Motherboard Logo Program (MLP)

Intel® Desktop Board DX58SO2

MLP Report

4/26/2011

Purpose:

This report describes the DX58SO2 Motherboard Logo Program testing run conducted by Intel Corporation.

Contents

Introduction

Terms and Definitions

Term	Definitions
WHQL	Windows* Hardware Qualification Lab
WLK	Windows Logo Kits
MLP	Motherboard Logo Program. For further information see: http://www.microsoft.com/whdc/hwtest/default.mspx
AP Machine	Audio Precision Machine
Winqual	Windows Qualification
MSFT Tested Product List	Tested Products List. You can view the Windows Marketplace for tested products list at: http://winqual.microsoft.com/HCL/ProductList.aspx?m=v&cid=105&g=s

Desktop Board Configuration

Desktop Board DX58SO2 Final Configuration Report: Completion of MLP

Data in this section reflects system configuration at time of MLP submission.

Board Information

Product Code[1]	BIOS String/Model	Technologies NOT Logo'd (yet)
DX58SO2	SOX5820J.86A.0765.2011.0228.1549	N/A - all technologies logo'd
Processor		
Speed	3.33GHz	
Family	Intel® Core™ i7 CPU x980	
Bus Speed	1333 MHz	
Motherboard		
Board AA #	AA G10925-201	
Board FAB #	B	
* This report applies to the production FAB revision; Please consult your Intel Corporation representative to clarify the motherboard revision you intend to perform logo testing if not the same.		
System Memory		
Speed	Dual Channel, DDR3, 1333MHz	
Memory Type	DIMM	
Connector Type	DDR3, 240 Pin	
Power Management		
BIOS Default	S3	
Operating System Tested		
	Check Tested	**Comments**
Windows 7 and 64-bit	☑	Windows 7 Ultimate with Service Pack 1
Windows Vista and 64-bit	☑	Vista Ultimate with Service Pack 2
Windows Vista Basic and 64-bit	☐	Vista Basic with Service Pack 2

[1] These are the product names to enter in the "Submission ID of previously logo'd qualified PC system or server" field during your "System Using a Previously Logo'd Motherboard" submission to Microsoft.

Onboard Integrated Devices and Driver for Vista 32-bit and 64-bit

Technology	OS	Version	Package version
Chipset Update Utility Intel® Chipset Software Utility	Windows Vista	V9.2.0.1021	INF_allOS_9.2.0.1021_PV
	Windows Vista 64-bit	V 9.2.0.1021	INF_allOS_9.2.0.1021_PV
Audio Realtek High Definition Audio	Windows Vista	V6.0.1.6167	AUD_Vista_Win7_6.0.1.6167_PV
	Windows Vista 64-bit	V6.0.1.6167	AUD_Vista_Win7_6.0.1.6167_PV
LAN1 Intel® 82567LF-2 Gigabit Network Connection	Windows Vista	V10.1.9.0	LAN_allOS_11.8.84.0_PV
	Windows Vista 64-bit	V10.1.9.0	LAN_allOS_11.8.84.0_PV
LAN2 Intel® 82574L Gigabit Network Connection	Windows Vista	V11.7.32.0	LAN_allOS_11.8.84.0_PV
	Windows Vista 64-bit	V11.7.32.0	LAN_allOS_11.8.84.0_PV
eSATA Generic Marvell 61xx RAID Controller	Windows Vista	V1.2.0.7700	ESATA_allOS_1.2.0.7700_PV
	Windows Vista 64-bit	V1.2.0.7700	ESATA_allOS_1.2.0.7700_PV
SATA3 Marvell 91xx SATA 6G Controller	Windows Vista	V1.0.0.1039	SATA3_allOS_1.0.0.1039_PV
	Windows Vista 64-bit	V1.0.0.1039	SATA3_allOS_1.0.0.1039_PV
USB 3.0 Renesas Electronics USB 3.0 Host Controller	Windows Vista	V2.0.34.0	USB3_allOS_2.0.34.0_PV
	Windows Vista 64-bit	V2.0.34.0	USB3_allOS_2.0.34.0_PV

