

- DIMMs quantity must be 4, 8, 16, or 32 when using Intel® Xeon® 6700-Series Processors with E Core.
- DIMMs quantity must be 4, 8, 16, 24 or 32 when using Intel® Xeon® 6500/6700-Series Processors with P Core.
- Rank mixing is not allowed.
- 16GB DIMM allowed in 4, 8, 16 quantities only and is not supported with Intel® Xeon® 6700-Series Processors with E Core.
- 6400 MT/s memory SKUs offer a transfer rate of up to 6400 MT/s at 1 DIMM per channel and up to 5200 MT/s at 2 DIMMs per channel, depending on memory and CPU selection. The maximum memory speed and capacity is a function of the memory type, memory configuration, and processor model.
- HPE Server Memory compatibility for a specific server platform may vary or be limited within a server platform 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 an HPE server model or family and yet occasionally not be supported with some configurations within that server family.

#### Registered DIMMs (RDIMMs)

HPE 16GB (1x16GB) Single Rank x8 DDR5-6400 CAS-46-45-45 EC8 Registered Smart Memory Kit	P69726-B21
HPE 32GB (1x32GB) Dual Rank x8 DDR5-6400 CAS-46-45-45 EC8 Registered Smart Memory Kit	P69727-B21
HPE 64GB (1x64GB) Dual Rank x4 DDR5-6400 CAS-46-45-45 EC8 Registered Smart Memory Kit	P69728-B21
HPE 96GB (1x96GB) Dual Rank x4 DDR5-6400 CAS-46-45-45 EC8 Registered Smart Memory Kit	P69729-B21
HPE 128GB (1x128GB) Dual Rank x4 DDR5-6400 CAS-46-45-45 EC8 Registered Smart Memory Kit	P69730-B21
HPE 256GB (1x256GB) Quad Rank x4 DDR5-6400 CAS-60-52-52 EC8 Registered 3DS Smart Memory Kit	P73447-B21

#### **Step 5: Choose Storage Options**

Please select one drive cage from below.

Notes: DL380a Gen12 supports only NVMe SSDs - U.3 & E3.S

#### **Drive Cage**

HPE ProLiant Compute DL380a Gen12 4SFF FIO Drive Cage Kit

P74710-B21

- Maximum quantity = 2
- Qty1 of 4SFF Cage is defaulted however customer is allowed to deselect and select 4EDSFF Cage.
- If Qty1 of 4SFF Cage is selected, then Qty1 of HPE DL380a Gen12 4NVMe Direct Cable Kit must be selected.
- If Qty2 of 4SFF Cage is selected, then Qty1 of HPE DL380a G12 8NVMe Rear Direct Cable Kit must be selected.
- 4SFF Cage and HPE DL380a G12 4EDSFF Direct Cable for NVD cannot be selected together.
- Mixing of Drive Cages is not allowed.



HPE ProLiant Compute DL380a Gen12 4EDSFF FIO Drive Cage Kit

P74712-B21

#### **Notes:**

- Maximum quantity = 2
- If Qty1 of 4EDSFF Cage is selected, then Qty1 of HPE DL380a G12 4EDSFF Direct Cable for NVD (P74716-B21) or HPE DL380a Gen12 4EDSFF Cable Kit (P74704-B21) must be selected.
- If Qty2 of 4EDSFF Cage is selected, then Qty1 of HPE DL380a G12 8NVMe Rear Direct Cable Kit or HPE DL380a Gen12 8NVMe/EDSFF Direct Attach 4 PCIe Kit must be selected.
- Mixing of Drive Cages is not allowed.

#### **HPE Tri-Mode Controllers**

HPE MR416i-p Gen11 x16 Lanes 8GB Cache PCI SPDM Plug-in Storage Controller P47777-B21 HPE MR416i-o Gen11 x16 Lanes 8GB Cache OCP SPDM Storage Controller P47781-B21

#### Notes:

- Mixing of controller models is not allowed.
- Restricted to minimum and maximum Qty2 of controller.
- If MR416i-p is selected, then Qty1 of P76700-B21 (HPE DL380a Gen12 NVMe/TM PCIe FIO Cable Kit) must be selected.
- If MR416i-o is selected, then Qty1 of P76702-B21 (HPE DL380a Gen12 NVMe/TM OCP FIO Cable Kit) must be selected.
- Qty2 of HPE DL380a Gen12 4SFF FIO Kit must be selected.
- Can not be selected if Qty1 of HPE DL380a Gen12 4SFF FIO Kit is selected.

Notes: If NS204i-u v2 boot device is added, Front Cage Kit must be selected.

96W Smart Storage battery or Smart Hybrid Capacitor must be selected when controller is attached.

### **HPE Energy Packs**

HPE 96W Smart Storage Lithium-ion Battery with 260mm Cable Kit

HPE Smart Storage Hybrid Capacitor with 260mm Cable Kit

Notes: Can only be selected if MR416i-p/ MR416i-o controllers are selected.

