IBM System Storage TS2250 and TS2350 with available Rack Device to PDU Line Cord Feature

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At a glance

Features for IBM® System Storage® TS2250 Tape Drive Express® Model H5S (SEO / Part number 3580S5E) and IBM System Storage TS2350 Tape Drive Express Model S53 (SEO / Part number 3580S5X) include:

- 19-inch rack mount shelf option accommodates two TS2250 Tape Drives or two TS2350 Tape Drives side by side in the rack
- Maximum data transfer rate of up to 140 MB/sec native compared to 120 MB/sec native for LTO Ultrium 4
- Ultrium 5 cartridge capacity, providing up to 1.5 TB native physical capacity per cartridge (3.0 TB with 2:1 compression) compared to Ultrium 4 800 GB data cartridges
- 6 Gbps SAS attachment for Model S53 included
- LTO specifications met
- Encryption support designed to work with application managed encryption
- Dual SAS ports per drive to improve availability
- IBM Long Term File System partitioning support
- Half-high or full-high drive form factor

Overview

IBM System Storage TS2250 Tape Drive Express Model H5S (SEO / Part number 3580S5E) and IBM System Storage TS2350 Tape Drive Express Model S53 (SEO / Part number 3580S5X), external stand-alone or rack mountable units, are designed to offer high capacity and performance for the midrange systems environment.

IBM TS2250 Half-high LTO Ultrium 5 and IBM TS2350 Full-high LTO Ultrium 5 Tape Drives are designed to help improve performance, capacity, and reliability.

The enclosure design allows two TS2250 or two TS2350 storage units to be mounted side by side in a 19-inch IBM server Rack Mount Shelf Kit (SEO/Part number 96P1565) requiring just two EIA units (2U) of rack space. A Rack Device to PDU Line Cord (SEO/Part number 23R7000) is required to mount the two storage units. One Rack Device to PDU Line Cord comes with the Rack Mount Shelf Kit. For a second TS2250 or TS2350, an additional Rack Device to PDU Line Cord is required.
Key prerequisites

Appropriate levels of host software are required to attach an IBM System Storage TS2250 or TS2350 Tape Drive to selected IBM System p5®, IBM Power Systems™ p6, IBM Power Systems p7, IBM System x®, HP-UX, SUN, UNIX®, and PC servers.

Refer to the Technical information section for details.

Planned availability date

April 26, 2011

Reference information

For more information, refer to:

- Hardware Announcement ZG10-0094, dated April 12, 2010, for IBM System Storage TS2250 Tape Drive Express Model H5S
- Hardware Announcement ZG10-0145, dated April 12, 2010, for IBM System Storage TS2350 Tape Drive Express Model S53

Product number

<table>
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<tr>
<th>Description</th>
<th>Machine type</th>
<th>Model</th>
<th>Part number</th>
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<td>Rack Device to PDU Line Cord</td>
<td>3580</td>
<td>S5E, S5X</td>
<td>23R7000</td>
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Publications

The following publication is shipped with the IBM TS2250. Additional copies are available.

<table>
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<th>Title</th>
<th>Order number</th>
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<tr>
<td>IBM System Storage TS2250 Tape Drive Model H5S Setup, Operator, and Service Guide</td>
<td>GC27-2275</td>
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The following publication is shipped with the IBM TS2350. Additional copies are available.

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The following publications for IBM TS2250 are available immediately. To order, contact your IBM representative.
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<tr>
<td>IBM System Storage TS2250 Tape Drive Model H5S Quick Reference (English)</td>
<td>GC27-2276</td>
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<tr>
<td>IBM Tape Device Driver Installation and User's Guide (English)</td>
<td>GC27-2130</td>
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<tr>
<td>IBM Tape Device Driver Programming Reference (English)</td>
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http://www.ibm.com/shop/publications/order

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The following translated publications for IBM TS2250 are included on CD-ROMs, with the product. They are also available from the following website


Click on country, then enter publication number.
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<table>
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<td>IBM System Storage TS2350 Tape</td>
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<tr>
<td>Drive Model S53 Setup, Operator, and Service Guide</td>
<td>Brazilian Portuguese</td>
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<td>Drive Model S53 Quick Reference</td>
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For details on education offerings related to specific products, visit


Select your country, and then select the product as the category.
Technical information

Specified operating environment

Physical specifications

TS2250:
- Width: 213 mm (8.4 in.)
- Depth: 332 mm (13.1 in.)
- Height: 58 mm (2.3 in.)
- Weight: 4.3 kg (9.40 lbs.)

TS2350:
- Width: 213 mm (8.4 in.)
- Depth: 332 mm (13.1 in.)
- Height: 109 mm (4.3 in.)
- Weight: 6.3 kg (13.84 lbs.)

To assure installability and serviceability in non-IBM industry-standard racks, review the installation planning information for any product-specific installation requirements.

