Intel® Server Board SE7320SP2

Tested Hardware and Operating System List

Revision 1.7

July 2005

Enterprise Platforms and Services Marketing

Revision History

Date	Revision Number	Modifications
June 2004	1.0	Initial release.
July 2004	1.1	Revised to be SE7320SP2 specific.
September 2004	1.2	Update validation information on SE7320SP2. Add similar adapter and device information.
January 2005	1.3	Update adapter/HD list from Q4'04 regression test
February 2005	1.4	Updated the supported OS table in section3: Supported Operation Systems to add listing of Microsoft* Windows* Small Business Server operation systems for Intel® Server Boards that support Microsoft Windows Server operation system, and a note describing the support commitment.
March 2005	1.5	Add Microsoft* 64-bit OS to tested OS list.
July 2005	1.6	OS: Add Microsoft* windows server 2003 Enterprise X64 Edition, Red Hat* Enterprise Linux 4.0 Update 1 32bit & 64 bit version, SuSE* Linux Enterprise Server 9.0 SP1 32bit & 64 bit version and Novell* Netware 6.5 SP3 to supported OS list.
		Adapters: Items shaded are new or have modification of supported OS.
		Hard Drives: Items shaded are new or have modification of supported OS.
Aug 2005	1.7	No update and have typo scrub

Disclaimers

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1.   Introduction

This document is intended to provide users of the Intel® server board SE7320SP2 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 add-in cards, peripherals, and operating systems are tested until the Intel® server board SE7320SP2 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 to those add-in cards and peripherals under the specified system configuration (System BIOS and firmware) and operating systems and versions to which they were tested.

1.1   Test Overview

Testing performed on the Intel® server board SE7320SP2 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 from Intel.

- 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.
    - Manufacturer's installation instructions or Intel's best-known methods were used for the operating system installation.
    - No extraordinary workarounds were required during the operating system installation.
    - The server system behaved as expected during and after the operating system installation.
    - Application software installed and executed normally.
- Hardware 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 server and back compare to the original with zero errors reported.
    - Clients remain connected to the server system.
    - Industry standard test suites run to completion with zero errors reported.

All Intel® Server Board SE7320SP2 testing was performed using the Intel® Server Chassis SC5300.

2.   Intel® Server Board SE7320SP2 Base System Configurations

The following table lists the base configurations tested. Base configurations will change as new revisions of the Intel® server board SE7320SP2 are released and/or new system BIOS and BMC firmware are introduced onto the board in Intel's factory. Each base configuration is assigned an identifier number that is referenced in the tables throughout this document. New base 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 Identifier #	Board Type	Part Number	BIOS Revision	mBMC Revision	FRU/SDR	Notes
1	SE7320SP2	C49813-401	BC07	2.31	Ver 0.10	
2	SE7320SP2	C49813-501 C49813-601	P03	2.31	Ver 1.20	Fab mounted with C1 or C2 MCH
3	SE7320SP2	C49813-603	P06	2.40	Ver 1.40	Fab mounted with C4 MCH
4	SE7320SP2	C49813-602	RC02.P08	2.40	Ver 1.49	

3. Supported Operating Systems

The following table provides a list of supported operating systems for the Intel® server board SE7320SP2. Each of the listed operating systems was tested for compatibility with a base Intel server board SE7320SP2 configuration. Operating system compatibility testing verifies that the operating system will install and function with all on-board devices.

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 systems supported by Intel® Server Management software or LANDesk* Client Manager software may be different than the operating systems supported by the Intel Server Board SE7320SP2. Please reference the Readme and User Guide documents that are included as part of each Intel Server Management and LANDesk* Client Manager distribution for operating systems that are supported by that release.

Operating System	Base System Configuration Tested & Type of Testing	Notes
Microsoft* Windows 2000 Advanced Server, Service Pack 4 / Microsoft Small Business Server 2000, SP4	Configuration 2&3&4 – Compatibility & Stress	Intel's testing was completed with Microsoft Windows 2000 Advanced Server. The Intel Server Board SE7320SP2 supports the operating system portion of Microsoft Small Business Server 2000 only. The application portion is not tested or supported.
Microsoft* Windows[†] Server 2003 Enterprise Edition / Microsoft Windows Small Business Server 2003, SP1	Configuration 2&3&4 – Compatibility & Stress	Intel's testing was completed with Microsoft Windows Server 2003 Enterprise Edition. The Intel Server Board SE7320SP2 supports the operating system portion of Microsoft Windows Small Business Server 2003 only. The application portion is not tested or supported.
Microsoft* Windows 2003 Enterprise X64 Edition	Configuration 4 – Compatibility & Stress	
Red Hat Enterprise Linux 3.0, Update 2	Configuration 2&3 – Compatibility & Stress	
Red Hat Enterprise Linux 3.0, Update 2, EM64T	Configuration 2&3 – Compatibility & Stress	
Red Hat Enterprise Linux 4.0, Update 1	Configuration 4-	

Operating System	Base System Configuration Tested & Type of Testing	Notes
	Compatibility & Stress	
Red Hat Enterprise Linux 4.0, Update 1, EM64T	Configuration 4- Compatibility & Stress	
SuSE Linux Enterprise Server 9, EM64T	Configuration 2,3 – Compatibility & Stress	
SuSE Linux Enterprise Server 9, SP1	Configuration 4 – Compatibility & Stress	
SuSE Linux Enterprise Server 9, SP1, EM64T	Configuration 4 – Compatibility & Stress	
Novell Netware[†] 6.5, SP2	Configuration 2&3 – Compatibility & Stress	
Novell NetWare[†] 6.5 SP3	Configuration 4 – Compatibility & Stress	
Microsoft* Windows NT 4.0 Advanced Server, SP6	Congifuration 2&3 – Basic Install	
Red Hat Advanced Server 2.1	Configuration 2&3 &4– Basic Install	
SuSE Linux 9.1 Professional	Configuration 2&3 &4 – Basic Install	
Novell Netware[†] 5.1, SP7	Configuration 2&3 – Basic Install	
SCO OpenServer 5.0.6a	Configuration 2&3 – Basic Install	

3.1   Operating System Certifications

Listed below are the operating systems that Intel will certify on the SE7320SP2 Server board. 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[†] Server 2000 Advanced Server	Intel® SE7320SP2 Server	OEM must request certification by Microsoft for their specific product. http://www.microsoft.com/whdc/hcl/default.mspx (choose the prope catalog and search on SE7320SP2) http://developer.intel.com/design/servers/whql.htm

