

# QuickSpecs

## HP SATA DVD ROM Optical Drives

### Overview

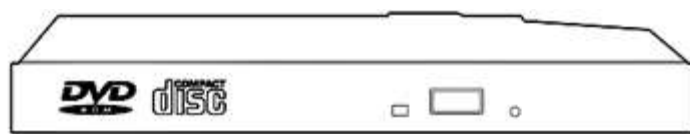
#### HP SATA DVD ROM Optical Drives

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.

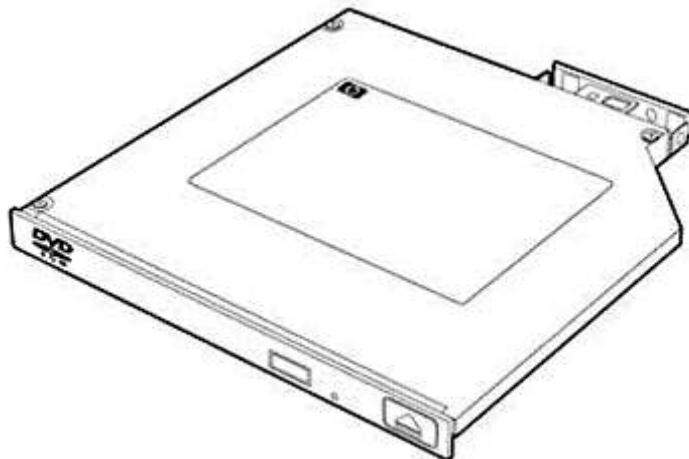
The DVD ROM drive is designed to read not only CD ROM and CD R/RW discs but also DVD ROM, DVD RAM, DVD +R/RW and DVD R/RW discs.



**HP Half-Height SATA DVD ROM Optical Drive**



**HP Slim SATA DVD ROM Optical Drive**



**HP 9.5mm SATA DVD ROM Optical Drive**

### What's New

- HP 9.5mm SATA DVD-ROM JackBlack Gen9 Optical Drive

### Models

HP 9.5mm SATA DVD-ROM JackBlack Gen9 Optical Drive	726536-B21
HP Half-Height SATA DVD ROM JackBlack Optical Drive	624189-B21
HP 12.7mm Slim SATA DVD-ROM JackBlack Optical Drive	652232-B21
HP 9.5mm SATA DVD-ROM JackBlack Optical Drive	652238-B21
HP Half-Height SATA DVD-ROM Optical Drive	447326-B21
HP Slim 12.7mm SATA DVD-ROM Optical Drive	481041-B21
HP 9.5mm SATA DVD-ROM Optical Drive	481045-B21

### Kit Contents

- SATA DVD ROM drive
- Installation guide

## Overview

- Warranty card
- SATA data and power cables

## Compatibility

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

### HP 9.5mm SATA

#### DVD-ROM JackBlack Gen9

##### Optical Drive

726536-B21

#### ProLiant DL (rack-optimized):

- HP ProLiant DL160 Gen9
- HP ProLiant DL180 Gen9
- HP ProLiant DL360 Gen9
- HP ProLiant DL380 Gen9

#### ProLiant ML (expansion-optimized):

- HP ProLiant ML350 Gen9

### HP Half-Height SATA DVD

#### ROM JackBlack Optical

##### Drive

624189-B21

#### ProLiant ML (expansion-optimized):

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

### HP 12.7mm Slim SATA

#### DVD-ROM JackBlack

##### Optical Drive

652232-B21

#### ProLiant DL (rack-optimized):

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

### HP 9.5mm SATA DVD-ROM

#### JackBlack Optical Drive

652238-B21

#### ProLiant DL (rack-optimized):

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

### HP Half-Height SATA

#### DVD-ROM Optical Drive

447326-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 G6
- HP ProLiant ML310 G5p
- HP ProLiant ML330 G6
- HP ProLiant ML350 G5
- HP ProLiant ML350 G6

## Overview

- HP ProLiant ML370 G6

**ProLiant MicroServer (Just Right First Server):**

- HP ProLiant MicroServer

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**HP Slim 12.7mm SATA  
DVD-ROM Optical Drive**  
481041-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 G5
- HP ProLiant DL580 G7
- HP ProLiant DL585 G7
- HP ProLiant DL980 G7

**ProLiant ML (expansion-optimized):**

- HP ProLiant ML370 G6

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**HP 9.5mm SATA DVD-ROM ProLiant DL (rack-optimized):  
Optical Drive**  
481045-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).

