



IBM 7131 SSA Multi-Storage Tower Model 405 Feature Enhancements

Overview

New 7131 SSA Multi-Storage Tower Model 405 features expand the tower's storage capacity with IBM's newest high-performance 9.1GB hard disk drives.

If you need additional storage, the IBM 7131 SSA Multi-Storage Tower Model 405 may be right for you. This stand-alone tower is a leading-edge, second generation serial storage subsystem that provides IBM's latest Serial Storage Architecture (SSA) hard disk drives. It uses the industry-standard Serial Storage Architecture to deliver outstanding performance and capacity/footprint, improved connectivity and availability, and enhanced attachability compared to SCSI alternatives.

Part of the IBM StorageSmart family of products, the 7131 SSA Multi-Storage Tower is sold configured with either: two 2.2GB, two 4.5GB, or two 9.1GB IBM disk drives. The tower is also configured with three additional "hot-swap" slots. These additional slots may be filled by the customer at time of purchase, or later as needed to keep pace with the customer's storage needs.

The "hot-swap" slots can contain a mix of the following IBM hard disk drives:

- 2.2GB disk drive
- 4.5GB disk drive
- 9.1GB disk drive

In total, the tower now provides up to 45.5GB of storage when fully configured with the new 9.1GB IBM disk drives.

Intended Customers

Customers requiring low-cost storage less than 45.5GB and wishing to use new SSA technology should select the 7131-405. Customers requiring larger capacities, concurrent attachment to multiple hosts, or higher availability with redundant power should select the 7133.

Key Prerequisites

The 7131 SSA Multi-Storage Tower attaches to the host RS/6000™ via any of the SSA adapters available on RS/6000 systems.

Purchase Prices

SSA Tower with Two 9.1GB Disk Drives: \$13,900

9.1GB SSA Hot-Swappable Disk Drive: \$5,900

Planned Availability Date

December 6, 1996

At a Glance

Product Features:

- Low-cost expansion
- Cost-effective mirrored solution for data protection using two towers
- SSA hard disk drives providing high performance, availability, and scalability
- Up to 45.5GB of hard disk drive capacity
- External stand-alone device
- Five bays of "hot-swappable" SSA hard disk drives
 - 2.2GB hard disk drive
 - 4.5GB hard disk drive
 - 9.1GB hard disk drive
- Lockable door

For ordering, contact:

Your IBM representative, an IBM Authorized Business Partner, or IBM Direct at

800-IBM-CALL

Reference: RE010

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Description

The IBM 7131 SSA Multi-Storage Tower Model 405 provides the growing customer expandable storage at low cost. The tower comes with IBM's latest technology SSA hard disk drives.

The tower has five "hot-swappable" hard disk drive slots. The tower can be configured with up to five hot-swappable SSA hard disk drives including:

- 2.2GB disk drive
- 4.5GB disk drive
- 9.1GB disk drive

Two IBM 7131 SSA Multi-Storage Towers can provide a low-cost mirrored solution for additional data protection in critical environments.

Product Positioning

SSA storage products offer significant advantages in performance, scalability, and maximum configured capacity over similar SCSI products. The multiple systems attachment capabilities and fault-tolerant loop configurations of IBM's SSA products make the 7131 and 7133 storage products ideal for clustered RS/6000 environments and applications requiring high performance and high availability.

Where large capacities are required or rack-mounted storage is preferred, the 7133 is an ideal product. For smaller configurations where entry cost is important, the 7131-405 SSA Multi-Storage Tower allows a cost-effective solution while still providing the performance and scaling advantages of SSA storage.

Publications

The following publications will be updated to reflect today's announcement.

Publications are shipped with the product but must be specified. Additional copies will be available by October 1996.

Specify Code	Language	Title	Form Number
9300	English	Manual Kit	
		—User's Guide (includes Installation Guide)	GC26-7096
		—Service Guide	SY27-7510
		—Safety Information Manual	SA26-7003

Displayable Softcopy Publications

The product books are offered in displayable softcopy form. All books are included. The displayable manuals are part of the basic machine-readable material. The files are shipped on the same media type as the basic machine-readable material.

These displayable manuals can be used with the BookManager® READ licensed programs in any of the supported environments. Terms and conditions for use of the machine-readable files are shipped with the files.

Technical Information

Specified Operating Environment

Physical Specifications: No changes to currently published Physical Specifications.

Operating Environment: No changes to currently published Operating Environment.

Hardware Requirements: This product attaches to the host RS/6000 via an SSA adapter. The SSA adapters supported are:

- IBM SSA 4-Port Adapter (#6214)
- IBM Enhanced SSA 4-Port Adapter (#6216)
- IBM SSA 4-Port RAID Adapter (#6217)
- IBM PCI SSA 4-Port RAID Adapter (# 6218)

Note: For availability dates of SSA Adapters #6216 and #6218, refer to Hardware Announcement 196-255, dated October 8, 1996 (RS/6000 SSA Adapters).