Operating System	Certification Listing	Comments
Microsoft* Windows[†] Server 2003 Enterprise Edition	Intel® SE7320SP2 Server	OEM must request certification by Microsoft for their specific product. http://www.microsoft.com/whdc/hcl/default.mspx (choose the proper catalog and search on SE7320SP2) http://developer.intel.com/design/servers/whql.htm
Microsoft* Windows[†] Server 2003 Enterprise X64 Edition	Intel® SE7320SP2 Server	OEM must request certification by Microsoft for their specific product. http://www.microsoft.com/whdc/hcl/default.mspx (choose the proper catalog and search on SE7320SP2) http://developer.intel.com/design/servers/whql.htm
Red Hat Enterprise Linux 3.0	Intel® SE7320SP2 Server	http://hardware.redhat.com/hcl/?pagename=detail&hid=5609
Novell NetWare[†] 6.5	Intel® SE7320SP2 Server	Cert. ID: 76235 (SE7320SP2 with SC5300) Cert. ID: 76236 (SE7320SP2 with SC5275E)

4.   Adapters and Peripherals

Add-in adapter-card, 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 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 supported under this operating system.
SA	This adapter has not been tested by Intel under this operating system, but it is supported in this OS based on this adapter deemed as a subset of a successfully tested superset adapter listed right-above. Intel has determined that these adapters use the same FW and drivers and have nearly identical system interface. In addition, Intel has secured IHV commitment to support the adapters equally. All guidelines for the superset adapter apply to this subset 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 is 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 adapter cards is normally performed with expansion ROMs for unused add-in adapters and onboard controllers, 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.

4.1 PCI RAID

Manufacturer	Model Name	Model Number	Interface	Comments	Microsoft Windows[†] Server 2003 Enterprise Edition SP1	Microsoft Windows[†] Server 2003 Enterprise X64 Edition	Microsoft Windows[†] 2000 AS SP4	Red Hat Enterprise Linux[†] 3.0 Update2	Red Hat Enterprise Linux[†] 3.0 Update2 EM64T	Red Hat Enterprise Linux[†] 4.0 Update1	Red Hat Enterprise Linux[†] 4.0 Update1 EM64T	SuSE Linux Enterprise 9.0 SP1	SuSE Linux Enterprise 9.0 SP1 EM64T	SuSE Linux 9.0 Professional	SuSE Linux 9.1 Professional EM64T	Novell Netware[†] 6.5
Adaptec[†]	ASR-2200S	ASR-2200S	PCI, 64/66	SCSI, BIOS: V4.2-0[Build 7349]	[1],2,3	4	[1],2	[1],2,3	NT	NT	4	NT	4	[1],2	2	[1],2
Adaptec[†]	ASR-2120S	ASR-2120S	PCI, 64/66	SCSI	SA	SA	SA	SA	NT	NT	SA	NT	SA	SA	SA	SA
Adaptec[†]	ASR-2110S	ASR-2110S	PCI 64/66	SCSI	[1]	NT	1	1	NT	NT	NT	NT	NT	[1]	NT	[1]
ICP Vortex[†]	GDT8524RZ	GDT8524RZ	PCI, 64/66	SCSI	1,2,3	NT	1,2	1,2,3	NT	ND	ND	ND	ND	[1],2	NT	[1],2
ICP Vortex[†]	GDT8514RZ	GDT8514RZ	PCI, 64/66	SCSI	1,2,3	NT	1,2,3	1,2	NT	ND	ND	ND	ND	[1],2	NT	1,2
Intel	SRCU32U	SRCU32U	PCI, 64/66	SCSI	[1],2,3	NT	[1],2,3	[1],2,3	NT	ND	ND	NT	NT	[1],2,[3]	NT	[1],2,3
Intel	SRCU42L	SRCU42L	PCI, 64/66	SCSI	1,2,3	NT	1,2,3	1,2,3	NT	ND	ND	NT	NT	[1],2,[3]	2	1,2,3
Intel	SRCU42X	SRCU42X	PCI-X, 133	SCSI, BIOS:H429 F/W:414A	2,[3],4	4	2,[3],4	2,[3]	2	4	4	4	4	2,[3]	2	2,[3]
Intel	SRCU42E	SRCU42E	PCI-E, x8	SCSI	3	NT	3	3	NT	ND	ND	NT	NT	3	NT	3
LSI Logic[†]	Express 500 (MegaRAID 475)	MegaRAID 475	PCI, 64/66	SCSI	1,2	ND	1,2	1,2	2	ND	ND	ND	ND	[1],2	2	1,2
LSI Logic[†]	Elite 1600 (MegaRAID 493)	4932010232A		SCSI	[1],[2]	ND	[1],[2]	NT	NT	ND	ND	ND	ND	[1]	NT	[1],[2]
LSI Logic[†]	MegaRAID 320-2X	MegaRAID 320-2X	PCI-X, 133	SCSI	[1],2,[3]	NT	1,2,[3]	1,2,[3]	2	ND	ND	ND	ND	[1],2,[3]	2	1,2,[3]

Manufacturer	Model Name	Model Number	Interface	Comments	Microsoft Windows[†] Server 2003 Enterprise Edition SP1	Microsoft Windows[†] Server 2003 Enterprise X64 Edition	Microsoft Windows[†] 2000 AS SP4	Red Hat Enterprise Linux[†] 3.0 Update2	Red Hat Enterprise Linux[†] 3.0 Update2 EM64T	Red Hat Enterprise Linux[†] 4.0 Update1	Red Hat Enterprise Linux[†] 4.0 Update1 EM64T	SuSE Linux Enterprise 9.0 SP1	SuSE Linux Enterprise 9.0 SP1 EM64T	SuSE Linux 9.0 Professional	SuSE Linux 9.1 Professional EM64T	Novell Netware[†] 6.5
LSI Logic[†]	MegaRAID 320-4X	MegaRAID 320-4X	PCI-X, 133	SCSI	SA	NT	SA	SA	SA	ND	ND	ND	ND	SA	SA	SA
LSI Logic[†]	MegaRAID 320-2E	MegaRAID 320-E	PCI-E, x8	SCSI, BIOS:H423 F/W:514F	3	4	3	3	NT	NT	4	NT	4	3	NT	3
3Ware[†]	Escalade 8506-8	8506-8	PCI, 64/66	SATA	3	ND	3	3	NT	ND	ND	ND	ND	3	NT	[3]
3Ware[†]	Escalade 9500S-8	9500S-8	PCI-X, 66	SATA, BIOS:G119 F/W:713N	4	4	4	ND	ND	ND	ND	ND	ND	ND	ND	ND
3Ware[†]	Escalade 9500S-8ML	9500S-8ML	PCI-X, 66	SATA	SA	SA	SA	ND	ND	ND	ND	ND	ND	ND	ND	ND
3Ware[†]	Escalade 9500S-4LP	9500S-4LP	PCI-X, 66	SATA	SA	SA	SA	ND	ND	ND	ND	ND	ND	ND	ND	ND
3Ware[†]	Escalade 9500S-12	9500S-12	PCI-X, 66	SATA	SA	SA	SA	ND	ND	ND	ND	ND	ND	ND	ND	ND
3Ware[†]	Escalade 9500S-12ML	9500S-12ML	PCI-X, 66	SATA	SA	SA	SA	ND	ND	ND	ND	ND	ND	ND	ND	ND
Adaptec[†]	AAR-2410SA	AAR-2410SA	PCI, 64/66	SATA	2,3	NT	2,3	2,3	2	ND	ND	ND	ND	2,3	2	2,3
Adaptec[†]	AAR-21610SA	AAR-21610SA	PCI, 64/66	SATA	3	NT	3	3	NT	ND	ND	ND	ND	[3]	NT	3
Adaptec[†]	AAR-2810SA	AAR-2810SA	PCI, 64/66	SATA	SA	NT	SA	SA	NT	ND	ND	ND	ND	SA	NT	SA
ICP vortex	GDT8546RZ	GDT8546RZ	PCI, 64/66	SATA	1,2,3	NT	1,2,[3]	1,2,3	NT	ND	ND	ND	ND	[1],2,3	NT	1,2,3
Intel	SRCS14L	SRCS14L	PCI, 64/66	SATA	1,2,3	NT	1,2,3	1,2,3	2	ND	ND	NT	NT	[1],2,3	2	1,2,3
Intel	SRCS16	SRCS16	PCI. 64/66	SATA	2,3	NT	2,3	2,3	2	ND	ND	NT	NT	2,3	2	2,3

