



# IBM System Storage DS3000 series Interoperability Matrix

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# What's New in the DS3000 Interoperability Matrix?

April 13, 2010:

- Added support for 2TB SATA disk drive (see page 9).
- Marked the 73GB 3Gb SAS disk drive and all Express disk drive options as withdrawn from marketing.

February 1, 2010:

- Added support for 300GB and 450GB 6Gb SAS disk drives (see page 9).
- Removed the "Other Supported Software Products" section. This information can be found in the IBM System Storage Interoperation Center (SSIC) (see below).

December 1, 2009:

- Interoperability information for supported servers, operating systems, and host bus adapters, etc. has been removed from this document. The IBM System Storage Interoperation Center (SSIC) is now the single source of DS3000 interoperability details.
- The 172622T and 172632T are marked as withdrawn (see page 5).
- Added support for the 600GB 6Gb SAS disk drive (see page 9).

## IBM System Storage Interoperation Center (SSIC)

Refer to the IBM System Storage Interoperation Center for a comprehensive list of environments and configurations supported by the DS3000 products, including:

- Host platforms (IBM and non-IBM servers).
- Operating systems (including service pack levels).
- Connection protocols (FC, SAS, iSCSI).
- Host bus adapters and expansion cards.
- SAN switches.
- Clustering products.
- Multipathing products.
- Virtualization products

SSIC is accessed at [www.ibm.com/systems/support/storage/config/ssic](http://www.ibm.com/systems/support/storage/config/ssic)

Note: Not all combinations created from interoperable components listed on SSIC are supported, nor will they necessarily function properly together. The client is responsible for confirming that a specific configuration (i.e. server model, operating system level, patches, host bus adapter, and fabric product combination) is a valid and supported configuration by each of the vendors whose products are included in the configuration.

## ISV Solutions

Refer to the IBM ISV Solutions Reference Library for ISV solutions available on the DS3000:

[www.ibm.com/systems/storage/solutions/isv](http://www.ibm.com/systems/storage/solutions/isv)

# What is in the Box?

The DS3000 series enclosure ships with the following hardware and software items.

## Hardware

1. Hard disk drive filler panels (12)
2. RAID controllers (up to 2)
3. Power supplies (2)
4. Battery units (up to 2)
5. Power cables (2 jumper line cords)
6. Rack-mounting hardware kit (1), including:
  - a. Rails (2) (right and left assembly)
  - b. Rail end plate covers (2) (right and left assembly)
  - c. M5 black hex-head slotted screws (12)
  - d. Washers (8)

**Attention:** The DS3000 series enclosure does not ship with region-specific power cords. You must obtain the IBM-approved power cords for your region.

## Software and documentation

1. IBM System Storage DS3200, DS3300, and DS3400 Support CD  
The Support CD contains the IBM DS3000 Storage Manager Host software. The CD also includes firmware, online help, and publications in Adobe Acrobat Portable Document Format (PDF)
2. IBM System Storage DS3200 Storage Subsystem Installation, User's and Maintenance Guide
3. IBM System Storage DS3300 Storage Subsystem Installation, User's and Maintenance Guide
4. IBM System Storage DS3400 Storage Subsystem Installation, User's and Maintenance Guide
5. IBM Systems Safety Notices
6. Instructions for installing the DS3000 series enclosure in a rack cabinet are provided in the Rack Installation Instructions.
7. Box of ID labels (used to label the enclosure IDs on the front of the enclosure)

If an item is missing or damaged, contact your IBM marketing representative or authorized reseller. Product documentation and software can be found online at this web link using product family=disk and product=DS3200, DS3300, DS3400: <http://www-304.ibm.com/jct01004c/systems/support/supportsite.wss/brandmain?brandind=5345868>

