



Motherboard Logo Program (MLP)

Intel® Desktop Board

DX38BT

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MLP Report

6/17/2008

**Purpose:**

This report describes the DX38BT Motherboard Logo Program testing run conducted by Intel Corporation.

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# Contents

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- Introduction ..... 4**
  - Terms and Definitions..... 4
- Desktop Board Configuration ..... 5**
  - Desktop Board DX38BT Final Configuration Report: Completion of MLP ..... 5
    - Board Information ..... 5
    - Product Code..... 5
    - Processor ..... 5
    - Motherboard ..... 5
    - System Memory ..... 5
    - Power Management ..... 5
    - Operating System Tested ..... 5
    - Onboard Integrated Devices and Driver ..... 6
  - Driver Test Manager Used (DTM) ..... 6
  - Errata and Contingencies ..... 7
  - Test Notes ..... 8

# Introduction

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## Terms and Definitions

| Term                     | Definitions   |
|--------------------------|---|
| WHQL                     | Windows* Hardware Qualification Lab   |
| DTM                      | Driver Test Manager   |
| MLP                      | Motherboard Logo Program. For further information see:<br><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 DX38BT 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)      |
| DX38BT   | BTX3810J.86A.1554.2008.0501.1628    | N/A - all technologies logo'd      |
| <b>Processor</b>   |                                     |                                    |
| Speed  | 3.0GHz                              |                                    |
| Family   | Intel® Core™2 Extreme               |                                    |
| Bus Speed  | 1333 MHz                            |                                    |
| <b>Motherboard</b>   |                                     |                                    |
| Board AA #   | D85848                              |                                    |
| Board FAB #  | 503                                 |                                    |
| * 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 Channel, 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 XP Pro   | <input checked="" type="checkbox"/> | XP Pro with Service Pack 3         |
| Windows XP Pro 64-bit  | <input checked="" type="checkbox"/> | XP Pro with Service Pack 2         |
| Windows Vista  | <input checked="" type="checkbox"/> | Vista Ultimate with Service Pack 1 |
| Windows Vista 64-bit   | <input checked="" type="checkbox"/> | Vista Ultimate with Service Pack 1 |
| Windows Vista Basic  | <input type="checkbox"/>            | Vista Basic with Service Pack 1    |

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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.

|                            |                          |                                 |
|----------------------------|--------------------------|---------------------------------|
| Windows Vista Basic 64-bit | <input type="checkbox"/> | Vista Basic with Service Pack 1 |
|----------------------------|--------------------------|---------------------------------|

### Onboard Integrated Devices and Driver for XP Pro 32 and 64bit

| Technology  | OS                    | Version       |
|---|-----------------------|---------------|
| Chipset Update Utility<br>Intel® Chipset Software Utility | Windows XP Pro        | 8.3.1.1010    |
|   | Windows XP Pro 64-bit | 8.3.1.1010    |
| Audio<br>IDT  | Windows XP Pro        | 5762_5713_v68 |
|   | Windows XP Pro 64-bit | 5762_5713_v68 |
| LAN<br>Intel® PRO Network Connections                     | Windows XP Pro        | 12.1          |
|   | Windows XP Pro 64-bit | 12.1          |
| CIR Transceiver<br>Winbond                                | Windows XP Pro        | N/A           |
|   | Windows XP Pro 64-bit | N/A           |

### Onboard Integrated Devices and Driver for Vista 32 and 64bit

| Technology  | OS                   | Version       |
|---|----------------------|---------------|
| Chipset Update Utility<br>Intel® Chipset Software Utility | Windows Vista        | 8.3.1.1010    |
|   | Windows Vista 64-bit | 8.3.1.1010    |
| Audio<br>IDT  | Windows Vista        | 5762_5713_v68 |
|   | Windows Vista 64-bit | 5762_5713_v68 |
| LAN<br>Intel® PRO Network Connections                     | Windows Vista        | 13.0.1        |
|   | Windows Vista 64-bit | 13.0.1        |
| CIR Transceiver<br>Winbond                                | Windows Vista        | 7.0.65.1002   |
|   | Windows Vista 64-bit | 7.0.65.1002   |

