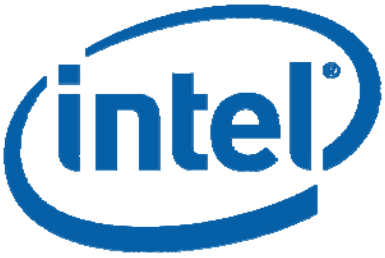

Server WHQL Testing Services

Enterprise Platforms and Services Division

Intel® Server System S7000FC4URE-IR

Server Test Submission (STS) Report

For the Microsoft® Windows® Logo Program (WLP)

Rev 2.0

June 24, 2008

This report describes the Intel® S7000FC4UR Server System Windows* Logo Program test run conducted by Intel Enterprise Platforms and Services Division (EPSD).

Purpose of this WLP Submission (Submission ID 1296878):

System First Time submission for the Microsoft* Designed for Windows Logo submission for the Intel® Server System S7000FC4URE configured in IR (Integrated RAID) mode.

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	8/29/2007	Internal version of the STS Report for Windows Server 2003 Submission for Intel® Server System S7000FC4UR (64-bit only)
1.1	9/5/2007	STS Report for Windows Server 2003 Submission for Intel® Server System S7000FC4UR (32-bit and 64-bit)
1.2	9/24/2007	Changed title to include “IR” to indicate Integrated RAID mode and added section for Windows Server 2003 Test Exceptions
1.3	9/24/2007	Replaced erroneous reference to S0000PSLROMB with S7000FC4UR on page 11
2.0	6/24/2008	Internal version of the STS Report for **Windows Server 2008** Submission for Intel® Server System S7000FC4UR (32-bit and 64-bit)

Contents

Introduction

This report provides an overview of the testing conducted on the Intel® Server System S7000FC4URE 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.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/whql/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 System Submission Information

Intel Server System 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	**1296878**	
Submission Type		
	Check Submission Type	**Comments**
First-Time Hardware and Driver Test Submission	☑	
System Update Test Submission	☐	
Product Category		
Hardware Category	PC System or Server	
Operating System family	Windows Server 2008 and Windows Server 2008 x64	
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	4 (physical processors installed)
Front Side Bus Speed	1067 MHz
Family/Model	Quad-Core Intel® Xeon® Processors 7300 Series or Dual-Core Intel Xeon Processors 7200 Series
Speed	1.60, 1.86, 2.13, 2.40, and 2.93 GHz
System Memory	
Amount Installed	128 GB
Memory Type	FB DDR2-533 (4 GB FBDIMMs, ECC)
Power Management	
ACPI Sleep States (S1, S2, S3, S4)	S1, S4
Server Board Product	
System uses logo'd motherboard	NO (Server boards are NOT eligible for logo under the Microsoft* Motherboard logo program)
Board AA #/Fab	PBA : D56804-605
Board Manufacturer	Intel Corporation
Board Model	Intel® Server System S7000FC4URE
Northbridge* Chipset Manufacturer	Intel Corporation
Northbridge Chipset Model	Intel® 7300 Chipset Memory Controller Hub
Southbridge* Chipset Manufacturer	Intel Corporation
Southbridge Chipset Model	Intel® Enterprise Southbridge2
BIOS	
BIOS Manufacturer	AMI*
BIOS Version	SFC4UR.86B.01.00.0023
BIOS Date	5/2/2008
BIOS URL (For Updates)	htttp://support.intel.com/motherboards/server/S7000FC4UR/

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 System S7000FC4URE are available for download at:

ttp://support.intel.com/support/motherboards/server/S7000FC4UR/

Technology	OS	Version
Intel® S7300/ESB2-E Chipset The chipset contains two main components: the Memory Controller Hub (MCH) for the host bridge and the I/O controller hub for the I/O sub-system. The chipset uses the Enterprise South Bridge (ESB2-E) for the I/O controller hub.	**Windows Server 2008 – 32Bit** **Windows Server 2008 – 64Bit**	OS Embedded OS Embedded
LSI SAS RAID-on-Chip 8-port 1078 Controller Integrated RAID (IR) mode	**Windows Server 2008 – 32Bit** **Windows Server 2008 – 64Bit**	1.25.0006.22 (embedded) 1.25.0006.22 (embedded)
LAN 2 X Intel PRO/1000-EB Server Network Connection Supports 10/100/1000 and I/O Accelerated Technology (Intel 82563GB Controller)	**Windows Server 2008 – 32Bit** **Windows Server 2008 – 64Bit**	9.12.16.0 (Pkg 12.4) 9.12.16.0 (Pkg 12.4)
LAN 2 x Intel® 82575EB Gigabit Network Connection	**Windows Server 2008 – 32Bit** **Windows Server 2008 – 64Bit**	9.12.16.0 (Pkg 12.4) 9.12.16.0 (Pkg 12.4)

