Intel® Server Boards S3210SH/S3200SH

Tested Hardware and Operating System List

Revision 2.2

November 2008

Enterprise Platforms and Services Marketing

Revision History

Date	Revision Number	Modifications
Sep 2007	1.0	Initial release.
Nov 2007	1.1	Added updates to NIC adapters.
Dec 2007	1.2	Added updates to RAID adapters.
Jan 2008	1.3	Removed HDDs and added updates to RAID adapters.
Mar 2008	1.4	Removed Microsoft Windows 2000* support due to ICH9R compatibility issues.
Mar 2008	1.5	Added SAS HW RAID adapters.
Apr 2008	1.6	Removed 3 HW RAID adapters and added Windows XP
Apr 2008	1.7	Added SAS HW RAID adapters.
May 2008	1.8	Added Windows 2008
Jun 2008	1.9	Added several Adaptec SAS RAID cards
Sep 2008	2.0	Added Solaris 10U5 as P2 OS
Oct 2008	2.1	Added Teac DV-28S-VZ3
Nov 2008	2.2	Added RAID adapters

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Table of Contents

1. Introduction

This document is intended to provide users of the Intel® Server Boards S3210SH/S3200SH 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 Boards S3210SH/S3200SH 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 Boards S3210SH/S3200SH are 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 testing with the Intel® Server Boards S3210SH/S3200SH was performed using the Intel® Entry Server Chassis SC5295-E.

2. Base System Configurations

The following table lists the base system configurations tested. Base system configurations will change as new revisions of the Intel® Server Boards S3210SH/S3200SH are released and/or new system BIOS is 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	S3200SHL	204	26	
2	S3210SHLC	204	26	
3	S3210SHLX	204	26	
4	S3200SHL	204	26	
5	S3200SHV	204	26	
6	S3210SHLX	204	26	
7	S3200SHLC	204	26	
8	S3200SHL	202	23	
9	S3200SHC	201	33	
10	S3200SHL	204	39	
11	S3210SHLC	204	39	
12	S3210SHLX	204	39	
13	S3200SHL	204	39	
14	S3200SHC	201	42	
15	S3200SHL	301	44	

3. Supported Operating Systems

The following table provides a list of supported operating systems for the Intel® Server Boards S3210SH/S3200SH. Each of the listed operating systems was tested for compatibility with the Intel® Server Boards S3210SH/S3200SH 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 is 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® System Management software or LANDesk* Client Manager software may be different than the operating systems supported by the Intel® Server Boards S3210SH/S3200SH. 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* Enterprise Edition, SP2	Configuration 1, 4, 5, 6 – Compatibility & Stress Compatibility 9	
Microsoft Windows Server 2003* Enterprise Edition for EM64T, SP2	Configuration 1, 4, 5, 6 – Compatibility & Stress Compatibility 9	
SuSE* Linux Enterprise Server 10 , SP1	Configuration 1 – Compatibility & Stress	Note: SP1 required.
SuSE* Linux Enterprise Server 10, SP1, EM64T	Configuration 1 – Compatibility & Stress	Note: SP1 required.
RedHat* Enterprise Linux 5.0 AS, Update1	Configuration 1 – Compatibility & Stress Compatibility 9	Note: Update1 required.
RedHat* Enterprise Linux 5.0 AS, Update1 EM64T	Configuration 1 – Compatibility & Stress Compatibility 9	Note: Update1 required.

Operating System	Base System Configuration Tested & Type of Testing	Notes
Microsoft Windows Server 2008* Enterprise Edition	Configuration 1, 4, 5, 6 – Compatibility & Stress Compatibility 9	
Microsoft Windows Server 2008* Enterprise Edition for EM64T	Configuration 1, 4, 5, 6 – Compatibility & Stress Compatibility 9	
RedHat* Enterprise Linux 4.0 AS, UP4	Configuration 1, 4, 5, 6 – Basic Installation	
RedHat* Enterprise Linux 4.0 AS, UP4, EM64T	Configuration 1, 4, 5, 6 – Basic Installation	
SuSE* Linux Enterprise Server 9 , SP4	Configuration 4, 5 and 6 – Basic Installation	
SuSE* Linux Enterprise Server 9, SP4, EM64T	Configuration 4, 5 and 6 – Basic Installation	
Novell* NetWare 6.5, SP6	Configuration 1, 4, 5, 6 – Basic Installation	
Windows XP Professional, SP2, 32-bit	Configuration 1, 4, 5, 6 – Basic Installation	Note: Doesn't support install from an external USB DVD drive when RAID mode is enabled.
Solaris 10U5	Configuration 15 – Basic Installation	Note: To use X-Windows GUI, edit the script /usr/bin/X11/Xserver and use the following arguments to make color depth not larger than 16 bit SERVERARGS="-depth 16 -fbbpp 16"