# DS3000 Storage Controllers and Expansion Units

Description	Part No. / SEO ID	MTM	FC	Comments
<b>DS3200 SAS Storage Controllers</b>				
IBM System Storage DS3200 SAS Single Controller	172621X	1726-HC2	2603	
IBM System Storage DS3200 SAS Dual Controller	172622X	1726-HC2	2604	
<i>IBM System Storage DS3200 SAS Dual Controller DC Power <sup>1</sup></i>	<i>172622T</i>	<i>1726-HC6</i>	<i>2627</i>	<i>Withdrawn</i>
<i>IBM System Storage DS3200 SAS Single Controller Express</i>	<i>172621E</i>	<i>N/A</i>	<i>N/A</i>	<i>Withdrawn</i>
<i>IBM System Storage DS3200 SAS Dual Controller Express</i>	<i>172622E</i>	<i>N/A</i>	<i>N/A</i>	<i>Withdrawn</i>
<b>DS3300 iSCSI Storage Controllers</b>				
IBM System Storage DS3300 iSCSI Single Controller	172631X	1726-HC3	2618	
IBM System Storage DS3300 iSCSI Dual Controller	172632X	1726-HC3	2619	
<i>IBM System Storage DS3300 iSCSI Dual Controller DC Power</i>	<i>172632T</i>	<i>1726-HC7</i>	<i>2711</i>	<i>Withdrawn</i>
<i>IBM System Storage DS3300 iSCSI Single Controller Express</i>	<i>172631E</i>	<i>N/A</i>	<i>N/A</i>	<i>Withdrawn</i>
<i>IBM System Storage DS3300 iSCSI Dual Controller Express</i>	<i>172632E</i>	<i>N/A</i>	<i>N/A</i>	<i>Withdrawn</i>
<b>DS3400 FC Storage Controllers</b>				
IBM System Storage DS3400 FC Single Controller	172641X	1726-HC4	2605	
IBM System Storage DS3400 FC Dual Controller	172642X	1726-HC4	2606	
IBM System Storage DS3400 FC Dual Controller DC Power	172642T	1726-HC8	2626	
<i>IBM System Storage DS3400 FC Single Controller Express</i>	<i>172641E</i>	<i>N/A</i>	<i>N/A</i>	<i>Withdrawn</i>
<i>IBM System Storage DS3400 FC Dual Controller Express</i>	<i>172642E</i>	<i>N/A</i>	<i>N/A</i>	<i>Withdrawn</i>
<i>IBM System Storage DS3400 FC Single Controller Simple SAN Express Kit</i>	<i>172641U</i>	<i>N/A</i>	<i>N/A</i>	<i>Withdrawn</i>
<i>IBM System Storage DS3400 FC Dual Controller Simple SAN Express Kit</i>	<i>172642U</i>	<i>N/A</i>	<i>N/A</i>	<i>Withdrawn</i>
<i>IBM System Storage DS3400 FC Single Controller Simple SAN Express Kit</i>	<i>172641S</i>	<i>N/A</i>	<i>N/A</i>	<i>Withdrawn</i>
<i>IBM System Storage DS3400 FC Dual Controller Simple SAN Express Kit</i>	<i>172642S</i>	<i>N/A</i>	<i>N/A</i>	<i>Withdrawn</i>
<b>EXP3000 Expansion Units</b>				
IBM System Storage EXP3000 (Single Environmental Service Module) <sup>2</sup>	172701X	1727-HC1	2676	
IBM System Storage EXP3000 DC Power (Dual ESMs included)	172702T	1727-HC5	2628	
<i>IBM System Storage EXP3000 Express Model (for DS3000 attachment)</i>	<i>172701E</i>	<i>N/A</i>	<i>N/A</i>	<i>Withdrawn</i>
<i>IBM System Storage EXP3000 Express Model (for MegaRAID attach)</i>	<i>172701M</i>	<i>N/A</i>	<i>N/A</i>	<i>Withdrawn</i>

<sup>1</sup> Two SAS 2 port daughter cards (39R6509) included with DS3200 DC Power Model

<sup>2</sup> Expand a single controller DS3200, DS3300, or DS3400 using an EXP3000 with a single Environmental Services Module (ESM) EXP3000 and a dual controller DS3200, DS3300, or DS3400 using an EXP3000 with two ESMs (ESM part number listed in the table below)

