

ASUSTeK COMPUTER INC.	ENGT220 Standard Operation Procedure	Doc. No:	
		Date: May.4, 2011 Revision:1.20	
		Page: 12	Grade:

Rev.	Modified Chapters	Modification Description	Issued Dept.	Issued by	Revised Date
1.00		Frist release	GTC	Kelvin_Cao	July.17,2009
1.01		Add New P/N C1CMZA-A01	GTC	Kelvin_Cao	Oct.15,2009
1.02		Add New P/N C1CMZ5-A01	GTC	Kelvin_Cao	Nov.16,2009
1.03		Add New P/N C1CMZK-A01	GTC	Ariel_wang	Dec.16,2009
1.04		Add New PCBA C1CMZA-A13	GTC	Ariel_wang	Dec.30,2009
1.05		Add New P/N C1CMZF-A01	GTC	Ariel_wang	Jan.5,2009
1.06		Add New PCBA C1CMZK-B01	GTC	Ariel_wang	Feb.9,2010
1.07		Add New PCBA C1CMZF -B01	GTC	Ariel_wang	Feb.9,2010
1.08		Add New P/N C1CMZP-A12	GTC	Ariel_wang	Mar.2,2010
1.09		Add New P/N C1CMZU-A11	GTC	Ariel_wang	Mar.2,2010
1.10		Add New PCBA C1CMZP-A22	GTC	Ariel_wang	Mar.16,2010
1.11		Add New PCBA C1CMZK-C02	GTC	Ariel_wang	Apr.7,2010
1.12		Add New PCBA C1CMZU-A33	GTC	Ariel_wang	Apr.7,2010
1.13		Add New PCBA C1CMZK-B12	GTC	Ariel_wang	Apr.20,2010
1.14		Add New PCBA C1CMZZ-A01	GRMA	Chongling	Jul.02.2010
1.15		Add New PCBA C1CMZP-A33	GRMA	Chongling	Nov.09.2010
1.16		Add New PCBA C1CMZU-A45	GRMA	Chongling	Nov.11.2010
1.17		Add New PCBA C1CMZP-A43	GRMA	Ariel_wang	Dec.15.2010
1.18		Add new P/N C1CQ30-A11	GRMA	Ariel_wang	Mar.30.2011
1.19		Add new P/N C1CQ35-A01	GRMA	Ariel_wang	Apr.1.2011
1.20		Add new P/N C1CQ3A-A11	GRMA	Ariel_wang	May.4.2011

Authorize by		Review by		Originator By	Kelvin
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ASUSTeK COMPUTER INC	ENGT220 Standard Operation Procedure	Doc. No:
		Date: May. 4, 2011
		Rev. : 1.20 Page: 1

1.Objectives

Create test procedure.

2.Scope

Model: ENGT220

PN: C1CMZ0(A01) C1CMZA(A01&A13) C1CMZ5(A01)
C1CMZK(A01&B01&C02&B12) C1CMZF(A01&B01) C1CQ30(A11) C1CQ35(A01)
C1CMZP(A12&A22&A33&A43)C1CMZU(A11&A33&A45)C1CMZZ(A01)
C1CQ3A(A11)

3.Test Item

3.1 Diagnostic test in DOS

3.2 3DMark05(**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.

3. Please plug the C1CMZA-A01/A13 card & C1CMZK-A01/B01/C02 & C1CMZP-A12/A33/A43 C1CMZU-A11/A33 /A45&C1CMZZ-A01into P5Q MB(R1.03G) to do function test.
(P5Q MB BIOS Ver: 2102)

ASUSTeK COMPUTER INC	ENGT220 Standard Operation Procedure	Doc. No:
		Date: May. 4, 2011
		Rev. : 1.20 Page: 2

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 PS/2 Mouse and Keyboard into PS/2 port.

