Intel® Server Board *SE7210TP1-E*

&

Intel® Server Platform SR1325TP1-E

Tested Hardware and Operating System List

Revision 1.32

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Enterprise Platforms and Services Marketing

Revision History

Date	Revision Number	Modifications
March 2004	1.0	First release.
March 2004	1.1	Add call-out to Server Platform SR1325TP1-E Added Installation Instructions section
April 30, 2004	1.11	Removed Adaptec ASR-2010S PCI SCSI RAID, not compatible
May 03, 2004	1.12	Added SATA RAID support details for SuSE 9.0 and Red Hat Enterprise Linux AS 3.0.
May 14, 2004	1.20	Corrected Maxtor SATA HDD model Number. Removed: RH Linux 8.0, SuSE Linus 8.2, and MS Windows NT 4.0 from the supported OS list (basic installation) due to lack of chipset support in these operating systems.
Sep, 1 , 2004	1.21	Added Hitachi Hard disk Drives and Seagate Hard disk drives
November, 1, 2004	1.3	Removed Maxtor Hard Disk Drives.
December 30, 2004	1.31	Add one errata for Emulex LP9802DC-F2 adapter
Feb 2005	1.32	Add Fujitsu AL-9LE and AL-9LX Hard Disk Drives

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Table of Contents

1. Introduction

This document is intended to provide users of the Intel® server board *SE7210TP1-E* and the Intel® server platform *SR1325TP1-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 *SE7210TP1-E* and the Intel® server platform *SR1325TP1-E* are 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 *SE7210TP1-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.
  - 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 *SE7210TP1-E* testing was performed using the Intel® server chassis *SC*5250 and Intel® server platform SR1325TP1-E.

2. Intel® Server Board SE7210TP1-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 *SE7210TP1-E* are released and/or new system BIOS and BMC firmware 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	BMC Firmware Revision	SC5200 HSC Firmware Revision	Notes
1	SATA	C42681-503	P01	02.31	NA	
2	SCSI	C42680-503	P01	02.31	NA	
3	SATA	C44059-503	P01	02.31	NA	SR1325TP1-E platform with single PCI-slot riser in slot #1

3. Supported Operating Systems

The following table provides a list of supported operating systems for the Intel® server board *SE7210TP1-E*. Each of the listed operating systems was tested for compatibility with Intel® server board *SE7210TP1-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 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 SE7210TP1-E. 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* Server 2003 / Microsoft Windows Small Business Server 2003	Configuration 1,2,3 – Compatibility & Stress	Intel's testing was completed with Microsoft Windows Server 2003. The Intel Server Board SE7210TP1-E supports the operating system portion of Microsoft Windows Small Business Server 2003 only. The application portion is not tested or supported. See Installation Guidelines 6.2
Microsoft Windows 2000 Server, Service Pack 4 / Microsoft Windows Small Business Server 2000	Configuration 1,2,3 – Compatibility & Stress	Intel's testing was completed with Microsoft Windows 2000 Server. The Intel Server Board SE7210TP1-E supports the operating system portion of Microsoft Windows Small Business Server 2000 only. The application portion is not tested or supported.
Microsoft Windows* XP	Configuration 1 – Basic Installation	
Red Hat Enterprise Linux* AS 3.0	Configuration 1,2,3 – Compatibility & Stress	See Installation Guidelines: 6.10

Operating System	Base System Configuration Tested & Type of Testing	Notes
Red Hat Linux* 9.0 Professional	Configuration 1,2,3 – Compatibility & Stress	See Installation Guidelines: 6.1 & 6.5
Novell NetWare* 6.5	Configuration 1 – Basic Installation	See Installation Guidelines: 6.8
Novell NetWare* 5.1	Configuration 1 – Basic Installation	
SuSE* Linux 9.0 Professional	Configuration 1,2,3 – Compatibility & Stress	See Installation Guidelines: 6.10

