

Overview

HP provides several high performance Flash Media kits for customers who require boot from flash solutions. Form factors include USB Key, SD Card and MicroSD Card allowing the flexibility to support VMWare Hypervisors and direct OS boot for Windows2012 Server and Linux across HP ProLiant portfolio.

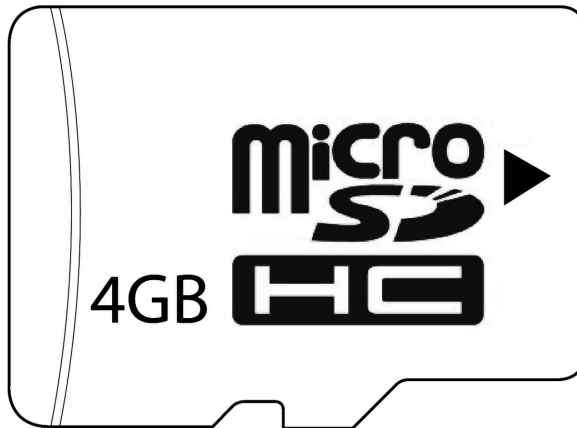
HP Flash Media kits optimized for VMWare Hypervisors:

- HP 2GB USB Flash Media Drive Key Kit
- HP 8GB USB Enterprise Mainstream Flash Media Drive Key Kit
- HP 4GB SD Enterprise Performance Flash Media Kit
- HP 4GB microSD Enterprise Performance Flash Media Kit
- HP 8GB SD Enterprise Mainstream Flash Media Kit
- HP 8GB microSD Enterprise Mainstream Flash Media Kit

HP Flash Media kits optimized for Windows2012 and Linux boot:

- HP 32GB SD Enterprise Mainstream Flash Media Kit
- HP 32GB microSD Enterprise Mainstream Flash Media Kit

HP 4GB MicroSD Enterprise Performance Flash Media Kit



What's New

- HP 8GB USB Enterprise Mainstream Flash Media Drive Key Kit
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Overview

Models

HP Flash Media Kits for USB Drives

HP Flash Media Kits for USB Drives

HP 2GB USB Flash Media Drive Key Kit 608447-B21

HP 8GB USB Enterprise Mainstream Flash Media Drive Key Kit 737953-B21

HP Enterprise Mainstream Flash Media Kits for Memory Cards

HP 8GB SD Enterprise Mainstream Flash Media Kit 726113-B21

HP 8GB microSD Enterprise Mainstream Flash Media Kit 726116-B21

HP 32GB SD Enterprise Mainstream Flash Media Kit 700136-B21

HP 32GB microSD Enterprise Mainstream Flash Media Kit 700139-B21

Compatibility

Compatibility

**HP 2GB USB Flash Media
Drive Key Kit**
(PN 608447-B21)

NOTE: This is a list of supported servers. Some may be discontinued.

ProLiant BL (BladeSystem):

- HP ProLiant BL280c G6
- HP ProLiant BL2x220c G6
- HP ProLiant BL2x220c G7
- HP ProLiant BL420c Gen8
- HP ProLiant BL460c G7
- HP ProLiant BL460c Gen8
- HP ProLiant BL465c G6
- HP ProLiant BL465c G7
- HP ProLiant BL465c Gen8
- HP ProLiant BL490c G6
- HP ProLiant BL490c G7
- HP ProLiant BL495c G6
- HP ProLiant BL620c G7
- HP ProLiant BL660c Gen8
- HP ProLiant BL680c G7
- HP ProLiant BL685c G6
- HP ProLiant BL685c G7

ProLiant DL (rack-optimized):