6.2.4 Plug VGA Card ENGT220 into PCIEX16.

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

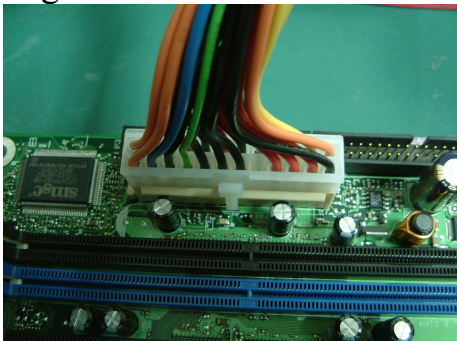


6.2.6 Connect SATA HDD with SATA CON.



6.2.7 Plug 4PIN 12V power cable into CON12V.

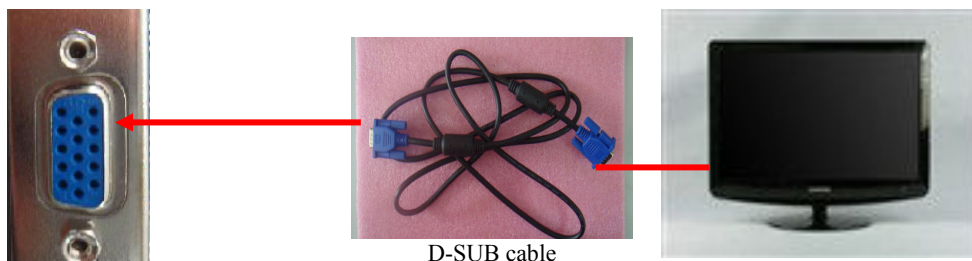
6.2.8 Plug ATX Power on Power Connector.



6.3 Certain test.

6.3.1 Diagnostic test in DOS

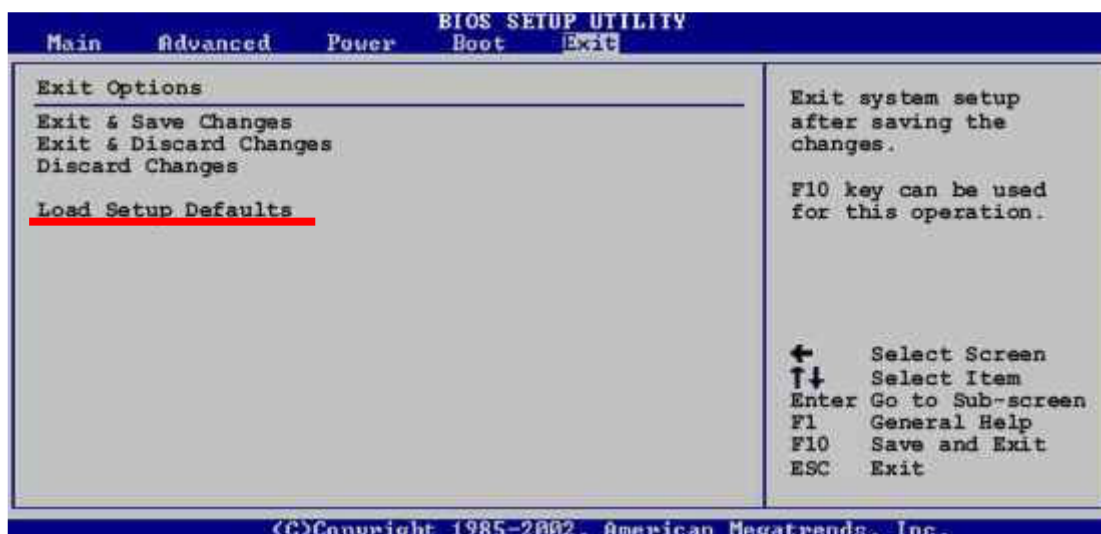
6.3.1.1 Please connect LCD monitor & card's D-SUB CON via a D-SUB cable.



