

ASUSTeK COMPUTER INC.	GTX980 Standard Operation Procedure	Doc. No:	
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0Rev .	Modified Chapters	Modification Description	Issued Dept.	Issued by	Revised Date
1.00		First release	GRMA	Jack fan	Sep.17.2014
1.01		Add new PCBA(YV07H0-A01)	GRMA	Jack fan	Sep.17.2014
1.02		Add new PCBA(YV07D0-A03)	GRMA	Jack fan	Sep.17.2014
1.03		Add new PCBA(YV07D1-A02)	GTSD	El Li	Oct.16.2014
1.04		Add new PCBA(YV07D2-A01)	GTSD	El Li	Oct.23.2014
1.05		Add new P/N (YV07D0-B11)	GTSD	El Li	Nov.6.2014
1.06		Add new PCBA(YV07D3-A01)	GTSD	El Li	Nov.6.2014
1.07		Add new PCBA(YV07D0-C01)	GTSD	El Li	Nov.21.2014
1.08		Add new PCBA(YV07D1-B11)	GTSD	El Li	Nov.21.2014
1.09		Add new PCBA(YV07D0-B01)	GTSD	El Li	Nov.21.2014
1.10		Add new PCBA(YV07D0-A15)	GTSD	Mao Lu	Dec.26.2014
1.11		Add new PCBA(YV08J0-A07)	GTSD	Mao Lu	Jul.13.2015
1.12		Add new PN(YV08L0-A01)	GTSD	Mao Lu	Jul.13.2015
1.13		Add new PN(YV08J1-A01)	GTSD	Mao Lu	Jul.13.2015
1.14		Add new PCBA(YV08J0-B01)	GTRD	Xiaoming Lu	Sep.10.2015
1.15		Add new PCBA(YV08J0-A0B)	GTRD	Xiaoming Lu	Sep.10.2015
1.16		Add new PCBA (YV08J1-B01)	GTRD	Xiaoming Lu	Sep.10.2015
1.17		Add new PN(YV08L1-A01)	GTRD	Xiaoming Lu	Sep.10.2015
1.18		Add new PN(YV08S0-A02)	GTRD	Xiaoming Lu	Oct.21.2015
1.19		Add new PN(YV08S1-A02)	GTRD	Xiaoming Lu	Oct.21.2015
1. 20		Add new PCBA (YV08J0-B11)	GTRD	Xiaoming Lu	Oct.30.2015
1. 21		Add new PN (YV08S2-A01)	GTRD	Xiaoming Lu	Oct.30.2015
1. 22		Add new PCBA (YV07D0-B42)	GTRD	Xiaoming Lu	Oct.30.2015
1. 23		Add new PCBA (YV08J1-B11)	GTRD	Xiaoming Lu	Nov.4.2015
1. 24		Add new PCBA (YV08D1-B32)	GTRD	Xiaoming Lu	Nov.4.2015
1. 25		Add new PCBA (YV08S1-A12)	GTRD	Xiaoming Lu	Dec.2.2015
1. 26		Add new PCBA (YV08S2-A12)	GTRD	Xiaoming Lu	Dec.2.2015
1. 27		Add new PCBA (YV08S0-A14)	GTRD	Xiaoming Lu	Dec.2.2015
1. 28		Add new PCBA (YV08L1-A12)	GTRD	Xiaoming Lu	Feb.3.2016
1. 29		Add new PN (YV08J2-A01)	GTRD	Xiaoming Lu	Feb.3.2016
1. 30		Add new PN (YV0970-A02)	GTRD	Xiaoming Lu	Mar.11.2016

Authorize by		Review by		Originator By	Xiaoming_Lu
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1. 31		Add new PN (YV0980-A01)	GTRD	Xiaoming Lu	Mar.18.2016
1. 32		Add new PN (YV0981-A01)	GTRD	Xiaoming Lu	Apr.1.2016
1. 33		Add new PCBA (YV07D0-B21)	GTRD	Xiaoming Lu	Nov.1.2016
1. 34		Add new PCBA (YV07D1-B22)	GTRD	Xiaoming Lu	Nov.1.2016

## 1.Objectives

Create test procedure.