I/O Accelerated Technology	**Windows Server 2008 – 32Bit** **Windows Server 2008 – 64Bit**	1.2.79.9 (Pkg 12.4) 1.2.79.9 (Pkg 12.4)
Display ATI* ES1000 SVGA PCI video controller with 16 MB of video memory	**Windows Server 2008 – 32Bit** **Windows Server 2008 – 64Bit**	8.24.3.0 8.24.3.0
Trusted Platform Module The TPM is a security device that connects to the Enterprise Southbridge 2 LPC bus.	**Windows Server 2008 – 32Bit** **Windows Server 2008 – 64Bit**	1.0.4.0015 1.0.4.0015
Intel® ESG-SHV backplane (Null driver)	**Windows Server 2008 – 32Bit** **Windows Server 2008 – 64Bit**	5.00.6055.2 5.00.6055.2

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 System S7000FC4URE	
Additional Product Names	Intel® Server System S7000FC4UR	
Supported Platforms		
	Check Tested	**Comments**
Windows Server 2008, Standard Edition	☑	
Windows Server 2008, Standard Edition x64	☑	
Windows Server 2008, Enterprise Edition	☑	
Windows Server 2008, Enterprise Edition x64	☑	
Windows Server 2008, DataCenter	☑	
Windows Server 2008, DataCenter x64	☑	

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 2008	DTM 1.2 Test Procedures and Readme files for Windows XP SP2, Windows vista, Windows Server 2003, and Windows Server 2008 (4.95MB) http://www.microsoft.com/whdc/winlogo/wlk/default.mspx	DTM 1.2 (Windows XP, Windows Vista, Windows Server 2003, and Windows Server 2008) Test Kit (4.95MB) http://www.microsoft.com/whdc/winlogo/wlk/default.mspx
	Windows Server Marketplace	http://www.windowsservercatalog.com/default.aspx

Errata and Contingencies

Microsoft* System DTM 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 2008	1048, 1029, 1078, 887, 1113, 316, 317, 1115, 1093, 1080, 566, 1114, 474, 1141, 1053, 563	*See Testing Exceptions section below*
Windows Server 2008 x64	1048, 1029, 1078, 887, 1113, 316, 317, 1115, 1093, 1080, 566, 1114, 474, 1141, 1053, 563, 1175, 1176, 1177	*See Testing Exceptions section below*

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.mspx.

Testing Exceptions for S7000FC4URE-IR Windows Server 2008

Data in this section reflects product data and test exceptions listed in section 2 of the S7000FC4URE-IR Readme file at time of WLP First-Time submission ID Number **1296878**.

