intel.

Intel® Server Board SE7221BA1-E

Tested Hardware and Operating System List

Revision 1.6

June 2006

Enterprise Platforms and Services Marketing

Revision History

Date	Revision Number	Modifications
Jan 04, 2005	.09	Draft.
Jan 13, 2005	1.0	Initial Release
Mar 02, 2005	1.1	Add Maxtor HDD and WD, Seagate HDD , and similar NIC added
May 18, 2005	1.2	Add Sony tape devices
Sep 12, 2005	1.3	Add Hitachi Hard drives
Jan, 06, 2006	1.4	Updated with Q4 sustaining test
June, 08, 2006	1.5	Add Hitachi Hard drives
June 28, 2006	1.6	Add maxtor Hard drives

Disclaimers

THE INFORMATION IN THIS DOCUMENT IS PROVIDED "AS IS" WITH NO WARRANTIES WHATSOEVER, INCLUDING ANY WARRANTY OF MERCHANTABILITY, FITNESS FOR ANY PARTICULAR PURPOSE, OR ANY WARRANTY OTHERWISE ARISING OUT OF ANY PROPOSAL, SPECIFICATION, OR SAMPLE.

Information in this document is provided in connection with Intel® products. No license, express or implied, by estoppel or otherwise, to any intellectual property rights is granted by this document. Except as provided in Intel's Terms and Conditions of Sale for such products, Intel assumes no liability whatsoever, and Intel disclaims any express or implied warranty, relating to sale and/or use of Intel products including liability or warranties relating to fitness for a particular purpose, merchantability, or infringement of any patent, copyright or other intellectual property right. Intel products are not intended for use in medical, life saving, or life sustaining applications.

Intel retains the right to make changes to its test specifications at any time, without notice.

The hardware vendor remains solely responsible for the design, sale and functionality of its product, including any liability arising from product infringement or product warranty.

Table of Contents

1.   Introduction

This document is intended to provide users of the Intel® server board SE7221BA1-E with a guide to the different operating systems, adapter cards, and peripherals tested by Intel on this platform.

This document will continue to be updated as new adapters, peripherals, and operating systems are tested or until the Intel® server board SE7221BA1-E is no longer in production. Each new release of the document will present updated information as well as continue to provide the information from previous releases.

Intel will only provide support for those adapters and peripherals under the specified system configuration (System BIOS and Firmware revisions) and operating systems versions with which they were tested.

1.1   Test Overview

Testing performed on the Intel® server board SE7221BA1-E is classified under two separate categories: Basic Installation Testing, and Adapter / Peripheral Compatibility and Stress Testing.

1.1.1   Basic Installation Testing

Basic installation testing is performed with each supported operating system. Basic installation testing validates that the server board can install the operating system and that the base hardware feature set is functional. A small set of peripherals is used for installation purposes only. No add-in adapter cards are tested. Testing includes network connectivity and running of proprietary and industry standard test suites.

> ✒ 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.

1.1.1.1   Support Commitment for Basic Installation Testing

Intel commits to provide the following level of customer support for operating systems that receive only basic installation testing:

- Intel will provide and test operating system drivers for each of the server board's integrated controllers, provided that the controller vendor has a driver available upon request. Vendors will not be required by Intel to develop drivers for operating systems that they do not already support. This may limit the functionality of certain server board integrated controllers.
- Intel will support customer issues that involve installation and/or functionality of operating system with the server board's integrated controllers only if a driver has been made available.

- Intel will NOT provide support for issues related to use of any add-in adapters or peripherals installed in the server system when an operating system that received basic installation testing only is in use.
- Support is defined as assistance in root causing issues, and determining a customer acceptable resolution to the issue associated with the operating system. The resolution may include, but is not limited to, on-board controller driver changes, engaging the vendor for resolution, BIOS changes, firmware changes, or determining a customer acceptable workaround for the issue.

1.1.2 Adapter / Peripheral Compatibility and Stress Testing

Adapter / Peripheral Compatibility and Stress testing is performed only on the most current release of a supported operating system at the time of a given validation run. The Adapter / Peripheral Compatibility and Stress testing process consists of three areas: Base Platform, Adapter Compatibility, and Stress.

