

ASUSTeK COMPUTER INC.	RTX3070-8G-EK Standard Operation Procedure	Doc. No:	
		Date: Dec.24.2020	
		Revision:1.01	
		Page: 0	Grade:

0Rev.	Modified Chapters	Modification Description	Issued Dept.	Issued by	Revised Date
1.00		First release	GRTD	Maico_Zhang	Dec.14.2020
1.01		Add LED check	GRTD	Maico_Zhang	Dec.24.2020

1. Objectives

Create test procedure.

2. Scope

Model: RTX3070-8G-WB-I3S//R1.00X

PN: 90YV0FU0

Authorize by		Review by		Originator By	Maico
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3. Test Item

3.1 Diagnostic test in Tiny Linux

4. Relevant Document

None.

5. Definition:

Please install OS above Tinylinux20.07 ver. to test HDD.

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 10 test environment by yourself).

6.2 Fixture connect

- 6.2.1 Install Intel CPU & CPU Fan.
- 6.2.2 Install DDR Memory to DIMM.
- 6.2.3 Plug USB Mouse and Keyboard into MB.
- 6.2.4 Plug VGA Card RTX3070 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.

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6.2.7 Plug 4PIN 12V power cable into CON12V.

6.2.8 Plug ATX Power on Power Connector.



6.2.9 Disassemble original VGA hydro-cooling module, assemble air-cooling module to card as below (refer to repair guide).

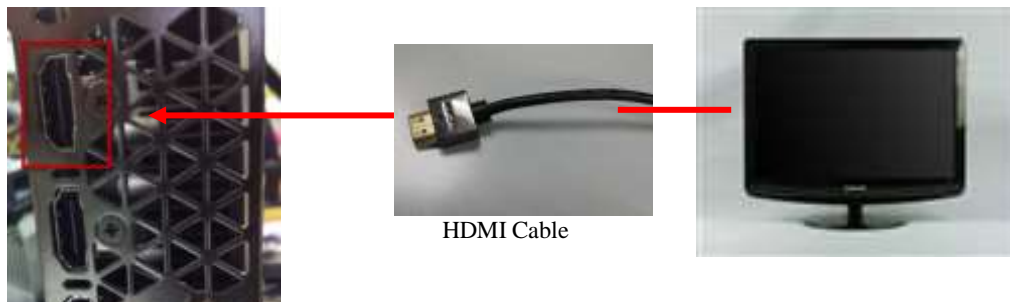


6.2.10 Plug PCIEX16 Extender Card to VGA golden finger.

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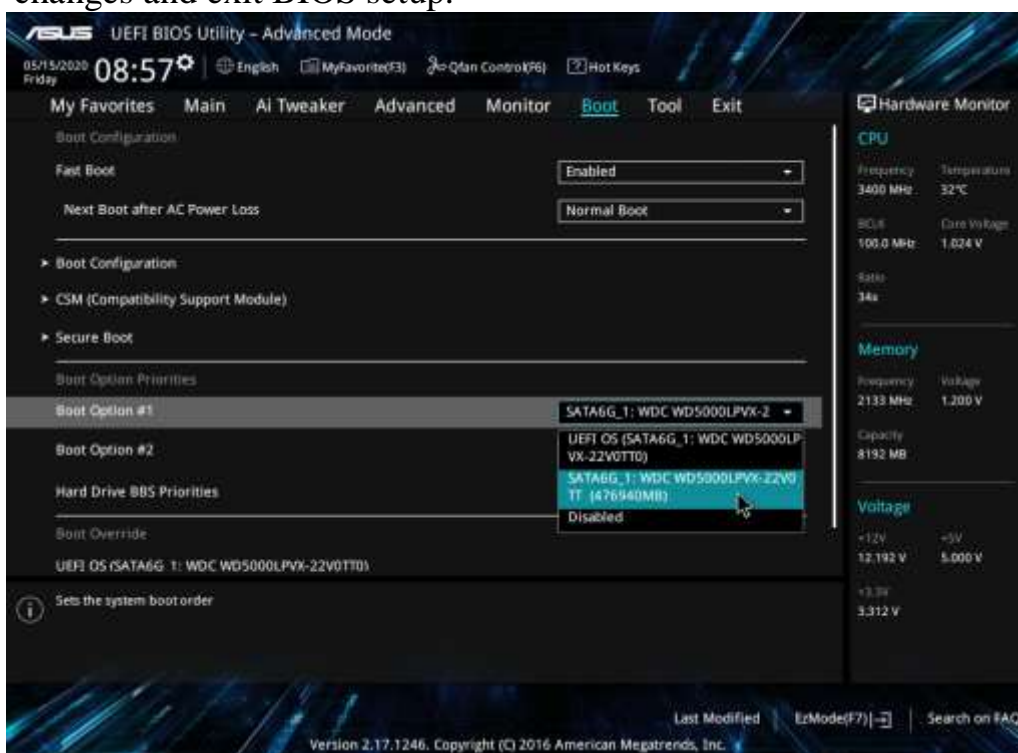
6.2.11 Please connect LCD monitor & card's first HDMI(DP) CON via a HDMI(DP) cable.