# DS3000 Hardware Options

Description	PN	MTM	FC	DS3200		DS3300		DS3400	
				Single	Dual	Single	Dual	Single	Dual
<b>Hardware Options</b>									
1GB Cache Memory Upgrade	39R6517	1726	4838	Y	Y <sup>1</sup>	Y	Y <sup>1</sup>	Y	Y <sup>1</sup>
System Memory Cache Battery Replacement	39R6519	1726	4839	Y	Y <sup>1</sup>	Y	Y <sup>1</sup>	Y	Y <sup>1</sup>
DS3200 SAS 2-Port Daughter Card	39R6509	1726	4836	Y	Y <sup>1</sup>	-	-	-	-
DS3200 SAS Controller Upgrade	39R6507	N/A	N/A	Y	-	-	-	-	-
DS3300 iSCSI Controller Upgrade	39R6511	N/A	N/A	-	-	Y	-	-	-
DS3400 FC Controller Upgrade	39R6513	N/A	N/A	-	-	-	-	Y	-
EXP3000 Environmental Services Module	39R6515	1727	4802	-	Y <sup>2</sup>	-	Y <sup>2</sup>	-	Y <sup>2</sup>
<b>Cable and Connector Options</b>									
1m SAS Cable	39R6529	1726	3708	Y	Y	Y <sup>3</sup>	Y <sup>3</sup>	Y <sup>3</sup>	Y <sup>3</sup>
3m SAS Cable	39R6531	1726	3707	Y	Y	Y <sup>3</sup>	Y <sup>3</sup>	Y <sup>3</sup>	Y <sup>3</sup>
4Gb SW FC SFP Transceiver	39R6475	1726	4804	-	-	-	-	Y	Y
1m Fibre Channel Cable (LC-LC)	39M5696	1726	3703	-	-	-	-	Y	Y
5m Fibre Channel Cable (LC-LC)	39M5697	1726	3704	-	-	-	-	Y	Y
25m Fibre Channel Cable (LC-LC)	39M5698	1726	3705	-	-	-	-	Y	Y

<sup>1</sup> One per controller required

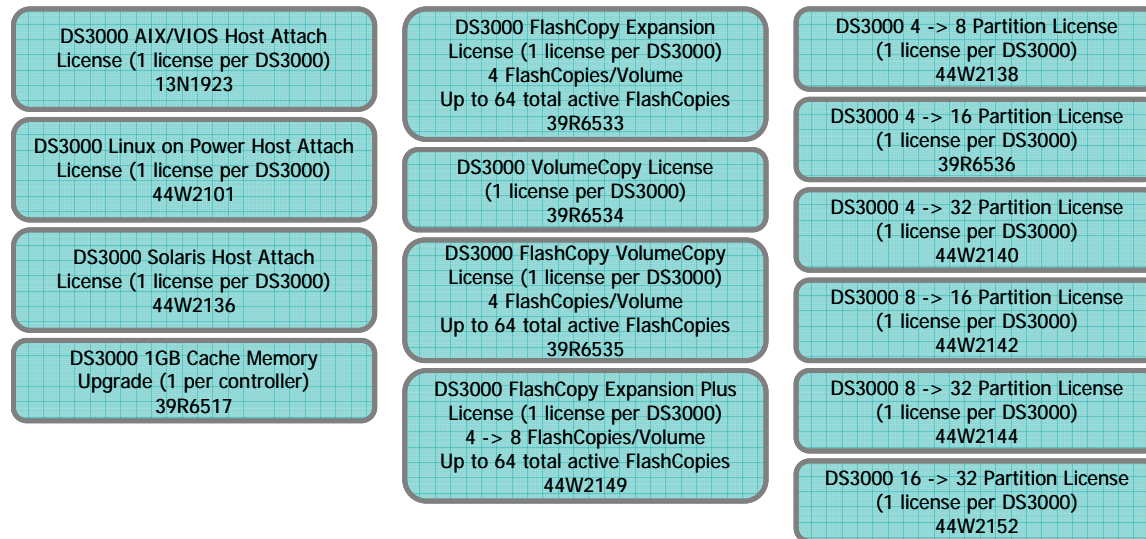
<sup>2</sup> Expand a single controller DS3200, DS3300 or DS3400 using a single ESM EXP3000, and a dual controller DS3200, DS3300 or DS3400 using a dual ESM EXP3000

<sup>3</sup> SAS cables are needed when attaching EXP3000 expansion units.

# DS3000 Advanced Features Structure

Out-of-the-box: 4 partitions on DS3200, DS3300, and DS3400,  
Attachment License for 1 – 3 EXP3000 expansion units,  
Windows and Linux on Intel Host Attach License,  
and 2 FlashCopies per system

Out-of-the-box solution is “complete” for large majority of  
typical storage workloads, however, if you need to grow...



