



Server WHQL Testing Services
Enterprise Platforms and Services Division
Intel[®] Server Board S5500WB12V

Server Test Submission (STS) Report
For the Microsoft[®] Windows[®] Logo Program (WLP)

Rev 1.0

April 1, 2009

This report describes the Intel[®] Server Board S5500WB12V Windows* Logo Program test run conducted by Intel Enterprise Platforms and Services Division (EPSD).

Purpose of this WLP Submission:

System First Time submission for the Microsoft* Designed for Windows Logo submission for the Intel[®] Server Board S5500WB12V.

Submission Logo ID: 1323611

Submission Type:	Reason for test run	Check one
First Time Submission	Initial Microsoft Designed for Windows logo submission. New product submission.	<input checked="" type="checkbox"/>
System Update	Hardware update. (For example, update submission test run with new processor speeds.)	<input type="checkbox"/>
BIOS Update	BIOS and/or Firmware update. (For example, update submission test run with new BIOS to support additional processor speeds.)	<input type="checkbox"/>
OS Update	OS update. (For example, update submission test run to add Microsoft Designed for Windows Server 2008 logo to product.)	<input type="checkbox"/>

Revision History and Disclaimers

Revision History		
Revision	Date	Comments
1.0	4/1/2009	Internal draft of the STS Report for Windows Server 2008 Submission for Intel® Server Board S5500WB12V

THIS TEST REPORT IS PROVIDED "AS IS" WITH NO WARRANTIES WHATSOEVER, INCLUDING ANY WARRANTY OF MERCHANTABILITY, NONINFRINGEMENT FITNESS FOR ANY PARTICULAR PURPOSE, OR ANY WARRANTY OTHERWISE ARISING OUT OF ANY PROPOSAL, SPECIFICATION OR SAMPLE.

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

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

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

Intel, Pentium, Itanium and Xeon are trademarks or registered trademarks of Intel Corporation or its subsidiaries in the United States and other countries.

* Other names and brands may be claimed as the property of others.

Copyright © 2009, Intel Corporation. All rights reserved.

Contents

Revision History and Disclaimers	2
Introduction	4
Overview of Contents.....	4
Terms and Definitions	4
Server Board Submission Information.....	5
Intel Server Board Submission Report: Completion of WLP.....	5
Submission Information	5
Submission ID.....	5
Submission Type	5
Product Category	5
Product Detail	5
General Product Information.....	5
Characterization (optional).....	5
Server Board Configuration Information	6
Processor.....	6
System Memory	6
Power Management.....	6
BIOS	6
Bus Types	7
Integrated Components	7
Onboard Integrated Devices and Drivers.....	7
Product Data for HCL: Completion of WLP.....	8
Product Data	8
Hardware Compatibility Tests Used.....	9
Errata and Contingencies.....	10
Submission Readme File.....	10
Testing Exceptions for S5500WB12V Windows Server 2008.....	11
Testing Exceptions for S5500WB12V Windows Server 2008 64 Bit	12
Additional Information	15
Appendix A – Submission History.....	16

Introduction

This report provides an overview of the testing conducted on the Intel® Server Board S5500WB12V by Intel EPSD and provides details about this testing run.

Overview of Contents

Section	Content
Introduction	Brief descriptions of the sections in the report. Table listing terms and definitions.
Server Product Submission Information	Submission information, ID # and final server board configuration upon completion of WLP including HW, Driver version, BIOS version, and Board AA number
DTM	All DTM tests used during testing
Errata and Contingencies	All Microsoft* errata or contingencies used during testing

