New hardware features for IBM System Storage 7226 and 3580 increase configuration flexibility - HVEC/XCC

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At a glance

The IBM® 7226 with Half-High Linear Tape-Open™ Ultrium™ 5 (HHLTO5) or Ultrium 6 (HHLTO6) SAS tape drive features supports high-density (HD) capability on IBM POWER® 7 Systems with an HD host bus adapter (HBA) installed. The following HD SAS external cables are available on the IBM 7226:

- Mini-SAS to Mini-SAS cable for attaching all SAS drive devices
- HD SAS to Mini-SAS cable for attaching a single HHLTO5 or HHLTO6 SAS Tape Drive feature to an IBM System with HD function
- Y SAS HD to Mini-SAS Cable for attaching up to two HHLTO5 or HHLTO6 SAS Tape Drive features to an IBM System with HD function

IBM TS2250 LTO™ Ultrium 5, TS2260 Ultrium 6, TS2350 LTO Ultrium 5, or TS2360 Ultrium 6 supports the recent release of HD capability on IBM Systems with the release of new SAS cables to support HD function.

- HD SAS to Mini-SAS cable for attachment of a single 3580 Tape Drive
- HD SAS Y to Mini-SAS cable for attachment of up to two 3580 Tape Drives

Overview

The following new IBM System Storage® hardware features are available on IBM 7226 Model 1U3 Multimedia Storage Enclosure:

New features
- HD SAS to Mini-SAS external cable
- Mini-SAS to Mini-SAS external cable
- Y SAS HD to Mini-SAS external cable

The HD function offers higher performance through a 6 Gbps sustained data rate versus 3 Gbps with Mini-SAS.

Existing features with modifications
- HHLTO5 SAS Tape Drive - SAS external cable option must be specified
- HHLTO6 SAS Tape Drive - SAS external cable option must be specified
The HHLTO5 and HHLTO6 SAS features available on the IBM 7226 may also be used for HD function on IBM POWER Systems through a unique HBA on the system and HD external SAS cables.

IBM System Storage HD SAS cable hardware features are available on IBM System Storage TS2250 (SEO number 3580S5E) Tape Drive Express® Model H55, the IBM System Storage TS2260 (SEO number 3580S6E) Tape Drive Express Model H6S, the IBM System Storage TS2350 (SEO number 3580S5X) Tape Drive Express Model S53, and the IBM System Storage TS2360 (SEO number 3580S6X) Tape Drive Express Model S63:

- HD SAS to Mini-SAS cable for attachment of a single 3580 Tape Drive to an IBM System with HD applications
- Y SAS HD to Mini-SAS cable for attachment of up to two 3580 Tape Drives to IBM Systems with HD applications

**Key prerequisites**

**IBM 7226 Model 1U3**

- Attaching an IBM 7226 Model 1U3 Multimedia Storage Enclosure on and an HHLTO5 and HHLTO6 SAS tape drive with an HD SAS to Mini-SAS Cable or Y SAS HD Mini-SAS Cable will support all system functions currently supported by Mini-SAS to Mini-SAS cables, as well as HD capabilities that may be available on the attaching IBM POWER7® System, if an HD SAS cable is specified.
- The attaching system must have an HD HBA available on the HHLTO5 or HHLTO6 SAS tape drive with IBM 7226 in order to run HD function.
- The external SAS cable required for each system application must be specified with each IBM 7226 order that includes an HHLTO5 or HHLTO6 SAS Tape Drive feature.

**IBM 3580 Models**

Attaching a TS2250 Model H5S, TS2260 Model H6S, TS2350 Model S53, or TS2360 Model S63 using a Mini-SAS to HD SAS Cable or Mini-SAS to HD SAS Y Cable will support all system functions currently supported by Mini-SAS to Mini-SAS cables, as well as HD capabilities that are available on the attaching IBM System. A POWER7 System must have an HD HBA installed.

**Planned availability date**

November 22, 2013

**Description**

New IBM System Storage hardware features are available for select Tape machines for greater configuration flexibility to meet storage needs.

**Half-High LTO Ultrium 5 SAS Tape Drive (SEO number 46C2927)**

The HHLTO5 SAS drive feature is a high-performance SAS tape drive with a native capacity of up to 1.5 TB (3.0 TB with 2:1 compression). The LTO Ultrium 5 drive offers a data rate of up to 280 MB/second with compression. HHLTO5 provides read-write compatibility with Ultrium 5 and Ultrium 4 media formats, and read-only compatibility with Ultrium 3 media formats. The HHLTO5 SAS tape drive feature in 7226 includes a test cartridge, a cleaning cartridge, a half-high drive latch, a SAS interface assembly, and an external SAS cable (as specified). Data encryption and an IBM Linear Tape File System™ software application are available on the HHLTO5 SAS tape drive.
**Half-High LTO Ultrium 6 SAS Tape Drive (SEO number 46C2928)**

The HHLTO6 SAS drive feature is a high-performance SAS tape drive with a native capacity of up to 2.5 TB (6.25 TB with 2.5:1 compression). The LTO Ultrium 6 drive offers a data rate of up to 320 MB/second with compression. HHLTO6 also provides read-write compatibility with Ultrium 6 and Ultrium 5 media formats, and read-only compatibility with Ultrium 4 media formats. The HHLTO6 SAS tape drive feature in 7226 includes a test cartridge, a cleaning cartridge, a half-high drive latch, a SAS interface assembly, and an external SAS cable (as specified). Data encryption and an IBM Linear Tape File System software application are available on the HHLTO6 SAS tape drive.

