

ASUSTeK COMPUTER INC.	RX590 Standard Operation Procedure	Doc. No:	
		Date: Jun.28.2020	
		Revision:1.03	
		Page: 10	Grade:

Rev.	Modified Chapters	Modification Description	Issued Dept.	Issued by	Revised Date
1.00		First Release	GRTD	Maico_Zhang	Nov.21.2018
1.01		Add new PN(YV0EQ0-A01)	GRTD	Maico_Zhang	Apr.8.2020
1.02		Add new PN(YV0F20-A01)	GRTD	Maico_Zhang	Jun.28.2020
1.03		Add new PN(YV0F21-A01)	GRTD	Maico_Zhang	Jun.28.2020

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

ASUSTeK COMPUTER INC	RX590 Standard Operation Procedure	Doc. No:
		Date: Jun.28.2020 Rev.: 1.03 Page: 1

1.Objectives

Create test procedure.

2.Scope

Model: RX590

PN: YV0CF0(A01) YV0EQ0(A01) YV0F20(A01) YV0F21(A01)

3.Test Item

3.1 Diagnostic test in Ubuntu14.04_64-bit 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.
3. System Memory: 1GB for a single GPU test station; please add an additional 512MB of system memory for each additional GPU used for the test configuration
4. RX590 Test Program in 64-bit Linux system.

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.

ASUSTeK COMPUTER INC	RX590 Standard Operation Procedure	Doc. No:
		Date: Jun.28.2020
		Rev.: 1.03 Page: 2

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 CPU & CPU Fan.

6.2.2 Install DDR Memory to DIMM1~4. **(a minimum memory of 4GB for Linux test)**

6.2.3 Plug USB Mouse and Keyboard into MB.

6.2.4 Plug VGA Card RX590 into PCIEX16_1.

6.2.5 If this card has 6 PIN or 8 PIN of Power supply, please connect power con of VGA card & Power supply via bundled power cable.

(6 PIN of Power supply to 6 PIN of VGA card)

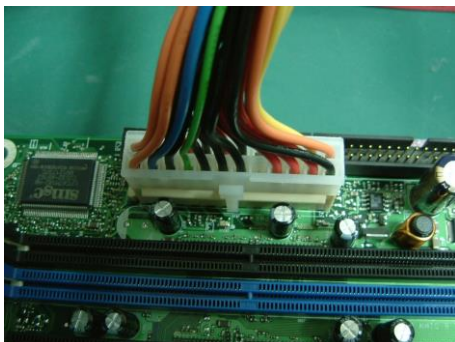
(8 PIN of Power supply to 8 PIN of VGA card)

6.2.6 Connect SATA HDD & SATA con via SATA cable



6.2.7 Plug 4PIN 12V power **(a minimum power of 1200W)** cable into CON12V.

6.2.8 Plug ATX Power on Power **(a minimum power of 1200W)** Connector.



6.3 Certain test.

6.3.1 Diagnostic test in **64-bit LINUX system**

6.3.1.1 Please connect LCD monitor & card's DVI CON via a DVI 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 Run test program in 64-bit linux system.

Path: rx590\ yv0cf0a0

Path: rx5901\ yv0eq0a0

Path: rx5902\ yv0f20a0

Path: rx5903\ yv0f21a0

6.3.1.5 Memory test

If you want to test memory, please run `./tserver -boardtest=memfa` or `./memtest.sh`

Path: rx590\

6.3.1.6 BIOS Version

If you want to see the version of bios, please run `./atiflash -i 0` or `./biosinfo`.

Path: rx590\

6.3.1.7 BIOS flash

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

Path: rx590\

Command: `./atiflash -f 0 xxx.rom`

Notice:

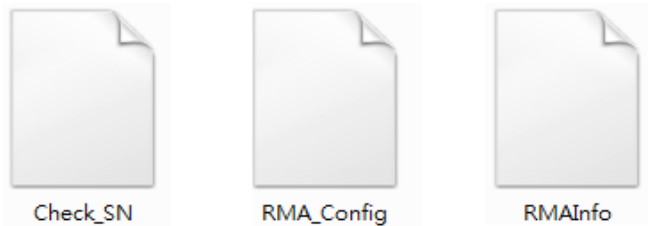
ASUSTeK COMPUTER INC	RX590 Standard Operation Procedure	Doc. No:
		Date: Jun.28.2020
		Rev.: 1.03 Page: 4

If you can not flash bios because of the bios locked, please use `./atiflash -unlockrom 0` to unlock bios. And then, please use `./atiflash -lockrom 0` to lock bios after updating latest bios.