Manufacturer	Model Name	Model Number	Interface	Comments	Microsoft Windows[†] Server 2003 Enterprise Edition SP1	Microsoft Windows[†] Server 2003 Enterprise X64 Edition	Microsoft Windows[†] 2000 AS SP4	Red Hat Enterprise Linux[†] 3.0 Update2	Red Hat Enterprise Linux[†] 3.0 Update2 EM64T	Red Hat Enterprise Linux[†] 4.0 Update1	Red Hat Enterprise Linux[†] 4.0 Update1 EM64T	SuSE Linux Enterprise 9.0 SP1	SuSE Linux Enterprise 9.0 SP1 EM64T	SuSE Linux 9.0 Professional	SuSE Linux 9.1 Professional EM64T	Novell Netware[†] 6.5
Intel	SRCS28X	SRCS28X	PCI-X, 133	SATA, BIOS:H424 F/W:813D	4	ND	4	NT	NT	ND	ND	ND	ND	NT	NT	ND
LSI Logic[†]	MegaRAID SATA150-6	MegaRAID SATA150-6	PCI, 64/66	SATA, BIOS:G119 F/W:713N	1,2,3	4	1,2,3	1,2,3	NT	NT	4	NT	4	[1],2,3	NT	1,2,3
LSI Logic[†]	MegaRAID SATA150-4	MegaRAID SATA150-4	PCI, 64/66	SATA	SA	SA	SA	SA	NT	NT	SA	NT	SA	SA	NT	SA

4.2   PCI SCSI

Manufacturer	Model Name	Model Number	Interface	Comments	Microsoft Windows[†] Server 2003 Enterprise Edition SP1	Microsoft Windows[†] Server 2003 Enterprise X64 Edition	Microsoft Windows[†] 2000 AS SP4	Red Hat Enterprise Linux[†] 3.0 Update2	Red Hat Enterprise Linux[†] 3.0 Update2 EM64T	Red Hat Enterprise Linux[†] 4.0 Update1	Red Hat Enterprise Linux[†] 4.0 Update1 EM64T	SuSE Linux Enterprise 9.0 SP1	SuSE Linux Enterprise 9.0 SP1 EM64T	SuSE Linux 9.0 Professional	SuSE Linux 9.1 Professional EM64T	Novell Netware[†] 6.5
Adaptec[†]	ASC-29160LP	ASC-29160LP	PCI, 64/66		1,2,3	NT	[1],2,3	1,2,3	2	NT	NT	NT	NT	[1],2,3	2	1,2,3
Adaptec[†]	ASC-29160N	ASC-29160N	PCI, 64/66		SA	NT	SA	SA	SA	NT	NT	NT	NT	SA	SA	SA
Adaptec[†]	ASC-29160*	ASC-29160	PCI,64/66	BIOS:V3.10	1,2,3,4	4	[1],2,3,4	1,2,3,4	2,4	4	4	4	4	[1],2,3,4	2,4	1,2,3,4
Adaptec[†]	ASC-29320ALP	ASC-29320ALP	PCI-X, 133		1,2,3	NT	1,2,3	1,[2],3	NT	ND	ND	ND	ND	[1],[2],3	NT	1,2,3
Adaptec[†]	ASC-29320LP-R	ASC-29320LP-R	PCI-X, 133		SA	NT	SA	SA	NT	ND	ND	ND	ND	SA	NT	SA
Adaptec[†]	ASC-29320-R	ASC-29320-R	PCI-X, 133		SA	NT	SA	SA	NT	ND	ND	ND	ND	SA	NT	SA
Adaptec[†]	ASC-39320A	ASC-39320A	PCI-X, 133	BIOS:V4.30	[1],[2],3	NT	1,[2]	1,[2],3	NT	NT	4	NT	4	[1],[2]	NT	NT
Adaptec[†]	ASC-39320D-R	ASC-39320D-R	PCI-X, 133		SA	NT	SA	SA	NT	NT	SA	NT	SA	SA	NT	NT
Adaptec[†]	ASC-39320-R	ASC-39320-R	PCI-X, 133		SA	NT	SA	SA	NT	NT	SA	NT	SA	SA	NT	NT
LSI Logic[†]	LSI20160LP	LSI20160LP	PCI, 32/33		1,2,3	NT	1,2,3	1,2,3	2	ND	ND	ND	ND	[1],2,3	2	1,2,3

Manufacturer	Model Name	Model Number	Interface	Comments	Microsoft Windows[†] Server 2003 Enterprise Edition SP1	Microsoft Windows[†] Server 2003 Enterprise X64 Edition	Microsoft Windows[†] 2000 AS SP4	Red Hat Enterprise Linux[†] 3.0 Update2	Red Hat Enterprise Linux[†] 3.0 Update2 EM64T	Red Hat Enterprise Linux[†] 4.0 Update1	Red Hat Enterprise Linux[†] 4.0 Update1 EM64T	SuSE Linux Enterprise 9.0 SP1	SuSE Linux Enterprise 9.0 SP1 EM64T	SuSE Linux 9.0 Professional	SuSE Linux 9.1 Professional EM64T	Novell Netware[†] 6.5
LSI Logic[†]	LSI20160	LSI20160	PCI, 32/33		SA	NT	SA	SA	SA	ND	ND	ND	ND	SA	SA	SA
LSI Logic[†]	LSI22320-R	LSI22320-R	PCI-X, 133	BIOS:5.11.0.0	1,2,3	4	1,2	1,2,3	2	NT	4	NT	4	[1],2	2	1,2
LSI Logic[†]	LSI20320-R	LSI20320-R	PCI-X, 133		2	NT	2	2	2	NT	NT	NT	TN	2	2	2[†]

