Overview

Shape the Future of QuickSpecs - Your Input Matters

HPE Boot Device Options QuickSpecs

HPE Boot Device Options come in different form factors and are a dedicated hardware RAID 1 solution for those who wish to separate their data plane from their OS plane.

The NS204i meets the certification requirements of VMware and Microsoft Storage Spaces Direct. Refer to the included server compatibility matrix for each of the different form factors. Server platforms support a single NS204i OS boot device. This RAID optimized SSD flash based solution utilizes the Windows, Linux, or VMware NVMe inbox drivers for easy set up and reliability. The NS204i OS boot device does not consume any drive bay, thus making all of the bays available for data storage.

HPE Boot Device Options

The HPE NS204i-u is a universal installation hot plug OS boot device that includes two 480 GB M.2 NVMe SSDs. This device no longer takes up a PCIe slot, and auto-creates RAID1 volume. The HPE NS204i-u Gen11 is compatible with Gen11 platforms, and the NS204i-u V2 is compatible with DL365, DL385 Gen11, and Gen12 Platforms.

The HPE NS204i-p and the NS204i-d (SY480 Gen10 Plus) boot devices includes two 480 GB M.2 NVMe SSDs. Two 22110 M.2 NVMe SSDs must be added to the NS204i-r riser and the NS204i-t Boot Controller. The NS204i boot device enables customers to mirror their OS through dedicated RAID 1.

HPE NS204i presents itself to your management interface as a single directly connected NVMe drive, not a RAID controller. As the NS204i is a hardware boot device, only RAID 1 mode is supported and it will not operate in any other RAID mode. HPE NS204i is "plug-and-play" with no need to configure or manage the device. Always ensure you are running the latest iLO version and update server BIOS, FW and drivers when they become available.

Notes:

– In some documentation and GUIs, the NS204i may be referred to as a controller or a device.

– HPE NS204i-d Synergy Gen11 Boot Controller does not support Ubuntu



NS204i-p Gen10+



NS204i-r



NS204i-d
(Synergy 480 Gen10 Plus Compute)



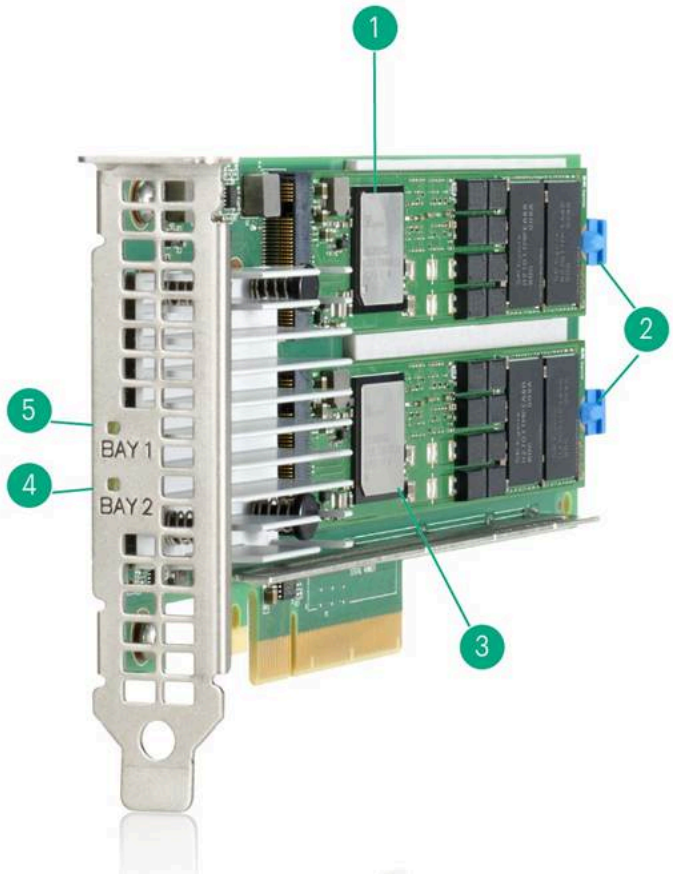
NS204i-t



HPE NS204i-u Boot Device

Item	Description	Item	Description
1.	Drive carrier 1	4.	Bay 2 Fault LED
2.	Universal Installation	5.	Drive carrier 2
3.	Bay 1 Fault LED		