Operating environment

- Temperature: 10 to 38° C (50 to 100° F)
- Relative humidity: 20 to 80%
- Wet bulb (caloric value): 26° C (78.8° F)
- Electrical power: 0.21 kVA 1.0 amps at 100 V ac, 0.5 amps at 240 V ac

Hardware requirements

A current list of supported open system configurations is available at

http://www-03.ibm.com/systems/support/storage/config/ssic/index.jsp

Software requirements

For a current list of host software versions and release levels that support the TS2250 and the TS2350, refer to the following website

http://www-03.ibm.com/systems/support/storage/config/ssic/index.jsp

IBM Tivoli® Storage Manager and other compatible software offerings can provide storage and tape management software for the TS2250 and TS2350. Supporting software and applications must be obtained separately from IBM, IBM Business Partners, or independent software vendors (ISVs). A list of compatible software is available from your IBM representative or at

http://www-03.ibm.com/systems/storage/tape/library.html#compatibility

Select "Compatibility Information", then "Independent Software Vendor (ISV) matrix for LTO" for the product.

IBM continues to work together with the ISVs to support the TS2250 and TS2350. Individual application vendors should be contacted for specific information and availability dates.
IBM maintains the latest levels of System Storage tape drive and library device drivers and documentation on the Internet. Utilize the Fix Central download portal by accessing the following website

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

There are a few pull down menus to navigate to the correct download as follows:

- In the first pull down menu labeled "Product Group" select "Storage Systems".
- In the next pull down menu that appears which is labeled "Product Family" select "Tape Systems".
- With the next pull down menu, "Product Type", select "Tape Device Drivers and Software".
- This will in turn bring up the "Product" menu, which provides selections for "Platform drivers, Tools, or Software".
- Under "Platform drivers", in order to download your driver, select the correct operating system.
- Two more pull down menus will appear with information. Click "Continue".
- The next screen can be used to narrow the search, however just click "Continue" to view what is available.

The IBM Tape Device Drivers Installation and User’s Guide can be found at the following website

http://www-01.ibm.com/support/docview.wss?rs=577&uid=ssg1S7002972

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 Web site 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

For TS2250 Model H5S and TS2350 Model S53, a SAS cable is required to attach the tape drive to a host SAS adapter. SAS/Min-SAS cables provide attachment from HBA with SFF-8470 to the drive with SFF-8088. Mini-SAS/Mini-SAS cables provide attachment from HBA SFF-8088 to the drive with SFF-8088. At least one SAS cable should be specified on the initial plant order.

The following cable options are available for SAS attachment:

- Feature number 5402 (SEO 95P4711) - 2.0M SAS/Mini-SAS Cable (from HBA with SFF-8470 to drive with SFF-8088)
- Feature number 5502 (SEO 95P4713) - 2.0M Mini-SAS/Mini-SAS Cable (from HBA with SFF-8088 to drive with SFF-8088)

Refer to the Specify or Special Features section of the 3580 Sales Manual for a detailed description of the cables available.

Supplies

For users: The IBM LTO Ultrium 5 1.5 TB Data Cartridges (feature 8505 or machine type 3589) and the IBM LTO Cleaning Cartridge (feature 8002), for use in the TS2250 Model H5S Tape Drive or in the TS2350 Model S53 Tape Drive, can be purchased through the dealers around the world using the feature numbers with the initial order. IBM-branded media, including 1.5 TB LTO 5 tape cartridges and media supplies, can or will also be available directly through AAS. Refer to the 3589 Sales Manual for further information.
For remarketers: Remarketers can purchase IBM-branded media and media supplies.

For additional information, go to the following website

http://www.storage.ibm.com/media

For users and remarketers: IBM-branded media and media supplies can be ordered directly through AAS using machine type 3589.

IBM-branded media and media supplies can be also purchased through Priority Fulfillment Services and its distribution channel in North America, Latin America, and Asia Pacific.

Security, auditability, and control

This product uses the security and auditability features of the host hardware, host software, and application software.

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

Global Technology Services

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, and/or integration of this product.

IBM Electronic Services

IBM has transformed its delivery of hardware and software support services to help you achieve higher system availability. Electronic Services is a Web-enabled solution that offers an exclusive, no-additional-charge enhancement to the service and support available for IBM servers. These services are designed to provide the opportunity for greater system availability with faster problem resolution and preemptive monitoring. Electronic Services comprises two separate, but complementary, elements: Electronic Services news page and Electronic Services Agent.

The Electronic Services news page is a single Internet entry point that replaces the multiple entry points traditionally used to access IBM Internet services and support. The news page enables you to gain easier access to IBM resources for assistance in resolving technical problems.

The Electronic Service Agent™ is no-additional-charge software that resides on your server. It monitors events and transmits system inventory information to IBM on a periodic, client-defined timetable. The Electronic Service Agent automatically reports hardware problems to IBM. Early knowledge about potential problems enables IBM to deliver proactive service that may result in higher system availability and performance. In addition, information collected through the Service Agent is made available to IBM service support representatives when they help answer your questions or diagnose problems. Installation and use of IBM Electronic Service Agent for problem reporting enables IBM to provide better support and service for your IBM server.

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

Terms and conditions
Field installable feature
Yes

Warranty period
Three years
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 which 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 is the same as the machine it is installed.

Customer setup
Yes

Machine code
No license terms apply

Optional features warranty period
• Optional feature(s) - Three years
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http://www.ibm.com/planetwide/

Corrections

(Corrected on June 28, 2011)
The Rack Device to PDU Line Cord models have been updated in the Product number section.