



Server WHQL Testing Services
Enterprise Platforms and Services Division

Intel® Server Board SDS2

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

[Rev. 1.1]

6/25/2002

This report describes the Windows Logo Program test run for the Intel Server Platform, SDS2. This test is conducted by Intel Enterprise Platforms and Services Division (EPSD).

Purpose of this WLP Submission:

WHQL Intel SDS2 Server Platform update submission.

Run Type:	Check one	Comments
First run new product	<input type="checkbox"/>	First run for Product launch
Board HW update	<input type="checkbox"/>	ECO # or PCN change
BIOS/Firmware update	<input checked="" type="checkbox"/>	Updated BIOS or Firmware version
OS update	<input type="checkbox"/>	New Microsoft operating system release

Revision History and Disclaimers

Revision History		
Revision	Date	Comments
1.0	4/29/2002	STS Report for January 2002 WLP First-Time Hardware Submission for Intel® Server, SDS2.
1.1	6/17/2002	STS Report for June 2002, WLP Update submission for Intel® Server, SDS2.

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Introduction

This report provides an overview of the testing conducted on the product 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 HCTs used during testing
Errata and Contingencies	All Microsoft errata or contingencies used during testing

Terms and Definitions

Term	Definitions
WHQL	Windows* Hardware Qualification Lab. For more information visit the WHQL home page at: http://www.microsoft.com/hwdq/hwtest/default.asp
HCT	Hardware Compatibility Tests. For latest Server HCTs visit: http://www.microsoft.com/hwdq/hwtest/devices/systems.asp?area=sysrv-srvr
WLP	Windows Logo Program. For further information see: http://www.microsoft.com/hwdq/hwtest/default.asp
HCL	Windows Hardware Compatibility List. You can view the HCL at: http://www.microsoft.com/hcl/
WLPQS	Windows Logo Program Qualification Service – Secure online web site used to submit products for logo qualification and review submission history. https://winqual.microsoft.com/

Server Board Submission Information

Intel Server Board Submission Report: Completion of WLP

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

Submission Information

Submission ID		
Submission ID / Master ID	607617	
Previously logo'd Submission ID / Master ID	565631	
Submission Type		
	Check Submission Type	Comments
First-Time Hardware and Driver Test Submission	<input type="checkbox"/>	
Update Hardware and Driver Test Submission	<input checked="" type="checkbox"/>	
Update Type (Update Hardware and Drivers Test Submission ONLY)		
	Check Update Type	Comments
Hardware (Firmware) Update	<input checked="" type="checkbox"/>	
System Update	<input type="checkbox"/>	
Previously Logo'd Operating System	Windows* 2000	
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 Updates	<input checked="" type="checkbox"/>	
Product Category		
Hardware Category	PC System or Server	
Operating System Selected	Windows* 2000	
Product Detail		
General Product Information		
Equipment Type	Server	
Primary Target Market	Business/Corporate	
Compliance	SDG 2.0	

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	2
Front Side Bus Speed	133 Mhz
Family	Intel® Pentium® III Processor with 512-KB L2 Cache Support
Speed	1Ghz, 1.133 Ghz, 1.266 Ghz, 1.4 Ghz
System Memory	
Amount Installed	6 GB
Memory Type	PC133 ECC SDRAM memory
Power Management	
ACPI Sleep States	S0, S1, S4, S5
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	AA-A58285-402
Board Manufacturer	Intel Corporation
Board Model	Intel® Server Board SDS2
Northbridge* Chipset Manufacturer	ServerWorks*
Northbridge Chipset Model	ServerSet* III HE SL Chipset
Southbridge* Chipset Manufacturer	ServerWorks
Southbridge Chipset Model	CSB5 A2.0

