Rev.	Modified Chapters	Modification Description	Issued Dept.	Issued by	Revised Date
1.00		Frist release	GRMA	Ariel_wang	Mar.23.2012
1.01		Add new P/N(YV00N4-A01)	GRMA	Ariel_wang	May.21.2012
1.02		Add new P/N(YV00N5-A01)	GRMA	Ariel_wang	Oct.22.2012
1.03		Add new P/N(YV00N6-A01)	GRMA	Ariel_wang	Nov.7.2012
1.04		Add new PCBA(YV00N5-A12)	GRMA	Ariel_wang	Mar.11.2013
1.05		Add new PCBA(YV00N6-A11)	GRMA	Ariel_wang	Mar.11.2013

Authorize by		Review by		Originator By	Ariel

1.Objectives

        Create test procedure.

2.Scope

      Model: 8400GS

      PN: YV00N3(A01)YV00N4(A01) V00N5(A01&A12) V00N6(A01&A11)

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 7 environment. (Please install windows 7 test environment by yourself).
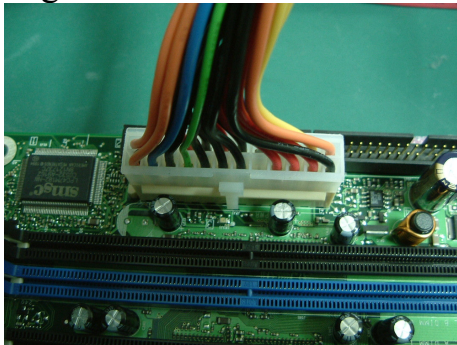
6.2 Fixture connect

6.2.1 Install Intel P7 CPU & CPU Fan.
6.2.2 Install DDR3 Memory to DIMM1~4..
6.2.3 Plug USB Mouse and PS/2 Keyboard into MB.
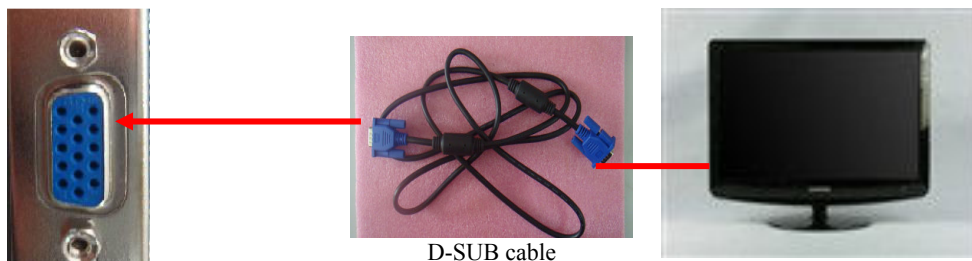6.2.4 Plug VGA Card 8400GS into PCIEX16.
6.2.5 Connect SATA HDD with SATA CON.

SATA

6.2.6 Plug 4PIN 12V power cable into CON12V.
6.2.7 Plug ATX Power 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

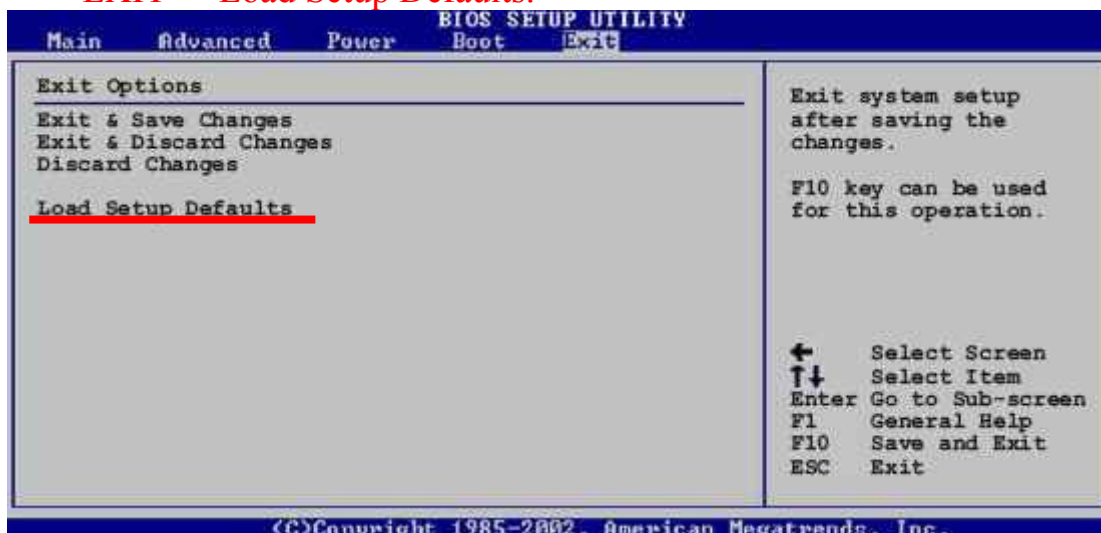Please connect LCD monitor & card's DVI CON via a DVI cable.

