Have feedback on QuickSpecs? We're listening

HPE Compute MR Controllers QuickSpecs

Secure, agile controllers for mission-critical data.

A versatile, simplified, and flexible choice for data centers. HPE introduces an expansive and agile PCIe Gen 4.0 and 5.0 storage controller portfolio based on Broadcom® MegaRAID® technology delivering quality, performance, and security for mission-critical applications.

HPE Compute MR Controllers

Key Features

- Standard PCI HH/HL and OCP NIC 3.0 form-factors
- Mixed Mode (RAID and/or JBOD) supporting RAID 0,1,10,5,50,6,60 (MR416i) or RAID 0,1,10 (MR216i)
- Up to 13.7 GBs of bandwidth, 3M Random Read IOPs, and 240K RAID5 Random Write IOPs
- 8 PCIe 4.0 host lanes (MR200/400 series)
- 16 PCIe 5.0 host lanes (MR932i-p)
- 72b DDR4-2666 4GB (MR408i) or 8GB (MR416i) Flash-Backed Write Cache (energy pack is optional)
- 8 (MR408i) or 16 (MR416i) tri-mode NVMe, SAS, SATA internal lanes
- 16Gbs NVMe, 12Gbs SAS SSD/HDD, 6Gbs SATA SSD/HDD (M200/400 series)
- Up to 16 drives without expander (MR200/400 series)
- Up to 32 drives without expander (MR932i-p)
- DMTF Security Protection Data Model (SPDM) supports certificate-based authentication with HPE iLO6
- Hardware Root of Trust (HWRoT) protects against malicious firmware
- Self-Encrypting Drives (SED) for data at rest encryption
- Windows, Linux, and VMWare
- MRSA, StorCLI, UEFI, and Redfish Management
- FASTPATH® (SSD acceleration)
- Online firmware updates for controllers, backplanes, and drives

Models

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
HPE MR216i-p Gen11 x16 Lanes without Cache PCI SPDM Plug-in Storage Controller	P47785-B21
HPE MR216i-o Gen11 x16 Lanes without Cache OCP SPDM Storage Controller	P47789-B21
HPE MR408i-o Gen11 x8 Lanes 4GB Cache OCP SPDM Storage Controller	P58335-B21
HPE MR408i-p Gen11 x8 Lanes 4GB Cache PCI SPDM Plug-in Storage Controller	P74775-B21
HPE MR932i-p x32 Lanes PCIe Gen5 SPDM Plug-in Storage Controller	P75697-B21
HPE MR932i-p PQC x32 Lanes PCIe Gen5 SPDM Plug-in Storage Controller	P89797-B21

Notes:

- An HPE Smart Storage energy pack (available in both battery and hybrid capacitor options) is optional with the HPE MR416i-o Gen11 (P47781-B21) and HPE MR416i-p Gen11 (P47777-B21) storage controller. See below for energy pack options.
- SR storage controllers cannot be configured or installed with MR storage controllers except for the HPE Smart Arry E208e-p SR Gen10 (804398-B21).
- HPE MR932i-p PQC (P89799-001) adds post-quantum cryptography (PQC) to comply with the security requirements in year 2030.

Description	HPE MR416i-p Gen11 x16 Lanes 8GB Cache PCI SPDM Plug-in Storage Controller	HPE MR416i-o Gen11 x16 Lanes 8GB Cache OCP SPDM Storage Controller	HPE MR216i-p Gen11 x16 Lanes without Cache PCI SPDM Plug-in Storage Controller	HPE MR216i-o Gen11 x16 Lanes without Cache OCP SPDM Storage Controller	HPE MR408i-o Gen11 x8 Lanes 4GB Cache OCP SPDM Storage Controller	HPE MR408i-p Gen11 x8 Lanes 4GB Cache PCI SPDM Plug-in Storage Controller
SKU	P47777-B21	P47781-B21	P47785-B21	P47789-B21	P58335-B21	P74775-B21
Ports	2x8 SlimSAS	2x8 LP SlimSAS	2x8 SlimSAS	2x8 LP SlimSAS	1x8 LP SlimSAS	1x8 SlimSAS
Storage Lanes	x16	x16	x16	x16	X8	x8
ASIC	Broadcom Aero	Broadcom Aero	Broadcom Aero	Broadcom Aero	Broadcom Aero	Broadcom Aero
Form Factor	PCI HH/HL	OCP NIC 3.0	PCI HH/HL	OCP NIC 3.0	OCP NIC 3.0	OCP NIC 3.0
Host Interface	PCIe Gen 4.0 x8 host	PCIe Gen 4.0 x8 host	PCIe Gen 4.0 x8 host	PCIe Gen 4.0 x8 host	PCIe Gen 4.0 x8 host	PCIe Gen 4.0 x8 host
Cache Size (FBWC)	8GB	8GB	N/A	N/A	4GB	4GB
Read Ahead Caching	✓	✓	✓	✓	✓	✓
Write-back Caching	✓	✓	-	-	✓	✓
Storage Protocol	16Gbs NVMe, 12Gbs SAS, 6Gbs SATA	16Gbs NVMe, 12Gbs SAS, 6Gbs SATA	16Gbs NVMe, 12Gbs SAS, 6Gbs SATA	16Gbs NVMe, 12Gbs SAS, 6Gbs SATA	16Gbs NVMe, 12Gbs SAS, 6Gbs SATA	16Gbs NVMe, 12Gbs SAS, 6Gbs SATA
Max Drives	16	16	16	16	8	8
Max Volumes	64	64	64	64	64	64
RAID:	0,1,5,6,10,50,60	0,1,5,6,10,50,60	0,1,10	0,1,10	0,1,5,6,10,50,60	0,1,5,6,10,50,60
Mixed Mode: (RAID & HBA)	✓	✓	✓	✓	✓	✓