Base Platform: Each base platform will successfully install a given operating system, successfully run a disk stress test, and successfully run a network stress test.

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

Stress Testing: This test sequence uses configurations that include add-in adapters in all available slots, (depending on chassis used) for a minimum 72-hour test run without injecting errors. Each configuration passes an installation test, a Network/Disk Stress test, and tape backup test. Any fatal errors that occur will require a complete test restart.

1.1.2.1 Support Commitment for Adapter / Peripheral Compatibility and Stress Testing

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

- Intel will provide support for customer issues with these operating systems involving installation and/or functionality of the server board with or without the adapters and peripherals listed in this document as having been tested under the particular operating system.
- Support is defined as assistance in root causing issues, and determining a customer acceptable resolution to the issue associated with the operating system. The resolution may include, but is not limited to, on-board controller 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 each onboard video, network, and storage controller.
- Intel will enable vendors to provide driver support for add-in adapters using these operating systems.

- 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 operating systems, adapter cards, 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, adapter, 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 operating system installed without error.
  - o Manufacturer's installation instructions or Intel's best-known methods were used for the operating system installation.
  - o No extraordinary workarounds were required during the operating system installation.
  - o The server system behaved as expected during and after the operating system installation.
  - o Application software installed and executed normally.
- Hardware compatibility tests ran to completion without error.
- Test software suites executed successfully
  - o Test and data files were created in the correct directories without error.
  - o Files copied from client to server and back compare to the original with zero errors reported.
  - o Clients remain connected to the server system.
  - o Industry standard test suites run to completion with zero errors reported.

All Intel® server board SE7221BA1-E testing was performed using the Intel® server chassis SC5250-E.

2.   Intel® Server Board SE7221BA1-E Base System Configurations

The following table lists the base system configurations tested. Base system configurations will change as new revisions of the Intel® server board SE7221BA1-E are released and/or new system BIOS are cut onto the board in the factory. Each base system configuration is assigned an identifier number that is referenced in the tables throughout this document. New base system configurations are added with each new release of this document.

> Intel will only provide support for adapters and peripherals under the specified base system configuration and operating systems versions with which they were tested.

Base System Configuration Identifier #	Board Type	PBA Number	BIOS Revision	Notes
1	SE7221BA1-E	C83389-200	BIOS 0155	
2	SE7221BA1-E	C83389-303	BIOS 0213	

3.   Supported Operating Systems

The following table provides a list of supported operating systems for the Intel® server board SE7221BA1-E. Each of the listed operating systems was tested for compatibility with Intel® server board SE7221BA1-E base system configuration listed in Section 2 of this document. Operating systems are supported only with the specified base system configuration(s) with which they were tested.

The following table also indicates whether each operating system received Basic Installation Testing, or Adapter / Peripheral Compatibility and Stress Testing. For information on the support commitments for Basic Installation Testing vs. Adapter / Peripheral Compatibility and Stress Testing, please reference Section 1 of this document.

Any variations to the standard operating system installation process are documented in the Installation Guidelines section of this document. If there are no installation guidelines noted in the following table, then the operating system installed as expected using manufacturer's installation instructions or Intel's best-known methods.

Operating System	Base System Configuration Tested & Type of Testing	Notes
Microsoft Windows* XP Professional	1	
Microsoft Windows XP EM64T	1	
Red Hat Desktop	1	
Red Hat Enterprise Linux 3.0	1	
Red Hat Enterprise Linux 4 UP1	1	
Red Hat Enterprise Linux 4 UP1 64bit	1	
Red Hat Enterprise Linux 3.0 (EM64T)	1	
Microsoft Windows* 2003 Enterprise Addition Server	1	
Microsoft Windows 2003 SP1 EM64T	1	
Microsoft Windows* 2000 Advanced Server	1	Install and boot only
SuSE Linux Enterprise Server 9.0	1	Install and boot only
SuSE Linux Enterprise Server 9.0 (EM64T)	1	Install and boot only
Novell Netware 6.5	1	Install and boot only
Red Hat Advanced Server 2.1	1	Install and boot only

3.1   Operating System Certifications

Listed below are the operating systems that Intel will certify with the Intel® server board SE7221BA1-E. However, the customer is responsible for their own certification from the individual operating system vendors. In many cases, the customer may leverage their operating system certifications from Intel's testing. See the "Comments" section next to each operating system in the table below for additional information. Intel's certifications, pre-certification, and operating system testing may help reduce some of the risk in achieving customer certifications with the operating system vendors.