- 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>

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**Insight Remote Support** Provides 24 X 7 remote monitoring, proactive notifications, and problem resolution. Learn more <http://www.hp.com/go/insightremotesupport>

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**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/go/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

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**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.

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**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.

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**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](http://www.hp.com/services/bladesystem)

# QuickSpecs

## HP SATA DVD ROM Optical Drives

### Technical Specifications

#### HP Half-Height SATA DVD-ROM Optical Drive

<b>Shipping Dimensions</b>	6.0 x 9.88 x 10.88 in (15.24 x 25.1 x 27.64 cm)		
<b>Drive Dimensions</b> (HxWxD, maximum)	1.62 x 5.75 x 7.87 in (41.3 x 146 x 200 mm)		
<b>Device Type</b>	DVD-ROM Drive		
<b>Disk</b>	<b>Applicable Disk</b>	DVD-ROM DVD-R /-RW (Read Only) DVD+R /+RW (Read Only) CD-ROM Mode-1 data disc CD-ROM Mode-2 data disc CD Audio disc CD-Extra CD-RW (Read Only) CD-R (Read Only) CD Text PhotoCD CD-I (mode 2) CD-I Ready CD-Bridge	
	<b>Capacity</b>	DVD-ROM  DVD+/-R DVD-RAM  DVD+/-RW DVD+R DVD-R CD-ROM	DVD-SL 4.7 GB/side DVD-DL 8.5 GB/side Double Sided 9.40 GB/side  Ver.1.1, 120 mm 2.6 GB/side Doubled Sided 5.2 GB Ver.2.2, 120 mm 4.7G GB/side  DL 8.5 GB/side DL 8.5 GB/side Mode-1 650 (700 MB) Mode-2 742 MB (640 MB)
	<b>Block Size</b>	DVD CD	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
	<b>Diameter</b>	120 mm, 80 mm (with adapter at vertical mounting mode)	
<b>Loading Mechanism</b>	Tray type Auto Loading		
<b>Interface</b>	SATA 1.5		
<b>Access Times</b> (typical)	Random Full-Stroke	DVD-ROM < 130 ms, CD-ROM < 120 ms DVD-ROM < 240 ms, CD-ROM < 200 ms	
<b>Data Transfer Rate - Read Speeds</b>	DVD-ROM DVD+R/-R DVD+RW/-RW DVD +R DL/-R DL	Up to 16X Up to 16X Up to 8X Up to 8X	

# QuickSpecs

## HP SATA DVD ROM Optical Drives

### Technical Specifications

	DVD-RAM	Up to 5X
	CD-ROM/R	Up to 40X
	CD-RW	Up to 32X
<b>Cache Buffer</b>	0.5MB (Minimum)	
<b>Spin-up Time</b> (typical)	less than 10 seconds	(not including tray in)
<b>MTBF</b>	125,000 Power On Hours (POH), 25% Duty Cycle	
<b>Ambient Temperature</b>	Operating	41° to 122° F (5° to 50° C)
	Storage	-22° to 140° F (-30° to 60° C)
<b>Relative Humidity</b>	Operating	10% to 90%
	Storage	5% to 95%

