0Rev.	Modified Chapters	Modification Description	Issued Dept.	Issued by	Revised Date
1.00		First release	GTSD	Mao Lu	Jan.5.2015
1.01		Add new PCBA(YV07N2-A02)	GTSD	Mao Lu	Jan.21.2015
1.02		Add new PCBA(YV07N0-A05)	GTSD	Mao Lu	Feb.5.2015
1.03		Add new PCBA(YV07P0-A28)	GTSD	Mao Lu	Feb.5.2015
1.04		Add new PCBA(YV07N3-A04)	GTSD	Mao Lu	Feb.15.2015
1.05		Add new PCBA(YV07Q0-A04)	GTSD	Mao Lu	Feb.15.2015
1.06		Add new PN(YV07N0-A1A)	GTSD	Mao Lu	Feb.28.2015
1.07		Add new PN(YV07N0-A2B)	GTSD	Mao Lu	Feb.28.2015
1.08		Add new PN(YV07N1-A17)	GTSD	Mao Lu	Mar.17.2015
1.09		Add new PN(YV07P0-A18)	GTSD	Mao Lu	Mar.17.2015
1.10		Add new PN(YV07P2-A23)	GTSD	Mao Lu	Apr.9.2015
1.11		Add new PN(YV07N5-A01)	GTSD	Mao Lu	Apr.9.2015
1.12		Add new PN(YV0800-A01)	GTSD	Mao Lu	Apr.9.2015
1.13		Add new PN(YV07N6-A01)	GTSD	Mao Lu	Apr.9.2015
1.14		Add new PCBA(YV07P0-A39)	GTSD	Mao Lu	Apr.9.2015
1.15		Add new PCBA(YV07P0-A49)	GTSD	Mao Lu	Apr.9.2015
1.16		Add new PN(YV07N3-A18)	GTSD	Mao Lu	Jun.10.2015
1.17		Add new PN(YV07Q0-A16)	GTSD	Mao Lu	Jun.10.2015
1.18		Add new PN(YV07Q1-A13)	GTSD	Mao Lu	Jun.10.2015
1.19		Add new PN(YV0801-A01)	GTSD	Mao Lu	Jun.10.2015
1.20		Add new PN(YV07P0-A58)	GTSD	Mao Lu	Jun.10.2015
1.21		Add new PN(YV07P2-A33)	GTSD	Mao Lu	Jun.10.2015
1.22		Add new PN(YV07N2-A18)	GTSD	Mao Lu	Jun.10.2015
1.23		Add new PN(YV07P3-A02)	GTSD	Mao Lu	Jun.10.2015
1.24		Add new PN(YV07P4-A01)	GTSD	Mao Lu	Jun.10.2015
1.25		Add new PN(YV08B1-A06)	GTSD	Mao Lu	Jun.10.2015
1.26		Add new PCBA(YV08B1-B02)	GTSD	Mao Lu	Jul.13.2015
1.27		Add new PN(YV08B0-A07)	GTSD	Mao Lu	Jul.13.2015
1.28		Add new PN(YV07N8-A01)	GTSD	Mao Lu	Jul.13.2015
1.29		Add new PN(YV07N7-A01)	GRTD	Xiaoming Lu	Sep.10.2015
1.30		Add new PN(YV07NC-A01)	GRTD	Xiaoming Lu	Sep.10.2015
1.31		Add new PN(YV07Q4-A01)	GRTD	Xiaoming Lu	Sep.10.2015
1.32		Add new PN(YV07Q5-A01)	GRTD	Xiaoming Lu	Sep.10.2015

