

HPE SR416i-a Gen10 Plus x16 Lanes 4GB Cache NVMe/SAS 24G Controller (P12688-B21)



What's new

- High-speed 144b DDR4 8 GB cache with integrated cache protection to accelerate RAID and cache performance in the SR932i-p.
- Ilmpressive 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.

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 HPE SR Gen10 Plus Controllers support 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 HPE SR Gen10 Plus Controllers portfolio provides the

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Supports Hardware Root of Trust.

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 HPE SR Gen10 Plus Controllers feature 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 HPE SR Gen10 Plus Controllers offers 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 HPE SR Gen10 Plus Controllers 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.

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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	Full-height, half-length PCIe stand up card (SR932i-p) or Type-a Modular (SR416i-a)
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 HPE SR Gen10 Plus Controllers QuickSpecs for detail.
Additional features	See HPE SR Gen10 Plus Controllers 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
Secure encrypted drives	Not supported at this time
Storage protocol	6 G SATA, 6 G/12 G/24 G SAS, Gen 3/Gen4 NVMe
Storage management	Smart Storage Administrator (SSA)
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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<u>The Defective Media Retention</u> (DMR) service feature option applies only to Disk or eligible SSD/Flash Drives replaced by Hewlett Packard Enterprise due to malfunction. <u>Comprehensive Defective Material Retention</u> (CDMR) allows you to keep all data retentive components.

HPE GreenLake

HPE GreenLake edge-to-cloud platform is HPE's market-leading as-a-Service offering that brings the cloud experience to apps and data everywhere – data centers, multi-clouds, and edges – with one unified operating model, on premises, fully managed in a pay per use model.

If you are looking for more services, like **IT financing solutions**, please explore them here.

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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.

Image may differ from the actual product PSN1013314975EMEA_AFRICAEN, June, 2024.

