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Intel® Server SE7230NH1-LC

Server Test Submission (STS) Report

For the Microsoft® Windows® Logo Program (WLP)

Rev 1.1

September 11, 2005

This report describes the Intel® SE7230NH1-LC Server Platform 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 SE7230NH1-LC.

Submission Type:	Reason for test run	Check one
First Time Submission	Initial Microsoft Designed for Windows logo submission. New product submission.	☑
System Update	Hardware update. (For example, update submission test run with new processor speeds.)	☑
BIOS Update	BIOS and/or Firmware update. (For example, update submission test run with new BIOS to support additional processor speeds.)	☐
OS Update	OS update. (For example, update submission test run to add Microsoft Designed for Windows Server 2003 logo to product.)	☐

Revision History and Disclaimers

Revision History		
Revision	**Date**	**Comments**
1.0	9/6/2005	Internal draft of the STS Report for Windows Server 2003 & Windows 2000 WLP Submission for Intel® Server Board SE7230NH1-LC-DC including both 32 & 64 Bit versions
1.1	9/11/2005	Updated submission with 3.8 P4 with single-core

Contents

Introduction

This report provides an overview of the testing conducted on the Intel® Server Board SE7230NH1-LC without RAID enabled 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.mspx
HCT	Hardware Compatibility Tests. For latest Server HCTs visit: http://www.microsoft.com/whdc/hwtest/system/default.mspx
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.mspx
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.mspx
WLP	Windows Logo Program. For further information see: http://www.microsoft.com/whdc/winlogo/default.mspx
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	1027397	
Submission Type		
	Check Submission Type	**Comments**
First-Time Hardware and Driver Test Submission	☐	
System Update Test Submission	☑	This update was to add the P4 Single-Core processors to the submission
Product Category		
Hardware Category	PC System or Server	
Operating System family	Windows Server 2003 (32 & 64 Bit) and Windows 2000 families	
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	☑	
SQL Database Server	☑	
File Server	☑	

Server Board Configuration Information

Processor	
Quantity	1 (physical processor with support for either single or dual cores)
Front Side Bus Speed	800 MHz
Family/Model	Single Intel Pentium™ 4 processor @ 1066MHz FSB (Both Single and Dual-Core support). Support for Intel 64-bit extension technology
Speed	3.2MHz Dual-Core & 3.8MHz Single-Core
System Memory	
Amount Installed	8 GB
Memory Type	DDR-2 400/533/667MHz (4 DIMMs) ECC Unbuffered memory
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	301 (AA-D18675-301)
Board Manufacturer	Intel Corporation
Board Model	Intel® Server Board SE7230NH1
Northbridge* Chipset Manufacturer	Intel Corporation
Northbridge Chipset Model	Intel E7230 Chipset
Southbridge* Chipset Manufacturer	Intel Corporation
Southbridge Chipset Model	Intel E7230 Chipset
BIOS	
BIOS Manufacturer	Intel Corporation
BIOS Version	NH72310J.86B.0497.2005.0824.1452
BIOS Date	8/24/2005
BIOS URL (For Updates)	http://support.intel.com/support/motherboards/server/SE7230NH1/

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

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 SE7230NH1-LC are available for download at:

ttp://support.intel.com/support/motherboards/server/SE7230NH1-LC/

Technology	OS	Version
LAN $82573V$ PCI Express 10/100/1000 and Intel 82541 1000MT PCI Supports 10/100/1000	**Windows Server 2003 64**	V9.1.30.0
	Windows Server 2003 64 Bit	V9.1.30.0
	Windows Server 2003	V8.6.11.0
	Windows Server 2003 64 Bit	V8.6.11.0
Display ATI* ES1000 video controller with 4 MB of video memory	**Windows Server 2003**	6.14.10.6553
	Windows Server 2003 64 Bit	6.14.10.6553
Serial RAID ATA **(ICH7-R)** Integrated 4-port SATA with support for RAID 0,1 or 10	**Windows Server 2003**	v.4.2.0624.2005
	Windows Server 2003 64 Bit	v.4.2.0624.2005

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 SE7230NH1-LC
Additional Product Names	

Supported Platforms		
	Check Tested	**Comments**
Windows 2000 Server	☑	
Windows 2000 Advanced Server	☑	
Windows Server 2003, Web Edition	☑	
Windows Server 2003, Standard Edition	☑	
Windows Server 2003, Enterprise Edition	☑	
Windows Server 2003, Standard Edition 64 Bit	☑	
Windows Server 2003, Enterprise Edition 64 Bit	☑	

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* 2000	HCT 9.502 Test Procedures for Systems, Servers and Cluster Servers (Windows 2000) http://download.microsoft.com/download/whistler/Docs/Docs/W982KMeXP/EN-US/HCT9502_Systems.exe	HCT 9.502 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 2003	HCT 12.1 Test Procedures and Readme files for Windows XP SP1 and Windows Server 2003 (4.95MB) http://www.microsoft.com/whdc/devtools/HCT12.mspx	HCT 12.1 (Windows XP SP1 and Windows Server 2003) Test Kit (4.95MB) http://www.microsoft.com/whdc/devtools/HCT12.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* 2000	298	PCI Power Management Register Interface Test: False Failure
Windows 2000	372	ACPI System test fails systems that support ACPI table version 1.0 or greater
Windows Server 2003	610	Intel ICHx Contingency
Windows 2000	702	Audio tests are not required for servers that do not implement audio devices
Windows 2000	719	DVD test cannot be run on systems without a DVD drive
Windows 2000	722	PCI 2.2 Compliance test and PCI 2.1 (Cards) test might fail test systems with ATA/ATAPI controllers
Windows Server 2003	772	LAN Device Wake test is not required on network devices in mobile systems, multifunction, broadband, LAN emulation, wireless LAN, server LAN, or bus-powered USB network devices
Windows 2000	826	PCI 2.1 Compliance test, PCI 2.1 Cards test, PCI 2.2 Compliance test, and CardBus Bridge Register test fail on devices that are PCI 2.3-compliant
Windows Server 2003	860	Enable/Disable – Device I/O test fails on USB 2.0 host controllers
Windows Server 2003	901	The ACPI Verifier test fails the E820 table when the system memory controller is a child of the PCI Bus
Windows Server 2003	1012	Enable/Disable - Device I/O test false-fails because of LPT port errors
Windows 2000	1182	ACPI Sleep test conflicts with Windows 2000 Service Pack 4