Onboard Integrated Devices and Driver for Windows 7 32-bit and 64-bit

Technology	6	Version	Package version
Chipset Update Utility Intel® Chipset Software Utility	Windows Windows7 Windows Windows7 64-bit	V 9.2.0.1021 V 9.2.0.1021	INF_allOS_9.2.0.1021_PV INF_allOS_9.2.0.1021_PV
Audio Realtek High Definition Audio	Windows Windows7 Windows Windows7 64-bit	Windows Vista V6.0.1.6167 Windows Vista 64-bit V6.0.1.6167	AUD_Vista_Win7_6.0.1.6167_PV AUD_Vista_Win7_6.0.1.6167_PV
LAN1 Intel® 82567LF-2 Gigabit Network Connection	Windows Windows7 Windows Windows7 64-bit	Windows Vista V10.1.9.0 Windows Vista 64-bit V10.1.9.0	LAN_allOS_11.8.84.0_PV LAN_allOS_11.8.84.0_PV
LAN2 Intel® 82574L Gigabit Network Connection	Windows Windows7 Windows Windows7 64-bit	Windows Vista V11.7.32.0 Windows Vista 64-bit V11.7.32.0	LAN_allOS_11.8.84.0_PV LAN_allOS_11.8.84.0_PV
eSATA Generic Marvell 61xx RAID Controller	Windows Windows7 Windows Windows7 64-bit	Windows Vista V1.2.0.7700 Windows Vista 64-bit V1.2.0.7700	ESATA_allOS_1.2.0.7700_PV ESATA_allOS_1.2.0.7700_PV
SATA3 Marvell 91xx SATA 6G Controller	Windows Windows7 Windows Windows7 64-bit	Windows Vista V1.0.0.1039 Windows Vista 64-bit V1.0.0.1039	SATA3_allOS_1.0.0.1039_PV SATA3_allOS_1.0.0.1039_PV
USB 3.0 Renesas Electronics USB 3.0 Host Controller	Windows Windows7 Windows Windows7 64-bit	Windows Vista V2.0.34.0 Windows Vista 64-bit V2.0.34.0	USB3_allOS_2.0.34.0_PV USB3_allOS_2.0.34.0_PV

Windows Logo Kits Used (WLK)

Microsoft website: http://www.microsoft.com/whdc/DevTools/WDK/DTM.mspx

Please check regularly for test kit updates from Microsoft. Please ensure latest filters updated prior to WHQL run.

Operating Systems	Notes	WHQL Testkit
Windows 7 Windows 7 64-bit	WLK1.6 for Windows 7 SP1	WLK1.6 for Windows 7 SP1

Windows Vista Windows Vista 64-bit	WLK1.6 for Windows Vista SP2	WLK1.6 for Windows Vista SP2

Errata and Contingencies

Operating System	Failing Test	Expiry Date	ID Number	Type	Error Description
Windows Vista Windows Vista 64bit Windows 7 Windows 7 64-bit	1). HDAudio Class Driver Test - Vista or Server08 (System) 2). Class Driver AC3 Test - Win7 (System)	6/30/2025	1256	Erratum	Run AC3 test on a system with the Microsoft HD Audio class driver installed. Expected results: All AC3 kernel streaming data ranges should advertise MinimumBitsPerSample = 16 and MaximumBitsPerSample = 16. Actual results: HD Audio class driver sometimes advertises MaximumBitsPerSample = 24.
Windows Vista Windows Vista 64bit Windows 7 Windows 7 64-bit	1). HDAudio Class Driver Fidelity Test - Vista (System, Manual) 2). Class Driver Fidelity Test - Win7 (System, Manual)	7/31/2011	598	Erratum	The European Union requires the headphone output level to be <= 150 mVrms for headphone jacks. There's a note in WLP requirement AUDIO-0006 that states, in the presence of regional regulations, the output level requirement for headphones is dropped from >= 1000 mVrms to >= 120 mVrms. This provides freedom for manufacturers to meet both the EU <= 150 mVrms @ 32 Ohms and the WLP >= 120 mVrms @ 32 Ohms requirements. The Fidelity Test tests headphones at 300 Ohm load, though. Without knowledge of the output impedance at the jack, the test cannot extrapolate what the output level at 32 Ohms would have been from the output level at 300 Ohms. The test assumes that the output level at 32 Ohms will be *less* than the output level at 300 Ohms, though. So any measurement >= 120 mVrms at 300 Ohms "could be" a passing result, depending on the output impedance.
Windows Vista Windows Vista 64bit Windows 7 Windows 7 64-bit	PCI Hardware Compliance Test For Systems	12/31/2011	2051	Erratum	PCIHCT - Bit range 11:10 (ASPM Support)in the Link Capabilities register (offset Ch) in the PCI Express Capability table is 0h. It cannot be in the set of values {0x0, 0x2}. (Assertion 5CAF4993-B8D1-4E4E-99EC-CC5895364E32)
Windows Vista Windows Vista 64bit Windows 7 Windows 7 64-bit	PCI Hardware Compliance Test For Systems	6/1/2011	423	Erratum	Assertion 5CAF4993-B8D1-4E4E-99EC-CC5895364E32 Bit range 11:10 (ASPM Support)in the Link Capabilities register (offset Ch) in the PCI Express Capability table is 0h. It cannot be in the set of values {0x0, 0x2}.