BIOS			
BIOS Manufacturer	Phoenix		
BIOS Version	PhoenixBIOS* 4.0 Release 6.0 – Build 49		
BIOS Date	6/5/2002		
BIOS URL (For Updates)	http://support.intel.com/support/motherboards/server/sds2/		
Firmware			
BMC Version	28		
HSC Version	00.08		
FRU/SDR Version	5.0.D		
Firmware URL	http://support.intel.com/support/motherboards/server/sds2/		
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 checked="" type="checkbox"/>
Mini-PCI	<input type="checkbox"/>	USB 2.0	<input type="checkbox"/>
AMR	<input type="checkbox"/>	InfiniBand*	<input type="checkbox"/>
ACR	<input type="checkbox"/>	Bluetooth*	<input type="checkbox"/>
COM (Serial)	<input 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 type="checkbox"/>
Modem	<input type="checkbox"/>	Bluetooth	<input type="checkbox"/>

Onboard Integrated Devices and Drivers

Data in this section reflects system configuration at time of WLP submission. The latest drivers for the SDS2 server board are available for download at:

<http://support.intel.com/support/motherboards/server/sds2/>

Technology	OS	Version
LAN Onboard Intel® PRO 100 Server Ethernet Controller (Intel® 82550PM Controller)	Windows NT* 4.0	N/A - Not required for Server Submission
	Windows* 2000	v. 5.41.32
	Windows .NET*	N/A
SCSI Adaptec* 7899 Dual-Channel Ultra160 SCSI Controller	Windows NT 4.0	N/A - Not required for Server Submission
	Windows 2000	v. 5.0.2183.1 (Used Driver included in OS)
	Windows .NET	N/A
Display ATI Rage* IIC VGA PCI Graphics (with 2GB of memory)	Windows NT 4.0	N/A - Not required for Server Submission
	Windows 2000	v. 5.0.2180.1 (Used Driver included in OS)
	Windows .NET	N/A

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 SDS2	
Additional Product Names	SDS2 Server Platform Intel® SDS2 SDS2	
Supported Platforms		
	Check Tested	Comments
Windows 2000 Server	<input checked="" type="checkbox"/>	
Windows 2000 Advanced Server	<input checked="" type="checkbox"/>	

Hardware Compatibility Tests Used (HCT)

Microsoft* WHQL Server Testing Home Page:

<http://www.microsoft.com/hwdq/hwtest/devices/systems.asp?area=sysrv-srvr>.

Please check this website regularly for test kit updates.

Operating Systems	Notes	HCT
Windows* 2000	Readme for Microsoft Windows Logo HCT 9.502 http://www.microsoft.com/hwtest/search/details.asp?ID=337	HCT 9.502 Test Kit (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
	Contents of the HCT 9.5 Test Kit http://www.microsoft.com/hwtest/search/details.asp?ID=231	HCT 9.5 Test Kit (140 MB) http://download.microsoft.com/download/whistler/Tools/Tools/W98NT42KMeXP/EN-US/hct19991122.exe
	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 (35.4MB) http://download.microsoft.com/download/whistler/Tools/Tools/W98NT42KMeXP/EN-US/HCT9502UPD.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

Errata and Contingencies

Microsoft* HCT Errata website:

<http://www.microsoft.com/hwtest/search/results.asp?Type=Err&Key=System&Sort=Title>

Sample List:

Operating System	Identification Number	Title
Windows* 2000	213	<u>PNP Enable/Disable Test Issue</u>
Windows 2000	350	<u>PCI 2.1 Compliance Test Failure for Server Submissions that Do Not Support Power Management</u>
Windows 2000	418	<u>ACPI Pre-OS tests are not required for system submissions</u>
Windows 2000	722	<u>PCI 2.2 Compliance test and PCI 2.1 (Cards) test might fail test systems with ATA/ATAPI controllers</u>

SDS2 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 SDS2 Update Submission

Data in this section reflects product data and test exceptions listed in section 2 of the SDS2 Readme file at time of WLP Update submission.

Operating system (Windows* XP, Windows 2000, etc.)	Failure type (Contingency, Errata, Incident)	ID number
Windows 2000	Errata	722
Failing test name	PCI 2.1 (Cards) Test	
Applicable error message (Type N/A if the error message or failing text is excessive or if there is no text)	Errata Title: <u>PCI 2.2 Compliance test and PCI 2.1 (Cards) test might fail test systems with ATA/ATAPI controllers</u> Problem: PCI2.1 (Cards) test fails with the following error: BAR is 0x00002491, Length of BAR is 0xFFFF0004 ERROR: Base register 24 should be zero (read-only)! No Extended capabilities required for this device	

Additional Information

Data in this section reflects product data and additional information entered in section 3 of the SDS2 Readme file at time of WLP Update submission.