### Driver Test Manager Used (DTM)

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 XP Pro<br>Windows XP Pro 64-bit | <a href="#">DTM for Windows XP SP3</a>             | <a href="#">DTM for Windows XP SP3</a>             |
| Windows Vista<br>Windows Vista 64-bit   | <a href="#">DTM for Windows Vista SP1 @ WLK1.2</a> | <a href="#">DTM for Windows Vista SP1 @ WLK1.2</a> |

## Errata and Contingencies

| Operating System                      | Failing Test   | Expiry date | ID Number | Type    | Error Description   |
|---------------------------------------|--|-------------|-----------|---------|---|
| Windows Vista<br>Windows Vista 64-bit | Fidelity Test (System, Manual),<br>HDAudio Class Driver Fidelity Test (System, Manual) | 8/1/2008    | 1182      | Erratum | The following test cases in Fidelity Test are new for WLK 1.2 and were not previewed in WLK 1.1: * Render System Activity Test * Capture Input Level Test * Capture Skew Test * Capture THD+N Test * Capture Dynamic Range Test * Capture Frequency Response Test   |
| Windows Vista<br>Windows Vista 64-bit | PCI Hardware Compliance Test For Systems Running Windows Vista (PCIHCT)                | 12/31/2008  | 566       | 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 Vista<br>Windows Vista 64-bit | PCI Hardware Compliance Test For Systems Running Windows Vista (PCIHCT)                | 12/31/2008  | 709       | Erratum | Certain devices are known to have incompatibilities with the test causing a system hang during testing. This erratum is for those devices The PCIHCT tests Bit 15 of the Device Control Register in the PCI Express Capability table. The testing of Bit 15, specifically the writing of a 1 to the bit causes a function level reset making the device unavailable for a maximum of 100ms. All writes to the PCI config space of the device are ignored during the reset. All reads to the PCI config space of the device return all ones (1). This confuses the PCIHCT test and it incorrectly fails the assertions for Bits 4, 11, 12, 13 and 14. Assertion 73C19B53-84B8-4BA4-97EA-3FF6DEF57273: FAILED. Bit 4 (Enable Relaxed Ordering) in the Device Control register (offset 8h) in the PCI Express Capability table must be read-writable if it's implemented. Assertion C0846E74-2CFE-4CC2-A492-6AAF16F206CD: FAILED. Bit 11 (Enable No Snoop) in the Device Control register (offset 8h) in the PCI Express Capability table must be read-writable if it's implemented. Assertion A56B0EE0-0C2C-47A4-90C4-5F8EEB30D427: FAILED. Bit range 14:12 (Max_Read_Request_Size) in the Device Control register (offset 8h) in the PCI Express Capability table must be read-writable if implemented. Assertion 13A41D3E-2576-41DC-A67C-525DA3637CEA: FAILED. 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. |
| Windows Vista<br>Windows Vista 64-bit | PCI Hardware Compliance Test For Systems Running Windows Vista (PCIHCT)                | 1/1/2009    | 1078      | Erratum | The Bit 5 (Surprise Down Error Severity) in the Uncorrectable Error Severity register (offset Ch) in the Advanced Error Reporting Capability table must be read-only and always return 1 if the Bit 5 (Surprise Down Error Mask) in the Uncorrectable Error Mask Register in the Advanced Error Reporting Capability table is not implemented   |
| Windows Vista<br>Windows Vista 64-bit | UAA Test - Vista (System)  | 7/31/2009   | 534       | 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 Vista<br>Windows Vista 64-bit | UAA Test - Vista (System)  | 7/31/2008   | 636       | Erratum | Certain HD Audio codecs allow setting unsupported VRef settings in the pin control register. They have hardware validation that prevents the unsupported VRef settings from affecting the actual voltage, but subsequent reads from the pin control register will return values that are out of sync with what the actual voltage is. This requires a hardware fix so the failure is forgiven for these specific codecs. Future designs must advertise the VRefs correctly. The failing test log is UAATest.wtl.  |

## Test Notes

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