### **HPE Boot Controller**

HPE NS204i-u v2 NVMe Hot Plug Boot Optimized Storage DeviceP78279-B21HPE DL380a Gen12 NS204i-u Front Cage KitP75284-B21

# **Hybrid RAID Controllers**

Intel Virtual RAID on CPU Premium FIO Software for HPE R7J57A

#### HPE DL380a Gen12 Storage Cables

HPE ProLiant Compute DL380a Gen12 4NVMe Direct Attach Cable Kit

P74702-B21

#### Notes:

- Requires Selection of 4SFF Drive Cage.
- If Qty1 of 4SFF Cage is selected, then Qty1 of HPE DL380a Gen12 4NVMe Direct Cable Kit must be selected.
- If 4NVMe Direct Attach Cable is selected, then max quantity of HPE DL380a Gen12 OCPA Cable Kit is limited to 1.
- If 4NVMe Direct Attach Cable is selected, then HPE DL380a Gen12 OCPB Cable Kit cannot be selected.

HPE ProLiant Compute DL380a Gen12 4EDSFF Direct Attach Cable Kit

P74704-B21

#### **Notes:**

- Requires Selection of 4EDSFF Drive Cage.
- Cannot be selected with HPE DL380a Gen12 PCle Rear FIO Kit (P74690-B21).

HPE ProLiant Compute DL380a Gen12 8NVMe Front Direct Attach Cable Kit

P74706-B21

- Can only be selected with HPE DL380a Gen12 8DW/16SW CTO Server (P76706-B21).
- Can only be selected with 2DW or 8SW GPU configurations only.



- Can only be selected if quantity 2 of 4SFF Drive Cage is selected.
- Cannot be selected if quantity 2 of DL380a Gen12 SWBD FIO Enable Kit (P74714-B21) is selected.

HPE ProLiant Compute DL380a Gen12 8NVMe Rear Direct Attach Cable Kit

P74708-B21

#### Notes:

- Allows for 8NVMe selection but limits configuration to 2 rear PCle slots and 2OCP slots.
- If Qty2 of 4SFF Cage is selected, then Qty1 of HPE DL380a G12 8NVMe Rear DA Cable Kit must be selected.
- If 8NVMe Direct Attach Cable is selected, then HPE DL380a Gen12 PCle Rear FIO Cable Kit cannot be selected and vice-versa (configuration limited to max 2 rear PCle slots).
- Cannot be selected if HPE DL380a G12 4EDSFF Direct Cable for NVD is selected.

HPE ProLiant Compute DL380a Gen12 8NVMe/EDSFF Direct Attach 4 PCle Cable Kit

P78956-B21

#### Notes:

- If Qty2 of 4EDSFF Cage is selected, then Qty1 of HPE DL380a G12 8NVME/EDSFF DA 4 PCle Kit must be selected.
- Cannot be selected if HPE DL380a G12 4EDSFF Direct Cable for NVD is selected.
- If HPE DL380a G12 8NVME/EDSFF DA 4 PCIe Kit is selected, then HPE DL380a Gen12 OCPA Cable Kit and HPE DL380a Gen12 OCPB Cable Kit cannot be selected and vice-versa.
- If HPE DL380a G12 8NVME/EDSFF DA 4 PCle Kit is selected, then no other OCP card can be selected.

HPE ProLiant Compute DL380a Gen12 4EDSFF Direct Attach Cable for NVIDIA

P74716-B21

#### **Notes:**

- Enables 8DW GPUs and up to 5 rear PCIe cards, limited to 4 EDSFF drives (no SFF NVMe).
- If HPE DL380a G12 4EDSFF Direct Cable for NVD, then Qty1 of 4EDSFF Drive Cage must be selected.
- If HPE DL380a Gen12 PCle Rear FIO Kit is selected with HPE DL380a G12 4EDSFF Direct Cable for NVD, then Slot1, Slot 2 and 5 are active along with default PCle Slots. Totally 5 PCle Slots available for "non-GPU" PCle cards selection.
- 8NVMe DA Cable and HPE DL380a G12 4EDSFF Direct Cable for NVD cannot be selected together.
- If HPE DL380a G12 4EDSFF Direct Cable for NVD is selected, then HPE DL380a Gen12 OCPA Cable Kit and HPE DL380a Gen12 OCPB Cable Kit cannot be selected and vice-versa.
- If HPE DL380a G12 4EDSFF Direct Cable for NVD is selected, then HPE DL380a Gen12 PCIe Rear FIO
   Cable Kit must be selected.
- If HPE DL380a G12 4EDSFF Direct Cable for NVD is selected, then no other OCP card can be selected.

HPE ProLiant Compute DL380a Gen12 NVMe to Tri-Mode PCIe FIO Cable Kit

P76700-B21

HPE ProLiant Compute DL380a Gen12 NVMe to Tri-Mode OCP FIO Cable Kit

P76702-B21

#### **Notes:**

- Can only be selected with HPE DL380a Gen12 8DW/16SW CTO Server (P76706-B21).
- P76700-B21 can be selected only if MR416i-p controller is selected.
- P76702-B21 can be selected only if MR416i-o controller is selected.