- HP ProLiant DL160 G6
- HP ProLiant DL160 Gen8
- HP ProLiant DL165 G7
- HP ProLiant DL170e G6
- HP ProLiant DL180 G6
- HP ProLiant DL320 G6
- HP ProLiant DL320e Gen8
- HP ProLiant DL320e Gen8 v2
- HP ProLiant DL360 G6
- HP ProLiant DL360e Gen8
- HP ProLiant DL360p Gen8
- HP ProLiant DL370 G6
- HP ProLiant DL380 G7
- HP ProLiant DL380e Gen8
- HP ProLiant DL380p Gen8
- HP ProLiant DL385 G7
- HP ProLiant DL385p Gen8
- HP ProLiant DL560 Gen8
- HP ProLiant DL580 G7
- HP ProLiant DL585 G7
- HP ProLiant DL785 G6
- HP ProLiant DL980 G7

ProLiant ML (expansion-optimized):

Compatibility

- HP ProLiant ML310 G5p
- HP ProLiant ML310e Gen8 v2
- HP ProLiant ML330 G6
- HP ProLiant ML350 G6
- HP ProLiant ML350e Gen8
- HP ProLiant ML350e Gen8 v2
- HP ProLiant ML350p Gen8
- HP ProLiant ML370 G6

ProLiant SL (Scalable System):

- HP ProLiant SL210t Gen8
- HP ProLiant SL230s Gen8
- HP ProLiant SL250s Gen8
- HP ProLiant SL270s Gen8

ProLiant MicroServer:

- HP ProLiant MicroServer Gen8

WorkStation Blade:

- HP ProLiant WS460c G6
- HP ProLiant WS460c Gen8

NOTE: This is a list of supported servers. Some may be discontinued.

ProLiant BL (BladeSystem):

- HP ProLiant BL420c Gen8
- HP ProLiant BL460c Gen8
- HP ProLiant BL465c Gen8
- HP ProLiant BL620c G7
- HP ProLiant BL660c Gen8
- HP ProLiant BL680c G7
- HP ProLiant BL685c G7

ProLiant DL (rack-optimized):

- HP ProLiant DL160 Gen8
- HP ProLiant DL320e Gen8
- HP ProLiant DL320e Gen8 v2
- HP ProLiant DL360p Gen8
- HP ProLiant DL380p Gen8
- HP ProLiant DL385p Gen8
- HP ProLiant DL560 Gen8
- HP ProLiant DL580 G7
- HP ProLiant DL585 G7

ProLiant ML (expansion-optimized):

- HP ProLiant ML310e Gen8
- HP ProLiant ML310e Gen8 v2

**HP 8GB USB Enterprise
Mainstream Flash Media
Drive Key Kit**
(PN 737953-B21)

Compatibility

- HP ProLiant ML350e Gen8
- HP ProLiant ML350p Gen8

ProLiant SL (Scalable System):

- HP ProLiant SL210t Gen8
- HP ProLiant SL230s Gen8
- HP ProLiant SL250s Gen8
- HP ProLiant SL270s Gen8

ProLiant MicroServer:

- HP ProLiant MicroServer Gen8

NOTE: This is a list of supported servers. Some may be discontinued.

HP 8GB SD Enterprise Mainstream Flash Media Kit

(PN 726113-B21)

ProLiant DL (rack-optimized):

- HP ProLiant DL160 Gen8
- HP ProLiant DL320e Gen8
- HP ProLiant DL360e Gen8
- HP ProLiant DL360p Gen8
- HP ProLiant DL380e Gen8
- HP ProLiant DL380p Gen8
- HP ProLiant DL385p Gen8
- HP ProLiant DL580 G7
- HP ProLiant DL585 G7

ProLiant ML (expansion-optimized):

- HP ProLiant ML310e Gen8
- HP ProLiant ML350e Gen8
- HP ProLiant ML350e Gen8 v2
- HP ProLiant ML350p Gen8

NOTE: This is a list of supported servers. Some may be discontinued.

