



Intel[®] Entry Storage System SS4200-E

Tested Hardware and Operating System List

Revision 1.3

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Enterprise Products and Services Division

Revision History

Date	Revision Number	Modifications
08 Nov 2007	0.5	First Review Copy
17 Jan 2008	1.0	Final Test Report Updates
31 Jan 2008	1.1	Corrections & formatting changes
July 29, 2008	1.2	Added three SATA HDDs, added four eSATA HDDs, clarified Maxtor HDDs, corrected Hitachi HDD FW to GKA0, added two NAS operating systems to section 5, added nine UPS's to section 7. Added three Network Cameras, added two Blue Tooth Client devices. Removed Disk On Module, Input, Video Adapter and Memory sections.
January 22, 2009	1.3	Add Memory section 8

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1. Introduction

This document is intended to provide users of the Intel® Entry Storage System SS4200-E with a guide to the different client operating systems, disk drives and peripherals tested by Intel on this platform.

This document is updated as new disk drives, peripherals, and client operating systems are tested or until the Intel® Entry Storage System SS4200-E is no longer in production. Each new release of the document will present updated information and continue to provide the information from previous releases.

Intel will only provide support for those disk drives and peripherals under the specified system configuration (system firmware revisions) and client operating system versions with which they were tested.

1.1 Test Overview

Testing performed on the Intel® Entry Storage System SS4200-E is classified as Peripheral Compatibility and Stress Testing.



The latest version of an operating system signifies the latest supported version at the time of the actual test run. Each new release of this document may have a newly supported release of a given operating system. Previous releases of a supported operating system may not be tested beyond the basic installation test process.

1.1.1 Peripheral Compatibility and Stress Testing

Peripheral Compatibility and Stress testing is performed only on the most current release of a supported operating system (client or SS4200-E) at the time of a given validation run. The Peripheral Compatibility and Stress testing process consists of three areas: Base Platform, Peripheral Compatibility, and Stress.

Base Platform: Each base platform will successfully install the client software on the particular operating system, successfully run a disk stress test, and successfully run a network stress test.

Peripheral Compatibility: Peripheral compatibility validation (PV) testing uses test suites to gain an accurate view of how the storage system performs with a wide variety of peripherals under the primary supported operating systems. These tests are designed to show hardware compatibility between the peripherals and the storage system platform and include functional testing only. No heavy stressing of the systems or the peripherals is performed for PV testing.

Stress Testing: This test sequence uses configurations that include peripherals for a minimum 24-hour test run without injecting errors (this includes weekend runs of 72 hours). Each configuration passes an installation test and a Network/Disk Stress test. Any fatal errors that occur will require a complete test restart.

1.1.1.1 Support Commitment for Peripheral Compatibility and Stress Testing

Intel commits to provide the following level of customer support for client operating systems that receive Peripheral Compatibility and Stress testing:

- Intel will provide support for customer issues with these client operating systems involving installation and/or functionality of the storage system with or without the peripherals listed in this document as having been tested under the particular client operating system.
- Support is defined as assistance in root causing issues, and determining a customer acceptable resolution to the issue associated with the client operating system. The resolution may include,

but is not limited to, peripheral driver changes, engaging the vendor for resolution, BIOS changes, firmware changes, or determining a customer acceptable workaround for the issue.

- Intel will provide and test operating system drivers for the onboard network and storage controller.
- Intel will go through some of the steps to achieve certification to ensure its customers do not run across any problems, but the actual certification is the responsibility of the individual customer.



For client operating systems and peripherals not listed in this document, there is no support commitment. Intel will consider support requests on a case-by-case basis.

1.2 Pass/Fail Test Criteria

For each operating system and peripheral configuration, a test passes if specific criteria are met. Specific configurations may have had particular characteristics that were addressed on a case-by-case basis. In general, a configuration passes testing if the following conditions are met:

- The client software installed without error.
- Hardware peripheral compatibility tests ran to completion without error.
- Test software suites executed successfully.
- Test and data files were created in the correct directories without error.
- Files copied from client to storage system and back compare to the original with zero errors reported.
- Clients remain connected to the storage system.
- Industry standard test suites run to completion with zero errors reported.

All Intel® Entry Storage System SS4200-E testing was performed using the SS4200-E chassis.