Note: The selection of SSA adapters is RS/6000 system dependent. Refer to the specific RS/6000 systems hardware requirements and limitations. SSA adapters are ordered with the RS/6000 system.

The 7131 Model 405 attaches to the following RS/6000 systems:

- 7012 Models 340, 34H, 350, 360, 370, 380, 390, 39H, G30, and G40
- 7013 Models 52H, 53E, 53H, 550, 55E, 55S, 55L, 560, 56F, 570, 57F, 580, 58F, 58H, 590, 59H, 591, J01, J30, and J40
- 7024 Models E20 and E30
- 7025 Model F30

Software Requirements: The 7131-405 SSA Multi-Storage Tower is supported on AIX® Version 4.1.4 with PTFs for APARs IX54096, IX54430, and IX56873, AIX Version 4.1.5, and AIX Version 4.2. The product is also supported on AIX 4.1.2, 4.1.3, and 4.1.4 by doing selective install of device support code from AIX 4.1.5 media. While selective install is available, installation of AIX 4.1.5 is highly recommended.

The 9.1GB SSA Disk Drive feature numbers 2513 and 3089 require the following AIX software support:

- AIX 4.1.5
- Support for AIX 4.1.2, 4.1.3, and 4.1.4 is available by doing selective install of device support code from AIX 4.1.5 media. While selective install is available, installation of AIX 4.1.5 is highly recommended.

Note: The AIX level requirements are RS/6000 host system and SSA adapter dependent. Please refer to the specific host RS/6000 and adapter software requirements and limitations.

Limitations: For the 7131-405, a maximum of three neighboring dummy disk drive modules can be connected consecutively in any particular SSA loop.

Other rules for SSA loops are adapter dependent. Refer to the specific SSA adapter documentation for its associated rules.

Additional Product Information

2.2GB, 4.5GB, and 9.1GB Disk Drive Descriptions: The IBM 2.2GB, 4.5GB, and 9.1GB SSA disk drives are the latest high-performance SSA IBM disk drives available. They rotate at a speed of 7200 RPM with an average latency of 4.17 milliseconds.

Planning Information

Customer Responsibilities: The 7131-405 SSA Multi-Storage Tower is designated as customer setup.

Cable Orders: One SSA cable must be specified in the initial plant order (first cable is free with each tower purchased, additional cables are available for a fee). (Note: Two cables are required to form the initial loop; the second cable must be purchased. Only one cable is required to add an additional tower to an existing loop.) Select the cables from the following list:

Adapter-to-tower or tower-to-tower cables (select length desired):

- SSA Cable 1.0 M 9167 (IPO) 2895 (IPO/MES)
- SSA Cable 2.5 M 9168 (IPO) 2896 (IPO/MES)
- SSA Cable 5.0 M 9169 (IPO) 2897 (IPO/MES)
- SSA Cable 10.0 M 9170 (IPO) 2898 (IPO/MES)
- SSA Cable 25.0 M 9174 (IPO) 2899 (IPO/MES)

Supplies

For End Users: Lexmark International, Inc. manufactures and markets IBM supplies. For information about products or services, call Lexmark at 800-358-5835.

Supplies can be purchased from Lexmark Authorized Supplies Dealers or directly from Lexmark by calling 800-358-5835.

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Lexington, KY 40575-1427

Security, Auditability, and Control

This product uses the security and auditability features of the RS/6000 and application software.

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

Terms and Conditions

This product is available for purchase under the terms of the IBM Customer Agreement.

IBM hardware products are manufactured from new parts, or new and used parts. In some cases, the hardware product may not be new and may have been previously installed. Regardless, IBM's warranty terms apply.

MES Discount Applicable: The feature discount will be equal to the discount percent associated with the current volume commitment of the machine type on which the feature is installed.

Field-Installable Feature: Yes

Warranty Period: One year

Customer Setup: Yes

Licensed Internal Code: No

All other terms and conditions are the same as those applicable to the IBM 7131-405 SSA Multi-Storage Tower in which the feature is installed.

Charges

Description	Feat Numb	Mach Type	Model Numb	Purch Price	Field Install Only	Plant Install Only	MES Remov	Min Monthly Maint Charge
SSA Multi-Storage Tower		7131	405					
Select one base model:								
SSA Tower with Two 9.1GB Disk Drives	2513 (IPO)			\$13,900	N	Y	N	\$150
Select additional hot-swappable hard disk drive:								
9.1GB SSA Hot-Swappable Disk Drive	3089 (IPO or MES)			5,900	N	N	N	

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Note: Shipments will begin after the planned availability date.

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