Overview

HPE Persistent Memory

Do you need to increase the performance of your data center database and analytics applications?

With traditional storage technology not always able to keep pace with today's demanding workloads, customers are looking for solutions that allow them faster access to their data so they can make quicker business decisions and achieve business outcomes in real time. This means bottlenecks that restrict that data flow must be removed so customers can access, analyze, and act on data more quickly to gain competitive advantage, thus increasing revenue and/or lowering TCO.
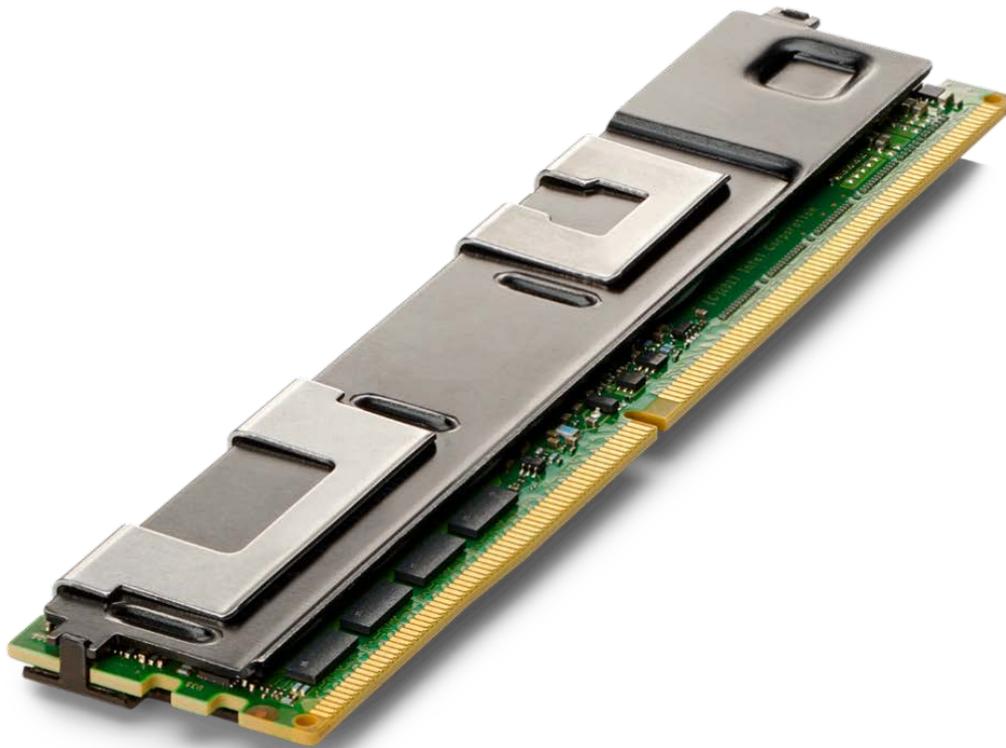
HPE Persistent Memory

What's new:
- New HPE ProLiant optimized for data-intensive workloads featuring Intel® Optane™ DC persistent memory
- 128GB, 256GB, 512GB capacities
                Support on second generation Intel Xeon Scalable processors

Overview

Models

HPE 128GB 2666 Persistent Memory Kit featuring Intel® Optane™ DC persistent memory   835804-B21

NOTE: Supported on select HPE ProLiant Gen10 servers with second generation Intel Xeon Scalable processors (DL360, DL380, DL560, DL580), and Synergy Gen10 Compute Modules (SY480 and SY660) - includes CTO support.

HPE 256GB 2666 Persistent Memory Kit featuring Intel® Optane™ DC persistent memory   835807-B21

NOTE: Supported on select HPE ProLiant Gen10 servers with second generation Intel Xeon Scalable processors (DL360, DL380, DL560, DL580), and Synergy Gen10 Compute Modules (SY480 and SY660) - includes CTO support.

