



HPE SMART ARRAY P816I-A SR GEN10 (16 INTERNAL LANES/4GB CACHE/SMARTCACHE) 12G SAS MODULAR CONTROLLER (804338- B21)

Smart Array Controllers and Smart Host Bus Adapters

OVERVIEW

Are you looking for an enterprise-level controller to maximize performance and storage capacity without occupying a PCI Express (PCIe) expansion slot?

The HPE Smart Array P816i-a SR Gen10 Controller, supporting 12 Gb/s SAS and PCIe 3.0, provides enterprise-class storage performance, reliability, security and efficiency needed to address your evolving data storage needs. This controller has sixteen internal SAS lanes, allowing connection to SAS or SATA drives, supports Mixed Mode operations of RAID and HBA simultaneously, and offers encryption for data-at-rest on any drive. The Smart Array P816i-a SR Gen10 Controller is ideal for maximizing performance while supporting advanced RAID levels with 4 GB Flash-Backed Write Cache (FBWC). This type-a modular controller occupies a dedicated storage slot without occupying a PCIe expansion

slot.

The Gen10 controllers are supported by the HPE Smart Storage Battery. The HPE Smart Storage Battery supports multiple devices and is sold separately.

FEATURES

Increased Performance for Applications

The HPE Smart Array P816i-a SR Gen10 Controller is an enterprise-class RAID controller that increases performance in messaging, database, or general server applications and delivers 12 Gb/s SAS connectivity on HPE ProLiant Gen10 Servers when connected to 12 Gb/s internal storage devices.

Increases performance with 4 GB Flash-Backed Write Cache and reduces latency in write-intensive applications that require heavy logging such as databases.

Enhances performance in storage environments where data is read repeatedly from a large number of SSDs by using HPE SSD Smart Path to create a faster I/O path between the controller and SSD.

Accelerate access to data in HDD environments by caching hot data onto SSDs with HPE Smart Array SR SmartCache (included feature).

Built-in Reliability and Security

The HPE Smart Array P816i-a SR Gen10 Controller protects data-at-rest on any drive attached to the controller with HPE Smart Array SR Secure Encryption (optional license).

Comply with regulations for sensitive data, such as HIPAA and Sarbanes-Oxley with HPE Smart Array SR Secure Encryption—FIPS 140-2 Implementation Under Test with expected FIPS 140-2 Level 1 validation complete in 2018.

Preserve data integrity with HPE SmartSSD Wear Gauge, which alerts you to potential drive issues before a drive fails.

Long-term data retention with 4 GB Flash-Backed Write Cache for improved data reliability.

Improved Efficiency and Storage Management

The HPE Smart Array P816i-a SR Gen10 Controller has increased flexibility with Mixed Mode which operates in RAID and HBA simultaneously and eliminates the expense of having to purchase another controller.

Rapidly configure simple RAID volumes on servers with the UEFI storage configuration tool, which also facilitates scripting support to configure an array via iLO through RESTful interface.

Quickly set up, configure, and manage drives attached to the controller with HPE Smart Storage Administrator (SSA), an intuitive interface used to create RAID volumes, manage advanced controller features, and deploy Smart Array solutions.



Technical specifications**HPE Smart Array P816i-a SR Gen10 (16 Internal Lanes/4GB Cache/SmartCache) 12G SAS Modular Controller**

Product Number	804338-B21
Transfer rate	12Gb/s SAS per lane 6Gb/s SATA per lane PCI Express 3.0 x8 lane width
Form factor	Type-a modular controller
Ports	Internal: 16 SAS lanes across 4 x4 Mini-SAS ports
Cache	4 GB Flash-backed write cache
Servers supported	HPE ProLiant DL360 Gen10 HPE ProLiant DL380 Gen10
Additional features	HPE Smart Array SR SmartCache (included with this controller) HPE Smart Array SR Secure Encryption (optional license)
Warranty	The warranty for this device is 3-years parts only.



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

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- 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.

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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.

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[PSN1010026917LAMERICA_NSC_CARIBEN](#), October, 2022.