Operating System	Certification Listing	Comments
Microsoft Windows* 2003 Enterprise Server	Intel® Server SE7221BA1-E SID# TBD	OEM must request certification by Microsoft for their specific product. http://www.microsoft.com/hwdq/hcl/search.asp (Search on SE7221BA1-E) http://developer.intel.com/design/servers/whql.htm

4.   Adapters and Peripherals

Add-in adapter card and peripheral compatibility and stress testing will only be performed with the latest version of an operating system at the time the validation testing occurred. The following table shows the operating system and base system configurations used to validate each device. The adapters are divided into categories based on their functionality. All integrated on-board devices are tested by default and are therefore not included in the following tables.

Note that not all adapter cards were tested under all operating systems. The following notation is used in the tested adapters and peripherals table below to indicate the support level that Intel provides for a particular adapter under a particular operating system:

Number (i.e. 1)	This adapter or peripheral has been tested and is supported under the specific configuration identified in the Base System Configurations Table in Section 2 of this document.
Number in brackets (i.e. [1])	This adapter or peripheral has been tested, but is NOT supported under the specific configuration identified in the Base System Configurations Table in Section 2 of this document.
NT	This adapter or peripheral has not been tested under this operating system and is not supported under this operating system.
ND	This adapter or peripheral has not been tested under this operating system due to limitations in IHV driver availability, and is not suported under this operating system.
IHVT (IHV Tested)	The 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 and devices listed in this document, regardless of whether the drive or device was tested in an Intel lab or not. IHV test reports remain the property of the IHV (Intel cannot provide copies of these reports).
SA (Similar Adapter)	This adapter is supported, but not tested. This adapter model has not been tested with this server board, but Intel will support it based on successful testing of a similar adapter from the same adapter family. Intel has high confidence that this adapter will function correctly with the server board. This adapter uses the same firmware and drivers, and has a nearly identical system interface to another adapter of the same family that has been successfully tested with this server board. In addition, Intel has secured IHV commitment to support the similar adapters equally. Customers should always test adapters as part of the final system configuration prior to deployment. All installation guidelines for the tested adapter also apply to the similar adapter.

Any variations to the standard adapter installation process or to expected adapter functionality are documented in the Installation Guidelines section of this document. If there are installation guidelines affecting a particular adapter and operating system combination, these are referenced in the following table. If there are no installation guidelines noted in the following table, then the adapter installed and functioned as expected using manufacturer's installation instructions or Intel's best-known methods.

✎   Testing of adapters cards normally is performed with unused add-in adapters and onboard controller expansion ROMs disabled in BIOS Setup. Intel recommends that customers disable the option ROM for add-in controllers and/or the on-board controllers when not booting from the controller or needing to use its built in utilities.