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 :

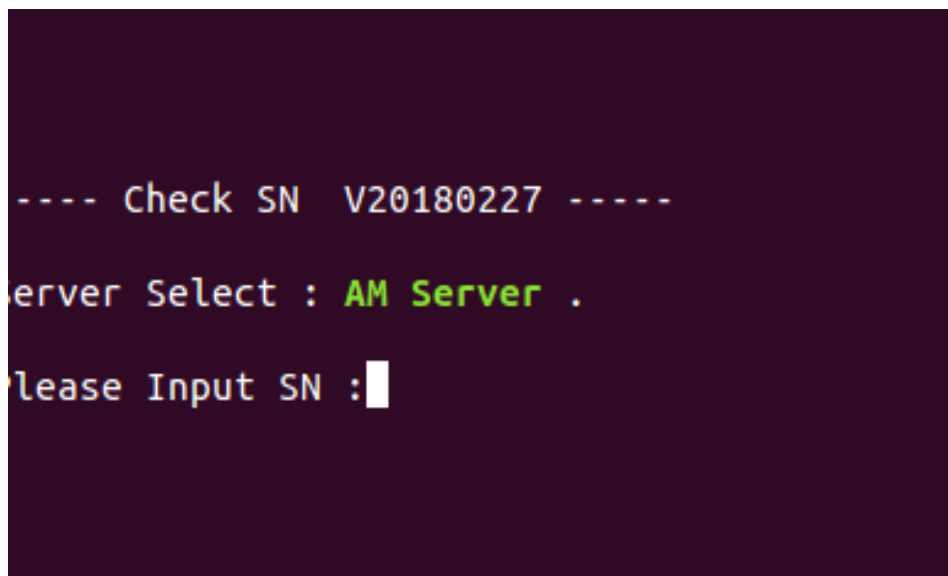
1. AS --> https://as.eservice.asus.com
2. CN --> https://cn.eservice.asus.com
3. AM --> https://am.eservice.asus.com
4. AU --> https://au.eservice.asus.com
5. EU --> https://eu.eservice.asus.com

Test ID : RMA Tester ID

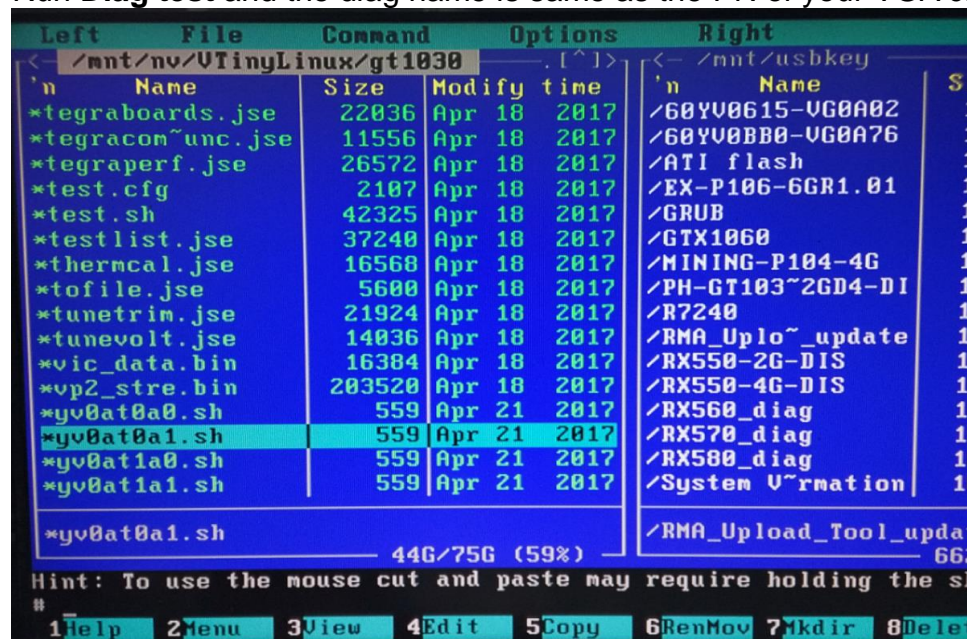
```

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

ASUSTeK COMPUTER INC	RX590 Standard Operation Procedure	Doc. No:
		Date: Jun.28.2020 Rev.: 1.03 Page: 5



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.

ASUSTeK COMPUTER INC	RX590 Standard Operation Procedure	Doc. No:
		Date: Jun.28.2020 Rev.: 1.03 Page: 6

```

=====
=      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:
SWZ26895
=====

```

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	

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