3.1 Operating System Certifications

Listed below are the operating systems that Intel will certify with the Intel® server board *SE7210TP1-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* Server 2003 Enterprise Edition	Intel® SE7210TP1-E Server	OEM must request certification by Microsoft for their specific product. http://www.microsoft.com/hwdq/hcl/search.asp (Search on SE7210TP1-E) http://developer.intel.com/design/servers/whql.htm
Microsoft Windows* Server 2000 Advanced Server	Intel® SE7210TP1-E Server	OEM must request certification by Microsoft for their specific product. http://www.microsoft.com/hwdq/hcl/search.asp (Search on SE7210TP1-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.
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	Microsoft Windows* Server 2003 Enterprise Edition	Microsoft Windows* Server 2000 Advanced Server	Red Hat Enterprise Linux* ES 3.0	Red Hat Linux* 9.0 Professional	SuSE* Linux 9.0 Professional	Comments
4.1 PCI SCSI RAID									
Adaptec*	ASR-2100S	ASR-2100S	PCI-32/33	1,2	1,3	2	1,3	1	
Adaptec	ASR-2110S	ASR-2110S	PCI-64/66	1,2	1,3	2	1,3	1	
Adaptec	ASR-2120S	ASR-2120S	PCI-64/66	SA	SA	SA	SA	SA	SA = ASR-2200S
Adaptec	ASR-2200S	ASR-2200S	PCI-64/66	1,2	1,3	2	1,3	1	
ICP-Vortex*	GDT8514RZ	GDT8514RZ	PCI-64/66	1,2	1,3	2	1,3	1	
ICP vortex	GDT8623RZ	GDT8623RZ	PCI-64/66	SA	SA	SA	SA	SA	SA = GDT8514RZ
Intel®	SRCU42L	SRCU42L	PCI-64/66	1,2	1,3	2	1,3	1	
Intel	SRCZCR	SRCZCR	PCI-64/66	1	1,3	NT	1	1	
LSI Logic*	MegaRAID SCSI 320-2x	MegaRAID SCSI 320-2x	PCI-X133	1,2	1,3	2	1,3	1	

Manufacturer	Model Number	Model Name	Interface	Microsoft Windows* Server 2003 Enterprise Edition	Microsoft Windows* Server 2000 Advanced Server	Red Hat Enterprise Linux* ES 3.0	Red Hat Linux* 9.0 Professional	SuSE* Linux 9.0 Professional	Comments
LSI Logic	MegaRAID SCSI 320-4x	MegaRAID SCSI 320-4x	PCI-X133	SA	SA	SA	SA	SA	SA = MegaRAID SCSI 320-2x
4.2 Fibre Channel,									
Emulex*	LP9002L	LP9002L	PCI-64/66	1,2	1,3	2	1,3	1	
Emulex	LP9802	LP9802	PCI-X133	SA	SA	SA	SA	SA	SA = LP9002L
Emulex	LP9802DC	LP9802DC	PCI-X133	1,2	1,3	2	1,3	1	
Emulex	LP982L	LP982L	PCI-X133	SA	SA	SA	SA	SA	SA = LP9802DC
Qlogic*	QLA2340	1-Ch 2Gb	PCI-X133	1,2	1,3	2	1,3	1	
QLogic	QLA2342	QLA2342	PCI-X133	SA	SA	SA	SA	SA	SA = QLA2340
4.3 PCI SATA RAID									
Promise*	FastTrak S150 TX4	FastTrak S150 TX4	PCI-32/66	1,2	1,3	NT	1,3	NT	

