



Windows Hardware Certification (WHC)

Intel® Desktop Board

DH87MC

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# Desktop/Motherboard WHC Report

8/15/2013

**Purpose:**

This report describes the DH87MC Windows Hardware Certification 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
WHCK	Windows Hardware Certification Kit
MLP	Motherboard Logo Program. For further information see: <a href="http://msdn.microsoft.com/en-us/windows/hardware/gg463010.aspx">http://msdn.microsoft.com/en-us/windows/hardware/gg463010.aspx</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 DH87MC Final Configuration Report: Completion of WHC

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

### Board Information

Product Code <sup>1</sup>	BIOS String/Model	Technologies NOT Logo'd (yet)
DH87MC	MCH8710H.86A.0043.2013.0412.2225	N/A - all technologies logo'd
<b>Processor</b>		
Speed	3.5GHz	
Family	Intel Core i7 4770K	
Bus Speed	100 MHz	
<b>Motherboard</b>		
Board AA #	G74242-301	
Board FAB #	C (eg. 10x for fab A, 20x for fab B and etc)	
<a href="#">* 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.</a>		
<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 8 64-bit	<input type="checkbox"/>	Windows 8 Professional
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

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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

Technology	OS	Version	Package version
<b>Chipset Update Utility</b> Intel® Chipset Software Utility	Windows 7 32-bit	V9.4.0.1017	INF_allIOS_9.4.0.1017_PV
<b>Graphics</b> Intel® HD Graphics 4600	Windows 7 32-bit	V9.18.10.3071	GFX_Win8_Win7_64_9.18.10.3071_PV
<b>Audio</b> Realtek	Windows 7 32-bit	V6.0.1.6870	AUD_Win8_Win7_6.0.1.6870_PV
<b>LAN</b> Intel® WGI217V	Windows 7 32-bit	V12.6.47.0	LAN_Win8_Win7_12.6.47.0_(18.1)PV
<b>MEI</b> Intel® Management Engine Interface	Windows 7 32-bit	V9.0.2.1345	MEI_allIOS_9.0.2.1345_1.5M_PV(HF2)
<b>USB 3.0</b> Intel® USB 3.0 Extensible Host Controller	Windows 7 32-bit	V2.0.0.100	USB3_Win7_2.0.0.100_PV

## Windows Hardware Certification Kit Used (WHCK)

Microsoft website: <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 Testkit
Windows 7 32-bit	WHCK for Windows 7	WHCK for Windows 7

## Errata and Contingencies

Operating System	Falling Test	Expiry Date	ID Number	Type	Error Description
Windows 7 32-bit	UAA Test (System)	3/31/2014	1039	Erratum	Input Payload should be 0x1d, but is instead 0x0. This is being requested as a change to the HDAudio spec
Windows 7 32-bit	UAA Test (System)	10/1/2013	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 7 32-bit	UAA Test (System)	7/1/2014	354	Contingency	The FIFO size for Input and Output Stream Descriptors should be read only
Windows 7 32-bit	Class Driver AC3 Test (System)	6/30/2025	84	Erratum	The HD Audio class driver hdaudio.sys exposes AC-3 data ranges on S/PDIF Kernel Streaming pins incorrectly. <br xmlns="http://www.w3.org/1999/xhtml" /><br 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.<br xmlns="http://www.w3.org/1999/xhtml" /><br xmlns="http://www.w3.org/1999/xhtml" /> However, the HD Audio class driver sometimes incorrectly exposes a MaximumBitDepth of 24 or even 32.

## 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	WHCK WHQL test	<a href="https://sysdev.microsoft.com/member/SubmissionWizard/LegalExemptions/HCKFilterUpdates.cab">https://sysdev.microsoft.com/member/SubmissionWizard/LegalExemptions/HCKFilterUpdates.cab</a>
Special H/W that use to PASS the test	None	None