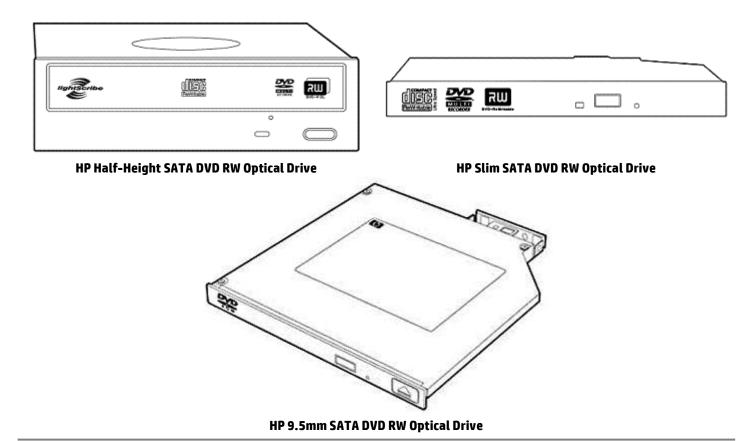
Overview

HP SATA DVD RW Optical Drives

The HP SATA optical drives for HP ProLiant servers are offered with an industry-standard SATA interface and are supported on most major operating systems.

The DVD RW drive will be capable of reading DVD 4.7 GB through 8.5 GB media. It will also be able to read standard stamped, CD-R, and CD-RW media. This drive supports writing to CD-R, CD-RW, DVD +R/RW, and DVD -R/RW media via software utilities. For Microsoft® operating systems, this is available by installing the included Roxio software disk. For other operating systems, an operating system-specific software utility is required for writing to media.



What's New

HP 9.5mm SATA DVD-RW JackBlack G9 Optical Drive

Models

HP 9.5mm SATA DVD-RW JackBlack G9 Optical Drive	726537-B21
HP Half-Height SATA DVD RW JackBlack Optical Drive	624192-B21
HP 12.7mm Slim SATA DVD-RW JackBlack Optical Drive	652235-B21
HP 9.5mm SATA DVD-RW JackBlack Optical Drive	652241-B21
HP Half-Height SATA DVD-RW Optical Drive	447328-B21
HP Slim 12.7mm SATA DVD-RW Optical Drive	481043-B21
HP 9.5mm SATA DVD-RW Optical Drive	481047-B21

Kit Contents

- SATA DVD RW drive
- Installation guide
- Warranty card



HP SATA DVD RW Optical Drives

Overview

- Roxio software disk
- SATA data and power cables

Product Features

• Higher capacity writable optical drive utilizing DVD and CD media

Compatibility

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

HP 9.5mm SATA DVD-RW ProLiant ML (expansion-optimized): JackBlack Gen9 Optical

Drive

726537-B21

HP ProLiant ML350 Gen9

ProLiant DL (rack-optimized):

- HP ProLiant DL160 Gen9
- HP ProLiant DL180 Gen9
- HP ProLiant DL360 Gen9
- HP ProLiant DL360 Gen9

HP Half-Height SATA DVD ProLiant ML (expansion-optimized): RW JackBlack Optical

Drive

624192-B21

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

ProLiant MicroServer (Just Right First Server):

HP ProLiant MicroServer

HP 12.7mm Slim SATA DVD-RW JackBlack Optical Drive

652235-B21

ProLiant DL (rack-optimized):

- HP ProLiant DL380e Gen8
- HP ProLiant DL380p Gen8
- HP ProLiant DL385p Gen8

HP 9.5mm SATA DVD-RW ProLiant DL (rack-optimized): JackBlack Optical Drive

652241-B21

- HP ProLiant DL160 Gen8
- HP ProLiant DL320e Gen8
- HP ProLiant DL320e Gen8 v2
- HP ProLiant DL360e Gen8
- HP ProLiant DL360p Gen8

ProLiant MicroServer:

HP ProLiant MicroServer Generation 8 (Gen8)



Overview

HP Half-Height SATA DVD-RW Optical Drive 447328-B21

ProLiant DL (rack-optimized):

HP ProLiant DL370 G6

ProLiant ML (expansion-optimized):

- HP ProLiant ML110 G5
- HP ProLiant ML110 G6
- HP ProLiant ML110 G7
- HP ProLiant ML115 G5
- HP ProLiant ML150 G5
- HP ProLiant ML150 G6
- HP ProLiant ML310 G5p
- HP ProLiant ML330 G6
- HP ProLiant ML350 G5
- HP ProLiant ML350 G6
- HP ProLiant ML370 G6