HPE ProLiant Compute DL380a Gen12 16EDSFF x2 Direct Attach Cable Kit

P79347-B21

- Quantity 4 or 4EDSFF Drive Cage must be selected.
- Cannot be selected with HPE DL380a Gen12 PCIe Rear FIO Kit (P74690-B21).
- Cannot be selected with HPE DL380a Gen12 PCIe Rear FIO Cable Kit.

# **Step 6: Choose Power Supplies**

#### **HPE M-CRPS**

HPE 1500W M-CRPS Titanium Hot Plug Power Supply Kit	P67244-B21
HPE 2400W M-CRPS Titanium Hot Plug Power Supply Kit	P67252-B21
HPE 3200W M-CRPS Titanium Hot Plug Power Supply Kit	P67248-B21
HPE ProLiant Compute DL380a Gen12 Power Enablement Kit	P74719-B21

#### **Notes:**

- Mixing of power supplies is not allowed.
- 2400W or 3200W supplies required for H100/H200 NVL GPUs.
- Quantity 5 (2 for system board components and 3 for GPUs) power supplies required for 2 or 4DW GPU configurations.
- Quantity of 8 power supplies required for 8 DW GPU configurations.
- For HPE DL380a Gen12 8DW CTO Server (P74461-B21), if more than Qty5 of Power Supply is selected, then Qty1 of PDB Kit must be selected. PDB selection not required on HPE DL380a Gen12 8DW/16SW CTO Server (P76706-B21).
- 1500W supply supports C13/ C13-C14 Power Cords only.
- 2400W and 3200W supplies supports C19/ C19-C20 Power Cords only.
- 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/

# Step 7: Choose additional options for Factory Integration from Core and 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.

### Software as a Service Management

#### **HPE Compute Ops Management**

#### **Base SKU**

Upgrade SKUS	
HPE Compute Ops Management Standard 1-year Upfront ProLiant SaaS	R7A10AAE
HPE Compute Ops Management Standard 1-year Upfront ProLiant SaaS	R7A10

HPE Compute Ops Management Standard 1-year Optront ProLiant SaaS

HPE Compute Ops Management Standard 5-year Upfront ProLiant SaaS

HPE Compute Ops Management Advanced Flex with ProLiant Enablement

S6C28AAE

For more information, visit the HPE Compute Ops Management QuickSpecs: <a href="https://www.hpe.com/psnow/doc/a50004263enw">https://www.hpe.com/psnow/doc/a50004263enw</a> Supported Servers – CTO only. No OEM. – Complete list can be found here: Latest Supported Server List:

https://www.hpe.com/info/com-supported-servers

# **HPE Cooling Options**

HPE ProLiant Compute DL380a Gen12 Upgrade Chassis Fan Module

HPE Compute Ops Management Standard 3-year Upfront ProLiant SaaS

P80098-B21

R7A11AAE

**Notes:** For HPE DL380a Gen12 8DW CTO Server (P74461-B21) only. Fan upgrade recommended to effectively cool higher temperature 600W GPUs. Utilizes 110W fans to replace your installed 90W fans.

#### **HPE I/O Expansion Options**

**Notes:** The Primary Riser with PCIe slot 3 and the Secondary Riser with PCIe slot 6 are included in the server by default.

HPE ProLiant Compute DL380a Gen12 2DW Captive Riser FIO Kit

P74685-B21

- Maximum quantity = 2. This is a front riser and only supports GPU options.
- Requires selection of HPE DL380a Gen12 4DW FIO Config.
- HPE DL380a Gen12 2DW Cptv FIO Kit and HPE DL380a Gen12 SWBD FIO Enable Kit cannot be selected together.



HPE ProLiant Compute DL380a Gen12 PCle Rear FIO Kit

P74690-B21

#### **Notes:**

- Maximum quantity = 1. This is a rear riser and only supports non-graphic options.
- If HPE DL380a Gen12 PCle Rear FIO Kit is selected without HPE DL380a G12 4EDSFF Direct Cable for NVD, then only Slot 2 and 5 are active along with default PCle slots. Totally 4 PCle Slots available for "non-GPU" PCle cards selection.
- If HPE DL380a Gen12 PCle Rear FIO Kit is selected with HPE DL380a G12 4EDSFF Direct Cable for NVD, then Slot1, Slot 2 and 5 are active along with default PCle Slots. Totally 5 PCle Slots available for PCle cards (Except for GPU) selection.
- HPE DL380a Gen12 PCle Rear FIO Kit and HPE DL380a G12 8NVMe Rear Direct Cable Kit cannot be selected together.
- If 8NVMe Direct Attach Cable is selected, then HPE DL380a Gen12 PCle Rear FIO Cable Kit cannot be selected and vice-versa.
- If HPE DL380a G12 4EDSFF Direct Cable for NVD is selected, then HPE DL380a Gen12 PCle Rear FIO
   Cable Kit must be selected.

