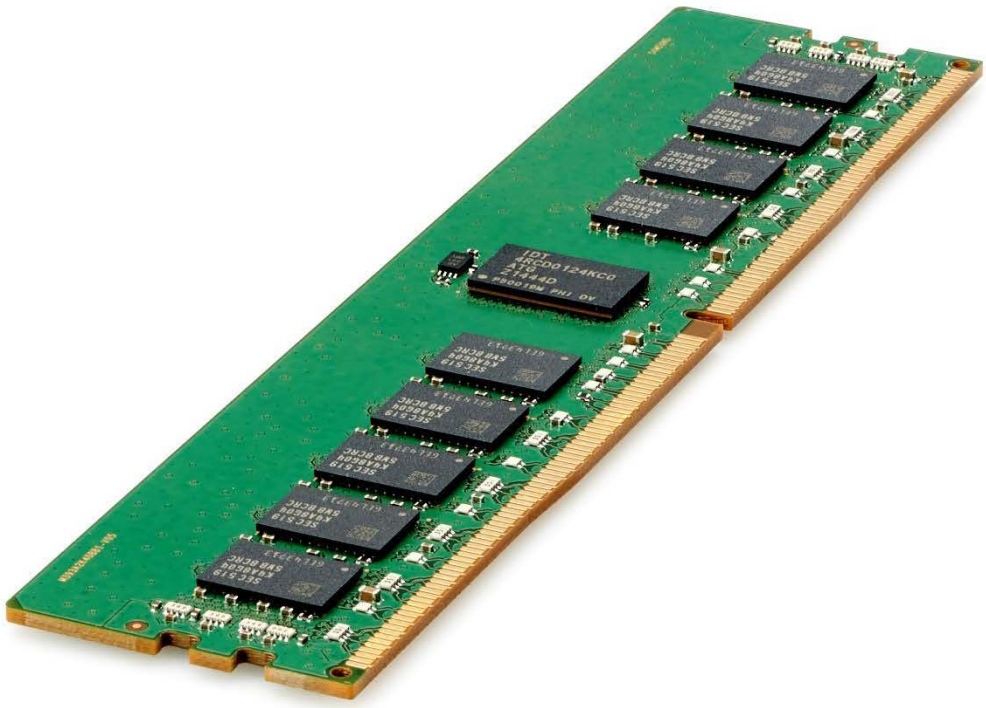
Overview

HPE DDR4 SmartMemory

HPE DDR4 SmartMemory delivers great performance, reliability, and efficiency. Our large selection of server memory solutions provides the compatibility, capacity and bandwidth you need to productively manage your expanding workload with HPE ProLiant Gen9 and Gen10 servers, Apollo family servers, Synergy systems, and Blade systems.

As workloads grow and data center trends such as server virtualization, cloud computing, and the use of large database applications increase the need for higher-capacity memory with greater uptime, the quality and reliability of DRAM become ever more important. HPE SmartMemory goes through additional rigorous qualification and testing processes that unlock extended memory performance features available only with HPE Gen9, Gen10, and Gen10 Plus servers. This extensive testing ensures that HPE server memory is completely compatible with and optimized for HPE servers.