4.3   PCI Fiber Channel

Manufacturer	Model Name	Model Number	Interface	Comments	Microsoft Windows[†] Server 2003 Enterprise Edition SP1	Microsoft Windows[†] Server 2003 Enterprise X64 Edition	Microsoft Windows[†] 2000 AS SP4	Red Hat Enterprise Linux[†] 3.0 Update2	Red Hat Enterprise Linux[†] 3.0 Update2 EM64T	Red Hat Enterprise Linux[†] 4.0 Update1	Red Hat Enterprise Linux[†] 4.0 Update1 EM64T	SuSE Linux Enterprise 9.0 SP1	SuSE Linux Enterprise 9.0 SP1 EM64T	SuSE Linux 9.0 Professional	SuSE Linux 9.1 Professional EM64T	Novell Netware[†] 6.5
Emulex[†]	LP9002LP	LP9002LP-F	PCI, 64/66		1,2,3	NT	1,2	[1],2,3	[2]	ND	ND	NT	NT	[1]	2	1,2
Emulex[†]	LP952L	LP952L-F	PCI, 64/66		SA	NT	SA	SA	SA	ND	ND	NT	NT	SA	SA	SA
Emulex[†]	LP9802DC	LP9802DC-F2	PCI-X, 133		1,2,3	NT	1,2	[1],2,3	2	ND	ND	NT	NT	[1]	2	[1],[2]
Emulex[†]	LP9802	LP9802-F2	PCI-X, 133		SA	NT	SA	SA	SA	ND	ND	NT	NT	SA	SA	SA
Emulex[†]	LP982	LP982-F2	PCI-X, 133		SA	NT	SA	SA	SA	ND	ND	NT	NT	SA	SA	SA
Emulex[†]	LP10000DC-Ex	LP10000DC-Ex	PCI-E, x8		3	NT	3	3	NT	ND	ND	NT	NT	3	NT	3
Emulex[†]	LP1050Ex	LP1050Ex-F2	PCI-E, x4		[2]	NT	NT	2	NT	ND	ND	NT	NT	NT	NT	2
Qlogic[†]	QLA2312	QLA2312	PCI-X, 133		1	NT	[1]	1	NT	ND	ND	NT	NT	[1]	NT	[1]
Qlogic[†]	QLA2342	QLA2342	PCI-X, 133		2,3	NT	2	2,3	2	NT	NT	NT	NT	2	2	2
Qlogic[†]	QLA2340	QLA2340	PCI-X, 133		SA	NT	SA	SA	SA	NT	NT	NT	NT	SA	SA	SA
Qlogic[†]	QLE2360	QLE2360	PCI-E, x4		[2]	NT	NT	2	NT	NT	NT	NT	NT	NT	NT	2

4.4   PCI NIC

Manufacturer	Model Name	Model Number	Interface	Comments	Microsoft Windows† Server 2003 Enterprise Edition SP1	Microsoft Windows† Server 2003 Enterprise X64 Edition	Microsoft Windows† 2000 AS SP4	Red Hat Enterprise Linux† 3.0 Update2	Red Hat Enterprise Linux† 3.0 Update2 EM64T	Red Hat Enterprise Linux† 4.0 Update1	Red Hat Enterprise Linux† 4.0 Update1 EM64T	SuSE Linux Enterprise 9.0 SP1	SuSE Linux Enterprise 9.0 SP1 EM64T	SuSE Linux 9.0 Professional	SuSE Linux 9.1 Professional EM64T	Novell Netware† 6.5
3COM†	Etherlink 10/100 PCI	3C980C-TXM	PCI, 32/33		1,2,3	ND	1,2,3	1,2,3	2	ND	ND	ND	ND	1,2,3	2	1,2,3
3COM†	Gigabit Server Adapter	3C996B-T	PCI-X, 133		1,2,3	ND	1,2,3	1,2,3	2	ND	ND	ND	ND	1,2,3	2	1,2,3
Intel	PRO/100+ S Server Adapter	PILA8470D3	PCI, 32/33		1,2	NT	1,2	1,2	2	NT	NT	NT	NT	1,2	2	1,2
Intel	PRO/100+ S Server Adapter	PILA8470C3	PCI, 32/33		SA	NT	SA	SA	SA	NT	NT	NT	NT	SA	SA	SA
Intel	PRO/100S Dual Port	PILA8472C3	PCI, 64/66		1,2,[3]	4	1,2,[3]	1,2,[3]	2	NT	4	NT	4	1,2,[3]	2	1,2,[3]
Intel	PRO/1000MT Gigabit Server Adapter	PWLA8490MT	PCI-X, 133		1,2,3	NT	1,2,3	1,2,3	2	NT	NT	NT	NT	1,2,3	2	1,2,3
Intel	PRO/1000MT Gigabit Server Adapter	PWLA8490MF	PCI-X, 133	Fiber	SA	NT	SA	SA	SA	NT	NT	NT	NT	SA	SA	SA
Intel	PRO/1000XT Gigabit Server Adapter	PWLA8490XT	PCI-X, 133		1,2,3	NT	1,2,3	1,2,3	2	NT	NT	NT	NT	1,2,3	2	1,2,3
Intel	PRO/1000XT Gigabit Server Adapter	PWLA8490XTL	PCI-X, 133	Low-Profile	SA	NT	SA	SA	SA	NT	NT	NT	NT	SA	SA	SA
Intel	PRO/1000XT Gigabit Server Adapter	PWLA8490XF	PCI-X, 133	Fiber	SA	NT	SA	SA	SA	NT	NT	NT	NT	SA	SA	SA
Intel	PRO/1000XT Gigabit Server Adapter	PWLA8490XFL	PCI-X, 133	Fiber, Low-Profile	SA	NT	SA	SA	SA	NT	NT	NT	NT	SA	SA	SA