HP 8GB microSD Enterprise Mainstream Flash Media Kit

(PN 726116-B21)

ProLiant BL (BladeSystem):

- HP ProLiant BL420c Gen8
- HP ProLiant BL460c Gen8
- HP ProLiant BL465c Gen8
- HP ProLiant BL620c G7
- HP ProLiant BL660c Gen8
- HP ProLiant BL680c G7
- HP ProLiant BL685c G7

ProLiant DL (rack-optimized):

- HP ProLiant DL320e Gen8 v2
- HP ProLiant DL560 Gen8

ProLiant ML (expansion-optimized):



Compatibility

- HP ProLiant ML310e Gen8 v2

ProLiant SL (Scalable System):

- HP ProLiant SL230s Gen8
- HP ProLiant SL250s Gen8
- HP ProLiant SL270s Gen8

ProLiant MicroServer:

- HP ProLiant MicroServer Gen8

NOTE: This is a list of supported servers. Some may be discontinued.

HP 32GB SD Enterprise Mainstream Flash Media Kit

(PN 700136-B21)

ProLiant DL (rack-optimized):

- HP ProLiant DL160 Gen8
- HP ProLiant DL320e Gen8
- HP ProLiant DL360e Gen8
- HP ProLiant DL360p Gen8
- HP ProLiant DL380e Gen8
- HP ProLiant DL380p Gen8
- HP ProLiant DL385p Gen8

ProLiant ML (expansion-optimized):

- HP ProLiant ML310e Gen8
- HP ProLiant ML350e Gen8
- HP ProLiant ML350e Gen8 v2
- HP ProLiant ML350p Gen8

NOTE: This is a list of supported servers. Some may be discontinued.

HP 32GB microSD Enterprise Mainstream Flash Media Kit

(PN 700139-B21)

ProLiant BL (BladeSystem):

- HP ProLiant BL420c Gen8
- HP ProLiant BL460c Gen8
- HP ProLiant BL465c Gen8
- HP ProLiant BL660c Gen8

ProLiant DL (rack-optimized):

- HP ProLiant DL560 Gen8

ProLiant SL (Scalable System):

- HP ProLiant SL230s Gen8
- HP ProLiant SL250s Gen8
- HP ProLiant SL270s Gen8

ProLiant MicroServer:

- HP ProLiant MicroServer Gen8

Compatibility

WorkStation Blade:

- HP ProLiant WS460c Gen8

Standard Features

Why HP Flash Media?

HP Flash media provides a high quality and reliability solution for virtualization environments where customers require a boot device and where performance is of utmost importance. There are many flash device choices on the market supporting all types of applications. The vast majorities of these devices are low grade MLC (Multilevel Cell) based and provide adequate low cost storage solution. HP Flash Media devices use highest industry flash technology that provides a higher level of performance and longer endurance characteristics than MLC. Each device undergoes rigorous performance testing, software validation and strict revision control to ensure the highest level of quality and reliability.

Read/Write Performance

HP Flash Media products offer superior performance with greater than 10+ MB/second Read Transfer Rate, and 5+ MB/second Write Transfer Rate.

Intelligent Provisioning

HP Intelligent Provisioning allows operating systems to be provisioned directly onto HP Flash Media kits, and can be done with just AUX power (using HP iLO's SPI connection). This allows easy deployment without powering on the server, and without any storage disks.

Power

A typical flash media device draws 1W versus 18W total power on 2 x 146GB SAS 10K SFF hard drives in a RAID configuration. Estimated yearly power expense savings versus 2 mechanical media hard disk drives is \$56 which means power savings alone will pay for the Flash Media device in about 16 months.

