IBM 7226 Model 1U3 Multimedia Enclosure delivers new features and capabilities

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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 support the high-density (HD) capability on IBM POWER® 7 Systems with an HD host bus adapter (HBA) installed. HD SAS external cables are available on the IBM 7226 as follows:

- 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 high-density function

An HD SAS to Mini-SAS Cable or Y SAS HD Mini-SAS Cable will support all system functions supported by current Mini-SAS to Mini-SAS cables, as well as any HD functions.

Overview

The following new IBM System Storage® hardware features are available on the 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
- DVD-RAM USB front port sled with one drive

The HD (HD-SAS) 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 the HD function on IBM POWER Systems through a unique HBA on the system and HD external SAS cables.
The IBM 7226 DVD-RAM USB sled/drive feature with a USB port located on the front bezel of the drive is available for IBM PureFlex™ system applications that require frequent access to the USB port.

Key prerequisites

**SAS External Cables**
- Attaching an IBM 7226 Model 1U3 Multimedia Storage Enclosure to the HHLTO5 and HHLTO6 SAS tape drive with a HD SAS to Mini-SAS cable or Y SAS HD Mini-SAS cable will support all system function supported by current Mini-SAS to Mini-SAS cables, as well as HD capabilities that may be available on the attaching IBM POWER7® System.
- The attaching system must have an HD HBA available for attaching the HHLTO5 and HHLTO6 SAS tape drive features on the IBM 7226 in order to run high density functions.
- 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.

Planned availability date

- November 22, 2013: Features 5507, 5508, 5509, 8241, 8341, 9849, and 9850
- November 8, 2013: Features EFDE, EFDF, EFDH, EFD0, 4651, and 5763

Description

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

**DVD-RAM USB front port sled with one drive (#5763)**
This sled and drive feature allows the installation of one slim-height DVD-RAM optical drive in a single bay of the 7226 Storage Enclosure. Included in this feature is one DVD-RAM optical drive, a DVD-RAM test disk, a half-high drive latch, two slim latches, a slim blank, a drive sled with USB converter card, a USB interface assembly, and an external USB cable. A USB cable port is located on the front bezel for IBM PureFlex system applications that require frequent access to USB drive hardware. The DVD-RAM slim optical drive can read and write on 4.7 GB and 9.4 GB DVD-RAM media. The DVD-RAM uses only bare media and is also read compatible with multisession CD, CD-RW, CD recordable, and 2.6 GB and 5.2 GB DVD-RAM media.

**Half-High LTO™ Ultrium 5 SAS Tape Drive (#8241)**
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, and supports high density function available on POWER7 systems. 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 (#8341)**
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, and supports
high density function available on POWER7 systems. 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.

**HD-SAS to Mini-SAS Cable (#5507)**

This SAS external cable provides a sustained data rate of up to 6 Gbps. One no-charge SAS external cable (no-charge cable options are feature numbers 9849 - Mini-SAS to Mini-SAS cable - or 9850 - HD SAS to Mini-SAS cable) will be included with every 7226 Storage Enclosure SAS tape drive or DVD-RAM SATA/SAS sled as specified. Feature number 5507 may also be ordered where an optional or second SAS cable is needed.

**Mini-SAS to Mini-SAS Cable (#5508)**

This SAS external cable provides a sustained data rate of up to 3 Gbps. One no-charge SAS external cable (no-charge cable options are feature numbers 9849 - Mini-SAS to Mini-SAS cable - or 9850 - HD SAS to Mini-SAS cable) will be included with every 7226 Storage Enclosure SAS tape drive or DVD-RAM SATA/SAS sled as specified. Feature number 5508 may also be ordered where an optional or second SAS cable is needed.

**Y SAS HD to Mini-SAS Cable (#5509)**

One SAS external cable will be included with every 7226 Storage Enclosure SAS tape drive or DVD-RAM SATA/SAS sled. The 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**

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<tr>
<th>Description</th>
<th>Machine type</th>
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<td>1U3</td>
<td>4651</td>
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<tr>
<td>HD-SAS to Mini-SAS Cable</td>
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<td>5508</td>
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Publications

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

<table>
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<th>Title</th>
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<td>SA23-2271-07</td>
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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

Planning information

You are responsible for downloading or obtaining from IBM, and installing designated Machine Code (microcode, basic input/output system code (called BIOS), utility programs, device drivers, and diagnostics delivered with an IBM machine) and other software updates in a timely manner from an IBM Internet website or from other electronic media, and following the instructions that IBM provides. You may request IBM to install Machine Code changes; however, you may be charged for that service.