Authorize by		Review by		Originator By	Mao

1.33		Add new PN (YV08B0-B0)	GRTD	Xiaoming Lu	Sep.10.2015
1.34		Add new PN(YV07N9-A01)	GRTD	Xiaoming Lu	Sep.10.2015
1.35		Add new PN(YV07P5-A01)	GRTD	Xiaoming Lu	Sep.10.2015
1.36		Add new PN(YV08B2-A01)	GRTD	Xiaoming Lu	Sep.10.2015
1.37		Add new PN(YV08B3-A01)	GRTD	Xiaoming Lu	Sep.10.2015
1.38		Add new PN(YV07NA-A01)	GRTD	Xiaoming Lu	Sep.10.2015
1.39		Add new PN(YV07NE-A01)	GRTD	Xiaoming Lu	Sep.10.2015
1.40		Add new PN(YV07P6-A01)	GRTD	Xiaoming Lu	Sep.10.2015
1.41		Add new PCBA(YV07N0-X1E)	GRTD	Xiaoming Lu	Sep.24.2015
1.42		Add new PCBA(YV07N2-X1B)	GRTD	Xiaoming Lu	Sep.24.2015
1.43		Add new PCBA(YV07N8-X02)	GRTD	Xiaoming Lu	Sep.24.2015
1.44		Add new PN(YV0802-A01)	GRTD	Xiaoming Lu	Oct.21.2015
1.45		Add new PN(YV07NB-A01)	GRTD	Xiaoming Lu	Oct.22.2015
1.46		Add new PN(YV07ND-A01)	GRTD	Xiaoming Lu	Oct.22.2015
1.47		Add new PN(YV0803-A01)	GRTD	Xiaoming Lu	Oct.22.2015
1.48		Add new PCBA(YV07P2-A15)	GRTD	Xiaoming Lu	Oct.30.2015
1.49		Add new PN(YV08B4-A01)	GRTD	Xiaoming Lu	Oct.30.2015
1.50		Add new PN(YV08B5-A01)	GRTD	Xiaoming Lu	Nov.6.2015
1.51		Add new PCBA(YV07P7-A11)	GRTD	Xiaoming Lu	Nov.6.2015
1.52		Add new PCBA(YV08B1-B15)	GRTD	Xiaoming Lu	Dec.2.2015
1.53		Add new PCBA(YV08B1-B25)	GRTD	Xiaoming Lu	Dec.2.2015
1.54		Add new PCBA(YV07N8-B01)	GRTD	Xiaoming Lu	Dec.2.2015
1.55		Add new PCBA(YV07N0-C11)	GRTD	Xiaoming Lu	Dec.2.2015
1.56		Add new PCBA(YV07P7-A41)	GRTD	Xiaoming Lu	Jan.8.2016
1.57		Add new PCBA(YV07P7-A31)	GRTD	Xiaoming Lu	Jan.8.2016
1.58		Add new PCBA(YV07P8-A31)	GRTD	Xiaoming Lu	Jan.8.2016
1.59		Add new PCBA(YV07P8-A41)	GRTD	Xiaoming Lu	Jan.8.2016
1.60		Add new PCBA(YV07N1-B01)	GRTD	Xiaoming Lu	Jan.8.2016
1.61		Add new PCBA(YV08B3-A15)	GRTD	Xiaoming Lu	Jan.8.2016
1.62		Add new PN(YV07Q6-A01)	GRTD	Xiaoming Lu	Feb.5.2016
1.63		Add new PN(YV07Q7-A01)	GRTD	Xiaoming Lu	Feb.5.2016
1.64		Add new PCBA(YV08B5-A14)	GRTD	Xiaoming Lu	Feb.5.2016
1.65		Add new PN(YV08B6-A03)	GRTD	Xiaoming Lu	Mar.11.2016

1.Objectives

Create test procedure.

2.Scope

Model: GTX960

PN: YV07P0(A07) YV07N2(A02) YV07N0(A05) YV07P0(A28) YV07N3(A04)
YV07Q0(A04) YV07N0(A1A) YV07N0(A2B) YV07N1(A17) YV07P0(A18)
YV07P2(A23) YV07N5(A01) YV0800(A01) YV07N6(A01) YV07P0(A39) YV07P0(A49)
YV07N3(A18)YV07Q0(A16)YV07Q1(A13)YV0801(A01)YV07P0(A58)YV07P2(A33)
YV07N2(A18)YV07P3(A02)YV07P4(A01)YV08B1(A06) YV08B1(B02 YV08B0(A07)
YV07N8(A01) YV07N7(A02) YV07NC(A01) YV07Q4(A01) YV07Q5(A01) YV08B0(B0)
YV07N9(A01) YV07P5(A01) YV08B2(A01) YV08B3(A01) YV07NA(A01)
YV07NE(A01) YV07P6(A01)YV07N0(X1E)YV07N2(X1B)YV07N8(X02)YV0802(A01)
YV07NB(A01) YV07ND(A01) YV0803(A01) YV07P2(A15) YV08B4(A01) YV08B5(A01)
YV07P7(A11) YV08B1(B15) YV08B1(B25) YV07N8(B01) YV07N0(C11)
YV07P7(A41)YV07P7(A31) YV07P8(A31) YV07P8(A41) YV07N1(B01)YV08B3(A15)

YV07Q6(A01) YV07Q7(A01) YV08B5(A14) YV08B6(A03)

3.Test Item

3.1 Diagnostic test in Tiny Linux

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 environment. (Please install windows 7 test environment by yourself).