**External SAS Cables**

**Mini-SAS to Mini-SAS Cable (SEO number 46C2924)**

One SAS external cable will be included with every 7226 Storage Enclosure SAS tape drive or DVD-ROM SATA/SAS sled. Feature number 5507 or 5508 may be ordered where an optional or second SAS cable is needed.

**HD-SAS Cable to Mini-SAS (SEO number 46C2925)**

One no-charge SAS external cable will be included with every 7226 Storage Enclosure SAS tape drive or DVD-ROM SATA/SAS sled. Feature number 5507 or 5508 may be ordered where an optional or second SAS cable is needed.

**Y SAS HD to Mini-SAS Cable (SEO number 46C2926)**

One SAS external cable will be included with every 7226 Storage Enclosure SAS tape drive or DVD-ROM SATA/SAS sled. Feature number 5509 cable option allows two 7226 SAS drive features to be attached to one port on a POWER system HBA.

**Accessibility by people with disabilities**

A US Section 508 Voluntary Product Accessibility Template (VPAT) containing details on accessibility compliance can be requested at


**Product number**

The following are the features available in the IBM System Storage 7226 Multimedia Enclosure.

<table>
<thead>
<tr>
<th>Description</th>
<th>Machine type</th>
<th>Model</th>
<th>Feature</th>
<th>SEO</th>
<th>Part Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mini-SAS to Mini-SAS Cable</td>
<td>7226</td>
<td>1U3</td>
<td>5508</td>
<td>46C2924</td>
<td>46C2924</td>
</tr>
<tr>
<td>HD-SAS Cable to Mini-SAS</td>
<td>7226</td>
<td>1U3</td>
<td>5507</td>
<td>46C2925</td>
<td>46C2925</td>
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<tr>
<td>Y SAS HD to Mini-SAS</td>
<td>7226</td>
<td>1U3</td>
<td>5509</td>
<td>46C2926</td>
<td>46C2926</td>
</tr>
<tr>
<td>HHLTO5 SAS Tape Drive</td>
<td>7226</td>
<td>1U3</td>
<td>8241</td>
<td>46C2927</td>
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<tr>
<td>HHLTO6 SAS Tape Drive</td>
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<td>1U3</td>
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**Note:** The Type, Model, and Feature information is to be included in announcement letter for LA. For AP, this applies to China only.

The following are the features available on selected models of the 3580 LTO Ultrium Tape Drive.

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<th>Description</th>
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<th>Model</th>
<th>Feature</th>
<th>SEO</th>
<th>Part Number</th>
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<tbody>
<tr>
<td>HD-SAS Cable to Mini-SAS</td>
<td>3580</td>
<td>H5S,H6S,S53,S63</td>
<td>5507</td>
<td>46C2925</td>
<td>46C2925</td>
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<tr>
<td>Y SAS HD to Mini-SAS</td>
<td>3580</td>
<td>H5S,H6S,S53,S63</td>
<td>5509</td>
<td>46C2926</td>
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Publications

The following publications are shipped with the product. Additional copies will be available after planned availability.

<table>
<thead>
<tr>
<th>Title</th>
<th>Order number</th>
<th>Part number</th>
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<tr>
<td>7226 Model 1U3 Multi-Media Enclosure Setup, Operator and Service Guide (English)</td>
<td>SA23-2271-07</td>
<td>46C2673</td>
</tr>
</tbody>
</table>

A CD containing multiple language translations

- 7226 Model 1U3 Multi-Media Enclosure Setup, Operator and Service Guide (English)
- 7226 Safety Information
- 7226 Warranty Information

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Technical information

Specified operating environment

No

Planning information

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request IBM to install Machine Code changes; however, you may be charged for that service.

Cable orders

**SAS cables:** At least one SAS external cable must be specified with each LTO SAS and DAT160 tape drive, or DVD-RAM drive installed in the IBM System Storage 7226 Multimedia Enclosure. Each SAS device attaches to a separate IBM POWER system or BladeCenter® SAS HBA. IBM PureFlex™ systems do not support SAS devices.

- Feature number 5508 (SEO# 46C2924) - Mini-SAS to Mini-SAS cable for attaching all 7226 SAS drive options. The sustained data rate is up to 3 Gbps.
- Feature number 5507 (SEO# 46C2925) - HD SAS to Mini-SAS cable for attaching a single HHLTO5 or HHLTO6 SAS Tape Drive feature to an IBM POWER7 System with HD function. The HD sustained data rate is up to 6 Gbps.
- Feature number 5509 (SEO# 46C2926) - Y SAS HD to Mini-SAS cable for attaching up to two HHLTO5 or HHLTO6 SAS Tape Drive features to an IBM POWER7 System with HD function. The HD sustained data rate is up to 6 Gbps.

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http://www.ibm.com/support/electronic

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**Benefits**

**Increased uptime:** The Electronic Service Agent tool is designed to enhance the Warranty or Maintenance Agreement by providing faster hardware error reporting and uploading system information to IBM Support. This can translate to less wasted time monitoring the "symptoms," diagnosing the error, and manually calling IBM Support to open a problem record. Its 24 x 7 monitoring and reporting mean no more dependence on human intervention or off-hours customer personnel when errors are encountered in the middle of the night.

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http://www.ibm.com/support/electronic

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**Field installable feature**

Yes

**Warranty period**

One year

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is subject to a full warranty effective on its date of installation. Unless specified otherwise, the warranty period, type of warranty service, and service level of a part or feature are the same as those for the machine in which it is installed.

**Customer setup**
Yes

**Machine code**
Same license terms and conditions as base machine

**Optional features warranty period**
- Optional features

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**Prices**

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**Announcement countries**

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