HPE ProLiant Compute DL380a Gen12 Switchboard FIO Enablement Kit

P74714-B21

#### **Notes:**

- Maximum quantity = 2. Supports graphic options only.
- HPE DL380a Gen12 2DW Cptv FIO Kit and HPE DL380a Gen12 SWBD FIO Enable Kit cannot be selected together.
- Requires selection of HPE DL380a Gen12 8DW/16SW FIO Config.
- If Qty8 of DW GPU is selected, then Qty2 of HPE DL380a Gen12 SWBD FIO Enable Kit must be selected.

HPE ProLiant Compute DL380a Front NIC FIO Enablement Kit

P76927-B21

# **Notes:**

- Allows for qty: 4 front PCIe networking/InfiniBand cards only. Limits selection to 1 rear PCIe slot.
- Does not occupy slots used by 8 Double Wide GPU configuration.
- Must be selected with HPE DL380a Gen12 8DW NIC FIO Config (P75011-B21).

HPE ProLiant Compute DL380a Rear PCle Slot1/4 FIO Cable Kit

P76698-B21

- Enables rear PCIe Slot1 and Slot4.
- Requires selection of HPE DL380a Gen12 PCIe Rear FIO Kit (P74690-B21).
- Can be selected with 2 Double Wide or 8 Single Wide GPU configurations only.

#### **OCP 3.0 Enablement**

HPE ProLiant Compute DL380a Gen12 OCPA Cable Kit

P74694-B21

- **Notes:**
- Maximum quantity = 2.
- Qty1 of HPE DL380a Gen12 OCPA Cable Kit to be defaulted however customer is allowed to deselect it if configuration do not require OCPA activation.
- If Qty2 of OCP Card is selected, then min Qty1 of HPE DL380a Gen12 OCPA Cable Kit must be selected.
- OCPA does not have default connections and require HPE DL380a Gen12 OCPA Cable Kit to enable OCPA
  - o Qty1 of HPE DL380a Gen12 OCPA Cable Kit provides x8 connection for OCPA
  - o Qty2 of HPE DL380a Gen12 OCPA Cable Kit provides x16 connection for OCPA

HPE ProLiant Compute DL380a Gen12 OCPB Cable Kit

P74696-B21

P70669-B21

#### **Notes:**

- Maximum quantity = 1.
- If 4NVMe Direct Attach Cable is selected, then HPE DL380a Gen12 OCPB Cable Kit cannot be selected.
- If HPE DL380a G12 4EDSFF Direct Cable for NVD is selected, then HPE DL380a Gen12 OCPA Cable Kit and HPE DL380a Gen12 OCPB Cable Kit cannot be selected and vice-versa.

HPE 3.2TB NVMe Gen5 High Performance Mixed Use E3S EC1 Self-encrypting FIPS 140-3 CM7 SSD

#### **HPE Solid State Drives**

For SSD selection guidance, please visit <a href="https://ssd.hpe.com/">https://ssd.hpe.com/</a>

#### Mixed Use- NVMe - EDSFF - Solid State Drives

HPE 6.4TB NVMe Gen5 High Performance Mixed Use E3S EC1 Self-encrypting FIPS 140-3 CM7 SSD	P70672-B21
HPE 3.2TB NVMe Gen5 High Performance Mixed Use E3S EC1 EDSFF SPDM CM7 SSD	P61191-B21
HPE 6.4TB NVMe Gen5 High Performance Mixed Use E3S EC1 EDSFF SPDM CM7 SSD	P61195-B21
HPE 1.6TB NVMe Gen5 Mainstream Performance Mixed Use E3S EC1 EDSFF SPDM PE1030 SSD	P77262-B21
HPE 3.2TB NVMe Gen5 Mainstream Performance Mixed Use E3S EC1 EDSFF SPDM PE1030 SSD	P77265-B21
HPE 6.4TB NVMe Gen5 Mainstream Performance Mixed Use E3S EC1 EDSFF SPDM PE1030 SSD	P77267-B21
Read Intensive – NVMe – EDSFF – Solid State Drives	
HPE 3.84TB NVMe Gen5 High Performance Read Intensive E3S EC1 EDSFF SPDM PM1743 SSD	P57799-B21
HPE 7.68TB NVMe Gen5 High Performance Read Intensive E3S EC1 EDSFF SPDM PM1743 SSD	P57803-B21
HPE 15.36TB NVMe Gen5 High Performance Read Intensive E3S EC1 EDSFF SPDM PM1743 SSD	P57807-B21
HPE 3.84TB NVMe Gen5 High Performance Read Intensive E3S EC1 EDSFF SPDM CM7 SSD	P61179-B21
HPE 7.68TB NVMe Gen5 High Performance Read Intensive E3S EC1 EDSFF SPDM CM7 SSD	P61183-B21
HPE 15.36TB NVMe Gen5 High Performance Read Intensive E3S EC1 EDSFF SPDM CM7 SSD	P61187-B21
HPE 7.68TB NVMe Gen5 High Performance Read Intensive E3S EC1 Self-encrypting FIPS 140-3 CM7 SSD	P70674-B21
HPE 15.36TB NVMe Gen5 High Performance Read Intensive E3S EC1 Self-encrypting FIPS 140-3 CM7 SSD	P79122-B21
HPE 1.92TB NVMe Gen5 Mainstream Performance Read Intensive E3S EC1 EDSFF SPDM PE1010 SSD	P77269-B21
HPE 3.84TB NVMe Gen5 Mainstream Performance Read Intensive E3S EC1 EDSFF SPDM PE1010 SSD	P77271-B21
HPE 7.68TB NVMe Gen5 Mainstream Performance Read Intensive E3S EC1 EDSFF SPDM PE1010 SSD	P77273-B21
HPE 15.36TB NVMe Gen5 Mainstream Performance Read Intensive E3S EC1 EDSFF SPDM PE1010 SSD	P77275-B21
Notes: EDSFF drives can be selected with 4EDSFF Drive Cage only.	