HPE 512GB 2666 Persistent Memory Kit featuring Intel® Optane™ DC persistent memory   835810-B21

NOTE: Supported on select HPE ProLiant Gen10 servers with second generation Intel Xeon Scalable processors (DL360, DL380, DL560, DL580), and Synergy Gen10 Compute Modules (SY480 and SY660) - includes CTO support.

Standard Features

Modes of Operation
New class of memory which can be configured as either large server memory or fast storage
- Flexibility to deploy as dense memory or fast storage
- Single technology used as memory or storage reducing datacenter complexity

Solutions Designed Around Your Business Workloads
HPE Persistent Memory is designed around industry applications and workloads to deliver the persistence of storage to complete hardware and software ecosystem providing a comprehensive persistent memory solution for your business

Optimized for HPE servers, including select ProLiant and BladeSystem servers and Synergy Compute Modules.
The HPE Persistent Memory is designed for HPE Gen10 Servers featuring second generation Intel Xeon processors

The HPE Persistent Memory is supported on the following Gen10 servers:
HPE ProLiant DL Gen10: DL360, DL380, DL560 and DL580
HPE Synergy Gen10: SY480 and SY660

Operating Systems
Microsoft Windows Server 2012 R2 (HPE driver)
Microsoft Windows Server 2016 (HPE driver)
Microsoft Windows Server 2019
Red Hat Enterprise Linux 7.6
SUSE Linux Enterprise Server 12 SP4
SUSE Linux Enterprise Server 15
VMware 6.7 U1

Warranty
For details on HPE Server Options Limited Warranty visit:
http://h17007.www1.hpe.com/us/en/enterprise/servers/warranty

Other Resources
For information regarding HPE Persistent Memory visit: **http://www.hpe.com/info/persistentmemory**
For the latest updates on HPE Server Options visit: **http://www.hpe.com/info/serveroptions**

Service and Support

Service and Support

HPE Technology Services for ProLiant Servers
HPE Technology Services delivers confidence, reduces risk and helps customers realize agility and stability. Connect to Hewlett Packard Enterprise to help prevent problems and solve issues faster. Our support technology lets you to tap into the knowledge of millions of devices and thousands of experts to stay informed and in control, anywhere, any time.

Protect your business beyond warranty with HPE Support Services
HPE Support Services enable you to order the right service level, length of coverage and response time as you purchase your new server, giving you full entitlement for the selected support.
NOTE: This option is covered under the HPE Support Service(s) applied to the compute module. No separate HPE Support Service(s) need to be purchased.

HPE Support Center
Personalized online support portal with access to information, tools and experts to support Hewlett Packard Enterprise business products. Submit support cases online, chat with Hewlett Packard Enterprise experts, access support resources or collaborate with peers. Learn more at **https://www.hpe.com/us/en/support.html**

The HPE 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 personalize IT support anywhere, anytime.

HPE Insight Remote Support and HPE Support Center are available at no additional cost with a Hewlett Packard Enterprise warranty, HPE Support Service or Hewlett Packard Enterprise contractual support agreement.
*HPE Support Center Mobile App is subject to local availability.

Warranty / Service Coverage
For ProLiant servers and storage systems, this service covers Hewlett Packard Enterprise-branded hardware options qualified for the server, purchased at the same time or afterward, internal to the enclosure, as well as external monitors up to 22" and tower UPS products; these items will be covered at the same service level and for the same coverage period as the server unless the maximum supported lifetime and/or the maximum usage limitation has been exceeded. Coverage of the UPS battery is not included; standard warranty terms and conditions apply.

The defective media retention service feature option applies only to Disk or eligible SSD/Flash Drives replaced by Hewlett Packard Enterprise due to malfunction. It does not apply to any exchange of Disk or SSD/Flash Drives that have not failed. SSD/Flash Drives that are specified by Hewlett Packard Enterprise as consumable parts and/or that have exceeded maximum supported lifetime and/or the maximum usage limit as set forth in the manufacturer's operating manual or the technical data sheet are not eligible for the defective media retention service feature option.