# DS3000 Software Options

Software Options Description	PN	MTM	FC	DS3200		DS3300		DS3400	
				Single	Dual	Single	Dual	Single	Dual
4 to 8 Partition Upgrade	44W2138	1726	5068	Y	Y	Y	Y	Y	Y
4 to 16 Partition Upgrade	39R6536	1726	4841	Y	Y	Y	Y	Y	Y
4 to 32 Partition Upgrade	44W2140	1726	5069	Y	Y	Y	Y	Y	Y
8 to 16 Partition Upgrade	44W2142	1726	5070	Y	Y	Y	Y	Y	Y
8 to 32 Partition Upgrade	44W2144	1726	5071	Y	Y	Y	Y	Y	Y
16 to 32 Partition Upgrade	44W2152	1726	5072	Y	Y	Y	Y	Y	Y
FlashCopy Expansion <sup>1</sup>	39R6533	1726	4842	Y	Y	Y	Y	Y	Y
Volume Copy	39R6534	1726	4843	Y	Y	Y	Y	Y	Y
FlashCopy and Volume Copy <sup>2</sup>	39R6535	1726	4844	Y	Y	Y	Y	Y	Y
FlashCopy Plus Expansion <sup>2</sup>	44W2149	1726	5091	Y	Y	Y	Y	Y	Y
AIX/VIOS Host Kit	13N1923	1726	4923	Y	Y	-	-	Y	Y
Linux on Power Host Kit	44W2101	1726	4924	Y	Y	Y	Y	Y	Y
Solaris Host Kit	44W2136	1726	5073	Y	Y	Y	Y	Y	Y
<i>DS3200 Software Feature Pack <sup>3</sup></i>	<i>39R6540</i>	<i>1726</i>	<i>4840</i>	<i>W</i>	<i>W</i>	<i>-</i>	<i>-</i>	<i>-</i>	<i>-</i>
<i>DS3300 Software Feature Pack <sup>1</sup></i>	<i>42C2142</i>	<i>1726</i>	<i>4856</i>	<i>-</i>	<i>-</i>	<i>W</i>	<i>W</i>	<i>-</i>	<i>-</i>
<i>DS3400 Software Feature Pack <sup>1</sup></i>	<i>42C2143</i>	<i>1726</i>	<i>4857</i>	<i>-</i>	<i>-</i>	<i>-</i>	<i>-</i>	<i>W</i>	<i>W</i>
<i>DS3000 EXP3000 Expansion <sup>1</sup></i>	<i>39R6537</i>	<i>1726</i>	<i>4846</i>	<i>W</i>	<i>W</i>	<i>W</i>	<i>W</i>	<i>W</i>	<i>W</i>

<sup>1</sup> Supports up to 4 FlashCopies per volume and up to 64 total active FlashCopies

<sup>2</sup> Upgrade from 4 to 8 FlashCopies per volume, prereqs FlashCopy Expansion License or FlashCopy/Volume Copy license

<sup>3</sup> The DS3200 Software Feature Pack, DS3300 Software Feature Pack, DS3400 Software Feature Pack and the EXP3000 Expansion License have been incorporated into the base models and are no longer needed as pre-reqs to the other advanced function options. The required controller firmware that enables this function must be at firmware level: v06.70.24.00 or later and is available on the DS3000 product support Web site: <http://www-03.ibm.com/systems/storage/disk/entry/index.html>

## Supported Hard Disk Drives (HDD)

DS3200, DS3300, DS3400, and EXP3000 can have up to 12 HDDs: SAS or SATA or both.

Up to 3 EXP3000s can be attached to the DS3200, DS3300, and DS3400 for expansion up the 48 HDDs total.