HPE DDR4 SmartMemory

What's New

- HPE SmartMemory 3200 MT/s memory supported on HPE Gen10 Plus AMD servers

Overview

Models

Registered Memory Kits

HPE 8GB (1x8GB) Single Rank x8 DDR4-2400 CAS-17-17-17 Registered Memory Kit	805347-X21
HPE 16GB (1x16GB) Single Rank x4 DDR4-2400 CAS-17-17-17 Registered Memory Kit	805349-X21
HPE 16GB (1x16GB) Dual Rank x8 DDR4-2400 CAS-17-17-17 Registered Smart Memory Kit	P00423-X21
HPE 32GB (1x32GB) Dual Rank x4 DDR4-2400 CAS-17-17-17 Registered Memory Kit	805351-X21
HPE 8GB (1x8GB) Single Rank x8 DDR4-2666 CAS-19-19-19 Registered Smart Memory Kit	815097-X21
HPE 16GB (1x16GB) Single Rank x4 DDR4-2666 CAS-19-19-19 Registered Smart Memory Kit	815098-X21
HPE 16GB (1x16GB) Single Rank x4 DDR4-2666 CAS-19-19-19 Registered Smart Memory Kit	838081-X21
HPE 16GB (1x16GB) Dual Rank x8 DDR4-2666 CAS-19-19-19 Registered Smart Memory Kit	835955-X21
HPE 16GB (1x16GB) Dual Rank x8 DDR4-2666 CAS-19-19-19 Registered Smart Memory Kit	838089-X21
HPE 32GB (1x32GB) Dual Rank x4 DDR4-2666 CAS-19-19-19 Registered Smart Memory Kit	815100-X21
HPE 32GB (1x32GB) Dual Rank x4 DDR4-2666 CAS-19-19-19 Registered Smart Memory Kit	838083-X21
HPE 32GB 2Rx4 PC4-2666V-R Kit	P05590-X21
HPE 64GB (1x64GB) Dual Rank x4 DDR4-2666 CAS-19-19-19 Registered Smart Memory Kit	P05592-X21
HPE 8GB (1x8GB) Single Rank x8 DDR4-2933 CAS-21-21-21 Registered Smart Memory Kit	P00918-X21
HPE 8GB (1x8GB) Single Rank x8 DDR4-2933 CAS-21-21-21 Registered Smart	P19040-X21
HPE 16GB (1x16GB) Single Rank x4 DDR4-2933 CAS-21-21-21 Registered Smart Memory Kit	P00920-X21
HPE 16GB (1x16GB) Single Rank x4 DDR4-2933 CAS-21-21-21 Registered Smart	P19041-X21
HPE 16GB (1x16GB) Dual Rank x8 DDR4-2933 CAS-21-21-21 Registered Smart Memory Kit	P00922-X21
HPE 16GB (1x16GB) Dual Rank x8 DDR4-2933 CAS-21-21-21 Registered Smart	P19042-X21
HPE 32GB (1x32GB) Dual Rank x4 DDR4-2933 CAS-21-21-21 Registered Smart Memory Kit	P00924-X21
HPE 32GB (1x32GB) Dual Rank x4 DDR4-2933 CAS-21-21-21 Registered Smart	P19043-X21
HPE 64GB (1x64GB) Dual Rank x4 DDR4-2933 CAS-21-21-21 Registered Smart Memory Kit	P00930-X21
HPE 64GB (1x64GB) Dual Rank x4 DDR4-2933 CAS-21-21-21 Registered Smart	P19045-X21
HPE 8GB (1x8GB) Single Rank x8 DDR4-3200 CAS-22-22-22 Registered Smart Memory Kit	P07638-X21
HPE 16GB (1x16GB) Single Rank x4 DDR4-3200 CAS-22-22-22 Registered Smart Memory Kit	P07640-X21
HPE 16GB (1x16GB) Dual Rank x8 DDR4-3200 CAS-22-22-22 Registered Smart Memory Kit	P07642-X21
HPE 32GB (1x32GB) Dual Rank x4 DDR4-3200 CAS-22-22-22 Registered Smart Memory Kit	P07646-X21
HPE 32GB (1x32GB) Dual Rank x8 DDR4-3200 CAS-22-22-22 Registered Smart Memory Kit	P07644-X21
HPE 64GB (1x64GB) Dual Rank x4 DDR4-3200 CAS-22-22-22 Registered Smart Memory Kit	P07650-X21

