



Motherboard Logo Program (MLP)

# Intel® Desktop Board DP55WB

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## MLP Report

8/31/2009

**Purpose:**

This report describes the DP55WB 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 DP55WB 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)
DP55WB	WBIBX10J.86A.0122.2009.0802.2219	N/A - all technologies logo'd
<b>Processor</b>		
Speed	2.93 GHz	
Family	Intel® Core™ i7	
Bus Speed / DMI	2.5 GT/s	
<b>Motherboard</b>		
Board AA #	E64798	
Board FAB #	203	
* 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.		
<b>System Memory</b>		
Speed	Dual Channels, DDR3, 1333MHz	
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
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

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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 Vista 32-bit and 64-bit

Technology	OS	Version	Package version
Chipset Update Utility Intel® Chipset Software Utility	Windows Vista	9.1.1.1013	9.1.1.1015
	Windows Vista 64-bit	9.1.1.1013	9.1.1.1015
Audio Realtek	Windows Vista	6.0.1.5892	5892
	Windows Vista 64-bit	6.0.1.5892	5892
LAN Intel® PRO Network Connections	Windows Vista	10.7.31.0	14.3
	Windows Vista 64-bit	10.7.31.0	14.3

## Onboard Integrated Devices and Driver for Windows 7 32-bit and 64-bit

Technology	OS	Version	Package version
Chipset Update Utility Intel® Chipset Software Utility	Windows 7	9.1.1.1013	9.1.1.1015
	Windows 7 64-bit	9.1.1.1013	9.1.1.1015
Audio Realtek	Windows 7	6.0.1.5892	5892
	Windows 7 64-bit	6.0.1.5892	5892
LAN Intel® PRO Network Connections	Windows 7	11.0.41.0	14.3
	Windows 7 64-bit	11.0.41.0	14.3

## 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 Vista Windows Vista 64-bit	<a href="#">WLK1.4 for Windows Vista SP2</a>	<a href="#">WLK1.4 for Windows Vista SP2</a>
Windows 7 Windows 7 64-bit	<a href="#">WLK1.4 for Windows 7</a>	<a href="#">WLK1.4 for Windows 7</a>

## 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	12/31/2009	35	Erratum	Bit range 11:9 (Endpoint L1 Acceptable Latency) in the Device Capabilities register (offset 4h) in the PCI Express Capability table must be read-only and always return 0 for devices other than endpoints. These register bits are requested to always return 0 in PCI Express revision 1.1, but are not requested to be always return 0 in PCI express revision 1.0a.
Windows 7 Windows 7 64-bit  Windows Vista Windows Vista 64-bit	PCI Hardware Compliance Test For Systems	12/31/2009	30	Erratum	Currently, the PCIHCT is testing the ASPM Support of a PCI Express device unconditionally, based on PCI Express specification. There is a published Microsoft white-paper ( <a href="http://www.microsoft.com/whdc/system/bus/PCI/aspm.msp">http://www.microsoft.com/whdc/system/bus/PCI/aspm.msp</a> ) explaining that support is based on Role Based Error Reporting capability (by default).
Windows 7 Windows 7 64-bit  Windows Vista Windows Vista 64-bit	PCI Hardware Compliance Test For Systems	1/1/2010	1180	Erratum	If the Data Link Layer Link Active Reporting Capable field of the Link Capabilities register is set to 1, then the Data Link Layer Link Active field of the Link Status Register must be implemented as per the PCIe Base Specification. However, there is no requirement either in the OS code or in the PCIe Base specification that requires the reverse to be true, Thus, if the Data Link Layer Link Active field of the Link Status Register is implemented then it is NOT required for the Data Link Layer Link Active Reporting Capable field of the Link Capabilities register to be set to 1.
Windows 7 Windows 7 64-bit  Windows Vista Windows Vista 64-bit	1)Fidelity Test - Win7 (System, Manual)  2)HDAudio Class Driver Fidelity Test - Vista (System, Manual)	12/1/2009	966	Erratum	Fidelity Test includes a "System Activity Test" that verifies audio fidelity is not compromised during system activity. It uses an activity generator called rws.exe (Real World Stress) which has a bug that causes it to hit an access violation. When this happens it exits with return code 0xC0000005, or -1073741819.
Windows 7 Windows 7 64-bit  Windows Vista Windows Vista 64-bit	1)Class Drive Fidelity Test - Win7 (System, Manual)  2)Fidelity Test - Win7 (System, Manual)  3)HDAudio Class Driver Fidelity Test - Vista (System, Manual)  4)Fidelity Test - Vista (System, Manual)	12/31/2009	1238	Erratum	Fidelity Test now includes a "Render Power Transition" test. This preview filter covers all errors in this new test of SYSFUND-0050.