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
                                                after saving the
  Exit & Save Changes                           changes.
  Exit & Discard 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 System will reboot, select DOS to run test program.
  Path:VBAT\8400GS\BATCH\
  Run the test program refer to the prompt.

6.3.1.5 Memory test
  If you want to test memory,please run Mats.exe.
  Path:VBAT\8400GS\18567B(YV00N5-A01&A1*)
  Path:VBAT\8400GS\18560(YV00N6-A01&A1*)

6.3.1.6 BIOS flash

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

Path:VBAT\8400GS\BIOS

Command: Nvflash -4 -5 -6 -A XXX.rom

Notice:

If you can not flash bios because of the bios locked, please use nvflash.exe /r to unlock bios. And then, please use nvflash.exe /w to lock bios after updating latest bios.
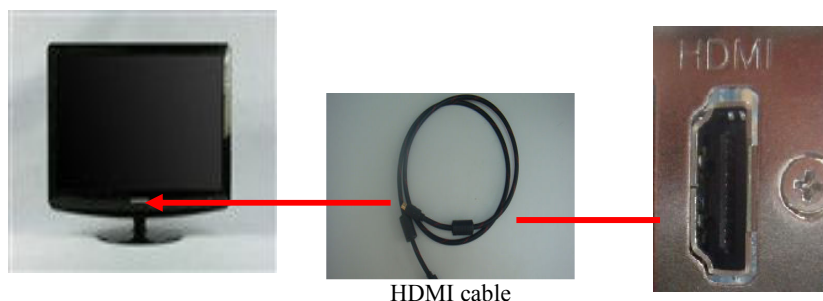
6.3.1.7 After finish DOS testing, please enter Windows environment to test 3DMark.

6.3.2 3DMark test(contain HDMI test)