Manufacturer	Model Number	Model Name	Interface	Microsoft Windows* Server 2003 Enterprise Edition	Microsoft Windows* Server 2000 Advanced Server	Red Hat Enterprise Linux* ES 3.0	Red Hat Linux* 9.0 Professional	SuSE* Linux 9.0 Professional	Comments
3Ware*	8500-4	Escalade 8500-4	PCI-64/66	1,2	1,3	2	1,3	1	
Intel	SRCS14L	SRCS14L	PCI-64/66	1,2	1,3	2	1,3	1	
LSI Logic*	MegaRAID SATA 150-6	MegaRAID SATA 150-6	PCI-64/66	1	1	1	1	1	
LSI Logic	MegaRAID SATA 150-4	MegaRAID SATA 150-4	PCI-64/66	SA	SA	SA	SA	SA	SA = MegaRAID SATA 150-6
Adaptec*	AAR1210SA	AAR1210SA Silicon Image	PCI-32/66 PCI-LP	1,2	1,3	ND	[1],[3]	[1]	[1][3] = No driver support in OS
Adaptec	AAR2410SA	AAR2410SA Silicon Image	PCI-64/66 PCI-LP	1,2	1,3	2	[1],[3]	[1]	[1][3] = No driver support in OS
4.4 PCI SCSI									
Adaptec	ASC-29160LP	ASC-29160LP	PCI-64/66	1,2	1,3	2	1,3	1	
Adaptec	ASC-29160	ASC-29160	PCI-64/66	SA	SA	SA	SA	SA	SA = ASC-29160LP
Adaptec	ASC-29160N	ASC-29160N	PCI-32/33	SA	SA	SA	SA	SA	SA = ASC-29160LP
Adaptec	ASC-39320	ASC-39320	PCI-X133	SA	SA	SA	SA	SA	SA = ASC-29160LP

Manufacturer	Model Number	Model Name	Interface	Microsoft Windows* Server 2003 Enterprise Edition	Microsoft Windows* Server 2000 Advanced Server	Red Hat Enterprise Linux* ES 3.0	Red Hat Linux* 9.0 Professional	SuSE* Linux 9.0 Professional	Comments
Adaptec	ASC-39320A	ASC-39320A	PCI-X133	SA	SA	SA	SA	SA	SA = ASC-29160LP
Adaptec	ASC-39320D-R	ASC-39320D-R	PCI-X133	1, 2	1,3	2	1,3	1	
Adaptec	ASC-39320-R	ASC-39320-R	PCI-X133	SA	SA	SA	SA	SA	SA = ASC-39320D-R
LSI Logic*	LSI20320-R	LSI20320-R	PCI-X133	1,2	1,3	2	1,3	1	
LSI Logic	LSI22320-R	LSI22320-R	PCI-X133	1,2	1,3	2	1,3	1	
4.5 PCI NIC									
3COM*	3C905CX-TX-M	EtherLink 10/100 PCI	PCI 32/33	1,2	1,3	2	1,3	1	
DLink*	DFE - 530/TX+	DFE - 530/TX+	PCI-32/33	1,2	1,3		1,3	1	
Intel®	PWLA8490XF	PRO/1000XF Gigabit Server Adapter	PCI-X133	1,2	1,3	2	[1],3	[1]	[1] = NIC fails in slot #6; fix will be in BIOS P02.
Intel®	PWLA8490XFL	PRO/1000XFL Gigabit Server Adapter	PCI-X133	SA	SA	SA	SA	SA	SA = PWLA8490XF

Manufacturer	Model Number	Model Name	Interface	Microsoft Windows* Server 2003 Enterprise Edition	Microsoft Windows* Server 2000 Advanced Server	Red Hat Enterprise Linux* ES 3.0	Red Hat Linux* 9.0 Professional	SuSE* Linux 9.0 Professional	Comments
Intel	PWLA8490XT	PRO/1000XT Gigabit Server Adapter	PCI-X133	SA	SA	SA	SA	SA	SA = PWLA8490XF
Intel	PWLA8490XTL	PRO/1000XT L Gigabit Server Adapter	PCI-X133	SA	SA	SA	SA	SA	SA = PWLA8490XF
Intel	PWLA8492MF	PRO/1000MF Dual Port Gigabit Server Adapter	PCI-X133	1,2	1,3	[2]	[1],3	[1]	[1][2] = NIC fails in slot #6; fix will be in BIOS P02.
Intel	PWLA8492MT	PRO/1000MT Dual Port Gigabit Server Adapter	PCI-X133	1,2	1,3	[2]	[1],3	[1]	[1][2] = NIC fails in slot #6; fix will be in BIOS P02. See Installation Guidelines 6.3
Intel	PILA8472C3	PRO/100 + Dual Port	PCI-64/66	1,2	1,3	2	1,3	1	
Intel	PWLA8494MT	PRO/1000 MT Quad Port Server Adapter	PCI-X133 PCI-Long	1,2	1,3	[2]	1,3	1	[2] = NIC fails in slot #6; fix will be in BIOS P02.
Intel	PILA8470C3	PRO/100+ S Server	PCI-32/33	1,2	1,3	2	1,3	1	
Intel®	PILA8470D3	PRO/100+ S Server	PCI-32/33	1,2	1,3	2	1,3	1	