# Read Intensive - NVMe - SFF - Solid State Drives

Read Intensive - INVINE - SEE - Solid State Drives	
HPE 15.36TB NVMe Gen4 High Performance Read Intensive SFF BC U.3 CM7 SSD	P63841-B21
HPE 15.36TB NVMe Gen4 High Performance Read Intensive SFF BC U.3 PM1733a SSD	P50224-B21
HPE 15.36TB NVMe Gen4 High Performance Read Intensive SFF BC U.3 PS1010 SSD	P70436-B21
HPE 7.68TB NVMe Gen4 High Performance Read Intensive SFF BC U.3 PS1010 SSD	P70434-B21
HPE 7.68TB NVMe Gen4 High Performance Read Intensive SFF BC U.3 CM7 SSD	P63837-B21
HPE 7.68TB NVMe Gen4 High Performance Read Intensive SFF BC U.3 PM1733a SSD	P50222-B21
HPE 3.84TB NVMe Gen4 High Performance Read Intensive SFF BC U.3 CM7 SSD	P63833-B21
HPE 3.84TB NVMe Gen4 High Performance Read Intensive SFF BC U.3 PM1733a SSD	P50219-B21
HPE 1.92TB NVMe Gen4 High Performance Read Intensive SFF BC U.3 CM7 SSD	P63829-B21

HPE 1.92TB NVMe Gen4 High Performance Read Intensive SFF BC U.3 PM1733a SSD	P50216-B21
Mixed Use - NVMe - SFF - Solid State Drives	
HPE 6.4TB NVMe Gen4 High Performance Mixed Use SFF BC U.3 CM7 SSD	P63853-B21
HPE 6.4TB NVMe Gen4 High Performance Mixed Use SFF BC U.3 PM1735a SSD	P50233-B21
HPE 6.4TB NVMe Gen4 High Performance Mixed Use SFF BC U.3 PS1030 SSD	P70428-B21
HPE 3.2TB NVMe Gen4 High Performance Mixed Use SFF BC U.3 CM7 SSD	P63849-B21
HPE 3.2TB NVMe Gen4 High Performance Mixed Use SFF BC U.3 PM1735a SSD	P50230-B21
HPE 3.2TB NVMe Gen4 High Performance Mixed Use SFF BC U.3 PS1030 SSD	P70426-B21
HPE 1.6TB NVMe Gen4 High Performance Mixed Use SFF BC U.3 CM7 SSD	P63845-B21
HPE 1.6TB NVMe Gen4 High Performance Mixed Use SFF BC U.3 PM1735a SSD	P50227-B21
Self Encrypting - NVMe - SFF - FIPS Solid State Drives	
HPE 1.6TB NVMe Gen4 High Performance Mixed Use SFF BC U.3 Self-encrypting FIPS 140-3 CM7 SSD	P61043-B21
HPE 1.92TB NVMe Gen4 High Performance Read Intensive SFF BC U.3 Self-encrypting FIPS 140-3 CM7 SSD	P61019-B21
HPE 3.2TB NVMe Gen4 High Performance Mixed Use SFF BC U.3 Self-encrypting FIPS 140-3 CM7 SSD	P61051-B21
HPE 3.84TB NVMe Gen4 High Performance Read Intensive SFF BC U.3 Self-encrypting FIPS 140-3 CM7 SSD	P61027-B21
HPE 6.4TB NVMe Gen4 High Performance Mixed Use SFF BC U.3 Self-encrypting FIPS 140-3 CM7 SSD	P61059-B21
HPE 7.68TB NVMe Gen4 High Performance Read Intensive SFF BC U.3 Self-encrypting FIPS 140-3 CM7 SSD	P61035-B21
Notes: SFF drives can be selected with 4SFF Drive Cage only.	

# **HPE Networking**

The DL380a Gen12 CTO server does not come with embedded networking, hence the requirement to configure with either a PCIe or OCP networking adapter.