HP Slim 12.7mm SATA DVD-RW Optical Drive 481043-B21

ProLiant DL (rack-optimized):

- HP ProLiant DL120 G5
- HP ProLiant DL180 G5
- HP ProLiant DL180 G6
- HP ProLiant DL320 G5p
- HP ProLiant DL370 G6
- HP ProLiant DL380 G6
- HP ProLiant DL380 G7
- HP ProLiant DL385 G5p
- HP ProLiant DL385 G6
- HP ProLiant DL385 G7
- HP ProLiant DL580 G5HP ProLiant DL580 G7
- HP ProLiant DL585 G7
- HP ProLiant DL980 G7

ProLiant ML (expansion-optimized):

HP ProLiant ML370 G6

HP 9.5mm SATA DVD-RW ProLiant DL (rack-optimized): Optical Drive

481047-B21

- HP ProLiant DL120 G6
- HP ProLiant DL120 G7
- HP ProLiant DL160 G6
- HP ProLiant DL160se G6
- HP ProLiant DL165 G7
- HP ProLiant DL320 G5p
- HP ProLiant DL320 G6

Warranty

The warranty for this device is 1 year parts only. Maximum: The remaining warranty of the HP server product in which it is installed (to a maximum three-year limited warranty).



HP SATA DVD RW Optical Drives

Overview

- 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 HP System level this product attaches too.



Service and Support

Service and Support

HP Technology Services

HP Technology Services offers you consultants and support experts to solve your most complex infrastructure problems. We help keep your business running, boost availability, and avoid downtime.

Protect your business beyond warranty with HP Care Pack Services

When you buy HP Options, it's also a good time to think about what level of service you may need. HP Care Pack services provide total care and support expertise with committed response choices designed to meet your IT and business need.

HP Foundation Care services deliver scalable support-packages for HP industry-standard servers and software. You can choose the type and level of service that is most suitable for your business needs. New to this portfolio is HP Collaborative Support. If you are running business critical environments, HP offers Proactive Care or Critical Advantage. These services help you deliver high levels of application availability through proactive service management and advanced technical response.

Here is the support service recommendation from the Foundation Care and Proactive Care portfolio. For customized support service solution, HP can work with you to tailor a service solution for your unique support requirements using broader services portfolio of Foundation Care and Proactive Care.

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

Recommended Services

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

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.

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

OR

3-Year HP 24x7 4 hour Response, HP Collaborative Support

Offers customers a single point of contact for server problem diagnosis, hardware problem resolution, and basic software problem diagnosis, fault isolation, and resolution if available to HP. If the problem is with HP HW, the representative 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. In case, the issue is with HP or supported third-party software product and cannot be resolved by applying known fixes, HP will contact the third-party vendor and create a problem incident on your behalf.

HP ProLiant Server Hardware Installation

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

http://h20195.www2.hp.com/V2/GetPDF.aspx/5981-9356EN.pdf

Related HP Care Pack Services to enhance your HP product experience

Related Services

3-Year HP 24x7 4 hour Response, Proactive Care or Critical Advantage

Helps optimize your systems and delivers high levels of application availability through proactive service management and advanced technical response. A skilled Technical Manager will own your query or issue end to end until resolved, delivering a single point of contact for you

http://h20195.www2.hp.com/V2/GetPDF.aspx/4AA3-2140ENW.pdf

OR

3-Year HP 6-hour Onsite Call-to-Repair, HP Collaborative Support

Offers customers a single point of contact for server problem diagnosis, hardware problem resolution



Service and Support

to return the hardware in operating condition within 6 hours of the initial service request to the HP Global Solution Center, and basic software problem diagnosis, fault isolation, and resolution if available to HP. In case, the issue is with HP or supported third-party software product and cannot be resolved by applying known fixes, HP will contact the third-party vendor and create a problem incident on your behalf.

HP Proactive Select Service

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.pdf

Insight Remote Support

Provides 24 X 7 remote monitoring, proactive notifications, and problem resolution. Learn more http://www.hp.com/go/insightremotesupport

HP Support Center

Personalized online support portal with access to information, tools and experts to support HP business products. Submit support cases online, chat with HP experts, access support resources or collaborate with peers. Learn more http://www.hp.com/qo/hpsc

HP'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. HP Insight Remote Support and HP Support Center are available at no additional cost with a HP warranty, HP Care Pack or HP contractual support agreement.