Manufacturer	Model Number	Model Name	Interface	Microsoft Windows* Server 2003 Enterprise Edition	Microsoft Windows* Server 2000 Advanced Server	Red Hat Enterprise Linux* ES 3.0	Red Hat Linux* 9.0 Professional	SuSE* Linux 9.0 Professional	Comments
Intel	PWLA8490XF	PRO/1000XF Gigabit Server Adapter	PCI-X133	SA	SA	SA	SA	SA	SA = PILA8470D3
Intel	PWLA8490XFL	PRO/1000XF L Gigabit Server Adapter	PCI-X133	SA	SA	SA	SA	SA	SA = PILA8470D3
Intel	PWLA8490XT	PRO/1000XT Gigabit Server Adapter	PCI-X133	1,2	1,3	[2]	[1],3	[1]	[1][2] = NIC fails in slot #6; fix will be in BIOS P02.
Intel	PWLA8490XTL	PRO/1000XT L Gigabit Server Adapter	PCI-X133	SA	SA	SA	SA	SA	SA = PWLA8490XT
4.6 PCI VIDEO									
ATI*	RADEON 7000	RADEON 7000	PCI-32/33	1,2	3	2	1,3	NT	
ATI	RADEON 7500	RADEON 7500	PCI-32/33	[1],[2]	1,3	2	1,3	NT	[1][2] = NIC fails in slot #6
Matrox*	G450 Millennium	G450 Millennium	PCI-32/33	1,2	1,3	2	1,3	NT	

Manufacturer	Model Number	Model Name	Interface	Microsoft Windows* Server 2003 Enterprise Edition	Microsoft Windows* Server 2000 Advanced Server	Red Hat Enterprise Linux* ES 3.0	Red Hat Linux* 9.0 Professional	SuSE* Linux 9.0 Professional	Comments
4.7 MODEMS									
3COM*	3CP3453	V.Everything 56K Analog Corporate Modem	RS-232	1	1	NT	NT	NT	
3COM	USR5610B	56K V.92 Performance Pro	PCI-32/33	1	1	NT	NT	NT	
4.8 REMOVABLE MEDIA									
Iomega*	32324	ZIP 750MB USB 2.0	USB 2.0	1	1	2	1	2	
Iomega	32548	Mini 128MB USB Drive	USB 2.0	1	1	2	1	2	
RAINBOW*	Sentinel Duo	Sentinel Duo Hardware Key	USB	1	1	ND	ND	ND	
Sony*	PCGA-UFD5	VAIO External USB Floppy	USB	1	1	2	1	2	
Teac*	CDWF540/KIT	CDWF540/KIT	USB	1,2	1	2	1	2	
Teac*	FD-235HF	FD-235HF	Floppy	1,2,3	1,2,3	2	1	2	

Manufacturer	Model Number	Model Name	Interface	Microsoft Windows* Server 2003 Enterprise Edition	Microsoft Windows* Server 2000 Advanced Server	Red Hat Enterprise Linux* ES 3.0	Red Hat Linux* 9.0 Professional	SuSE* Linux 9.0 Professional	Comments
Teac	FDO5PUB	FDO5PUB	USB	1	1	2	1	2	
4.9 TAPE DRIVES									
Sony*	SDX-700C/BM	AIT-3 Desktop	SCSI-U160	1	1	2	1	1,2	
4.10 KVM (KEYBOARD/VIDEO/MOUSE)									
Avocent*	1160ES	1160ES	PS2	1	1	2	1	1	
Belkin	F1DA108T	Omniview PRO2 Series	PS2	1	1	2	1	1	
4.11 INPUT DEVICES									
Keytronic* keyboard	PRO Pilot	PRO Pilot	PS2	1	1	2	1	2	
Logitech*	930582-0403	Optical Mouse	USB/PS2	1	1	2	1	2	
Microsoft*		Intellimouse* Optical	USB/PS2	1	1	2	1	2	

