| 0Rev. | Modified Chapters | Modification Description | Issued Dept. | Issued by | Revised Date |
|---|---|---|---|---|---|
| 1.00 | | First release | GRMA | Jack fan | Sep.03.2014 |
| 1.01 | | Add new PCBA (YV07F0-A01) | GRMA | Jack fan | Sep.03.2014 |
| 1.02 | | Add new PCBA(YV07F1-A03) | GRMA | Jack fan | Sep.17.2014 |
| 1.03 | | Add new PCBA(YV07E0-A02) | GRMA | Jack fan | Sep.24.2014 |
| 1.04 | | Add new PCBA(YV07C1-A02) | GTSD | El Li | Oct.16.2014 |
| 1.05 | | Add new PCBA(YV07E0-A25) | GTSD | Mao Lu | Dec.29.2014 |
| 1.06 | | Add new PCBA(YV07K0-A02) | GTSD | Mao Lu | Dec.30.2014 |
| 1.07 | | Add new PCBA(YV07E0-A16) | GTSD | Mao Lu | Jan.15.2015 |
| 1.08 | | Add new PCBA(YV07E1-A11) | GTSD | Mao Lu | Jan.15.2015 |
| 1.09 | | Add new PCBA(YV07E1-A21) | GTSD | Mao Lu | Jan.15.2015 |
| 1.10 | | Add new PCBA(YV07E1-A01) | GTSD | Mao Lu | Jan.15.2015 |
| 1.11 | | Add new PCBA(YV07F0-A27) | GTSD | Mao Lu | Jan.21.2015 |
| 1.12 | | Add new PCBA(YV07F1-A27) | GTSD | Mao Lu | Jan.28.2015 |
| 1.13 | | Add new PCBA(YV07C1-A14) | GTSD | Mao Lu | Jan.28.2015 |
| 1.14 | | Add new PCBA(YV07E0-A35) | GTSD | Mao Lu | Feb.5.2015 |
| 1.15 | | Add new PCBA(YV07F1-A37) | GTSD | Mao Lu | Feb.15.2015 |
| 1.16 | | Add new PN(YV07C1-B11) | GTSD | Mao Lu | Mar.17.2015 |
| 1.17 | | Add new PN(YV07E1-A31) | GTSD | Mao Lu | Mar.17.2015 |
| 1.18 | | Add new PN(YV07C0-B11) | GTSD | Mao Lu | Mar.17.2015 |
| 1.19 | | Add new PN(YV07C1-B21) | GTSD | Mao Lu | Apr.9.2015 |
| 1.20 | | Add new PN(YV07K1-A02) | GTSD | Mao Lu | Jun.10.2015 |
| 1.21 | | Add new PN(YV07C2-B01) | GTSD | Mao Lu | Jun.10.2015 |
| 1.22 | | Add new PN(YV07C2-B11) | GTSD | Mao Lu | Jun.10.2015 |
| 1.23 | | Add new PN(YV07C3-B02) | GTSD | Mao Lu | Jun.10.2015 |
| 1.24 | | Add new PN(YV07C3-B01) | GTSD | Mao Lu | Jun.10.2015 |
| 1.25 | | Add new PN(YV07C3-B11) | GTSD | Mao Lu | Jun.10.2015 |
| 1.26 | | Add new PN(YV07C0-B21) | GTSD | Mao Lu | Jun.10.2015 |
| 1.27 | | Add new PN(YV07C1-B01) | GTSD | Mao Lu | Jun.10.2015 |
| 1.28 | | Add new PN(YV07C0-B01) | GTSD | Mao Lu | Jun.10.2015 |
| 1.29 | | Add new PN(YV07C2-B21) | GTSD | Mao Lu | Jun.10.2015 |
| 1.30 | | Add new PN(YV07C3-B21) | GTSD | Mao Lu | Jun.10.2015 |
| 1.31 | | Add new PCBA(YV07F0-A38) | GRTD | Xiaoming Lu | Sep.10.2015 |
| 1.32 | | Add new PCBA(YV07F1-A48) | GRTD | Xiaoming Lu | Sep.10.2015 |

| Authorize by | | Review by | | Originator By | Maico |
|---|---|---|---|---|---|

| 1.33 | | Add new PCBA(YV07C2-B31) | GRTD | Xiaoming Lu | Sep.10.2015 |
|---|---|---|---|---|---|
| 1.34 | | Add new PCBA(YV07C3-B32) | GRTD | Xiaoming Lu | Sep.10.2015 |
| 1.35 | | Add new PCBA(YV07C1-B33) | GRTD | Xiaoming Lu | Sep.10.2015 |
| 1.36 | | Add new PCBA(YV07E0-A45) | GRTD | Xiaoming Lu | Sep.10.2015 |
| 1.37 | | Add new PCBA(YV07C0-B32) | GRTD | Xiaoming Lu | Sep.10.2015 |
| 1.38 | | Add new PN(YV07F3-A01) | GRTD | Xiaoming Lu | Oct.20.2015 |
| 1.39 | | Add new PCBA(YV07E1-A41) | GRTD | Xiaoming Lu | Oct.30.2015 |
| 1.40 | | Add new PCBA(YV07C2-B32) | GRTD | Xiaoming Lu | Nov.6.2015 |
| 1.41 | | Add new PN(PA06W0-A12) | GRTD | Maico Zhang | Nov.6.2016 |

## 1.Objectives

Create test procedure.

