Intel® Storage System SSR212CC

Spares / Parts List & Configuration Guide

A reference guide to assist customers in ordering the necessary components to configure the Intel® Storage System SSR212CC

Rev. 1.3
Subject to Change

August 2006

Change History:

<u>4/27/2006 Rev. 1.0:</u>   Initial Release
<u>6/14/2006 Rev.</u> 1.1:   Corrected a number of issues including correct name of processor, deleted SAF-TE support, corrected Table of Contents
<u>6/28/2006 Rev 1.2</u>:   ROHS versions
<u>8/25/2006 Rev 1.</u>3:   Updated power supply MM#

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Production Configurations

Base Unit Description

This section contains information needed to order and configure a production SSR212CC. The unit is shipped as a complete, fully integrated, hardware system. Drivers and enclosure management software is included, but no operating system or storage applications are included.

1) The SSR212CC storage system contains the following:

Hardware

- 1 x 2U system chassis (including SATA backplane, cooling module, power supply enclosure)
- 1 x 500 W power supply module
- 1 x Intel® Server Board SE7520JR2 (Jarrell)
- 2x Intel® PRO/1000 Network connections
- 1x Low Voltage Intel® Xeon® processor 2.8 GHz with 800 MHz system bus and 1MB L2 cache
- 2x Intel RAID Controller SRCS28X, w/ Battery Backup Units (BBU)
- 12x Intel hard disk drive carriers (for use with Serial ATA drives)
- 12x hard disk drive labels
- 12x Serial ATA hard disk drive cable
- 1x Rail Kit
- 1x printed Quick Start Guide
- 1x Resource CD

Production System Codes

Product Code	MM #	UPC	Description
SSR212CC	884121	00735858184175	Production SSR212CC unit. Each unit is sold separately.
SSR212CCNA	880345	00735858184182	Production SSR212CC unit, with North American power cord.

Production Hardware Spares (Field Replaceable Units)

Product Code	MM #	UPC	Description
FXCCHASSIS	882944	00735858184199	Chassis FRU, including Backplane, interposer and front panel boards, along with power supply cage.
FXSCABLES	873826	00735858177702	Cable Kit, including: 3 SATA (4 port) gang cables, 1 SMBus cable, 1 microswitch assembly (power & reset switches), 1 RJ45-DB9 Serial Cable.
FXSDRVCARR	873884	00735858177726	12 pack HDD Carrier, along with 1 torx driver and HDD label set.
FXSIPOSER	873885	00735858177733	Interposer board (connects Fan to backplane) and installation guide.
FXSRAIL	874323	00735858177771	Rail Kit (1 pair) plus Installation Guide.
FXSPSCAGE	884025	00735858177757	Power Supply cage with Installation Guide.
FXSFANTRAY	873921	00735858177764	Cooling module sub-assembly. Fan tray assembly (5 fans and distribution board) and Installation Guide.
FXSPKG	873922	00735858177788	Packaging - exterior box assembly including foam cushions.

Existing Production Spares & Accessories

Product Code	MM #	UPC	Description
SE7520JR2ATAD2	876355	00735858167376	Intel Server Board SE7520JR2 Boxed Board - DDR2 SATA (min order quanity = 5)
SRCS28X	866296	00735858171625	Intel RAID Controller SRCS28X (two ship with each SSR212CC system).
AXXRIBBU1	867464	00735858171649	Intel RAID Controller SRCS28X battery backup unit (two ship with each SSR212CC system).
TLPACPSU002	880162	00735858160759	Single 500W power supply module (one ships with each SSR212CC system).
ADRACTRIS	856546	00735858165037	3 slot active PCI-X riser card for add-in cards (RAID controllers or expansion card). One ships with each SSR212CC system.
AXXIMMPRO	865783	00735858167086	Intel Management Module (Professional Edition).

NOTES:

1) Unless noted otherwise, all items are individually orderable.

2) Reference base unit description (page 3) to determine components that initially ship with the SSR212CC system.

Additional Required Accessories

Installing operating systems and applications from CD will require one or more of the following components. Note that Microsoft Windows Server 2003 and Microsoft Storage Server 2003 Release 2 require the presence of a floppy drive to install certain device drivers.

- USB CD ROM Drive (supported devices listed on THOL)
- USB Floppy Drive (supported devices listed on THOL)
- USB Hub (supported devices listed on THOL)

Please choose devices from the Tested Hardware and Operating systems List (THOL) since these devices have been verified to be compatible with the Intel® Storage System SSR212CC.

