Rev.	Modified Chapters	Modification Description	Issued Dept.	Issued by	Revised Date
1.00		First release	GTC	Janice_Pang	
1.01		Modify for new test structure	GTC	Janice_Pang	
1.02		Add New P/N (C1CLZF)	GTC	Janice_Pang	
1.03		Add New P/N (C1CLZ5)	GTC	Janice_Pang	
1.04		Add New P/N (C1CLZP)	GTC	Janice_Pang	
1.05		Add New P/N (C1CLZK)	GTC	Janice_Pang	
1.06		Add New PCBA(C1CLZF-A23)	GTC	Janice_Pang	MAY.12,2009
1.07		Add New PCBA (C1CLZK-A11)	GTC	Janice_Pang	MAY.19,2009
1.08		Add New PCBA (C1CLZP-A11)	GTC	Janice_Pang	JUN.08,2009
1.09		Add New PCBA (C1CLZK-A21)	GTC	Janice_Pang	JUN.15,2009
1.10		Add New PCBA (C1CLZK-A31)	GTC	Janice_Pang	JUL.16,2009
1.11		Add New P/N (C1CN90)	GTC	Janice_Pang	AUG.03,2009
1.12		Add New P/N (C1CLZZ)	GTC	Janice_Pang	SEP.02,2009
1.13		Add New P/N (C1CLZU)	GTC	Janice_Pang	SEP.02,2009
1.14		Add New P/N (C1CNQ0)	GTC	Janice_Pang	NOV.03,2009
1.15		Add New PCBA(C1CLZU-A12)	GTC	Ariel_wang	Mar.19,2010

Authorize by		Review by		Originator By	Janice

1.Objectives

Create test procedure.

2.Scope

Model: EAH4650
PN: C1CLZ0 C1CLZF C1CLZ5 C1CLZP C1CLZK
       C1CLZF-A23 C1CLZK-A11/A21/A31 C1CLZP-A11
        C1CN90 C1CLZZ C1CLZU(A01&A12) C1CNQ0(A01)

3.Test Item

3.1 Diagnostic test in DOS
3.2 3DMark06(contain HDMI test)
3.3 Temperature test

4.Relevant Document

None.

5.Definition :1. If the model name contains P, please test HDCP function.

Ex: EAH***/HTDP/512M/A
2. If you test HDMI already, it's unnecessary to test HDCP. The HDMI
contains HDCP function.

6. Operation Procedures:

6.1 Attention

6.1.1 To avoid damaging devices or M/B, please turn off A/C power then unplug VGA card.

6.1.2 While unplugging the card, do it in upright direction to avoid damaging slot & golden finger.

6.1.3 If any problem happens, please inform test supervisor. Base on ATX power specification, +5V standby voltage is existed while AC power is connecting. For safety reason, please turn off main power during break time or idling test.

6.1.4 Some test items should be tested under Windows environment. (Please install windows test environment by yourself).

6.2 Fixture connect

6.2.1 Install Intel P5 CPU & CPU Fan.
6.2.2 Install DDR2 667/800M 1GB Memory to DIMM1~2.
6.2.3 Plug USB Mouse and PS/2 Keyboard into MB.
6.2.4 Plug VGA Card EAH4650 into PCIEX16.

