Motherboard Logo Program (MLP)

Intel® Desktop Board DQ77MK

MLP Report

5/21/2012

Purpose:

This report describes the DQ77MK Motherboard Logo Program testing run conducted by Intel Corporation.

Contents

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.mspx
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 DQ77MK 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)
DQ77MK	MKQ7710H.86A.0034.2012.0320.2026	N/A - all technologies logo'd
Processor		
Speed	3.50GHz	
Family	Intel Core i7 3770K	
Bus Speed	100 MHz	
Motherboard		
Board AA #	G39642	
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 7 and 64-bit	☑	Windows 7 Ultimate Service Pack 1
Windows Vista and 64-bit	☐	Vista Ultimate with Service Pack 2
Windows Vista Basic and 64-bit	☐	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	OS	Version	Package version
Chipset Update Utility Intel® Chipset Software Utility	**Windows 7**	V9.3.0.1020	INF_allOS_9.3.0.1020_PV
	Windows 7 64-bit	V9.3.0.1020	INF_allOS_9.3.0.1020_PV
Graphics Intel® HD Graphics 4000	**Windows 7**	V8.15.10.2669	GFX_Vista32_Win7_32_8.15.10.2669_PV
	Windows 7 64-bit	V8.15.10.2669	GFX_Vista32_Win7_64_8.15.10.2669_PV
Audio Realtek	**Windows 7**	V6.0.1.6526	AUD_Vista_Win7_6.0.1.6526_PV
	Windows 7 64-bit	V6.0.1.6526	AUD_Vista_Win7_6.0.1.6526_PV
LAN 1 Intel® 82579LM Gigabit	**Windows 7**	V11.15.16.0	LAN_allOS_11.15.16.0_PV
	Windows 7 64-bit	V11.15.16.0	LAN_allOS_11.15.16.0_PV
LAN 2 Intel® 82574L Gigabit	**Windows 7**	V11.14.48.0	LAN_allOS_11.15.16.0_PV
	Windows 7 64-bit	V11.14.48.0	LAN_allOS_11.15.16.0_PV
MEI Intel® Management Engine Interface	**Windows 7**	V8.0.0.1262	MEI_allOS_8.0.4.1441_PV_5M
	Windows 7 64-bit	V8.0.0.1262	MEI_allOS_8.0.4.1441_PV_5M
USB3.0 Intel® USB 3.0 eXtensible	**Windows 7**	V1.0.4.220	USB3_Win7_1.0.4.220_PV
	Windows 7 64-bit	V1.0.4.220	USB3_Win7_1.0.4.220_PV
IRST	**Windows 7**	V11.1.0.1006	STOR_Vista_Win7_11.1.0.1006_PV
	Windows 7 64-bit	V11.1.0.1006	STOR_Vista_Win7_11.1.0.1006_PV

Windows Logo Kits Used (WLK)

Microsoft website: http://www.microsoft.com/whdc/DevTools/WDK/DTM.mspx

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 SP1	WLK1.6 for Windows 7 SP1

Errata and Contingencies

Operating System	Failing Test	Expiry Date	ID Number	Type	Error Description
Windows 7 Windows 7 64-bit	Class Driver AC3 Test - Win7 (System)	6/30/2025	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	Class Driver Fidelity Test - Win7 (System, Manual)	7/31/2015	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	PCI Hardware Compliance Test For Systems	12/01/2012	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.
Windows 7 Windows 7 64-bit	PCI Hardware Compliance Test For Systems	12/01/2012	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	UAA Test - Win7 (System)	6/1/2015	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	UAA Test - Win7 (System)	6/1/2013	1670	Erratum	HDMI audio devices are backed by video pipes; if a graphics subsystem exposes three output ports, but only has two video pipes, it is not possible to get all three HDMI audio endpoints "active" simultaneously.
Windows 7 Windows 7 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	USB Host Controller Compliance (Automated)	12/1/2012	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

Test Notes

Operating System	Test	Description
Windows 7	BIOS download	Internal: http://bios.intel.com/downloads/ 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. 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	WLK WHQL test	https://sysdev.microsoft.com/member/SubmissionWizard/LegalExemptions/updatefilters.cab
Special H/W that use to PASS the test	None	None