



IBM System Storage EXN3200 Model 306 SATA Expansion Unit provides storage for IBM System Storage N series PCIe systems

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Overview

IBM® System Storage® EXN3200 Model 306 SATA Expansion Unit is a 4U high density SATA enclosure for attachment to PCIe-based N series systems with SAS ports. The EXN3200 ships with 48 disk drives per unit.

The EXN3200 is a disk storage expansion unit for mounting in any industry standard 19-inch rack. The EXN3200 provides low-cost, high-capacity SAS disk storage for the IBM N series system storage family.

The EXN3200 must be ordered with a full complement of disks.

For ordering, contact your IBM representative, an IBM Business Partner, or IBM Americas Call Centers at 800-IBM-CALL (Reference: YE001).

Key prerequisites

The IBM System Storage EXN3200 Model 306 SATA Expansion Unit requires the appropriate cables for attachment to an N series system or to another storage controller.

Planned availability date

December 7, 2012

Description

IBM System Storage EXN3200 Model 306 SATA Expansion Unit is a 4U, high-density SATA enclosure for attachment to PCIe-based N series systems with SAS ports that can hold up to 48 disk drives per unit.

The EXN3200 is a 4U disk storage expansion unit that must be mounted in an industry standard 19-inch rack. It may be attached to N series N6240, N6270, or N7950T systems.

The EXN3200 contains:

- Four redundant, hot-pluggable, integrated power supplies and cooling fans

- Dual redundant disk expansion unit switched controllers
- 48 hard disk drives
- Diagnostic and status LEDs

The EXN3200 must be ordered with a full complement of disks. Disk drives ordered with the EXN3200 will be shipped separately from the EXN3200 shelf, and must be installed once at the customer's location. Disk drives are 3 TB physical capacity and must be ordered as feature number 4922 of the EXN3200.

Section 508 of the US Rehabilitation Act

U.S. Section 508 Voluntary Product Accessibility Template (VPAT) containing details on accessibility compliance can be requested at

http://www.ibm.com/able/product_accessibility/index.html

Product number

Description	Machine	Model	Feature
EXN3200 SATA Expansion Unit	2857	306	
0.5 m SAS QSFP-QSFP Cable			2052
2.0 m SAS QSFP-QSFP Cable			2053
5.0 m SAS QSFP-QSFP Cable			2054
0.5 m SAS RJ45 ACP Cable			2063
2.0 m SAS RJ45 ACP Cable			2064
5.0 m SAS RJ45 ACP Cable			2065
3 TB Disk Drives - Quantity 2			4922
Power Cords:			
Power Cord, Rack			9000
Power Cord, Cont. Europe			9001
Power Cord, UK			9002
Power Cord, Japan			9003
Power Cord, North America			9004
Power Cord, Australia/N.Z.			9005
Power Cord, Switzerland			9006
Power Cord, Argentina			9007
Power Cord, China			9008
Power Cord, Denmark			9009
Power Cord, India/S.Africa			9010
Power Cord, Israel			9011
Power Cord, Italy			9012
Power Cord, N.America 250V			9013
Power Cord, Brazil			9014
Power Cord, Taiwan			9015
Power Cord, Taiwan 250V			9016
Top of 42U Rack Indicator			9020
Installation:			
Plant install in 2101 rack			9201
Field install rack mount kit			9202
MES Bulk Ordering			9555
Port/loop counts:			
SAS Stack Identifier			9562

Business Partner information

If you are a Direct Reseller - System Reseller acquiring products from IBM, you may link directly to Business Partner information for this announcement. A PartnerWorld ID and password are required (use IBM ID).

<https://www.ibm.com/partnerworld/mem/sla.jsp?num=112-200>

Publications

The following publications are shipped with the product. Additional copies will be available immediately.

Title	Order number
Shipped in hardcopy:	
IBM System Storage EXN3200 Installation and Setup Instructions	GC27-4217
On CD-ROM, all above, and:	
IBM System Storage EXN3200 Storage Expansion Unit Hardware and Service Guide	SC27-4215
IBM System Storage Universal SAS And ACP Cabling Guide	GC27-3919
On the web, all above, and:	
IBM System Storage N series Introduction and Planning Guide	GA32-0543

The above publications are available on the N series support website

<http://www.ibm.com/storage/support/nseries>

Publications are only available for download for existing IBM N series customers who have registered their N series products on the N series support site.

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Global Technology Services

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These services help you learn about, plan, install, manage, or optimize your IT infrastructure to be an On Demand Business. They can help you integrate your high-speed networks, storage systems, application servers, wireless protocols, and an array of platforms, middleware, and communications software for IBM and many non-IBM offerings. IBM is your one-stop shop for IT support needs.

