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|--------------------------|--|------------------------------------|---------------|
| ASUSTeK<br>COMPUTER INC. | RTX3080-10G-EK<br>Standard Operation Procedure | Doc. No:                           |               |
|                          |  | Date: Dec.24.2020<br>Revision:1.01 |               |
|                          |  | Page: 0                            | <b>Grade:</b> |

| 0Rev. | Modified Chapters | Modification Description | Issued Dept. | Issued by   | Revised Date |
|-------|-------------------|--------------------------|--------------|-------------|--------------|
| 1.00  |                   | First release            | GRTD         | Maico_Zhang | Nov.27.2020  |
| 1.01  |                   | Add LED check            | GRTD         | Maico_Zhang | Dec.24.2020  |

## 1. Objectives

Create test procedure.

## 2. Scope

Model: RTX3080-10G-WB-I3S//R1.00X

PN: 90YV0F60

|                     |  |                  |  |                      |       |
|---------------------|--|------------------|--|----------------------|-------|
| <b>Authorize by</b> |  | <b>Review by</b> |  | <b>Originator By</b> | 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 RTX3080 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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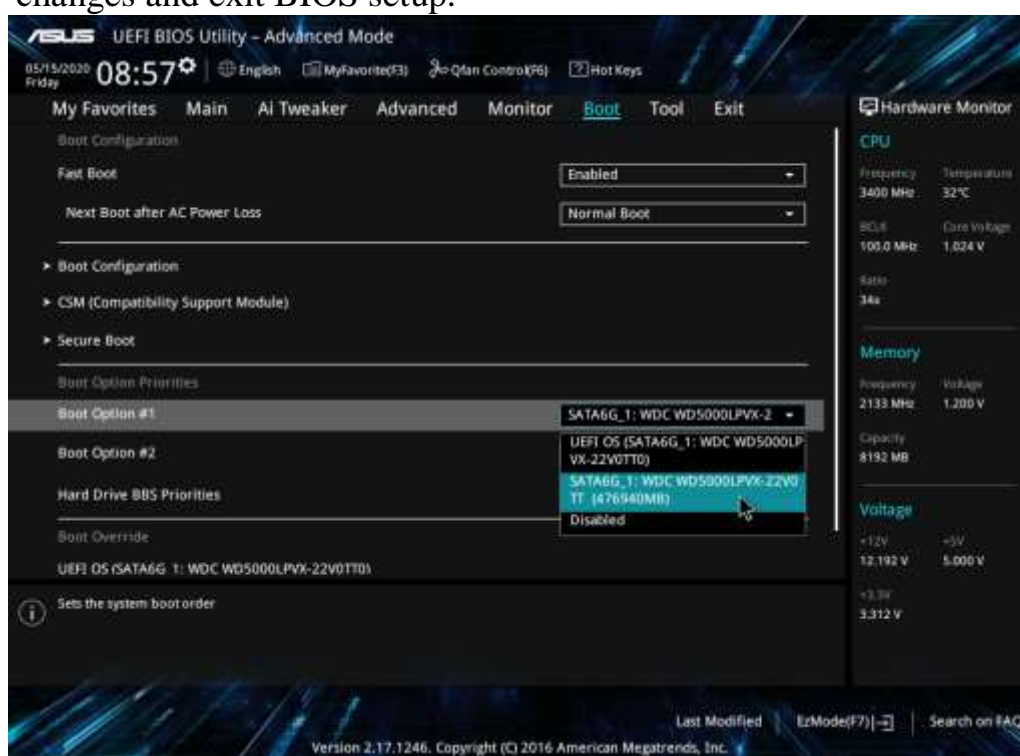
6.2.11 Please connect LCD monitor & card's first HDMI(DP) CON via a HDMI(DP) cable.