Component	version
System TA Number	D71323-004 or later
Baseboard PBA Number	D71335-301 or later
Baseboard BIOS Firmware Revision	V090L or later
NAS Stack Software	1.0.6.26995 or later
Windows NAS Client Software	1.0.5.26376 or later
Mac NAS Client Software	1.0.5.26375 or later

Additional Client Components
.NET Framework 1.1

2. Supported Client Operating Systems

The following table provides a list of supported client operating systems compatible with the Intel® Entry Storage System SS4200-E. Each of the listed client operating systems were tested for compatibility with the Intel® Entry Storage System SS4200-E base system configuration listed in Section 1 of this document. Client operating systems are supported only with the specified base system configuration(s) with which they were tested. This list applies to using a web browser to access the storage system management interface.

Operating System	Base System Configuration Tested & Type of Testing	Notes
Microsoft Windows Vista Ultimate*	Configuration 1 – Compatibility & Stress	Tested
Microsoft Windows Vista Enterprise*	NA	IP through web browser – no client SW
Microsoft* Windows* XP Professional, Service Pack 2	Configuration 1 – Compatibility and Stress	Tested
Microsoft* Windows* XP Home, Service Pack 2	NA	SD
Microsoft* Windows* XP Media Center, Service Pack 2	NA	SD
Microsoft* Windows* 2003, Service Pack 1	Configuration 1 – Compatibility and Stress	Tested
Microsoft* Windows* 2003 Small Business Server R2	Configuration 1 – Compatibility and Stress	Tested
RedHat* Enterprise Linux 5	Configuration 1 – Compatibility and Stress	IP through web browser – no client SW
Apple MacOS* 10.4	Configuration 1 – Compatibility and Stress	Tested
Active Directory		
Microsoft 2003 Small Business Server* SP2	Domain Controller	

3. Client Systems and Peripherals

The following table provides a list of tested client systems compatible with the Intel® Entry Storage System SS4200-E. The systems presented in this table are particular configurations used in testing the application during the validation process. The first portion of the table presents platforms the Intel validation lab tested. The second portion of the table presents vendor-tested platforms. It is not meant to represent that these are the only systems that will run the application.

NOTE: PXE boot capability is not supported with the NAS stack software.

3.1 Intel Tested Client Platforms				
Manufacturer	Model	Processor	Operating System	Notes
Intel	SR1425BK1	Pentium® 4	See Section 2	Tested for connectivity
Intel	SE7501WV2	Xeon®	See Section 2	Tested for connectivity
Intel	SE7320VP2	Xeon®	See Section 2	Tested for connectivity
Intel	SE7520JR2	Xeon®	See Section 2	Tested for connectivity
Intel	S5000PAL	Dual-Core Xeon®	See Section 2	Tested for connectivity
Intel	D975XBX	Pentium® D	See Section 2	Tested for connectivity

3.2 Intel Tested Client Systems			
Manufacturer	System	Operating System	Notes
Apple	iMAC	See Section 2	Tested for connectivity
Apple	iMAC Pro	See Section 2	Tested for connectivity
Dell	XPS 200	See Section 2	Tested for connectivity

3.3 Intel Tested Client Applications	
Manufacturer	Applications
Microsoft	Windows 2003 Service Pack 1 Built-in
Microsoft	Windows 2003 Service Pack 1 FileZilla
RedHat	RHEL 5 Built-in FTP
RedHat	RHEL 5 FileZilla FTP
Apple	Mac OS X Built-in FTP
Apple	Mac OS X FileZilla FTP

3.4 Intel Tested Client-Side Applications	
Manufacturer	Applications
Microsoft	Windows Vista Installation
Microsoft	Windows XP Service Pack 2 (SP2) Installation
Microsoft	Windows XP SP2 Discovery
Microsfot	Windows XP SP2 Connect Shared Folder
Microsoft	Windows 2003 SP1 Installation
Microsoft	Windows 2003 SP1 Discovery
Microsoft	Windows 2003 SP1 Connect Shared Folder
Microsoft	Windows 2003 Small Business Server R2 Installation
Microsoft	Windows 2003 Small Business Server R2 Discovery
Microsfot	Windows 2003 Small Business Server R2 Connect Shared Folder
Apple	Mac OS 10.4 Discovery
Apple	Mac OS 10.4 Discovery Connect Shared Folder
Microsoft	Windows Internet Explorer 6
Microsoft	Windows Internet Explorer 7
FireFox	FireFox 2.0 for Windows
FireFox	FireFox 2.0 for Linux
Apple	OSX Safari

Manufacturer	Model Number	Name	Interface	Comments
3.5 Bluetooth Client Devices				
Treo	680	Smart Phone (Palm OS)	N/A	Tested
Apple	iPhone	8GB Smart Phone (Apple OS)	N/A	Tested

4. Peripherals

Peripheral compatibility and stress testing is only performed with the shipped version of the Storage System operating system, as indicated in Section 1 of this document. These peripherals are not required for normal operation.