Overview

Description	HPE MR932i-p/MR932i-p PQC x32 Lanes PCIe Gen5 SPDM Plug-in Storage Controller
SKU	P75697-B21
Ports	4 x8 MCIO
Storage Lanes	X32
ASIC	Broadcom Avenger 2
Form Factor	PCI FH/HL
Host Interface	PCIe Gen 5.0 x16 host
Cache Size (FBWC)	Cache Available on Controller
Read Ahead Caching	✓
Write-back Caching	✓
Storage Protocol	32Gbs NVMe 24Gbs SAS No SATA
Max Drives	32
Max Volumes	64
RAID:	0,1,5,6,10,50,60
Mixed Mode: (RAID & HBA)	✓
Energy Pack	Embedded

Drive Protocol/Interface Support	Interface	MR200/MR400 Series	MR900 Series
HDD	SAS	Yes	Not Supported
	SATA	Yes	Not Supported
SSD	SAS	Yes	Yes
	SATA	Yes	Not Supported
	NVMe	Yes	Yes

Feature	Description
SSD Accelerator	FASTPATH
Array Features	– Expand Array – Move Drives (Move not supported between 200/400 series to 900 series) – Shrink Array – Spare Management
Volume Features	– Expand Logical Drive – Instant Secure Erase – Migrate RAID level (MR200/400 only) – Modifying Cache Write Policy – Move Logical Drive (MR200/400 only) – Re-enable Failed Logical Drive – Read Load balancing – Configurable stripe size up to 1 MB (MR200/400) – 64K stripe size supported for MR932 SSDs – Fast initialization for quick array setup – Check consistency for background data integrity – Patrol read for media scanning and repairing – Rebuild
Other Features	– Multiple physical functions (MR932) – Auto resume after loss of system power – SSD support with SSD Guard™ technology – DDF compliant Configuration on Disk – SSD Wear Gauge – SMART Predictive Drive Failure – Global and dedicated Hot Spare with Revertible Hot – Spare support: • Automatic rebuild • Enclosure affinity – Enclosure management: • Universal Backplane Management (UBM) – Shield state drive diagnostic technology – SED Key Management (HKM, LKM, and RKM) – Hardware Secure Boot, Attestation – Cache Offload Encryption (MR932) – DRAM ECC detects and corrects data bit errors. – LTO Support (MR200/400)
HPE OneView Support	Monitored Mode
Kit contents	Includes storage controller, information card, warranty statement, and backup power cable (MR408 & MR416)

Optional Accessories for HPE MR408i-o / MR416i-o / MR416i-p Gen11 SPDM Storage Controllers

Energy pack Options Sold Separately

HPE 96W Smart Storage Lithium-ion Battery with 145mm Cable Kit	P01366-B21
HPE 96W Smart Storage Lithium-ion Battery with 260mm Cable Kit	P01367-B21
HPE Smart Storage Hybrid Capacitor with 145mm Cable Kit	P02377-B21
HPE Smart Storage Hybrid Capacitor with 260mm Cable Kit	P02381-B21

Notes:

- An HPE Smart Storage energy pack is optional.
- Moving volumes or SED locked drives between SR and MR controllers is not supported.
- The MR932i-p/MR932i-p PQC Storage Controller uses an embedded Energy Pack for write-cache protection. It requires no battery power cable and is not a user-replaceable part.

Warranty

The warranty for this device is 3 years parts only.

Warranty Upgrade Options

- Response - Upgrade on-site response from next business day to same day 4 hours.
- Coverage - Extend hours of coverage from 9 hours x 5 days to 24 hours x 7 days.
- Duration - Select duration of coverage for a period of 1, 3, or 5 years.

Warranty upgrade options can come in the form of HPE Services operational, which are sold at the HPE System level to which this product attaches.

