Rev.	Modified Chapters	Modification Description	Issued Dept.	Issued by	Revised Date
1.00		First Release	GRMA	Chongling	Jul.07,2010

Authorize by		Review by		Originator By	Ariel

1.Objectives

Create test procedure.

2.Scope

Model: ARES
PN: C1CP50-A01

3.Test Item

3.1 Diagnostic test in 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

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 1GB Memory 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 EAH5870 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.
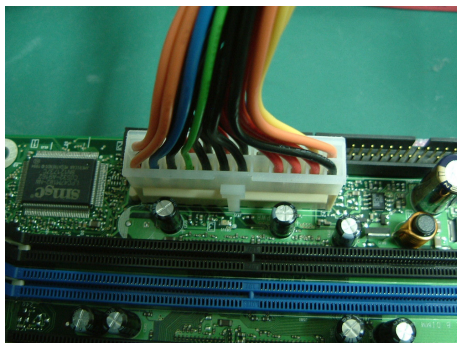   (6 PIN of Power supply to 6 PIN of VGA card)
      (8 PIN of Power supply to 8 PIN of VGA card)

6.2.6 Connect SATA HDD & SATA con via SATA cable

6.2.7 Plug 4PIN 12V power**(a minimum power of 600W)** cable into CON12V.
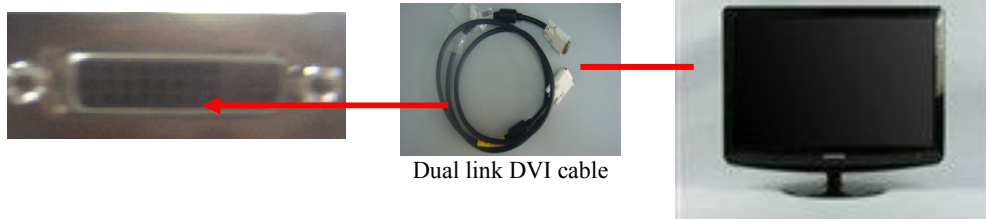6.2.8 Plug ATX Power on Power**(a minimum power of 600W)** Connector.

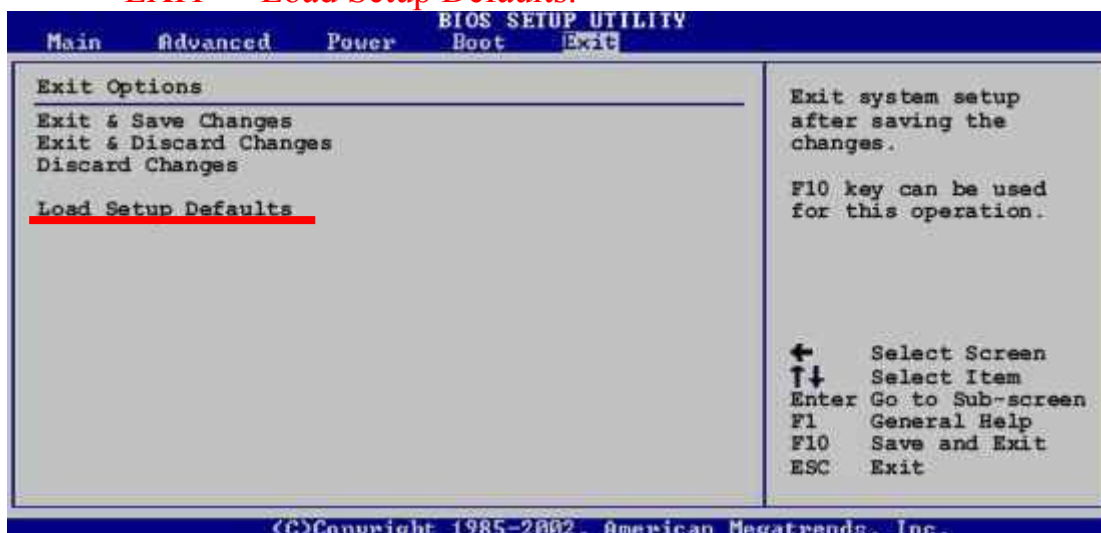## 6.3 Certain test.

6.3.1 Diagnostic test in LINUX

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.