6.3 Diagnostic test in Tiny Linux

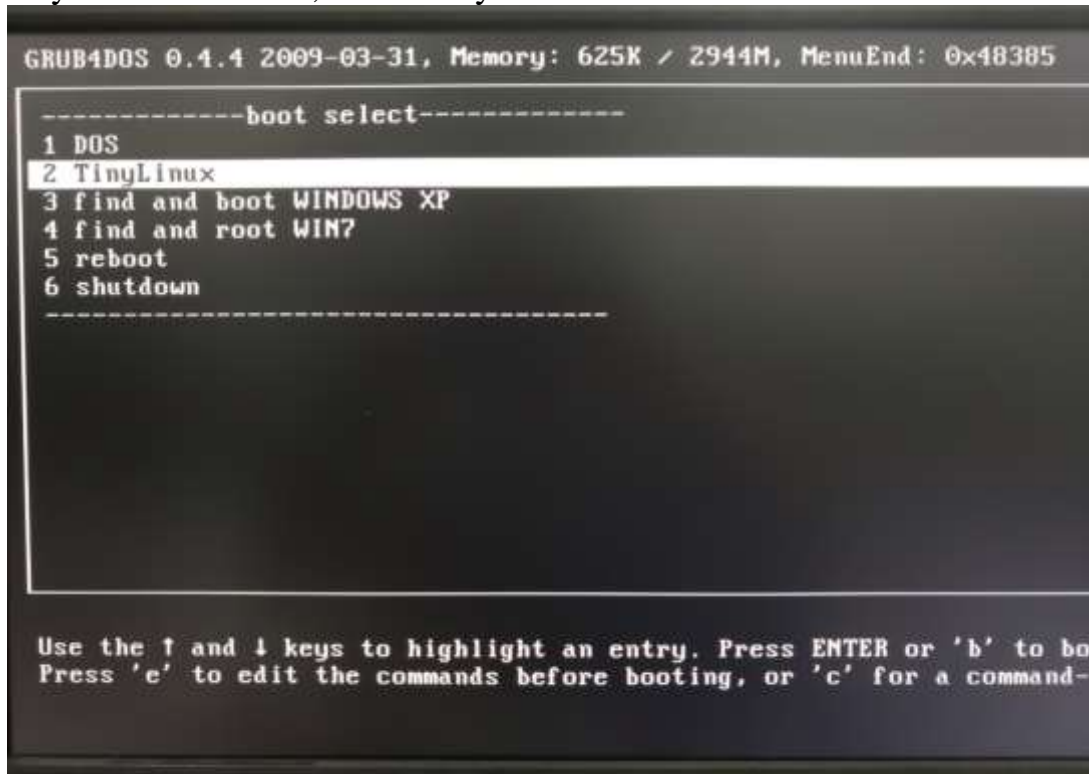
6.3.1 Press Power Switch then turn on power button.