6.2 Fixture connect

6.2.1 Install Intel 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 GTX960 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.
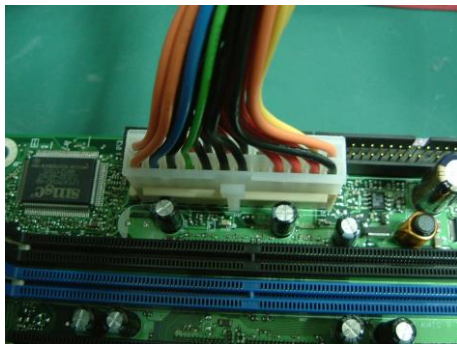
6.3 Diagnostic test in Tiny Linux.

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

Dual link 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: GTX960\yv07p0a0.sh or yv07p0a2.sh or yv07p7a1 or yv07p7a3.sh or yv07p7a4.sh or yv07p8a3.sh or yv07p8a4.sh

Path: GTX9601\yv07n2a0.shoryv07n3a0.shoryv07n3a1.sh

Path:GTX9602\yv07n0a0.shoryv07n0a1.shoryv07n1a0.shor yv07n0a2.shoryv07n1a1.sh or yv07n0c1.sh or yv07n1b0.sh

Path: GTX9603\yv07q0a0.shyv07q0a1.shoryv07q1a1.sh

Path: GTX9604\yv07p0a1.sh

Path: GTX9605\yv07p2a2.sh

Path: GTX9606\yv0800a0.shoryv0801a0.sh

Path: GTX9607\yv07n5a0.sh or yv07n6a0.sh or yv07n7a0.sh or yv07nca0.sh or yv07q4a0.sh or yv07q5a0.sh

Path: GTX9608\yv07p0a3.shoryv07p0a4.sh

Path: GTX9609\yv07p0a5.sh

Path: GTX960a\yv07p2a3.sh or yv07p2a1.sh

Path: GTX960b\yv07n2a1.sh

Path: GTX960c\yv07p3a0.sh
Path: GTX960d\yv07p4a0.sh
Path: GTX960e\yv08b1b0.sh or yv08b0a0.sh or yv08b1a0.sh or yv08b0b0.sh or yv08b1b2.sh or yv08b1b1.sh
Path: GTX960f\yv07n8a0.sh or yv07n9a0.sh or yv07n8b0
Path: GTX960h\yv07p5a0.sh
Path: GTX960i\yv08b2a0.sh or yv08b3a0.sh or yv08b4a0.sh or yv08b5a0.sh or yv08b3a1.sh or yv08b5a1.sh or yv08b6a0.sh
Path: GTX960k\yv07naa0.sh or yv07nea0.sh
Path: GTX960l\yv07p6a0.sh
Path: GTX960m\yv07n0x1.sh or yv07n8x0.sh
Path: GTX960n\ yv07n2x1.sh
Path: GTX960o\ yv0802a0.sh or yv0803.sh
Path: GTX960p\ yv07nba0.sh or yv07nda0.sh
Path: GTX960q\yv07q6a0.sh or yv07q7a0.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
Where,-c xx------- only xx% of frame buffer is detected.
Path: GTX960\
Path: GTX9601\
Path: GTX9602\
Path: GTX9603\
Path: GTX9604\
Path: GTX9605\
Path: GTX9606\
Path: GTX9607\
Path: GTX9608\
Path: GTX9609\
Path: GTX960a\
Path: GTX960b\
Path: GTX960c\
Path: GTX960d\
Path: GTX960e\
Path: GTX960f\
Path: GTX960h\
Path: GTX960i\
Path: GTX960k\
Path: GTX960l\
Path: GTX960m\
Path: GTX960n\
Path: GTX960o\

Path: GTX960p\
Path: GTX960q\

6.3.7 BIOS flash
Please use the following command to flash bios and notice the size of character.
Path: Path: GTX960\
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.exe –r to unlock bios. And then, please use nvflash.exe /w or nvflash.exe –w to lock bios after updating latest bios.