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\ENGT220\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\ENGT220\18524 (C1CMZ0-A01)

Path: VBAT\ENGT220\18532 (C1CMZA-A01/A13/ C1CMZP-A12/A22/A33/A43)

Path: VBAT\ENGT220\18532 (C1CMZ5-A01)

Path: VBAT\ENGT220\0185JX2(C1CMZK-A01/B01/C02/B12
C1CMZF-A01/B01/C1CMZZ-A01)

Path: VBAT\ENGT220\18540 (C1CMZU-A11/A45)

Path: VBAT\ENGT220\18572 (C1CQ30-A11)

ASUSTeK COMPUTER INC	ENG T220 Standard Operation Procedure	Doc. No:
		Date: May. 4, 2011
		Rev. : 1.20 Page: 5

Path: VBAT\ENG T220\18531 (C1CQ35-A01)

Path: VBAT\ENG T220\18543 (C1CQ3A-A11)

6.3.1.6 BIOS flash

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

Path: VBAT\ENG T220\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 DVI CON via a DVI cable or Please connect VGA card to LCD via HDMI cable.



Dual link DVI cable



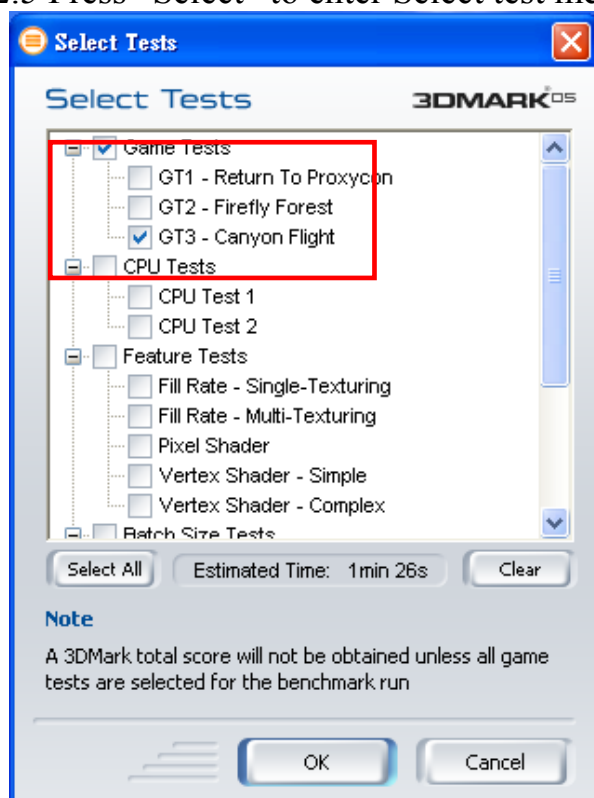
HDMI cable



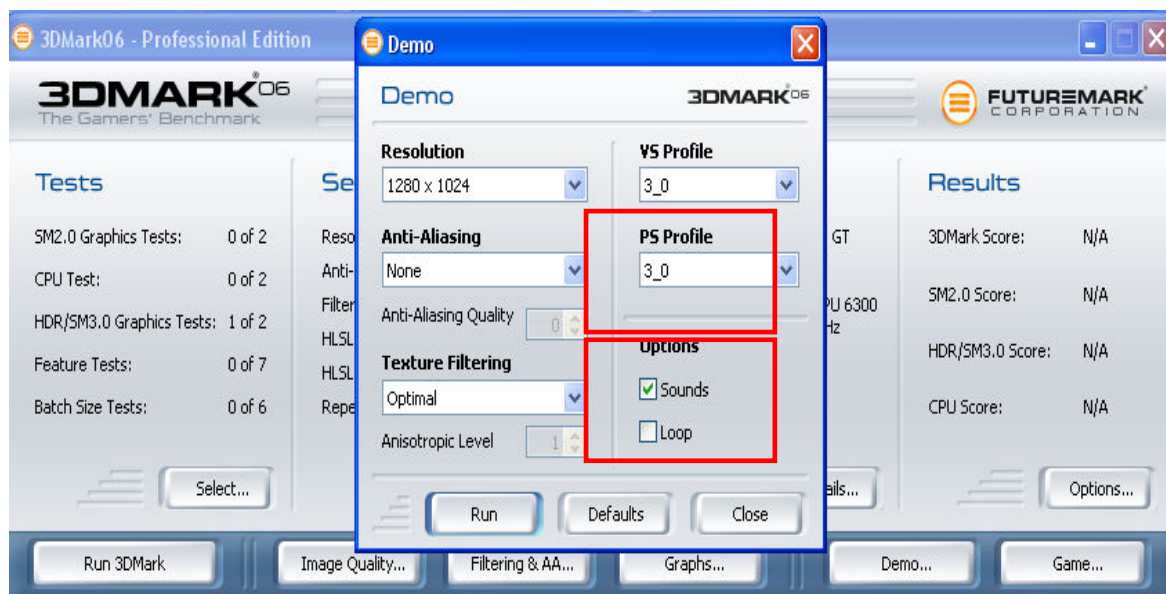
6.3.2.3 Please install VGA card driver in Windows(You must use individual driver of this card).

