Windows Hardware Certification (WHC)

# Intel® Desktop Board DQ87PG

# Desktop/Motherboard WHC Report

8/15/2013

**Purpose:**

This report describes the DQ87PG 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 |
| MLP | Motherboard Logo Program. For further information see: http://msdn.microsoft.com/en-us/windows/hardware/gg463010.aspx |
| 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 DQ87PG 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) |
|---|---|---|
| DQ87PG | PGQ8710H.86A.0030.2013.0403.1355 | N/A - all technologies logo'd |
| **Processor** | | |
| Speed | 3.5GHz | |
| Family | Intel Core i7 4770K | |
| Bus Speed | 100 MHz | |
| **Motherboard** | | |
| Board AA # | G74154-300 | |
| 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 | ☐ | Windows 8 Professional |
| Windows 7 and 64-bit | ☑ | Windows 7 Ultimate Service Pack 1 |
| Windows Vista and 64-bit | ☐ | Vista Ultimate with Service Pack 2 |

[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 7 & 64-bit

| Technology | OS | Version | Package version |
|---|---|---|---|
| **Chipset Update Utility**<br>Intel® Chipset Software Utility | **Windows 7 & 64-bit** | V9.4.0.1017 | INF_allOS_9.4.0.1017_PV |
| **Graphics**<br>Intel® HD Graphics 4600 | **Windows 7 & 64-bit** | V9.18.10.3071 | GFX_Win8_Win7_64_9.18.10.3071_PV |
| **Audio**<br>Realtek | **Windows 7 & 64-bit** | V6.0.1.6873 | AUD_Win8_Win7_6.0.1.6873_PV |
| **LAN**<br>Intel® Ethernet Connention I217-V | **Windows 7 & 64-bit** | V12.6.47.0 | LAN_Win8_Win7_12.6.47.0_(18.1)PV |
| **MEI**<br>Intel® Management Engine Interface | **Windows 7 & 64-bit** | V9.0.2.1345 | MEI_5M_allOS_9.0.2.1345_PV(HF2) |
| **USB 3.0**<br>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) | 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 & 64-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 & 64-bit | UAA Test (System) | 7/1/2014 | 354 | Contingency | 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.<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: http://bios.intel.com/downloads/<br>External: http://www.intel.com/ click on Support and Download |
| **Windows 7** | BIOS setup | Please make sure the BIOS setting are as below, otherwise use default settings.<br><br>System Date and Time: Current date and time<br>Peripheral Configuration: Enable all onboard component<br>Drive Configuration: Set to AHCI<br>Chipset Configuration: Enable HPET<br>ACPI Suspend State: Set to <S3 State><br>Boot Device Priority: set <Hard Disk Driver> to first |
| **Windows 7 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 |