3.1 Operating System Certifications

Listed below are the operating systems that Intel will certify with the Intel® Server Boards S3210SH/S3200SH. 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 Edition, SP2	WHQL ID: S3210SHL (Ref: 1271761) S3210SHLC (Ref: 1270915) S3200SHV (Ref: 1270922) S3210SHLX (Ref: 1271050)	

Operating System	Certification Listing	Comments
Microsoft Windows 2003*, Enterprise Edition, SP2, EM64T	WHQL ID: S3210SHL(Ref: 1271761) S3210SHLC(Ref: 1270915) S3200SHV(Ref: 1270922) S3210SHLX(Ref: 1271050)	
Microsoft Windows 2008*, Enterprise Edition	WHQL ID: S3210SHL (Ref: 1289590) S3210SHLC (Ref: 1288951) S3200SHV (Ref: 1289590) S3210SHLX (Ref: 1290388)	
Microsoft Windows 2008*, Enterprise Edition, EM64T	WHQL ID: S3210SHL (Ref: 1289590) S3210SHLC (Ref: 1288951) S3200SHV (Ref: 1289590) S3210SHLX (Ref: 1290388)	
RedHat* Enterprise Linux 5.0 AS	Certified ID: TBD(S3210SHLX) TBD (S3200SH) TBD (S3200SHV)	
RedHat* Enterprise Linus 5.0 AS , EM64T	Certified ID: TBD(S3210SHLX) TBD (S3200SH) TBD (S3200SHV)	
SuSE* Linux Enterprise Server 10	Certified ID: S3210SHLC (Ref: 92437, 92438) S3210SHLX (Ref: 92467, 92471)	
SuSE* Linux Enterprise Server 10, EM64T	Certified ID: S3210SHLC (Ref: 92468, 92469) S3210SHLX (Ref: 92472, 92470))	
SCO OpenServer 6	S3200SHL	http://wdb1.sco.com/chwp/owa/hch_model_cert_page?f_model_id=99311&f_release_id=601&f_vendor_search_corp_id=

Operating System	Certification Listing	Comments
SCO UnixWare 7.1.4	S3200SHL	http://wdb1.sco.com/chwp/owa/hch_model_cert_page?f_model_id=99311&f_release_id=600&f_vendor_search_corp_id%20=
SCO OpenServer 5.0.7	S3200SHL	http://wdb1.sco.com/chwp/owa/hch_model_cert_page?f_model_id=99311&f_release_id=378&f_vendor_search_corp_id%20=

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.