6.2.5 Connect IDE HDD with IDE CON.
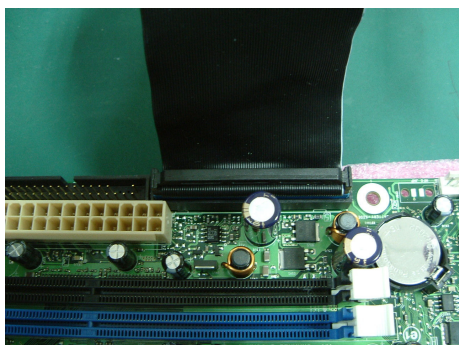
6.2.6 Plug 4PIN 12V power(600W) cable into CON12V.
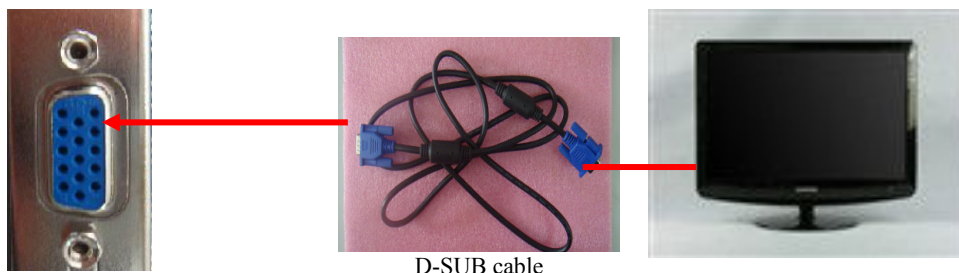6.2.7 Plug ATX Power(600W) on Power Connector.
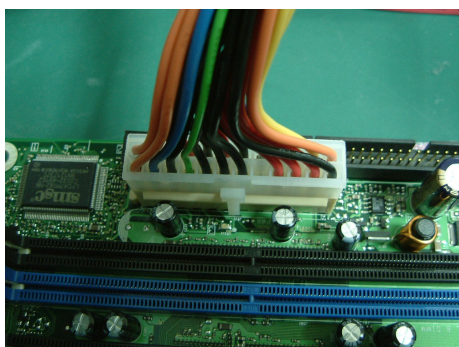
6.3 Certain test.

6.3.1 Diagnostic test in DOS

6.3.1.1 Please connect LCD monitor & card's D-SUB CON via a D-SUB cable.

D-SUB cable

6.3.1.2 Press Power Switch then turn on power button.

6.3.1.3 Press "Del" to enter CMOS setup menu while boot screen is displaying.
EXIT -> Load Setup Defaults.
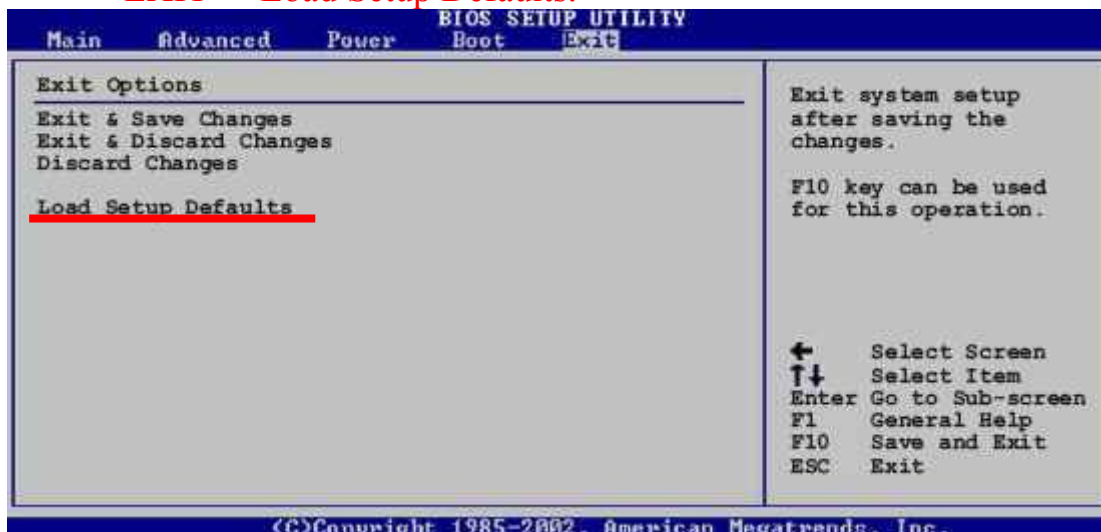
6.3.1.4 System will reboot, select DOS to run test program.
Path:VBAT\EAH4650\BATCH\
Run the test program refer to the prompt.

