

ASUSTeK COMPUTER INC.	GTX950 Standard Operation Procedure	Doc. No:	
		Date:Aug.10.2017	
		Revision:1.31	
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0Rev.	Modified Chapters	Modification Description	Issued Dept.	Issued by	Revised Date
1.00		First release	GRTD	Xiaoming_lu	Sep.11.2015
1.01		Add new PCBA (YV08V1-A0*)	GRTD	Xiaoming_lu	Sep.11.2015
1.02		Add new P/N(YV08U0-A02)	GRTD	Xiaoming_lu	Sep.11.2015
1.03		Add new P/N(YV08V0-A02)	GRTD	Xiaoming_lu	Sep.11.2015
1.04		Add new P/N(YV08T0-B01)	GRTD	Xiaoming_lu	Sep.11.2015
1.05		Add new P/N(YV08T1-A02)	GRTD	Xiaoming_lu	Sep.11.2015
1.06		Add new PCBA (YV08V1-A19)	GRTD	Xiaoming_lu	Oct.22.2015
1.07		Add new PN (YV08V5-A01)	GRTD	Xiaoming_lu	Oct.22.2015
1.08		Add new PN (YV08V4-A01)	GRTD	Xiaoming_lu	Oct.22.2015
1.09		Add new PCBA (YV08V0-A1B)	GRTD	Xiaoming_lu	Oct.22.2015
1.10		Add new PCBA (YV08U0-A16)	GRTD	Xiaoming_lu	Oct.22.2015
1.11		Add new PCBA (YV08T0-B15)	GRTD	Xiaoming_lu	Oct.30.2015
1.12		Add new PCBA (YV08T1-A13)	GRTD	Xiaoming_lu	Nov.6.2015
1.13		Add new PCBA (YV08T2-A13)	GRTD	Xiaoming_lu	Nov.13.2015
1.14		Add new PCBA (YV08V4-A11)	GRTD	Xiaoming_lu	Dec.2.2015
1.15		Add new PN (YV08V6-A01)	GRTD	Xiaoming_lu	Jan.8.2016
1.16		Add new PCBA (YV08V0-A2B)	GRTD	Xiaoming_lu	Feb.5.2016
1.17		Add new PN (YV08V7-A01)	GRTD	Xiaoming_lu	Mar.2.2016
1.18		Add new PN (YV08T4-A02)	GRTD	Xiaoming_lu	Mar.2.2016
1.19		Add new PN (YV08T5-A01)	GRTD	Xiaoming_lu	Mar.10.2016
1.20		Add new PN (YV08U1-A02)	GRTD	Xiaoming_lu	Mar.10.2016
1.21		Add new PCBA (YV08T5-A15)	GRTD	Xiaoming_lu	Mar.25.2016
1.22		Add new PCBA (YV08T4-A14)	GRTD	Xiaoming_lu	Mar.25.2016
1.23		Add new PCBA (YV08U14-A12)	GRTD	Xiaoming_lu	Apr.1.2016
1.24		Add new PCBA (YV08V4-A32)	GRTD	Xiaoming_lu	Apr.1.2016
1.25		Add new PCBA (YV08V1-A1B)	GRTD	Xiaoming_lu	Apr.1.2016
1.26		Add new PCBA (YV08V0-A1D)	GRTD	Xiaoming_lu	Apr.1.2016
1.27		Add new PCBA (YV08V5-A22)	GRTD	Xiaoming_lu	Apr.8.2016
1.28		Add new PCBA (YV08V6-A14)	GRTD	Xiaoming_lu	May.25.2016
1.29		Add new PCBA (YV08U1-U12)	GRTD	Maico_Zhang	Jun.3.2016
1.30		Add new PN (PA07W0-B11)	GRTD	Maico_Zhang	Jul.18.2016
1.31		Add new PN (PA07U0-A02)	GRTD	Maico_Zhang	Aug.10.2017

<b>Authorize by</b>		<b>Review by</b>		<b>Originator By</b>	Maico
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## 1.Objectives

Create test procedure.