Windows 7 Windows 7 64-bit  Windows Vista Windows Vista 64-bit	1)Class Drive Fidelity Test - Win7 (System, Manual)  2)HDAudio Class Driver Fidelity Test - Vista (System, Manual)	12/1/2009	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  Windows Vista Windows Vista 64-bit	1)Class Drive AC3 Test - Win7 (System)  2)HDAudio Class Driver Test - Vista or Serve 08 (System)	6/1/2010	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  Windows Vista Windows Vista 64-bit	1)UAA Test - Win7 (System)  2)UAA Test - Vista or Serve 08 (System))	12/1/2009	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	1)UAA Test - Win7 (System)  2)UAA Test - Vista or Serve 08 (System)	12/1/2009	1198	Erratum	"High Definition Audio Device" devices need to comply with the Intel High Definition Audio spec, as well as revisions (known as Document Change Notifications, or DCNs.) One such DCN - in particular, DCN 34-A2 - clarified the behavior of "pin sense" verbs as applied to digital pins (S/PDIF, HDMI, and DisplayPort.) Prior to the DCN, the language of the spec was unclear and mistakenly implied that the "Impedance" bits could be used by digital pins. The DCN clarified this to say that Impedance bits are reserved for digital pins.
Windows 7 Windows 7 64-bit  Windows Vista Windows Vista 64-bit	1)UAA Test - Win7 (System)  2)UAA Test - Vista or Serve 08 (System)	6/1/2010	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  Windows Vista Windows Vista 64-bit	1)UAA Test - Win7 (System)  2)UAA Test - Vista or Serve 08 (System)	8/1/2010	1144	Erratum	Preview Filter: UAA Test - Intel Low Power DCN says "EPSS implies KeepAlive, but only after July 1st 2011"
Windows 7 Windows 7 64-bit  Windows Vista Windows Vista 64-bit	1)Wave Test - Win7 (System)  2)Wave Test - Vista or Serve 08 (System)	6/1/2010	1281	Erratum	Run "Data Intersection Test\Capture Streaming\Check Supported Formats" out of WaveTest on a system containing audio devices that are "disabled" via the Sound Control panel. Expected results: should succeed. Actual results: fail with "Failed to find any endpoints for the current pin" and "Failed to decide if current data intersection test should be skipped"
Windows Vista Windows Vista 64-bit	2)Wave Test - Vista or Serve 08 (System)	6/1/2010	1297	Erratum	WaveTest can't find endpoint on Vista driver.
Windows 7 Windows 7 64-bit	WDDM CCD Test for Forced Projection	6/1/2010	1268	Erratum	The WDDM CCD Test for forced projection test fails due to not recognizing SDTV dongle as a forcible target.

## Test Notes

Operating System	Test	Description
Windows 7 and Vista	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 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 HPET 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	<a href="http://winqal.microsoft.com/member/SubmissionWizard/LegalExemptions/filterupdates.cab">http://winqal.microsoft.com/member/SubmissionWizard/LegalExemptions/filterupdates.cab</a>
Special H/W that use to PASS the test	None	None