6.3.1.5 Memory test
If you want to test memory,please run memfa.bat.
Path:VBAT\EAH4650\DIAG\MEMFA\ (for C1CLZ0   C1CLZF)
Path:VBAT\EAH4650\DIAG\MEMFA2\
Path:VBAT\EAH4650\RV730\(for C1CN90)
Path:VBAT\EAH4650\V730P128\(for C1CLZU-A12)

6.3.1.6 BIOS flash
Please use the following command to flash bios and notice the size of character.
Path:VBAT\EAH4650\BIOS
Command:atiflash -p -f 0 xxx.rom

6.3.1.7 After finish DOS testing, please enter Windows environment to test 3DMark.

6.3.2 3DMark test(contain HDMI test)

6.3.2.1 Please install 3DMark program by yourself.
6.3.2.2 Please connect LCD monitor & card's DVI CON via a DVI cable.

HDMI cable
HDMI CON

6.3.2.3 Please install VGA card driver in Windows(You must use individual driver of this card).
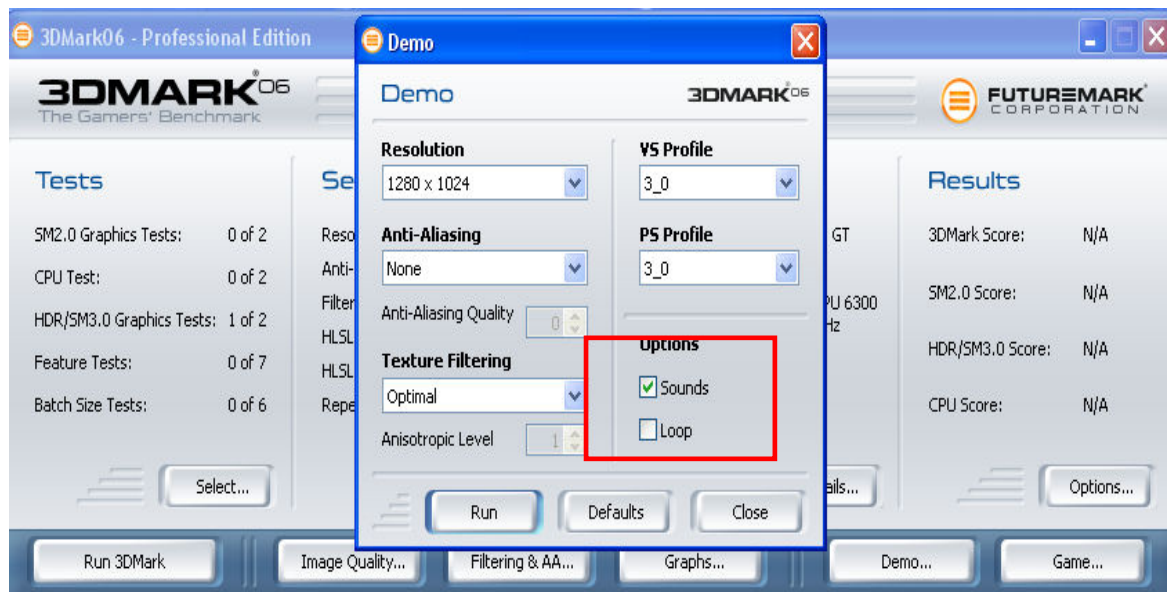6.3.2.4 Please run 3DMark06 base on this card (please test 1 cycle).
6.3.2.5 Press "Select" to enter Select test menu. You can choose "HDR1" for default setting.
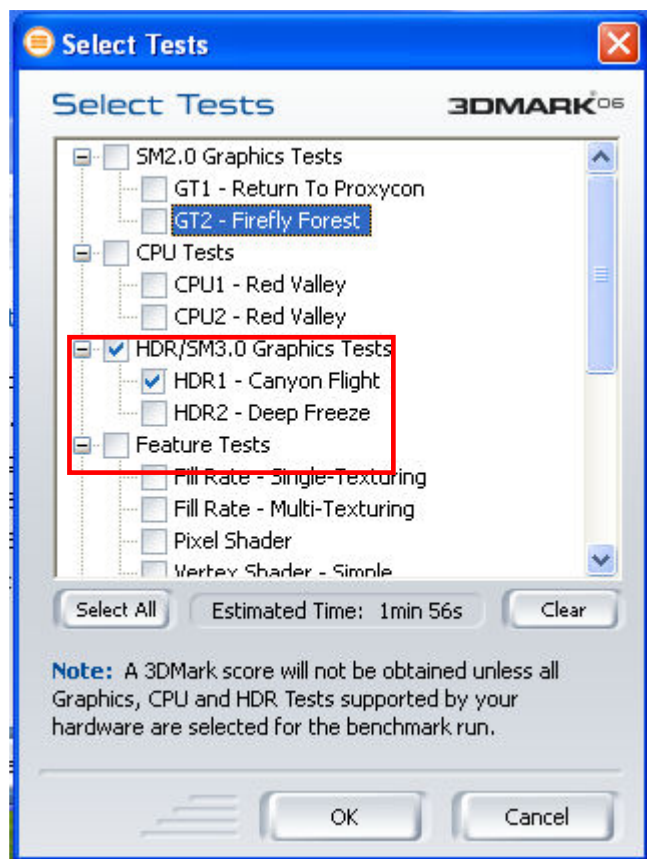
6.3.2.6 Press "Demo" to enter Demo menu. You can choose "Sounds" for default setting.