Load-reduced Memory Kits

HPE 64GB (1x64GB) Quad Rank x4 DDR4-2400 CAS-17-17-17 Load Reduced Memory Kit	805358-X21
HPE 64GB (1x64GB) Quad Rank x4 DDR4-2666 CAS-19-19-19 Load Reduced Smart Memory Kit	815101-X21
HPE 64GB (1x64GB) Quad Rank x4 DDR4-2666 CAS-19-19-19 Load Reduced Smart Memory Kit	838085-X21
HPE 128GB (1x128GB) Octal Rank x4 DDR4-2666 CAS-22-19-19 3DS Load Reduced Memory Kit	815102-X21
HPE 128GB (1x128GB) Octal Rank x4 DDR4-2666 CAS-22-19-19 3DS Load Reduced Smart Memory Kit	838087-X21
HPE 64GB (1x64GB) Quad Rank x4 DDR4-2933 CAS-21-21-21 Load Reduced Smart Memory Kit	P00926-X21
HPE 64GB (1x64GB) Quad Rank x4 DDR4-2933 CAS-21-21-21 Load Reduced Smart	P19044-X21
HPE 128GB (1x128GB) Quad Rank x4 DDR4-2933 CAS-24-21-21 Load Reduced	P11040-X21
HPE 128GB (1x128GB) Quad Rank x4 DDR4-2933 CAS-21-21-21 Load Reduced	P19047-X21
HPE 128GB (1x128GB) Octal Rank x4 DDR4-2933 CAS-24-21-21 Load Reduced 3DS Smart Memory Kit	P00928-X21

NOTE: Memory DIMM availability for a specific server platform is dependent upon completion of certification testing.

Fast Fault Tolerance Factory Setting

HPE Smart Memory Fast Fault Tolerance FIO Setting	875293-B21

NOTE: Select this part number to enable HPE Fast Fault Tolerance, which allows server memory to run at the resiliency of double device data correction (DDDC), but with significantly higher performance. HPE Fast Fault Tolerance is available on all HPE Gen10 servers with an Intel® central processing unit.

Overview

XXXXXX**-X21** is SKU designation formed by a common six digit part number and a **-X21** suffix that identifies a SKU that is available across multiple server family lines. Refer to the table below to find the SKU suffix that applies to the specific server product line this option can be ordered with.

-B21	-H21	-K21
COMPUTE	**SPECIALIZED COMPUTE**	**STORAGE**
HPE Cloudline CL2100/CL2200/CL2800/CL3100/CL4100/CL5200/CL5800 Servers	HPE Apollo 35/40/70 Systems	HPE Apollo 4200 Gen9/Gen10 Servers
HPE Composable Cloud for ProLiant DL	HPE Apollo 2000/6000 Servers	HPE Apollo 4200 Gen10 LFF Server for BlueData Software
HPE ProLiant BL460c/BL660c Servers	HPE XL170r/XL190r/XL270d (Apollo 6500) Gen10 Server for BlueData Software	HPE Apollo 4510 Gen10 System
HPE ProLiant DL20/DL160/DL180 Servers	HPE Converged System 300/500/700/750	HPE D3000/D6020/D8000 Disk Enclosures
HPE ProLiant DL325/DL360/DL380/DL385/DL560/DL580 Servers	HPE Edgeline Systems and Servers	HPE D2220sb/D2500sb Storage Blade
HPE ProLiant DX360/DX380 Servers	HPE Integrity BL860c i6/BL870c i6/BL890c i6 Server Blades	HPE Scalable Object Storage with Scality RING
HPE ProLiant MicroServer	HPE Integrity MC990 X Server	HPE SimpliVity 2600
HPE ProLiant for Microsoft Azure Stack	HPE Integrity rx2800 i6 Server	HPE SimpliVity 325/380 Gen10
HPE ProLiant ML30/ML110/ML350 Servers	HPE Integrity Superdome	HPE Storage File Controllers
HPE Synergy 480/660 Systems	HPE ProLiant DX170r/DX190r, DX2000 Servers	HPE StoreEasy 1460/1560/1650/1660/1860
HPE Synergy D3940 Storage Module	HPE SGI 8600 System	**Disclaimer:** This may not be a complete listing of applicable servers
	HPE Solutions for SAP HANA (TDI)	
	HPE Apollo Systems for BlueData Software	

Standard Features

What is HPE SmartMemory?

HPE SmartMemory uniquely optimizes memory performance on the HPE ProLiant Rack and Tower servers, Apollo family servers, Blade systems, and Synergy systems. Authenticated HPE SmartMemory supports extended memory performance in the competitive landscape and provides customers with service enhancement through HPE Active Health Systems and other HPE proprietary software.

Quality and Performance

HPE SmartMemory undergoes a rigorous qualification process to provide customers with the highest server memory quality options. Its performance is tested and optimized for HPE servers, supporting unique features only available with HPE servers and systems. In addition, it enhances memory throughput up to 23% and achieves an improvement in latency of up to 25%.

