Rev.	Modified Chapters	Modification Description	Issued Dept.	Issued by	Revised Date
1.00		First Release	GRMA	Ariel_wang	Jan.30,2011
1.01		Add new P/N(C1CQ75-A01)	GRMA	Ariel_wang	Jun.29.2011

Authorize by		Review by		Originator By	Ariel

1.Objectives

Create test procedure.

2.Scope

Model: EAH6970
PN: C1CQ70 (A01) C1CQ75(A01)

3.Test Item

3.1 Diagnostic test in 64-bit Linux
3.2 3DMark06(contain HDMI test)
3.3 Temperature test
3.4 Fan 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.
3. System Memory: 1GB for a single GPU test station; please add an additional 512MB of system memory for each additional GPU used for the test configuration
4. EAH6970 Test Program in 64-bit Linux system.

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/P7 CPU & CPU Fan.

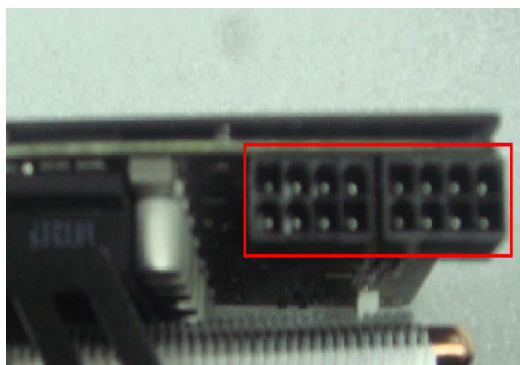6.2.2 Install DDR2/DDR3Memory to DIMM1~4. **(a minimum memory of 2GB for Linux test)**

6.2.3 Plug USB Mouse and PS/2 Keyboard into MB.

6.2.4 Plug VGA Card EAH6970 into PCIEX16_1.

6.2.5 If this card has 6 PIN or 8 PIN of Power supply,please connect power con of VGA card & Power supply via bundled power cable.

(6 PIN of Power supply to 6 PIN of VGA card)
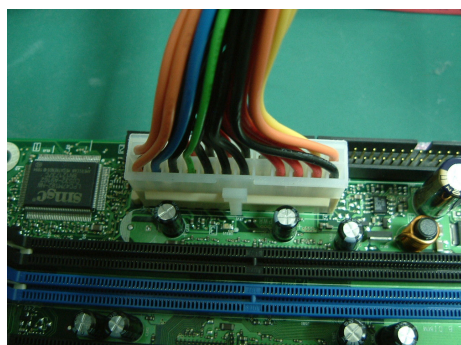(8 PIN of Power supply to 8 PIN of VGA card)

6.2.6 Connect SATA HDD & SATA con via SATA cable

SATA

6.2.7 Plug 4PIN 12V power**(a minimum power of 1200W)** cable into CON12V.

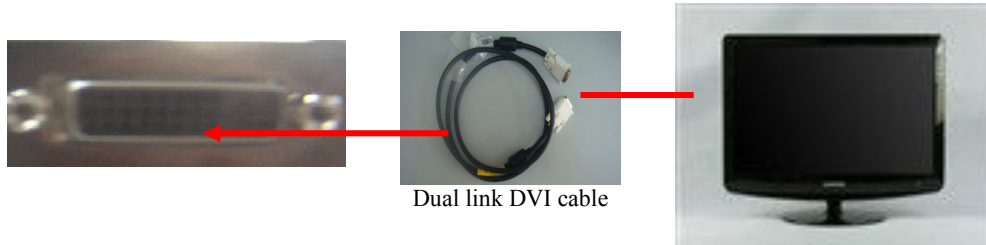6.2.8 Plug ATX Power on Power**(a minimum power of 1200W)** Connector.