For details on available services, contact your IBM representative or visit

<http://www.ibm.com/services/>

For details on available IBM Business Continuity and Recovery Services, contact your IBM representative or visit

<http://www.ibm.com/services/continuity>

For details on education offerings related to specific products, visit

<http://www.ibm.com/services/learning/index.html>

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

Technical information

Specified operating environment

Physical specifications

- Width: 447.2 mm (17.6 in)
- Depth: 685.13 mm (26.97 in)
- Height: 174.8 mm (6.88 in)
- Weight: 65.77 kg (145 lb)
- Weight (minimum configuration, 8 HDDs): 36.74 kg (81 lb)
- Weight (maximum configuration, 48 HDDs): 65.77 kg (145 lb)

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

Standards

Safety

- CAN/CSA-C22.2 60950-1-07/UL60950-1 Second Edition
- EN60825-1
- EN60825-2
- EN 60950-1:2001\IEC 60950-1 Second Edition
- CE Mark (EU)
- IRAM
- GOST-R
- NOM (Mexico)

EMC

- FCC Class A
- EN55022: 2006+A1:2007
- EN61000-3-2:2006
- EN61000-3-3:1995+A1:2001+A2:2005
- CE
- ACA C-Tick
- VCCI
- BSMI CNS 13438:2006 (Taiwan)

Immunity

- EN55024: 1998+A1:2001+A2:2003

Operating environment

- Temperature: 10° to 40° C (50° to 104° F)
- Relative humidity: 20% to 80%
- Electrical power: 100 to 240V AC, 16-6 A

- Noise level: 7.2 bels at normal operating conditions (at 23° C at sea level)

Hardware requirements

The EXN3200 Expansion Unit must be ordered with a full quantity of 48 disks.

Limitations

- The EXN3200 Expansion Unit is supported only in rack installations.
- This product is functional with the System i® and OpenPower® platforms. However, on the System i , support is only available on Power® Linux™ and AIX® partitions, not i5OS.

Planning information

Customer responsibilities

Following good safety practice, IBM recommends that two or more people install this product.

Physical configuration and installation planning for the 2857 is a customer responsibility. Information about physical configuration and installation requirements, including equipment, site, and power requirements, can be found in the *IBM System Storage EXN3200 Storage Expansion Unit Hardware and Service Guide (SC27-4215)* and the *IBM System Storage EXN3200 Installation and Setup Instructions (GC27-4217)*.

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

SAS cables are required to connect an EXN3200 expansion unit to an N series system. Cables can be purchased using expansion unit features.

Installability

Estimated time to unpack an EXN3200 Expansion Unit, install it in the rack, and perform a simple discovery and configuration is one hour.

Security, auditability, and control

This product uses the security and auditability features of host hardware, host software, and application software to which it is attached.

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

Terms and conditions

Volume orders: Contact your IBM representative.

IBM Global Financing

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.

Warranty service

If required, IBM provides repair or exchange service depending on the types of warranty service specified for the machine. IBM will attempt to resolve your problem over the telephone, or electronically via an IBM website. Certain machines contain remote support capabilities for direct problem reporting, remote problem determination, and resolution with IBM. You must follow the problem determination and resolution procedures that IBM specifies. Following problem determination, if IBM determines on-site service is required, scheduling of service will depend upon the time of your call, machine technology and redundancy, and availability of parts. If applicable to your product, parts considered Customer Replaceable Units (CRUs) will be provided as part of the machine's standard warranty service.

Service levels are response-time objectives and are not guaranteed. The specified level of warranty service may not be available in all worldwide locations. Additional charges may apply outside IBM's normal service area. Contact your local IBM representative or your reseller for country-specific and location-specific information.

CRU Service

IBM provides replacement CRUs to you for you to install. CRU information and replacement instructions are shipped with your machine and are available from IBM upon your request. CRUs are designated as being either a Tier 1 (mandatory) or a Tier 2 (optional) CRU.

Tier 1 (mandatory) CRU

Installation of Tier 1 CRUs, as specified in this announcement, is your responsibility. If IBM installs a Tier 1 CRU at your request, you will be charged for the installation.

Tier 2 (optional) CRU

You may install a Tier 2 CRU yourself or request IBM to install it, at no additional charge.

Based upon availability, CRUs will be shipped for next business day (NBD) delivery. IBM specifies, in the materials shipped with a replacement CRU, whether a defective CRU must be returned to IBM. When return is required, return instructions and a container are shipped with the replacement CRU. You may be charged for the replacement CRU if IBM does not receive the defective CRU within 15 days of your receipt of the replacement.