Manufacturer	Model Name	Model Number	Interface	Comments	Microsoft Windows[†] Server 2003 Enterprise Edition SP1	Microsoft Windows[†] Server 2003 Enterprise X64 Edition	Microsoft Windows[†] 2000 AS SP4	Red Hat Enterprise Linux[†] 3.0 Update2	Red Hat Enterprise Linux[†] 3.0 Update2 EM64T	Red Hat Enterprise Linux[†] 4.0 Update1	Red Hat Enterprise Linux[†] 4.0 Update1 EM64T	SuSE Linux Enterprise 9.0 SP1	SuSE Linux Enterprise 9.0 SP1 EM64T	SuSE Linux 9.0 Professional	SuSE Linux 9.1 Professional EM64T	Novell Netware[†] 6.5
Intel	PRO/1000MT Dual port Gigabit Adapter	PWLA8492MT	PCI-X, 133		1,2,4	4	1,2	1,2	2	NT	4	NT	4	1,2	2	1,2
Intel	PRO/1000MT Dual port Gigabit Adapter	PWLA8492MF	PCI-X, 133	Fiber	SA	4	SA	SA	SA	NT	4	NT	4	SA	SA	SA
Syskonnect[†]	SK-9E21D	SK-9E21D	PCI-E, x1		2,3	NT	3	2,3	NT	NT	NT	NT	NT	3	NT	2,3

4.5   Modems

Manufacturer	Model Name	Model Number	Interface	Comments												
3COM[†]	V.Everything 56K Corporate	3CP3453	RS-232	External	1,2,3	NT	1,2,3	1,2,3	2	NT	NT	NT	NT	1,2,3	[2]	NT
3COM[†]	USR5610B	USR5610B	PCI, 32/33	Internal	NT	4	NT	NT	NT	NT	4	NT	[4]	NT	NT	NT

4.6   Human Interface Devices

Manufacturer	Model Name	Model Number	Interface	Comments												
Keytronic[†]	PROpilot	PROpilot	PS2		1,2,3	4	1,2,3	1,2,3	2	NT	4	NT	4	1,2,3	2	1,2,3
Keytronic[†]	E06101USB-C	E06101USB-C	USB		3	4	3	3	NT	NT	4	NT	4	3	NT	3
Logitech[†]	Optical Mouse	930582-0403	PS2		1,2,3	NT	1,2,3	1,2,3	2	NT	NT	NT	NT	1,2,3	2	1,2,3
Logitech[†]	Internet Navigator	930582-0403	PS2		SA	NT	SA	SA	SA	NT	NT	NT	NT	SA	SA	SA
Logitech[†]	Optical Mouse	930582-0121	USB		1,2,3	4	1,2,3	1,2,3	2	NT	4	NT	4	1,2,3	2	1,2,3
Logitech[†]	Internet Navigator	930582-0121	USB		SA	NT	SA	SA	SA	NT	NT	NT	NT	SA	SA	SA

Manufacturer	Model Name	Model Number	Interface	Comments	Microsoft Windows† Server 2003 Enterprise Edition SP1	Microsoft Windows† Server 2003 Enterprise X64 Edition	Microsoft Windows† 2000 AS SP4	Red Hat Enterprise Linux† 3.0 Update2	Red Hat Enterprise Linux† 3.0 Update2 EM64T	Red Hat Enterprise Linux† 4.0 Update1	Red Hat Enterprise Linux† 4.0 Update1 EM64T	SuSE Linux Enterprise 9.0 SP1	SuSE Linux Enterprise 9.0 SP1 EM64T	SuSE Linux 9.0 Professional	SuSE Linux 9.1 Professional EM64T	Novell Netware† 6.5
Logitech†	M-S61				NT	4	NT	NT	NT	NT	4	NT	4	NT	NT	NT
Microsoft†	Intellimouse Optical		PS2/USB		1,2	NT	1,2	1,2	NT	NT	NT	NT	NT	1,2	NT	1,2
Rainbow†	Sentinal Duo Hardware Key	Sentinal Duo	USB		1,[2]	NT	1,2	[1],[2]	NT	NT	NT	NT	NT	[1],[2]	NT	[1],[2]

4.7 CDROM Drives

Manufacturer	Model Name	Model Number	Interface	Comments	Microsoft Windows† Server 2003 Enterprise Edition SP1	Microsoft Windows† Server 2003 Enterprise X64 Edition	Microsoft Windows† 2000 AS SP4	Red Hat Enterprise Linux† 3.0 Update2	Red Hat Enterprise Linux† 3.0 Update2 EM64T	Red Hat Enterprise Linux† 4.0 Update1	Red Hat Enterprise Linux† 4.0 Update1 EM64T	SuSE Linux Enterprise 9.0 SP1	SuSE Linux Enterprise 9.0 SP1 EM64T	SuSE Linux 9.0 Professional	SuSE Linux 9.1 Professional EM64T	Novell Netware† 6.5
IOMega†	CD-RW 48x24x48	32721	USB2	External, CD-R/RW	1,2,3	NT	[1],2,3	1,2,3	NT	NT	NT	NT	NT	1,2,3	NT	1,2,3
Mitsumi†	SR244W1	SR244W1	ATA33	Slimline, CD-ROM	1,2,3	4	1,2,3	1,2,3	NT	NT	4	NT	4	1,2,3	NT	1,2,3
Plextor†	Plexwriter 40x12x40U	CD-RW 40x12x40	USB	External, CD-R/RW	1,2	NT	1,2	1,2	NT	NT	NT	NT	NT	1,2	NT	1,2
Plextor†	Plexwriter 40x12x40S	PX-W4012TS/SW	SCSI-UW	CD-R/RW	1,2,3	NT	1,2,3	1,2,3	NT	NT	NT	NT	NT	1,2,3	NT	1,2,3
Plextor†	Plexwriter 52/32/52	Premium-U	USB2	External, CD-R/RW	3	NT	3	3	NT	NT	NT	NT	NT	3	NT	3
Samsung†	SC-152	SC-152	ATA33	CD-ROM	1,2	NT	1,2	1,2	NT	NT	NT	NT	NT	1,2	NT	1,2
Sony†	CRX230AD/K	CRX230AD/K	ATA33	CR-R/RW	NT	4	NT	NT	NT	NT	4	NT	4	NT	NT	NT
Teac†	CDWF540/kit	CDWF540/kit	USB2	CD-ROM	1,2	NT	[1],2	1,2,	NT	NT	NT	NT	NT	1,2	NT	1,2
Teac†	CD-552E	CD-552E	ATA33	CD-ROM	3	NT	3	3	NT	NT	NT	NT	NT	3	NT	3

