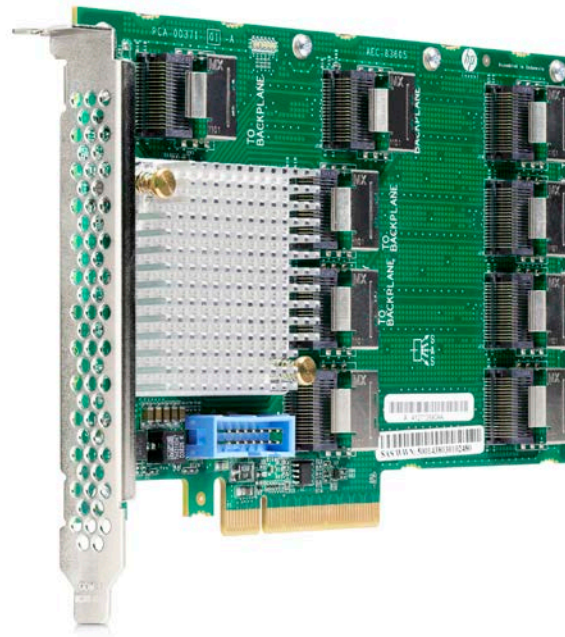


Overview

HPE 12G SAS Expander Card

The HPE 12G SAS Expander Card provides internal storage expansion within the HPE ProLiant Gen9 and Gen10 Server by allowing support for up to 28 drives when connected to a Gen10 or Gen9 supported Smart Array or Smart HBA controller. This full height card supports 12Gb/s SAS connectivity and is ideal for users who want to add additional internal storage to maximize their storage capacity.



Models

HPE SAS Expander Card Kits	HP 12Gb SAS Expander Card with Cables for DL380 Gen9	727250-B21
	HP 12Gb SAS Expander Card for ML350 Gen9	769635-B21
	HP ML350 Gen9 2nd Expander Card	727251-B21
	HPE ML350 Gen9 2nd Expander FIO Kit	769637-B21
	HPE ProLiant DL560 Gen9 SAS Expander Card	804228-B21
	HPE DL560 Gen10 SAS Expander Kit	873444-B21
	HPE DL38X Gen10 12Gb SAS Expander	870549-B21

Kit contents

- HPE 12G SAS Expander card
- All the cables required for specified server will be included in the kit

Standard Features

Key Features

- Storage interface (SAS/SATA)
 - 28 physical links across 9 x4 internal ports
 - 12Gb/s SAS, 6Gb/s SATA technology
 - Mix-and-match SAS and SATA hard drives to the same controller
- PCI Express 3.0 x8 link
- Supports up to 28 internal drive bays (dependent on the server)
- Up to 64 logical drives when connected to a Smart Array Controller

Ports

- 2 x4 Mini-SAS ports for attachment to Smart Array controllers or Smart HBAs
- 7 x4 Mini-SAS ports for attachment to server drive backplanes
 - Supports up to 28 drives (dependent on server)

Performance

- 12Gb/s SAS (1200 MB/s theoretical bandwidth per SAS lane)
- 6Gb/s SATA (600 MB/s theoretical bandwidth per SAS lane)
- PCI Express 3.0 x8 link width

Dimensions

- 6.6 x 4.4 x 0.6 in (16.8 x 11.13 x 1.5 cm) PCIe full-height, half-length card

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 Care Packs, which are sold at the HPE System level to which this product attaches.

Server Support

HPE ProLiant DL380 Gen9
HPE ProLiant DL560 Gen9
HPE ProLiant ML350 Gen9

HPE ProLiant DL380 Gen10
HPE ProLiant DL560 Gen10

Operating Systems

Please reference [Smart Array](#) QuickSpecs along with ProLiant Gen10 or Gen9 server for Operating Systems support.