Operating system (Windows XP, Windows 2000, etc.)	**Failure type** (Contingency, Errata, Incident)	**ID number**
Windows Server 2008	Waiver	Bug # 1048
Failing test name	TCG TPM Integration Test	
Applicable error message (Type **N/A** if the error message or failing text is excessive or if there is no text)	**Problem Statement –** STMicro PVGR TPM component incorporated in several Intel products returns TPM_FAIL instead of TPM_BAD_LOCALITY when extending PCRs 17-22. ST has no way to modify the TPM behavior with the current PVGR version. **Resolution – (6/20/2008)** The next TPM versions, PVI and PVL, return the expected TPM_BAD_LOCALITY error code and allow updating to the field with TPM firmware. **Microsoft Decision –** TCG TPM Integration Test failures involving PCR 17-22 return values of TPM_Failed_To_Extend will be honored on the following systems, per the below timelines. **Windows Server 2008 and future versions of Windows Server** until **Dec 2010.** **Intel® Server Systems S7000FC4UR(E), Fab 6 and earlier** as new fabs will incorporate updated TPM part	
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	1029
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 4BA8F23A-6BB1-48EE-88D8-ED1A3ECD34B9 SSVID register of the Subsystem ID and Subsystem Vendor ID Capability table must be read-only . Assertion 6B0F606E-DBB3-4B8C-8879-32B302412EB8 SSID register of the Subsystem ID and Subsystem Vendor ID Capability table must be read-only . Assertion B576282C-5C66-4253-A275-257F5D49EFEF SSVID register of the Subsystem ID and Subsystem Vendor ID Capability table cannot have a value of 0h. These are valid failures but are not a requirement till January 2009. A filter is being created for the above assertions for this particular device. Added failure: Assertion 7A5587BC-5646-4DC4-9A5D-22F85AB2204E PCI Express ports and bridges must implement Subsystem ID and Subsystem Vendor ID 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 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 Errror 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	887
Failing test name	PCI Harware 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)	Bit 10 (Interrupt Disable) in the Command register (offset 4h) in the Header table must be read-writable if the device supports an interrupt.	
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	1113
Failing test name	PCI Harware 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)	Bit 5 (Retrain Link) in the Link Control register (offset 10h) in the PCI Express Capability table must always return 0 on reads even though it is read-write.	
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	316
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 15:8 (Bus Number)in the PCI-X Bridge Status register (offset 4h) in the PCI-X Capability table must be read-only. RESOLUTION: The following assertion failure is allowed EBA19FF0-AB40-4D74-AC05-4ABE22D356BD	
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	317
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)	Header Type 1 Registers failure due to a PCI Compliance test issue RESOLUTION: The following assertion failure is allowed 60BDF3F8-01D2-4B58-8A14-04DA4C1B694A	
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	1115
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)	PCI Compliance - Bit 3 (Read Completion Boundary) in the Link Control register (offset 10h) in the PCI Express Capability table must be read-only and always return 0 for switch ports. RESOLUTION: The following PCI Compliance assertion failure is allowed **9A275B03**-1072-43D6-B034-3DD306D24324
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**	**1093**
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)	SSVID register of the Subsystem ID and Subsystem Vendor ID Capability table must not change value after power state transitions.	
Additional information (for example, test system in a numerous system configuration)		

Operating system (Windows XP, Windows 2000, etc.)	**Failure type** (Contingency, Errata, Incident)	**ID number**
Windows Server 2008	Errata	1080
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)	PCI Compliance test causes the system to hang after testing Power Management capability of the graphics devices. This occurs after the device are put into various D-states and then recovered to D0 state. Cause: The AMD/ATI graphics devices require that the VBIOS be re-posted after transition to various D-states and recovery to D0 state which the PCIHCT doesn't do.	
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	566
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 7A5587BC-5646-4DC4-9A5D-22F85AB2204E: FAILED. PCI Express ports and bridges must implement Subsystem ID and Subsystem Vendor ID Capability. This requirement not in effect unitl 2009
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	1114
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)	According to the PCI Express Base Specification, Rev 2.0 Section 7.8.8, this bit field is undefined when the link is not up. If there is not PCIe device behind the bridge, then the link can NOT be up and therefore the field is undefined. Bit 13 in the same register (Link Status) can be used to determine if the link is active (up). The PCIHCT uses the Presence Detect State bit of the Slot Status register to determine whether a child device is present. However, the Presence Detect State bit only returns valid data if the Slot Implemented bit is set (bit 8 of PCIe capabilities register). If the PCIe root port or downstream port will never have a device behind it, the Slot Implemented bit is cleared to 0. Per the spec, PDS will always be 1 when the Slot Implemented bit is clear. Therefore PDS can not be used to determine device presence when the SI bit is clear.	
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**	**474**
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)	According to the PCI Express Base Specification, Rev 2.0 Section 7.8.8, this bit field is undefined when the link is not up. If there is not PCIe device behind the bridge, then the link can NOT be up and therefore the field is undefined. Bit 13 in the same register (Link Status) can be used to determine if the link is active (up). The PCIHCT uses the Presence Detect State bit of the Slot Status register to determine whether a child device is present. However, the Presence Detect State bit only returns valid data if the Slot Implemented bit is set (bit 8 of PCIe capabilities register). If the PCIe root port or downstream port will never have a device behind it, the Slot Implemented bit is cleared to 0. Per the spec, PDS will always be 1 when the Slot Implemented bit is clear. Therefore PDS can not be used to determine device presence when the SI bit is clear.
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	1141
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 5FC5B29C-0F24-423B-856A-87C9E31C6802 Bit 14 (Completion Timeout Mask) in the Uncorrectable Error Mask register (offset 8h) in the Advanced Error Reporting Capability table must be read-writable . Assertion 908C881D-29ED-4B57-A1A6-BE1DBD45522E Bit 14 (Completion Timeout Error Severity) in the Uncorrectable Error Severity register (offset Ch) in the Advanced Error Reporting 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	1053
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 C1DA87B7-13A0-41C0-9184-2E8FEBBFD61E Bit range 14:7 (Slot Power Limit Value) in the Slot Capabilities register (offset 14h) in the PCI Express Capability table must be read-only. Assertion AA3CC9C9-BE45-4213-AB5A-67DA669F7019 Bit range 16:15 (Slot Power Limit Scale) in the Slot Capabilities register (offset 14h) in the PCI Express Capability table 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 2008	Errata	563
Failing test name	Signed Driver Check	
Applicable error message (Type **N/A** if the error message or failing text is excessive or if there is no text)	Chklogo6 may fail when the device under test uses muiltiple drivers ERROR: Test was unable to match this device ID with the device ID of the device for which Error: this driver file was tested with this driver file was tested with.	
Additional information (for example, test system in a multiple system configuration)		