4.8 DVD Drives

Manufacturer	Model Name	Model Number	Interface	Comments	Microsoft Windows[†] Server 2003 Enterprise Edition SP1	Microsoft Windows[†] Server 2003 Enterprise X64 Edition	Microsoft Windows[†] 2000 AS SP4	Red Hat Enterprise Linux[†] 3.0 Update2	Red Hat Enterprise Linux[†] 3.0 Update2 EM64T	Red Hat Enterprise Linux[†] 4.0 Update1	Red Hat Enterprise Linux[†] 4.0 Update1 EM64T	SuSE Linux Enterprise 9.0 SP1	SuSE Linux Enterprise 9.0 SP1 EM64T	SuSE Linux 9.0 Professional	SuSE Linux 9.1 Professional EM64T	Novell Netware[†] 6.5
HLDS[†]	GCC-4521	GCC-4521	ATA33	CD-RW/DVD-ROM combo	NT	4	NT	NT	NT	NT	4	NT	4	NT	NT	NT
HLDS[†]	GDR-8163	GDR-8163	ATA33	CD-RW/DVD-ROM combo	NT	4	NT	NT	NT	NT	4	NT	4	NT	NT	NT
Lite On[†]	SOHC-5235K	SOHC-5235K	ATA33	CD-RW/DVD-ROM combo	NT	4	NT	NT	NT	NT	4	NT	4	NT	NT	NT
Lite On[†]	LSC-24082KX	LSC-24082KX	USB2.0	CD-RW/DVD-ROM combo	NT	4	NT	NT	NT	NT	4	NT	4	NT	NT	NT
Mitsumi[†]	SR242BS	SR242BS	ATA33	DVD-ROM	1,2,3	NT	1,2,3	1,2,3	NT	NT	NT	NT	NT	1,2,3	NT	1,2,3
Pioneer[†]	DVD-305S	DVD-305S	SCSI-N	DVD-ROM	1,2,3	NT	1,2,3	1,2,3	NT	NT	NT	NT	NT	1,2,3	NT	1,2,3
Pioneer[†]	DVD-S606	DVD-S606	USB2	DVD-ROM	3	NT	3	3	NT	NT	NT	NT	NT	3	NT	3
Samsung[†]	SD-616	SD-616	ATA33	DVD-ROM	1,2	NT	1,2	1,2	NT	NT	NT	NT	NT	1,2	NT	1,2
Sony[†]	CRX-835E	CRX-835E	ATA33	CD-RW/DVD-ROM combo	NT	4	NT	NT	NT	NT	4	NT	4	NT	NT	NT
Sony[†]	DRU500AX	DRU500AX	ATA33	DVD±R/RW, CD-R/RW	1,2	NT	1,2	1,2	NT	NT	NT	NT	NT	1,2	NT	1,2
Sony[†]	DRU-510A	DRU-510A	ATA33	DVD+RW, CD-R/RW	NT	4	NT	NT	NT	NT	4	NT	4	NT	NT	NT
Teac[†]	DV-28E B82	DV-28E B82	ATA33	Slimline, CD-RW/DVD-ROM combo	NT	4	NT	NT	NT	NT	4	NT	4	NT	NT	NT
Toshiba[†]	SD-M1401	SD-M1401	ATA33	DVD-ROM	1,2	NT	1,2	1,2	NT	NT	NT	NT	NT	1,2	NT	1,2

Manufacturer	Model Name	Model Number	Interface	Comments	Microsoft Windows† Server 2003 Enterprise Edition SP1	Microsoft Windows† Server 2003 Enterprise X64 Edition	Microsoft Windows† 2000 AS SP4	Red Hat Enterprise Linux† 3.0 Update2	Red Hat Enterprise Linux† 3.0 Update2 EM64T	Red Hat Enterprise Linux† 4.0 Update1	Red Hat Enterprise Linux† 4.0 Update1 EM64T	SuSE Linux Enterprise 9.0 SP1	SuSE Linux Enterprise 9.0 SP1 EM64T	SuSE Linux 9.0 Professional	SuSE Linux 9.1 Professional EM64T	Novell Netware† 6.5
Toshiba†	SD-M1712	SD-M1712	ATA33	DVD-ROM	1,2	NT	1,2	1,2	NT	NT	NT	NT	NT	1,2	NT	1,2
Toshiba†	SD-M1912-S	SD-M1912-S	ATA33	DVD-ROM	NT	4	NT	NT	NT	NT	4	NT	4	NT	NT	NT
Toshiba†	SD-R2512	SD-R2512	UDMA33	DVD-ROM	3	NT	3	3	NT	NT	NT	NT	NT	3	NT	3
Panasonic†	CW-8123B	CW-8123B	ATA33	CD-RW/DVD-ROM combo	3	NT	3	3	NT	NT	NT	NT	NT	3	NT	3
Teac†	DV-28E-BP3	DV-28E-BP3	ATA33	CD-RW/DVD-ROM combo	3	NT	3	3	NT	NT	NT	NT	NT	3	NT	3

4.9 Tape Drives

Manufacturer	Model Name	Model Number	Interface	Comments												
Certance†	STD2401LW-S	STD2401LW-S	SCSI-U2	20/40g DAT DDS4 5.25HH	4	4	4	NT	NT	4	4	4	4	NT	NT	4
Quantum†	DLT, VS160	BH2AA-YS			[1],2	NT	1,2	1,2	NT	NT	NT	NT	NT	1,2	NT	[1],[2]
Quantum†	Super DLT, SDLT320	TRS23BA-YF			1,2	NT	[1],2	1,2	NT	NT	NT	NT	NT	1,2	NT	[1],[2]
Seagate†	Scorpion 40 DDS4 DAT	STD2401LW-S			3	NT	3	3	NT	NT	NT	NT	NT	3	NT	3

4.10 Removable Drives

Manufacturer	Model Name	Model Number	Interface	Comments												
IOMega†	Zip 750MB USB 2.0	32324	USB2	External	1,2,3	4	1,2,3	1,2,3	NT	NT	4	NT	4	1,2,3	NT	1,2,3
Sony†	VAIO External USB floppy	PCGA-UFD5	USB	External	1,2	NT	1,2	1,2	NT	NT	NT	NT	NT	1,2	NT	1,2
Teac†	FD235-HF	FD235-HF			1,2,3	4	1,2,3	1,2,3	NT	NT	4	NT	4	1,2,3	NT	1,2,3

Manufacturer	Model Name	Model Number	Interface	Comments	Microsoft Windows† Server 2003 Enterprise Edition SP1	Microsoft Windows† Server 2003 Enterprise X64 Edition	Microsoft Windows† 2000 AS SP4	Red Hat Enterprise Linux† 3.0 Update2	Red Hat Enterprise Linux† 3.0 Update2 EM64T	Red Hat Enterprise Linux† 4.0 Update1	Red Hat Enterprise Linux† 4.0 Update1 EM64T	SuSE Linux Enterprise 9.0 SP1	SuSE Linux Enterprise 9.0 SP1 EM64T	SuSE Linux 9.0 Professional	SuSE Linux 9.1 Professional EM64T	Novell Netware† 6.5
4.11 KVM																
Avocent†	1160ES	1160ES		16-port	1,2	NT	1,2	1,2	NT	NT	NT	NT	NT	1,2	NT	1,2
Belkin†	Omniview PRO2	F1DA108T		8-port	1,2,3	4	1,2,3	1,2,3	NT	NT	4	NT	4	1,2,3	NT	1,2,3

*The validation of Adaptec† ASC-29160 SCSI card on configuration No.4 system is only for tape drives.