## 2.Scope

Model: GTX980

PN: YV07D0(A03&B11&C01&B01&B21) YV07H0(A01) YV07D2(A01)

YV07D3(A01) YV07J0(A01) YV07D1(A02&B11&B22) YV07D0(A15) YV08L0(A01)  
YV08J0(B01) YV08J0(A0B) YV08J1(B01) YV08L1(A02) YV08S0(A02) YV08S1(A02)  
YV08J0(B11) YV08S2(A01) YV07D0(B42) YV08J1(B11) YV08D1(B32) YV08S1(A12)  
YV08S2(A12) YV08S0(A14) YV08L1(A12) YV08J2(A01) YV0970(A02) YV0980(A01)  
YV0981(A01)

## 3.Test Item

3.1 Diagnostic test in Linux system

## 4.Relevant Document

None.

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**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.

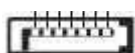
## 6. Operation Procedures:

### 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 DDR Memory to DIMM1~4.
- 6.2.3 Plug USB Mouse and Keyboard into MB.
- 6.2.4 Plug VGA Card GTX980 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.

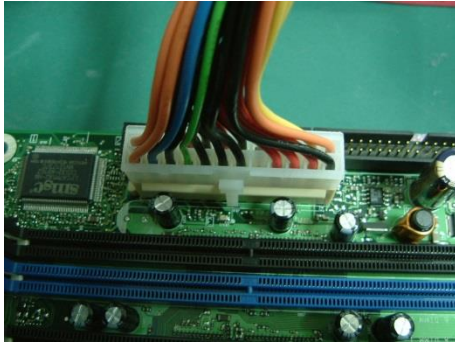


SATA1



6.2.7 Plug 4PIN 12V power cable into CON12V.

6.2.8 Plug ATX Power on Power Connector.



## 6.3 Diagnostic test in linux system

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



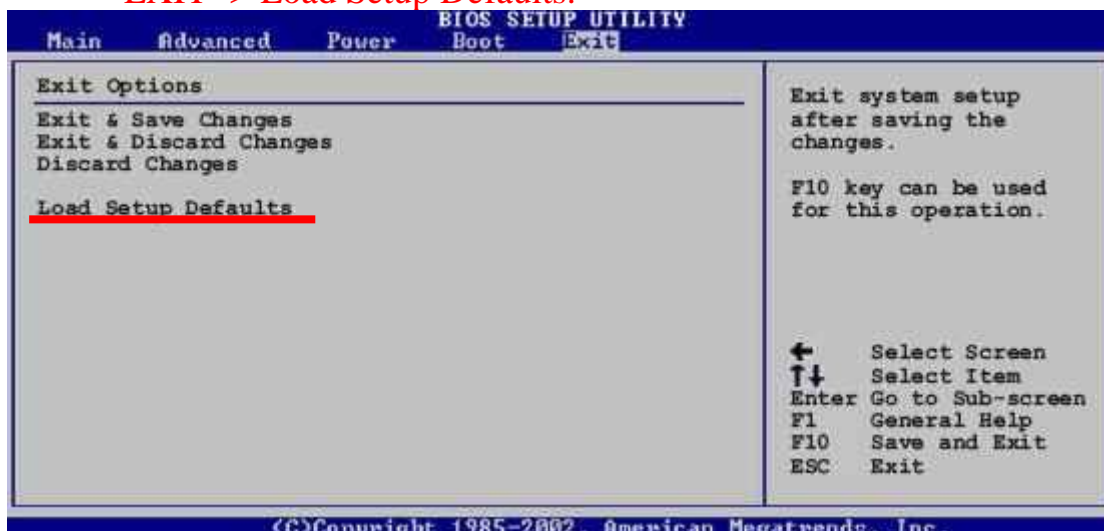
Dual link DVI cable



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.**



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

Path:GTX980\yv07d0a0.sh or yv07d2a0.sh

Path:GTX9801\yv07h0a0.sh

Path:GTX9802\yv07d1a0.sh or yv07d3a0.sh

Path:GTX9803\yv07d0b1.sh or yv07d0c0.sh or yv07d1b1.sh or yv07d0b0.sh or yv07d0a1.sh or yv07d0a2.sh or yv07d1a2.sh

Path:GTX9807\yv08j0a0.sh or yv08j0b0.sh or yv08j0a0.sh or yv08j0b1.sh or yv08j2a0.sh