HPE Data Processing Unit InfiniBand NDR200/Ethernet 200Gb 2-port QSFP112 FHHL B3220 Adapter

#### **DPU**

HPE ProLiant Compute DL380a Gen12 DPU Enablement Kit	P74722-B21
Notes: B3220 DPU requires selection of DPU Enablement Kit.	
PCIe Network adapters	
Broadcom BCM57414 Ethernet 10/25Gb 2-port SFP28 Adapter for HPE	P26262-B21
Broadcom BCM57504 Ethernet 10/25Gb 4-port SFP28 Adapter for HPE	P26264-B21
Broadcom BCM5719 Ethernet 1Gb 4-port BASE-T Adapter for HPE	P51178-B21
Broadcom BCM57416 Ethernet 10Gb 2-port BASE-T Adapter for HPE	P26253-B21
Broadcom BCM57412 Ethernet 10Gb 2-port SFP+ Adapter for HPE	P26259-B21
Broadcom BCM57608 Ethernet 100Gb 2-port QSFP112 Adapter for HPE	P73111-B21
Intel E810-XXVDA2 Ethernet 10/25Gb 2-port SFP28 Adapter for HPE	P08443-B21
Intel E810-XXVDA4 Ethernet 10/25Gb 4-port SFP28 Adapter for HPE	P08458-B21
Intel E810-CQDA2 Ethernet 100Gb 2-port QSFP28 Adapter for HPE	P21112-B21
Mellanox MCX631102AS-ADAT Ethernet 10/25Gb 2-port SFP28 Adapter for HPE	P42044-B21
Mellanox MCX623106AS-CDAT Ethernet 100Gb 2-port QSFP56 Adapter for HPE	P25960-B21
OCP 3.0 Network Adapters	
Broadcom BCM57414 Ethernet 10/25Gb 2-port SFP28 OCP3 Adapter for HPE	P10115-B21
Broadcom BCM57504 Ethernet 10/25Gb 4-port SFP28 OCP3 Adapter for HPE	P26269-B21
Broadcom BCM5719 Ethernet 1Gb 4-port BASE-T OCP3 Adapter for HPE	P51181-B21
Broadcom BCM57412 Ethernet 10Gb 2-port SFP+ OCP3 Adapter for HPE	P26256-B21
Broadcom BCM57416 Ethernet 10Gb 2-port BASE-T OCP3 Adapter for HPE	P10097-B21

# OCP Adapters do not consume PCIe slots.

If Qty1 of this option is selected, then Qty1 of HPE DL380a Gen12 OCPB Cable Kit OR Qty2 of HPE DL380a Gen12 OCPA Cable Kit must be selected.

Broadcom BCM57608 Ethernet 100Gb 2-port QSFP112 OCP3 Adapter for HPE

Mellanox MCX631432AS-ADAI Ethernet 10/25Gb 2-port SFP28 OCP3 Adapter for HPE

Intel E810-XXVDA2 Ethernet 10/25Gb 2-port SFP28 OCP3 Adapter for HPE

Intel E810-XXVDA4 Ethernet 10/25Gb 4-port SFP28 OCP3 Adapter for HPE

Intel E810-CQDA2 Ethernet 100Gb 2-port QSFP28 OCP3 Adapter for HPE

**Notes:** 

P73114-B21

P10106-B21

P41614-B21

P22767-B21

P42041-B21

P66386-H21

- If Qty2 of this option is selected, then Qty1 of Qty1 of HPE DL380a Gen12 OCPB Cable Kit AND Qty2 of HPE DL380a Gen12 OCPA Cable Kit must be selected.
- Cannot be selected if 4NVMe Direct attach cable is selected.

#### **HPE InfiniBand**

HPE InfiniBand NDR/Ethernet 400Gb 1-port OSFP PCIe5 x16 MCX75310AAS-NEAT Adapter HPE InfiniBand NDR200/Ethernet 200Gb 1-port OSFP PCIe5 x16 MCX75310AAS-HEAT Adapter	P45641-B23 P45642-B22
HPE InfiniBand NDR200/Ethernet 200GbE 2-port QSFP112 PCle5 x16 MCX755106AC-HEAT Adapter	P65333-B21
HPE Omni-Path  HPE 100Gb 1-port OP101 QSFP28 x16 PCle Gen3 with Intel Omni-Path Architecture Adapter	829335-B21

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 Storage Options**

# **Emulex Fibre Channel HBAs**

HPE SN1620E 32Gb 2-port Fibre Channel Host Bus Adapter	S4S01A
HPE SN1720E 64Gb 2-port Fibre Channel Host Bus Adapter	S4T09A

# **QLogic Fibre Channel HBAs**

HPE SN1610Q 32Gb 1-port Fibre Channel Host Bus Adapter	R2E08A
HPE SN1610Q 32Gb 2-port Fibre Channel Host Bus Adapter	R2E09A
HPE SN1700Q 64Gb 1-port Fibre Channel Host Bus Adapter	R7N86A
HPE SN1700Q 64Gb 2-port Fibre Channel Host Bus Adapter	R7N87A

Notes: Can only be selected with HPE DL380a Gen12 8DW/16SW CTO Server (P76706-B21).