Cable orders

A SAS external cable (feature number 9849 or 9850) must be specified on all IBM 7226 orders. Orders that include the HHLTO5 or HHLTO6 SAS tape drives using
POWER7 system HD function must specify feature number 9850 in order to have HD function. SAS cable options are:

No charge SAS external cable features:

- Feature number 9849 - Mini-SAS to Mini-SAS Cable for attaching all 7226 SAS drive options. Sustained data rate of up to 3 Gbps.
- Feature number 9850 - HD SAS to Mini-SAS Cable for attaching a single HHLTO5 or HHLTO6 SAS Tape Drive feature to an IBM System with high-density function. HD sustained data rate of up to 6 Gbps.

Chargeable SAS external cable features:

- Feature number 5508 - Mini-SAS to Mini-SAS Cable for attaching all 7226 SAS drive options. Sustained data rate of up to 3 Gbps.
- Feature number 5507 - HD SAS to Mini-SAS Cable for attaching a single HHLTO5 or HHLTO6 SAS Tape Drive feature to an IBM System with HD function. HD sustained data rate of up to 6 Gbps.
- Feature number 5509 - 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. HD sustained data rate of up to 6 Gbps.

Security, auditability, and control

The customer is responsible for evaluation, selection, and implementation of security features, administrative procedures, and appropriate controls in application systems and communications facilities.

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Contact your IBM representative for the list of selected services available in your country, either as standard or customized offerings, for the efficient installation, implementation, or integration of this product.

IBM Electronic Services

Electronic Service Agent™ and the IBM Electronic Support web portal are dedicated to providing fast, exceptional support to IBM Systems customers. The IBM Electronic Service Agent tool is a no-additional-charge tool that proactively monitors and reports hardware events, such as system errors, performance issues, and inventory. The Electronic Service Agent tool can help you stay focused on your company’s strategic business initiatives, save time, and spend less effort managing day-to-day IT maintenance issues. Servers enabled with this tool can be monitored remotely around the clock by IBM Support all at no additional cost to you.

Now integrated into the base operating system of AIX® 5.3, AIX 6.1, and AIX 7.1, Electronic Service Agent is designed to automatically and electronically report system failures and utilization issues to IBM, which can result in faster problem resolution and increased availability. System configuration and inventory information collected by the Electronic Service Agent tool also can be viewed on the secure Electronic Support web portal, and used to improve problem determination and resolution by you and the IBM support team. To access the tool main menu, simply type “smitty esa_main”, and select “Configure Electronic Service Agent.” In addition, ESA now includes a powerful Web user interface, giving the administrator easy access to status, tool settings, problem information, and filters. For more information and documentation on how to configure and use Electronic Service Agent, refer to

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

The IBM Electronic Support portal is a single Internet entry point that replaces the multiple entry points traditionally used to access IBM Internet services and support. This portal enables you to gain easier access to IBM resources for assistance in
resolving technical problems. The My Systems and Premium Search functions make it even easier for Electronic Service Agent tool-enabled customers to track system inventory and find pertinent fixes.

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.

**Security:** The Electronic Service Agent tool is designed to be secure in monitoring, reporting, and storing the data at IBM. The Electronic Service Agent tool securely transmits either via the Internet (HTTPS or VPN) or modem, and can be configured to communicate securely through gateways to provide customers a single point of exit from their site. Communication is one way. Activating Electronic Service Agent does not enable IBM to call into a customer's system. System inventory information is stored in a secure database, which is protected behind IBM firewalls. It is viewable only by the customer and IBM. The customer's business applications or business data is never transmitted to IBM.

**More accurate reporting:** Since system information and error logs are automatically uploaded to the IBM Support center in conjunction with the service request, customers are not required to find and send system information, decreasing the risk of misreported or misdiagnosed errors. Once inside IBM, problem error data is run through a data knowledge management system and knowledge articles are appended to the problem record.

**Customized support:** Using the IBM ID entered during activation, customers can view system and support information in the "My Systems" and "Premium Search" sections of the Electronic Support Web site at

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

My Systems provides valuable reports of installed hardware and software using information collected from the systems by Electronic Service Agent. Reports are available for any system associated with the customer's IBM ID. Premium Search combines the function of search and the value of Electronic Service Agent information, providing advanced search of the technical support knowledge base. Using Premium Search and the Electronic Service Agent information that has been collected from your system, customers are able to see search results that apply specifically to their systems.

For more information on how to utilize the power of IBM Electronic Services, contact your IBM Systems Services Representative, or visit

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

Terms and conditions

**Field installable feature**

Yes

**Warranty period**

One year

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An IBM part or feature installed during the initial installation of an IBM machine is subject to a full warranty effective on the date of installation of the machine. An IBM part or feature that replaces a previously installed part or feature assumes the remainder of the warranty period for the replaced part or feature. An IBM part or feature added to a machine without replacing a previously installed part or feature 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

Prices
For all local charges, contact your IBM representative.

Announcement countries
All European, Middle Eastern, and African countries.

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