Manufacturer	Model Number	Model Name	Interface	Comments	Microsoft Windows XP	Microsoft Windows 2003	RedHat Linux 3.0 update3	WinXP 64bit	Win2003 64bit	RedHat Linux 4.0 update1	RedHat Linux 4.0 update1 64bit	Redhat Linux 3.0 update3 EM64T
PCI RAID												
Intel	SRCU41L	SRCU41L	PCI-64/66	1 chan, U320 RAID	1	1						
Intel	SRCU42L	SRCU42L	PCI-64/66	1+1chan, U320, IOP303, LPPCI-MD2	1	1		2	2	2	2	
Promise	FastTrak S150 SX4060	FastTrak S150 SX4060	PCI-32/66	2 channels (4 PATA drives), RAID 0, 1, 5, 10. Like adapter to FT S150 SX4	1							
ICP vortex	GDT8524RZ	GDT8524 RZ	PCI-64/66	(2int, 2ext), U320	1	1	1	2	2	2	2	1
LSI Logic	MegaRAID SCSI 320-1 (520-1)	MegaRAI D SCSI 320-1	PCI-64/66	1 channel, U320 RAID		1	1	2	2	2	2	1
LSI Logic	MegaRAID SCSI 320-2 (518)	MegaRAI D SCSI 320-2	PCI-64/66			SA	SA					SA
4.2 PCIe RAID												
Intel	SRCU42E	SRCU42 E	PCI Express	2 channel, U320 RAID, x8 PCI Express, 2 ext. 68, 2 int. 68 HDD, 53C1030, Dobson IOP	1	1	1	2	2	2	2	1
LSI Logic	MegaRAID SCSI 320-2E	MegaRAI D SCSI 320-2E	PCI Express	2 channel, U320 RAID, x8 PCI Express, 2 ext. 68, 2 int. 68 HDD, 53C1030, Dobson			1					
3 PCI SCSI												
Adaptec	ASR-2100S	ASR-2100S	PCI-32/33	1chan, U160, i960RS	1	1	1	2	2			1
Adaptec	ASR-2200S	ASR-2200S	PCI-64/66	2 channel, U320 RAID(Same base card as 2120S)	1	1	1					1
Adaptec	ASC-29160	ASC-29160	PCI-64/66	1channel U160, 7892 chip	1	1	1	2	2	2	2	1
Adaptec	ASC-39160	ASC-39160	PCI-64/66	2 channel U160 SCSI, 7899 chip	1	1	1	2	2	2	2	

Manufacturer	Model Number	Model Name	Interface	Comments	Microsoft Windows XP	Microsoft Windows 2003	RedHat Linux 3.0 update3	WinXP 64bit	Win2003 64bit	RedHat Linux 4.0 update1	RedHat Linux 4.0 update1 64bit	Redhat Linux 3.0 update3 EM64T
Adaptec	ASC-39320A	ASC-39320A	PCI-X133	2 channel U320 SCSI, 7902B0 chip 2 external / 2 internal connectors	1	1	1			2	2	
LSI Logic	LSI20160	LSI20160	PCI-32/33	1 channel U160 SCSI, 1000 chip	1	1	1	2	2	2	2	1
LSI Logic	LSI22320-R	LSI22320-R	PCI-X133	2 channel U320 SCSI, 1030 chip	1	1	1	2	2	2	2	1
LSI Logic	LSI20320-R	LSI20320-R	PCI-X133		SA	SA	SA					SA
Adaptec	ASC-29320ALP	ASC-29320ALP	PCI-X133	1 channel U320 SCSI, 7901B chip 1 external / 1 internal	1	1	1	2	2	2	2	
4.4 PCI SATA RAID												
Intel	SRCS14L	SRCS14L	PCI-64/66	4 channel SATA RAID 1.0, RAID 0, 1, 5, 10	1	1	1	2	2	2	2	1
Intel	SRCS16	SRCS16	PCI-64/66	6-port	1	1	1					1
Promise	FastTrak S150 SX4	FastTrak S150 SX4	PCI-32/66	4 channel, RAID 0, 1, 5, 10	1	1						
Adaptec	AAR-2410SA	AAR-2410SA	PCI-64/66	4-port, SATA 1.0, RAID 0, 1. 2x Silicon Image w/Zion	1	1	1					
ICP vortex	GDT8546RZ	GDT8546RZ	PCI-64/66	4 channel, SATA RAID 1.0, RAID 0, 1, 10, 5	1	1	1					1
ICP vortex	GDT8586RZ	GDT8586RZ	PCI-64/66	8 channel, SATA RAID 1.0, RAID 0, 1, 10, 5; 4 x Silicon Image w/ IOP 303	1	1	1					1
LSI Logic	MegaRAID SATA 150-6	MegaRAID SATA 150-6	PCI-64/66	6 channel, SATA RAID 1.0, RAID 0, 1, 10, 5	1	1	1	2	2	2	2	1
AMCC/3ware	9500-8	9500-8	PCIX-66	8 channel SATA 1.0, RAID 0, 1, 10, 5. PCIX-66 version of 8506-x series	1	1						
4.5 PCI NIC												
Intel	PILA8470D3	PRO/100 + S Server	PCI-32/33	10/100baseT + Security	1	1	1	2	2	2	2	1
Intel	PILA8472C3	PRO/100 + Dual Port	PCI-64/66	10/100baseT, Dual port	1	1	1	2	2	2	2	1

