



Server WHQL Testing Services

Enterprise Platforms and Services Division

Intel® Server SE7320EP2DG2

Server Test Submission (STS) Report

For the Microsoft® Windows® Logo Program (WLP)

Rev 1.1

July 6, 2005

This report describes the Intel® SE7320EP2DG2 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 SE7320EP2DG2.

| 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 2003 logo to product.) | <input type="checkbox"/> |

Revision History and Disclaimers

| Revision History | | |
|------------------|-----------|--|
| Revision | Date | Comments |
| 1.0 | 5/20/2005 | Internal draft of the STS Report for Windows Server 2003 & Windows 2000 WLP Submission for Intel® Server Board SE7320EP2DG2. |
| 1.1 | 7/6/2005 | Added 64 Bit Windows |

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Introduction

This report provides an overview of the testing conducted on the Intel® Server Board SE7320EP2DG2 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 | 998619 | |
| 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 2003 and Windows 2000 (Supported Status only for 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 | <input checked="" type="checkbox"/> | |
| SQL Database Server | <input checked="" type="checkbox"/> | |
| File Server | <input checked="" type="checkbox"/> | |

Server Board Configuration Information

| Processor | |
|------------------------------------|---|
| Quantity | 2 (physical processors installed) |
| Front Side Bus Speed | 800 MHz |
| Family/Model | Intel XEON processors (Nacona/Irwindale) |
| Speed | 2.80, 3.0, 3.20, 3.40, and 3.60 GHz |
| System Memory | |
| Amount Installed | 8 GB |
| Memory Type | DDR2 400 (4 DIMMs, ECC) |
| 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 |
| Board Manufacturer | Intel Corporation |
| Board Model | Intel® Server Board SE7320EP2DG2 |
| Northbridge* Chipset Manufacturer | Intel Corporation |
| Northbridge Chipset Model | Intel E7320 Chipset |
| Southbridge* Chipset Manufacturer | Intel Corporation |
| Southbridge Chipset Model | Intel E7320 Chipset |
| BIOS | |
| BIOS Manufacturer | AMI* |
| BIOS Version | SE7320EP20.86B.P.01.00.0010.05042051148 |
| BIOS Date | 5/4/05 |
| BIOS URL (For Updates) | http://support.intel.com/support/motherboards/server/SE7320EPI/ |

| 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 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 SE7320EP2DG2 are available for download at:

<http://support.intel.com/support/motherboards/server/SE7320EP2DG2/>

| Technology | OS | Version |
|--|----------------------------|--------------------|
| LAN Intel PRO/1000 MT Server Network Connection Supports 10/100/1000 | Windows Server 2003 | v. 8.4.21.0 |
| | Windows Server 2003 64 Bit | v. 8.1.8.0 |
| LAN Marvell Yukon 88E8050 Network Connection Supports 10/100/1000 | Windows Server 2003 | v. 8.25.1.3 |
| | Windows Server 2003 64 Bit | v. 8.27.3.3 |
| Display ATI* Rage* XL SVGA PCI video controller with 8 MB of video memory | Windows Server 2003 | v. 5.10.26.00.6024 |
| | Windows Server 2003 64 Bit | v. 6.14.3665.6024 |
| Serial RAID ATA (Off the Hance Rapids) The Intel SATA system contains two independent SATA signal ports that can be configured as either a RAID 1 or 0 | Windows Server 2003 | v. 4.2.0318.2005 |
| | Windows Server 2003 64 Bit | v. 4.2.0318.2005 |

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 SE7320EP2DG2 | |
| Additional Product Names | | |
| | | |
| Supported Platforms | | |
| | Check Tested | Comments |
| Windows 2000 Server | <input checked="" type="checkbox"/> | |
| Windows 2000 Advanced Server | <input checked="" 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"/> | |
| Windows Server 2003, Standard Edition 64 Bit | <input checked="" type="checkbox"/> | |
| Windows Server 2003, Enterprise Edition 64 Bit | <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* 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 11.2 Test Procedures and Readme files for Windows XP SP1 and Windows Server 2003 (4.95MB) http://www.microsoft.com/whdc/hwtest/search/details.aspx?ID=725 | HCT 11.2 (Windows XP SP1 and Windows Server 2003) 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 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://download.microsoft.com/download/whistler/install/1.0/w98nt42kmexp/en-us/readme.exe>

Testing Exceptions for Intel® Server SE7320EP2DG2 Windows 2000 Submission

Data in this section reflects product data and test exceptions listed in section 2 of the Intel® Server SE7320EP2DG2 Readme file at time of WLP First-Time submission ID Number 998619.