Terms and Definitions

Term	Definitions
EPSD	Enterprise Platforms and Services Division
HCL	Windows Hardware Compatibility List. Changed to Windows Server Catalogue. You can view the catalogue at: http://www.microsoft.com/windows/catalog/server/
DTM	Driver Test manager. For latest Server DTM tests visit: http://www.microsoft.com/whdc/hwtest/system/default.aspx
STS	Server Test Submission Report published by EPSD
WHDC	Windows* Hardware and Driver Central. Provides technical information, development and testing kits, newsletters and support information. http://www.microsoft.com/whdc/default.aspx
WHOS	Windows Hardware Online Service – Secure online web site used to submit products for logo qualification and review submission history. https://winqual.microsoft.com/
WHQL	Windows* Hardware Qualification Lab. For more information visit the WHDC home page at: http://www.microsoft.com/whdc/whql/default.aspx
WLP	Windows Logo Program. For further information see: http://www.microsoft.com/whdc/winlogo/default.aspx
WTS	Workstation Test Submission Report published by EPSD

Server Board Submission Information

Intel Server Board Submission Report: Completion of WLP

Data in this section reflects system submission information at the time of WLP Update submission.

Submission Information

Submission ID		
Submission ID / Master ID	1323611	
Submission Type		
	Check Submission Type	Comments
First-Time Hardware and Driver Test Submission	<input checked="" type="checkbox"/>	
System Update Test Submission	<input type="checkbox"/>	
Product Category		
Hardware Category	PC System or Server	
Operating System family	Windows Server 2008 family	
Product Detail		
General Product Information		
Equipment Type	Server	
Primary Target Market	Business/Corporate	
Compliance	All applicable requirements	
Characterization (optional)		
	Check appropriate options	Comments
Web Server	<input checked="" type="checkbox"/>	
SQL Database Server	<input checked="" type="checkbox"/>	
File Server	<input checked="" type="checkbox"/>	

2BServer Board Submission Information

Server Board Configuration Information

Processor	
Quantity	2 (physical processors installed)
Front Side Bus Speed	6.40 GT/s
Family/Model	Intel [®] Xeon Quad-core Processor 5500 series
Speed	1.86, 2.00, 2.13, 2.26, 2.40, 2.53, 2.66, 2.80, and 2.93 GHz
System Memory	
Amount Installed	64GB
Memory Type	DDR3
Power Management	
ACPI Sleep States (S1, S2, S3, S4)	S1
Server Board Product	
System uses logo'd motherboard	NO (Server boards are <u>NOT</u> eligible for logo under the Microsoft* Motherboard logo program)
Board AA #/Fab	PBA: E40367-303
Board Manufacturer	Intel Corporation
Board Model	Intel [®] Server Board S5500WB12V
Northbridge* Chipset Manufacturer	Intel Corporation
Northbridge Chipset Model	Intel [®] 5500 IOH
Southbridge* Chipset Manufacturer	Intel Corporation
Southbridge Chipset Model	Intel [®] ICH10R I/O Controller
BIOS	
BIOS Manufacturer	AMI*
BIOS Version	S5500.86B.01.00.0033.03062009
BIOS Date	3/6/2009
BIOS URL (For Updates)	http://support.intel.com/support/motherboards/server/s5500wb

Bus Types			
	Check all that Apply		Check all that Apply
PS/2	<input checked="" type="checkbox"/>	AGP*	<input type="checkbox"/>
1394	<input type="checkbox"/>	PCCard* (16-bit)	<input type="checkbox"/>
CF (Compact Flash)	<input type="checkbox"/>	CardBus* (32-bit)	<input type="checkbox"/>
PCI	<input checked="" type="checkbox"/>	USB	<input type="checkbox"/>
Mini-PCI	<input type="checkbox"/>	USB 2.0	<input checked="" type="checkbox"/>
AMR	<input type="checkbox"/>	InfiniBand*	<input type="checkbox"/>
ACR	<input type="checkbox"/>	Bluetooth*	<input type="checkbox"/>
COM (Serial)	<input checked="" type="checkbox"/>	PCI Express	<input checked="" type="checkbox"/>
Integrated Components			
	Check all that Apply		Check all that Apply
Audio	<input type="checkbox"/>	Display	<input checked="" type="checkbox"/>
IDE	<input checked="" type="checkbox"/>	Networking	<input checked="" type="checkbox"/>
SCSI	<input checked="" type="checkbox"/>	RAID	<input checked="" type="checkbox"/>
Modem	<input type="checkbox"/>	Bluetooth*	<input type="checkbox"/>