Vendor	Model	Description	Interface	Keying	Form Factor	Microsoft Windows 2003* EE SP2	Microsoft Windows Server 2003* EE EM64T SP2 RedHat* EL5 U1	RedHat* EL5 EM64T U1	SuSE* Linux ES10 SP1	SuSE* Linux ES10 EM64T SP1	Microsoft Windows 2008* EE	Microsoft Windows Server 2008* EE EM64T
Network Interface Controllers (NICs)												
Intel®	PILA8470D3	PRO100+ S Server	PCI-32/33	Universal	PCI-Short	1, 2, 3, 4	1, 2, 3, 4	1, 2, 3, 4	1, 2, 3, 4	1, 2, 3, 4	1, 2, 3, 4	
Intel	PILA8472C3	Pro/100+ Dual Port	PCI-64/66	Universal	PCI-Short	3, 10, 11, 12, 13	3, 10, 11, 12, 13	3, 10, 11, 12, 13	3, 10, 11, 12, 13	3, 10, 11, 12, 13	3, 10, 11, 12, 13	10, 11, 12, 13	10, 11, 12, 13
Intel	PWLA8490MT	Pro/1000MT Gigabit Server	PXI-X 133	Universal	PCI-LP/RP	3, 10, 11, 12, 13	3, 10, 11, 12, 13	3, 10, 11, 12, 13	3, 10, 11, 12, 13	3, 10, 11, 12, 13	3, 10, 11, 12, 13	10, 11, 12, 13	10, 11, 12, 13
Intel	PWLA8492MT	Pro/1000MT Dual Port Gigabit Server	PXI-X 133	Universal	PCI-LP/RP	3, 10, 11, 12, 13	3, 10, 11, 12, 13	3, 10, 11, 12, 13	3, 10, 11, 12, 13	3, 10, 11, 12, 13	3, 10, 11, 12, 13	10, 11, 12, 13	10, 11, 12, 13
Intel	EXPI9300PT	1 port, 1GbE	PCI Express	X1	PCI-Short	1, 2, 3, 4,10, 11, 12, 13	1, 2, 3, 4,10, 11, 12, 13	1, 2, 3, 4,10, 11, 12, 13	1, 2, 3, 4,10, 11, 12, 13	1, 2, 3, 4,10, 11, 12, 13	1, 2, 3, 4,10, 11, 12, 13	10, 11, 12, 13	10, 11, 12, 13
Intel	EXPI9400PT	1 port 1000Base-T, 1Gb	PCI Express	X1	PCI-Short	1, 2, 3, 4,10, 11, 12, 13	1, 2, 3, 4,10, 11, 12, 13	1, 2, 3, 4,10, 11, 12, 13	1, 2, 3, 4,10, 11, 12, 13	1, 2, 3, 4,10, 11, 12, 13	1, 2, 3, 4,10, 11, 12, 13	10, 11, 12, 13	10, 11, 12, 13
Intel	EXPI9402PT	2 port 1000Base-T, 1Gb	PCI Express	X4	PCI-Short	1, 2, 3, 4,10, 11, 12, 13	1, 2, 3, 4,10, 11, 12, 13	1, 2, 3, 4,10, 11, 12, 13	1, 2, 3, 4,10, 11, 12, 13	1, 2, 3, 4,10, 11, 12, 13	1, 2, 3, 4,10, 11, 12, 13	10, 11, 12, 13	10, 11, 12, 13
Intel	EXPI9404PT	4 port 1000Base-T, 1GbE	PCI Express	X4	PCI-Short	1, 2, 3, 4,10, 11, 12, 13	1, 2, 3, 4,10, 11, 12, 13	1, 2, 3, 4,10, 11, 12, 13	1, 2, 3, 4,10, 11, 12, 13	1, 2, 3, 4,10, 11, 12, 13	1, 2, 3, 4,10, 11, 12, 13	10, 11, 12, 13	10, 11, 12, 13
Syskonnect*	SK-9E21D	1 port 10/100/1000 LAN	PCI Express	X1	PCI-Short	1, 2, 3, 4,10, 11, 12, 13	1, 2, 3, 4,10, 11, 12, 13	1, 2, 3, 4,10, 11, 12, 13	1, 2, 3, 4,10, 11, 12, 13	1, 2, 3, 4,10, 11, 12, 13	1, 2, 3, 4,10, 11, 12, 13	10, 11, 12, 13	10, 11, 12, 13
Syskonnect	SK-9E22	2 port 10/100/1000 LAN	PCI Express	X4	PCI-Short	1, 2, 3, 4	1, 2, 3, 4	1, 2, 3, 4	1, 2, 3, 4	1, 2, 3, 4	1, 2, 3, 4		
SCSI RAID Controllers												
Intel	SRCU42E	2 channel, U320	PCI Express	X8	PCI-Med	1, 2, 3, 4, 5, 6, 7	1, 2, 3, 4, 5, 6, 7	1, 2, 3, 4	1, 2, 3, 4	1, 2, 3, 4	1, 2, 3, 4		
Intel	SRCU41L	1 channel, U320	PCI-64/66	Universal	PCI-LP/RP	3, 6, 10, 11, 12,13	3, 6, 10, 11, 12,13	3, 10, 11, 12,13	3, 10, 11, 12,13	3, 10, 11, 12,13	3, 10, 11, 12,13	10, 11, 12, 13	10, 11, 12, 13
Intel	SRCU42X	2 channel, U320	PCI-X 133	Universal	PCI-Short	3, 6, 10,	3, 6, 10,	3, 10, 11,	3, 10, 11,	3, 10, 11,	3, 10, 11,	10, 11,	10, 11,