## 2.Scope

Model:GTX950

PN: YV08V1(A02) YV08V1(A0\*)YV08U0(A02) YV08V0(A02)  
YV08V0(A02) YV08T0(B01) YV08T1(A02) YV08V1(A19) YV08V5(A01)  
YV08V4(A01) YV08V0(A1B) YV08U0(A16) YV08T0(B15) YV08T1(A13)  
YV08T2(A13) YV08V4(A11) YV08V6(A01) YV08V0(A2B) YV08V7(A01)  
YV08T4(A02) YV08T5(A01) YV08U1(A02) YV08T5(A15) YV08T4(A14)  
YV08U1(A12) YV08V4(A32) YV08V1(A1B) YV08V0(A1D) YV08V5(A22)  
YV08V6(A14)YV08U1(U12)PA07W0(B11) PA07U0(A02)

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### 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).

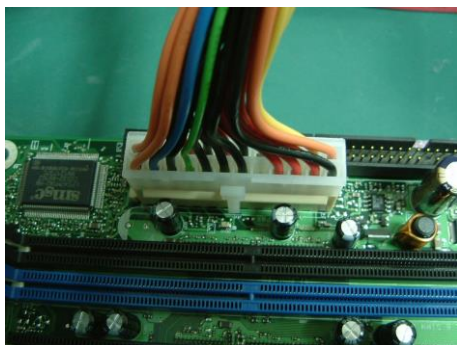
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## 6.2 Fixture connect

- 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 GTX950 into PCIE X16.
- 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.

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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:GTX950\yv08v0a0.sh or yv08v4a1.sh or yv08v6a0.sh or yv08v6a1.sh  
 Path:GTX9501\yv08u0a0.sh or yv08v0a0.sh or yv08u0a1.sh or yv08v0a2.sh  
 Path:GTX9502\yv08t0b0.sh  
 Path:GTX9503\yv08t1a0.sh  
 Path:GTX9504\ yv08v1a1.sh  
 Path:GTX9505\ yv08v5a0.sh or yv08v4a0.sh  
 Path:GTX9506\ yv08v0a1.sh  
 Path:GTX9507\ yv08t0b1.sh or yv08t2a1.sh  
 Path:GTX9508\ yv08t1a1.sh  
 Path:GTX9509\ yv08v7a0.sh  
 Path:GTX950a\ yv08t4a0.sh or yv08t5a0.sh or yv08t5a1.sh or yv08t4a1.sh  
 Path:GTX950b\ yv08u1a0.sh  
 Path:GTX950c\ yv08u1a1.sh or yv08u1u1.sh  
 Path:GTX950d\ yv08v4a3.sh  
 Path:GTX950e\ yv08v1a1.sh

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Path:GTX950f\ yv08v0a1.sh  
Path:GTX950g\ yv08v5a2.sh  
Path:GTX950h\ pa07w0b1.sh  
Path:GTX950j\ pa07u0a1.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:GTX950\

#### 6.3.7 BIOS flash

If you want to check Vbios infor, Please run **biosinfo**

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

Path: Path:GTX950\

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)



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## 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:**



