Motherboard Logo Program (MLP)

Intel® Desktop Board D945GCLF

MLP Report

9/21/2009

Purpose:

This report describes the D945GCLF Motherboard Logo Program testing run conducted by Intel Corporation.

THIS TEST REPORT IS PROVIDED "AS IS" WITH NO WARRANTIES WHATSOEVER, INCLUDING ANY WARRANTY OF MERCHANTABILITY, NONINFRINGEMENT FITNESS FOR ANY PARTICULAR PURPOSE, OR ANY WARRANTY OTHERWISE ARISING OUT OF ANY PROPOSAL, SPECIFICATION OR SAMPLE.

Information in this document is provided in connection with Intel® products. No license, express or implied, by estoppel or otherwise, to any intellectual property rights is granted by this document or by the sale of Intel products. Except as provided in Intel's Terms and Conditions of Sale for such products, Intel assumes no liability whatsoever, and Intel disclaims any express or implied warranty, relating to sale and/or use of Intel products including liability or warranties relating to fitness for a particular purpose, merchantability, or infringement of any patent, copyright or other intellectual property right. Intel products are not intended for use in medical, life saving, or life sustaining applications.

Intel retains the right to make changes to its test specifications at any time, without notice.

The hardware vendor remains solely responsible for the design, sale and functionality of its product, including any liability arising from product infringement or product warranty.

Intel and Pentium are registered trademarks of Intel Corporation in the United States and other countries.

* Other names and brands may be claimed as the property of others.

Copyright © 2007 Intel Corporation. All rights reserved.

Contents

Introduction 4

Terms and Definitions 4

Desktop Board Configuration 5

Desktop Board D945GCLF Final Configuration Report: Completion of MLP 5

Board Information 5

Product Code 5

Processor 5

Motherboard 5

System Memory 5

Power Management 5

Operating System Tested 5

Onboard Integrated Devices and Driver for Vista 32-bit and 64-bit 6

Onboard Integrated Devices and Driver for Windows 7 32-bit and 64-bit 6

Windows Logo Kits Used (WLK) 6

Errata and Contingencies 7

Test Notes 8

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 D945GCLF 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)
D945GCLF	LF94510J.86A.0182.2009.0528.2014	N/A - all technologies logo'd
Processor		
Speed	1.60GHz	
Family	Intel(R) Atom	
Bus Speed	533 MHz	
Motherboard		
Board AA #	E27042	
Board FAB #	404	
* 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	Single Channel, DDR2, 533MHz	
Memory Type	DIMM	
Connector Type	DDR2, 240 Pin	
Power Management		
BIOS Default	S3	
Operating System Tested		
	Check Tested	**Comments**
Windows 7 and 64-bit	☑	Windows 7
Windows Vista and 64-bit	☐	Vista Ultimate with Service Pack 1
Windows Vista Basic and 64-bit	☑	Vista Basic with Service Pack 1

[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**	9.0.0.1007	9.0.0.1007
	Windows Vista 64-bit	9.0.0.1007	9.0.0.1007
Graphics Intel® Graphics Media Accelerator	**Windows Vista**	7.14.10.1461	15.8.2.1461
	Windows Vista 64-bit	7.14.10.1461	15.8.2.64.1461
Audio Realtek	**Windows Vista**	6.0.1.5628	5628
	Windows Vista 64-bit	6.0.1.5628	5628
LAN Realtek	**Windows Vista**	6.203.214.2008	6.203
	Windows Vista 64-bit	6.203.214.2008	6.203

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

Technology	OS	Version	Package version
Chipset Update Utility Intel® Chipset Software Utility	**Windows 7**	6.1.7100.0	Inbox Driver
	Windows 7 64-bit	6.1.7100.0	Inbox Driver
Graphics Intel® Graphics Media Accelerator	**Windows 7**	8.15.10.1662	Inbox Driver
	Windows 7 64-bit	8.15.10.1662	Inbox Driver
Audio Realtek	**Windows 7**	6.0.1.5859	5859
	Windows 7 64-bit	6.0.1.5859	5859
LAN Realtek	**Windows 7**	7.3.522.2009	7.003
	Windows 7 64-bit	7.3.522.2009	7.003

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	WLK1.4 for Windows 7	WLK1.4 for Windows 7
Windows Vista Windows Vista 64-bit	WLK1.4 for Windows Vista SP1	WLK1.4 for Windows Vista SP1

Errata and Contingencies

Operating System	Failing Test	Expiry Date	ID Number	Type	Error Description
Windows 7 Windows 7 64-bit	Aero Acceptance Test	7/15/2010	1294	Erratum	The Aero Acceptance Test is exposed for Windows 7 Ultra Mobile System Submissions. However, the requirement this test enforces is only required for Desktop, Mobile and All-In-One Windows 7 PC's. This errata covers ANY failures in the AeroAt.exe's test log, as long as the test completes. Note the test should still run to completion and create a log file, this errata would not cover hangs or crashes in the user mode display driver.
Windows 7 Windows 7 64-bit	1) Class Driver Fidelity Test - Win7 (System, Manual) 2) Fidelity Test - Win7 (System, Manual)	12/31/2009	1238	Erratum	Fidelity Test now includes a "Render Power Transition" test. This preview filter covers all errors in this new test of SYSFUND-0050.
Windows 7 Windows 7 64-bit	Class Driver Fidelity Test - Win7 (System, Manual)	12/1/2009	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 7 Windows 7 64-bit	Fidelity Test - Win7 (System, Manual)	12/1/2009	1012	Erratum	Fidelity uses too small of a buffer and wakes up too infrequently during the System Activity test. This causes errors like: Noise level during system activity on (left or right) channel 73.2016 dB: *** FAIL *** (requirement >= 80 dB)
Windows 7 Windows 7 64-bit	PCI Hardware Compliance Test For Systems	12/31/2009	125	Erratum	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.
Windows 7 Windows 7 64-bit	PCI Hardware Compliance Test For Systems	6/1/2010	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 7 Windows 7 64-bit	UAA Test - Win7 (System)	12/1/2009	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 7 Windows 7 64-bit	Windows Client System Check For WDDM 1.1 Display Driver Support	12/1/2009	1262	Erratum	The Windows Client System Check for WDDM 1.1Display Driver Supporttest will be a preview test until December 9, 2009 At which time the requirement for Graphic drivers to be WDDM1.1 version will be enforced. The test is in both the Device program (Display Adapter and Chipset) and the System kit for Windows 7 logo programs.
Windows 7 Windows 7 64-bit	Wave Test - Win7 (System)	6/1/2010	1281	Erratum	Run "Data Intersection Test\Capture Streaming\Check Supported Formats" out of WaveTest on a system containing audio devices that are "disabled" via the Sound Control panel. Expected results: should succeed. Actual results: fail with "Failed to find any endpoints for the current pin" and "Failed to decide if current data intersection test should be skipped"

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 IDE 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