Windows Hardware Certification (WHC)

Intel® Desktop Board DZ77GA

Desktop/Motherboard WHC Report

10/25/2012

Purpose:

This report describes the Windows Hardware Certification testing run conducted by Intel Corporation.

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Introduction

Terms and Definitions

Term	Definitions
WHQL	Windows* Hardware Qualification Lab
WHCK	Windows Hardware Certification kit
PLMP	Previously Logo'd Motherboard 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 DZ77GA 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)
DZ77GA	GAZ7711H.86A.0056.2012.1011.1744	N/A - all technologies logo'd
Processor		
Speed	3.50 GHz	
Family	Intel® Core™ I7-3770K	
Bus Speed	35x	
Motherboard		
Board AA #	G39009	
Board FAB #	R02	
* 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 Channels, DDR3, 1600MHz	
Memory Type	DIMM	
Connector Type	DDR3,240pin	
Power Management		
BIOS Default	S3	
Operating System Tested		
	Check Tested	**Comments**
Windows 8 64bit	☑	Windows 8 enterprise

[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 Windows 8 64-bit

Technology	OS	Version	Package version
Chipset Update Utility Intel® Chipset Software Utility	**Windows 8 64-bit**	9.3.0.1021	9.3.0.1021
Graphics Intel® HD Graphic 4000	**Windows 8 64-bit**	9.17.10.2817	15.28.2.64.2817
Intel Display Audio Intel® Display Audio	**Windows 8 64-bit**	6.14.0.3097	15.28.2.64.2817
Audio Realtek High HD Audio	**Windows 8 64-bit**	6.0.1.6710	R350
LAN Intel® Gigabite Network Connections	**Windows 8 64-bit**	12.1.77.0	PV17.3
IRST Intel® Rapid Storage Technology	**Windows 8 64-bit**	11.5.1207	11.5.1207
Rapidstart Intel Rapidstart	**Windows 8 64-bit**	2.1.0.1002	2.1.0.1002
Smart Connect Intel Smart Connect	**Windows 8 64-bit**	1.0.7.0	3.0.30.1526
CIR Nuvoton	**Windows 8 64-bit**	2.3.2012.710	2.6.1004
MEI Intel® Management Engine Interface	**Windows 8 64-bit**	8.1.0.1263	8.1.0.1248

Windows Hardware Certification Kit (WHCK) Used (formerly WLK)

Microsoft website:

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

WHCK: http://msdn.microsoft.com/id-ID/windows/hardware/hh852359

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

Operating Systems	Notes	WHQL Test kit
Windows 8 64-bit	WHCK 2.0 for Windows 8	WHCK 2.0 for Windows 8

Errata and Contingencies

Operating System	Failing Test	Expiry Date	ID Number	Type	Error Description
Windows 8 64-bit	AutoMemoryBenchmark	01/01/2013	1092	Erratum	Certain test cases in the AutoMemoryBenchmark test will be deferred for a period of 4 months. The failures are identified by the following: Test title: Memory_Idle or, Memory_DX10Device or, Memory_DX10VB or, Memory_DX10Texture or, Memory_DX10Surfaces or, Memory_DX10Upload or, And Error message: Metric goal not met
Windows 8 64-bit	PCI Hardware Compliance Test For Systems	12/31//2014	55	Erratum	<h3 xmlns="http://www.w3.org/1999/xhtml">Assertion Assertion 382730D5-AC1A-4C67-A233-83843A4EFC32</h3> Mask Bits register of the MSI Capability table must be read-writable for all the values up-to and including Fh.
Windows 8 64-bit	PerfX2 D2D Bench Scenarios (may require manual interaction to remove power cord)	11/02//2012	208	Erratum	There are a few OS issues in the RP release that make it difficult for IHVs to reach the goal for the D3D_GlitchCount metric
Windows 8 64-bit	PerfX2 D2D Bench Scenarios (may require manual interaction to remove power cord)	10/26/2012	863	Erratum	There are a few OS issues in the RP release that make it difficult for IHVs to reach the goal for the D3D_GlitchCount metric
Windows 8 64-bit	Signed Driver Check (CheckLogo)	12/2/2012	361	Erratum	Signed Driver Check (CheckLogo) will fail on Button.sys. This binary is installed with the Hardware Certification Kit (HCK) and can have signatures that can't be validated with the Driver Certification Pre-validation assessment.

Windows 8 64-bit	Single Computer Display Object test	08/01/2013	884	Erratum	AllInOne desktop computers have the "Computer.AllInOne" form factor. For this form factor, the test should recognize the mouse and keyboard to be external to the main computer machine. Without this filter it expects the mouse/keyboard to be part of the computer which may not be the case. t.
Windows 8 64-bit	System Network Device Power Requirements (NDISTest 6.5 - PM_Requirements)	06/30/2014	390	Contingency	CONTINGENCY:{Device.Network.LAN.PM.PowMgmtNDIS] - The devices failing the test are legacy silicon that was shipping before the Logo requirements above were introduced during the Windows 7 OS release. The failing test is "NDISTest 6.5 - [1 Machine] - PM_Requirements" and the failure is that it does not indicate support for ARP/NS offloads, and minimum requirement for WoL patterns.
Windows 8 64-bit	UAA Test (System)	12/2/2012	235	Erratum	UAA test was modified to turn warnings into errors for reserved bits being non-zero. This is a preview filter to allow IHVs to fix the issue.
Windows 8 64-bit	UAA Test (System)	7/2/2013	372	Contingency	Section 3.3.14 of the Intel High Definition Audio specification mandates a reset value of 0 for the Interrupt Control register on HD Audio controllers. Some Intel HD Audio controllers have bit 30 (Controller Interrupt Enable) and/or bit 31 (Global Interrupt Enable) set to 1 after a reset.
Windows 8 64-bit	UAA Test (System)	7/1/2013	244	Contingency	Section 3.3.14 of the Intel High Definition Audio specification mandates a reset value of 0 for the Interrupt Control register on HD Audio controllers.
Windows 8 64-bit	UAA Test (System)	7/1/2014	354	Contingency	The FIFO size for Input and Output Stream Descriptors should be read only.
Windows 8 64-bit	xHCI Debug Capability Compliance (Logo)	12/31/2013	479	Contingency	The XHCI Debug Capability Compliance Test will fail XHCI controllers that do not provide the debug capability registers.
Windows 8 64-bit	xHCI Debug Capability Compliance (Logo)	12/31/2013	566	Erratum	The XHCI Debug Capability Compliance Test will fail XHCI controllers that do not provide the debug capability registers.
Windows 8 64-bit	xHCI Debug Capability Compliance (Logo)	TBD	315	Contingency	The XHCI Debug Capability Compliance Test will fail

Test Notes

Operating System	Test	Description
Windows 8	BIOS download	Internal: http://bios.intel.com/downloads/ External: http://www.intel.com/ click on Support and Download
Windows 8	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 ACPI Suspend State: Set to <S3 State> Boot Device Priority: set <Hard Disk Driver> to first Enhance Consumer IR: Enable Intel Rapidstart: Enable Intel Smart Connect:Enable UEFI Boot: Enabled
Windows 8 filter update	WHCK WHQL test	https://sysdev.microsoft.com/member/SubmissionWizard/LegalExemptions/HCKFilterUpdates.cab
Special H/W that use to PASS the test	None	None