6.3 Certain test.
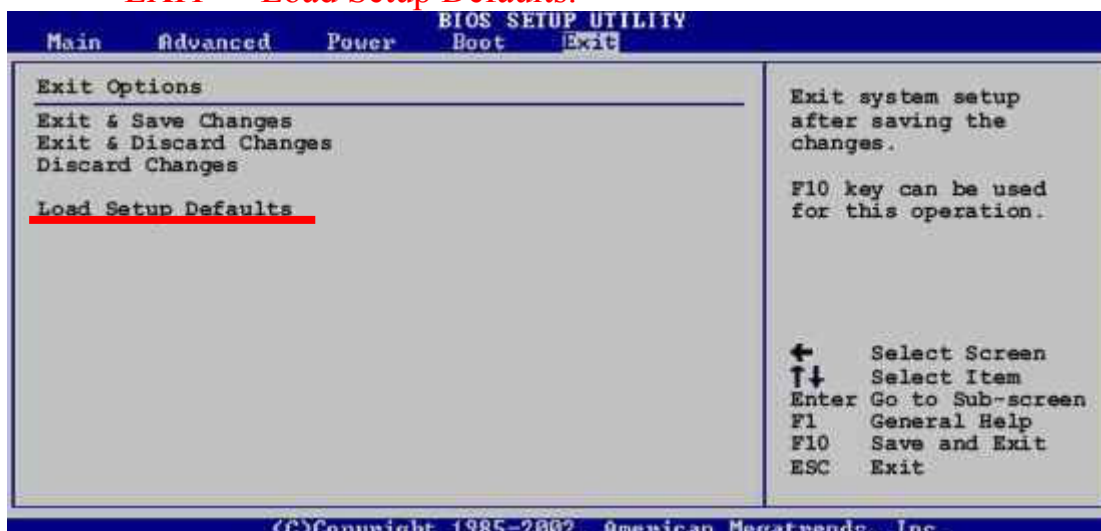
6.3.1 Diagnostic test in 64-bit LINUX system

6.3.1.1 Please connect LCD monitor & card's DVI CON via a DVI cable.

Dual link DVI 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.

```
                          BIOS SETUP UTILITY
  Main    Advanced    Power    Boot    Exit

  Exit Options                                    Exit system setup
  Exit & Save Changes                             after saving the
  Exit & Discard Changes                          changes.
  Discard Changes
                                                  F10 key can be used
  Load Setup Defaults                             for this operation.




                                                  ←      Select Screen
                                                  ↑↓     Select Item
                                                  Enter  Go to Sub-screen
                                                  F1     General Help
                                                  F10    Save and Exit
                                                  ESC    Exit

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```

6.3.1.4 Run test program in 64-bit linux system.

