



Windows Hardware Certification (WHC)

Intel® Desktop Board DZ87KLT-75K

Desktop/Motherboard WHC Report

8/15/2013

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. 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: https://sysdev.microsoft.com/en-us/Hardware/LPL/

Desktop Board Configuration

Desktop Board DZ87KLT-75K Final Configuration Report: Completion of WHC

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

Board Information

Product Code ¹	BIOS String/Model	Technologies NOT Logo'd (yet)
DZ87KLT-75K	KLZ8711D.86A.0336.2013.0516.1957	N/A - all technologies logo'd
Processor		
Speed	3.50 GHz	
Family	Intel® Core™ I7-4770K	
Bus Speed	35x	
Motherboard		
Board AA #	G74721	
Board FAB #	301	
* 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 7 32bit and 64bit	<input checked="" type="checkbox"/>	Windows 7 ultimate
Windows 8 64bit	<input checked="" type="checkbox"/>	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 Windows7 32&64-bit & Windows 8 64-bit

Technology	OS	Version	Package version
Chipset Update Utility Intel® Chipset Software Utility	Windows 7 32-bit	9.4.0.1017	9.4.0.1017
	Windows 7/8 64-bit		
Graphics Intel® HD Graphic 4600	Windows 7 32-bit	9.18.10.3131	15.31.7.3131
	Windows 7/8 64-bit		15.31.7.64.3131
Intel Display Audio Intel® Display Audio	Windows 7 32-bit	6.16.0.3106	15.31.7.3131
	Windows 7/8 64-bit		15.31.7.64.3131
Audio Realtek High HD Audio	Windows 7 32-bit	6.0.1.6844	PG365
	Windows 7/8 64-bit		
LAN1 Intel® I217V (Clarkville)	Windows 7 32-bit	12.6.47.0	PV18.1
	Windows 7/8 64-bit		
LAN2 Intel® I210 (Springville)	Windows 7 32-bit	12.4.36.0	PV18.1
	Windows 7/8 64-bit		
IRST Intel® Rapid Storage Technology	Windows 7 32-bit	12.0.0.1082	12.0.0.1083
	Windows 7/8 64-bit		
Rapidstart Intel Rapidstart	Windows 7 32-bit	3.0.0.1031	3.0.0.1031
	Windows 7/8 64-bit		
Smart Connect Intel Smart Connect	Windows 7 32-bit	1.0.8.0	4.1.40.2143
	Windows 7/8 64-bit		
USB3.0 Intel xHCI	Windows 7 32-bit/64bit	2.5.0.19	2.5.0.19
	Windows 8 64-bit	Inbox driver	N/A
MEI Intel® Management Engine Interface	Windows 7 32-bit	9.0.0.1287	9.0.2.1345
	Windows 7/8 64-bit		
ASM 1061 SATA Controller	Windows 7 32-bit/64bit	1.3.4.000	1.3.4.000
	Windows 8 64-bit	Inbox driver	N/A
CIR Nuvoton NCT6683D	Windows 7 32-bit/64bit	2.1.2012.1212	2.1.2012.1212
	Windows 8 64-bit		

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

Microsoft website:

WLK: <http://www.microsoft.com/whdc/DevTools/WDK/DTM.aspx>

WHCK: <http://msdn.microsoft.com/library/windows/hardware/hh833788>

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

Operating Systems	Notes	WHQL Test kit
Window 7 32bit/64bit	WHCK 2.0 for Windows 7	WHCK 2.0 for Windows 7
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
Window7 32-bit Window 7 64-bit	Class Driver AC3 Test - Win7(system)	06/30/2025	84	Errata	The HD Audio class driver hdaudio.sys exposes AC-3 data ranges on S/PDIF Kernel Streaming pins incorrectly. <code>xmlns="http://www.w3.org/1999/xhtml" /> <code>xmlns="http://www.w3.org/1999/xhtml" /> The compressed AC-3 transport is "stereo", "16-bit", and at the same sample rate as the uncompressed format. As such, AC-3 data ranges are expected to have MaximumChannels = 2, and MinimumBitDepth = MaximumBitDepth = 16. <code>xmlns="http://www.w3.org/1999/xhtml" /> <code>xmlns="http://www.w3.org/1999/xhtml" /> However, the HD Audio class driver sometimes incorrectly exposes a MaximumBitDepth of 24 or even 32.
Window7 32-bit Window 7 64-bit Windows 8 64-bit	PCI Hardware Compliance Test For Systems	12/31/2014	55	Errata	<code>xmlns="http://www.w3.org/1999/xhtml">Assertion Assertion 382730D5-AC1A-4C67-A233-83843A4EFC32</code> Mask Bits register of the MSI Capability table must be read-writable for all the values up-to and including Fh
Windows 7 32-bit	System - Sleep and PNP (disable and enable) with IO Before and After (Certification)	10/01/2013	1539	Auto Triage	AutoTriage: The Sleep and PNP (disable and enable) with IO Before and After (Certification) may improperly fail hibernation during the Run Test with the error message, To Hibernate the system with SetSuspendState(...) failed : 50
Windows 7 32-bit	System - Sleep and PNP (disable and enable) with IO Before and After (Certification)	09/30/2013	1485	Errata	There is a known issue with StorPort.sys that may cause hibernation to fail on a stressed system with memory limitations. This can cause the Sleep and PnP test to fail with the error "To Hibernate the system with SetSuspendState(...) failed : 50". However, since this is a generic error that doesn't reflect the true failure condition, it is necessary to root-cause the failure on a case-by-case basis before adding drivers to the erratum.
Windows 7 64-bit	UAA Test (System)	10/01/2013	235	Errata	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	Signed Driver Check (CheckLogo)	09/30/2013	1490	Auto Triage	The Signed Driver Check test may fail incorrectly if a file is signed by multiple .cat files, where one is not signed for the current OS. The test logs will show the wrong .cat file being used to validate the file, while other files in the device package are validated using the correct .cat file. If you encounter this issue, please add the correct .cat file to a 'Supplemental Folder' in your .hcx submission package, and use Manual Errata ID 1490 to cover the failure.
Windows 8 64-bit	Signed Driver Check (CheckLogo)	10/01/2013	361	Errata	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	Errata	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.
Window7 32-bit Window 7 64-bit Windows 8 64-bit	UAA Test (System)	10/01/2013	244	Errata	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.

Window7 32-bit Window 7 64-bit Windows 8 64-bit	UAA Test (System)	07/01/2014	354	Contingency	The FIFO size for Input and Output Stream Descriptors should be read only.
Window7 32-bit Window 7 64-bit Windows 8 64-bit	UAA Test (System)	03/31/2014	1039	Errata	The FIFO size for Input and Output Stream Descriptors should be read only.
Window 8 64-bit	USB3 Termination	08/01/2013	720	Errata	USB3 Termination Test bug causes it to fail when a device is embedded on xHCI. If Filter #720 allows the 'FindUsb3Device' task to pass, then Errata ID 720 can be used to manually overturn other failing tasks in the 'USB3 Termination' test, such as 'Copy ETL log(s)', 'RebootIfTestApplies', 'RunParser', 'EnableBootEtw', and 'DisableBootEtw'.
Window 8 64-bit	USB Exposed Port System Test	09/30/2013	1435	Auto Triage	The USB Exposed Port Controller Test is known to fail without logs in certain configurations using the xHCI Controller on this system. Please right-click the failed task to review the Error information. If the task failed with ExitCode c0000374, a manual erratum might apply. Before using the manual erratum, it is necessary to review the PortMappingFinder.wtl log for the Port Mapping Tool task. If the log contains any 'No companion port for SuperSpeed port' errors, please contact the xHCI Controller vendor for a firmware update and do not attempt to use the manual erratum. If there are no errors, but there is a 'Couldn't get connector properties for hub' message, please use Manual Errata 1435 in a Readme form. The erratum will only be honored if this AutoTriage filter applies to the Run Test task.
Windows 8 64-bit	xHCI Debug Capability Compliance (Logo)	07/31/2014	316	Contingency	The XHCI Debug Capability Compliance Test will fail XHCI controllers that do not provide the debug capability registers.

Test Notes

Operating System	Test	Description
Windows 7/8	BIOS download	Internal: http://bios.intel.com/downloads/ External: http://www.intel.com/ click on Support and Download
Windows 7/8	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 Boot Device Priority: set <Hard Disk Driver> to first Intel Rapidstart: Enable Intel Smart Connect: Enable CIR: Enable UEFI Boot: Enabled
Windows 7/8 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