Manufacturer	Model Number	Model Name	Interface	Microsoft Windows* Server 2003 Enterprise Edition	Microsoft Windows* Server 2000 Advanced Server	Red Hat Enterprise Linux* ES 3.0	Red Hat Linux* 9.0 Professional	SuSE* Linux 9.0 Professional	Comments
4.12 CDROM DRIVES									
Iomega*	32497	CD-RW 48x24x48	external USB	1,2,3	1,2	NT	1,2	NT	
LG*	GCE-8240B	U2-12X	USB	NT	NT	NT	1	NT	
Liteon	LTN-485S	LTN-485S-081	ATA	1 ATA33	1	1	1	1	
Mitsumi*	CRMC-FX5401W CDROM	CRMC-FX5401W CDROM	ATA33	1,2,3	1,2	NT	1	NT	
Panasonic*	CW-8121-B	CW-8121-B	ATA	1,2	1,2	NT	NT	NT	
Plextor*	PX-W4824TU/SW	PlexWriter 48x24x48U	USB	1,2	1,2	NT	NT	2	
Plextor	PX-W4012TU	PlexWriter 40x12x40U	USB	NT	NT	NT	1	NT	
Samsung*	SN-124q	SN-124q	ATA33	1,2,3	1,2	NT	1	NT	
Samsung	SC-152	SC-152	ATA33	1	1	NT	1	NT	
Teac	CD-552EA94	CD-552E	ATA	1,2,3	1,2	NT	1	NT	

Manufacturer	Model Number	Model Name	Interface	Microsoft Windows* Server 2003 Enterprise Edition	Microsoft Windows* Server 2000 Advanced Server	Red Hat Enterprise Linux* ES 3.0	Red Hat Linux* 9.0 Professional	SuSE* Linux 9.0 Professional	Comments
4.13 DVDROM DRIVES									
HP*	DVD200i	DVD Writer 200i	ATA33	1,2	1,2	NT	1	NT	
Panasonic*	SR-8177-B	SR-8177-B	ATA33	1,2	1,2	NT	1	NT	
Samsung*	SD-616	SD-616	ATA33	1,2	1,2	NT	1	NT	
Toshiba*	SD-M1612	SD-M1612	ATA33	1,2	1,2	NT	1	NT	
Toshiba	SD-C2312	SD-C2312	ATA33	NT	NT	NT	1	NT	
Toshiba	SD-R2412	SD-R2412	ATA33	1,2	1,2	NT	NT	NT	

5. Hard Disk Drives

The hard drives listed in the following table have been tested with the Intel® server board *SE7210TP1-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* 2003 Enterprise Edition
2	Microsoft Windows* 2000 Advanced Server, Service Pack 4
3	Microsoft Windows* XP
4	Red Hat Enterprise Linux* AS 3.0
5	Red Hat Linux* 9.0 Professional
6	Novell NetWare* 6.5
7	Novell NetWare* 5.1
8	SuSE* Linux 9.0 Professional
9	SuSE* Linux 9.1 Professional