						11, 12,13	11, 12,13	12,13	12,13	12,13	12,13	12, 13	12, 13
LSI Logic	MegaRAID SCSI 320-2	2 channel, U320	PCI-64/66	Universal	PCI-Short	3, 6, 10, 11, 12,13	3, 6, 10, 11, 12,13	3, 10, 11, 12,13	3, 10, 11, 12,13	3, 10, 11, 12,13	3, 10, 11, 12,13	10, 11, 12, 13	10, 11, 12, 13
LSI Logic	MegaRAID SCSI 320-1	1 channel, U320	PCI-64/66	Universal	PCI-Short	SA	SA	SA	SA	SA	SA	10, 11, 12, 13	10, 11, 12, 13
LSI Logic*	MegaRAID SCSI 320-2E	2 channel, U320	PCI Express	X8	PCI-Med	1, 2, 3, 4, 5, 6, 7	1, 2, 3, 4, 5, 6, 7	1, 2, 3, 4	1, 2, 3, 4	1, 2, 3, 4	1, 2, 3, 4		
LSI Logic*	MegaRAID SCSI 320-2X	2 channel, U320	PCI-X133	Universal	PCI-Med	10, 11, 12, 13	10, 11, 12, 13	10, 11, 12, 13	10, 11, 12, 13	10, 11, 12, 13	10, 11, 12, 13	10, 11, 12, 13	10, 11, 12, 13
Adaptec	ASC-29320 LPE	1 channel U320 1 external / 1 internal	PCI Express	X1	PCI-LP/RP	10, 11, 12, 13	8, 10, 11, 12, 13	10, 11, 12, 13	10, 11, 12, 13	10, 11, 12, 13	10, 11, 12, 13	10, 11, 12, 13	10, 11, 12, 13
Adaptec	ASR-2230S		PCI-X133	Universal		10, 11, 12, 13	10, 11, 12, 13	10, 11, 12, 13	10, 11, 12, 13	10, 11, 12, 13	10, 11, 12, 13	10, 11, 12, 13	10, 11, 12, 13
SCSI Controllers													
Adaptec	ASC-39320A-R	2 channel U320 2 external / 2 internal connectors	PCI-X133	Universal	PCI-Short	3, 10, 11, 12, 13	3, 10, 11, 12, 13	3, 10, 11, 12, 13	3, 10, 11, 12, 13	3, 10, 11, 12, 13	3, 10, 11, 12, 13	10, 11, 12, 13	10, 11, 12, 13
Adaptec	ASC-29160	1 channel U160, for tape drive only	PCI-64/66	Universal	PCI-Short	3	3	3	3	3	3		
Adaptec	ASC-29320ALP-R	1 channel U320 SCSI, 1 external / 1 internal	PCI-X 133	Universal	PCI-LP/RP	3, 10, 11, 12, 13	3, 10, 11, 12, 13	3	3	3, 10, 11, 12, 13	3, 10, 11, 12, 13	10, 11, 12, 13	10, 11, 12, 13
LSI Logic	LSI20160	1 channel U160 SCSI, for tape drive only	PCI-32/33	Universal	PCI-LP/RP	1, 2, 3, 4,10, 11, 12, 13	1, 2, 3, 4,10, 11, 12, 13	1, 2, 3, 4,10, 11, 12, 13	1, 2, 3, 4,10, 11, 12, 13	1, 2, 3, 4,10, 11, 12, 13	1, 2, 3, 4,10, 11, 12, 13	10, 11, 12, 13	10, 11, 12, 13
LSI Logic	LSI22320-R	2 channel U320 SCSI	PCI-X 133	Universal	PCI-Short	3, 10, 11, 12, 13	3, 10, 11, 12, 13	3	3, 10, 11, 12, 13	3, 10, 11, 12, 13	3, 10, 11, 12, 13	10, 11, 12, 13	10, 11, 12, 13
SATA RAID Controllers													
Intel	SRCS16	6 port, SATA 1.5G, RAID 0, 1, 10, 5, 50	PCI-64/66	Universal	PCI-Med	3	3	3	3	3	3		
Intel	SRCS28X	8 port SATA 3.0G, RAID 0, 1, 10, 5, 50	PCI-X 133	Universal	PCI-Short	3, 10, 11, 12, 13	3, 10, 11, 12, 13	3, 10, 11, 12, 13	3, 10, 11, 12, 13	3, 10, 11, 12, 13	3, 10, 11, 12, 13	10, 11, 12, 13	10, 11, 12, 13
Intel	SRCSATAWB	8 port SATA 3.0G	PCI Express	X4	PCI-Med	1, 2, 3, 4, 5, 6, 7	1, 2, 3, 4, 5, 6, 7	1, 2, 3, 4, 5, 6, 7	1, 2, 3, 4, 5, 6, 7	1, 2, 3, 4, 5, 6, 7	1, 2, 3, 4, 5, 6, 7		
LSI Logic	MegaRAID SATA 150-6	6 port SATA 1.5G, RAID 0, 1, 10, 5	PCI-64/66	Universal	PCI-Short	3	3	3	3	3	3		