### HP Slim SATA DVD-ROM Optical Drive

**Shipping Dimensions** (HxWxD) 3.97 x 7.81 x 10.75 in (10.08 x 19.84 x 27.31 cm)

**Drive Dimensions** (HxWxD, maximum) 0.5 x 5.2 x 5.45 in (12.7 x 132 x 138 mm)

**Device Type** DVD-ROM Drive

<b>Disk</b>	<b>Applicable Disk</b>	DVD-ROM			
		DVD-R /-RW (Read Only) DVD+R /+RW (Read Only) CD-ROM Mode-1 data disc CD-ROM Mode-2 data disc CD Audio disc CD-Extra CD-RW (Read Only) CD-R (Read Only) CD Text PhotoCD CD-I (mode 2) CD-I Ready CD-Bridge			
<b>Capacity</b>	DVD-ROM	DVD-SL	4.7 GB/side		
		DVD-DL	8.5 GB/side		
		Double Sided	9.40 GB/side		
		DVD+/-R	4.7 GB/side		
		DVD-RAM	Ver.2.2, 120 mm	4.7 GB/side	
		DVD+/-RW		4.7 GB/side	
		DVD+R	DL	8.5GB / side	
		DVD-R	DL	8.5GB / side	
		CD-ROM	Mode-1	650 (700 MB)	
			Mode-2	742 MB (640 MB)	
			DVD		2,048 bytes
			CD	Mode-1	2048, 2352 bytes
<b>Block Size</b>		Mode-2 Form1	2048, 2328, 2336, 2340, 2352 bytes		
		Mode-2 Form2	2328, 2336, 2340,		

# QuickSpecs

## HP SATA DVD ROM Optical Drives

### Technical Specifications

		2352 bytes
	<b>Diameter</b>	120 mm, 80 mm (with adapter at vertical mounting mode)
<b>Loading Mechanism</b>	Tray type Auto Loading	
<b>Interface</b>	SATA 1.5	
<b>Access Times</b> (typical)	Random	DVD-ROM < 160 ms, CD-ROM < 140 ms
	Full-Stroke	DVD-ROM < 280 ms, CD-ROM < 280 ms
<b>Data Transfer Rate</b> Read Speeds	DVD-ROM	Up to 8X
	DVD+RW/-RW	Up to 8X
	DVD+R DL/-R DL	Up to 8X
	DVD-RAM	Up to 5X
	CD-ROM/-R/-RW	Up to 24X
<b>Spin-up Time</b> (typical)	less than 15 seconds	
<b>MTBF</b>	35,000 Power On Hours (POH), 25% Duty Cycle	
<b>Ambient Temperature</b>	Operating	41° to 122° F (5° to 50° C)
	Storage/Transportation	-22° to 140° F (-30° to 60° C)
<b>Relative Humidity</b>	Operating	10% to 80% (non-condensing)
	Storage/Transportation	5% to 90% (non-condensing)

### HP 9.5mm SATA DVD-ROM Optical Drive

<b>Shipping Dimensions</b> (HxWxD)	3.97 x 7.81 x 10.75 in (10.08 x 19.84 x 27.31 cm)		
<b>Drive Dimensions</b> (HxWxD, maximum)	0.374 x 5.1 x 5.2 in (9.5 x 130 x 132 mm)		
<b>Device Type</b>	DVD-ROM Drive		
<b>Disk</b>	<b>Applicable Disk</b>	DVD-ROM DVD-R /-RW (Read Only) DVD+R /+RW (Read Only) DVD-RAM (Read Only) CD-ROM Mode-1 data disc CD-ROM Mode-2 data disc CD Audio disc CD-Extra CD-RW (Read Only) CD-R (Read Only) CD Text PhotoCD CD-I (mode 2) CD-I Ready CD-Bridge	
	<b>Capacity</b>	DVD-ROM	DVD-SL 4.7 GB/side
			DVD-DL 8.5 GB/side
			Double Sided 9.40 GB/side
		DVD+/-R	4.7 GB/side
		DVD+R	M-Disc 4.7 GB/side
		DVD-RAM	Ver.2.2, 120 mm 4.7 GB/side
		DVD+/-RW	4.7 GB/side



