



Motherboard Logo Program (MLP)

Intel® Desktop Board

DX580G

MLP Report

4/20/2011

Purpose:

This report describes the DX580G Motherboard Logo Program testing run conducted by Intel Corporation.

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Introduction

Terms and Definitions

| Term | Definitions |
|--------------------------|---|
| WHQL | Windows* Hardware Qualification Lab |
| WLK | Windows Logo Kits |
| MLP | Motherboard Logo Program. For further information see: http://www.microsoft.com/whdc/hwtest/default.msp |
| 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&q=s |

Desktop Board Configuration

Desktop Board DX580G Final Configuration Report: Completion of MLP

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

Board Information

| Product Code ¹ | BIOS String/Model | Technologies NOT Logo'd (yet) |
|---|-------------------------------------|------------------------------------|
| DX580G | SOX5820J.86A.0765.2011.0228.1549 | N/A - all technologies logo'd |
| Processor | | |
| Speed | 3.47GHz | |
| Family | Intel® Core™ i7 CPU x990 | |
| Bus Speed | 1333 MHz | |
| Motherboard | | |
| Board AA # | AA G10926-203 | |
| Board FAB # | B | |
| <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> | | |
| System Memory | | |
| Speed | Dual Channel, DDR3, 1333MHz | |
| Memory Type | DIMM | |
| Connector Type | DDR3, 240 Pin | |
| Power Management | | |
| BIOS Default | S3 | |
| Operating System Tested | | |
| | Check Tested | Comments |
| Windows 7 and 64-bit | <input checked="" type="checkbox"/> | Windows 7 Ultimate |
| Windows Vista and 64-bit | <input checked="" type="checkbox"/> | Vista Ultimate with Service Pack 2 |
| Windows Vista Basic and 64-bit | <input type="checkbox"/> | Vista Basic 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 32-bit and 64-bit

| Technology | 6 | Version | Package version |
|--|------------------|--------------|------------------------------|
| Chipset Update Utility Intel® Chipset Software Utility | Windows 7 | 9.2.0.1025 | INF_allIOS_9.2.0.1025 |
| | Windows 7 64-bit | 9.2.0.1025 | INF_allIOS_9.2.0.1025 |
| Audio Realtek High Definition Audio | Windows 7 | 6.0.1.6299 | AUD_Vista_Win7_6.0.1.6299_PV |
| | Windows 7 64-bit | 6.0.1.6299 | AUD_Vista_Win7_6.0.1.6299_PV |
| LAN Intel® 82567LF-2 Gigabit Network Connection | Windows 7 | 10.1.9.0 | PROWin32_v16.0 |
| | Windows 7 64-bit | 10.1.9.0 | PROWin64_v16.0 |
| CIR Nuvoton W836x7HG CIR Device Driver | Windows 7 | 2.2.2010.714 | CIR_Win7_2.2.2010.0714_PV |
| | Windows 7 64-bit | 2.2.2010.714 | CIR_Win7_2.2.2010.0714_PV |

Onboard Integrated Devices and Driver for Windows Vista 32-bit and 64-bit

| Technology | 6 | Version | Package version |
|--|--------------|--------------|------------------------------|
| Chipset Update Utility Intel® Chipset Software Utility | Vista | 9.2.0.1025 | INF_allIOS_9.2.0.1025 |
| | Vista 64-bit | 9.2.0.1025 | INF_allIOS_9.2.0.1025 |
| Audio Realtek High Definition Audio | Vista | 6.0.1.6299 | AUD_Vista_Win7_6.0.1.6299_PV |
| | Vista 64-bit | 6.0.1.6299 | AUD_Vista_Win7_6.0.1.6299_PV |
| LAN Intel® 82567LF-2 Gigabit Network Connection | Vista | 10.1.9.0 | PROWin32_v16.0 |
| | Vista 64-bit | 10.1.9.0 | PROWin64_v16.0 |
| CIR Nuvoton W836x7HG CIR Device Driver | Vista | 1.8.2009.514 | CIR_Vista_1.8.2009.514_PV |
| | Vista 64-bit | 1.8.2009.514 | CIR_Vista_1.8.2009.514_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 | WLK1.6 for Windows 7 | WLK1.6 for Windows 7 |
| Windows Vista Windows Vista 64-bit | WLK1.6 for Windows Vista | WLK1.6 for Windows Vista |