Service and Support

HPE Support Services	Protect your business beyond warranty with HPE Support Services <p>HPE Pointnext provides a comprehensive portfolio including Advisory and Transformational, Professional, and Operational Services to help accelerate your digital transformation. From the onset of your transformation journey, Advisory and Transformational Services focus on designing the transformation and creating a solution roadmap. Professional Services specializes in creative configurations with flawless and on-time implementation, and on-budget execution. Finally, operational services provides innovative new approaches like Flexible Capacity and Datacenter Care, to keep your business at peak performance. HPE is ready to bring together all the pieces of the puzzle for you, with an eye on the future, and make the complex simple.</p>
Recommended Support	HPE Proactive Care* with 24x7 coverage, three year Support Service <p>HPE Proactive Care gives customers an enhanced call experience. When your products are connected to HPE, Proactive Care helps prevent problems and maintains IT stability by utilizing personalized proactive reports with recommendations and advice. This Service combines three years proactive reporting and advice with our 24x7 coverage, four hour hardware response time when there is a problem. This service also includes collaborative software support for Independent Software Vendors (ISVs), (Red Hat, VMWare, Microsoft, etc.) running on your HPE servers. https://www.hpe.com/h20195/v2/GetPDF.aspx/4AA3-8855ENW.pdf</p> HPE Proactive Care* with 6 hour call-to-repair commitment, three year Support Service <p>HPE Proactive Care gives customers an enhanced call experience. When your products are connected to HPE, Proactive Care helps prevent problems and maintains IT stability by utilizing personalized proactive reports with recommendations and advice. This Service combines three years' proactive reporting and advice with our highest level of hardware support - HPE's 24x7, six hour hardware call-to-repair. HPE is the only leading manufacturer who makes this level of coverage available as a standard service offering for your most valuable servers. This service also includes collaborative software support for Independent Software Vendors (ISVs), (Red Hat, VMWare, Microsoft, etc.) running on your HPE servers. https://www.hpe.com/h20195/v2/GetPDF.aspx/4AA3-8855ENW.pdf</p> <p>*HPE Proactive Care and HPE Proactive Care Advanced require that the customer connect their devices to make the most of these services and receive all the deliverables.</p>
HPE Education Services	Keep your IT staff trained making sure they have the right skills to deliver on your business outcomes. Book on a class today and learn how to get the most from your technology investment. http://www.hpe.com/ww/learn
HPE Support Center	The HPE Support Center is a personalized online support portal with access to information, tools and experts to support HPE business products. Submit support cases online, chat with HPE experts, access support resources or collaborate with peers. Learn more http://www.hpe.com/support/hpesc HPE's Support Center Mobile App* allows you to resolve issues yourself or quickly connect to an agent for live support. Now, you can get access to personalized IT support anywhere, anytime. HPE Insight Remote Support and HPE Support Center are available at no additional cost with a HPE warranty, HPE Support Service or HPE contractual support agreement. *HPE Support Center Mobile App is subject to local availability.
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

Service and Support

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 quick-specs, or the technical product data sheet will not be provided, repaired, or replaced as part of these services.

The defective media retention service feature option applies only to Disk or eligible SSD/Flash Drives replaced by HPE due to malfunction.

Related Services

HPE Server Hardware Installation

Provides for the basic hardware installation of HPE branded servers, storage devices and networking options to assist you in bringing your new hardware into operation in a timely and professional manner.

<https://www.hpe.com/h20195/V2/GetPDF.aspx/5981-9356EN.pdf>

HPE Installation and Startup Service provides for the installation and startup of HPE technology including BladeSystems, C-Class enclosure, HPE ProLiant c-Class and Integrity server blades, storage blades, SAN switch blades, HPE Virtual Connect modules (Ethernet and Fibre Channel), Ethernet network interconnects, and InfiniBand, as well as the installation of one supported operating system type (Windows® or Linux).

NOTE: The HPE 12G SAS Expander is covered under the HPE Service Contract applied to the HPE ProLiant Server. No separate HPE support services need to be purchased.

- Warranty and Support Services will extend to include HPE options configured with your server or storage device. The price of support service is not impacted by configuration details. HPE sourced options that are compatible with your product will be covered under your server support at the same level of coverage allowing you to upgrade freely. Installation for HPE options is available as needed. To keep support costs low for everyone, some high value options will require additional support. Additional support is only required on select high value workload accelerators, fibre switches, InfiniBand and UPS batteries over 12KVA. See the specific high value options that require additional support [HERE](#)

Additional Service Information

<http://www.hpe.com/services>

HPE Smart Array Supporting Documents

For additional support documents, including and configuration guide and user guides, please visit: <http://www.hpe.com/info/SmartArrayGen10-docs>

Summary of Changes

Date	Version History	Action	Description of Change
14-Aug-2017	From Version 4 to 5	Added	Added additional SKUs for Gen10 platforms that support the SAS Expander Card.
		Changed	Updated Service and Support section.
24-Feb-2017	From Version 3 to 4	Added	Added additional SKUs for all Gen9 platforms that support the SAS Expander Card.
		Changed	Standard Features, Compatibility and Technical Specifications were updated.
26-Oct-2016	From Version 2 to 3	Changed	QuickSpecs was rebranded.
01-Dec-2014	From Version 1 to 2	Changed	Overview, Standard Features, and Compatibility sections were revised.



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For hard drives, 1GB = 1 billion bytes. Actual formatted capacity is less.

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