Testing Exceptions for S7000FC4URE-IR-IR Windows Server 2008 64 Bit

Data in this section reflects product data and test exceptions listed in section 2 of the S7000FC4URE-IR-IR. Readme file at time of WLP First-Time submission ID Number **1296878.**

Operating system (Windows XP, Windows 2000, etc.)	**Failure type** (Contingency, Errata, Incident)	**ID number**
Windows Server 2008 x64	Waiver	Bug # 1048
Failing test name	TCG TPM Integration Test	
Applicable error message (Type **N/A** if the error message or failing text is excessive or if there is no text)	**Problem Statement –** STMicro PVGR TPM component incorporated in several Intel products returns TPM_FAIL instead of TPM_BAD_LOCALITY when extending PCRs 17-22. ST has no way to modify the TPM behavior with the current PVGR version. **Resolution – (6/20/2008)** The next TPM versions, PVI and PVL, return the expected TPM_BAD_LOCALITY error code and allow updating to the field with TPM firmware. **Microsoft Decision –** TCG TPM Integration Test failures involving PCR 17-22 return values of TPM_Failed_To_Extend will be honored on the following systems, per the below timelines. **Windows Server 2008 and future versions of Windows Server** until **Dec 2010: Intel® Server Systems S7000FC4UR(E), Fab 6 and earlier** as new fabs will incorporate updated TPM part	

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	1029
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 4BA8F23A-6BB1-48EE-88D8-ED1A3ECD34B9 SSVID register of the Subsystem ID and Subsystem Vendor ID Capability table must be read-only . Assertion 6B0F606E-DBB3-4B8C-8879-32B302412EB8 SSID register of the Subsystem ID and Subsystem Vendor ID Capability table must be read-only . Assertion B576282C-5C66-4253-A275-257F5D49EFEF SSVID register of the Subsystem ID and Subsystem Vendor ID Capability table cannot have a value of 0h. These are valid failures but are not a requirement till January 2009. A filter is being created for the above assertions for this particular device. Added failure: Assertion 7A5587BC-5646-4DC4-9A5D-22F85AB2204E PCI Express ports and bridges must implement Subsystem ID and Subsystem Vendor ID 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 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 Errror 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	887
Failing test name	PCI Harware 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)	Bit 10 (Interrupt Disable) in the Command register (offset 4h) in the Header table must be read-writable if the device supports an interrupt.
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	1113
Failing test name	PCI Harware 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)	Bit 5 (Retrain Link) in the Link Control register (offset 10h) in the PCI Express Capability table must always return 0 on reads even though it is read-write.	
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	316
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 15:8 (Bus Number)in the PCI-X Bridge Status register (offset 4h) in the PCI-X Capability table must be read-only. RESOLUTION: The following assertion failure is allowed EBA19FF0-AB40-4D74-AC05-4ABE22D356BD	
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	317
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)	Header Type 1 Registers failure due to a PCI Compliance test issue RESOLUTION: The following assertion failure is allowed 60BDF3F8-01D2-4B58-8A14-04DA4C1B694A	