Errata and Contingencies

| Operating System | Failing Test | Expiry Date | ID Number | Type | Error Description |
|--|--|-------------|-----------|---------|---|
| Windows 7 Windows 7 64-bit Windows Vista Windows Vista 64-bit | PCI Hardware Compliance Test For Systems | 6/1/2011 | 2051 | Erratum | PCIHCT - Bit range 11:10 (ASPM Support)in the Link Capabilities register (offset Ch) in the PCI Express Capability table is 0h. It cannot be in the set of values {0x0, 0x2}. (Assertion 5CAF4993-B8D1-4E4E-99EC-CC5895364E32) |
| Windows 7 Windows 7 64-bit Windows Vista Windows Vista 64-bit | PCI Hardware Compliance Test For Systems | 12/31/2011 | 423 | Erratum | Assertion 5CAF4993-B8D1-4E4E-99EC-CC5895364E32 Bit range 11:10 (ASPM Support)in the Link Capabilities register (offset Ch) in the PCI Express Capability table is 0h. It cannot be in the set of values {0x0, 0x2}. |
| Windows 7 Windows 7 64-bit Windows Vista Windows Vista 64-bit | PCI Hardware Compliance Test For Systems | 12/1/2012 | 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 Windows Vista Windows Vista 64-bit | PCI Hardware Compliance Test For Systems | 12/1/2012 | 923 | Erratum | Assertion FAE18121-9177-4FB2-A081-0D04C285EFF2 Bit range 15:0 (Extended Capability ID)in the Enhanced Capability Header register (offset 0h) in the Unrecognized Enhanced Capability ID 13 table is Dh. It must be in the range [0x0 - 0xB] as all other Capability IDs are reserved. |
| Windows 7 Windows 7 64-bit Windows Vista Windows Vista 64-bit | PCI Hardware Compliance Test For Systems | 12/1/2012 | 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. This is an incorrect assumption because the Data Link Link Layer Link Active bit can be reset when there is no device below the port. This assertion needs to be removed from the PCIHCT. The current architecture of the PCIHCT prevents it from knowing whether devices exist below a bridge/port. |

| Operating System | Failing Test | Expiry Date | ID Number | Type | Error Description |
|--|--|-------------|-----------|---------|---|
| Windows 7 Windows 7 64-bit Windows Vista Windows Vista 64-bit | Class Driver Fidelity Test - Win7 (System, Manual) | 7/31/2012 | 598 | Erratum | The European Union requires the headphone output level to be <= 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 >= 1000 mVrms to >= 120 mVrms. This provides freedom for manufacturers to meet both the EU <= 150 mVrms @ 32 Ohms and the WLP >= 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 >= 120 mVrms at 300 Ohms "could be" a passing result, depending on the output impedance. |
| Windows 7 Windows 7 64-bit | Class Driver KS TopologyTest - Win7 (System) | 6/1/2015 | 1709 | Erratum | Run Class Driver KS Topology Test on an HDMI audio device that does not implement the Intel HD Audio HDMI DCNs. |
| Windows 7 Windows 7 64-bit Windows Vista Windows Vista 64-bit | UAA Test - Win7 (System) | 6/1/2015 | 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 Windows Vista Windows Vista 64-bit | USB Host Controller Compliance (Automated) | 6/1/2012 | 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 |
| Windows Vista Windows Vista 64-bit | HDAudio Class Driver Test - Vista or Server08 (System) | 6/1/2011 | 142 | Erratum | Errata 142 HDMI is required to support 44.1 kHz on Windows 7 The Windows Vista HD Audio class driver does not support 44.1 kHz sample rates. There is an errata to cover this violation of AUDIO-0023. It was mistakenly applied to third-party drivers. As of Windows 7, the Windows Vista HD Audio class driver supports 44.1 kHz sample rates on hardware that advertises support for it. AUDIO-0023 is applicable. This is a filter to allow vendors to ship with systems that violated AUDIO-0023 but were incorrectly filtered by the Vista filter. Hardware that does not support 44.1 needs to be updated to support 44.1, and advertise that support in a way that the Microsoft HD Audio class driver can pick up on. Third-party drivers need to relay this support to the OS correctly. |

Test Notes

| Operating System | Test | Description |
|---------------------------------------|---------------|--|
| Windows 7 and Vista | BIOS download | Internal: http://bios.intel.com/downloads/ External: http://www.intel.com/ click on Support and Download |
| Windows 7 and Vista | 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 IDE Chipset Configuration: Enable CIR ACPI Suspend State: Set to <S3 State> Boot Device Priority: set <Hard Disk Driver> to first |
| Windows 7 and Vista filter update | WLK WHQL test | http://winqual.microsoft.com/member/SubmissionWizard/LegalExemptions/filterupdates.cab |
| Special H/W that use to PASS the test | None | None |