## 2.Scope

Model：GTX970
PN：YV07F0(A01)YV07F1(A03)YV07E0(A02) YV07C1(A02) YV07E0(A25)
YV07K0(A02) YV07E0(A16) YV07E1(A11) YV07E1(A21) YV07E1(A01)
YV07F0(A27) YV07F1(A27) YV07C1(A14) YV07E0(A35) YV07F1(A37)
YV07C1(B11)YV07C0(B11) YV07E1(A31) YV07C0(B11) YV07C1(B21)
YV07K1(A02)YV07C2(B01)YV07C2(B11)YV07C3(A02)YV07C3(B01)
YV07C3(B11)YV07C0(B21)YV07C1(B01)YV07C0(B01)YV07C2(B21) YV07C3(B21)
YV07F0(A38) YV07F1(A48) YV07C2(B31) YV07C3(B32) YV07C1(B33)
YV07E0(A45) YV07C0(B32)YV07F3(A01) YV07E1(A41)PA06W0(A12)

## 3.Test Item

3.1 Diagnostic test in Linux system

## 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 use platform (**P7H55-M/USB3**) to test in LINUX or Windows.

## 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 GT705 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.
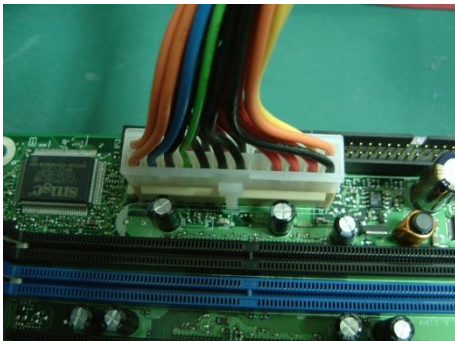
## 6.3 Diagnostic test in linux system

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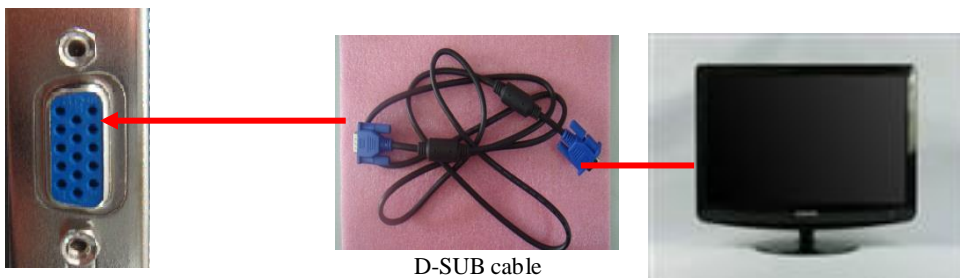


D-SUB cable

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.
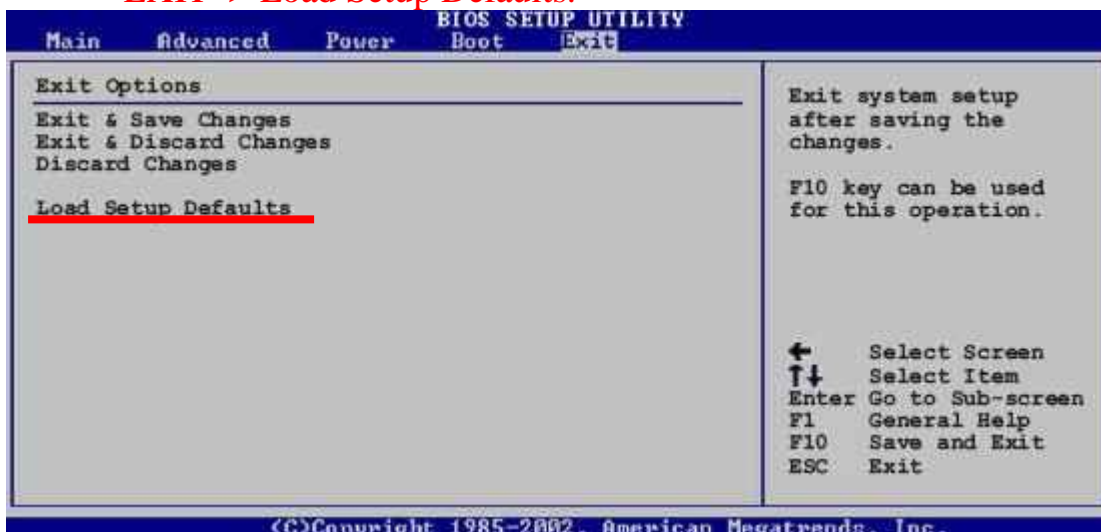