*HP' Support Center Mobile App is subject to local availability

Parts and materials

HP will provide HP-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. Supplies and consumable parts will not be provided as part of this service; standard warranty terms and conditions apply. Parts and components that have exceeded their maximum supported lifetime and/or the maximum usage limitations as set forth in the manufacturer's operating manual or the technical product data sheet will not be provided, repaired or replaced as part of this service.

Warranty / Service Coverage

For ProLiant servers and storage systems, this service covers HP-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 HP 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 HP 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 HP ESSN Options, please contact your HP sales representative or HP Authorized Channel Partner. Or visit: http://www.hp.com/services/proliant or www.hp.com/services/bladesystem



Technical Specifications

HP Half-Height SATA DVD RW Optical Drive (including Jackblack)

Shipping Dimensions

6.0 x 9.88 x 10.88 in (15.24 x 25.1 x 27.64 cm)

 $(H \times W \times D)$

Drive Dimensions 1.62 x 5.75 x 7.8 inches (4.13 x 14.6 x 20 cm)

 $(H \times W \times D)$

Device Type DVD+/-RW Drive (Super-Multi Drive)

Applicable Disk Disk

> DVD-R DVD-R DL DVD-RW DVD+R DVD+R DL DVD+RW

DVD-ROM

DVD-RAM Ver. 1.1 (Read Only) DVD-RAM Ver. 2.2 (Rev. 2)

CD-ROM XA

CD-ROM Mode-1 data disc CD-ROM Mode-2 data disc

CD Audio disc CD-Extra CD-RW CD-R Photo CD CD-I CD-DA

Capacity DVD-ROM **DVD-SL** 4.7 GB/side

> DVD-DL 8.5 GB/side **Double Sided** 9.40 GB

DVD+/-R DVD +/-RW DVD+R DL DVD-R DL **DVD-RAM**

Ver.1.1, 120 mm 2.6 GB/side **Double Sided** 5.2 GB

> Ver. 2.2, 120 mm 4.7 GB/side

CD-ROM Mode-1 650 MB (550 MB) Mode-2 742 MB (640 MB)

2,048 bytes

Mode-1 2048, 2352 bytes

Mode-2 Form1 2048, 2328, 2336,

2340, 2352 bytes

Mode-2 Form2 2328, 2336, 2340, 2352

bytes 120 mm, 80 mm (with adapter at vertical mounting mode)

4.7 GB/side

4.7 GB/side

8.5 GB/side

8.5 GB/side

Loading Mechanism

Access Times (typical)

Tray type Interface **SATA 1.5**

Block Size

Diameter

Random DVD-ROM < 130 ms, CD-ROM < 120 ms

DVD

CD

DVD-ROM < 240 ms, CD-ROM < 200 ms Full-Stroke

Data Transfer Rate DVD-ROM Read Up to 16X (sustained) DVD+R/-R Read/Write Up to 16X DVD+R DL/-R DL Read Up to 12X



Technical Specifications

DVD+R DL/-R DL Write Up to 8X DVD+RW Read/Write Up to 8X Read DVD-RW Up to 8X DVD-RW Write Up to 6X **DVD-RAM** Read/Write Up to 5X CD-ROM Read Up to 40X CD-R Read/Write Up to 40X CD-RW Write Up to 24X

Cache Buffer

Spin-up Time (typical)

MTBF

Ambient Temperature

Relative Humidity

Storage

0.5MB (Minimum)

Operating 41° to 122° F (5° to 50° C) -22° to 140° F (-30° to 60° C)

125,000 Power On Hours (POH), 25% Duty Cycle

Operating 10% to 90% Storage 5% to 95%

less than 10 seconds (not including tray in)

HP Slim SATA DVD RW Optical Drive (including Jackblack)

Shipping Dimensions

 $(H \times W \times D)$

Drive Dimensions $(H \times W \times D)$

Device Type

Disk

3.97 x 7.81 x 10.75 in (10.08 x 19.84 x 27.31 cm)

0.5 x 5.2 x 5.45 in (1.27 x 13.2 x 13.8 cm)