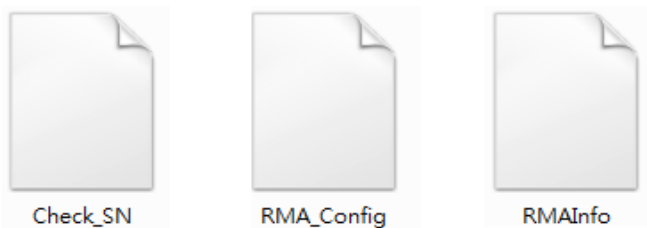6.3.8 Please connect LCD monitor & card's the other DVI CON via a DVI cable.
(Please refer to step 6.3.2&6.3.4)

Dual link DVI cable

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
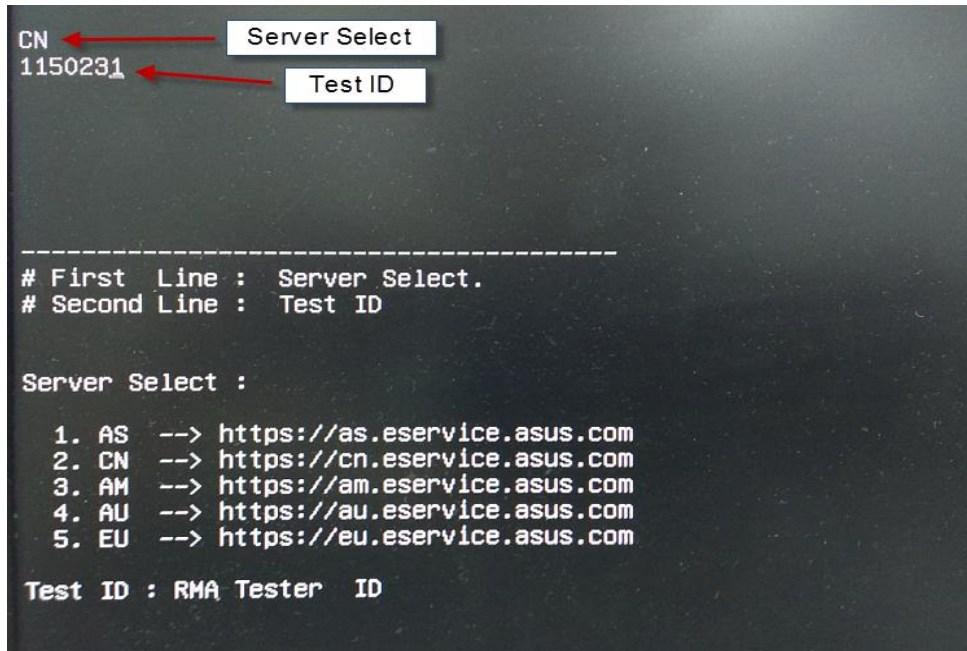
6.4.2 Edit **RMA_Config** file:
First line confirms the address of local sever, Second line is Tester ID.
The **RMA_Config** only need modify one time.
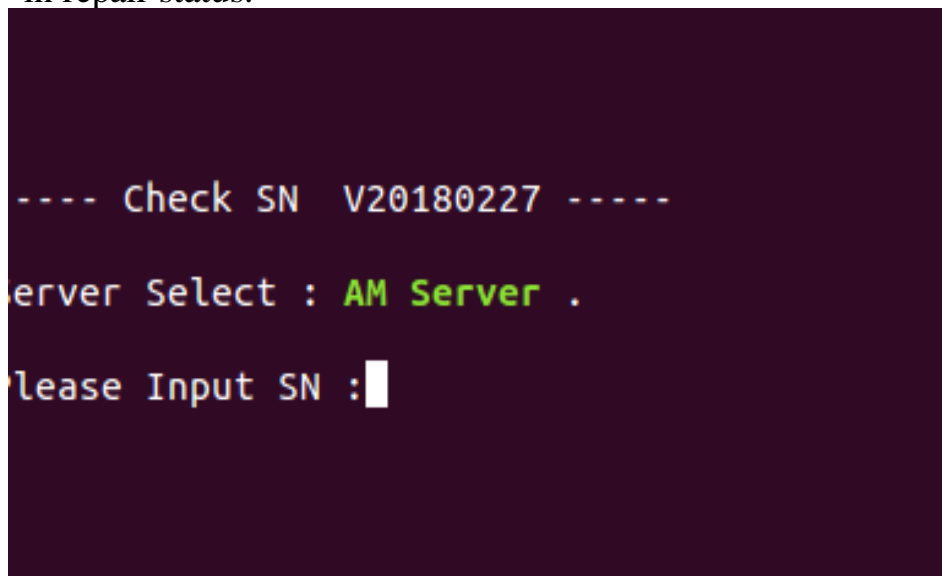
6.4.3 Run **Check_SN** and type in your VGA SN which need to be testing. The SN must be in repair status.

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(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**	
14	**TV extend cable (Buying a local TV cable by yourself)**			**1**	
15	**LCD "Y" Cable**	**14-010230000**		**1**	
16	**HDMI to MINI HDMI cable (Buying a local cable by yourself)**			**1**	