6.3.4 System will reboot, select linux to run test program.

Path:GTX970\yv07f0x0.sh

Path:GTX9701\yv07e0a0.shoryv07e0a2.shoryv07e0a1.shoryv07e1a1.sh

oryv07e1a2.shoryv07e1a0.sh

Path:GTX9702\yv07c1a0.sh

Path:GTX9703\yv07k0a0.shoryv07k1a0.sh

Path:GTX9704\yv07f0a2.sh
Path:GTX9705\yv07f1a2.sh
Path:GTX9706\yv07c1a1.sh
Path:GTX9707\yv07e0a3.shoryv07e1a3.sh
Path:GTX9708\yv07f0a0.shoryv07f1a0.shoryv07f0a2.shoryv07f0a3.sh
oryv07f1a1.sh oryv07f1a2.sh oryv07f1a3.sh or yv07f3a0.sh
Path:GTX9709\yv07c1b11.sh
Path:GTX970a\yv07c2a0.sh
Path:GTX970b\yv07c0b1.sh
Path:GTX970c\yv07c1b2.sh
Path:GTX970d\yv07c2b0.shoryv07c2b1.sh
Path:GTX970e\yv07c3a0.sh
Path:GTX970f\yv07c3b0.shoryv07c3b1.sh
Path:GTX970g\yv07c0b2.sh
Path:GTX970h\yv07c1b0.sh
Path:GTX970i\yv07c0b0.sh
Path:GTX970j\yv07c2b2.sh
Path:GTX970k\yv07c3b2.sh
Path:GTX970m\yv07f0a3.sh or yv07f1a4.sh
Path:GTX970n\yv07c2b3.sh
Path:GTX970o\yv07c3b3.sh
Path:GTX970p\yv07c1b3.sh
Path:GTX970q\yv07e0a4.sh or yv07e1a4.sh
Path:GTX970r\yv07c0b3.sh
Path:GTX970s\yv07c2b3.sh
Path:GTX970t\yv07c0b3.sh
Path:GTX970u\yv07c0b3.sh
Path:GTX970v\pa06w0a1.sh

Run the test program refer to the prompt.
### 6.3.5 Memory test
If you want to test memory, please run ./mats.
Path:GTX970

### 6.3.6 BIOS flash
Please use the following command to flash bios and notice the size of character.
Path:GTX970
Command:./nvflash xxx.rom -6 -A

Notice:
If you can not flash bios because of the bios locked, please use ./nvflash.exe /r or ./nvflash -r to unlock bios. And then, please use ./nvflash.exe /w or ./nvflash -w to lock bios after updating latest bios.(You need update the nvflash tool . such as the version 5.190 or later version.)

## 6.4 Result upload to server (need connect to internet)

6.4.1 Download and copy RMA upload tool to diag folder by model (It don't need copy after 2018.5 uploaded model).

**The tool of RMA upload tool include 3 files:**



Check_SN    RMA_Config    RMAInfo

6.4.2 Edit **RMA_Config** file:

First line confirms the address of local sever, Second line is Tester ID.
The **RMA_Config** only need modify one time.



```
CN     <--  Server Select
1150231  <--  Test ID




----------------------------------------
# First  Line :  Server Select.
# Second Line :  Test ID


Server Select :

  1. AS  --> https://as.eservice.asus.com
  2. CN  --> https://cn.eservice.asus.com
  3. AM  --> https://am.eservice.asus.com
  4. AU  --> https://au.eservice.asus.com
  5. EU  --> https://eu.eservice.asus.com

Test ID : RMA Tester  ID
```

6.4.3 Run **Check_SN** and type in your VGA SN which need to be testing. The SN must be in repair status.



6.4.4 Run **Diag test** and the diag name is same as the PN of your VGA card.



6.4.5 After Diag test is finished, run **RMAInfo** and the test result will be sent to server.
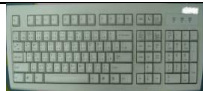
6.5 If test OK, please NTF test.

## 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(1200W)** | | | **1** | |
| 5 | **Intel CPU Intel(R) Core(TM)2 CPU** | | **local** | **1** | |
| 6 | **Heat sink + FAN** | **22-240000160** | **local** | **1** | |
| 7 | **DDR3 1333 2G** | **20-TT2605618** | **local** | **4** | |

| 8 | **SATA HDD** | | | **1** |  |
| --- | --- | --- | --- | --- | --- |
| 9 | **SATA HDD Cable** | **14-000107070** | | **1** |  |
| 10 | **PCIEX16 VGA CARD** | | | **1** | |
| 11 | **D-SUB extend cable (Buying a local D-SUB cable by yourself)** | | | **1** |  |
| 13 | **HDMI extend cable (Buying a local HDMI cable by yourself)** | | | **1** |  |
| 15 | **DVI-HDMI** | **04G460002400 /04G460002450** | | **1** |  |
| 17 | **P7H55-M/USB3** | **80-MIBBKA-G0\*** | **ASUS** | **1** | |