6.3.2 Select Boot Option with Non-UEFI mode in BIOS. Then press “F10” to save changes and exit BIOS setup.

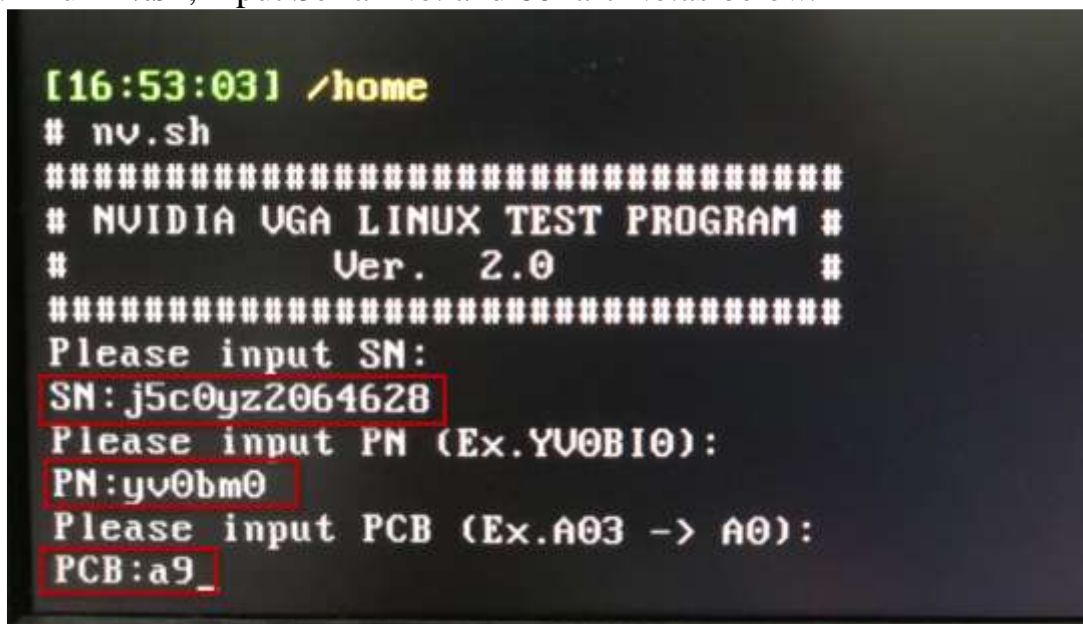


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6.3.3 System will reboot, select TinyLinux into OS.



6.3.4 Run **nv.sh**, input Serial No. and 60Part No.as below.



6.3.5 Select 5 to run final test.

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```
#####
# NVIDIA UGA LINUX TEST PROGRAM #
#           Ver.  2.0           #
#####
Please input SN:
SN:j5c0yz2064628
Please input PN (Ex.YU0B10):
PN:yv0bm0
Please input PCB (Ex.A03 -> A0):
PCB:a9
##### Diag Ver. 370.27 #####
Please input one test item:
1.Diag Test
2.Update VBIOS
3.URAM Test
4.Upload Test Result by Case
5.Final Test
6.Upload All Test Result
0.Exit

input:5_
```

6.3.6 Flash VBIOS

a. Single BIOS

-- Select 2, auto update VBIOS.

