



Windows Hardware Certification (WHC)

Intel® Desktop Board

DH87MC

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# Desktop 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. For further information see: <a href="http://www.microsoft.com/whdc/hwtest/default.mspx">http://www.microsoft.com/whdc/hwtest/default.mspx</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="https://sysdev.microsoft.com/en-us/Hardware/LPL/">https://sysdev.microsoft.com/en-us/Hardware/LPL/</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
Processor		
Speed	3.5GHz	
Family	Intel Core i7 4770K	
Bus Speed	100 MHz	
Motherboard		
Board AA #	G74242-301	
Board FAB #	300 (eg. 10x for fab A, 20x for fab B and etc)	
* 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 Channel, DDR3, 1600MHz	
Memory Type	DIMM	
Connector Type	DDR3, 240 Pin	
Power Management		
BIOS Default	S3	
Operating System Tested		
	Check Tested	Comments
Windows 8 64-bit	<input type="checkbox"/>	Windows 8 Professional
Windows 7 and 32-bit	<input type="checkbox"/>	Windows 7 Ultimate Service Pack 1
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 64-bit

Technology	OS	Version	Package version
<b>Chipset Update Utility</b> Intel® Chipset Software Utility	Windows 7 64-bit	V9.4.0.1017	INF_allIOS_9.4.0.1017_PV
<b>Graphics</b> Intel® HD Graphics 4600	Windows 7 64-bit	V9.18.10.3071	GFX_Win8_Win7_64_9.18.10.3071_PV
<b>Audio</b> Realtek	Windows 7 64-bit	V6.0.1.6870	AUD_Win8_Win7_6.0.1.6870_PV
<b>LAN</b> Intel® Ethernet Connention I217-V	Windows 7 64-bit	V12.6.47.0	LAN_Win8_Win7_12.6.47.0_(18.1)PV
<b>MEI</b> Intel® Management Engine Interface	Windows 7 64-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 64-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 64-bit	WHCK for Windows 7	WHCK for Windows 7

## Errata and Contingencies

Operating System	Failing Test	Expiry Date	ID Number	Type	Error Description
Windows 7 64-bit	UAA Test (System)	12/2/2012	1039	Erratum	Input Payload should be 0x1d, but is instead 0x0. This is being requested as a change to the HDAudio spec
Windows 7 64-bit	UAA Test (System)	10/1/2013	244	Erratum	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 64-bit	UAA Test (System)	7/1/2014	354	Erratum	The FIFO size for Input and Output Stream Descriptors should be read only
Windows 7 64-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.                      xmlns="http://www.w3.org/1999/xhtml" />                      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.                      xmlns="http://www.w3.org/1999/xhtml" />                      xmlns="http://www.w3.org/1999/xhtml" /> However, the HD Audio class driver sometimes incorrectly exposes a MaximumBitDepth of 24 or even 32.

## Test Note

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