OS Support

HP 2GB USB Flash Media Drive Key Kit / HP 4GB SD Enterprise Performance Flash Media Kit / HP 4GB microSD Enterprise Performance Flash Media Kit / HP 8GB SD Enterprise Mainstream Flash Media Kit / HP 8GB microSD Enterprise Mainstream Flash Media Kit optimized for:

- VMware ESX Server 3.5 Update 4 Build 153875 (30 Mar 2009)
- VMware ESX Server 3.5 Update 5 Build 207095 (03 Dec 2009)
- VMware vSphere 4.0 (May 20, 2009)
- VMware ESX 4.0 Build 164009 (21 May 2009)
- VMware ESX 4.0 Update 1 Build 208167 (19 Nov 2009)
- VMware ESXi 4.1
- VMware ESXi 5.0
- VMware ESXi 5.1
- VMware ESXi 5.5

HP 32GB SD Enterprise Mainstream Flash Media Kit / HP 32GB microSD Enterprise Mainstream Flash Media Kit optimized for:

- Windows Server 2012 Standard Server
- Windows Server 2012 Standard Server Core
- Windows Server 2012 Datacenter Server
- Windows Server 2012 Datacenter Server Core
- Windows Server 2012 Hyper-V Server
- RHEL 6.3 (64 bit)
- RHEL 6.4 (64 bit)
- SLES11 SP2 (32 & 64 bit)
- SLES11 SP3 (32 & 64 bit)
- Ubuntu 12.04 (32 & 64 bit)

Standard Features

Warranty

HP Flash Media Kits have a 1 year limited warranty regardless of the warranty period for the system in which they are installed.

For more details on HP Qualified Options Limited Warranty visit:

<http://h18004.www1.hp.com/products/servers/platforms/warranty/index.html>

Service and Support

Service and Support

HP Care Pack Services: Packaged server and storage services for increased uptime, productivity and ROI

When you buy HP server and storage products and solutions, it's also a good time to think about what levels of support you may need. Our portfolio of service options reduce deployment and management worries while helping you get the most out of your server and storage investments. We take a holistic approach to your environment, bridging servers, blades, storage, software and network infrastructures with our packaged HP Care Pack Services for servers and storage.

HP Care Pack Services: Upgrading or extending standard server and storage warranties cost effectively

HP Care Pack Services offer a standard reactive hardware and software support services suite sold separately, or combined with our Support Plus and Support Plus 24 services. The portfolio also provides a combination of integrated proactive and reactive services, such as Proactive 24 Service and Critical Service. In addition with HP Proactive Select, you can acquire the specific proactive constancy and technical services. HP Proactive Select menu offers a broad set of service options that you can mix and match depending on your specific requirements. Proactive service options include offers for server, storage, network, SAN device, software environment, and education services.

HP server and storage lifecycle support services offer a full spectrum of customer care—from technology support to complex migrations to complete managed services. HP Factory Express provides customization, integration and deployment services for turnkey solutions. HP Education Services offer flexible, comprehensive training on to help your IT staff get the most out of your server and storage investments. HP Financial solutions extend innovative financing and cost-effective asset management programs—from purchase to equipment retirement.

Learn more: www.hp.com/services/servers and www.hp.com/services/storage

NOTE: Care Pack Services availability may vary by product and country.

HP Care Pack Services are sold by HP and HP Authorized Service Partners:

- Services for customers purchasing from HP or an enterprise reseller are quoted using HP order configuration tools.
- Customers purchasing from a commercial reseller can find HP Care Pack Services at <http://www.hp.com/go/lookuptool>

Service and Support

Recommended HP Care Pack Services for optimal satisfaction with your HP product

Recommended Services **Hardware Options Support**

HP Care Packs provide support for all HP-branded hardware options qualified for inclusion in your server or storage solution. Any additional HP-qualified options installed within the server are covered at the same service level and for the same period as the server and no additional cost.

- Help improve or maintain system uptime
- Convenient onsite support
- Committed response time

<http://h20195.www2.hp.com/V2/GetPDF.aspx/5982-6547EEE>

3-Year HP Hardware Support Onsite Service, 4-hour response, 24x7

Provides you with rapid remote support and if required an HP authorized representative who will arrive on site any time and day of the year to begin hardware maintenance service within 4 hours of the service request being logged.