For more information
To learn more on services for HPE ESSN Options, please contact your Hewlett Packard Enterprise sales representative or Hewlett Packard Enterprise Authorized Channel Partner. Or visit: **http://www.hpe.com/services/proliant**

Parts and materials
Hewlett Packard Enterprise 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 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 Hewlett Packard Enterprise due to malfunction.

Technical Specifications

	HPE 128GB 2666 Persistent Memory Kit featuring Intel® Optane™ DC persistent memory	835804-B21

Capacity 128GB
Height 0.75 in (1.91 cm)
Length 7.80 in (19.81 cm)
Interface DDR-T
Transfer Rate Synchronous 2666 MT/s
Maximum Power 15W

	HPE 256GB 2666 Persistent Memory Kit featuring Intel® Optane™ DC persistent memory	835807-B21

Capacity 256GB
Height 0.75 in (1.91 cm)
Length 7.80 in (19.81 cm)
Interface DDR-T
Transfer Rate Synchronous 2666 MT/s
Maximum Power 18W

	HPE 512GB 2666 Persistent Memory Kit featuring Intel® Optane™ DC persistent memory	835810-B21

Capacity 512GB
Height 0.75 in (1.91 cm)
Length x Width 7.80 in (19.81 cm)
Interface DDR-T
Transfer Rate Synchronous 2666 MT/s
Maximum Power 18W

Maximum Usage Limitations

| | Write endurance specifications for HPE Persistent Memory ||||||
| | 128GB || 256GB || 512GB ||
	15W	18W	15W	18W	15W	18W
Endurance 100% Writes 256B	292 PBW	N/A	363 PBW	505 PBW	300 PBW	458 PBW
Endurance 100% Writes 64B	91 PBW	N/A	91 PBW	126 PBW	75 PBW	114 PBW

PBW (Petabyte Written – 10^{15} bytes) based on bandwidth and media endurance considerations over 5 years lifetime assuming maximum bandwidth at stated power level for 24/7, 365 days per year.

Technical Specifications

Data Retention

Stress	Criteria	Accelerated Condition
10 full module write cycles	40 °C 5 years	85 °C 260 hours
100% endurance used	40 °C 3 months	85 °C 13 hours

Capacity	128GB, 256GB, and 512GB
Native Speed (MT/s)	2,666
Non-volatile media	3D Xpoint
Max number of NVDIMMs	2s (12) and 4s (24)
Max NVDIMM capacity (single server)	**Standard Processor** 2TB (2s) and 4TB (4s), **M-Processor** 4TB(2s) and 8TB(4s), **L-Processor** 6TB(2s) and 12TB(4s)
Compatible DIMM Types	RDIMMs and LRDIMMs
What's included in kit	HPE 128GB 2666 Persistent Memory or HPE 256GB 2666 Persistent Memory or HPE 512GB 2666 Persistent Memory
Imperial Dimensions (W x D x H)	5.25 in x .25 in x 1.23 in
Metric Dimensions (W x D x H)	2.54 cm x .64 cm x 3.12 cm
Imperial Weight	1.7 lbs
Metric Weight	.8kg

Environment-friendly Products and Approach- End-of-life Management and Recycling

Hewlett Packard Enterprise offers **end-of-life product return, trade-in, and recycling programs**, in many geographic areas, for our products. Products returned to Hewlett Packard Enterprise will be recycled, recovered or disposed of in a responsible manner.

The EU WEEE directive (2002/95/EC) requires manufacturers to provide treatment information for each product type for use by treatment facilities. This information (product disassembly instructions) is posted on the Hewlett Packard Enterprise web site. These instructions may be used by recyclers and other WEEE treatment facilities as well as Hewlett Packard Enterprise OEM customers who integrate and re-sell Hewlett Packard Enterprise equipment.

Summary of Changes

Date	Version History	Action	Description of Change
3-Jun-2019	Version 1	New	New QuickSpecs

Sign up for updates