Manufacturer	Model Number	Name	Interface	Comments
4.1 Digital Cameras				
Canon	Powershot SD430	N/A	N/A	Tested
Sony	Cyber-shot DSC-W55	N/A	N/A	Tested
Nikon	Coolpix L6	N/A	N/A	Tested

Manufacturer	Model Number	Name	Interface	Comments
4.2 Network Cameras				
Axis	207MW	N/A	N/A	Tested
Axis	209MFD	N/A	N/A	Tested
Axis	212 PTZ-V	N/A	N/A	Tested

5. Hard Disk Drives

The hard drives listed in the following table were tested with the Intel® Entry Storage System SS4200-E by Intel in its validation labs and/or by individual drive vendors. The following operating system identifiers are used in the table to specify which operating system each drive was tested under.

Identifier number	Operating System
1	Intel® Storage Management Software and embedded OS, release RC-1
2	Intel® Storage Management Software and embedded OS, release 0.9.2-3758
3	Intel® Storage Management Software and embedded OS, release 1.0.0.4724
4	Intel® Storage Management Software and embedded OS, release 1.0.0.5046
5	Intel® Storage Management Software and embedded OS, release 1.0.3.26026
6	Intel® Storage Management Software and embedded OS, release 1.0.6.26995
7	Intel® Storage Management Software and embedded OS, release 1.0.8.29352
8	Intel® Storage Management Software and embedded OS, release 1.1.11.32726

Note that not all hard drives were tested under all operating systems. The following notation is used in the tested hard drives table below to indicate the support level that Intel provides for a particular hard drive with a particular operating system:

Number (for example, 1)	This hard drive was tested and is supported under the Intel® Storage Management Software.
SD (Similar Drive)	<p>The hard disk drive is supported but not tested. This hard drive model/capacity was not tested with the Intel® Entry Storage System SS4200-E, but Intel will support it based on successful testing of a larger capacity hard drive from the same hard drive family. Intel has high confidence that this hard drive will function correctly with the storage system. It is assumed this drive uses the same firmware revision and drivers as a larger capacity hard drive that has been successfully tested with this storage system. If the firmware revision is different than the one tested Intel cannot guarantee it is compatible. The only difference between this drive and the one that was used in testing is the hard drive storage capacity. Intel provides the same level of support for all hard drives listed in this document, regardless of whether the drive was tested or not, but drives not running the same firmware revision as that tested cannot be supported. Given the fact a larger capacity hard drive from the same drive family has successfully completed testing on the SS4200-E, this particular hard drive capacity point will not be tested.</p> <p>Customers should always test hard drives as part of the final system configuration prior to deployment.</p>
IHVT (IHV Tested)	<p>The hard disk drive was tested according to Intel-approved guidelines and test procedures by the Independent Hardware Vendor (IHV) that manufactured the drive. Intel provides the same level of support for all hard drives listed in this document, regardless of whether the drive was tested in an Intel lab or not, but drives not running the same firmware revision as that tested cannot be supported. IHV test reports remain the property of the IHV (Intel cannot provide copies of these reports).</p>