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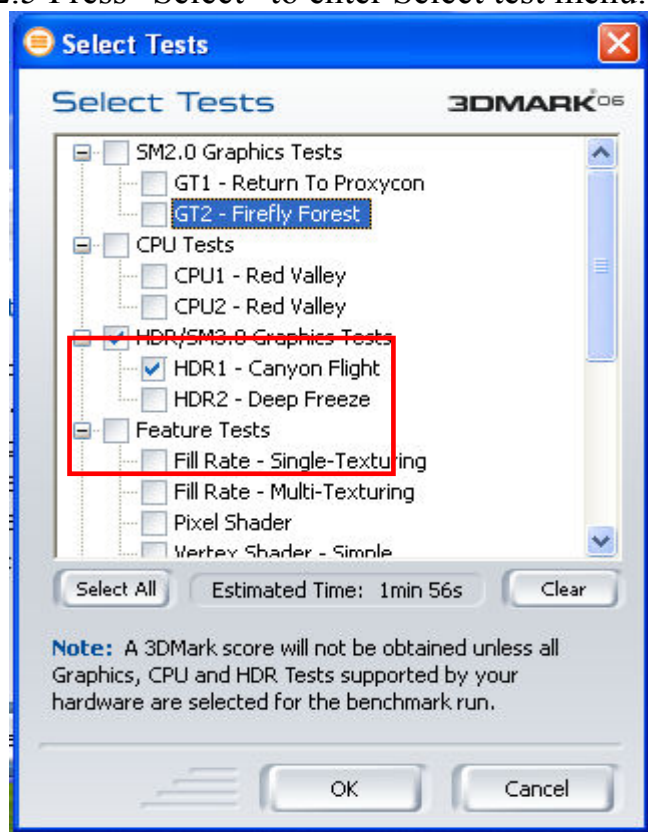
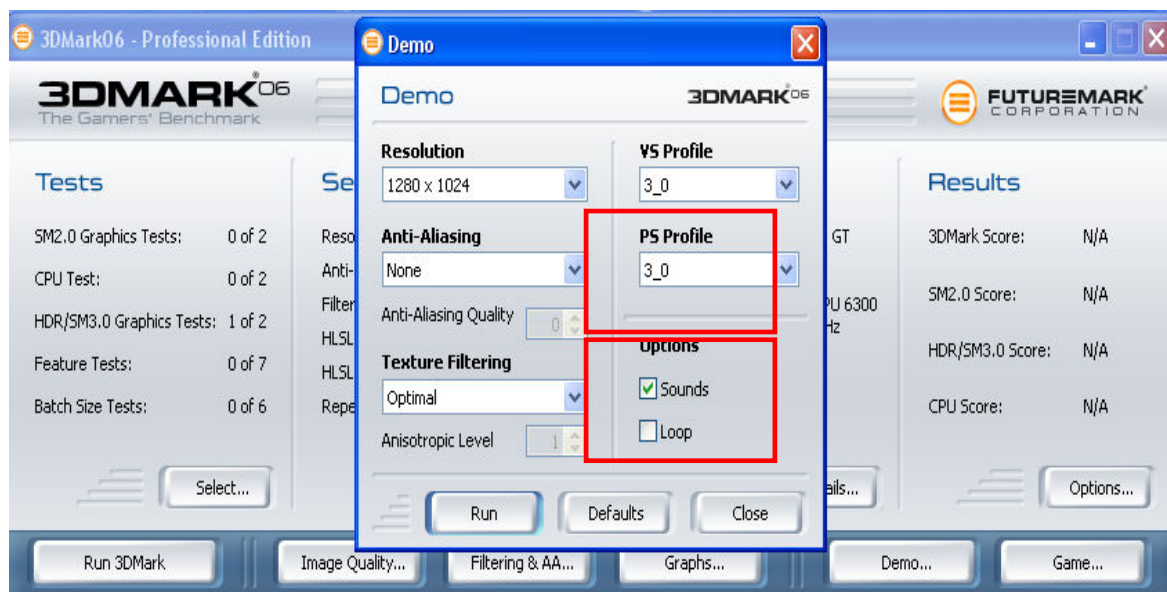 6.3.2.2 Please connect LCD monitor & card's HDMI CON via a HDMI cable.

HDMI cable

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(for HDMI function).

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(for HDMI function).
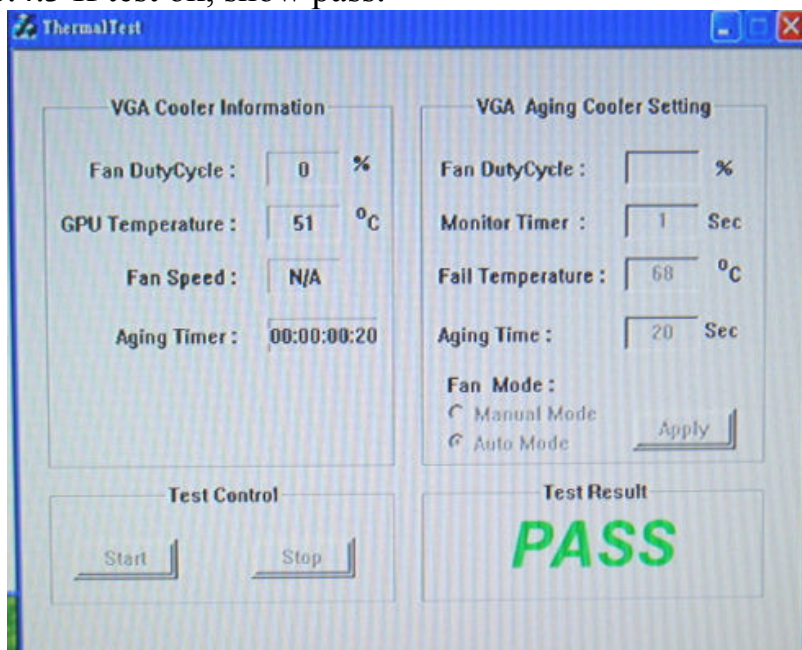
6.4 Temperature test