5.   Hard Disk Drives

The hard drives listed in the following table have been tested with the Intel® server board SE7320SP2 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† Server 2003 Enterprise Edition with service pack 1
2	Microsoft Windows† 2000 Advanced Server with service pack 4
3	Red Hat Linux† 3.0 AS Update 2
4	Novell NetWare† 6.5
5	SuSE† 9.0 Professional
6	Microsoft Windows† Server 2003 Enterprise X64 Edition
7	Red Hat† Enterprise Linux 4.0 Update 1 EM64T
8	SuSE† Linux Enterprise Server 9, SP1, EM64T

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)	This hard drive model/capacity was not tested with this server board, but it is supported on corresponding operating systems based on successful testing of a larger capacity hard drive from the same hard drive family. This drive has been determined to use 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.
IHVT (IHV Tested)	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. IHV test reports remain the property of the IHV (Intel cannot provide copies of these reports).

Manufacturer	Product Family	Model Number	Interface	RPM	Drive Size (GB)	Tested Operating Systems	Comments
5.1	**SCSI Hard Disk Drives**						
Fujitsu[†]	Alegro 8LE	MAP3147NC	U320 SCSI SCA	10,000	147GB	1,2,3,4,5	
Fujitsu[†]	Alegro 8LE	MAP3735NC	U320 SCSI SCA	10,000	73GB	SD	
Fujitsu[†]	Alegro 8LE	MAP3367NC	U320 SCSI SCA	10,000	36GB	SD	
Fujitsu[†]	Alegro 8LX	MAS3735NC	U320 SCSI SCA	15,000	73GB	1,2,3,4,5	
Fujitsu[†]	Alegro 8LX	MAS2267NC	U320 SCSI SCA	15,000	36GB	SD	
Fujitsu[†]	Alegro 8LX	MAS3184NC	U320 SCSI SCA	15,000	18GB	SD	
Hitachi[†]	DK32EJ	DK32EJ-14	U320 SCSI SCA	10,000	147GB	1,2,3,4,5	
Hitachi[†]	DK32EJ	DK32EJ-72	U320 SCSI SCA	10,000	72GB	SD	
Hitachi[†]	DK32EJ	DK32EJ-36	U320 SCSI SCA	10,000	36GB	SD	
Hitachi[†]	UltraStar 10K300	UltraStar 10K300	U320 SCSI SCA	10,000	300GB	1,2,3,4,5	
Hitachi[†]	UltraStar 15K73	HUS157373EL3800	U320 SCSI SCA	15,000	73GB	1,2,3,4,5	
Hitachi[†]	UltraStar 15K73	HUS157373EL3600	U320 SCSI 68 pin	15,000	73GB	SD	
Hitachi[†]	UltraStar 15K73	HUS157336EL3800	U320 SCSI SCA	15,000	36GB	SD	
Hitachi[†]	UltraStar 15K73	HUS157336EL3600	U320 SCSI 68 pin	15,000	36GB	SD	
Maxtor[†]	Atlas 10K IV	8B146J0	U320 SCSI SCA	10,000	146GB	1,2,3,4,5	
Maxtor[†]	Atlas 10K IV	8B074J0	U320 SCSI SCA	10,000	74GB	SD	
Maxtor[†]	Atlas 10K IV	8B036J0	U320 SCSI SCA	10,000	36GB	SD	
Maxtor[†]	Atlas 10K V	8D300J0	U320 SCSI SCA	10,000	300GB	1,2,3,4,5,6,7,8	
Maxtor[†]	Atlas 10K V	8D147J0	U320 SCSI SCA	10,000	147GB	SD	
Maxtor[†]	Atlas 10K V	8D073J0	U320 SCSI SCA	10,000	73GB	SD	
Maxtor[†]	Atlas 15K	8C073J0	U320 SCSI SCA	15,000	73GB	1,2,3,4,5	
Maxtor[†]	Atlas 15K	8C036J0	U320 SCSI SCA	15,000	36GB	SD	
Maxtor[†]	Atlas 15K	8C018J0	U320 SCSI SCA	15,000	18GB	SD	
Maxtor[†]	Atlas 15K II	8E147J0	U320 SCSI SCA	15,000	147GB	1,2,3,4,5	
Maxtor[†]	Atlas 15K II	8E073J0	U320 SCSI SCA	15,000	73GB	SD	
Maxtor[†]	Atlas 15K II	8E036J0	U320 SCSI SCA	15,000	36GB	SD	

Manufacturer	Product Family	Model Number	Interface	RPM	Drive Size (GB)	Tested Operating Systems	Comments
Seagate[†]	Cheetah 10K.6	ST3146807LC	U320 SCSI SCA	10,000	146GB	1,2,3,4,5	
Seagate[†]	Cheetah 10K.6	ST373307LC	U320 SCSI SCA	10,000	73GB	SD	
Seagate[†]	Cheetah 10K.6	ST336607LC	U320 SCSI SCA	10,000	36GB	SD	
Seagate[†]	Cheetah X15K.3	ST373453LC	U320 SCSI SCA	15,000	73GB	1,2,3,4,5	
Seagate[†]	Cheetah X15K.3	ST336753LC	U320 SCSI SCA	15,000	36GB	SD	
Seagate[†]	Cheetah X15K.3	ST318453LC	U320 SCSI SCA	15,000	18GB	SD	
Seagate[†]	Cheetah 10K.7	ST3300007LC	U320 SCSI SCA	10,000	300GB	1,2,3,4,5	
Seagate[†]	Cheetah 10K.7	ST3146007LC	U320 SCSI SCA	10,000	146GB	SD	
Seagate[†]	Cheetah 10K.7	ST3073007LC	U320 SCSI SCA	10,000	73GB	SD	