- FullDuplex Test not required for server submissions if no audio device is implemented. The SDS2 server does not have an audio device implemented. FullDuplex Test was not run.
- DSound Driver Test not required for server submissions if no audio device is implemented. The SDS2 server does not have an audio device implemented. DSound Driver Test was not run.
- Wave Driver Test not required for server submissions if no audio device is implemented. The SDS2 server does not have an audio device implemented. Wave Driver Test was not run.
- Mixer Driver Test not required for server submissions if no audio device is implemented. The SDS2 server does not have an audio device implemented. Mixer Driver Test was not run.
- Due to Windows* 2000 Advanced Server 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 2000 Advanced Server to go into hibernation. Refer to errata ID: 92.

Testing Exceptions for SDS2 First-Time Submission

Data in this section reflects product data and test exceptions listed in section 2 of the SDS2 Readme file at time of WLP First-Time submission.

Operating system (Windows* XP, Windows 2000, etc.)	Failure type (Contingency, Errata, Incident)	ID number
Windows 2000	Errata	298
Failing test name	PCI Power Management Register Interface	
Applicable error message (Type N/A if the error message or failing text is excessive or if there is no text)	Errata Title: <u>PCI Power Management Register Interface Test: False Failure</u> Log File: pcicap.log <<< FAILED 4.4.2 >>> PowerState field in PMCSR register is not writable.	

Operating system (Windows* XP, Windows 2000, etc.)	Failure type (Contingency, Errata, Incident)	ID number
Windows 2000	Errata	722
Failing test name	PCI 2.1 (Cards) Test	
Applicable error message (Type N/A if the error message or failing text is excessive or if there is no text)	Errata Title: <u>PCI 2.2 Compliance test and PCI 2.1 (Cards) test might fail test systems with ATA/ATAPI controllers</u> Problem: PCI2.1 (Cards) test fails with the following error: BAR is 0x00002491, Length of BAR is 0xFFFF0004 ERROR: Base register 24 should be zero (read-only)! No Extended capabilities required for this device	

Additional Information

Data in this section reflects product data and additional information entered in section 3 of the SDS2 Readme file at time of the initial WLP First Time submission.

- FullDuplex Test not required for server submissions if no audio device is implemented. The SDS2 server does not have an audio device implemented. FullDuplex Test was not run.
- DSound Driver Test not required for server submissions if no audio device is implemented. The SDS2 server does not have an audio device implemented. DSound Driver Test was not run.
- Wave Driver Test not required for server submissions if no audio device is implemented. The SDS2 server does not have an audio device implemented. Wave Driver Test was not run.
- Due to Windows 2000 Advanced Server 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 2000 Advanced Server to go into hibernation. Refer to errata ID: 92.
- Preview PCI Pre-OS tests fail. Following preview PCI Pre-OS are not required to pass. The following test failures are acceptable.
 - PCIWAKE (System Wake-up Test)
 - PCIWAKEA (System Wake-up TestA)
 - PCIVAUX (3.3Vaux Auxiliary Power Load Test)
 - PCIPME1 (PME# Signal Routing Test):
 - PCIPME2 (Simultaneous PME# Signal Assertion Test)

Appendix A – Submission History

Submission history for the Intel® Server Board SDS2:

WLPQS Submission History					
Submission ID	Type	Date	Processor Speeds	Board Revision	BIOS Version
565631	First-Time Submission	1/18/2002	1Ghz, 1.133 Ghz, 1.266 Ghz, 1.4 Ghz	AA-XXXXXX-402	Build 41
607617	Update Submission	6/25/2002	1Ghz, 1.133 Ghz, 1.266 Ghz, 1.4 Ghz	AA-XXXXXX-402	Build 49