Adaptec*	AAR-2410SA	4-port, SATA 1.0, RAID 0, 1. 2x Silicon Image w/Zion	PCI-64/66	Universal	PCI-LP	3	3	3	3	3	3		
AMCC/3Ware	9650SE-12ML	SATA 3GB 12 ports	PCI Express	X8	PCI-Med		8			8			
AMCC/3Ware	9650SE-16ML	SATA 3GB 16 ports	PCI Express	X8	PCI-Med		SA			SA			
AMCC/3Ware	9650SE-24M8	SATA 3GB 24 ports	PCI Express	X8	PCI-Med		SA			SA			
AMCC/3Ware	9650SE-2LP	SATA 3GB 2 ports	PCI Express	X1	PCI-Med		SA			SA			
AMCC/3Ware	9650SE-4LPML	SATA 3GB 4 ports	PCI Express	X4	PCI-Med		SA			SA			
AMCC/3Ware	9650SE-8LPML	SATA 3GB 8 ports	PCI Express	X4	PCI-Med		SA			SA			
SAS RAID Controllers													
Intel	SRCSAS18E	SAS 3GB 8 internal ports	PCI Express	X8	PCI-Med	1, 2, 3, 4,10, 11, 12, 13	1, 2, 3, 4,10, 11, 12, 13	1, 2, 3, 4,10, 11, 12, 13	1, 2, 3, 4	1, 2, 3, 4,10, 11, 12, 13	1, 2, 3, 4,10, 11, 12, 13	10, 11, 12, 13	10, 11, 12, 13
Intel	SRCSAS144E	SAS 3GB 4 internal ports	PCI Express	X4	PCI-Med	1, 2, 3, 4,10, 11, 12, 13	1, 2, 3, 4,10, 11, 12, 13	1, 2, 3, 4,10, 11, 12, 13	1, 2, 3, 4,10, 11, 12, 13	1, 2, 3, 4,10, 11, 12, 13	1, 2, 3, 4,10, 11, 12, 13	10, 11, 12, 13	10, 11, 12, 13
Intel	SRCSASPH16I	SAS 3GB 16 internal ports	PCI Express	X8		1, 2, 3, 4, 5, 6, 7, 10, 11, 12, 13	1, 2, 3, 4, 5, 6, 7, 10, 11, 12, 13	1, 2, 3, 4, 5, 6, 7, 10, 11, 12, 13	1, 2, 3, 4, 5, 6, 7, 10, 11, 12, 13	1, 2, 3, 4, 5, 6, 7, 10, 11, 12, 13	1, 2, 3, 4, 5, 6, 7, 10, 11, 12, 13		
Intel	SRCSASBB8I	SAS 3GB 8 internal ports	PCI Express	X8	PCI-Med	1, 2, 3, 4, 5, 6, 7, 10, 11, 12, 13	1, 2, 3, 4, 5, 6, 7, 10, 11, 12, 13	1, 2, 3, 4, 5, 6, 7, 10, 11, 12, 13	1, 2, 3, 4, 5, 6, 7, 10, 11, 12, 13	1, 2, 3, 4, 5, 6, 7, 10, 11, 12, 13	1, 2, 3, 4, 5, 6, 7, 10, 11, 12, 13		
Intel	SRCSASLS4I	SAS 3GB 4 internal ports	PCI Express	X8	PCI-Med	1, 2, 3, 4, 5, 6, 7	1, 2, 3, 4, 5, 6, 7	1, 2, 3, 4, 5, 6, 7	1, 2, 3, 4, 5, 6, 7	1, 2, 3, 4, 5, 6, 7	1, 2, 3, 4, 5, 6, 7		
Intel	SASMF8I	SAS 3GB 8 internal ports	PCI Express	X4	PCI-LP	1, 2, 3, 4, 5, 6, 7	1, 2, 3, 4, 5, 6, 7	1, 2, 3, 4, 5, 6, 7	1, 2, 3, 4, 5, 6, 7	1, 2, 3, 4, 5, 6, 7	1, 2, 3, 4, 5, 6, 7		
Intel	SRCSASRB	SAS 3GB 8 internal ports	PCI Express	X4	PCI-Med	1, 2, 3, 4, 5, 6, 7	1, 2, 3, 4, 5, 6, 7	1, 2, 3, 4, 5, 6, 7	1, 2, 3, 4, 5, 6, 7	1, 2, 3, 4, 5, 6, 7	1, 2, 3, 4, 5, 6, 7		
Intel	SRCSASJV	SAS 3GB 8 ports	PCI Express	X8	PCI-Med	1, 2, 3, 4, 5, 6, 7, 10, 11,	1, 2, 3, 4, 5, 6, 7, 10, 11,	1, 2, 3, 4, 5, 6, 7, 10, 11,	1, 2, 3, 4, 5, 6, 7, 10, 11,	1, 2, 3, 4, 5, 6, 7, 10, 11,	1, 2, 3, 4, 5, 6, 7, 10, 11,	10, 11, 12, 13	10, 11, 12, 13