6.3.2.7 Please pay attention to check if there is flickering, discolor, crash and so on.
If there's no problem, it can be judged OK!

6.3.2.8 Please listen to voice carefully to check whether it outputs sounds. If not, HDMI test fail.

6.4 Temperature test

6.4.1 Please copy Thermaltool(1.0.05) to Windows by yourself.
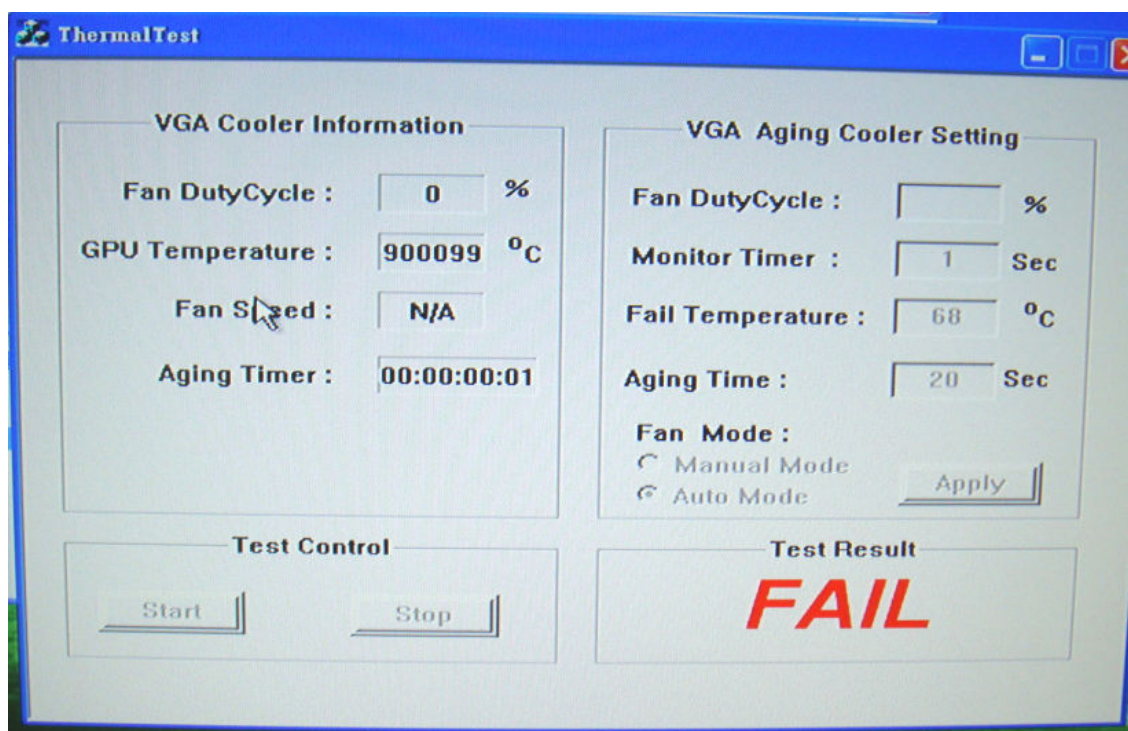6.4.2 Please run ThermalTest.exe.