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.
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	Notes
5.1 SCSI Hard Drives							
Fujitsu*	Algero-8LE	MAP3147NC	SCSI-U320-SCA	10k	147GB	1,2,4,5,8	
Fujitsu	Algero-8LE	MAP3367NC	SCSI-U320-SCA	10k	36GB	SA	
Fujitsu	Algero-8LE	MAP3735NC	SCSI-U320-SCA	10k	73GB	SA	
Fujitsu	Algero-8LX	MAS3184NC	SCSI-U320-SCA	15k	18GB	SA	
Fujitsu	Algero-8LX	MAS3367NC	SCSI-U320-SCA	15k	36GB	SA	
Fujitsu	Algero-8LX	MAS3735NC	SCSI-U320-SCA	15k	73GB	4,5,8	
Fujitsu	AL-9LE	MAT3300NC	SCSI-U320-SCA	10k	300GB	1,2,5,8	
Fujitsu	AL-9LE	MAT3147NC	SCSI-U320-SCA	10k	147GB	SD	
Fujitsu	AL-9LE	MAT3735NC	SCSI-U320-SCA	10k	73GB	SD	
Fujitsu	AL-9LX	MAU3036NC	SCSI-U320-SCA	15k	36GB	SD	
Fujitsu	AL-9LX	MAU3073NC	SCSI-U320-SCA	15k	73GB	SD	
Fujitsu	AL-9LX	MAU3147NC	SCSI-U320-SCA	15k	147GB	1,2,5,8	
Hitachi	Ultrastar 10K300	HUS103036EL3800	SCSI LVD	10k	36GB	1,3,4,5,6,7,8,10	
Hitachi	Ultrastar 10K300	HUS103073EL3800	SCSI LVD	10k	73GB	1,3,4,5,6,7,8,10	
Hitachi	Ultrastar 10K300	HUS103014EL3800	SCSI LVD	10k	147GB	1,3,4,5,6,7,8,10	
Hitachi	Ultrastar 10K300	HUS103030EL3800	SCSI LVD	10k	300GB	1,3,4,5,6,7,8,10	
Hitachi	Ultrastar 10K300	HUS103036EL3600	SCSI LVD	10k	36GB	SD	
Hitachi	Ultrastar 10K300	HUS103073EL3600	SCSI LVD	10k	73GB	SD	
Hitachi	Ultrastar 10K300	HUS103014EL3600	SCSI LVD	10k	147GB	SD	
Hitachi	Ultrastar 10K300	HUS103030EL3600	SCSI LVD	10k	300GB	SD	
Hitachi*	Ultrastar 146Z10	IC35L018UCDY10	SCSI-U320-SCA	10k	18GB	SA	
Hitachi	Ultrastar 146Z10	IC35L036UCDY10	SCSI-U320-SCA	10k	36GB	SA	
Hitachi	Ultrastar 146Z10	IC35L073UCDY10	SCSI-U320-SCA	10k	73GB	SA	
Hitachi	Ultrastar 146Z10	IC35L146UCDY10	SCSI-U320-SCA	10k	146GB	1,2,4,5,8	
Seagate*	Cheetah 10k.6	ST3146807LC	SCSI-U320-SCA	10k	146GB	1,2,4,5,8	
Seagate	Cheetah 10k.6	ST336607LC	SCSI-U320-SCA	10k	36GB	SA	
Seagate	Cheetah 10k.6	ST373307LC	SCSI-U320-SCA	10k	73GB	SA	
Seagate*	Cheetah 10k.7	ST3300007LC	U320	10k	293.6GB	IHVT 1,2,4,5,9	
Seagate	Cheetah 10k.7	ST3146707LC	U320	10k	146.7GB	SD	