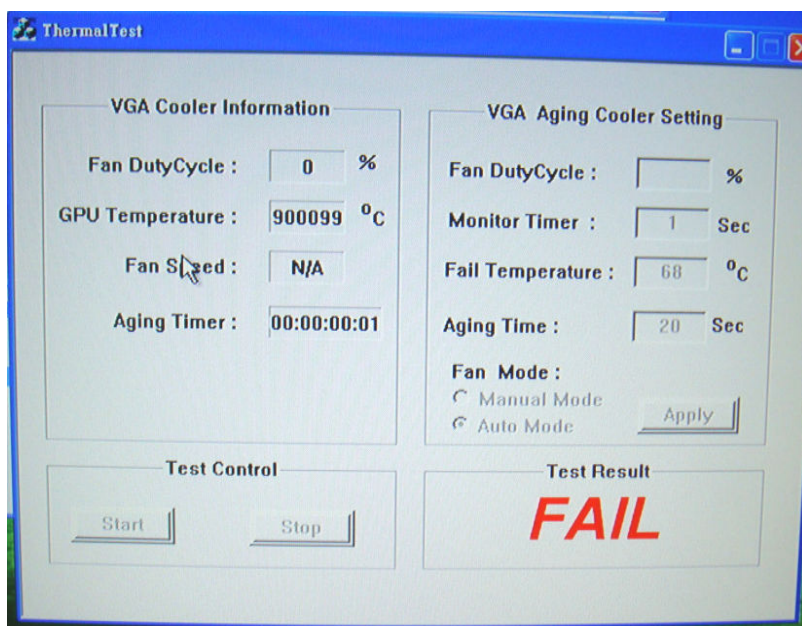6.4.1 Please copy Thermaltool(1.0.05) to Windows by yourself.
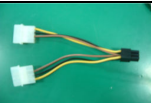6.4.2 Please run ThermalTest.exe.

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	LCD MONITOR		SAMSUNG 2232MW	1	
2	PS/2 MOUSE			1	
3	PS/2 KEYBOARD			1	
4	ATX POWER SUPPLY(1200W)			1	
5	INTEL P5 CPU			1	
6	Heat sink + FAN	22-240000160		1	
7	Intel CPU Intel(R) Core(TM)2 CPU		local	1	
8	DDR3 1333 2G	20-TT2605618	local	4	
9	SATA HDD (TEST HDD)			1	
10	SATA HDD Cable	14G00012707B	ASUS	1	
11	PCIEX16 VGA CARD			1	
12	Dual link DVI cable (Buying a local DVI cable by yourself)			1	
13	HDMI extend cable (Buying a local HDMI cable by yourself)			1	
14	DVI-HDMI	04G460002400 /04G460002450		1	
15	TV extend cable (Buying a local TV cable by yourself)			1	
16	ATI S CABLE	14G001801801		1	
17	P7H55-M/USB3	80-MIBBKA-G0*	ASUS	1	

18	Power Cable	14G000602510 /14G000602502		1	
19	LCD "Y" Cable	14-010230000		1	
20	D-SUB extend cable (Buying a local D-SUB cable by yourself)			1	