DVD+/-RW Drive (Super-Multi Drive) **Applicable Disk** DVD-ROM

> DVD-R DVD-R DL DVD-RW DVD+R DVD+R DL DVD+RW DVD-RAM CD-ROM XA

CD-ROM Mode-1 data disc CD-ROM Mode-2 data disc

CD Audio disc CD-Extra CD-RW CD-R Photo CD CD-I CD-DA DVD-ROM

Capacity

Block Size

DVD-SL 4.7 GB/side DVD-DL 8.5 GB/side

Double Sided 9.40 GB 4.7 GB/side

DVD+/-R DVD+/-RW DVD+R DL DL DVD-R **DVD-RAM** Ver.2.2, 120 mm

CD-ROM Mode-1 Mode-2

742 MB (640 MB) 2,048 bytes

Mode-1

2048 bytes

4.7 GB/side

8.5 GB/side

8.5 GB/side

4.7 GB/side

650 MB (550 MB)



DVD

CD

HP SATA DVD RW Optical Drives

Technical Specifications

Mode-2 Form1 2048, 2352 bytes

Mode-2 Form2 2352 bytes 120 mm, 80 mm (with adapter at vertical mounting mode)

Up to 24X

Loading Mechanism Tray type Manual Load

Diameter

Interface SATA 1.5

Access Times (typical) Random DVD-ROM < 120 ms, CD-ROM < 110 ms

Full-Stroke DVD-ROM < 250 ms, CD-ROM < 210 ms

Data Transfer Rate DVD-ROM Read Up to 8X

Read/Write Up to 8X DVD+R/-R DVD+RW Read/Write Up to 8X Read Up to 8X DVD-RW DVD-RW Write Up to 6X DVD+R DL/-R DL Read Up to 8X DVD+R DL/-R DL Write Up to 6X Read/Write **DVD-RAM** Up to 5X CD-ROM Read Up to 24X

Read/Write

Cache Buffer 0.5MB (Minimum)
Spin-up Time (typical) less than 15 seconds

MTBF35,000 Power On Hours (POH), 25% Duty CycleAmbient TemperatureOperating41° to 122° F (5° to 50° C)

Storage -22° to 140° F (-30° to 60° C)

Relative Humidity Operating 10% to 80% (non-condensing) Storage 5% to 90%

CD-R/-RW

HP 9.5mm SATA DVD RW Optical Drive (including Jackblack)

Shipping Dimensions $3.97 \times 7.81 \times 10.75 \text{ in } (10.08 \times 19.84 \times 27.31 \text{ cm})$

 $(H \times W \times D)$

Drive Dimensions 0.374 x 5.1 x 5.2 in (9.5 x 130 x 132 mm)

 $(H \times W \times D)$

Disk

Device Type DVD+/-RW Drive (Super-Multi Drive)

Applicable Disk DVD-ROM

DVD-R
DVD-R DL
DVD-RW
DVD+R
DVD+R DL
DVD+RW
DVD-RAM
CD-ROM XA

CD-ROM Mode-1 data disc CD-ROM Mode-2 data disc

CD Audio disc CD-Extra CD-RW CD-R Photo CD CD-I CD-DA

Capacity DVD-ROM DVD-SL 4.7 GB/side

DVD-DL 8.5 GB/side Double Sided 9.40 GB

Technical Specifications

Environment-friendly Products and Approach	End-of-life Management and Recycling		ers end-of-life HP product in many geographic areas. F	
(non-condensing)	Storage	5% to 90%		
Relative Humidity	Operating	10% to 80%		
	Storage	-22° to 140° F (-30° to 60° C)		
Ambient Temperature	Operating	41° to 122° F (5° to 50		
MTBF	35,000 Power On Hours (
Spin-up Time (typical)	less than 15 seconds			
Cache Buffer	0.5 MB (Minimum)			
	CD-RW	Write	Up to 16X	
	CD-R	Read/Write	Up to 24X	
	CD-ROM	Read	Up to 24X	
	DVD-RAM	Read/Write	Up to 5X	
	DVD+R DL/-R DL	Write	Up to 6X	
	DVD+R DL/-R DL	Read	Up to 8X	
	DVD-RW	Write	Up to 6X	
	DVD-RW	Read	Up to 8X	
	DVD+RW	Read/Write	Up to 8X	
	DVD+R/-R	Read/Write	Up to 8X	
Data Transfer Rate	DVD-ROM	Read	Up to 8X	
	Full-Stroke	DVD-ROM < 300 ms, 0	D-ROM < 275 ms	
Access Times (typical)	Random	·	DVD-ROM < 160 ms, CD-ROM < 140 ms	
Interface	SATA 1.5			
Loading Mechanism	Tray type Manual Load			
	Diameter	120 mm, 80 mm (with adapter at vertical mounting mode)		
			Mode-2 Form2	2352 bytes
			Mode-2 Form1	2048, 2352 bytes
		CD	Mode-1	2048 bytes
	Block Size	DVD		2048 bytes
			Mode-2	742 MB (640 MB)
		CD-ROM	Mode-1	650 MB (550 MB)
		DVD-RAM	Ver. 2.2, 120 mm	4.7 GB/side
		DVD-R	DL	8.5 GB/side
		DVD+R	DL	8.5 GB/side
		DVD+R	M-Disc	4.7 GB/side
		DVD+/-RW		4.7 GB/side
		DVD+/-R		4.7 GB/side
recillicat Specifica	LIUIIS			