6.3.1.4 Run test program in linux.
Path:ares\c1cp50a0.sh
Please enter into the file of ares, enter the following command:cd ./ares
Then,please run ./ c1cp50a0.sh

6.3.1.5 Memory test
If you want to test memory,please run ./tserver-exec –test=memfa1.1
Path:ares\

6.3.1.6 BIOS Version
If you want to see the version of bios,please run ./atiflash.sh or ./atiflash –ai 0.
Path:ares\

6.3.1.7 BIOS flash
Please use the following command to flash bios and notice the size of character.
This card has 3 bios.
Flash first bios(bios name CP50A0).
Notice:(Please flash first bios in DOS system)
Path:vbat\ares\
Command: First,run PLXCM.EXE ,then press "enter",it show '>' ,and key in eep_load CP50A0.rom .

Notice:(Please flash second bios and third bios in Linux system)
Flash second & third bios(bios name CP50A0M & CP50A0S).
Path:ares\
Command:./atiflash –p –f 0 CP50A0M.rom
        ./atiflash –p –f 1 CP50A0S.rom
Notice: (For second and third bios in Linux system)
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 ./aft
     Path: ares\aft
6.3.1.9 After finish Linux testing, please enter Windows environment to test 3DMark.

6.3.2 3DMark test(contain HDMI test)

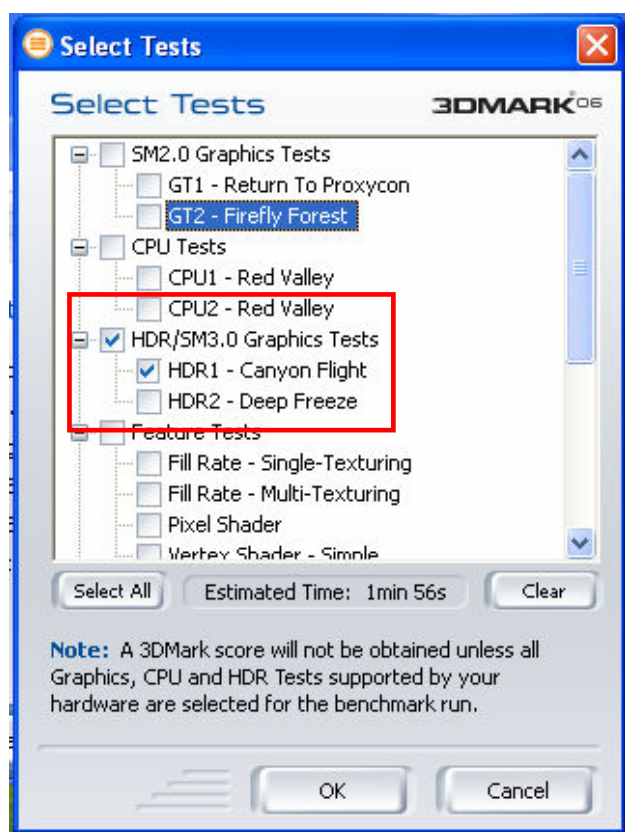6.3.2.1 Please install 3DMark program by yourself.
6.3.2.2 Please connect VGA card to LCD via HDMI cable.
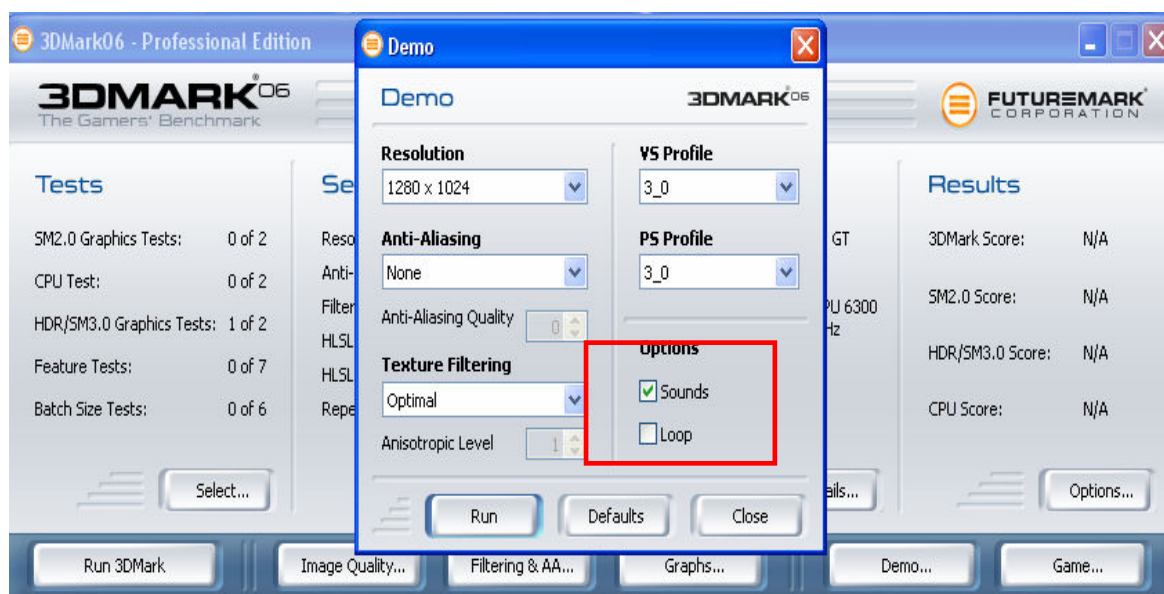