Manufacturer	Model Number	Model Name	Interface	Comments	Microsoft Windows XP	Microsoft Windows 2003	RedHat Linux 3.0 update3	WinXP 64bit	Win2003 64bit	RedHat Linux 4.0 update1	RedHat Linux 4.0 update1 64bit	Redhat Linux 3.0 update3 EM64T
Intel	PILA8472C3	PRO/100+ Dual Port	PCI-64/66	Gainesville, 10/100baseT, Dual port				2	2	2	2	
Intel	PWLA8391MT	PRO/1000MT desktop	PCI-32/66	10/100/1000 base T	1	1	1					1
Intel	PWLA8391GT	PRO/1000GT desktop	PCI-32/66	10/100/1000 base T	SA	SA	SA					SA
Intel	PWLA8490MT	PRO/1000MT Gigabit Server Adapter	PCI-X133	10/100/1000baseT, Copper, No bridge	1	1	1	2	2	2	2	1
Intel	PWLA8490XT	PRO/1000XT Gigabit Server Adapter	PCI-X133	Barrow, 10/100/1000BaseT	1	1	1					1
Intel	PWLA8492MT	PRO/1000MT Dual Port Gigabit Server Adapter	PCI-X133	10/100/1000baseT, Dual Port, Copper, No bridge	1	1	1	2	2			1
3COM	3C980C-TXM	EtherLink Server 10/100 PCI Managed	PCI-32/33	10/100baseT	1	1	1			2		1
D-Link	DGE-550T	GigaExpress DGE-550T	PCI66	10/100/1000 LAN, PCI using the Marvell 88E1000 PHY, No Win2003 support	1	1	1					
6 PCIe NIC												
Intel	EXPI9300PT	PRO/1000 PT Desktop Adapter	PCI Express					2	2	2	2	
Intel	EXPI9400PT	Intel® PRO/1000 PT Server Adapter	PCI Express	Glyndon, 1 port 1000Base-T, 1Gb Ethernet, PCI Express				2	2	2	2	

Manufacturer	Model Number	Model Name	Interface	Comments	Microsoft Windows XP	Microsoft Windows 2003	RedHat Linux 3.0 update3	WinXP 64bit	Win2003 64bit	RedHat Linux 4.0 update1	RedHat Linux 4.0 update1 64bit	Redhat Linux 3.0 update3 EM64T
Intel	EXPI9402PT	Intel® PRO/1000 PT Dual Port Server Adapter	PCI Express	Redwater, 2 port 1000Base-T, 1Gb Ethernet, PCI Express				2	2	2	2	
Syskonnect	SK-9E21D	SK-9E21D	PCI Express	10/100/1000 LAN, based on Marvell 88E8050 YukonEC	1	1	1	2	2	2		
.7 PCI FC storage												
Emulex	LP10000DC	LP10000DC-M2	PCI-X133	Dual Channel 2Gb FC controller Universal PCI-LP/RP Optical	2	1,2	1	2	2	2	2	
Emulex	LP9802DC	LP9802DC-FC	PCI-X133	Dual Channel 2Gb FC Optical controller				1				
Emulex	LP9002L	LP9002L-FC	PCI-64/66	Single Channel 2Gb FC Optical controller	1	1	1					
8 PCIe FC storage												
Emulex	LP10000ExDC	LP10000ExDC-M2	PCI Express	Dual Channel 2Gb FC, PCI Express	1	1	1					
QLogic	QLE2362	QLE2362	PCI Express	2Gb Single channel PCI Express HBA - LC Multi-mode Optic	1	1	1			2	2	2
9 Modems												
3COM	USR 3453B	V.Everything 56K Analog Corporate Modem	RS-232					2	2	2	2	
					1	1	1					1
Hayes	Hayes	Accura V.92	RS-232		1							
4.10 Video												
ATI	RADEON 7500	RADEON 7500	PCI-32/33	PCI video with dual monitor support	1	1	1					
Matrox	G2+/DUALP-PL	G200 MMS	PCI-32/33	PCI video with dual monitor support	1	1	1					
11 USB/PS2 Devices												
LOGITECH	930582-0121	Optical mouse	PS/2 and USB	mouse	1	1	1					1
LOGITECH	967233-0121	Internet Navigator	PS/2 and USB	keyboard	1	1	1					1