Windows 2000 testing no longer required when submitted with a current OS such as Windows 2003 Enterprise Edition.

Testing Exceptions for Intel® Server SE7320EP2DG2 Windows Server 2003

Data in this section reflects product data and test exceptions listed in section 2 of the Intel® Server SE7320EP2DG2 Readme file at time of WLP First-Time submission ID Number 998619.

| Operating system (Windows XP, Windows 2000, etc.) | Failure type (Contingency, Errata, Incident) | ID number |
|---|---|------------------|
| Windows 2003 Enterprise Edition / SP1 | Errata | 1306 |
| Failing test name | PCI Compliance | |
| Applicable error message (Type N/A if the error message or failing text is excessive or if there is no text) | 128.12C : DEVICE INFO : Intel(R) PRO/1000 MT Network Connection 128.12C : DEVICE INFO : PCIIVEN_8086&DEV_1076&SUBSYS_34588086&REV_05V4&3abfd0ac&0&18F0 128.12C : +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) | PCI Compliance test fails for MSI capability | |

Tip **Additional Information**

No additional information entered in section 3 of the Intel® Server SE7320EP2DG2 Readme file at time of WLP submission ID 998619.

Testing Exceptions for Intel® Server SE7320EP2DG2 Windows Server 2003 64 Bit

Data in this section reflects product data and test exceptions listed in section 2 of the Intel® Server SE7320EP2DG2 Readme file at time of WLP First-Time submission ID Number 998619.

| Operating system (Windows XP, Windows 2000, etc.) | Failure type (Contingency, Errata, Incident) | ID number |
|---|---|-----------|
| Windows Server 2003 Enterprise Edition 64 Bit | Errata | 1306 |
| Failing test name | PCI Compliance Test | |
| Applicable error message (Type N/A if the error message or failing text is excessive or if there is no text) | 474.478 : DEVICE INFO : Intel(R) PRO/1000 MT Network Connection 474.478 : DEVICE INFO : PCI\VEN_8086&DEV_1076&SUBSYS_34588086&REV_05\4&3abfd0ac&0&18F0 474.478 : +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) | | |

| Operating system (Windows XP, Windows 2000, etc.) | Failure type (Contingency, Errata, Incident) | ID number |
|---|---|-----------|
| Windows Server 2003 Enterprise Edition 64 Bit | Contingency | 781 |
| Failing test name | PCI Compliance Test | |
| Applicable error message (Type N/A if the error message or failing text is excessive or if there is no text) | 474.478 : DEVICE INFO : Intel Embedded Server RAID Technology 474.478 : DEVICE INFO : PCI\VEN_8086&DEV_25B0&SUBSYS_345F8086&REV_02\3&267a616a&0&FA 474.478 : +TEST+SEV2 : FAIL: 4.55.3 - The Programming Interface in the Class Code register must be read only. | |
| 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 2003 Enterprise Edition 64 Bit | Errata | 772 |
| Failing test name | LAN Device Wake Up | |
| 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) | Both onboard NICs are Gigabit | |

| Operating system (Windows XP, Windows 2000, etc.) | Failure type (Contingency, Errata, Incident) | ID number |
|---|--|------------------|
| Windows Server 2003 Enterprise Edition 64 Bit | Errata | 772 |
| Failing test name | Wake Device Server('Server-side Test') | |
| 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) | Both onboard NICs are Gigabit | |

Appendix A – Submission History

Microsoft “Designed for Windows*” logo submission history for the Intel® Server SE7320EP2DG2:

| Submission ID | Type | Date | OS Qualified | Processor Speeds | Board Revision | BIOS Version |
|---------------|------------|--------|---|--|----------------|----------------|
| 984273 | First-Time | 6/2/05 | Windows 2003 EE Windows 2000 as “Supported” only | 2.80, 3.0, 3.20, 3.40, and 3.60 GHz | 301 | P01 5/04/05 |
| 998619 | First-Time | 7/7/05 | Windows 2003 EE 64 Bit Windows 2003 EE Windows 2000 as “Supported” only | 2.80, 3.0, 3.20, 3.40, and 3.60 GHz | 302 | P01 5/04/05 |