The following parts have been designated as Tier 1 CRUs:

- AC power cord
- AC power supply
- Disk drive
- Cables
- Memory modules
- Wrap plug
- Operator panel

CRU and On-site Service

At IBM's discretion, you will receive specified CRU service, or IBM will repair the failing machine at your location and verify its operation. You must provide a suitable working area to allow disassembly and reassembly of the IBM machine. The area must be clean, well lit, and suitable for the purpose.

Service level is:

- 9 hours per day, Monday through Friday, excluding holidays, next business day response. Calls must be received by 5:00 p.m. local time in order to qualify for next business day response.

Warranty service upgrades

During the warranty period, warranty service upgrades provide an enhanced level of On-site Service for an additional charge. Service levels are response-time objectives and are not guaranteed. See the Warranty services section for additional details.

IBM will attempt to resolve your problem over the telephone or electronically by access to an IBM website. Certain machines contain remote support capabilities for direct problem reporting, remote problem determination, and resolution with IBM . You must follow the problem determination and resolution procedures that IBM specifies. Following problem determination, if IBM determines on-site service is required, scheduling of service will depend upon the time of your call, machine technology and redundancy, and availability of parts.

Maintenance service options

CRU and On-site Service

At IBM's discretion you will receive CRU service or IBM will repair the failing machine at your location and verify its operation. You must provide a suitable working area to allow disassembly and reassembly of the IBM machine. The area must be clean, well lit, and suitable for the purpose. The following on-site response-time objectives are available as warranty service upgrades for your machine. Available offerings are:

- 9 hours per day, Monday through Friday, excluding holidays, 4 hour average, same business day response, IOR
- 24 hours per day, 7 days a week, 4-hour average response, IOR
- 24 hours per day, 7 days a week, 2-hour average response, IOR

Customer Replaceable Units (CRUs) may be provided as part of the machine's standard warranty CRU Service except that you may install a CRU yourself or request IBM installation, at no additional charge, under the CRU and On-site Service level specified above. For additional information on the CRU Service, see the warranty information.

Maintenance services

If required, IBM provides repair or exchange service depending on the types of maintenance service specified for the machine. IBM will attempt to resolve your problem over the telephone or electronically, via an IBM website. Certain machines contain remote support capabilities for direct problem reporting, remote problem determination, and resolution with IBM . You must follow the problem determination and resolution procedures that IBM specifies. Following problem determination, if IBM determines on-site service is required, scheduling of service will depend upon the time of your call, machine technology and redundancy, and availability of parts. Service levels are response-time objectives and are not guaranteed. The specified level of maintenance service may not be available in all worldwide locations. Additional charges may apply outside IBM's normal service area. Contact your local IBM representative or your reseller for country-specific and location-specific information. The following service selections are available as maintenance options for your machine type.

On-site Service

IBM will repair the failing machine at your location and verify its operation. You must provide a suitable working area to allow disassembly and reassembly of the IBM machine. The area must be clean, well lit, and suitable for the purpose.

Service levels are:

- 9 hours per day, Monday through Friday, excluding holidays, next business day response
- 9 hours per day, Monday through Friday, excluding holidays, 4 hour average response
- 24 hours per day, 7 days a week, 4 hour average response
- 24 hours per day, 7 days a week, 2 hour average response

Customer Replaceable Unit (CRU) Service

If your problem can be resolved with a CRU (for example, keyboard, mouse, speaker, memory, or hard disk drive), and depending upon the maintenance service offerings in your geography, IBM will ship the replacement CRU to you for you to install. CRU information and replacement instructions are shipped with your machine and are available from IBM upon your request.

Based upon availability, CRUs will be shipped for next business day delivery. IBM specifies, in the materials shipped with a replacement CRU, whether a defective CRU must be returned to IBM. When return is required, 1) return instructions and a container are shipped with the replacement CRU, and 2) you may be charged for the replacement CRU if IBM does not receive the defective CRU within 15 days of your receipt of the replacement.

CRUs may be provided as part of the machine's standard maintenance service except that you may install a CRU yourself or request IBM installation, at no additional charge, under any of the On-site Service levels specified above.

Warranty service upgrades

Usage plan machine

No

IBM hourly service rate classification

One

When a type of service involves the exchange of a machine part, the replacement may not be new, but will be in good working order.

Field-installable features

Yes

Model conversions

No

Machine installation

Customer setup. Customers are responsible for installation according to the instructions IBM provides with the machine.

Graduated program license charges apply

No

Licensed internal code and licensed machine code

This product does not contain Licensed Internal Code or Licensed Machine Code.

Educational allowance

A reduced charge is available to qualified education customers. The educational allowance may not be added to any other discount or allowance.

The educational allowance is 15% for the products in this announcement.