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	1115
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)	PCI Compliance - Bit 3 (Read Completion Boundary) in the Link Control register (offset 10h) in the PCI Express Capability table must be read-only and always return 0 for switch ports. RESOLUTION: The following PCI Compliance assertion failure is allowed **9A275B03**-1072-43D6-B034-3DD306D2432	
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	1093
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)	SSVID register of the Subsystem ID and Subsystem Vendor ID Capability table must not change value after power state transitions.	
Additional information (for example, test system in a numerous system configuration)		

Operating system (Windows XP, Windows 2000, etc.)	**Failure type** (Contingency, Errata, Incident)	**ID number**
Windows Server 2008 x64	Errata	1080
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)	PCI Compliance test causes the system to hang after testing Power Management capability of the graphics devices. This occurs after the device are put into various D-states and then recovered to D0 state. Cause: The AMD/ATI graphics devices require that the VBIOS be re-posted after transition to various D-states and recovery to D0 state which the PCIHCT doesn't do.	
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	566
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 7A5587BC-5646-4DC4-9A5D-22F85AB2204E: FAILED. PCI Express ports and bridges must implement Subsystem ID and Subsystem Vendor ID Capability. This requirement not in effect unitl 2009	
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	1114
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 0h. It must be in the set of values {0x1, 0x2, 0x4, 0x8, 0xc, 0x10, 0x20}.	
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	474
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)	According to the PCI Express Base Specification, Rev 2.0 Section 7.8.8, this bit field is undefined when the link is not up. If there is not PCIe device behind the bridge, then the link can NOT be up and therefore the field is undefined. Bit 13 in the same register (Link Status) can be used to determine if the link is active (up). The PCIHCT uses the Presence Detect State bit of the Slot Status register to determine whether a child device is present. However, the Presence Detect State bit only returns valid data if the Slot Implemented bit is set (bit 8 of PCIe capabilities register). If the PCIe root port or downstream port will never have a device behind it, the Slot Implemented bit is cleared to 0. Per the spec, PDS will always be 1 when the Slot Implemented bit is clear. Therefore PDS can not be used to determine device presence when the SI bit is clear.	

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	1141
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 5FC5B29C-0F24-423B-856A-87C9E31C6802 Bit 14 (Completion Timeout Mask) in the Uncorrectable Error Mask register (offset 8h) in the Advanced Error Reporting Capability table must be read-writable . Assertion 908C881D-29ED-4B57-A1A6-BE1DBD45522E Bit 14 (Completion Timeout Error Severity) in the Uncorrectable Error Severity register (offset Ch) in the Advanced Error Reporting 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	1053
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 C1DA87B7-13A0-41C0-9184-2E8FEBBFD61E Bit range 14:7 (Slot Power Limit Value) in the Slot Capabilities register (offset 14h) in the PCI Express Capability table must be read-only. Assertion AA3CC9C9-BE45-4213-AB5A-67DA669F7019 Bit range 16:15 (Slot Power Limit Scale) in the Slot Capabilities register (offset 14h) in the PCI Express Capability table 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 2008 x64	Errata	563
Failing test name	Signed Driver Check	

Applicable error message (Type **N/A** if the error message or failing text is excessive or if there is no text)	Chklogo6 may fail when the device under test uses muiltiple drivers ERROR: Test was unable to match this device ID with the device ID of the device for which Error: this driver file was tested with this driver file was tested with.
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	1175, 1176, 1177
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 S7000FC4URE-IR-IR Readme file at time of WLP submission ID 1296878.

Appendix A – Submission History

Microsoft "Designed for Windows*" logo submission history for the Intel® Server S7000FC4URE-IR:

Submission ID	Type	Date	OS Qualified	Processor Speeds	Board Revision	BIOS Version
1260857	First-Time	8/17/2007	Windows Server 2003 EE SP2 64-bit	1.60, 1.86, 2.00, 2.33, 2.66, 3.00, 3.20, and 3.73 GHz	501	SFC4UR.86B.01.00.0017 8/15/2007
1262236	First-Time	8/30/2007	Windows Server 2003 EE SP2 32-bit and 64-bit	" "	501	SFC4UR.86B.01.00.0017 8/15/2007
1296878	First-time	6/23/2008	Windows server 2008 (32 and 64-bit)	" "	605	SFC4UR.86B.01.00.0023 5/2/2008