### 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

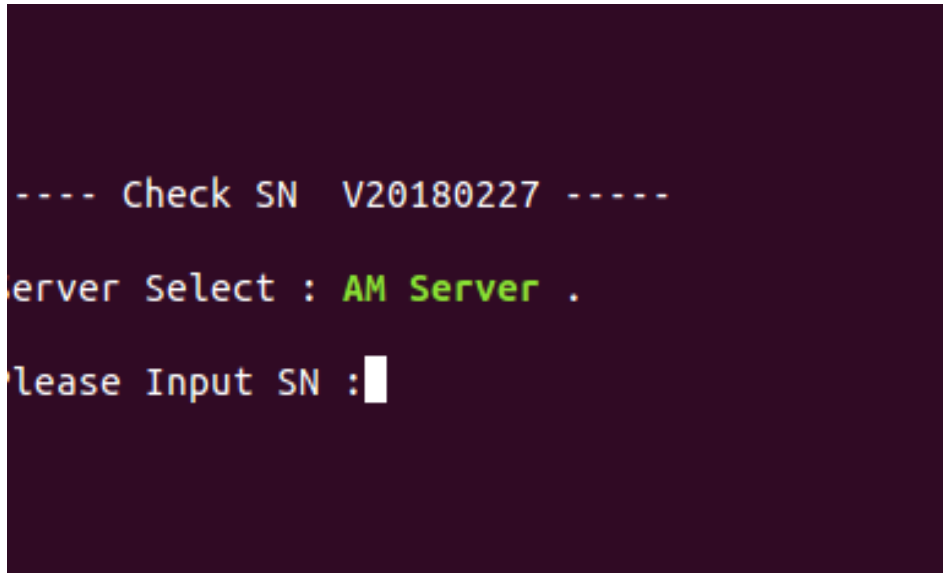
Test ID : RMA Tester ID

```

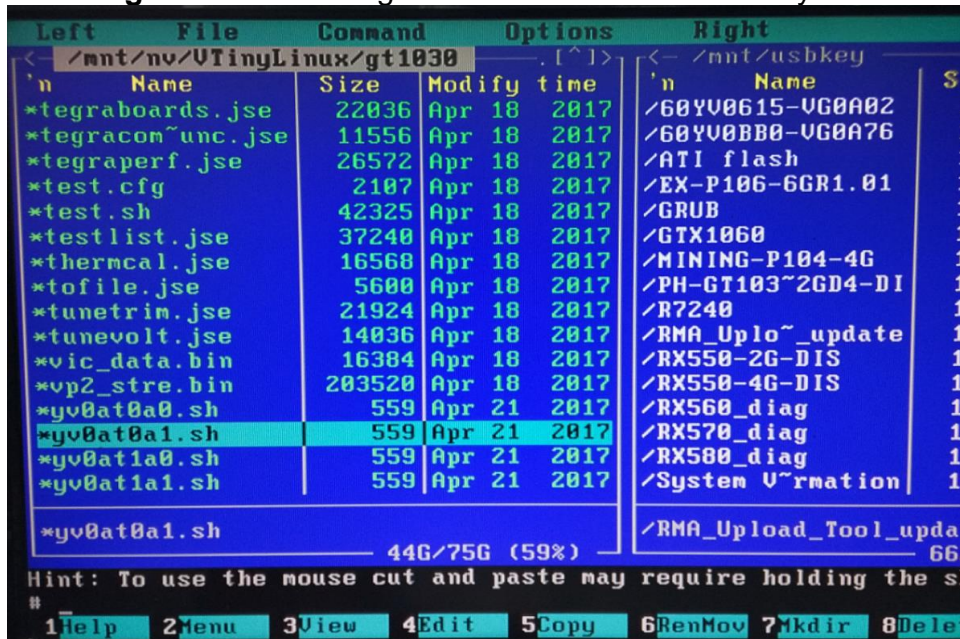
6.4.3 Run **Check\_SN** and type in your VGA SN which need to be testing. The SN must be in repair status.



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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.



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```

=====
=      ASUS VGA RMA Infomation      =
=      Rev2018.02.27                =
=====

Tester ID = 11502YQ
Addr = AM Server .
Problem Code : MNTF01
NV Test Result = PASS
NV Error Code  = 000000000000

Update Data To ASUS VGA Server.....

Update Data:  HAC0YZ268879 PASS 06/03/2018 08:51:59 11502YQ





Please Wait For Ther Return Status:

Result:
SUCCESS
-----


```

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	

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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	