						12, 13	12, 13	12, 13	12, 13	12, 13	12, 13		
Intel	SASWT4I	SAS 3GB 4 internal ports	PCI Express	X4	PCI-Med	10, 11, 12, 13	10, 11, 12, 13	10, 11, 12, 13	10, 11, 12, 13	10, 11, 12, 13	10, 11, 12, 13	10, 11, 12, 13	10, 11, 12, 13
Intel	SASUC8I	SAS 3GB 8 internal ports	PCI Express	X8	PCI-Med	10, 11, 12, 13	10, 11, 12, 13	10, 11, 12, 13	10, 11, 12, 13	10, 11, 12, 13	10, 11, 12, 13	10, 11, 12, 13	10, 11, 12, 13
Adaptec	ASC-48300	8 port SAS	PCI-X 133	Universal	PCI-LP/RP	3, 10, 11, 12, 13	3, 10, 11, 12, 13	3, 10, 11, 12, 13	3, 10, 11, 12, 13	3, 10, 11, 12, 13	3, 10, 11, 12, 13	10, 11, 12, 13	10, 11, 12, 13
LSI Logic	3442E	8 port SW SAS RAID	PCI Express	X8	PCI-LP/RP	3, 10, 11, 12, 13	3, 10, 11, 12, 13	3, 10, 11, 12, 13	3, 10, 11, 12, 13	3, 10, 11, 12, 13	3, 10, 11, 12, 13	10, 11, 12, 13	10, 11, 12, 13
LSI Logic	MegaRAID SAS 8480E	Brockton/1068 SAS 3GB 8 external ports	PCI Express	X8	PCI-Med	2, 3, 4	2, 3, 4	2, 3, 4	2, 3, 4	2, 3, 4	2, 3, 4		
LSI Logic	MegaRAID SAS 8308ELP	Brockton/1068 SAS 3GB 8 internal ports	PCI Express	X4	PCI-LP/RP	SA	SA	SA	SA	SA	SA	10, 11, 12, 13	10, 11, 12, 13
LSI Logic	MegaRAID SAS 8344ELP	Brockton/1068 SAS 3GB 4 internal / 4 external ports	PCI Express	X4	PCI-LP/RP	SA	SA	SA	SA	SA	SA		
LSI Logic	MegaRAID SAS 8408E	Brockton/1068 SAS 3GB 8 internal ports	PCI Express	X8	PCI-Med	SA	SA	SA	SA	SA	SA		
AMCC/3Ware	9690SA-8I	SAS 3GB 8 ports	PCI Express	X8	PCI-Med	8	8			8			
AMCC/3Ware	9690SA-8E	SAS 3GB 8 ports	PCI Express	X8	PCI-Med	SA	SA			SA			
AMCC/3Ware	9690SA-414E	SAS 3GB 8 ports	PCI Express	X8	PCI-Med	SA	SA			SA			
Adaptec	ASR-31205	SAS 3GB 12 ports	PCI Express	X8	PCI-Med		8		8		8		
Adaptec	ASR-3405	SAS 3GB 4 ports	PCI Express	X4	PCI-Med		8		8		8		
Adaptec	ASR-31605	SAS 3GB 16 ports	PCI Express	X8	PCI-Med		8		8		8		
Adaptec	ASR-3805	SAS 3GB 8 ports	PCI Express	X4	PCI-Med		8		8		8		
Adaptec	ASR-3085	SAS 3GB 8 ports	PCI Express	X8	PCI-Med		SA		SA		SA		
Adaptec	5805	SAS 3GB 8 ports	PCI Express	X8	PCI-Med	9	9	9	9				
Adaptec	5445	SAS 3GB 4 ports	PCI Express	X8	PCI-Med	SA	SA	SA	SA				
Adaptec	5405	SAS 3GB 4 ports	PCI Express	X8	PCI-Med	SA	SA	SA	SA				
Adaptec	5085	SAS 3GB 8 ports	PCI Express	X8	PCI-Med	SA	SA	SA	SA				
Adaptec	52245	SAS 3GB 30 ports	PCI Express	X8	PCI-Med	9	9	9	9				