Manufacturer	Model Number	Model Name	Interface	Comments	Microsoft Windows XP	Microsoft Windows 2003	RedHat Linux 3.0 update3	WinXP 64bit	Win2003 64bit	RedHat Linux 4.0 update1	RedHat Linux 4.0 update1 64bit	Redhat Linux 3.0 update3 EM64T
MICROSOFT		Intellimouse Optical	PS/2 and USB	mouse	1	1	1					1
Keytronic	E06101USB-C	E06101USB-C	USB	keyboard		1						
Keytronic	PRO Pilot	PRO Pilot	PS/2	keyboard	1	1	1	2	2	2	2	1
RAINBOW	SRB10741/ERB01221	Sentinel Duo Hardware Key	USB		1	1						
IBM	22P9025	22P9025	USB	IBM 256MB USB 2.0 memory key	1	1	1					1
Logitech Optical Mouse	Logitech Optical Mouse							2	2	2	2	
Lexar	Lexar Media	Jump drive pro	USB	256 Jump Drive Pro USB 2.0	1	1	1					1
12 CDROM Drives												
TEAC	CD-552EA94	CD-552E	ATA	DMA mode2 52x		1		2	2	2	2	
SAMSUNG	SC-152	SC-152	ATA33	UDMA 52x	1	1	1					1
PLEXTOR	PX-W4012TS/SW	PlexWriter 40/12/40S	SCSI-UW	Internal SCSI CD-RW	1	1	1					1
PLEXTOR	PX-W4012TA	PX-W4012TA	IDE		1							
TDK	VeloCD CD-RW	AI-481648B	IDE	CD-RW	1							
IOMEGA	32721	CD-RW-DVD-ROM 48x24x48	USB	USB 2.0/1.1 CDRW 16xDVD-ROM	1	1	1					1
Plextor	PlexWriter/ Premium-U - 52/32/52	PlexWriter/ Premium-U	USB	USB 2.0/1.1 CDRW	1	1	1	2	2	2	2	1
TEAC	CDW540E/KIT/USB2	CDW540E/KIT/USB2	USB	External CD Writer (40x12x48 USB 2.0/1.1) used as CD-ROM)	1	1	1					1
4.13 DVD Drives												
SAMSUNG	SN-324B	24x10x24	ATA		1	1	1					1
PLEXTOR	PX-712SA	48x24x48	SATA	Rewriteable +/- RW	1	1		2	2			
SAMSUNG	SD-616	SD-616	ATA33		1	1	1					1