### **HPE iLO Common Password FIO Setting**

 ${\sf HPE} \; {\sf iLO} \; {\sf Common} \; {\sf Password} \; {\sf FIO} \; {\sf Setting}$ 

P08040-B21

### **Notes:**

- Replaces iLO default randomized password by an HPE defined common password. HPE highly recommends
  changing this password immediately after the initial onboarding process.
- Customers who want to choose their own custom iLO default password should use the HPE Factory Express Integration Services

# **HPE iLO Advanced**

HPE iLO Advanced Electronic License with 1yr Support on iLO Licensed Features	E6U59ABE
HPE iLO Advanced 1-server License with 1yr Support on iLO Licensed Features	512485-B21
HPE iLO Advanced AKA Tracking License with 1yr Support on iLO Licensed Features	512487-B21
HPE iLO Advanced Electronic License with 3yr Support on iLO Licensed Features	E6U64ABE
HPE iLO Advanced 1-server License with 3yr Support on iLO Licensed Features	BD505A
HPE iLO Advanced AKA Tracking License with 3yr Support on iLO Licensed Features	BD507A

# **HPE Converged Infrastructure Management Software**

# HPE OneView Advanced (with HPE iLO Advanced)

HPE OneView including 3yr 24x7 Support Track 1-server LTU	E5Y36A
HPE OneView for ProLiant DL Server including 3yr 24x7 Support FIO Bundle Physical 1-server LTU	E5Y43A
HPE OneView for ProLiant DL Server including 3yr 24x7 Support Bundle Track 1-server LTU	E5Y44A
HPE OneView including 3yr 24x7 Support Flexible Quantity E-LTU	E5Y35AAE

#### HPE OneView Advanced (without HPE iLO Advanced)

HPE OneView w/o iLO including 3yr 24x7 Support 1-server FIO LTU

HPE OneView w/o iLO including 3yr 24x7 Support Track 1-server LTU

P8B25A P8B26AAE

P8B31A

Notes: Licenses ship without media. The HPE OneView Media Kit can be ordered separately or can be

downloaded.

# **HPE Security**

HPE ProLiant Compute DL380a Gen12 4U Bezel Kit HPE ProLiant DL385 Gen11 Intrusion Cable Kit

P74911-B21

P55713-B21

**Notes:** This provides a physical connection from the chassis board and hood and detects any physical intrusion into the chassis, providing security during the entire supply chain process of shipping, receiving, distribution, and operation.

# **HPE Cable Options**

HPE ProLiant Compute DL3X0 Gen12 SP MHS Serial Port Enablement Kit

HPE OneView w/o iLO including 3yr 24x7 Support Flexible Quantity E-LTU

P71432-B21

#### **HPE Racks**

- Please see the HPE Advanced Series Racks QuickSpecs for information on additional racks options and rack specifications.
   HPE G2 Advanced Series Racks
- Please see the HPE Enterprise Series Racks QuickSpecs for information on additional racks options and rack specifications.
   HPE G2 Enterprise Series Racks

### **HPE Power Distribution Units (PDUs)**

- Please see the <u>HPE Basic Power Distribution Units (PDU) QuickSpecs</u> for information on these products and their specifications.
- Please see the <u>HPE Metered Power Distribution Units (PDU) QuickSpecs</u> for information on these products and their specifications. Please see the <u>HPE Intelligent Power Distribution Unit (PDU)</u> QuickSpecs for information on these products and their specifications.

#### **HPE Uninterruptible Power Systems (UPS)**

- To learn more, please visit the <u>HPE Uninterruptible Power Systems (UPS)</u> web page.
- Please see the <u>HPE Direct Flow Three Phase Uninterruptible Power System QuickSpecs</u> for information on these products and their specifications.
- Please see the <u>HPE Line Interactive Single Phase UPS QuickSpecs</u> for information on these products and their specifications.

# **HPE Rack Options**

Please see the **HPE KVM Switches web page** for information on these products and their specifications.

### **HPE Rail Kits**

Ball bearing rail kits contain telescoping rails which allow for in-rack serviceability.

To assist in the installation of the server into the rack an optional installation tool is available by contacting your local services representative.

#### **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.
- 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 Compute DL380a Gen12 Ball Bearing Rail Kit

P69770-B21

Notes: This rail kit does not include the cable management arm (P28726-B21).

HPE Apollo 4200 Gen10 Plus Cable Management Arm

P28726-B21

# **HPE Support Services**

# **Installation & Start-up Services**

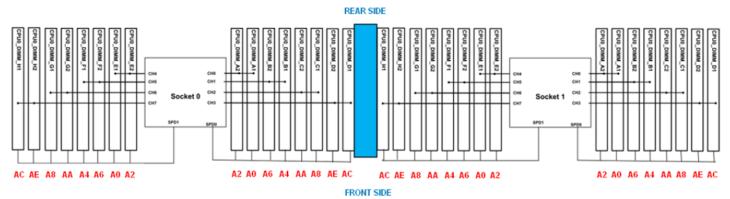
HPE ProLiant DL/ML Startup Service	U4555E
HPE ProLiant DL/ML Install Service	U4554E

Tech Care	Flex SKU	Fixed SKU
HPE 3 Year Tech Care Essential DL380a Gen12 HW Service	HU4A6A30C4W	H47TXE
HPE 3 Year Tech Care Essential wDMR DL380a Gen12 HW Service	HU4A7A30C4W	H47TYE
HPE 5 Year Tech Care Essential DL380a Gen12 HW Service	HU4A6A50C4W	H47WCE
HPE 5 Year Tech Care Essential wDMR DL380a Gen12 HW Service	HU4A7A50C4W	H47WDE

Notes: For a full listing of support services available for this server, please visit <a href="http://www.hpe.com/services">http://www.hpe.com/services</a>.