Description	PN / SEO Option	MTM	FC	DS3200	DS3300	DS3400	EXP3000
73GB 10,000 rpm Hot Swap SAS <sup>1</sup>	40K1039	1726/1727	5163	Y	Y	Y	Y
146GB 10,000 rpm Hot Swap SAS <sup>1</sup>	40K1040	1726/1727	5164	Y	Y	Y	Y
300GB 10,000 rpm Hot Swap SAS <sup>1</sup>	40K1041	1726/1727	5156	Y	Y	Y	Y
36GB 15,000 rpm Hot Swap SAS <sup>1</sup>	40K1042	1726/1727	5160	Y	Y	Y	Y
73GB 15,000 rpm Hot Swap SAS <sup>1</sup>	40K1043	1726/1727	5161	Y	Y	Y	Y
146GB 15,000 rpm Hot Swap SAS	40K1044	1726/1727	5162	Y	Y	Y	Y
300GB 15,000 rpm Hot Swap SAS	43X0802	1726/1727	5532	Y	Y	Y	Y
450GB 15,000 rpm Hot Swap SAS	42D0519	1726/1727	5586	Y	Y	Y	Y
300GB 15,000 rpm Hot Swap SAS (6Gb) <sup>2</sup>	44W2234	1726/1727	5311	Y	Y	Y	Y
450GB 15,000 rpm Hot Swap SAS (6Gb) <sup>2</sup>	44W2239	1726/1727	5312	Y	Y	Y	Y
600GB 15,000 rpm Hot Swap SAS (6Gb) <sup>2</sup>	44W2244	1726/1727	5313	Y	Y	Y	Y
500GB 7,200 rpm Hot Swap Dual Port SATA	39M4558	1726/1727	5516	Y	Y	Y	Y
750GB 7,200 rpm Hot Swap Dual Port SATA	43W7580	1726/1727	5540	Y	Y	Y	Y
1TB 7,200 rpm Hot Swap Dual Port SATA	43W7630	1726/1727	5561	Y	Y	Y	Y
2TB 7,200 rpm Hot Swap Dual Port SATA	49Y1940	1726/1727	5423	Y	Y	Y	Y
73GB 15,000 rpm Hot Swap SAS Express <sup>1</sup>	43W7481	N/A	N/A	Y	Y	Y	Y
146GB 15,000 rpm Hot Swap SAS Express <sup>1</sup>	43W7482	N/A	N/A	Y	Y	Y	Y
300GB 15,000 rpm Hot Swap SAS Express <sup>1</sup>	43W7506	N/A	N/A	Y	Y	Y	Y
450GB 15,000 rpm Hot Swap SAS Express <sup>1</sup>	42D0560	N/A	N/A	Y	Y	Y	Y
500GB Hot Swap Dual Port SATA Express <sup>1</sup>	41Y8240	N/A	N/A	Y	Y	Y	Y
750GB Hot Swap Dual Port SATA Express <sup>1</sup>	41Y8244	N/A	N/A	Y	Y	Y	Y
1TB Hot Swap Dual Port SATA Express <sup>1</sup>	41Y8248	N/A	N/A	Y	Y	Y	Y

<sup>1</sup> These disk drives have been withdrawn from marketing.

<sup>2</sup> These drives support up to 6 Gbps data transfer rate, but will operate at 3 Gbps when installed in DS3000 series controllers and EXP3000 expansion units.

## Warranty and Maintenance Offerings

Description	PN (Option)	MTM	FC	DS3200	DS3300	DS3400	EXP3000
3-year IOR 9 x 5 Four (4) hour	44J8067	N/A	7249	Y	-	-	-
3-year IOR 24 x 7 Four (4) hour	44J8068	N/A	7250	Y	-	-	-
3-year IOR 24 x 7 Two (2) hour	44J8069	N/A	7251	Y	-	-	-
5-year IOR 24 x 7 Four (4) hour	44J8070	N/A	7252	Y	-	-	-
5-year IOR 24 x 7 Two (2) hour	44J8071	N/A	7253	Y	-	-	-
3-year IOR 9 x 5 Four (4) hour	44J8072	N/A	7254	-	Y	Y	-
3-year IOR 24 x 7 Four (4) hour	44J8073	N/A	7255	-	Y	Y	-
3-year IOR 24 x 7 Two (2) hour	44J8074	N/A	7256	-	Y	Y	-
5-year IOR 24 x 7 Four (4) hour	44J8075	N/A	7257	-	Y	Y	-
5-year IOR 24 x 7 Two (2) hour	44J8076	N/A	7258	-	Y	Y	-
3-year IOR 9 x 5 Four (4) hour	21P2044	N/A		-	-	-	Y
3-year IOR 24 x 7 Four (4) hour	41L2768	N/A		-	-	-	Y
3-year IOR 24 x 7 Two (2) hour	41L2769	N/A		-	-	-	Y
5-year IOR 24 x 7 Four (4) hour	69P9283	N/A		-	-	-	Y
5-year IOR 24 x 7 Two (2) hour	69P9284	N/A		-	-	-	Y

# Important Disclaimer Information

The compatibility/interoperability information provided by IBM should be used as a reference guide only, because hardware and software levels and releases may vary, and numerous hardware and software combinations are possible. IBM makes no representation or guarantee regarding the compatibility of specific hardware or software products.

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To take full advantage of the constant improvements in the IBM System Storage DS3000 series firmware, you should upgrade to the latest code levels as soon as it is available. The latest code levels are available by selecting the Product Support link from the appropriate DS3000 series model page located at:  
<http://www-1.ibm.com/servers/storage/disk/index.html>

For specific Operating System support on your server, refer to IBM Server Proven at:  
[www-03.ibm.com/servers/eserver/serverproven/compat/us/](http://www-03.ibm.com/servers/eserver/serverproven/compat/us/)

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