# QuickSpecs

## HP SATA DVD ROM Optical Drives

### Technical Specifications

		DVD+R	DL	8.5 GB/side
		DVD-R	DL	8.5 GB/side
		CD-ROM	Mode-1	650 (700 MB)
			Mode-2	742 MB (640 MB)
	<b>Block Size</b>	DVD		2,048 bytes
		CD	Mode-1	2048, 2352 bytes
			Mode-2 Form1	2048, 2328, 2336, 2340, 2352 bytes
			Mode-2 Form2	2328, 2336, 2340, 2352 bytes
	<b>Diameter</b>	120 mm, 80 mm (with adapter at vertical mounting mode)		
<b>Loading Mechanism</b>		Tray type Auto loading		
<b>Interface</b>		SATA 1.5		
<b>Access Times</b> (typical)	Random	DVD-ROM < 160 ms, CD-ROM < 140 ms		
	Full-Stroke	DVD-ROM < 300 ms, CD-ROM < 275 ms		
<b>Data Transfer Rate - Read Speeds</b>	DVD-ROM	Up to 8X		
	DVD+R/-R	Up to 8X		
	DVD+RW/-RW	Up to 8X		
	DVD+R DL/-R DL	Up to 8X		
	DVD-RAM	Up to 5X		
	CD-ROM/-R/-RW	Up to 24X		
<b>Spin-up Time</b> (typical)	Less than 15 seconds			
<b>MTBF</b>	35,000 Power On Hours (POH), 25% Duty Cycle			
<b>Ambient Temperature</b>	Operating	41° to 122° F (5° to 50° C)		
	Storage/Transportation	-22° to 140° F (-30° to 60° C)		
<b>Relative Humidity</b>	Operating	10% to 80% (non-condensing)		
	Storage/Transportation	5% to 90% (non-condensing)		
<b>Environment-friendly Products and Approach</b>	<b>End-of-life Management and Recycling</b>	<p>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 <a href="http://www.hp.com/go/green">http://www.hp.com/go/green</a>. To recycle your product, please go to: <a href="http://www.hp.com/go/green">http://www.hp.com/go/green</a> or contact your nearest HP sales office. Products returned to HP will be recycled, recovered or disposed of in a responsible manner.</p> <p>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: <a href="http://www.hp.com/go/green">http://www.hp.com/go/green</a>. 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.</p>		

# QuickSpecs

## HP SATA DVD ROM Optical Drives

### 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 section.  Technical Specifications section was revised.
12-Jul-2013	From Version 18 to 19	Removed	2.6GB/side and 4.7/GB/side DVD RAM was removed from Applicable Disk 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.
20-Jun-2011	From Version 15 to 16	Removed	Mentions of StorageWorks were removed.
05-Apr-2011	From Version 14 to 15	Added	HP ProLiant ML110 G7, DL580 G7 and DL120 G7 were added to Compatibility.
05-Oct-2010	From Version 13 to 14	Changed	Warranty was moved into the Overview, HP ProLiant MicroServer was added to HP Half-Height SATA DVD-ROM Optical Drive Compatibility and the Service and Support section was added.
16-Jul-2010	From Version 12 to 13	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 in HP Half-Height SATA DVD-ROM Optical Drive in Technical Specifications  HP ProLiant DL585 G7 and DL980 G7 were added to HP Slim SATA DVD Optical Drive Compatibility
27-Apr-2010	From Version 11 to 12	Added	HP ProLiant DL380 G7 and DL385 G7 were added to HP Slim SATA DVD Optical Drive.
29-Mar-2010	From Version 10 to 11	Added	HP ProLiant DL165 G7 was added to HP 9.5mm SATA DVD-ROM Optical Drive.
16-Nov-2009	From Version 9 to 10	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 8 to 9	Added	HP ProLiant ML330 G6 Server to HP Half-Height SATA DVD-ROM Optical Drives and HP ProLiant DL385 G6 Server to HP Slim SATA DVD Optical Drive in the Compatibility section.
27-Apr-2009	From Version 7 to 8	Added	HP ProLiant DL160 G6, DL180 G6, DL320 G6, DL370 G6 and DL380 G6 Servers and HP ProLiant ML115 G6, ML150 G6, ML310 G5p and ML370 G6 Servers to Compatibility in the Overview section.
26-Jan-2009	From Version 6 to 7	Added	HP 9.5mm SATA DVD RW Optical Drive throughout the QuickSpec.
19-Dec-2008	From Version 5 to 6	Added	HP ProLiant DL580 G5 was added to HP Slim SATA DVD Optical Drive in the Compatibility section.
12-Dec-2008	From Version 4 to 5	Added	HP ProLiant DL385 G5p was added to HP Slim SATA DVD Optical Drive in the Compatibility section.
14-Jul-2008	From Version 3 to 4	Changed	The QuickSpec was rewritten to include the HP Slim SATA DVD-ROM Optical Drive throughout. NOTE that the title has changed.
31-Mar-2008	From Version 2 to 3	Added	HP ProLiant ML115 G5 and ML350 G5 were added to HP

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## HP SATA DVD ROM Optical Drives

### Summary of Changes

			Half-Height SATA DVD-ROM Optical Drive in the Compatibility section.
		Removed	HP ProLiant ML115 G2 was removed from HP ProLiant Half-Height SATA DVD-ROM 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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