Onboard Integrated Devices and Drivers

Data in this section reflects system configuration at the time of WLP submission. The latest drivers for the Intel® Server Board S5500WB12V are available for download at:

<http://support.intel.com/support/motherboards/server/s5500wb>

Technology	OS	Version
Intel® S5500/S5520 Chipset and Intel® 82801Jx I/O Controller Hub (ICH10R) The chipset contains: I/O Hub (IOH). The chipset uses the Intel® 82801Jx I/O Controller Hub (ICH10R) for the I/O controller hub.	Windows Server 2008 Windows Server 2008 – 64Bit	9.1.0.1012 9.1.0.1012
Embedded SATA Controller SW RAID mode	Windows Server 2008 Windows Server 2008 – 64Bit	12.08.1023.2008 12.08.1023.2008
LAN 2 X Intel 82576 Server Network Connection Supports 10/100/1000 and I/O Accelerated Technology	Windows Server 2008 Windows Server 2008 – 64Bit	10.6.0015.0 (Pkg 14.0) 10.6.0015.0 (Pkg 14.0)
Display Server Engine iBMC video controller	Windows Server 2008 Windows Server 2008 – 64Bit	WDM20080228.1996-R4 WDM20080228.1996-R4

2BServer Board Submission Information

Product Data for HCL: Completion of WLP

Data in this section reflects product data for HCL at time of WLP submission.

Product Data		
Product Name	Intel® Server Board S5500WB12V	
Additional Product Names		
Supported Platforms		
	Check Tested	Comments
Windows Server 2003 family	<input type="checkbox"/>	
Windows Server 2003 x64 family	<input type="checkbox"/>	
Windows Server 2008 family	<input checked="" type="checkbox"/>	
Windows Server 2008 x64 family	<input checked="" type="checkbox"/>	

Hardware Compatibility Tests Used

Microsoft* Windows Hardware Driver Central Server Testing Home

Page: <http://www.microsoft.com/whdc/hwtest/system/default.mspx>.

Please check this website regularly for test kit updates.

Operating Systems	Notes	Hardware Compatibility Tests (HCT)
Windows Server 2003	DTM 1.2 Test Procedures for Systems, Servers and Cluster Servers (Windows 2000) http://download.microsoft.com/download/whistler/Docs/Docs/W982KMeXP/EN-US/HCT9502_Systems.exe	DTM 1.2 Test Kit (Windows 2000) (35.4 MB) http://download.microsoft.com/download/whistler/Tools/Tools/W98NT42KMeXP/EN-US/HCT9502UPD.EXE
	Logo'd Components Index Full Install	Logo'd Components Index Full Install (~9.8 MB) http://download.microsoft.com/download/whistler/Install/20.0/W982KMeXP/EN-US/logoidx.exe
	391 NDIS Intermediate Drivers Instructions http://download.microsoft.com/download/whistler/Install/20.1/W982KMeXP/EN-US/NDISIntermedDriver.exe	Beta NDIS Test Update (ndt391.exe) (2MB) http://download.microsoft.com/download/whistler/Install/12.2/W982KMeXP/EN-US/ndt391.exe
	386 NDIS Intermediate Drivers Instructions http://download.microsoft.com/download/whistler/Install/20.1/W982KMeXP/EN-US/NDISIntermedDriver.exe	NDIS Test Update for Windows 98 SE, Windows Me, and Windows 2000 (ndt386.exe) (2.02MB) http://download.microsoft.com/download/whistler/Install/12.2/W982KMeXP/EN-US/ndt386.exe
Windows Server 2008	DTM 1.2 Test Procedures and Readme files for Windows Server 2003 and Windows Server 2008 (4.95MB) http://www.microsoft.com/whdc/hwtest/search/details.aspx?ID=725	DTM 1.2 Test Kit (4.95MB) http://www.microsoft.com/whdc/hwtest/search/details.aspx?ID=724
	Logo'd Components Index Full Install	Logo'd Components Index Full Install (~9.8 MB) http://download.microsoft.com/download/whistler/Install/20.0/W982KMeXP/EN-US/logoidx.exe

