



# **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**

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



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- **[HPE Foundation Care](#)** helps when there is a problem and has a choice of response levels. Collaborative software support is included and provides troubleshooting help for ISVs running on your server. [Read more](#).

### **Other related services**

**[Defective Media Retention](#)** is optional and applies only to Disk or eligible SSD/Flash Drives replaced by HPE due to malfunction.

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

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