Manufacturer	Product Family	Model Number	Interface	RPM	Drive size (GB)	Tested Operating Systems	Notes
Seagate	Cheetah 10k.7	ST373207LC	U320	10k	73.4GB	SD	
Seagate	Cheetah 15K.3	ST318453LC	SCSI/U320	15k	18GB	SA	
Seagate	Cheetah 15K.3	ST336753LC	SCSI/U320	15k	36GB	4,5,8	
Seagate	Cheetah 15K.3	ST373453LC	SCSI/U320	15k	73GB	1,2,4,5,8	
5.2 Parallel ATA (PATA) Hard Drives							
Hitachi	Deskstar 180GXP	IC35L030AVV207	ATA/100	7,200	30GB	SA	
Hitachi	Deskstar 180GXP	IC35L060AVV207	ATA/100	7,200	60GB	SA	
Hitachi	Deskstar 180GXP	IC35L090AVV207	ATA/100	7,200	80GB	SA	
Hitachi	Deskstar 180GXP	IC35L120AVV207	ATA/100	7,200	120GB	SA	
Hitachi	Deskstar 180GXP	IC35L180AVV207	ATA/100	7,200	180GB	1,2,4,5,8	
Western Digital*	Caviar Special Edition	WD1200JB	ATA/100	7,200	120GB	SA	
Western Digital	Caviar Special Edition	WD1800JB	ATA/100	7,200	180GB	SA	
Western Digital	Caviar Special Edition	WD2000JB	ATA/100	7,200	200GB	1,2,4,5,8	
Western Digital	Caviar Special Edition	WD2500JB	ATA/100	7,200	250GB	SA	
Seagate*	Barracuda ATA V	ST3120023A	ATA/100	7,200	120GB	1,2,4,5,8	
Seagate	Barracuda 7200.7	ST3120026A	ATA/100	7,200	120GB	SA	
Seagate	Barracuda 7200.7	ST3160023A	ATA/100	7,200	160GB	SA	
Seagate	Barracuda 7200.7	ST380013A	ATA/100	7,200	80GB	SA	
5.3 Serial ATA (SATA) Hard Drives							
Seagate	Barracuda 7200.7	ST312002xAS	SATA/150	7,200	120GB	SD	Installation Guidelines: 6.10
Seagate	Barracuda SATA V	ST316002xAS	SATA/150	7,200	160GB	SD	Installation Guidelines: 6.10
Seagate	Barracuda 7200.7	ST3200822AS	SATA/150	7,200	200GB	IHVT 1,2,4,5,6,8,9	Installation Guidelines: 6.10
Seagate	Barracuda 7200.7	ST38001xAS	SATA/150	7,200	80GB	SD	Installation Guidelines: 6.10

Manufacturer	Product Family	Model Number	Interface	RPM	Drive size (GB)	Tested Operating Systems	Notes
Western Digital*	Raptor	WD360GD	SATA/150	10k	36GB	1,2,4,5,8	Installation Guidelines: 6.10
Western Digital	Raptor	WD740GD	SATA/150	10k	74GB	SA	Installation Guidelines: 6.10
Western Digital	Caviar	WD2500JD	SATA/150	10k	250GB	1,2,4,5,8	Installation Guidelines: 6.10
Hitachi	Deskstar 7K250(Vancouver III)	HDS722525VLSA 80	SATA/150	7,200	250GB	IHVT 1,2,3,5,8	Installation Guidelines: 6.10
Hitachi	Deskstar 7K250(Vancouver III)	HDS722516VLSA 80	SATA/150	7,200	160GB	SD	Installation Guidelines: 6.10
Hitachi	Deskstar 7K250(Vancouver III)	HDS722512VLSA 80	SATA/150	7,200	120GB	SD	Installation Guidelines: 6.10
Hitachi	Deskstar 7K250(Vancouver III)	HDS722580VLSA 80	SATA/150	7,200	80GB	SD	Installation Guidelines: 6.10
Hitachi	Deskstar 7K250(Vancouver III)	HDS722540VLSA 80	SATA/150	7,200	40GB	SD	Installation Guidelines: 6.10

5.4 USB Hard Disk Drives

Addonics*	Combo Hard Drive Kit	AEMED35AUM	USB	NA	NA	1,2,4,5,8	

6. Installation Guidelines

6.1 Steps to install Red Hat* Linux 9.0 SMP kernel on a UP system.

Issue: Intel has determined that installation of RedHat Linux 9.0 SMP kernel on a UP system may not be intuitive. Steps to install are outlined below.

Guideline: Option #1 During installation:

1) During installation, select "Customize install".
2) At the package selection screen, go to the bottom of the page and check the "select individual package" box and next to continue.
3) At the individual package selection page, go to system environment section under Kernel, and check on kernel-smp.
4) Continue and complete the installation.

Option #2 Use rpm to install SMP package after installation:

rpm -Uvh /mnt/cdrom/RedHat/RPMS/kernel-smp-2.4.18-14.i686.rpm

Status: Use the instructions above to install the SMP kernel.