6.3.2.4 Please run 3DMark05 base on this card (please test 1 cycle).

6.3.2.5 Press "Select" to enter Select test menu. You can choose "GT3" 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!

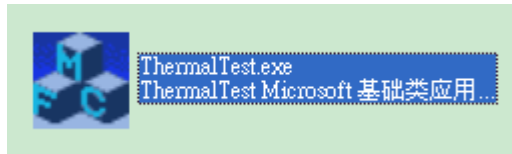
6.3.2.8 Please listen to voice carefully to check whether it outputs sounds. If not, HDMI test fail(for HDMI function).



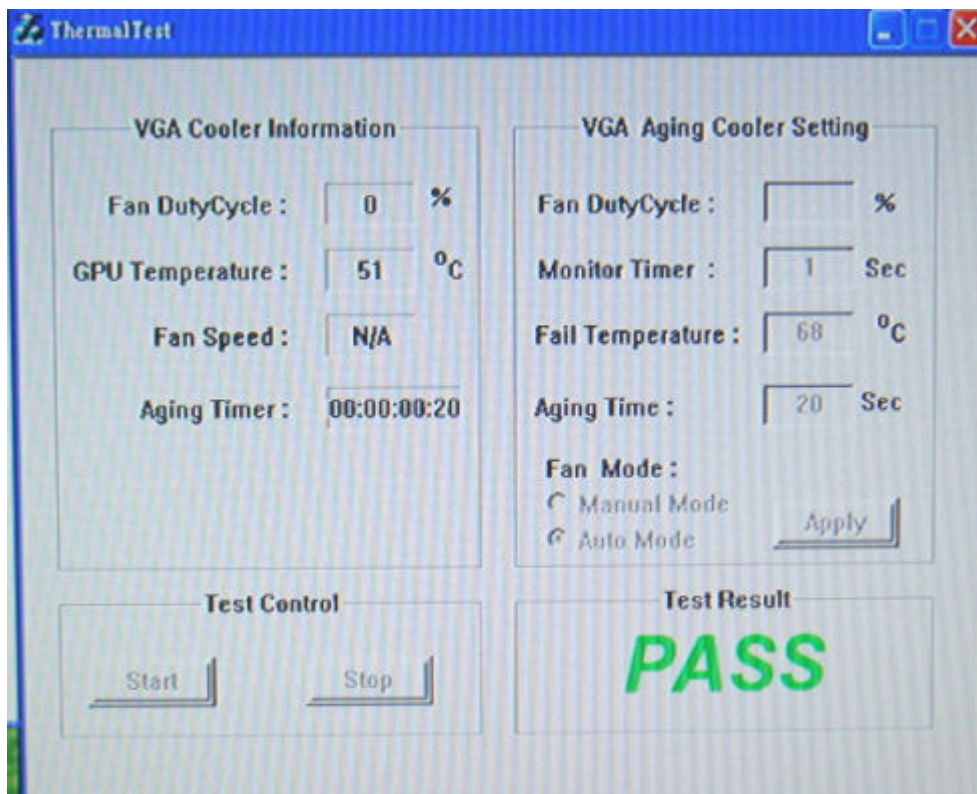
6.4 Temperature test

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

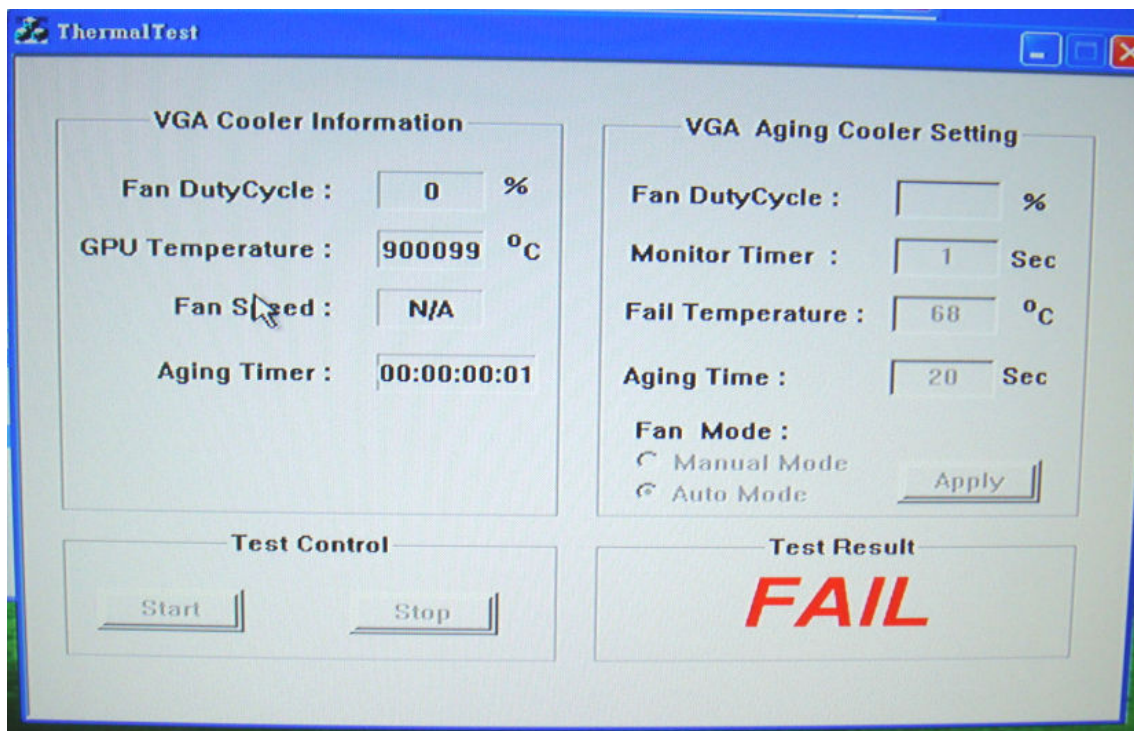
6.4.2 Please run ThermalTest.exe.



6.4.3 If test ok, show pass.










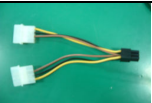

6.4.4 If test fail, show fail.



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(600W)			1	
5	INTEL P5 CPU			1	
6	Heat sink + FAN	22-240000160		1	
7	MEMORY DDR	APACER 400MHz 512M or 400MHz 1G		1	
8	TEST HDD			1	
9	40Pins IDE Cable ATA66		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	DVI-HDMI	04G460002400 /04G460002450		1	
14	TV extend cable (Buying a local TV cable by yourself)			1	
15	ATI S CABLE	14G001801801		1	
16	P5E	80-MBB7X0-G0A01		1	
17	P5Q R1.03G (For C1CMZA& C1CMZK& C1CMZZ test)	80-MIB4P0-G0B02		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	