Errata and Contingencies

Microsoft* System DTM Errata list is available at:

<https://winqual.microsoft.com/EC/>

Operating System	Identification Number	Title
Windows Server 2008		<i>See Testing Exceptions section below</i>

Submission Readme File

Effective May 1, 2002, the new Microsoft standardized Readme form will be required for all hardware submissions that include any of the following testing exceptions:

- Test failures
- Tests not run
- Missing test logs
- Inconclusive test results

All testing exceptions must be identified with a valid Errata ID, Incident ID, or Contingency ID provided by WHQL. The new Microsoft standardized Readme file is available for download at:

<http://www.microsoft.com/whdc/winlogo/WLK/default.msp>

Testing Exceptions for S5500WB12V Windows Server 2008

Data in this section reflects product data and test exceptions listed in section 2 of the S5500WB12V Readme file at time of WLP First-Time submission ID Number **1323611**.

Operating system (Windows XP, Windows 2000, etc.)	Failure type (Contingency, Errata, Incident)	ID number
Windows Server 2008	Errata	1078
Failing test name	PCI Hardware Compliance Test	
Applicable error message (Type N/A if the error message or failing text is excessive or if there is no text)	The Bit 5 (Surprise Down Error Severity) in the Uncorrectable Error Severity register (offset Ch) in the Advanced Error Reporting Capability table must be read-only and always return 1 if the Bit 5 (Surprise Down Error Mask) in the Uncorrectable Error Mask Register in the Advanced Error Reporting Capability table is not implemented	
Additional information (for example, test system in a multiple system configuration)		

Operating system (Windows XP, Windows 2000, etc.)	Failure type (Contingency, Errata, Incident)	ID number
Windows Server 2008	Errata	997
Failing test name	PCI Hardware Compliance Test	
Applicable error message (Type N/A if the error message or failing text is excessive or if there is no text)	Error Reporting Capable bits 4:0 of the Device Control Register in the PCI Express capability aren't tested correctly. 1) Assertion 47C39833-84AD-44EA-9723-0695202ADDEA: FAILED. Bit 0 (Correctable Error Reporting Enable) in the Device Control register (offset 8h) in the PCI Express Capability table must be read-writable. 2) Assertion 5CBA2A63-A48E-4443-85FA-A7DCD8EA47BC: FAILED. Bit 1 (Non-Fatal Error Reporting Enable) in the Device Control register (offset 8h) in the PCI Express Capability table must be read-writable. 3) Assertion 0AB06F7C-59CB-4F9A-8363-B51B1ACAB54F: FAILED. Bit 2 (Fatal Error Reporting Enable) in the Device Control register (offset 8h) in the PCI Express Capability table must be read-writable. 4) Assertion E3834E4A-A7BD-410C-9A61-FA91770D2A71: FAILED. Bit 3 (Unsupported Request Reporting Enable) in the Device Control register (offset 8h) in the PCI Express Capability table must be read-writable.	
Additional information (for example, test system in a multiple system configuration)		

Operating system (Windows XP, Windows 2000, etc.)	Failure type (Contingency, Errata, Incident)	ID number
Windows Server 2008	Errata	1051
Failing test name	PCI Hardware Compliance Test	

4BErrata and Contingencies

Applicable error message (Type N/A if the error message or failing text is excessive or if there is no text)	Bit range 9:4 (Negotiated Link Width)in the Link Status register (offset 12h) in the PCI Express Capability table is 1h. It cannot be in the set of values {0x1, 0x2} for PCI Express display controllers. Assertion 7229E848-31C2-482A-88F2-73ADA2C32B79.
Additional information (for example, test system in a multiple system configuration)	

