

ASUSTeK COMPUTER INC.	GTX770 Standard Operation Procedure	Doc. No:	
		Date: Apr. 28. 2014 Revision:1.11	
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0Rev .	Modified Chapters	Modification Description	Issued Dept.	Issued by	Revised Date
1.00		First release	GRMA	Jory_yuan	May.9.2013
1.01		Add new P/N(YV04E0-A01)	GRMA	Jory_yuan	May.21.2013
1.02		Add new PCBA(YV04E1-A14)	GRMA	Jory_yuan	Jun.26.2013
1.03		Add new PCBA(YV04E0-A11)	GRMA	Jory_yuan	July.10.2013
1.04		Add new PCBA(YV04E2-A01)	GRMA	Jory_yuan	Nov.13.2013
1.05		Add new PCBA(YV04E3-A01)	GRMA	Jory_yuan	Nov.13.2013
1.06		Add new PCBA(YV04E1-A27)	GRMA	Jory_yuan	Jan.2.2014
1.07		Add new P/N(YV04E4-A01)	GRMA	Jory_yuan	Jan.2.2014
1.08		Add new P/N(YV04E5-A01)	GRMA	Jory_yuan	Jan.15.2014
1.09		Add new PCBA(YV04E0-A24)	GRMA	Jory_yuan	Jan.22.2014
1.10		Add new PCBA(YV04E1-A38)	GRMA	Jory_yuan	Apr.23.2014
1.11		Add new PCBA(YV04E0-A35)	GRMA	Jory_yuan	Apr.28.2014

Authorize by		Review by		Originator By	Jory
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1.Objectives

Create test procedure.

2.Scope

Model: GTX770

PN:YV04E1(A02&A14&27&A38)YV04E0(A01&A11&A24&A35)YV04E2(A01)YV04E3(A01)YV04E4(A01) YV04E5(A01)

3.Test Item

3.1 Diagnostic test in Tiny Linux System.

3.2 3DMark11(**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.

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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 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 GTX770 into PCIEX16.

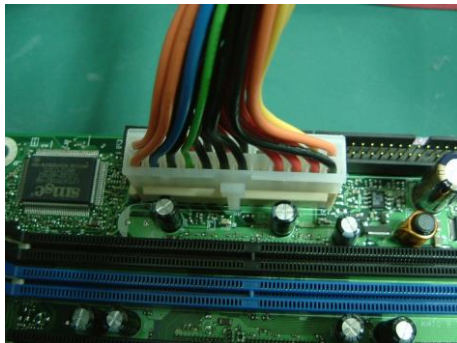
6.2.5 Connect power con of VGA card & Power supply via bundled power cable.

6.2.6 Connect SATA HDD with SATA CON.



6.2.7 Plug 4PIN 12V (1200W) power cable into CON12V.

6.2.8 Plug ATX Power (1200W) on Power Connector.



6.3 Diagnostic test in Tiny Linux System.

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



6.3.2 Press Power Switch then turn on power button.

6.3.3 Press "Del" to enter CMOS setup menu while boot screen is displaying.

EXIT -> Load Setup Defaults.



6.3.4 System will reboot, select Linux to run test program.

Path: GTX770\yv04e1a0.sh /yv04e1a1.sh or yv04e4a0.sh

Path: GTX7701\yv04e0a0.sh or yv04e0a1.sh or yv04e5a0.sh

Path: GTX7702\yv04e2a0.sh or yv04e3a0.sh

Path: GTX7703\yv04e1a2.sh or yv04e1a3.sh

Path: GTX7704\yv04e0a2.sh or yv04e0a3.sh

Run the test program refer to the prompt.

6.3.5 Memory test

If you want to test memory, please run **./mats -e xx** or **./mats -c xx**

Where, -c xx----- only xx% of frame buffer is detected.

Path: GTX770\

Path: GTX7701\

Path: GTX7703\

Path: GTX7704\

6.3.7 BIOS flash

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

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Path: Path:GTX770\

Path:GTX7701\

Command:nvflash xxx.rom -4 -5 -6 -A -y

Notice:

If you can not flash bios because of the bios locked, please use nvflash.exe /r or nvflash.exe -r to unlock bios. And then, please use nvflash.exe /w or nvflash.exe -w to lock bios after updating latest bios.