Fault LED Status	
Off	Normal
Flashing at 1Hz	Drive predictive failure
Amber	Drive failure



HPE NS204i-p Gen10+ Boot Device, half height

Item	Description	Item	Description
1.	Drive bay 1	4.	Bay 2 Fault LED
2.	M.2 drive retaining latches	5.	Bay 1 Fault LED
3.	Drive bay 2		

Fault LED Status	
Off	Normal
Flashing at 1Hz	Drive predictive failure
Amber	Drive failure

Key Features

- Automatic RAID 1 creation
- Hardware RAID 1 with automatic drive rebuild
- (2) 480 GB NVMe M.2 SSDs included with the NS204i-p and NS204i-d (SY480 Gen10 Plus option) controllers
- (2) On-board M.2 drive bays
- Utilizes native OS NVMe drivers - no custom driver needed
- Full HPE iLO integration for Redfish, Alerts, GUI
- Supports Intel Gen10 and Intel and AMD Gen10 Plus platforms (see support matrix for details)

Models

HPE NS204i-u v2 480GB NVMe Hot Plug Boot Optimized Storage Device	P78279-B21
HPE NS204i-u v2 960GB NVMe Hot Plug Boot Optimized Storage Device	P81160-B21
HPE NS204i-u v2 960GB NVMe SED Hot Plug Boot Optimized Storage Device	P81162-B21
HPE NS204i-u Gen11 NVMe Hot Plug Boot Optimized Storage Device	P48183-B21

HPE NS204i-p x2 Lanes NVMe PCIe3 x8 OS Boot Device	P12965-B21
HPE NS204i-t Gen10 Plus x2 Lanes NVMe PCIe 3 x8 Boot Controller	P20292-B21
HPE Synergy NS204i-d Gen11 NVMe Boot Storage Device	P39568-B21

M.2 Drive - Required for NS204i-r Riser

HPE 480GB NVMe Gen3 Mainstream Performance Read Intensive M.2 Multi Vendor SSD	P40513-B21

HPE Boot Device Options		
XXXXXX-X21 is SKU designation formed by a common six digit part number and a -X21 suffix that identifies a SKU that is available across multiple server family lines. Refer to the table below to find the SKU suffix that applies to the specific server product line this option can be ordered with.		
-B21	-H21	-K21
COMPUTE Server Line	SPECIALIZED COMPUTE Server Line	STORAGE Line
HPE Cloudline CL2100/CL2200/CL2800/CL3100/CL4100/ CL5200/CL5800 Servers HPE Composable Cloud for ProLiant DL HPE ProLiant BL460c/BL660c Servers HPE ProLiant DL20/DL160/DL180 Servers HPE ProLiant DL325/DL345/DL365/DL360/DL380/ DL385/DL560/DL580 Servers HPE ProLiant DX360/DX380 Servers HPE ProLiant MicroServer HPE ProLiant for Microsoft Azure Stack HPE ProLiant ML30/ML110/ML350 Servers HPE Synergy 480/660 Systems HPE ProLiant DX170r/DX190r, DX2000 Servers HPE ProLiant DX560 Gen10 server HPE ProLiant DX4200 Gen10 server	HPE Apollo 35/40/70 Systems HPE Apollo 2000/6000 Servers HPE XL170r/XL190r/XL270d (Apollo 6500) Gen10 Server for BlueData Software HPE Converged System 300/500/700/750 HPE Edgeline Systems and Servers HPE Integrity BL860c i6/BL870c i6/BL890c i6 Server Blades HPE Integrity MC990 X Server HPE Integrity rx2800 i6 Server HPE Integrity Superdome HPE SGI 8600 System HPE Solutions for SAP HANA (TDI)	HPE Apollo 4200 Gen9/Gen10 Servers HPE Apollo 4200 Gen10 LFF Server for BlueData Software HPE Apollo 4510 Gen10 System HPE D2220sb/D2500sb Storage Blade HPE D3000/D6020/D8000 Disk Enclosures HPE Scalable Object Storage with Scality RING HPE SimpliVity 2600 HPE SimpliVity 325/380 Gen10 HPE Storage File Controllers HPE StoreEasy 1460/1560/1650/1660/1860 Disclaimer: This may not be a complete listing of applicable servers

Standard Features

Software Updates

Always ensure you are operating with the latest iLO, system BIOS, and controller firmware for your server and OS.