Operating system (Windows XP, Windows 2000, etc.)	Failure type (Contingency, Errata, Incident)	ID number
Windows Server 2008	Errata	1098
Failing test name	PCI Hardware Compliance Test	
Applicable error message (Type N/A if the error message or failing text is excessive or if there is no text)	Assertion FAE18121-9177-4FB2-A081-0D04C285EFF2 Bit range 15:0 (Extended Capability ID)in the Enhanced Capability Header register (offset 0h) in the Unrecognized Enhanced Capability ID 13 table is Dh. It must be in the range [0x0 - 0xB] as all other Capability IDs are reserved.	
Additional information (for example, test system in a multiple system configuration)		

Operating system (Windows XP, Windows 2000, etc.)	Failure type (Contingency, Errata, Incident)	ID number
Windows Server 2008	Errata	1150
Failing test name	PCI Hardware Compliance Test for Systems Running Windows Vista (PCIHCT)	
Applicable error message (Type N/A if the error message or failing text is excessive or if there is no text)	Assertion 3CDD17AF-215E-4921-894F-C99434A3B3CA Bit range 31:21 (Reserved_3)in the Uncorrectable Error Mask register (offset 8h) in the Advanced Error Reporting Capability table must be read-only and always return 0 . Assertion FF8BC1A1-79B5-480A-9439-BF81AEDF4183 Bit 13 (Flow Control Protocol Error Severity) in the Uncorrectable Error Severity register (offset Ch) in the Advanced Error Reporting Capability table must be read-only and always return 1 . It was found to return 0. Assertion 461CA4DE-9266-4420-9B5F-F33622A5D02B Bit range 31:21 (Reserved_3)in the Uncorrectable Error Severity register (offset Ch) in the Advanced Error Reporting Capability table must be read-only and always return 0.	
Additional information (for example, test system in a multiple system configuration)		

Testing Exceptions for S5500WB12V Windows Server 2008 64 Bit

Data in this section reflects product data and test exceptions listed in section 2 of the S5500WB12V Readme file at time of WLP First-Time submission ID Number **1323611**.

Operating system	Failure type	ID number

(Windows XP, Windows 2000, etc.)	(Contingency, Errata, Incident)	
Windows Server 2008 x64	Errata	1078
Failing test name	PCI Hardware Compliance Test	
Applicable error message (Type N/A if the error message or failing text is excessive or if there is no text)	The Bit 5 (Surprise Down Error Severity) in the Uncorrectable Error Severity register (offset Ch) in the Advanced Error Reporting Capability table must be read-only and always return 1 if the Bit 5 (Surprise Down Error Mask) in the Uncorrectable Error Mask Register in the Advanced Error Reporting Capability table is not implemented	
Additional information (for example, test system in a multiple system configuration)		

Operating system (Windows XP, Windows 2000, etc.)	Failure type (Contingency, Errata, Incident)	ID number
Windows Server 2008 x64	Errata	997
Failing test name	PCI Hardware Compliance Test	
Applicable error message (Type N/A if the error message or failing text is excessive or if there is no text)	Error Reporting Capable bits 4:0 of the Device Control Register in the PCI Express capability aren't tested correctly. 1) Assertion 47C39833-84AD-44EA-9723-0695202ADDEA: FAILED. Bit 0 (Correctable Error Reporting Enable) in the Device Control register (offset 8h) in the PCI Express Capability table must be read-writable. 2) Assertion 5CBA2A63-A48E-4443-85FA-A7DCD8EA47BC: FAILED. Bit 1 (Non-Fatal Error Reporting Enable) in the Device Control register (offset 8h) in the PCI Express Capability table must be read-writable. 3) Assertion 0AB06F7C-59CB-4F9A-8363-B51B1ACAB54F: FAILED. Bit 2 (Fatal Error Reporting Enable) in the Device Control register (offset 8h) in the PCI Express Capability table must be read-writable. 4) Assertion E3834E4A-A7BD-410C-9A61-FA91770D2A71: FAILED. Bit 3 (Unsupported Request Reporting Enable) in the Device Control register (offset 8h) in the PCI Express Capability table must be read-writable.	
Additional information (for example, test system in a multiple system configuration)		