6.2 Microsoft* Windows* 2003 Enterprise Edition does not shutdown succsessfully with SATA OS-boot drive and PATA drive attached

Issue: Microsoft Windows 2003 Enterprise Edition does not shutdown successfully when SATA drive contains boot OS and there is a PATA (IDE) drive attached.

Workaround: Use power shitch to power down system after shutdown halts.

Status: Investigation

6.3 Gigabit NIC failed in PCI slot 6 when during stress testing under Linux.

Issue: Gigabit NIC (PWLA8492MT) failed in PCI slot 6 when during stress testing under Red Hat Linux and SuSE Linux. This issue only exists with BIOS P01.

Workaround: Avoid installation of Intel PWLA8492MT NIC in slot #6 when running Linux OS

Status: Fixed in BIOS P02.01 or later.

6.4 Red Hat Linux 8.0 installation does not have enough conventional memory to run.

Issue: There is not enough conventional memory available in the system when installing Red Hat Linux 8.0 using GURB version 0.92.

Workaround: Install Red Hat Linux 8.0 using GRUB version 0.93 or use Lilo.

Status: Using GRUB version 0.93 or use Lilo fixes the issue.

6.5 Red Hat Linux 9.0 and SuSE Linux 8.2 kernels do not support Intel® 6300ESC I/O Controller Hub

Issue: The OS reports the Intel® 6300ESC I/O Controller Hub as unknown devices because the OS kernel does not contain support this device.

Red Hat Linux 9.0 kernel 2.4.20-8 does not include native support for Intel® 6300ESC I/O Controller Hub.

Implication: Accessing the disk in PIO mode is considerably slower than DMA mode.
Installation of operating system is in PIO mode, DMA mode is not supported.
Read and write on PATA and SATA drives uses POI mode only, DMA mode is not supported.
Format of a SATA hard drive has taken ~4 times as long as PATA hard drive of similar size.

Workaround: None.

Status: No fix. This newer hardware is not supported by older operation systems, and the OS vender has no plans to provide an update to the OS.

6.6 Set Supervisor Password, <F1> key has no function when entering the wrong password three times.

Issue: Set supervisor password in BIOS setup reboot system, when asked for password enter incorrect password three times and a prompt to press <F1> to continue is displayed. I <F1> is pressed nothing happens.

Workaround: When prompted to press <F1>, press <F2> instead.

Status: Fixed in system BIOS P02.10 or later.

6.7 SCSI card not seen in PCI slot #6 or #3 when onboard SCSI is enabled and PCI slots #1 & #2 are populated

Issue: System does not see the SCSI adapter installed in PCI slot #6 or in slot #3, when the onboard SCSI is enabled & PCI slots 1 & 2 are populated.

Workaround: Remove cards with option ROM or disable the onboard SCSI.

Status: BIOS P02.10 displays warning that option ROM space has been exceeded.

6.8 Novell Netware 6.5 failed to load driver for onboard SCSI

Issue: Novell Netware 6.5 failed to load driver for AIC7901 onboard SCSI.

Workaround: None.

Status: Fixed with driver update from Novell ADPU320.HAM (v.3.00.13 Feb-12-04); or download from support.intel.com.

6.9 System hang during POST while enumerating USB hub (on USB keyboard)

Issue: If USB keyboard with built in USB hub is installed system will hang during POST while enumerating the USB hub. This issue only exists with BIOS P01.

Workaround: Work-around:
1- Enter BIOS setup; configure USB 2.0 to operate at “FullSpeed”
2- Enter BIOS setup; Disable USB 2.0

Status: Fix in BIOS P02.10 or later.

6.10 There are no SATA RAID drivers available for Red Hat Linux* AS 3.0 and SuSE* Linux 9.0 Professional

Issue: No support for SATA RAID 0 or 1 under these Operating Systems.

Implication: No support for SATA RAID 0 or 1 under these Operating Systems.

Workaround: None.

Status: None.

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

Issue: The Emulex* LP9802DC PCI-X fibre channel host adapter 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 Installation Guidelines Tested Hardware and Operating System List.

Workaround: The Emulex LP10000DC adapter is a compatible, next generation bridgeless solution, which offers the same feature set with increased performance, works 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..