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.

Summary of Changes

Date	Version History	Action	Description of Change:
09-Sep-2014	From Version 19 to 20	Changed	What's new was updated
		_	Compatibility was revised in Overview
			Technical Specifications section was revised.
12-Jul-2013	From Version 18 to 19	Changed	Compatibility was revised in Overview
			Applicable Disk and Capacity were revised in Technical Specifications
27-Jun-2013	From Version 17 to 18	Changed	Model descriptions, Compatibility, and Technical Specifications were revised.
06-Mar-2012	From Version 16 to 17	Changed	Changes were made throughout for new models.
23-Jun-2011	From Version 15 to 16	Changed	Link was corrected in Service and Support.
20-Jun-2011	From Version 14 to 15	Removed	Mentions of StorageWorks were removed.
05-Apr-2011	From Version 13 to 14	Added	HP ProLiant ML110 G7 and DL120 G7 were added to Compatibility.
05-0ct-2010	From Version 12 to 13	Changed	Warranty was moved into the Overview
			Cache Buffer was revised in Technical Specifications
			HP ProLiant DL980 G7 was added to HP Slim SATA DVD RW Optical Drive Compatibility
			Service and Support section was added
16-Jul-2010	From Version 11 to 12	Changed	URL for HP Care Pack Information was changed in Service
			and Support, HP Care Pack, and Warranty Information
			Cache Buffer was changed to 1.5 MB in HP Half-Height SATA DVD RW Optical Drive in Technical Specifications
			HP ProLiant DL580 G7 and DL585 G7 were added to HP Slim SATA DVD RW Optical Drive Compatibility
27-Apr-2010	From Version 10 to 11	Added	HP ProLiant DL380 G7 and DL385 G7 were added to HP Slim SATA DVD Optical Drive.
29-Mar-2010	From Version 9 to 10	Added	HP ProLiant DL165 G7 was added to HP 9.5mm DVD RW Optical Drive.
16-Nov-2009	From Version 8 to 9	Changed	HP ProLiant ML110 G6, ML350 G6, DL120 G6 and DL160se G6 were added and HP ProLiant ML115 G6, ML150 G5 and ML310 G5 were removed from Compatibility.
02-Jun-2009	From Version 7 to 8	Added	HP ProLiant ML330 G6 Server to HP Half-Height SATA DVD RW Optical Drives and HP ProLiant DL385 G6 Server to HP Slim SATA DVD RW Optical Drive in the Compatibility section.
27-Apr-2009	From Version 6 to 7	Added	HP ProLiant DL160 G6, DL180 G6, DL320 G6, DL370 G6, DL380 G6 and DL385 G6 Servers and HP ProLiant ML115 G6, ML150 G6, ML310 G5p, ML360 G6 and ML370 G6 Servers to Compatibility in the Overview section.
26-Jan-2009	From Version 5 to 6	Added	HP 9.5mm SATA DVD RW Optical Drive throughout the QuickSpec.
08-Dec-2008	From Version 4 to 5	Added	HP ProLiant DL580 G5 was added to the Compatibility list.
14-Jul-2008	From Version 3 to 4	Changed	The QuickSpec was rewritten to include the HP Slim SATA



HP SATA DVD RW Optical Drives

Summary of Changes

			DVD RW Optical Drive throughout. NOTE that the title has changed.
31-Mar-2008	From Version 2 to 3	Added	HP ProLiant ML350 G5 was added to HP Half-Height SATA DVD RW Optical Drive in the Compatibility section.
		Changed	HP ProLiant ML115 was changed from G2 to G5 in HP Half- Height SATA DVD RW Optical Drive in the Compatibility section.
14-Nov-2007	From Version 1 to 2	Changed	The title of the document was updated.

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