Operating System	Failing Test	Expiry Date	ID Number	Type	Error Description
Windows Vista Windows Vista 64bit Windows 7 Windows 7 64-bit	PCI Hardware Compliance Test For Systems	6/1/2011	401	Erratum	The following PCI Compliance test failure is acceptable: Bit 15 (Bridge Configuration Retry Enable) in the Device Control register (offset 8h) in the PCI Express Capability table must be read-only and always return 0 as it is reserved for devices other than PCI Express to PCI/PCI-X Bridges. Assertion 13A41D3E-2576-41DC-A67C-525DA3637CEA This failure is acceptable because this is a PCIe 1.1 feature and the WLP requires compliance with only PCIe 1.0a.
Windows Vista Windows Vista 64bit Windows 7 Windows 7 64-bit	PCI Hardware Compliance Test For Systems	6/1/2011	923	Erratum	Assertion FAE18121-9177-4FB2-A081-0D04C285EFF2 Bit range 15:0 (Extended Capability ID)in the Enhanced Capability Header register (offset 0h) in the Unrecognized Enhanced Capability ID 13 table is Dh. It must be in the range [0x0 - 0xB] as all other Capability IDs are reserved.
Windows Vista Windows Vista 64bit Windows 7 Windows 7 64-bit	PCI Hardware Compliance Test For Systems	12/1/2012	1241	Erratum	This happens because the PCI Compliance test assumes that if the Data Link Layer Link Active Reporting Capable bit in the Link Capabilities register for a given PCIe port is set then that indicates that the Data Link Layer Link Active bit will also be set. This is an incorrect assumption because the Data Link Link Layer Link Active bit can be reset when there is no device below the port. This assertion needs to be removed from the PCIHCT. The current architecture of the PCIHCT prevents it from knowing whether devices exist below a bridge/port.
Windows Vista Windows Vista 64bit Windows 7 Windows 7 64-bit	UAA Test - Win7 (System)	2/28/2011	1299	Erratum	Preview filter - Jack Detect Override on digital pin widgets Errata 1299 The HD Audio configuration default register (7.3.3.31 in the HD Audio specification) includes a "Jack Detect Override" flag that can be used to indicate that although a pin widget would normally be capable of jack detection, there is something about this particular system that causes this to be impossible. This was intended to be used, for example, for analog pin widgets that are connected to RCA jacks, which do not allow for impedance detection. Some digital pin widgets are using the Presence Detect pin sense response to indicate that a digital handshake has occured - indeed, HDMI pins have entire DCNs built around this concept, and it applies equally well to S/PDIF pins. A digital converter that supports presence detection should be able to do so in any system, so the "Jack Detect Override" concept should not apply to digital pins.
Windows Vista Windows Vista 64bit Windows 7 Windows 7 64-bit	UAA Test - Win7 (System)	6/1/2011	1300	Erratum	HD Audio pin configuration document calls out setting Port Connectivity to No Connection as the way to turn a pin off in a particular system. UAA Test incorrectly tests such pins.
Windows Vista Windows Vista 64bit Windows 7 Windows 7 64-bit	UAA Test - Win7 (System)	6/1/2015	513	Erratum	UAA Test requires the Traffic Priority bit to be read/write - however there are two specs that apply, and they conflict. One says the bit must be read/write, the other says it must be read-only. Contact has been made with the author of both specs (Intel) but until this point is clarified we cannot fail submissions containing this test failure.

Test Notes

Operating System	Test	Description
Windows 7 and Vista	BIOS download	Internal: http://bios.intel.com/downloads/ External: http://www.intel.com/ click on Support and Download
Windows 7 and Vista	BIOS setup	Please make sure the BIOS setting are as below, otherwise use default settings. System Date and Time: Current date and time Peripheral Configuration: Enable all onboard component (Except CIR) Drive Configuration: Set to AHCI Chipset Configuration: Enable HPET ACPI Suspend State: Set to <S3 State> Boot Device Priority: set <Hard Disk Driver> to first Note: Enhanced Consumer IR (CIR) component is not supported under Windows7.
Windows 7 and Vista filter update	WLK WHQL test	http://winqual.microsoft.com/member/SubmissionWizard/LegalExemptions/filterupdates.cab
Special H/W that use to PASS the test	None	None