For optimal performance:

- iLO 5 2.30 or later
- BIOS 2.36 or later for Gen10 Servers

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.

Notes: HPE NS204i-d Synergy Gen11 Boot Controller does not support Ubuntu

Access the certified and supported servers for each of the OS and Virtualization software: HPE Servers Support & Certification Matrices

Service and Support

HPE Services

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

Consulting Services

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

HPE Managed Services

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

Operational services

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

HPE Complete Care Service

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

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

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

HPE Tech Care Service

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

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

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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 service 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 QuickSpecs, 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/

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

HPE NS204i	
Function	OS boot only
Form Factor	PCIe HHHL card, mezzanine or 1U riser
RAID Mode	Preconfigured hardware RAID 1
SSD	480/960 GB, read intensive, enterprise-class with Power Loss Protection (PLP). SSDs must be added to the NS204i-r riser and NS204i-t boot controller
SSD form factor	22110
Drive writes per day (dwpd)	1
PCIe Support	Gen 3
PCIe Host Interface	NS204i-p: x8 physical, x4 electrical
Physical Drives Required	2
NVMe RAID	Supported, hardware RAID 1 only
Boot Mode	UEFI
Security	FW RoT
Platform support	HPE Intel Gen10 and Intel and AMD Gen10 Plus (see Platform Support matrix for details)
What's in the box	NS204i-p: (1) PCIe HHHL card, (2) NVMe M.2 SSDs, full height bracket, half height bracket, installation instructions NS204i-d: (1) Boot Controller SY480 Gen10 Plus, (2) NVMe M.2 SSDs, installation instructions NS204i-r: (1) DL36x Gen10 Plus riser, installation instructions - SSDs not included NS204i-t: (1) Apollo boot controller, installation instructions - SSDs not included
Driver and Firmware	Uses native OS NVMe drivers. No separate driver required.
OS supported	VMware, Linux, Windows See Support table for details.
HPE OneView support	Visible, not managablemanageable
Storage Management Software support	Visible, not managablemanageable
Compliance	RoHS, Lot 9
Warranty	3 years, parts only. Does not include SSD wear out.

Environmentally 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 European Union Waste Electrical and Electronic Equipment Directive [EU WEEE] (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.

Summary of Changes

Date	Version History	Action	Description of Change
10-Nov-2025	Version 15	Changed	Overview section was updated.
		Removed	HPE ProLiant DL36X Gen10 Plus x16/x8 PCIe M.2 NS204i-r Riser Kit obsolete SKU.
28-Jul-2025	Version 14	Changed	Technical specifications Section was updated (HPE NS204i)
07-Jul-2025	Version 13	Changed	Models Section was updated with new SKUs,
		Added	SKUs were added in Models Section: P81160-B21, P81162-B21
27-May-2025	Version 12	Changed	Notes updated (page 1 & 5), SKU P48183-21 was removed from Models
02-Dec-2024	Version 11	Changed	QuickSpecs Name was updated
16-Sep-2024	Version 10	Changed	Operating Systems information was updated.
04-Dec-2023	Version 9	Changed	Service and Support Section was updated
05-Sep-2023	Version 8	Changed	Standard Features & Overview Sections were updated
05-Jun-2023	Version 7	Changed	Overview, Standard Features and Service and Support sections were updated.
10-Nov-2022	Version 6	Changed	Models & Service and Support Sections were updated
06-Sep-2022	Version 5	Changed	Models Section was updated
06-Dec-2021	Version 4	Changed	Added NS204i-r, NS204i-d, and NS204i-t products
15-Nov-2021	Version 3	Changed	Models & Service and Support Sections were updated
09-Nov-2020	Version 2	Changed	Technical Specifications was updated
28-Sep-2020	Version 1	New	New QuickSpecs

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

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