Path:eah6970\c1cq70a0.sh or c1cq75a0.sh

Please enter into the file of eah6970 enter the following command: cd ./eah6970

Then,please run ./c1cq70a0.sh or c1cq75a0.sh

6.3.1.5 Memory test

If you want to test memory,please run ./tserver -test=memfa

Path:eah6970\

6.3.1.6 BIOS Version

If you want to see the version of bios,please run ./atiflash –ai 0.

Path:eah6970\

6.3.1.7 BIOS flash

Please use the following command to flash bios and notice the size of character.

Path:eah6970\

Command:./atiflash -p -f 0 xxx.rom

Notice:

If you can not flash bios because of the bios locked, please use ./atiflash –unlockrom 0 to unlock bios. And then, please use ./atiflash –lockrom 0 to lock bios after updating latest bios.

6.3.1.8 FAN test

If you want to test FAN, please run ./AFTF64100

Path:eah6970/aft101

Notice:

./aft101 apply the following Part Number

C1CQ70-A01 C1CQ75-A01

6.3.1.9 After finishing 64-bit Linux 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.

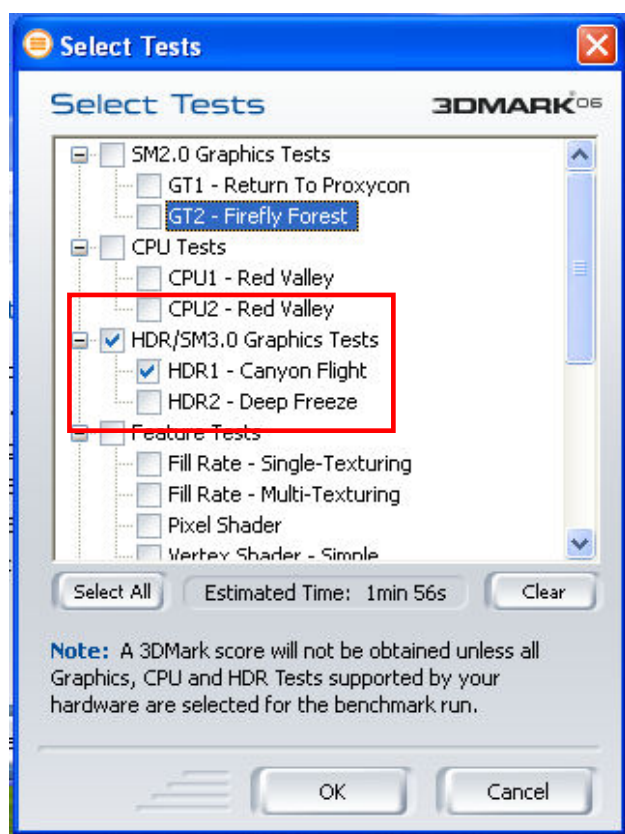6.3.2.2 Please connect VGA card to LCD via Display port cable.
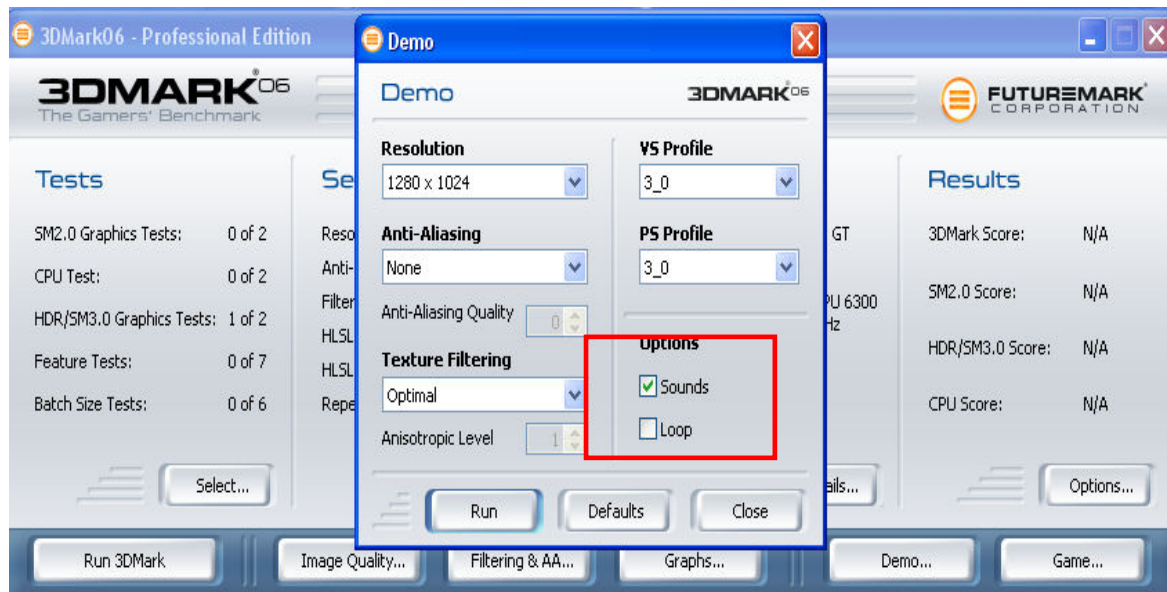

DISPLAY cable

Display Port CON(*4)

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.
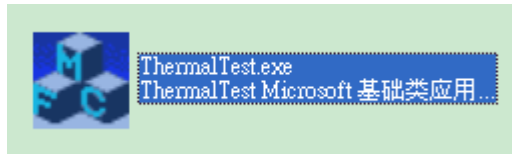