HDMI cable
HDMI CON

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. 3.2.9 If test OK, please test Display port.

6. 3.2.10 Connect VGA card to LCD via Display cable test HDMI function.
      (Please refer to step 6.3.2.4&6.3.2.5&6.3.2.6&6.3.2.7&6.3.2.8)

DISPLAY cable

DISPLAY CON

6.4 Temperature test

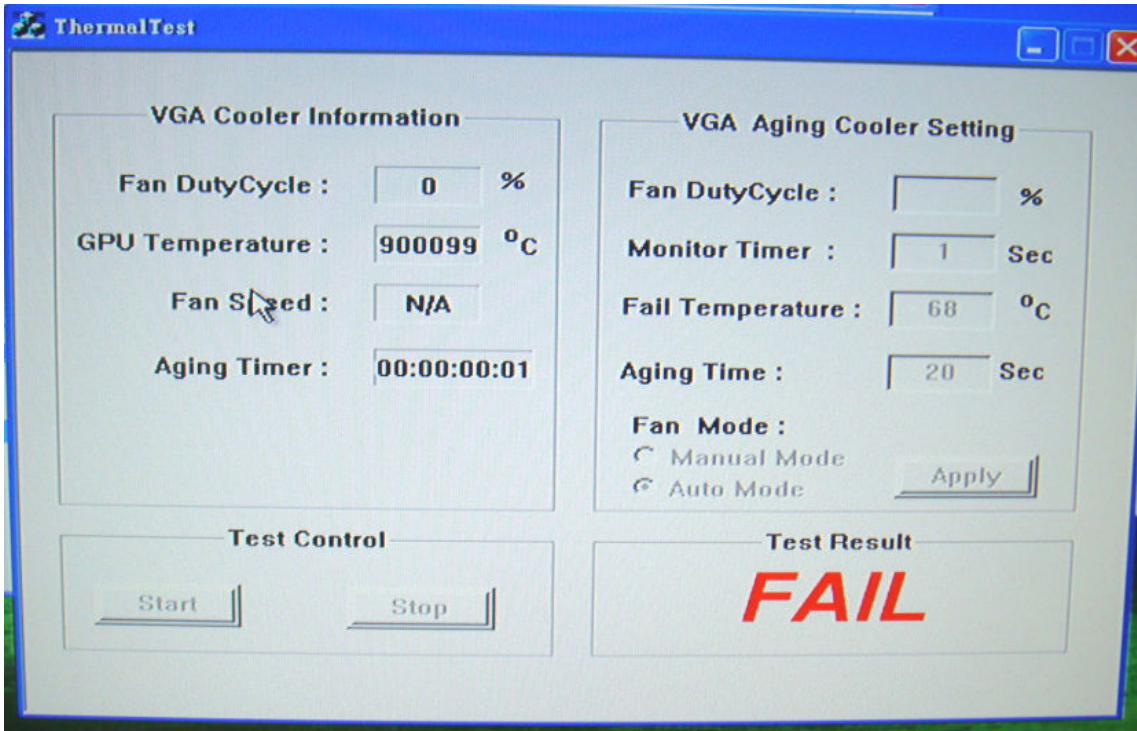6.4.1 Please copy Thermaltool(1.0.05) to Windows by yourself.

