



Motherboard Logo Program (MLP)

**Intel® Desktop Board**

**DH77KC**

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**MLP Report**

5/21/2012

**Purpose:**

This report describes the DH77KC Motherboard Logo Program testing run conducted by Intel Corporation.

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# Introduction

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## Terms and Definitions

Term	Definitions
WHQL	Windows* Hardware Qualification Lab
WLK	Windows Logo Kits
MLP	Motherboard Logo Program. For further information see: <a href="http://www.microsoft.com/whdc/hwtest/default.msp">http://www.microsoft.com/whdc/hwtest/default.msp</a>
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: <a href="http://winqual.microsoft.com/HCL/ProductList.aspx?m=v&amp;cid=105&amp;q=s">http://winqual.microsoft.com/HCL/ProductList.aspx?m=v&amp;cid=105&amp;q=s</a>

# Desktop Board Configuration

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## Desktop Board DH77KC Final Configuration Report: Completion of MLP

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

### Board Information

Product Code <sup>1</sup>	BIOS String/Model	Technologies NOT Logo'd (yet)
DH77KC	KCH7710H.86A.0069.2012.0224.1825	N/A - all technologies logo'd
<b>Processor</b>		
Speed	3.5GHz	
Family	Intel Core i7 3770K	
Bus Speed	100 MHz	
<b>Motherboard</b>		
Board AA #	G39641	
Board FAB #	300 (eg. 10x for fab A, 20x for fab B and etc)	
<i>* 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.</i>		
<b>System Memory</b>		
Speed	Dual Channel, DDR3, 1600MHz	
Memory Type	DIMM	
Connector Type	DDR3, 240 Pin	
<b>Power Management</b>		
BIOS Default	S3	
<b>Operating System Tested</b>		
	<b>Check Tested</b>	<b>Comments</b>
Windows 7 and 64-bit	<input checked="" type="checkbox"/>	Windows 7 Ultimate Service Pack 1
Windows Vista and 64-bit	<input type="checkbox"/>	Vista Ultimate with Service Pack 2
Windows Vista Basic and 64-bit	<input type="checkbox"/>	Vista Basic with Service Pack 2

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<sup>1</sup> 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 7 32-bit and 64-bit

Technology	OS	Version	Package version
<b>Chipset Update Utility</b> Intel® Chipset Software Utility	Windows 7	V9.3.0.1020	INF_allIOS_9.3.0.1030_PV
	Windows 7 64-bit	V9.3.0.1020	INF_allIOS_9.3.0.1030_PV
<b>Graphics</b> Intel® HD Graphics 4000	Windows 7	V8.15.10.2653	GFX_Vista32_Win7_32_8.15.10.2653_PV
	Windows 7 64-bit	V8.15.10.2653	GFX_Vista64_Win7_64_8.15.10.2653_PV
<b>Audio</b> Realtek	Windows 7	V6.0.1.6526	AUD_Vista_Win7_6.0.1.6562_PV
	Windows 7 64-bit	V6.0.1.6526	AUD_Vista_Win7_6.0.1.6562_PV
<b>LAN</b> Intel® 82579V Gigabit	Windows 7	V11.15.16.0	LAN_allIOS_11.15.16.0_PV
	Windows 7 64-bit	V11.15.16.0	LAN_allIOS_11.15.16.0_PV
<b>MEI</b> Intel® Management Engine Interface	Windows 7	V8.0.0.1262	MEI_allIOS_8.0.2.1410_PV
	Windows 7 64-bit	V8.0.0.1262	MEI_allIOS_8.0.2.1410_PV
<b>USB 3.0</b> Intel® USB 3.0 Extensible Host Controller	Windows 7	V1.0.3.214	USB3_allIOS_1.0.3.214_PV
	Windows 7 64-bit	V1.0.3.214	USB3_allIOS_1.0.3.214_PV

## Windows Logo Kits Used (WLK)

Microsoft website: <http://www.microsoft.com/whdc/DevTools/WDK/DTM.msp>

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	<a href="#">WLK1.6 for Windows 7 SP1</a>	<a href="#">WLK1.6 for Windows 7 SP1</a>

## Errata and Contingencies

Operating System	Failing Test	Expiry Date	ID Number	Type	Error Description
Windows 7 Windows 7 64-bit	Class Driver Fidelity Test - Win7 (System, Manual)	07/31/2015	598	Erratum	The European Union requires the headphone output level to be $\leq 150$ 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 $\geq 1000$ mVrms to $\geq 120$ mVrms. This provides freedom for manufacturers to meet both the EU $\leq 150$ mVrms @ 32 Ohms and the WLP $\geq 120$ 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 $\geq 120$ mVrms at 300 Ohms "could be" a passing result, depending on the output impedance.
Windows 7 Windows 7 64-bit	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 7 Windows 7 64-bit	PCI Hardware Compliance Test For Systems	12/01/2012	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 7 Windows 7 64-bit	PCI Hardware Compliance Test For Systems	12/01/2012	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.
Windows 7 Windows 7 64-bit	UAA Test - Win7 (System)	06/01/2015	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 7 Windows 7 64-bit	UAA Test - Win7 (System)	06/01/2015	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 7 Windows 7 64-bit	UAA Test - Win7 (System)	06/01/2013	1670	Erratum	HDMI audio devices are backed by video pipes; if a graphics subsystem exposes three output ports, but only has two video pipes, it is not possible to get all three HDMI audio endpoints "active" simultaneously.
Windows 7 Windows 7 64-bit	USB Host Controller Compliance(Automated)	12/01/2012	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

## Test Notes

Operating System	Test	Description
Windows 7	BIOS download	Internal: <a href="http://bios.intel.com/downloads/">http://bios.intel.com/downloads/</a> External: <a href="http://www.intel.com/">http://www.intel.com/</a> click on Support and Download
Windows 7	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 filter update	WLK WHQL test	<a href="http://winqual.microsoft.com/member/SubmissionWizard/LegalExemptions/filterupdates.cab">http://winqual.microsoft.com/member/SubmissionWizard/LegalExemptions/filterupdates.cab</a>
Special H/w that use to PASS the test	None	None