# Memory

# **Memory Population guidelines**



HPE ProLiant Compute DL380a Gen12

# **General Memory Population Rules and Guidelines:**

- At least one DDR5 DIMM per socket is required. Only DDR5 DIMMs are allowed.
- To maximize performance, it is recommended to balance the total memory capacity between all installed processors.
- All DIMMs in a channel in across of Processor socket must have the same number of ranks (unless explicitly specified otherwise.
- A maximum of 8 logical ranks (ranks seen by the host) per channel is allowed.
- x8 DIMMs and x4 DIMMS cannot be mixed in the same channel or same processor socket
- Mixing of RDIMM types is not supported.
- All DDR5 DIMMs must be running the same speed per processor socket.
- 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, and the number and model of installed processors qualified on the platform.
- For details on the HPE Server Memory Options Population Rules, visit:

# https://www.hpe.com/docs/server-memory

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

# **Technical Specifications**

# System Unit

**Dimensions** (Height x Width x Depth)

Server

 $17.47 \times 44.78 \times 80.26$  cm  $6.88 \times 17.63 \times 31.60$  in

• Package

57 x 62.5 x 110 cm 22.44 x 24.61 x 43.31 in

#### Weight (approximate)

Server

37.5 kg (82.7 lbs.)<sup>1</sup>

• With Package:

67.36 kg (148.51 lbs.)<sup>2</sup>

#### **Notes:**

- <sup>1</sup> CTO chassis with 1x drive cage, 4x double-wide GPUs, 2x processors and heatsinks, 24x DIMMs, 8x SSDs, 4x power supplies, 2x Risers, 4x PCIe cards, 2x OCP cards.
- 2 Server plus rail kit, CMA, power cords.

# **Input Requirements** (per power supply)

### **Rated Line Voltage**

200-240 VAC

# **BTU Rating**

#### **Maximum**

- For 1500W Power Supply: 5560 BTU/hr. (at 200 VAC), 5539 BTU/hr. (at 220 VAC), 5531 BTU/hr. (at 240 VAC)
- For 2400W Power Supply: 8572 BTU/hr. (at 200 VAC), 8540 BTU/hr. (at 220 VAC), 8539 BTU/hr. (at 240 VAC)
- For 3200W Power Supply: 10577 BTU/hr. (at 200 VAC), 11713 BTU/hr. (at 220 VAC), 11699 BTU/hr. (at 240 VAC)

# **Relative Humidity** (non-condensing)

Operating

8% 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.

# **Technical Specifications**

# System Inlet Temperature

#### Standard Operating Temperature

 $10^{\circ}$  to  $35^{\circ}$ C ( $50^{\circ}$  to  $95^{\circ}$ F) at sea level with an altitude derating of  $1.0^{\circ}$ C per every 305 m ( $1.8^{\circ}$ 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  $20^{\circ}$ C/hr. ( $36^{\circ}$ 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: https://www.hpe.com/support/ASHRAEGen12

For approved hardware configurations, the supported system inlet range is extended to be:  $40^{\circ}$  to  $45^{\circ}$ C ( $104^{\circ}$  to  $113^{\circ}$ F) at sea level with an altitude derating of  $1.0^{\circ}$ C per every 125 m ( $1.8^{\circ}$ 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:

# https://www.hpe.com/support/ASHRAEGen12

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.).

# **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

# 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.

# 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.

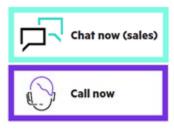
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# **Summary of Changes**

Date	Version History	Action	Description of Change
05-May-2025	Version 6	Changed	Standard Features and Additional Option sections were updated.  Added: Software as a Service Management Enablement SKU (COM),  European Union ErP Lot 9 Regulation section to include Turkey and Ireland and Embedded Security sub-section.
03-Mar-2025	Version 5	Changed	Overview, Standard Features, Core Options, Additional Options and Technical Specifications sections were updated.
03-Feb-2025	Version 4	Changed	Standard Features, Configuration Information, Core Options,
06-Jan-2025	Version 3	Changed	Standard Features, Optional Features and Core Options sections were updated.
02-Dec-2024	Version 2	Changed	Configuration Information section was updated (Graphics Accelerators).
04-Nov-2024	Version 1	New	New QuickSpecs

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For hard drives, 1GB = 1 billion bytes. Actual formatted capacity is less

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