

Overview

HPE Data Processing Unit

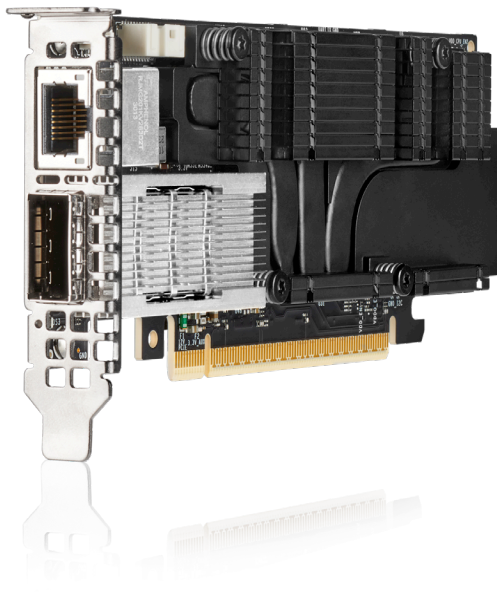
HPE Data Processing Units are specifically designed to accelerate the types of tasks that are commonly found in data processing and analytics workloads, facilitating accelerated compute and generative AI, thanks to NVIDIA® BlueField®-3 technology. The Data Processing Units support both Ethernet and InfiniBand connectivity with speeds up to 400Gb/s.

DPU Mode

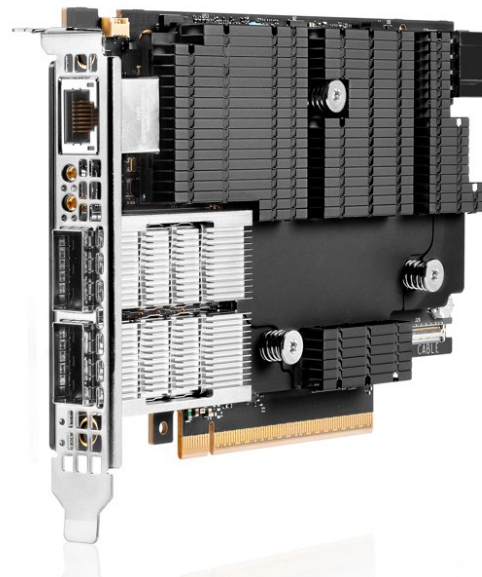
HPE Data Processing Unit P66386-H21 defaults to DPU mode and runs as a cloud infrastructure processor. The HPE Data Processing Unit manages the offloading, acceleration, and isolation of tasks like networking, storage, security and management. Through its usage, notable improvements in the data center performance, efficiency and security can be achieved. By leveraging the HPE Data Processing Unit a separation of the data center from the business applications is created that results in a zero-trust infrastructure with optimized operations and an overall reduction in the total cost of ownership. DPU mode products are optimized for North to South traffic in GPU systems.

SuperNIC Mode

HPE Data Processing Unit P66387-H21 defaults to SuperNIC mode. The SuperNIC mode allows the DPU to run as an optimized solution for East to West traffic in GPU systems enabling accelerated networking for AI computing. SuperNICs support the workloads in power efficient, low-profile designs and can provide peak AI workload efficiency by providing best in class RoCE for accelerating AI computing that are consistent and predictable in performance.



HPE Part Number: P66387-H21 *



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Notes:*Images are not to scale

Models

HPE Data Processing Unit InfiniBand NDR200/Ethernet 200Gb 2-port QSFP112 FHHL B3220 Adapter	P66386-H21
HPE Data Processing Unit InfiniBand NDR/Ethernet 400Gb 1-port QSFP112 HHHL B3140H Adapter	P66387-H21

Standard Features

Servers Supported

HPE Data Processing Unit InfiniBand NDR200/Ethernet 200Gb 2-port QSFP112 FHHL B3220 Adapter P66386-H21

- HPE Cray XD670 (Only available as factory integrated, Requires an external power cable. The power cable is included as a kit with the server configuration as each power cable is server specific)

HPE Data Processing Unit InfiniBand NDR/Ethernet 400Gb 1-port QSFP112 HHHL B3140H Adapter P66387-H21

- HPE Cray XD670
 - HPE Cray XD665
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Supported Host Operating Systems

Supported DPU Host OS Distributions:

- RHEL/CentOS 9.1
- RHEL/CentOS 8.9
- RHEL/CentOS 8.8
- RHEL/CentOS 8.6
- RHEL/CentOS 8.2
- RHEL/CentOS 8.1
- RHEL/CentOS 8.0
- RHEL/CentOS 7.6
- RHEL/CentOS 7.5
- RHEL/CentOS 7.4
- Ubuntu 22.04
- Ubuntu 20.04
- Ubuntu 18.04
- Debian 10.8
- Windows Server 2019
- Windows Server 2016
- Windows Server 2022

Supported/distributed DPU Linux Distributions (aarch64)

- Ubuntu 22.04

Allowed:

- Ubuntu 20.04
- RHEL/CentOS 8.6
- RHEL/CentOS 8.2
- RHEL/CentOS 7.6
- Debian 11

Supported Open vSwitch:

- 2.15.1

Please refer to the firmware/software download page of the device for the latest update.

<https://docs.nvidia.com/networking/display/MLNXOFEDv581121LTS/General+Support>

The HPE Data Processing Units have integrated 3-year software support entitlement through the hardware purchase. The software and support for the software should be obtained directly from NVIDIA as required.



Standard Features

Server Integration

The HPE Data Processing Units are validated, tested, and qualified server options for the supported HPE servers.

This approach provides a more robust and reliable networking solution than offerings from other vendors and provides users with a single point of contact for both their servers and their network adapters.



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/complecare>

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.

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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>



Technical Specifications

Product Features / Technical Specifications

[NVIDIA DPU Mode Datasheet](#)

[NVIDIA SuperNIC Mode Datasheet](#)

Please refer to the Quickspecs of supported servers for additional environmental and other constraints

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 (2012/19/EU) 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.



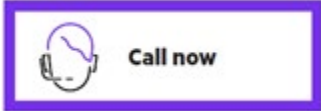
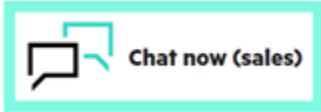
Summary of Changes

Date	Version History	Action	Description of Change
17-Jun-2024	Version 4	Changed	Overview and Standard Features sections were updated.
03-Jun-2024	Version 3	Changed	Overview, Standard Features and Technical Specifications sections were updated. Removed CX-7 related material, Updated OS, Re-formatted
20-May-2024	Version 2	Changed	Standard Features section was updated
06-May-2024	Version 1	New	New QuickSpecs



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