



Server OS Testing Services

Enterprise Platforms and Services Division

Intel[®] Server Platform SR6850HW4S & SR4850HW4S

Server Test Submission (STS) Report

For the Microsoft[®] Windows[®] Logo Program (WLP)

Rev 1.0

September 20, 2006

This report describes the Intel[®] Server Platform SR6850HW4S & SR4850HW4S Windows* Logo Program test run conducted by Intel Enterprise Platforms and Services Division (EPSD).

Purpose of this WLP Submission:

System submission for the Intel[®] Server Platform SR6850HW4S & SR4850HW4S.

Submission Type:	Reason for test run	Check one
First-time Submission	Initial Microsoft Designed for Windows logo submission for Tulsa Dual Core Processor support.	<input checked="" type="checkbox"/>

Revision History and Disclaimers

Revision History		
Revision	Date	Comments
1.0	9/20/2006	STS Report for WLP Windows 2003 Enterprise Edition Submission for Intel® Server Platform SR6850HW4S & SR4850HW4S with 3.4GHz 16MB Cache [Dual-Core Xeon 7104M] Processors on P10 BIOS with 64GB memory support

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Introduction

This report provides an overview of the testing conducted on the Intel® Server Platform SR6850HW4S & SR4850HW4S server board 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
HCT	All HCT's 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. You can view the HCL at: http://www.microsoft.com/whdc/hcl/search.mspix
HCT	Hardware Compatibility Tests. For latest Server HCTs visit: http://www.microsoft.com/whdc/hwtest/system/default.mspix
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.mspix
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/default.mspix
WLP	Windows Logo Program. For further information see: http://www.microsoft.com/whdc/winlogo/default.mspix
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 submission.

Submission Information

Submission ID		
Submission ID / Master ID	1210547	
Previously logo'd Submission ID / Master ID	N/A	
Submission Type		
	Check Submission Type	Comments
First-Time Hardware and Driver Test Submission	<input checked="" type="checkbox"/>	Tulsa with P10 BIOS and 64GB memory support
System Update	<input type="checkbox"/>	
Update Type (Update Hardware and Drivers Test Submission ONLY)		
	Check Update Type	Comments
Hardware (Firmware) Update	<input type="checkbox"/>	
System Update	<input type="checkbox"/>	
Previously Logo'd Operating System		
Update Type Detail (Update Hardware and Drivers Test Submission ONLY)		
	Check Update Type	Comments
New CPU Speeds	<input type="checkbox"/>	
Motherboard Updates	<input type="checkbox"/>	
BIOS/Firmware Updates	<input type="checkbox"/>	
OS Updates	<input type="checkbox"/>	
Product Category		
Hardware Category	PC System or Server	
Operating System Selected	Windows Server 2003 Enterprise Edition SP1 (x86 and EM64T), Windows Server 2003 Standard Edition and Windows Server 2003 Web Edition	

Intel® Server Platform SR6850HW4M & SR4850HW4M

Product Detail		
General Product Information		
Equipment Type	Server	
Primary Target Market	Business/Corporate	
Compliance	All applicable requirements	
Testing Matrix (optional)		
	Check Tested	Comments
PAE_Tested	<input checked="" type="checkbox"/>	Supports 4GB or more of memory
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"/>	

Server Board Configuration Information

Processor	
Quantity	4
Front Side Bus Speed	800MHz
Family/Model	Intel® Xeon™ MP Hyper-Threading Technology
Speed	3.4GHz 16MB Cache
System Memory	
Amount Installed	64 GB
Memory Type	ECC DDR2 400 SDRAM
Power Management	
ACPI Sleep States (S1, S2, S3, S4)	S1 & S4
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	I/O Board D22177-552, Memory Board D21460-251, SAS Backplane D23278-400, Front Panel C62821-200, Intel Management Module D23013-400
Board Manufacturer	Intel Corporation
Board Model	Intel® Server Platform SR6850HW4S & SR4850HW4S
Northbridge* Chipset Manufacturer	Intel
Northbridge Chipset Model	E8501
Southbridge* Chipset Manufacturer	Intel
Southbridge Chipset Model	81801EB
BIOS	
BIOS Manufacturer	Intel
BIOS Version	SHW40.86B.P.10.00.0064.081720061658
BIOS Date	8/17/2006
BIOS URL (For Updates)	http://support.intel.com/support/motherboards/server/
Firmware	
BMC Version	55
HSC Version	2.01
FRU/SDR Version	37
Firmware URL (For Updates)	http://support.intel.com/support/motherboards/server/

Bus Types			
	Check all that Apply		Check all that Apply
PS/2	<input 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-X	<input checked="" type="checkbox"/>	USB	<input checked="" 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-E	<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 type="checkbox"/>	Networking	<input checked="" type="checkbox"/>
SAS	<input checked="" type="checkbox"/>	RAID	<input checked="" type="checkbox"/>
Modem	<input type="checkbox"/>	Bluetooth*	<input type="checkbox"/>
Fibre Channel Expansion Module	<input checked="" type="checkbox"/>	SATA	<input checked="" 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 Platform SR6850HW4S & SR4850HW4S server board are available for download at:

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

Technology	OS	Version
LAN Broadcom* BCM5704 NetXtreme* Gigabit Ethernet controller	Windows Server 2003 x86	7.98.0.0
	Windows Server 2003 EM64T	7.98.0.0
SAS RAID Intel RAID Controller SROMBSAS18E	Windows Server 2003 x86	1.17.0.32
	Windows Server 2003 EM64T	1.17.0.64
Display ATI* RADEON 7000 Series PCI Video Controller (with 16 MB of Video Memory)	Windows Server 2003 x86	6.14.10.6509
	Windows Server 2003 EM64T	6.14.10.6509
Intel Fibre Channel Expansion Module Qlogic* ISP2322 FC PCI-X controller	Windows Server 2003 x86	9.0.0.7
	Windows Server 2003 EM64T	9.0.0.7

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 Platform SR6850HW4S & SR4850HW4S	
Supported Platforms		
	Check Tested	Comments
Windows 2000 Server	<input type="checkbox"/>	
Windows 2000 Advanced Server	<input type="checkbox"/>	
Windows Server 2003, Web Edition	<input checked="" type="checkbox"/>	
Windows Server 2003, Standard Edition	<input checked="" type="checkbox"/>	
Windows Server 2003, Enterprise Edition	<input checked="" type="checkbox"/>	

Hardware Compatibility Tests

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 SP1	HCT 12.1. Test Procedures and Readme files for Windows XP SP2 and Windows Server 2003 SP1 http://www.microsoft.com/whdc/whql/WHQLdwn.mspx	HCT 12.1 (Windows XP SP2 and Windows Server 2003 SP1) Test Kit http://www.microsoft.com/whdc/whql/WHQLdwn.mspx

Errata and Contingencies

Microsoft* System HCT Errata list is available at:

<http://www.microsoft.com/whdc/hwtest/search/results.aspx?type=errata&key=system&kit=-1>

Operating System	Identification Number	Title
Windows Server 2003	772	LAN Device Wake Up test is not required on network devices in mobile systems, multifunction, broadband, LAN emulation, wireless LAN, server LAN, or bus-powered USB network devices

Intel® Server Platform SR6850HW4S & SR4850HW4S 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://download.microsoft.com/download/whistler/install/1.0/w98nt42kmexp/en-us/readme.exe>

Testing Exceptions for Intel® Server Platform SR6850HW4S & SR4850HW4S Windows* Server 2003

Data in this section reflects product data and test exceptions listed in section 2 of the Intel® Server Platform SR6850HW4S & SR4850HW4S Readme file at time of WLP submission ID 1210547.

Operating system (Windows XP, Windows 2000, etc.)	Failure type (Contingency, Errata, Incident)	ID number
Windows 2003 Enterprise Server	Errata	772
Failing test name	LAN Device Wake Up test	
Applicable error message (Type N/A if the error message or failing text is excessive or if there is no text)	LAN Device Wake Up test is not required on network devices in mobile systems, multifunction, broadband, LAN emulation, wireless LAN, server LAN, or bus-powered USB network devices	
Additional information (for example, test system in a multiple system configuration)	<p>The LAN Device Wake test is not required for the following types of network devices:</p> <ul style="list-style-type: none"> ▪ Multifunction devices ▪ Broadband and WAN devices: <ul style="list-style-type: none"> • Cable modems • DSL • ISDN ▪ LAN emulation devices ▪ Wireless LAN devices ▪ Server LAN devices: <ul style="list-style-type: none"> • Multiport NICs • FDDI • ATM ▪ Gigabit and higher Ethernet devices ▪ Bus-powered USB network devices ▪ Network devices in mobile systems <p>Note: 10/100 single port LAN devices are required to support WOL.</p>	

Additional Information

Due to Windows* 2003 Enterprise operating system limitations server systems that support 4GB or more of memory are tested with maximum memory installed for all HCTs except for the ACPI HCTs. Memory is removed in order to bring the total system memory below 4GB to enable Windows* 2003 Enterprise to go into hibernation. Refer to errata ID: 92 and the AWE Test procedures for more information.

Appendix A – Submission History

Microsoft “Designed for Windows” logo submission history for the Intel® Server Platform SR6850HW4S & SR4850HW4S:

Submission ID	Type	Date	OS Qualified	Processor Speeds	Board Revision	BIOS Version
1210547	First-Time Submission	9/20/2006	Windows Server 2003 - Enterprise - Standard - Web	3.2GHz Intel® Xeon™ MP Hyper-Threading Technology	D22177-552 D21460-251 D23278-400 C62821-200 D23013-400	SHW40.86B.P.10.0 0.0064.0817200616 58