Motherboard Logo Program (MLP)

Intel® Desktop Board

DX79TO

MLP Report

11/9/2011

Purpose:

This report describes the DX79TO 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 DX79TO 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)	
DX79TO	SIX7910J.86A.0281.2011.1019.1612	N/A - all technologies logo'd	
Processor			
Speed	3.30GHz		
Family	Intel(R) Core(TM) i7-3960X		
Bus Speed	4 GB/s (DMI 2.0)		
Motherboard			
Board AA #	AA G28805-300		
Board FAB #	C		
* 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, 1600MHz		
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

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[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	V 9.2.3.1022	INF_allOS_9.2.3.1022_PV
	Windows Vista 64-bit	V 9.2.3.1022	INF_allOS_9.2.3.1022_PV
Audio Realtek High Definition Audio	Windows Vista	V 6.0.1.6449	6449_PG334_R265_Win7_Vista_XP
	Windows Vista 64-bit	V 6.0.1.6449	6449_PG334_R265_Win7_Vista_XP
LAN Intel(R) 82579LM Gigabit Network Connection	Windows Vista	V 11.13.51.0	LAN_allOS_11.13.51.0_PV
	Windows Vista 64-bit	V 11.13.51.0	LAN_allOS_11.13.51.0_PV
ME Intel(R) Management Engine Interface	Windows Vista	V7.1.21.1134	MEI_allOS_7.1.21.1134_PV
	Windows Vista 64-bit	V7.1.21.1134	MEI_allOS_7.1.21.1134_PV
CIR Nuvoton W836x7HG CIR Device Driver	Windows Vista	V1.8.2009.514	CIR_Vista_1.8.2009.0514_PV
	Windows Vista 64-bit	V1.8.2009.514	CIR_Vista_1.8.2009.0514_PV
USB 3.0 Renesas Electronics USB 3.0 Host Controller	Windows Vista	V2.1.19.0	USB3_allOS_2.1.19.0_PV
	Windows Vista 64-bit	V2.1.19.0	USB3_allOS_2.1.19.0_PV
RSTE Intel(R) C600 Series Chipset SATA AHCI Controller	Windows Vista	V3.0.0.1112	RSTE_Vista_Win7_3.0.0.1112_PV
	Windows Vista 64-bit	V3.0.0.1112	RSTE_Vista_Win7_3.0.0.1112_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	V 9.2.3.1022	INF_allOS_9.2.3.1022_PV
	Windows Windows7 64-bit	V 9.2.3.1022	INF_allOS_9.2.3.1022_PV
Audio Realtek High Definition Audio	Windows Windows7	Windows Vista V6.0.1.6449	6449_PG334_R265_Win7_Vista_XP
	Windows Windows7 64-bit	Windows Vista 64-bit V6.0.1.6449	6449_PG334_R265_Win7_Vista_XP
LAN ntel(R) 82579LM Gigabit Network Connection	Windows Windows7	Windows Vista V11.13.51.0	LAN_allOS_11.13.51.0_PV
	Windows Windows7 64-bit	Windows Vista 64-bit V11.13.51.0	LAN_allOS_11.13.51.0_PV
ME Intel(R) Management Engine Interface	Windows Windows7	Windows Vista V7.1.21.1134	MEI_allOS_7.1.21.1134_PV
	Windows Windows7 64-bit	Windows Vista 64-bit V7.1.21.1134	MEI_allOS_7.1.21.1134_PV
CIR Nuvoton W836x7HG CIR Device Driver	Windows Windows7	Windows Vista V2.2.2011.128	CIR_Win7_2.2.2011.128_PV
	Windows Windows7 64-bit	Windows Vista 64-bit V2.2.2011.128	CIR_Win7_2.2.2011.128_PV
USB 3.0 Renesas Electronics USB 3.0 Host Controller	Windows Windows7	Windows Vista V2.1.19.0	USB3_allOS_2.1.19.0_PV
	Windows Windows7 64-bit	Windows Vista 64-bit V2.1.19.0	USB3_allOS_2.1.19.0_PV
RSTE Intel(R) C600 Series Chipset SATA AHCI Controller	Windows Windows7	Windows Vista V3.0.0.1112	RSTE_Vista_Win7_3.0.0.1112_PV
	Windows Windows7 64-bit	Windows Vista 64-bit V3.0.0.1112	RSTE_Vista_Win7_3.0.0.1112_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	HDAudio Class Driver Fidelity Test - Vista (System, Manual)	7/31/2015	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	PCI Hardware Compliance Test For Systems	12/1/2012	528	Erratum	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 . These failures are incorrect for PCI Express switch ports that do not issue Non-Posted Requests on their own behalf (vs. only forwarding such Requests generated by other devices).
Windows Vista Windows Vista 64bit	PCI Hardware Compliance Test For Systems	12/1/2012	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	PCI Hardware Compliance Test For Systems	12/1/2012	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)

Operating System	Failing Test	Expiry Date	ID Number	Type	Error Description
Windows Vista Windows Vista 64bit	PCI Hardware Compliance Test For Systems	12/1/2012	2066	Erratum	<h3 xmlns="http://www.w3.org/1999/xhtml">Assertion 3CDD17AF-215E-4921-894F-C99434A3B3CA </h3> Bit range 31:21 (Reserved_3)in the Uncorrectable Error Mask register (offset 8h) in the Advanced Error Reporting Capability table must be read-only and always return 0 . <h3 xmlns="http://www.w3.org/1999/xhtml">Assertion 461CA4DE-9266-4420-9B5F-F33622A5D02B</h3> Bit range 31:21 (Reserved_3)in the Uncorrectable Error Severity register (offset Ch) in the Advanced Error Reporting Capability table must be read-only and always return 0 .
Windows Vista Windows Vista 64bit	PCI Hardware Compliance Test For Systems	12/1/2012	1167	Erratum	Assertion EB8AA49D-4825-4542-B549-289F1076C0F9 Bit range 23:21 (Reserved)in the Link Capabilities register (offset Ch) in the PCI Express Capability table must be read-only and always return 0 . It was found to return 1.
Windows Vista Windows Vista 64bit	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	PCI Hardware Compliance Test For Systems	12/1/2012	1650	Erratum	Assertion 2C79B356-6B37-4BEC-8F4E-DD6588082AC2 Bit range 31:14 (Reserved_3)in the Correctable Error Mask register (offset 14h) in the Advanced Error Reporting Capability table must be read-only and always return 0 .
Windows Vista Windows Vista 64bit	PCI Hardware Compliance Test For Systems	12/1/2012	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	UAA Test - Vista or Server08 (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.
Windows Vista Windows Vista 64bit	USB Host Controller Compliance (Automated)	12/1/2012	1787	Erratum	Errata 1787 This Preview Test is being filtered until the expiration date of this Errata. After the expiration date of this filter these failures must be fixed to have a passing submission. Microsoft strongly recommends that these errors be investigated prior to this test or job being required for submission. XHCI spec compliance test is in preview

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Windows 7 Windows 7 64-bit	PCI Hardware Compliance Test For Systems	12/1/2012	528	Erratum	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 . These failures are incorrect for PCI Express switch ports that do not issue Non-Posted Requests on their own behalf (vs. only forwarding such Requests generated by other devices).
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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 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
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