Path:GTX9808\yv08j1a0.sh or yv08j1b0.sh or yv08j1b1.sh

Path:GTX9809\yv08l0a0.sh

Path:GTX980a\yv08l1a0.sh

Path:GTX980b\yv08s0a0.sh or yv08s2a1.sh or yv08s0a1.sh

Path:GTX980c\yv08s1a0.sh or yv08s1a1.sh

Path:GTX980d\yv08s2a0.sh

Path:GTX980e\yv07d0b4.sh

Path:GTX980f\yv07d1b3.sh

Path:GTX980g\yv08l1a1.sh

Path:GTX980h\yv0970a0.sh

Path:GTX980i\yv0980a0.sh or yv0981a0.sh

Run the test program refer to the prompt.

#### 6.3.5 Memory test

If you want to test memory, please run ./mats.

Path:GTX980

#### 6.3.6 BIOS flash

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

Path:GTX980

Command:./nvflash xxx.rom -6 -A

Notice:

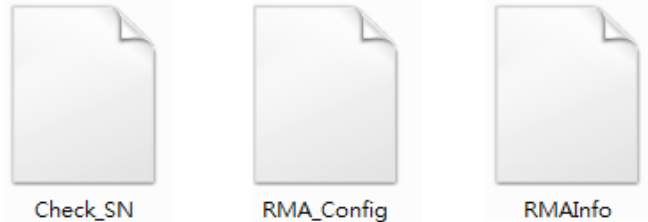
If you can not flash bios because of the bios locked, please use ./nvflash.exe /r or ./nvflash -r to unlock bios. And then, please use ./nvflash.exe /w or ./nvflash -w to lock bios after updating latest bios. (You need update the nvflash tool . such as the version 5.190 or later version. )

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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.



```

----- Check SN V20180227 -----

Server Select : AM Server .

Please Input SN :

```

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

Left	File	Command	Options	Right
<	/mnt/nv/UTinyLinux/gt1030	.	[^]>	< /mnt/usbkey
'n	Name	Size	Modify time	'n Name \$
*	tegraboards.jse	22036	Apr 18 2017	/60YV0615-VG0A02
*	tegracom~unc.jse	11556	Apr 18 2017	/60YV0BB0-VG0A76
*	tegraperf.jse	26572	Apr 18 2017	/ATI flash
*	test.cfg	2107	Apr 18 2017	/EX-P106-6GR1.01
*	test.sh	42325	Apr 18 2017	/GRUB
*	testlist.jse	37240	Apr 18 2017	/GTX1060
*	thermal.jse	16568	Apr 18 2017	/MINING-P104-4G
*	tofile.jse	5600	Apr 18 2017	/PH-GT103~2GD4-DI
*	tunetrim.jse	21924	Apr 18 2017	/R7240
*	tunevolt.jse	14036	Apr 18 2017	/RMA_Uplo~_update
*	vic_data.bin	16384	Apr 18 2017	/RX550-2G-DIS
*	vp2_stre.bin	203520	Apr 18 2017	/RX550-4G-DIS
*	yv0at0a0.sh	559	Apr 21 2017	/RX560_diag
*	yv0at0a1.sh	559	Apr 21 2017	/RX570_diag
*	yv0at1a0.sh	559	Apr 21 2017	/RX580_diag
*	yv0at1a1.sh	559	Apr 21 2017	/System V~rmation
	yv0at0a1.sh			/RMA_Upload_Tool_upda
		44G/75G (59%)		66
Hint: To use the mouse cut and paste may require holding the sh				
#	1Help	2Menu	3View	4Edit
	5Copy	6RenMov	7Mkdir	8Dele

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	LCD Monitor with HDMI/Display Port 4096 x 2304 @ 60 Hz		local	1	
2	USB MOUSE		local	1	
3	KEYBOARD		local	1	
4	ATX POWER SUPPLY(a minimum power of 800W)		local	1	
5	Intel CPU Intel(R) I5 7500 CPU		local	1	
6	Heat sink + FAN		local	1	



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7	DDR4 2400 4G		local	2		
8	TEST HDD		local	1		
9	SATA HDD Cable		local	1		
10	HDMI cable (Buying a local HDMI cable by yourself)		local	1		
11	ASUS Prime B250-plus MB		local	1		
13	DVI port cable		local	1	