HPE Active Health System

HPE SmartMemory works in conjunction with the HPE Active Health System which monitors changes to the server hardware configuration to enable lifecycle monitoring of memory health status. Having insight into memory-related service events will shorten problem diagnosis and deliver rapid resolutions if and when failures occur. Whereas the pre-failure alert simply notifies the administrator of an impending failure, HPE SmartMemory can provide rich insight into memory-related events like multi-bit errors or configuration issues.

Support Matrix

Please visit the following URL for the latest list of supported servers:
http://www.hpe.com/servers/servermemoryconfigurator

Other Resources

For the latest updates on HPE Server Options, visit: **http://www.hpe.com/us/en/servers/memory.html**

For more information on HPE Persistent Memory options, visit: **https://www.hpe.com/us/en/servers/persistent-memory.html**

Service and Support

HPE Support Center
HPE Support Center offers 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: **https://www.hpe.com/us/en/services/it-support.html**

The HPE Support Center mobile app helps you resolve issues yourself or quickly connect to an agent for live support. Now you can get access to personalize IT support anywhere, anytime.
NOTE: The HPE Support Center mobile app is subject to local availability

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.

Warranty / Service Coverage
For ProLiant servers and storage systems, this service covers HPE branded hardware options qualified for the server, purchased at the same time or afterward, internal to the enclosure, tower UPS products, and external monitors up to 22 inches 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.

For details on the HPE Server Options limited warranty, visit:
https://support.hpe.com/hpsc/doc/public/display?docId=emr_na-c00383139

General Memory Population Rules and Guidelines:

For details on the memory population rules for HPE Intel Xeon Gen10 servers, visit:
http://www.hpe.com/docs/memory-population-rules

For details on the memory population rules for HPE Intel Xeon Gen10 Plus servers, visit:
http://www.hpe.com/docs/memory-population-rules-Gen10Plus

For details on the memory population rules for HPE AMD Gen10 servers, visit:
http://www.hpe.com/docs/amd-population-rules

For details on the memory population rules for HPE AMD Gen10 servers, visit:
http://www.hpe.com/docs/amd-population-rules-Gen10Plus

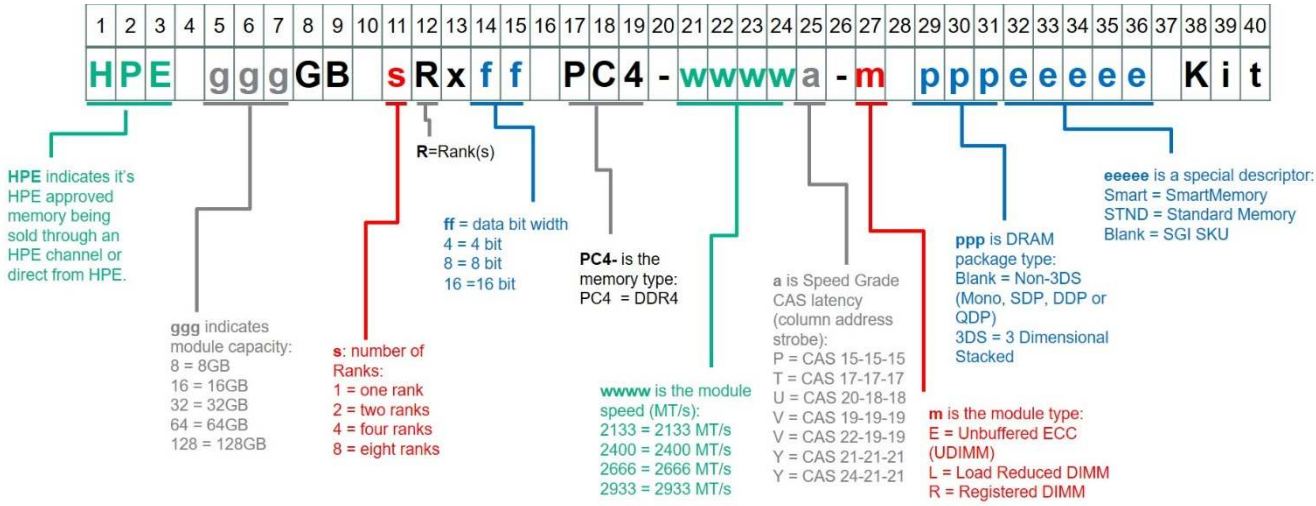
Technical Specifications

Memory Speed by Processor Model

For details on HPE server memory speeds, visit: **http://www.hpe.com/docs/memory-speed-table**