```
6.Upload All Test Result
0.Exit

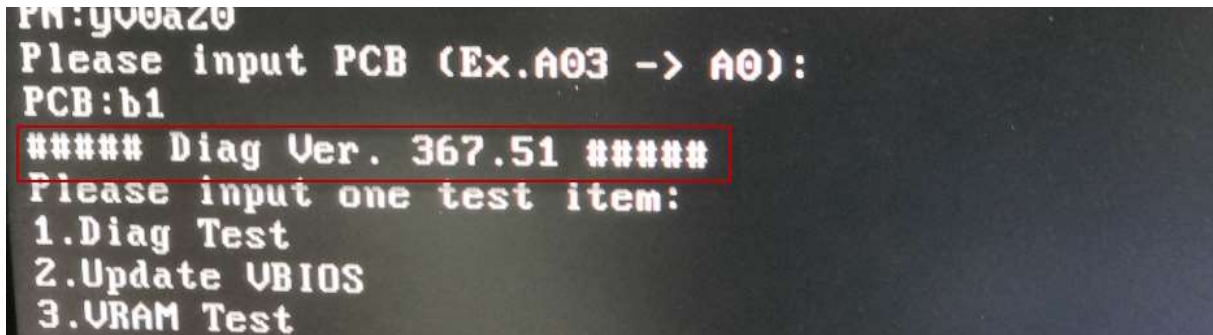
input:2
Diag folder exist
Please wait for downloading BIOS file!
[=====] 100.00%
Are you sure to update the latest BIOS?(Y/N)
Y/N:n
##### Diag Ver. 400.209_2060 #####
Please input one test item:
1.Diag Test
2.Update VBIOS
3.URAM Test
4.Upload Test Result by Case
5.Final Test
6.Upload All Test Result
0.Exit
```

b. Dual-VBIOS

-- Please use the following command to flash VBIOS in DIAG folder.

Path: refer to Diag Ver. as below.

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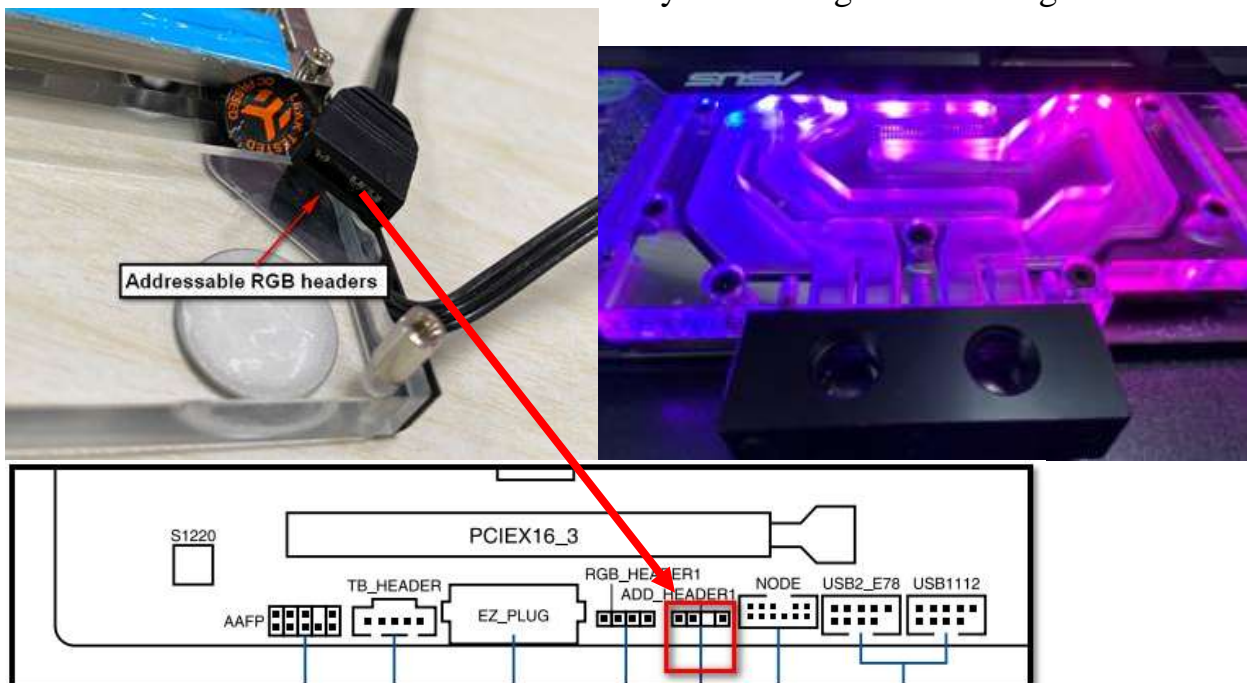
Command: `nvflash xxx.rom -6 -A` or `iromflash xxx.rom`

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.

6.4 Check LED of hydro-cooling module

6.4.1 Connect Addressable RGB headers of hydro-cooling module to ADD_HEADER of test MB. Power on and check if LED of hydro-cooling module is light.



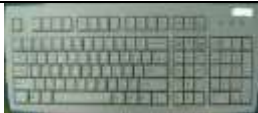







6.5 If test OK, please reassemble back hydro-cooling module to card.

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7. Appendix

NO#	Equipment Description	ASUS Part#	Photo	ASP Source	RSP Source	Quantity
1	LCD Monitor with HDMI/Display Port 4096 x 2304 @ 60 Hz			Local	Local	1
2	USB MOUSE			Local	Local	1
3	KEYBOARD			Local	Local	1
4	ATX POWER SUPPLY (a minimum power of 800W)			Local	Local	1
5	Intel(R) i5 7500 3.4G/6M CPU	01001-01401800		Local	ASUS	1
6	Heat sink + FAN			Local	Local	1
7	DDR4 2400 4G	03A08-00011700		Local	ASUS	2
8	TEST HDD	03B01-00131800		Local	ASUS	1

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9	SATA HDD Cable			Local	Local	1
10	HDMI cable (Buying a local HDMI cable by yourself)			Local	Local	1
11	ASUS Prime B250-plus MB	90MBSJ0-M0AAY0		Local	ASUS	1
12	Display port cable (Buying a local Display port cable by yourself)			Local	Local	1
13	Thermal Module (air-cooling)	13070-02297700		ASUS	ASUS	1
14	PCIEX16 Extender Card	20TT0-000BI000		ASUS	ASUS	1