Adaptec	51245	SAS 3GB 16 ports	PCI Express	X8	PCI-Med	SA	SA	SA	SA				
Adaptec	51645	SAS 3GB 20 ports	PCI Express	X8	PCI-Med	SA	SA	SA	SA				
Adaptec	2405	SAS 3GB	PCI Express	X8	PCI-Med	14	14	14	14			14	14
Adaptec	2045	SAS 3GB	PCI Express	X8	PCI-Med	14	14	14	14			14	14
Adaptec	2445	SAS 3GB	PCI Express	X8	PCI-Med	14	14	14	14			14	14
Video Controllers													
Matrox	G55-MDDE32LPD	PCI-E Video Adapter	PCI-ExpressX1	Universal	PCI-Med	2, 3, 4,10, 11, 12, 13	2, 3, 4,10, 11, 12, 13	2, 3, 4,10, 11, 12, 13	2, 3, 4,10, 11, 12, 13	2, 3, 4,10, 11, 12, 13	2, 3, 4,10, 11, 12, 13	10, 11, 12, 13	10, 11, 12, 13
USB Drives													
Maxtor*	E01G300	Maxtor One Touch II	USB 2.0		External	1, 2, 3, 4,10, 11, 12, 13	1, 2, 3, 4,10, 11, 12, 13	1, 2, 3, 4,10, 11, 12, 13	1, 2, 3, 4,10, 11, 12, 13	1, 2, 3, 4,10, 11, 12, 13	1, 2, 3, 4,10, 11, 12, 13	10, 11, 12, 13	10, 11, 12, 13
Slim Line DVD±R/RW													
Samsung	TS-L333A	TS-L333A	SATA/Slimline		5.25x0.5	10, 11, 12, 13	10, 11, 12, 13	10, 11, 12, 13	10, 11, 12, 13	10, 11, 12, 13	10, 11, 12, 13	10, 11, 12, 13	10, 11, 12, 13
Samsung	TS-L633A	TS-L633A	SATA/Slimline		5.25x0.5	10, 11, 12, 13	10, 11, 12, 13	10, 11, 12, 13	10, 11, 12, 13	10, 11, 12, 13	10, 11, 12, 13	10, 11, 12, 13	10, 11, 12, 13
Teac	DV-28S-VZ3	DV-28S-VZ3	SATA/Slimline		5.25x0.5	10, 11, 12, 13	10, 11, 12, 13	10, 11, 12, 13	10, 11, 12, 13	10, 11, 12, 13	10, 11, 12, 13	10, 11, 12, 13	10, 11, 12, 13
CD-RW /DVD ROM Combo Drives													
Addonics	AEPDVRW888UM	AEPDVRW888UM	USB2.0		5.25x1.6	1, 2, 3, 4,10, 11, 12, 13	1, 2, 3, 4,10, 11, 12, 13	1, 2, 3, 4,10, 11, 12, 13	1, 2, 3, 4,10, 11, 12, 13	1, 2, 3, 4,10, 11, 12, 13	1, 2, 3, 4,10, 11, 12, 13	10, 11, 12, 13	10, 11, 12, 13
DVD+R/RW													
Plextor	PX-740UF	PX-740UF	USB 2.0		5.25x1.6	1, 2, 3, 4	1, 2, 3, 4	1, 2, 3, 4	1, 2, 3, 4	1, 2, 3, 4	1, 2, 3, 4		
Plextor	PX-755SA	PX-755SA	SATA		5.25x1.6	1, 2, 3, 4	1, 2, 3, 4	1, 2, 3, 4	1, 2, 3, 4	1, 2, 3, 4	1, 2, 3, 4		
Plextor	PX-810UF	PX-810UF	USB 2.0		5.25x1.6	10, 11, 12, 13	10, 11, 12, 13	10, 11, 12, 13	10, 11, 12, 13	10, 11, 12, 13	10, 11, 12, 13	10, 11, 12, 13	10, 11, 12, 13
Sony	Optiarc AD-7170S	Optiarc AD-7170S	SATA		5.25x1.6	10, 11, 12, 13	10, 11, 12, 13	10, 11, 12, 13	10, 11, 12, 13	10, 11, 12, 13	10, 11, 12, 13	10, 11, 12, 13	10, 11, 12, 13
Lite-On	LH-20A1S	LH-20A1S	SATA		5.25x1.6	10, 11, 12, 13	10, 11, 12, 13	10, 11, 12, 13	10, 11, 12, 13	10, 11, 12, 13	10, 11, 12, 13	10, 11, 12, 13	10, 11, 12, 13
DVD ROM Drives													

