



HPE SR416I-A GEN10 PLUS X16 LANES 4GB CACHE NVME/SAS 24G CONTROLLER (P12688- B21)

Storage RAID Controllers

WHAT'S NEW

- High-speed 144b DDR4 8 GB cache with integrated cache protection to accelerate RAID and cache performance in the SR932i-p.
- Impressive RAID 5 Write Performance: Up to 12 GB/s throughput and up to 850K IOPs with the SR932i-p.
- Integrated Switchtec™ PCIe switch enabling increased performance and reduced latency access to NVMe storage devices for HBA and RAID modes.
- Supports Hardware Root of Trust.

OVERVIEW

Do your SMB and enterprise-level applications require a flexible controller with increased performance reliability, security, and efficiency to address your evolving data storage needs?

The Microchip SmartRAID Controllers for HPE Gen10 Plus supports 12 Gb/s SAS and PCIe 4.0 for increased performance while supporting advanced RAID levels with up to 8 GB flash-backed write cache (FBWC). These tri-mode (SAS/SATA/NVMe) controllers operate in Mixed Mode which combines RAID and HBA operations simultaneously, giving you improved deployment flexibility. The Microchip SmartRAID for HPE Gen10 Plus controller portfolio provides the ability to support internally attached drives, allowing integration with existing hardware. These controllers also feature HPE SmartRAID SR Secure Encryption for data-at-rest using Controller-Based Encryption (CBE) for SAS, SATA and NVMe devices which improves reliability.

FEATURES

Industry's Highest Performance RAID Controller

The Microchip SmartRAID Controllers for HPE Gen10 Plus features up to 46 GB/s bi-directional throughput and up to 3.5M IOPs.

Impressive RAID 5 Transactional Performance

Up to 12 GB/s throughput and up to 850K IOPs via high-speed 144b DDR4 8 GB cache with integrated cache protection.

Increase RAID Controller Density

The Microchip SmartRAID Controllers for HPE Gen10 Plus is a type-a Flexible/Modular Controller and does not occupy a PCIe Expansion Slot.

Supports up to 32 direct-connected NVMe/SAS/SATA storage devices.

Fully-utilized online capacity expansion and RAID level migration, a dynamic caching algorithm, and hot-plug drive support.

Integrated Switchtec PCIe Switch

The Microchip SmartRAID Controllers for HPE Gen10 Plus feature increased performance and reduced latency access to NVMe storage devices for HBA and RAID modes.

With the HPE Silicon Root of Trust integration, this product is designed with enhanced security and a controller-based encryption feature.

Utilize secure boot support for the uEFI host BIOS and Smart Storage Administrator GUI and CLI utilities for configuration, management and diagnosis of SmartRAID controllers.

Controller-based Encryption feature.



Technical specifications**HPE SR416i-a Gen10 Plus x16 Lanes 4GB Cache NVMe/SAS 24G Controller**

Product Number	P12688-B21
Transfer rate	Up to 24 GB/s of bi-directional throughput and up to 3.5M IOPs
Form factor	Type-a flexible/modular controller (does not occupy a PCIe Expansion Slot)
Ports	16 onternal tri-mode ports (SlimSAS SFF-9402 connectors supporting U.2 and U.3) supporting up to 16 direct-connected SAS/SATA/NVMe devices
Cache	4 GB 72b DDR4-3200 MHz with integrated cache protection using HPE Smart Storage Battery solution
RAID levels	RAID 0, 1, 1 ADM, 10, 10 ADM, 5, 6, 50, 60
Servers supported	Refer to Microchip SmartRAID Controllers for Gen10 Plus Controllers QuickSpec for detail.
Additional features	See Microchip SmartRAID Controllers for HPE Gen10 Plus QuickSpecs for additional detail.
Supported disk enclosure	N/A
Certifications	EMC, CE, CNS, CT, FC, IC, KC, VC, EMC Doc, CE, C-tick, FCC, KCC, VCCI, BSMI, UL, EN 60950 and 62368, AU_NZ LoA and SDoC, RoHs, TW and EU
Product Dimensions (metric)	99.1 mm x 111.8 mm
Weight	120 g
Warranty	3 year parts only



For additional technical information, available models and options, please reference the [QuickSpecs](#)

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Operational Services from HPE Pointnext Services

[HPE Pointnext Tech Care](#) provides fast access to product-specific experts, an AI-driven digital experience, and general technical guidance to help enable constant innovation. We have reimagined IT support from the ground up to deliver faster answers and greater value. By continuously searching for better ways to do things—as opposed to just fixing things that break—HPE Pointnext Tech Care helps you focus on achieving your business goals.

[HPE Pointnext Complete Care](#) is a modular, edge-to-cloud IT environment service that provides a holistic approach to optimizing your entire IT environment, and achieving agreed upon IT outcomes and business goals through a personalized and customer-centric experience. All delivered by an assigned team of HPE Pointnext Services experts.

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- Deploy
- Integrate and migrate
- Operate and improve
- Financial Services
- Greenlake Management Services
- Retire and sanitize
- IT Training and personal development

Other related services

[HPE Education Services](#) delivers a comprehensive range of services to support your people as they expand their skills required for a digital transformation. Consult your HPE Sales Representative or Authorized Channel Partner of choice for any additional questions and support options.

Defective Media Retention is optional and allows you to retain Disk or eligible SSD/Flash Drives replaced by HPE due to malfunction.

HPE GREENLAKE

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Parts and Materials: HPE will provide HPE-supported replacement parts and materials required to maintain the covered hardware.

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.

Image may differ from the actual product [PSN1013314975WWEN](#), October, 2022.