Manufacturer	Product Family	Model Number	Interface	RPM	Drive size (GB)	Tested Operating Systems
5.1 3.0 Gb/s Serial ATA (SATA) Hard Drives						
Hitachi						
Hitachi	Ultrastar A7K1000	HUA721010KLA330	SATA300	7200	1000	7, IHVT
Hitachi	Ultrastar A7K1000	HUA721075KLA330	SATA300	7200	750	SD, IHVT
Hitachi	Deskstar E7K500	HDS725050KLA360	SATA300	7200	500	7, IHVT
Hitachi	Deskstar 7K1000	HDS721010KLA330	SATA300	7200	1000	4,6
Hitachi	Deskstar 7K1000	HDS721075KLA330	SATA300	7200	750	SD
Hitachi	Deskstar E7K500	HDS725050KLA360	SATA300	7200	500	1,6
Hitachi	Deskstar T7K500	HDT725050VLA360	SATA300	7200	500	4,6
Hitachi	Deskstar T7K500	HDT725040VLA380	SATA300	7200	400	SD
Hitachi	Deskstar T7K500	HDT725032VLA380	SATA300	7200	320	SD
Hitachi	Deskstar T7K500	HDT725025VLA380	SATA300	7200	250	SD
Hitachi	Deskstar T7K500	HDT725040VLA360	SATA300	7200	400	SD
Hitachi	Deskstar T7K500	HDT725032VLA360	SATA300	7200	320	SD
Hitachi	Deskstar T7K500	HDT725025VLA360	SATA300	7200	250	SD
Maxtor						
Maxtor	DiamondMax21	STM3320820AS	SATA300	7200	320	5,6
Maxtor	DiamondMax21	STM3250820	SATA300	7200	250	SD
Seagate						
Seagate	Barracuda ES	ST3750640NS	SATA300	7200	750	4,6
Seagate	Barracuda ES	ST3500630NS	SATA300	7200	500	SD
Seagate	Barracuda ES	ST3400620NS	SATA300	7200	400	SD
Seagate	Barracuda ES	ST3320620NS	SATA300	7200	320	SD
Seagate	Barracuda ES	ST3250620NS	SATA300	7200	250	SD
Seagate	Barracuda ES	ST3250820NS	SATA300	7200	250	SD
Seagate	Barracuda ES	ST3750640AS	SATA300	7200	750	2,6
Seagate	Barracuda ES	ST3500630AS	SATA300	7200	500	SD
Seagate	Barracuda ES	ST3400620AS	SATA300	7200	400	SD
Seagate	Barracuda ES	ST3320620AS	SATA300	7200	320	SD
Seagate	Barracuda ES	ST3250620AS	SATA300	7200	250	SD
Seagate	Barracuda ES	ST3250820AS	SATA300	7200	250	SD
Seagate	Barracuda ES	ST3200820AS	SATA300	7200	200	SD
Seagate	Barracuda ES	ST3160815AS	SATA300	7200	160	SD
Seagate	Barracuda ES	ST3160215AS	SATA300	7200	160	SD
Seagate	Barracuda ES	ST380815AS	SATA300	7200	80	SD
Seagate	Barracuda ES	ST380215AS	SATA300	7200	80	SD

Manufacturer	Product Family	Model Number	Interface	RPM	Drive size (GB)	Tested Operating Systems
Seagate	Barracuda ES.2	ST31000340NS	SATA300	7200	1000	6
Seagate	Barracuda ES.2	ST3750330NS	SATA300	7200	750	SD
Seagate	Barracuda ES.2	ST3500320NS	SATA300	7200	500	SD
Western Digital						
Western Digital	Caviar RE2	WD5000YS	SATA300	7200	500	3,6
Western Digital	Cavier RE2	WD4000YS	SATA300	7200	400	SD
Western Digital	Caviar SE16	WD7500AAKS	SATA300	7200	750	6
Western Digital	Caviar SE16	WD5000AAKS	SATA300	7200	500	6
Western Digital	Caviar SE16	WD4000AAKS	SATA300	7200	400	SD
Western Digital	Caviar SE16	WD3200AAKS	SATA300	7200	320	SD
Western Digital	Caviar SE16	WD2500AAKS	SATA300	7200	250	SD
Western Digital	Caviar SE16	WD2500KS-00MJB0	SATA300	7200	250	6
Western Digital	Caviar SE16	WD3200KS	SATA300	7200	320	SD
Western Digital	Caviar SE16	WD4000KS	SATA300	7200	400	SD
Western Digital	Caviar SE16	WD5000KS	SATA300	7200	500	SD
Western Digital	Cavier GP	WD10EACS-00ZJB0	SATA300	7200	1000	6
Western Digital	Cavier GP	WD7500AACS	SATA300	7200	750	SD
Western Digital	Cavier GP	WD5000AACS	SATA300	7200	500	SD
Western Digital	Cavier RE2	WD7500AYYS01RCA0	SATA300	7200	750	6
Western Digital	CavierSE16	WD5000ABKS	SATA300	7200	500	6
5.2 1.5 Gb/s Serial ATA (SATA) Hard Drives						
Western Digital						
Western Digital	Raptor	WD1500ADFD	SATA150	10000	150	2,6

Manufacturer	Capacity	Model Number	Interface	Comments
5.3 External Serial ATA (eSATA) Hard Disk Drives				
Seagate	500GB	ST3500601XS-RK	eSATA	Tested
Seagate	300GB	ST3300601XS-RK	eSATA	SD
Western Digital	500GB	WDG1SU5000	eSATA	Tested
Western Digital	320GB	WDG1SU3200	eSATA	SD