Operating System Support

- Microsoft Windows Server*
- Red Hat Enterprise Linux (RHEL)
- SUSE Linux Enterprise Server (SLES)**
- VMware ESXi***
- Canonical Ubuntu
- CentOS

Notes: HPE MR Compute Controllers supports the server operating systems. For more information on HPE's server operating systems and virtualization software, please visit: http://www.hpe.com/info/ossupport

* Windows 2019 is not supported on MR932. Windows 2022 and 2025 are both supported. The following SKUs will not be configurable at launch with MR932i-p, but will be supported in April 2026.

P77096-291	MS WS25 16C Std FIO UEFI ja SW
P77096-B21	MS WS25 16C Std FIO UEFI WW SW
P77099-291	MS WS25 10C Ess FIO UEFI ja SW
S6N30A	MS WS25 16C Std FIO UEFI ja ESD LTU
S6K30A	MS WS25 16C Std FIO UEFI WW ESD LTU
S6L28A	MS WS25 10C Ess FIO UEFI ja ESD LTU

*** Only ESXi 9.0 and later are supported on MR932i-p. VMs originally created on a 512B datastore cannot boot from a 4Kn datastore because VMware ESXi 9 does not support 512B sector emulation or VMDK sector-size conversion. To resolve this issue, redeploy the workload by performing a clean VM OS installation and then synchronizing the data.

Storage Management Software Suite

- HPE MR Storage Administrator (MRSA)
- HPE StorCLI
- UEFI System Utilities (storage configuration)
- HPE iLO6/iLO7 Redfish

Please refer to https://www.hpe.com/info/scmo for more detailed information.

HPE MR Storage Administrator

The MR Storage Administrator is a web-based application that enables you to configure, monitor and troubleshoot MegaRAID (MR) storage controllers. The MR Storage Administrator graphical user interface (GUI) helps you to view, create, and manage storage configurations.

- Configuring: HPE MR Storage Administrator enables you to configure and view status of the controllers, volumes, and drives. The device status icons are displayed on their respective pages to notify you in case of drive failures and other events that require your immediate attention. Real-time email notifications on the status of the server are sent based on your alert settings. The system errors and events are recorded and displayed in an event log file. Additionally, you can also import or clear foreign configurations.
- Monitor: HPE MR Storage Administrator (MRSA) allows you to selectively deliver alerts to the OS system log, event log, or email based upon severity level. Additionally, individual storage devices can be viewed within the GUI.
- Troubleshooting: HPE MR Storage Administrator displays information related to drive failures, device failures, and so on. It also provides recommendations and displays contextual links, helping you to easily locate the drives that have issues and troubleshoot them. You can also download a support log containing the devices, properties, configurations, and logs and send it to the HPE support teams for further troubleshooting.

Please refer to https://www.hpe.com/support/MRSA for more detailed information.

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, 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
- 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

---

Other Related Services from HPE Services

HPE Education Services

Training and certification designed for IT and business professionals across all industries. Broad catalog 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

GreenLake

GreenLake is the cloud to run and manage your entire hybrid landscape—private, public, and edge. It helps you to:

- Streamline IT Operations across compute, storage, and networking without the chaos
- Unify and secure data, as you move faster
- Accelerate AI, from pilot to production

The result: greater operational efficiency, lower TCO, and faster AI delivery—all from one unified, intelligent platform built for today's hybrid enterprise.

Summary of Changes

Date	Version History	Action	Description of Change
7-Oct-2026	Version 10	Changed	Overview section was updated.
16-Mar-2026	Version 9	Changed	Overview and Service and Support sections were updated.
		Added	Updated GreenLake statement. MR932i-p Storage Controller Energy Pack specs.
02-Feb-2026	Version 8	Changed	Overview and Standard Features sections were updated.
		Added	HPE MR932i-p x32 Lanes PCIe Gen5 SPDM Plug-in Storage Controller SKU.
28-Jul-2025	Version 7	Changed	Updated survey link.
09-Jun-2025	Version 6	Changed	Notes on page 1 were updated.
28-Apr-2025	Version 5	Changed	Models Section was updated.
07-Apr-2025	Version 4	Changed	QuickSpecs name and Models section were updated.
11-Sep-2023	Version 3	Changed	Models Section was updated.
14-Aug-2023	Version 2	Changed	Compatibility Section was updated.
10-Nov-2022	Version 1	New	New QuickSpecs

Have feedback on QuickSpecs? We're listening

Chat now

© Copyright 2026 Hewlett Packard Enterprise Development LP. The information contained herein is subject to change without notice. The only warranties for Hewlett Packard Enterprise products and services are set forth in the express warranty statements accompanying such products and services. Nothing herein should be construed as constituting an additional warranty. Hewlett Packard Enterprise shall not be liable for technical or editorial errors or omissions contained herein.

Intel® and Xeon® are registered trademarks of Intel Corporation in the U.S. and other countries.
Microsoft®, Windows®, and Windows Server® are U.S. registered trademarks of the Microsoft group of companies.

a50004311enw - 16915 - Worldwide - V10 - 7-October-2026
HEWLETT PACKARD ENTERPRISE
HPE.com