6.4.3 If it test ok, show pass.
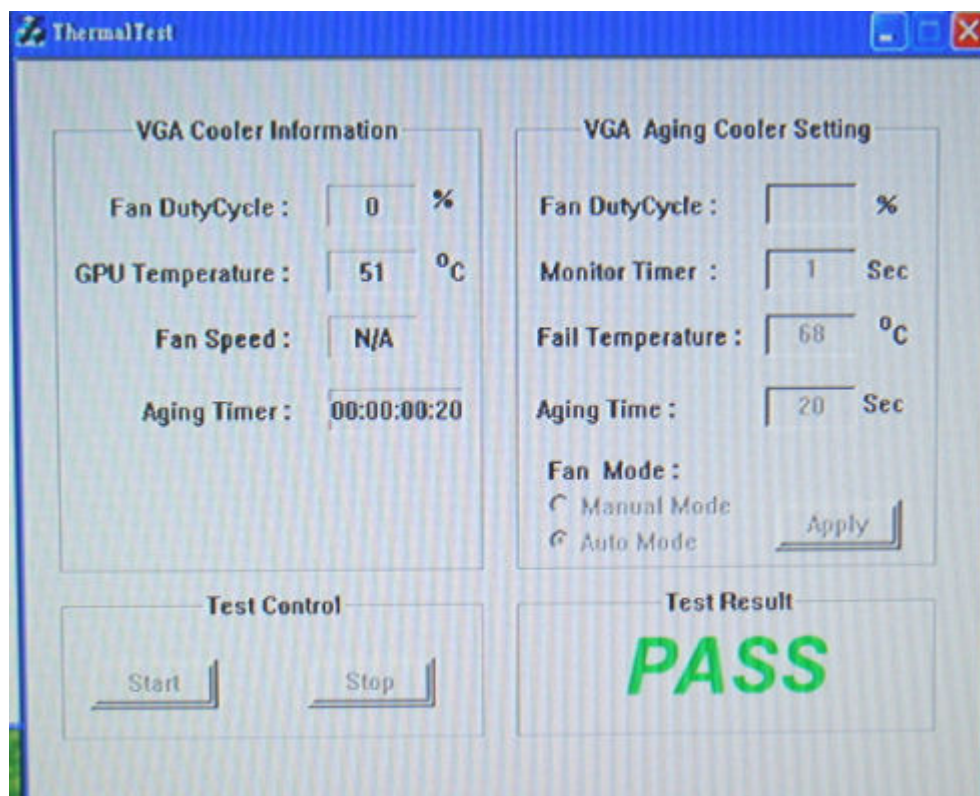
6.4.4 If it test fail, show fail.

6.4.5 If test OK, NTF test.

7 Appendix

NO#	Equipment Description	ASUS Part#	Supplier	Quantity	Remarks
1	**SAMSUNG 2232MW**			**1**	
2	**PS/2 MOUSE**			**1**	
3	**PS/2 KEYBOARD**			**1**	
4	**ATX POWER SUPPLY(600W)**			**1**	
5	**INTEL P5 CPU**			**1**	
6	**Heat sink + FAN**	**22-240000160**		**1**	
7	**APACER 800MHz 512M or 800MHz 1G**			**512M 2 or 1G 1**	
8	**TEST HDD**			**1**	
9	**40Pins IDE Cable ATA66**		**ASUS**	**1**	
10	**PCIEX16 VGA CARD**			**1**	
11	**D-SUB extend cable (Buying a local D-SUB cable by yourself)**			**1**	
12					
13	**Dual link DVI cable (Buying a local DVI cable by yourself)**			**1**	
14	**HDMI extend cable (Buying a local HDMI cable by yourself)**			**1**	
15	**LCD "Y" Cable**	**14-010230000**		**1**	
16	**P5E**	**80-MBB7X0-G0A01**		**1**	