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

(Please refer to step 6.3.2&6.3.4)

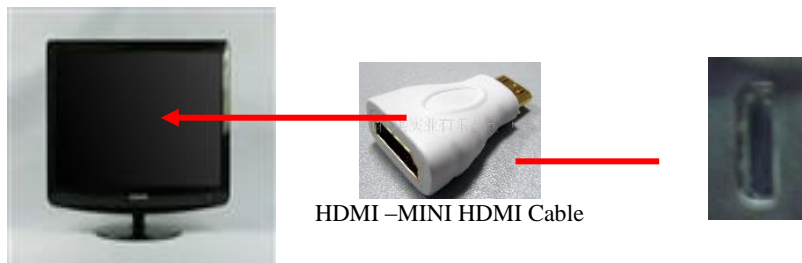


6.3.9 After finish DOS testing, please enter Windows environment to test 3DMark.

6.4 3DMark test(contain HDMI test)

6.4.1 Please install 3DMark program by yourself.

6.4.2 Please connect VGA card to LCD via HDMI –MINI HDMI Cable.

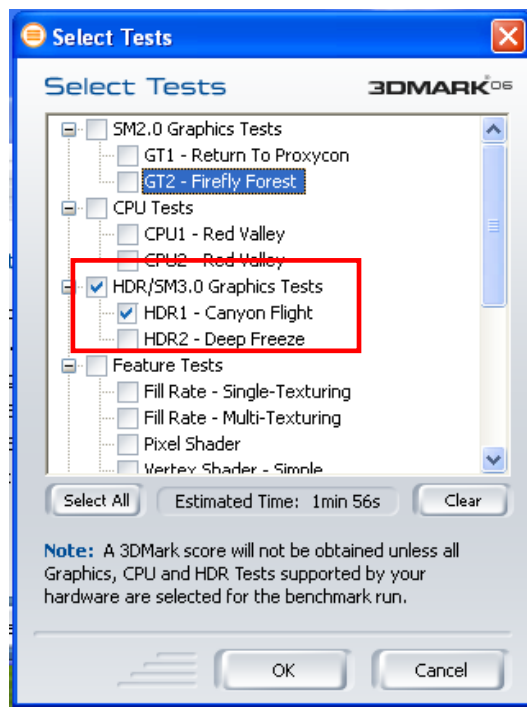


MINI-HDMI CON

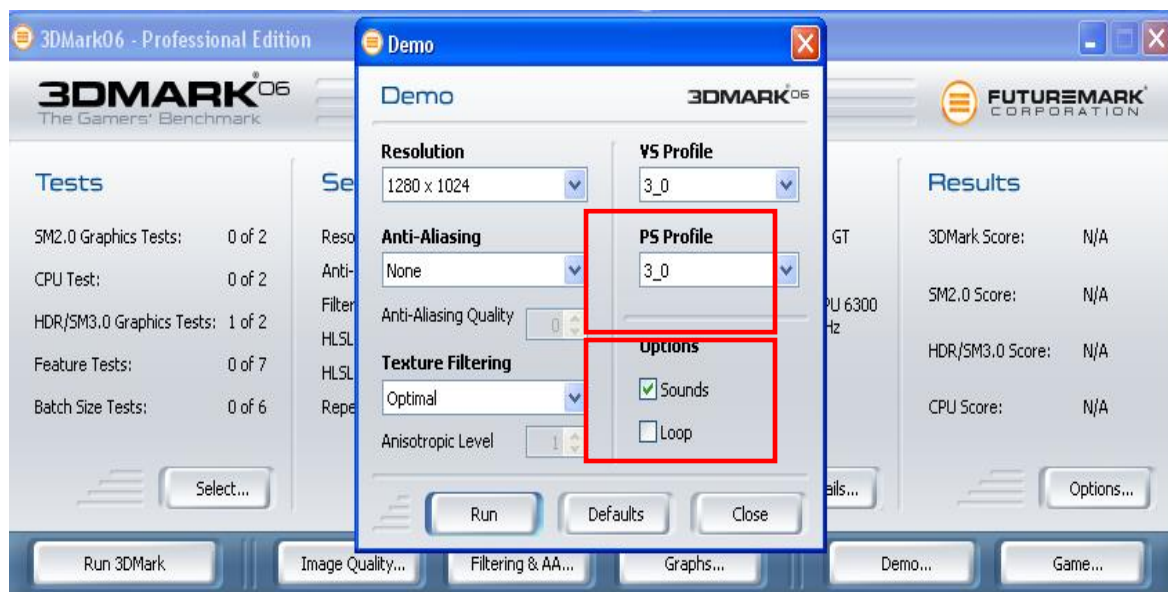
6.4.3 Please install VGA card driver in Windows(You must use individual driver of this card).