Sony	DRX-720UL	DRX-720UL	USB 2.0		External	1, 2, 3, 4	1, 2, 3, 4	1, 2, 3, 4	1, 2, 3, 4	1, 2, 3, 4	1, 2, 3, 4		
Input Devices													
AOpen*	KB858 Keyboard PS/2	KB-858	PS/2		External	1, 2, 3, 4,10, 11, 12, 13	1, 2, 3, 4,10, 11, 12, 13	1, 2, 3, 4,10, 11, 12, 13	1, 2, 3, 4,10, 11, 12, 13	1, 2, 3, 4,10, 11, 12, 13	1, 2, 3, 4,10, 11, 12, 13	10, 11, 12, 13	10, 11, 12, 13
AOpen	O 35M	Mini Optical Mouse	PS/2 and USB		External	1, 2, 3, 4,10, 11, 12, 13	1, 2, 3, 4,10, 11, 12, 13	1, 2, 3, 4,10, 11, 12, 13	1, 2, 3, 4,10, 11, 12, 13	1, 2, 3, 4,10, 11, 12, 13	1, 2, 3, 4,10, 11, 12, 13	10, 11, 12, 13	10, 11, 12, 13
Logitech*	931145-403	Logitech Optical Mouse	PS/2 and USB		External	1, 2, 3, 4,10, 11, 12, 13	1, 2, 3, 4,10, 11, 12, 13	1, 2, 3, 4,10, 11, 12, 13	1, 2, 3, 4,10, 11, 12, 13	1, 2, 3, 4,10, 11, 12, 13	1, 2, 3, 4,10, 11, 12, 13	10, 11, 12, 13	10, 11, 12, 13
Logitech	967415-0403	Logitech Media Keyboard	PS/2 and USB		External	1, 2, 3, 4	1, 2, 3, 4	1, 2, 3, 4	1, 2, 3, 4	1, 2, 3, 4	1, 2, 3, 4		
Microsoft*	B75-00092	Intellimouse Optical	PS/2 and USB		External	1, 2, 3, 4,10, 11, 12, 13	1, 2, 3, 4,10, 11, 12, 13	1, 2, 3, 4,10, 11, 12, 13	1, 2, 3, 4,10, 11, 12, 13	1, 2, 3, 4,10, 11, 12, 13	1, 2, 3, 4,10, 11, 12, 13	10, 11, 12, 13	10, 11, 12, 13
KVM Switches													
Belkin*	F1DA108T	Omniview Pro2 Series	PS/2		External	1, 2, 3, 4,10, 11, 12, 13	1, 2, 3, 4,10, 11, 12, 13	1, 2, 3, 4,10, 11, 12, 13	1, 2, 3, 4,10, 11, 12, 13	1, 2, 3, 4,10, 11, 12, 13	1, 2, 3, 4,10, 11, 12, 13	10, 11, 12, 13	10, 11, 12, 13
Removable Media Devices													
Iomega*	SKU 33136	Micro Mini™ 1GB Drive	USB 2.0		External	1, 2, 3, 4	1, 2, 3, 4	1, 2, 3, 4	1, 2, 3, 4	1, 2, 3, 4	1, 2, 3, 4		
Lexar*	JD1GB-80-231	1GB USB Flash Drive	USB 2.0		External	1, 2, 3, 4	1, 2, 3, 4	1, 2, 3, 4	1, 2, 3, 4	1, 2, 3, 4	1, 2, 3, 4		
Memorex	32509363	1GB Travel Drive	USB 2.0		External	10, 11, 12, 13	10, 11, 12, 13	10, 11, 12, 13	10, 11, 12, 13	10, 11, 12, 13	10, 11, 12, 13	10, 11, 12, 13	10, 11, 12, 13
Mitsumi	D353FUE	D353FUE	USB		External	1, 2, 3, 4	1, 2, 3, 4	1, 2, 3, 4	1, 2, 3, 4	1, 2, 3, 4	1, 2, 3, 4		
Sony	PCGA-UFD5	VAIO External USB floppy	USB		External	1, 2, 3, 4	1, 2, 3, 4	1, 2, 3, 4	1, 2, 3, 4	1, 2, 3, 4	1, 2, 3, 4		
Sony	VPG-UFD1	VAIO External USB floppy	USB		External	10, 11, 12, 13	10, 11, 12, 13	10, 11, 12, 13	10, 11, 12, 13	10, 11, 12, 13	10, 11, 12, 13	10, 11, 12, 13	10, 11, 12, 13
TEAC	FD-235HF	FD-235HF	Floppy		3.5x1	1	1	1	1	1	1		
TEAC	FD05PUW268	FD05PUW268	Floppy		3.5x1	10, 11, 12, 13	10, 11, 12, 13	10, 11, 12, 13	10, 11, 12, 13	10, 11, 12, 13	10, 11, 12, 13	10, 11, 12, 13	10, 11, 12, 13
San Disk*	SDCZ2-4096	Cruzer 4GB	USB 2.0		External	1, 2, 3, 4,10, 11,	1, 2, 3, 4,10, 11,	1, 2, 3, 4,10, 11,	1, 2, 3, 4,10, 11,	1, 2, 3, 4,10, 11,	1, 2, 3, 4,10, 11,	10, 11, 12, 13	10, 11, 12, 13

						12, 13	12, 13	12, 13	12, 13	12, 13	12, 13		
Tape Drives													
Certance*	STD2401LW-S	Certance DAT 40	SCSI-U2		3.5x1.6	1, 2, 3, 4	1, 2, 3, 4	1, 2, 3, 4	1, 2, 3, 4	1, 2, 3, 4	1, 2, 3, 4		
Sony	SDX-700C/BM	AIT-3 Desktop	SCSI-U160		3.5x1.6	1, 2, 3, 4,10, 11, 12, 13	1, 2, 3, 4,10, 11, 12, 13	1, 2, 3, 4,10, 11, 12, 13	1, 2, 3, 4,10, 11, 12, 13	1, 2, 3, 4,10, 11, 12, 13	1, 2, 3, 4,10, 11, 12, 13		
Quantum	CD72SH-SB	DAT72	SATA 300		3.5X1.6	1, 2, 3, 4	1, 2, 3, 4	1, 2, 3, 4	1, 2, 3, 4	1, 2, 3, 4	1, 2, 3, 4		

5. Hard Disk Drives

The hard drives previously in this section have now been listed separately in the *Server Hard Drive Validation Test Report*, which includes the qualified hard drives for the Intel® Server Boards S3210SH/S3200SH. It is located on Intel's secure website IBL and at the web link below:
http://www.intel.com/support/motherboards/server/sb/CS-025416.htm