Operating system (Windows XP, Windows 2000, etc.)	Failure type (Contingency, Errata, Incident)	ID number
Windows Server 2008 x64	Errata	1051
Failing test name	PCI Hardware Compliance Test	
Applicable error message (Type N/A if the error message or failing text is excessive or if there is no text)	Bit range 9:4 (Negotiated Link Width) in the Link Status register (offset 12h) in the PCI Express Capability table is 1h. It cannot be in the set of values {0x1, 0x2} for PCI Express display controllers. Assertion 7229E848-31C2-482A-88F2-73ADA2C32B79.	
Additional information (for example, test system in a multiple system configuration)		

4BErrata and Contingencies

Operating system (Windows XP, Windows 2000, etc.)	Failure type (Contingency, Errata, Incident)	ID number
Windows Server 2008 x64	Errata	1098
Failing test name	PCI Hardware Compliance Test	
Applicable error message (Type N/A if the error message or failing text is excessive or if there is no text)	Assertion FAE18121-9177-4FB2-A081-0D04C285EFF2 Bit range 15:0 (Extended Capability ID)in the Enhanced Capability Header register (offset 0h) in the Unrecognized Enhanced Capability ID 13 table is Dh. It must be in the range [0x0 - 0xB] as all other Capability IDs are reserved.	
Additional information (for example, test system in a multiple system configuration)		

Operating system (Windows XP, Windows 2000, etc.)	Failure type (Contingency, Errata, Incident)	ID number
Windows Server 2008 x64	Errata	1150
Failing test name	PCI Hardware Compliance Test for Systems Running Windows Vista (PCIHCT)	
Applicable error message (Type N/A if the error message or failing text is excessive or if there is no text)	Assertion 3CDD17AF-215E-4921-894F-C99434A3B3CA Bit range 31:21 (Reserved_3)in the Uncorrectable Error Mask register (offset 8h) in the Advanced Error Reporting Capability table must be read-only and always return 0 . Assertion FF8BC1A1-79B5-480A-9439-BF81AEDF4183 Bit 13 (Flow Control Protocol Error Severity) in the Uncorrectable Error Severity register (offset Ch) in the Advanced Error Reporting Capability table must be read-only and always return 1 . It was found to return 0. Assertion 461CA4DE-9266-4420-9B5F-F33622A5D02B Bit range 31:21 (Reserved_3)in the Uncorrectable Error Severity register (offset Ch) in the Advanced Error Reporting Capability table must be read-only and always return 0.	
Additional information (for example, test system in a multiple system configuration)		

Operating system (Windows XP, Windows 2000, etc.)	Failure type (Contingency, Errata, Incident)	ID number
Windows Server 2008 x64	Errata	1284, 1285, 1286
Failing test name	Virtualization – Virtual machine Detect Test	
Applicable error message (Type N/A if the error message or failing text is excessive or if there is no text)	The Virtualization - Virtual Machine Detect Test is incorrectly available to run in the Server category for non virtualization featured servers.	
Additional information (for example, test system in a multiple system configuration)		

Additional Information

No additional information entered in section 3 of the S5500WB12V Submission Readme file at time of WLP submission ID 1323611.

Appendix A – Submission History

Microsoft “Designed for Windows*” logo submission history for the Intel[®] Server Board S5500WB12V

Submission ID	Type	Date	OS Qualified	Processor Speeds	Board Revision	BIOS Version
1323611	First-Time	4/1/09	Windows Server 2008 - 32 & 64 Bit	1.86, 2.00, 2.13, 2.26, 2.40, 2.53, 2.66, 2.80, and 2.93 GHz	303	S5500.86B.01.00.33 3/6/2009