6.4.2 Please run ThermalTest.exe.
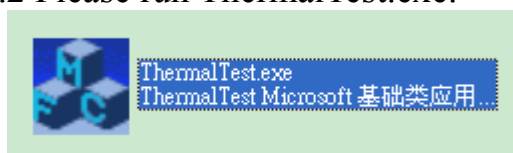
6.4.3 If test ok, show pass.
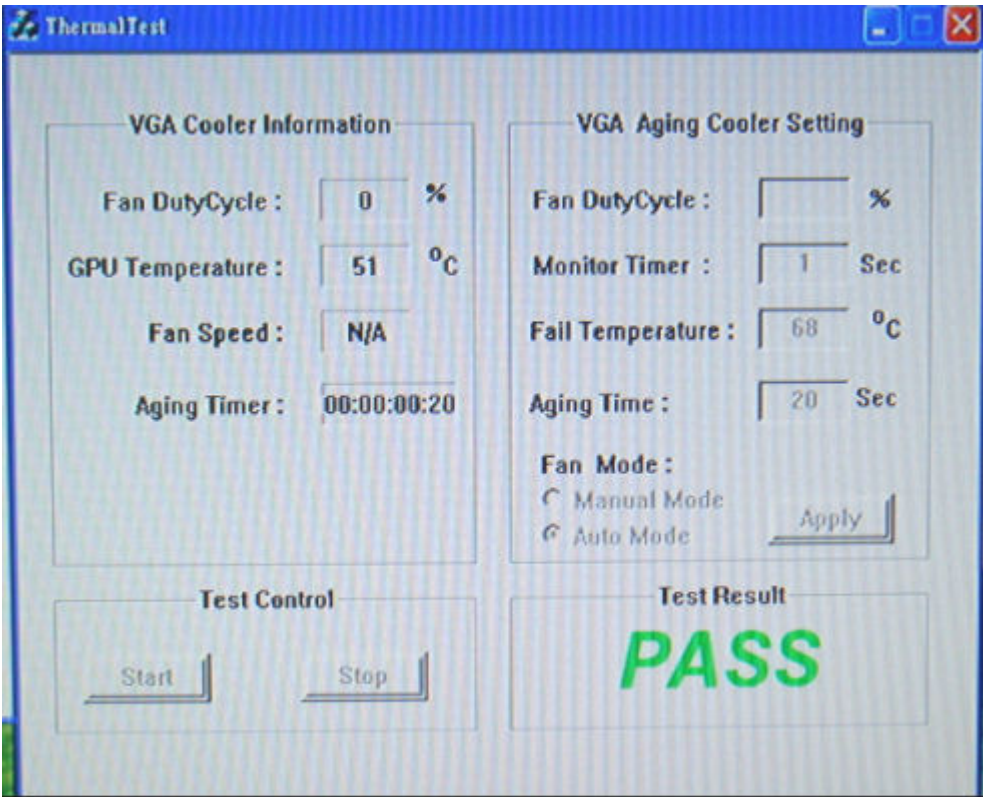
6.4.4 If test fail, show fail.

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 1200 W)**			1	
5	**INTEL Celeron E1200**			1	
6	**Heat sink + FAN**	22-240000160		1	
7	**DDR2(667/800) 1G**	04G0016169A9NE /22-T00642404		4	
8	**TEST HDD**			1	
9	**SATA HDD Cable**	14-000107070	**ASUS**	1	
10	**PCIEX16 VGA CARD**			1	
11	**Dual link DVI cable** **(Buying a local DVI cable by yourself)**			1	
12	**HDMI extend cable** **(Buying a local HDMI cable by yourself)**			1	
13	**P5E MB**	80- MBB7X0-*		1	
14	**Display port cable** **(Buying a local HDMI cable by yourself)**			1	