Manufacturer	Model Number	Model Name	Interface	Comments	Microsoft Windows XP	Microsoft Windows 2003	RedHat Linux 3.0 update3	WinXP 64bit	Win2003 64bit	RedHat Linux 4.0 update1	RedHat Linux 4.0 update1 64bit	Redhat Linux 3.0 update3 EM64T
SAMSUNG	SD-816BRPS	SD-816BRPS	IDE		1							
Sony	DRU-510A	DRU-510A	ATA33		1	1	1					1
TOSHIBA	SD-M1712	SD-M1712	ATA33		1	1	1					1
PIONEER	DVD-305S	DVD-305S	SCSI-N		1	1	1					1
Sony	DRU-510A	DRU-510A	ATA33					2	2	2	2	
Sony	DRX-510UL	DRX-510UL	USB2.0		1	1	1					1
4.14 Tape Drives												
SONY*	SDX-700C/BM	AIT-3 Desktop	SCSI-U160		1	1	1	2	2	2	2	1
Sony	SDX-250V	AITE(20GB) SCSI Tape Drive	SCSI	IHVT, completed with Adaptec ASC-29160N - PCI		1						
Sony	SDX-260V	AITE(20GB) ATAPI Tape Drive	ATAPI	IHVT		1						
Sony	SDX-450V	AIT1T(40GB) SCSI Tape Drive	SCSI	IHVT, completed with Adaptec ASC-29160N - PC		1						
Sony	SDX-460V	AIT1T(40GB) ATAPI Tape Drive	ATAPI	IHVT		1						
Sony	SDX-550V	AIT2T(80GB) SCSI Tape Drive	SCSI	IHVT, completed with Adaptec ASC-29160N - PC		1						
Sony	SDX-560V	AIT2T(80GB) ATAPI Tape Drive	ATAPI	IHVT		1						

Manufacturer	Model Number	Model Name	Interface	Comments	Microsoft Windows XP	Microsoft Windows 2003	RedHat Linux 3.0 update3	WinXP 64bit	Win2003 64bit	RedHat Linux 4.0 update1	RedHat Linux 4.0 update1 64bit	Redhat Linux 3.0 update3 EM64T
Sony	SDX-700V	AIT3(100 GB) SCSI Tape Drive	SCSI	IHVT, completed with Adaptec ASC-29160N - PCI		1						
Sony	SDX-900V	AIT4(200 GB) SCSI Tape Drive	SCSI	IHVT, completed with Adaptec ASC-29160N - PCI		1						
Sony	SAITe1300SS	SAITe1300 SS	SCSI	IHVT, completed with Adaptec ASC-29160N - PCI		1						
Certance	STU4200LW-s	Certance LTO Ultrium 1	SCSI-U2			1	1	2	2	2	2	1
QUANTUM	TRS23BA-YF	Super DLT, SDLT320	SCSI-U2		1	1	1	2	2	2	2	1
15 Removable Drives												
TEAC	FD-235HF	FD-235HF	FLOPPY	3 1/2" floppy disk	1	1	1					1
TEAC	FDO5PUB	FDO5PUB	USB	3½" Floppy, USB	1	1	1					1
Maxtor	S01J250	5000XT	USB	250 GB USB 2.0/1.1 and firewire hard drive		1						
4.16 KVM												
Avocent	1160ES	1160ES	PS/2	16 port keyboard mouse video switch	1	1						1

5.   Hard Disk Drives

The hard drives listed in the following table have been tested with the Intel® server board SE7221BA1-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 OS each drive was tested under.

Identifier number	Operating System
1	Microsoft Windows* XP
2	Microsoft Windows* 2003 Enterprise Server
3	RedHat Linux 3 update3
4	RedHat Linux 3 update3 EM64T
5	Mircrosoft Windows XP 64bit
6	Microsoft Windows* 2003 Enterprise Server 64bit
7	Redhat Linux 4 update 1
8	Redhat Linux 4 update 1 64bit

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 (i.e. 1)	This hard drive has been tested and is supported under the operating system identified by the operating system identification number.
Number in brackets (i.e. [1])	This hard drive has been tested, but is NOT supported under the operating system identified by the operating system identification number.
SD (Similar Drive)	The hard disk drive is supported, but not tested. This hard drive model/capacity has not been tested with this server board, 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 server board. This drive uses the exact same firmware and drivers as a larger capacity hard drive that has been successfully tested with this server board. The only difference between this drive and the one that was used in testing is the 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. Customers should always test hard drives as part of the final system configuration prior to deployment. Given the fact that a larger capacity hard drive from the same drive family has successfully completed testing on this server board, this particular hard drive capacity point will not be tested.