Pricing

Product charges

Description	Machine type	Model	Feature number			
EXN3200 SATA Expansion Unit	2857	306				
Cables:						
0.5 m SAS QSFP-QSFP Cable			2052			
2.0 m SAS QSFP-QSFP Cable			2053			
5.0 m SAS QSFP-QSFP Cable			2054			
0.5 m SAS RJ45 ACP Cable			2063			
2.0 m SAS RJ45 ACP Cable			2064			
5.0 m SAS RJ45 ACP Cable			2065			
3 TB Disk Drives - Quantity 2			4922			
Power Cords:						
Power Cord, Rack			9000			
Power Cord, Cont. Europe			9001			
Power Cord, UK			9002			
Power Cord, Japan			9003			
Power Cord, North America			9004			
Power Cord, Australia/N.Z.			9005			
Power Cord, Switzerland			9006			
Power Cord, Argentina			9007			
Power Cord, China			9008			
Power Cord, Denmark			9009			
Power Cord, India/S.Africa			9010			
Power Cord, Israel			9011			
Power Cord, Italy			9012			
Power Cord, N.America 250V			9013			
Power Cord, Brazil			9014			
Power Cord, Taiwan			9015			
Power Cord, Taiwan 250V			9016			
Top of 42U Rack Indicator			9020			
Installation:						
Plant install in 2101 rack			9201			
Field install rack mount kit			9202			
MES Bulk Ordering			9555			
Port/loop counts:						
SAS Stack Identifier			9562			
		Plant/ Field	MES	Cabl		
	Mach/Mod/Feat	install	removal	req.	CSU ¹	
Cables:						
0.5 m SAS QSFP-QSFP Cable	2857/306/2052	Both	N	N	Y	
2.0 m SAS QSFP-QSFP Cable	2857/306/2053	Both	N	N	Y	
5.0 m SAS QSFP-QSFP Cable	2857/306/2054	Both	N	N	Y	
0.5 m SAS RJ45 ACP Cable	2857/306/2063	Both	N	N	Y	
2.0 m SAS RJ45 ACP Cable	2857/306/2064	Both	N	N	Y	
5.0 m SAS RJ45 ACP Cable	2857/306/2065	Both	N	N	Y	

3 TB Disk Drive - Quantity 2	2857/306/4922	Both	N	N	Y
Power Cords:					
Power Cord, Rack	2857/306/9000	Plant	N	N	Y
Power Cord, Cont. Europe	2857/306/9001	Plant	N	N	Y
Power Cord, UK	2857/306/9002	Plant	N	N	Y
Power Cord, Japan	2857/306/9003	Plant	N	N	Y
Power Cord, North America	2857/306/9004	Plant	N	N	Y
Power Cord, Australia/N.Z.	2857/306/9005	Plant	N	N	Y
Power Cord, Switzerland	2857/306/9006	Plant	N	N	Y
Power Cord, Argentina	2857/306/9007	Plant	N	N	Y
Power Cord, China	2857/306/9008	Plant	N	N	Y
Power Cord, Denmark	2857/306/9009	Plant	N	N	Y
Power Cord, India/S.Africa	2857/306/9010	Plant	N	N	Y
Power Cord, Israel	2857/306/9011	Plant	N	N	Y
Power Cord, Italy	2857/306/9012	Plant	N	N	Y
Power Cord, N.America 250V	2857/306/9013	Plant	N	N	Y
Power Cord, Brazil	2857/306/9014	Plant	N	N	Y
Power Cord, Taiwan	2857/306/9015	Plant	N	N	Y
Power Cord, Taiwan 250V	2857/306/9016	Plant	N	N	Y
Top of 42U Rack indicator	2857/306/9020	Plant	N	N	Y
Plant install in 2101 rack	2857/306/9201	Plant	N	N	Y
Field install rack mount kit	2857/306/9202	Plant	N	N	Y
MES Bulk Ordering	2857/306/9555	Field	N	N	Y
Port/loop counts:					
SAS Stack Identifier	2857/306/9562	Plant	N	N	Y

1 Customer setup

Pricing terms

Prices in the following PDF prices link are suggested list prices on day of announcement for the U.S. only. They are provided for your information only. Dealer prices may vary, and prices may also vary by country. IBM list price does not include tax or shipping and is subject to change without notice.

[ENUS-112-200-LIST_PRICES_2012_11_13.PDF](#)

ServicePac prices

For ServiceElect (ESA) maintenance service charges, contact IBM Global Services at 888-IBM-4343 (426-4343).

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to-end approach to IT management can also help keep your technologies current, reduce costs, minimize risk, and preserve your ability to make flexible equipment decisions throughout the entire technology life cycle.

Order now

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3500 Steeles Ave. East, Tower 3/4
Markham, Ontario
Canada
L3R 2Z1

Reference: YE001

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Note: Shipments will begin after the planned availability date.

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