Intel® Storage System SSR212CC

Product Overview

The Intel® Storage System SSR212CC is a storage building block, providing up to 6 TB of data in a small 2U rackmount form factor. The Intel® Storage System SSR212CC is a complete hardware solution which can be coupled with a number of different industry software solutions to create a Storage Area Network (SAN), Network Attached Storage (NAS) or Direct Attach Storage (DAS) appliance. With a high performance Intel® Xeon® Processor it has enough performance to be used as an application server for data intensive applications like email and databases.

An Increasing Need for Storage

Businesses today are inundated with data, from existing applications such as e-mail and digital photography, to emerging rich-media applications such as digital video recorders (DVRs). This influx of data has resulted in an increasing need for storage. Also, growing government regulatory requirements and corporate business continuity and disaster recovery plans are adding to the explosive growth of storage needs. According to the results of an Info-Tech survey of more than 1400 IT decision makers in midsized companies, overall spending on data storage will increase by 35 percent in 2005.[1]

The Intel® Storage System SSR212CC addresses this growing storage demand by supporting up to 6 TB of data distributed across 12 SATA hard drives. It features hardware support for RAID levels 0,1,10,5 and 50 making that data more reliable and faster to access.

Lower Storage Costs

The Intel Storage System SSR212CC features Serial ATA (SATA) disk technology, which costs less than Fibre Channel or SCSI drives and also simplifies cabling. SATA storage combines software transparency, low cost, and scalability to help lower purchase and upgrade costs of storage.

Flexible Software Solutions

Intel has engaged with storage software providers to ensure a variety of software solutions are available. These include applications that allow the Intel® Storage System SSR212CC to be configured as a SAN, a DAS or a NAS system. See the growing list of industry software solutions optimized for the Intel® Storage System SSR212CC at http://www.intel.com/design/servers/storage/ssr212cc/swsolutions

Intel® Storage System SSR212CC

Operating Systems Support

Red Hat Enterprise Linux 4.0
Microsoft Windows Storage Server 2003
Microsoft Windows Server 2003 Enterprise Edition*
Microsoft Windows Server 2003 Standard Edition*
   Note: These are the operating systems supported at launch. See SSR212CC Test Hardware and
   Operating System List (THOL) for complete and up-to-date OS list.

* Windows Server 2003 supported with limited enclosure management.

Features and Benefits

Features		Benefits
Support for up to 12 hot-swappable 1.5 or 3.0 Gbps SATA drives in a 2U form factor		Easily add up to 6 TB of raw storage (with 500 GB HDDs) without system downtime for future storage capacity needs. SATA drives currently provide higher capacity at a lower cost than SCSI or Fibre Channel drives
Low Voltage Intel® Xeon® processor 2.8 GHz with 800 MHz system bus and 1MB L2 cache		Processing performance to meet the demanding needs of storage virtualization
Dual 1 Gb Ethernet Network Interface Connections		Provide fast access to iSCSI or network attached data
Two Intel® RAID Controller SRCS28X's		Hardware support for RAID 0, 1, 5

Hardware Feature Summary

Raw Storage Capacity		Expandable to 3.0 TB – using twelve 250 GB drives Expandable to 4.8 TB – using twelve 400 GB drives Expandable to 6.0 TB – using twelve 500 GB drives
Drive Bays		12 Serial ATA (SATA) Hot Pluggable
Hard Disk Drive Supported		3.5" SATA *NOTE: For specific drive family and capacities supported, please refer to the SSR212CC Tested Hardware and OS List (THOL)*
Processor		A single Intel® Xeon™ processor 2.80 GHz with 1 MB L2 cache
Memory Capacity		Expandable to 16GB maximum
Memory Type		Synchronous Dynamic Random Access Memory (SDRAM), DDR2-400, Registered, ECC
DIMM Slots		Six 184-pin DIMM sockets
Enclosure Controller		On-board Vitesse* VSC055 micro-controller
Temperature Sensor		Two temperature sensors are located on the backplane that allows drive cage temperature monitoring by enclosure management
SATA Compliance		SATA 1.5 Gb/s, 3.0 Gb/s
Client Connectivity		Client connectivity via Internet Protocol Small Computer System Interface (iSCSI) Dual Gb/s Ethernet
Serial Port		Management console port