6.4.4 Please run 3DMark06 base on this card (please test 1 cycle).

6.4.5 Press “Select” to enter Select test menu. You can choose “HDR1” for default setting.



6.4.6 Press “Demo” to enter Demo menu. You can choose “Sounds” for default setting(for HDMI function).



6.4.7 Please pay attention to check if there is flickering, discolor, crash and so on.

If there's no problem, it can be judged OK!

6.4.8 Please listen to voice carefully to check whether it outputs sounds. If not, HDMI test fail(for HDMI function).

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6.4.9 Press “Run 3DMark” to enter 3DMark , Please pay attention to check if there is flickering, discolor, crash and so on. f there’s no problem, it can be judged OK!



6. 4.11 If test OK, please test **Temperature test**.

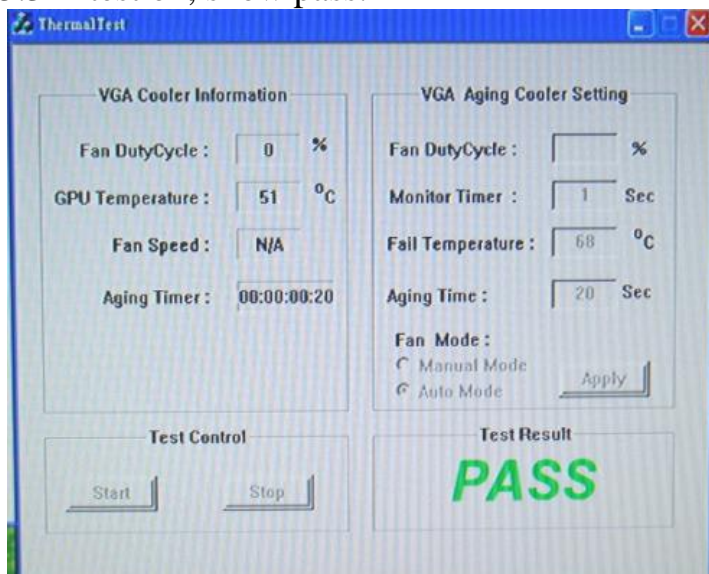
6.5 Temperature test

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

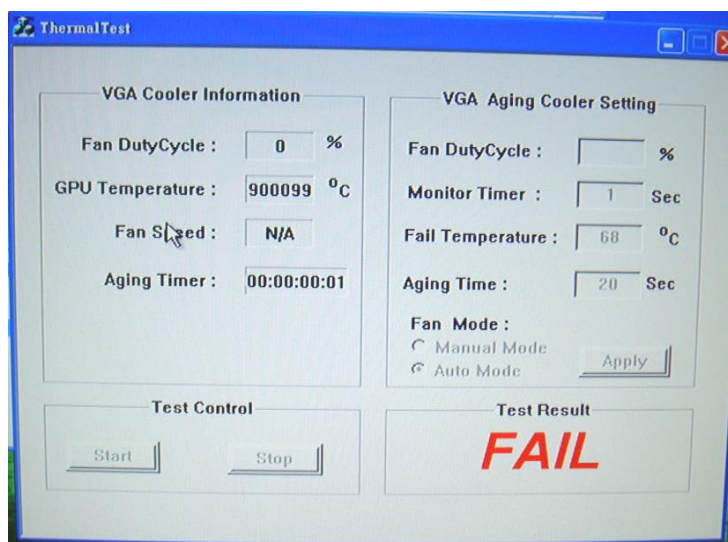
6.5.2 Please run ThermalTest.exe.



6.5.3 If test ok, show pass.



6.5.4 If test fail, show fail.



6.5.5 If test OK, NTF test.

7 Appendix

NO#	Equipment Description	ASUS Part#	Supplier	Quantity	Remarks
1	SAMSUNG 2232MW			1	
2	USB MOUSE			1	
3	PS/2 KEYBOARD			1	
4	ATX POWER SUPPLY(a minimum power of 500W)			1	
5	Intel CPU Intel(R) Core(TM)2 CPU		local	1	
6	Heat sink + FAN	22-240000160		1	
7	DDR3 1333 2G	20-TT2605618	local	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	P7H55-M/USB3 MB	80- MIBBKA-*		1	
16	HDMI to MINI HDMI cable (Buying a local cable by yourself)			1	