Memory options part number decoder

Short Name



Summary of Changes

Date	Version History	Action	Description of Change
02-Dec-2019	Version 21	Changed	Overview SKUs section was updated
07-Oct-2019	Version 20	Changed	Configuration Information section was updated
05-Aug-2019	Version 19	Changed	Overview Section was updated
17-May-2019	Version 18	Added	SKUs were added in Models sections: P19040-B21, P19041-B21,P19042-B21,P19043-B21,P19044-B21,P19045-B21,P19046-B21,P19047-B21
02-Apr-2019	Version 17	Changed	Technical Specifications section was updated
17-Dec-2018	Version 16	Changed	Overview section was updated. SKU added in Overview section: P00423-B21, 838089-B21. SKU deleted in Overview section: 836220-B21
01-Oct-2018	Version 15	Changed	Overview section was updated.
06-Aug-2018	Version 14	Changed	Overview, Standard Features, and Service and Support sections were updated. SKUs were added in Models sections: P05592-B21. Obsolete SKUs were deleted: 838079-B21, 838089-B21, P05580-B21, 838083-B21, 726722-B21.
04-Jun-2018	Version 13	Changed	Overview, Standard Features, Service and Support sections were updated. SKUs added in Models section: 726718-B21, 726719-B21, 728629-B21, 805347-B21, 836220-B21, 815097-B21, 876181-B21, 838079-B21, P05586-B21, 838081-B21, 838089-B21, P05588-B21, 838083-B21, P05590-B21, 726722-B21, 726724-B21, 805353-B21, 809208-B21, 815102-B21, 838085-B21, 838087-B21.
05-Mar-2018	Version 12	Changed	Obsolete SKUs deleted: 726717-B21, 759934-B21, 726720-B21.
04-Dec-2017	Version 11	Changed	Overview, Standard Features, and Service and Support sections were updated. SKUs added in Models section.
25-Sep-2017	Version 10	Changed	Overview, Standard Features, Platform Information, Service and Support, and Technical Specifications section were updated. Obsolete SKU was deleted: 792278-B21
11-Jul-2017	Version 9	Changed	Overview, Standard Features, Platform Information, Service and Support, and Technical Specifications section were updated. SKUs added in Platform Information section: 815097-B21, 876181-B21, 815098-B21, 835955-B21, 815100-B21, 815101-B21, 815102-B21.
13-Feb-2017	Version 8	Changed	Models section was updated.
06-Jun-2016	Version 7	Changed	Overview, Compatibility, Standard Features, Service and Support, and Technical Specifications sections were updated. Memory Speed Table, Ground rules updates, Tech Term edits
31-Mar-2016	Version 6	Changed	Overview, Overview, Standard Features, Service and Support, and Technical Specifications SKU added in Models section: 805347-B21, 805349-B21, 836220-B21, 805351-B21, 805353-B21, 805358-B21, 726718-B21, 726719-B21, 728629-B21, 726722-B21, 809208-B21
01-Jun-2015	Version 5	Changed	SKU added in Models section: 726724-B21 What´s new, Technical Specifications and models sections were updated.
30-Mar-2015	Version 4	Changed	Overview, Service and Support and Technical Specifications sections were updated SKU added on Models: 728629-B21
16-Jan-2015	Version 3	Changed	Performance section on Standard Features was updated
01-Dec-2014	Version 2	Changed	Overview and Technical Specifications sections were updated
		Added	SKUs added to Models: 726717-B21, 759934-B21, 726720-B21, 792278-
09-Sep-2014	Version 1	New	New QuickSpecs.

Summary of Changes



Sign up for updates

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