Manufacturer	Capacity	Model Number	Interface	Comments
5.4 USB External Hard Disk Drives				
Seagate	320GB	ST3320820U2-RK	USB	Tested
Seagate	250GB	ST3250824U2-RK	USB	SD
Seagate	160GB	ST3160812U2-RK	USB	SD
Seagate	160GB	ST3160203U2-RK	USB	SD
Seagate	80GB	ST390203U2-RK	USB	SD
Western Digital	250MB	WDG1U2500N	USB	Tested
Western Digital	120MB	WDG1U1200N	USB	SD
Western Digital	80MB	WDG1U800N	USB	SD
Western Digital	320MB	WDG1U3200N	USB	SD
Western Digital	400MB	WDG1U4000N	USB	SD
Western Digital	500MB	WDG1U5000N	USB	SD
Western Digital	500GB	WDG1SU5000	USB	Tested

Manufacturer	Capacity	Model Number	Interface	Comments
5.5 USB External Flash Drives				
Iomega	1 GB	SKU33136	USB	Tested
Iomega	512 MB	SKU33105	USB	SD
Iomega	2 GB	SKU33268	USB	SD
Lexar	1 GB	JDFF1GB-431	USB	Tested
Lexar	2 GB	JDFF2GB-431	USB	SD
Lexar	4 GB	JDFF4GB-431	USB	SD
Lexar	256 MB	JDFF256-431	USB	SD
Lexar	512 MB	JDFF512-431	USB	SD

Manufacturer	Capacity	Model Number	Interface	Comments
5.6 USB External Mini-Drives				
Western Digital	6 GB	WDXMM60WP	USB	Tested
Seagate	6 GB	ST660211U-RK	USB	Tested
Seagate	5 GB	ST650211U-RK	USB	SD
Seagate	2.5 GB	ST625211U-RK	USB	SD

6. Network Switches & Wireless Routers

The network switches and wireless routers listed in the following table were tested with the Intel® Entry Storage System SS4200-E by Intel in its validation labs.

Manufacturer	Model	Name	Type	Notes
3COM	3CGSU08	Gigabit Switch 8	Switch	Tested
3COM	3CR17402-91	SuperStack 3 3848	Switch	Tested
Linksys	WRT54GX	WRLS G Broadband Router	Router	Tested
Netgear	WPN824	RangeMax Wireless Router	Router	Tested
D-Link	DI-724GU	Wireless 108G Router	Router	Tested

7. Uninterruptible Power Supply (UPS)

Note: The APC UPS was not tested as a smart UPS due to incompatibility with NAS Stack software.

Manufacturer	Model	Name	Voltage	Comments
APC	BR800BLK	Back-UPS RS 800VA	120 V	Tested
APC	BR500	Back-UPS RS 500VA	120 V	Similar Device
APC	BR900	Back-UPS RS 900VA	120 V	Similar Device
APC	BR1000	Back-UPS RS 1000VA	120 V	Similar Device
APC	BR1200	Back-UPS RS 1200VA	120 V	Similar Device
APC	BR1500	Back-UPS RS 1500VA	120 V	Similar Device
APC	BR500I	Back-UPS RS 500VA	230 V	Similar Device
APC	BR800I	Back-UPS RS 800VA	230 V	Similar Device
APC	BR1000I	Back-UPS RS 1000VA	230 V	Similar Device
APC	BR1500I	Back-UPS RS 1500VA	230 V	Similar Device

8. Memory

This section documents memory components that were tested in the Intel® Entry Storage System SS4200-E system. The Technical Product Specification indicates the supported memory type is DDR2 PC4200 SDRAM. The nomenclature used to represent memory may differ.

Note: Memory is included in the system at purchase and should only be serviced by qualified service personnel.

Manufacturer	DRAM Component	Capacity	Frequency	Comments
Qimonda	HYS64T64000HU-3.7-B	512 MB	533 MHz	Tested
Qimonda	HYS64T128020HU-3.7-B	1 GB	533 MHz	Tested
Hynix	HYMP564U64CP8-C4	512 MB	533 MHz	Tested
Hynix	HYMP512U64CP8-C4	1 GB	533 MHz	Tested
Micron	MT8HTF6464AY-53ED7	512 MB	533 MHz	Tested
Micron	MT8HTF12864AY-53EE1	1 GB	533 MHz	Tested
Micron	MT16HTF25664AY-667E1	2 GB	667 MHz ¹	Tested
Samsung	M378T6553EZS-CE6	512 MB	533 MHz	Tested
Samsung	M378T2953EZ3-CE6	1 GB	533 MHz	Tested
Crucial Technology	CT25664AA53E.16FE	2 GB	667 MHz ¹	Tested
Crucial Technology	CT25664AA667.16FE	2 GB	667 MHz ¹	Tested

¹ While the memory requirement is listed as 667MHz, the system only runs at 533 MHz due to limited bus speed.