5.2   Parallel ATA Hard Disk Drives

Manufacturer	Product Family	Model Number	Interface	RPM	Drive Size (GB)	Tested Operating Systems	Comments
Hitachi[†]	Deskstar 180GXP	IC35L180AVV207-1	ATA100	7,200	180GB	1,2,3,4,5	
Hitachi[†]	Deskstar 180GXP	IC35L120AVV207-1	ATA100	7,200	120GB	SD	
Hitachi[†]	Deskstar 180GXP	IC35L090AVV207-1	ATA100	7,200	90GB	SD	
Hitachi[†]	Deskstar 180GXP	IC35L060AVV207-1	ATA100	7,200	60GB	SD	
Hitachi[†]	Deskstar 180GXP	IC35L030AVV207-1	ATA100	7,200	30GB	SD	
Hitachi[†]	Deskstar 7K400	HDS724040KLAT80	ATA100	7,200	400GB	6,7,8	
Maxtor[†]	DiamondMax Plus 9	6Y160P0	ATA133	7,200	160GB	1,2,3,4,5	
Maxtor[†]	DiamondMax Plus 9	6Y200P0	ATA133	7,200	200GB	SD	
Maxtor[†]	DiamondMax Plus 9	6Y120P0	ATA133	7,200	120GB	SD	
Maxtor[†]	DiamondMax Plus 9	6Y080P0	ATA133	7,200	80GB	SD	
Maxtor[†]	DiamondMax Plus 9(Maxline Plus II)	6Y200P0	ATA133	7,200	200GB (8MB cache)	1,2,3,4,5	
Seagate[†]	Barracuda 5 ATA	ST3120023A	ATA100	7,200	120GB (8MB cache)	1,2,3,4,5	
Western Digital[†]	Caviar XL60	WD1200BB-00EEA1	ATA100	7,200	120GB	1,2,3,4,5	
Western Digital[†]	Caviar XL60	WD2000JB	ATA100	7,200	200GB (8MB cache)	1,2,3,4,5	
Western Digital[†]	Caviar XL60	WD2500JB	ATA100	7,200	250GB (8MB cache)	SD	
Western Digital[†]	Caviar XL60	WD1800JB	ATA100	7,200	180GB (8MB cache)	SD	
Western Digital[†]	Caviar XL60	WD1200JB	ATA100	7,200	120GB (8MB cache)	SD	

Manufacturer	Product Family	Model Number	Interface	RPM	Drive Size (GB)	Tested Operating Systems	Comments
5.3 Serial ATA (SATA) Hard Disk Drives							
Hitachi[†]	Deskstar 7K250	HDS722525VLST80	SATA	7,200	250GB	1,2,3,4,5	
Hitachi[†]	Deskstar 7K250	HDS722516VLST80	SATA	7,200	160GB	SD	
Hitachi[†]	Deskstar 7K250	HDS722512VLST80	SATA	7,200	120GB	SD	
Hitachi[†]	Deskstar 7K250	HDS722580VLST80	SATA	7,200	80GB	SD	
Hitachi[†]	Deskstar 7K400	HDS724040KLSA80	SATA	7,200	400GB	1,2,3,4,5,6,7,8	
Maxtor[†]	DiamondMax Plus 9	6Y120M6	SATA	7,200	120GB	1,2,3,4,5	
Maxtor[†]	DiamondMax Plus 9	6Y250M6	SATA	7,200	250GB	SD	
Maxtor[†]	DiamondMax Plus 9	6Y200M6	SATA	7,200	200GB	SD	
Maxtor[†]	DiamondMax Plus 9	6Y160M6	SATA	7,200	160GB	SD	
Maxtor[†]	DiamondMax Plus 9	6Y080M6	SATA	7,200	80GB	SD	
Maxtor[†]	DiamondMax Plus 9	6Y060M6	SATA	7,200	60GB	SD	
Seagate[†]	Barracuda 5 SATA	ST3120023AS	SATA	7,200	120GB	1,2,3,4,5	
Western Digital[†]	WD Raptor	WD360GD	SATA	10,000	36GB	1,2,3,4,5	
Western Digital[†]	WD Raptor	WD740GD	SATA	10,000	74GB	SD	
Western Digital[†]	WD Caviar XL80 II	WD1600JD-00HBB0	SATA	7,200	160GB	1,2,3,4,5	
Western Digital[†]	WD Caviar XL80 II	WD2000JD-00HBB0	SATA	7,200	200GB	SD	
Western Digital[†]	WD Caviar XL80 II	WD2500JD-00HBB0	SATA	7,200	250GB	SD	
5.4 External Hard Disk Drives							
Maxtor[†]	5000XT	5000XT / S01J250	USB2/1.1 & Firewire		250GB	1,2,3,4,5,6,7,8	
Addonics[†]	Combo HD Kit	AEMED35AUM	USB2			1,2,3,4,5	

6.   Tech Tips

6.1   Emulex* LP1050Ex and Qlogic* QLE2360 Fibre Channel Adpaters Experience Delayed Write Failures during Extended Stress Testing

Issue   During Intel's extended stress test runs, fibre channel hard drives attached to the Emulex* LP1050Ex or Qlogic QLE2360 PCI Express fibre channel adapters begin experiencing delayed write failures and were eventually marked offline. These failures have only been seen when running under Microsoft* Windows* Server 2003. Failures have not been seen when running under Novell* Netware* 6.5 or Red Hat* Advanced Server 3.0.

Implication   Fibre channel hard drives may experience delayed write failures or the hard drives may be marked offline if the Emulex* LP1050Ex or Qlogic QLE2360 PCI Express fibre channel adapters are utilized in combination with Intel® Server Board SE7320SP2, SE7520BD2, SE7520AF2, SE7520JR2, or SE7320VP2 and the Microsoft* Windows* Server 2003 operating system, if the system is subjected to extended periods of intensive I/O application stress.

Guideline   The Emulex* LP1050E or Qlogic QLE2360 PCI Express fibre channel adapters should not be utilized with the Intel® Server Board SE7320SP2, SE7520BD2, SE7520AF2, SE7520JR2, or SE7320VP2 with the Microsoft* Windows* Server 2003 operating system. The Emulex LP1050Ex or Qlogic QLE236x PCI Express fibre channel adpateres may be used with therse server boards with Novell* Netware* 6.5 or Red Hat* Advanced Server 3.0.

Status   Intel is currently working with Emulex and Qlogic to investigate a fix for this issue.

6.2   Emulex* LP9802DC PCI-X fibre channel host adapter issue under Netware 6.5

Problem   The Emulex* LP9802DC PCI-X fibre channel host adpater works as expected when in Intel® Server Board on Microsoft Windows* and supported Linux configurations. However, when the adapter is installed in an Intel system with Netware 6.5, the driver is not recognized by Netware. Netware fails to recognize both driver versions 2.00c and 2.02g. The likely source for this failure is a conflict between the Netware operating system and the PCI-X bridge chip that is used on the LP9802DC adapter.

Implication   The Emulex* LP9802DC-F2 adapter driver is not recognized by Novell Netware* 6.5.

Guideline   The Emulex* LP10000DC adpater is a compatible, next generation bridgeless solution, which offers the same feature set with increased performance, work as expected under Novell Netware 6.5 and has been validated as a supported adapter on current Intel® platforms

Status   Intel is currently working with Emulex to investigate a fix for this issue.