This service provides a trained HP service specialist to perform an installation that meets HP quality standards, for:

- Help improve or maintain system uptime
- Convenient onsite support
- Committed response time

<http://h20195.www2.hp.com/V2/GetPDF.aspx/5982-6547EEE>

HP Installation and Startup of HP ProLiant Servers

Provides for the installation of your new HP ProLiant server and operating system to assist you in bringing your new HP ProLiant server and operating system into operation in a timely and professional manner.

This service provides a trained HP service specialist to perform an installation that meets HP quality standards, for:

- Delivery of the service at a mutually scheduled time convenient to your organization
- Availability of an HP service specialist to answer basic questions during the onsite delivery of this service
- Custom installation as detailed in "Delivery specifications" or in a Statement of Work (SOW)
- Verification prior to installation that all service prerequisites are met

<http://h20195.www2.hp.com/V2/GetPDF.aspx/5982?7572ENN>

Service and Support

Optional HP Care Pack Services that will enhance your HP product experience

Optional Services

3-Year HP Hardware Support Onsite Call-to-Repair (CTR) Service, 6- or 24-hour

As an alternative to our recommended support level, for customers who need committed call-to-repair for server hardware.

Provides your IT manager with a team of support specialists who will quickly begin troubleshooting the system to help return the hardware to operating condition within 6 or 24 hours of the initial service request to the HP Global Solution Center.

<http://h20195.www2.hp.com/V2/GetPDF.aspx/5982-6547EN.pdf>

3-Year HP Support Plus 24

As an alternative to our recommended support level, for customers who need access to responsive 24x7 hardware and software support plus software updates on HP and selected third party products:

For a higher return on your server and storage technology, our 3-year combined reactive support service delivers integrated onsite hardware/software support services available 24x7x365, including access to HP technical resources, 4-hour response onsite hardware support and software updates.

<http://h20195.www2.hp.com/V2/GetPDF.aspx/5981-6638EEE>

HP Proactive Select Service

Customer needs on demand access to consulting, technical proactive services and education courses

Provides a flexible way to purchase HP best-in-class consultancy and technical services. You can buy Proactive Select Service Credits when you purchase your hardware and then use the credits over the next 12 months.

<http://h20195.www2.hp.com/V2/GetPDF.aspx/4AA2-3842ENN>

eSupport

HP eSupport is a portfolio of technology-based services that assist you with managing your business environment - from the desktop to the data center.

Support Portal

The HP support portal provides one-stop access to the information, tools and services you need to manage the daily operations of your IT environment.

Features include:

- Access to self-solve tools (including search technical knowledge base)
- Efficient logging and tracking of support cases
- Collaboration with other business and IT professionals
- Download of patches and drivers
- Access to diagnostic tools
- Proactive notification of relevant information

Access to certain features of the support portal requires an HP service agreement. To access the support portal, visit: <http://www.hp.com/support>

Service and Support

HP Insight Remote Support software delivers secure remote support for your HP Servers and Storage, 24 X 7, so you can spend less time solving problems and more time focused on your business. You can have your systems remotely monitored for hardware failure using secure technology that's been proven at thousands of companies around the world. In many cases, you can avoid problems before they occur.

Customer Technical Training

In today's cost-conscious business environment, IT professionals, developers, consultants and users face an interesting challenge: how to keep up with the latest technologies and expand important skills while delivering profitable results on current projects. To help address this challenge, HP offers innovative training solutions that help keep you up-to-date on virtualization, server, storage, Insight Control, Citrix, Microsoft® and open source/Linux-related topics-while spending less time away from business-critical activities.

HP Services Awards

HP Technology Services continues to be recognized for service and support excellence by customers, partners, industry organizations and publications around the world. Recent honors and award reflect our services team's dedications, technical expertise, professionalism and uncompromising commitment to customer satisfaction.