Manufacturer	Product Family	Model Number	Interface	RPM	Drive size (GB)	Notes
SCSI Hard Drives						
Fujitsu	MAT3073NC	MAT3073NC	SCSI/U320	10K	73	
Maxtor	Atlas	Atlas 10K V	SCSI/U320	10K	300	

Manufacturer	Product Family	Model Number	Interface	RPM	Drive size (GB)	Notes
		Genesis, 8D300L0				
Maxtor	Atlas	Atlas 10K V Genesis, 8D300J0	SCSI/U320	10K	300	
Maxtor	Atlas	Atlas 10K V Genesis, 8D147J0	SCSI/U320	10K	147	
Maxtor	Atlas	Atlas 10K V Genesis, 8D073J0	SCSI/U320	10K	73	
Maxtor	Atlas	Atlas 15K II 8E036J0	SCSI/U320	15K	36	
Maxtor	Atlas	Atlas 15K II 8E073J0	SCSI/U320	15K	73	
Maxtor	Atlas	Atlas 15K II 8E147J0	SCSI/U320	15K	147	
Seagate	Cheetah 10K.6	ST3146807LC	SCSI/U320	10K	146	
Seagate		ST318452FC	SCSI/U320	10K	18	
Seagate	Cheetah 15K.3	ST318453LC	SCSI/U320	15K	18	
Seagate	Cheetah 10K.7	ST3300007LC	SCSI/U320	10K	300	
Seagate	Cheetah 10K.7	ST3300007LW	SCSI/U320	10K	300	
Seagate	Cheetah 15K.3	ST336753LC	SCSI/U320	15K	36	
Hitachi	10K300 (Python-A)	HUS103030FL3 800	U320	10K	300	
Hitachi	10K300 (Python-A)	HUS103014FL3 800	U320	10K	147	
Hitachi	10K300 (Python-A)	HUS103073FL3 800	U320	10K	73	SD
Hitachi	15K147 (Viper-A)	HUS151414VL3 800	U320	15K	147	
Hitachi	15K147 (Viper-A)	HUS151436VL3 800	U320	15K	36	
Hitachi	15K147 (Viper-A)	HUS151473VL3 800	U320	15K	73	SD
Parallel ATA (PATA) Hard Drives						
Seagate	ST380013A	Barracuda 7200.7	ATA/100	7200	80	
Seagate	ST380021A		ATA/100	7200	80	
Seagate	ST3250823A	Barracuda 7200.8	ATA/133	7200	300	
Western Digital	WD1200BB	Caviar	ATA/100	7200	120	
Western Digital	WD1600JB-00HBB0	Caviar XL80II	ATA/100	7200	160	

Manufacturer	Product Family	Model Number	Interface	RPM	Drive size (GB)	Notes
Serial ATA (SATA) Hard Drives						
Hitachi	HDS724040KLSA80	Deskstar 7K400	SATA/150	7200	400	
Hitachi	HDT722525DLA380	Deskstar T7K250 (Vancouver-IV)	SATA/150	7200	250	
Hitachi	HDS724040KLSA80	Deskstar 7K400 (Kurofune-I)	SATA/150	7200	400	
Hitachi	HDS725050KLA360	Deskstar 7K500 (Kurofune-II)	SATA-II	7200	500	
Hitachi	HDS728040PLAT20	Deskstar 7K80 (Pathfinder)	SATA/150	7200	80	
Hitachi	HDT722516DLA380	Deskstar T7K250 (Vancouver-IV)	SATA/150	7200	160	SA
Maxtor	6Y060M0	DiamondMax Plus 9	SATA/150	7200	60	
Western Digital	WD360GD	WD Raptor	SATA/150	10K	36	
Western Digital	WD740GD	WD Raptor	SATA/150	10K	74	
Western Digital	WD Caviar XL80 II	WD2500JD-00HBB0 SATA	SATA /150	7200	250	
Western Digital	WD4000KD-22NAB0	WD Caviar XL100	SATA/150	7200	400G	5,6,7,8