6. 3.2.9 If test OK, please test temperature test.
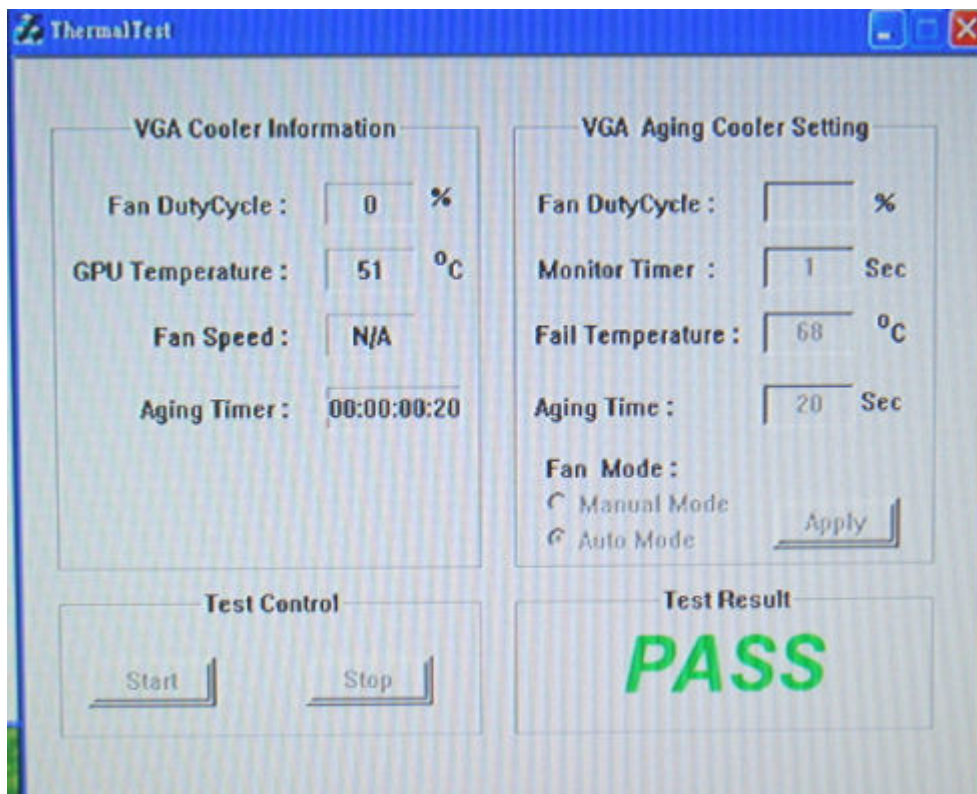
6.4 Temperature test

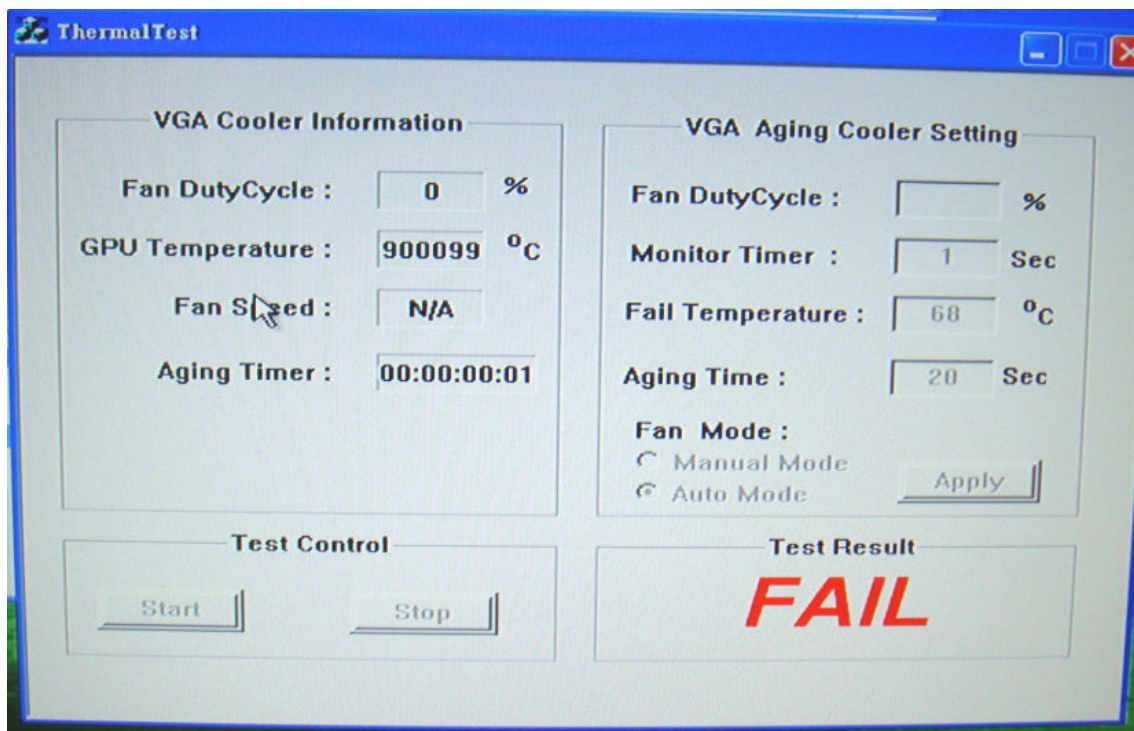6.4.1 Please copy Thermaltool(1.0.05) to Windows by yourself.

6.4.2 Please run ThermalTest.exe.

6.4.3 If test ok, show pass.

6.4.4 If test fail, show fail.

6.4.5 If test OK, please NTF test.

7.Appendix

NO#	Equipment Description	ASUS Part#	Supplier	Quantity	Remarks
1	**Dell 30 inches (3008WFP)** **(Buying a local LCD by yourself)**			**1**	
2	**USB MOUSE**			**1**	
3	**PS/2 KEYBOARD**			**1**	
4	**ATX POWER SUPPLY(a minimum power of 500W)**			**1**	
5	**INTEL Celeron E1200**			**1**	
6	**Heat sink + FAN**	**22-240000160**		**1**	
7	**Intel CPU** **Intel(R) Core(TM)2 CPU**		**local**	**1**	
8	**DDR2(667/800) 1G**	**04G0016169A9NE /22-T00642404**		**4**	
9	**DDR3 1333 2G**	**20-TT2605618**	**local**	**4**	
10	**TEST HDD**			**1**	
11	**SATA HDD Cable**	**14-000107070**	**ASUS**	**1**	
12	**PCIEX16 VGA CARD**			**1**	
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	**P5E MB**	**80- MBB7X0-***		**1**	
16	**Display port cable** **(Buying a local Display port cable by yourself)**			**1**	
17	**P7H55-M/USB3 MB** **(For C1CQ75-A01 and after)**	**80- MIBBKA-***		**1**	