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/devtools/HCT12-1readme.mspx

Testing Exceptions for Intel® Server SE7230NH1-LC Windows 2000 Submission

Windows 2000 logs are no longer required after November 1, 2004. When a blank readme.doc is submitted with a qualifying Windows 2003, Windows 2000 will be granted a "Supported' status.

Testing Exceptions for Intel® Server SE7230NH1-LC Windows Server 2003

Data in this section reflects product data and test exceptions listed in section 2 of the Intel® Server SE7230NH1-LC Readme file at time of WLP First-Time submission ID Number 1025747.

Failures for both the submissions with the Dual-Core and Single-Core processors were identical. Single-Core processor submission was 1027397.

Operating system (Windows XP, Windows 2000, etc.)	Failure type (Contingency, Errata, Incident)	ID number
Windows 2003 Server EE	Errata	772
Failing test name	LAN Device Wake U	
Applicable error message (Type **N/A** if the error message or failing text is excessive or if there is no text)		
Additional information (for example, test system in a multiple system configuration)	Onboard NICs are both Gigabit	

Operating system (Windows XP, Windows 2000, etc.)	Failure type (Contingency, Errata, Incident)	ID number
Windows 2003 Server EE	Errata	772
Failing test name	Wake Device Server	
Applicable error message (Type **N/A** if the error message or failing text is excessive or if there is no text)		
Additional information (for example, test system in a multiple system configuration)	Onboard NICs are both Gigabit	

Operating system (Windows XP, Windows 2000, etc.)	Failure type (Contingency, Errata, Incident)	ID number
Windows 2003 Server EE	Errata	1306
Failing test name	PCI Compliance('PCI Device')	
Applicable error message (Type **N/A** if the error message or failing text is excessive or if there is no text)	740.744 : DEVICE INFO : Intel(R) PRO/1000 MT Network Connection 740.744 : DEVICE INFO : PCI\VEN_8086&DEV_1076&SUBSYS_30A18086&REV_05\4&1e46f438&0&28F0 740.744 : +TEST+SEV2 : FAIL: - A PCI-X device that generates interrupts must have an MSI or MSI-X capability.	
Additional information (for example, test system in a multiple system configuration)		

Testing Exceptions for Intel® Server SE7230NH1-LC Windows Server 2003 64 Bit

Data in this section reflects product data and test exceptions listed in section 2 of the Intel® Server SE7230NH1-LC Readme file at time of WLP First-Time submission ID Number 1025747.

Failures for both the submissions with the Dual-Core and Single-Core processors were identical. Single-Core processor submission was 1027397.

Operating system (Windows XP, Windows 2000, etc.)	Failure type (Contingency, Errata, Incident)	ID number
Windows 2003 Server EE 64 Bit	Errata	772
Failing test name	LAN Device Wake U	
Applicable error message (Type **N/A** if the error message or failing text is excessive or if there is no text)		
Additional information (for example, test system in a multiple system configuration)	Onboard NICs are both Gigabit	

Operating system (Windows XP, Windows 2000, etc.)	Failure type (Contingency, Errata, Incident)	ID number
Windows 2003 Server EE 64 Bit	Errata	772
Failing test name	Wake Device Server	
Applicable error message (Type **N/A** if the error message or failing text is excessive or if there is no text)		
Additional information (for example, test system in a multiple system configuration)	Onboard NICs are both Gigabit	

Operating system (Windows XP, Windows 2000, etc.)	Failure type (Contingency, Errata, Incident)	ID number
Windows 2003 Server EE 64 Bit	Errata	1306
Failing test name	PCI Compliance('PCI Device')	
Applicable error message (Type **N/A** if the error message or failing text is excessive or if there is no text)	4F4.4F8 : DEVICE INFO : Intel(R) PRO/1000 MT Network Connection 4F4.4F8 : DEVICE INFO : PCI\VEN_8086&DEV_1076&SUBSYS_30A18086&REV_05\4&1e46f438&0&28F0 4F4.4F8 : +TEST+SEV2 : FAIL: - A PCI-X device that generates interrupts must have an MSI or MSI-X capability.	
Additional information (for example, test system in a multiple system configuration)		

Appendix A – Submission History   **Intel® Server SE7230NH1-LC**

Appendix A – Submission History

Microsoft "Designed for Windows*" logo submission history for the Intel® Server SE7230NH1-LC:

Submission ID	Type	Date	OS Qualified	Processor Speeds	Board Revision	BIOS Version
1025747	First-Time	9/06/2005	Windows 2003 64 Bit Windows 2003 Windows 2000 (Supported status only)	3.2 GHz Dual-Core	Fab 301	NH72310J.86B.0497.2005.0824. 1452
1027397	Update	9/11/2005	Same	3.8 GHz Single-Core	Fab 301	NH72310J.86B.0497.2005.0824. 1452

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