Additional Services Information

To learn more on HP ProLiant servers, HP BladeSystem servers and HP storage products, please contact your HP sales representative or HP Authorized Channel Partner. Or visit: www.hp.com/services/proliant or www.hp.com/services/ bladesystem or <http://www.hp.com/services/storage>

Technical Specifications

HP 2GB USB Flash Media Key Kit 608447-B21	Usable Capacity	2GB
	Performance	23+ MB/second Read Transfer Rate, 17+ MB/second Write Transfer Rate
	Class	Class 6
	Form factor	57.24mm(L) x 17.29mm(W) x 9.5mm(H)
	Voltage	3.0V (min) - 3.6V (max)
	Compliance	USB specification revision 1.1 and 2.0
	Operating Temperature	0/70°C (Operational), -25°C/85°C (non-operational)
	Software	Blank media, supports ESXi 4.x

HP 8GB USB Enterprise Mainstream Flash Media Drive Key Kit 737953-B21	Usable Capacity	8GB
	Performance	20+ MB/second Read Transfer Rate, 17 10+ MB/second Write Transfer Rate
	Form factor	57.24mm(L) x 17.29mm(W) x 9.5mm(H)
	Voltage	4.5V (min) - 5.5V (max)
	Compliance	USB specification revision 1.1 and 2.0
	Operating Temperature	0/70°C (Operational), -25°C/85°C (non-operational)
	Software	Blank media, supports ESXi 4.x, ESXi 5.x

HP 8GB SD EM Flash Media Kit 726113-B21	Usable Capacity	8GB
	Performance	21+ MB/second Read Transfer Rate, 17+ MB/second Write Transfer Rate
	Class	Class 10
	Form factor	32mm(L) x 24mm(W) x 2.1mm(H)
	Voltage	2.7V (min) - 3.6V (max)
	Compliance	SD Card Association
	Operating Temperature	0°C /70°C (Operational), -25°C/85°C (non-operational)

HP 8GB microSD EM Flash Media Kit 726116-B21	Usable Capacity	8GB
	Performance	21+ MB/second Read Transfer Rate, 17+ MB/second Write Transfer Rate
	Class	Class 10
	Form factor	15mm(L) x 11mm(W) x .95mm(H)
	Voltage	2.7V (min) - 3.6V (max)
	Compliance	SD Card Association
	Operating Temperature	0°C /70°C (Operational), -25°C/85°C (non-operational)

Technical Specifications

HP 32GB SD Enterprise Mainstream Flash Media Kit 700136-B21	Usable Capacity	32GB
	Performance	21+ MB/second Read Transfer Rate, 17+ MB/second Write Transfer Rate
	Class	Class 10
	Form factor	32mm(L) x 24mm(W) x 2.1mm(H)
	Voltage	2.7V (min) - 3.6V (max)
	Compliance	SD Card Association
	Operating Temperature	0°C / 70°C (Operational), -25°C / 85°C (non-operational)

HP 32GB microSD Enterprise Mainstream Flash Media Kit 700139-B21	Usable Capacity	32GB
	Performance	21+ MB/second Read Transfer Rate, 17+ MB/second Write Transfer Rate
	Class	Class 10
	Form factor	15mm(L) x 11mm(W) x .95mm(H)
	Voltage	2.7V (min) - 3.6V (max)
	Compliance	SD Card Association
	Operating Temperature	0°C / 70°C (Operational), -25°C / 85°C (non-operational)

Environment-friendly Products and Approach	End-of-life Management and Recycling	Hewlett-Packard offers end-of-life HP product return, trade-in, and recycling programs in many geographic areas. For trade-in information, please go to: http://www.hp.com/go/green . To recycle your product, please go to: http://www.hp.com/go/green or contact your nearest HP sales office. Products returned to HP 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 web site at: http://www.hp.com/go/green . These instructions may be used by recyclers and other WEEE treatment facilities as well as HP OEM customers who integrate and re-sell HP equipment.
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For hard drives, 1GB = 1 billion bytes. Actual formatted capacity is less.