## 6.3 Diagnostic test in Tiny Linux.

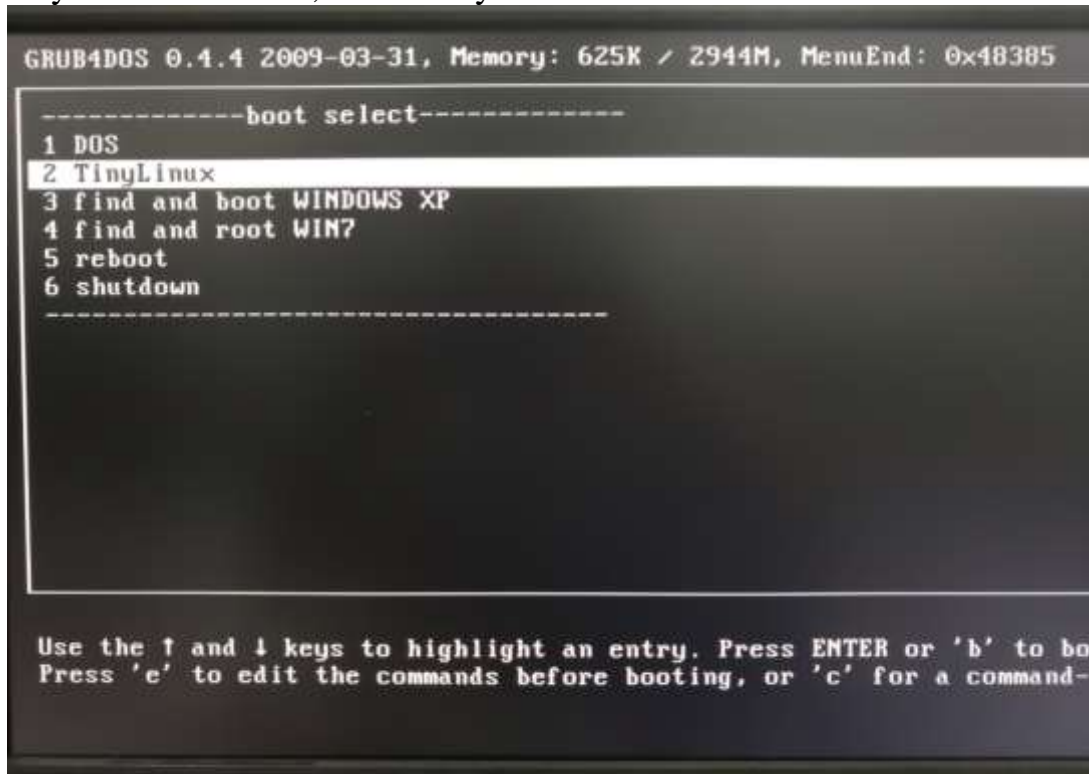
6.3.1 Press Power Switch then turn on power button.

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

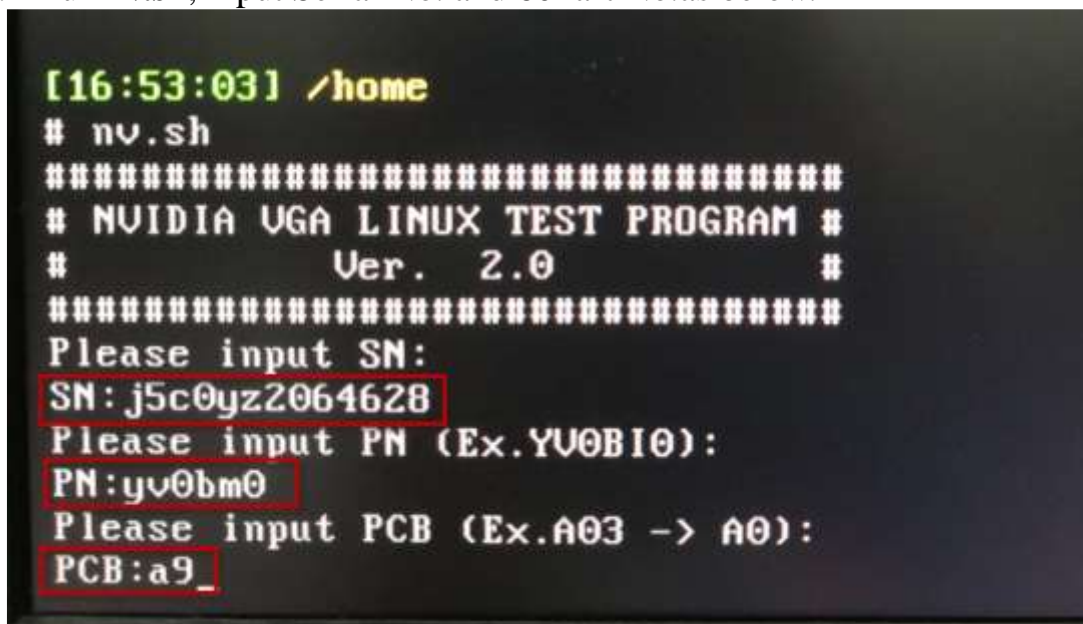


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6.3.3 System will reboot, select TinyLinux into OS.



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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```

PN:G00a20
Please input PCB (Ex.A03 -> A0):
PCB:b1
##### Diag Ver. 367.51 #####
Please input one test item:
1.Diag Test
2.Update VBIOS
3.VRAM Test

```

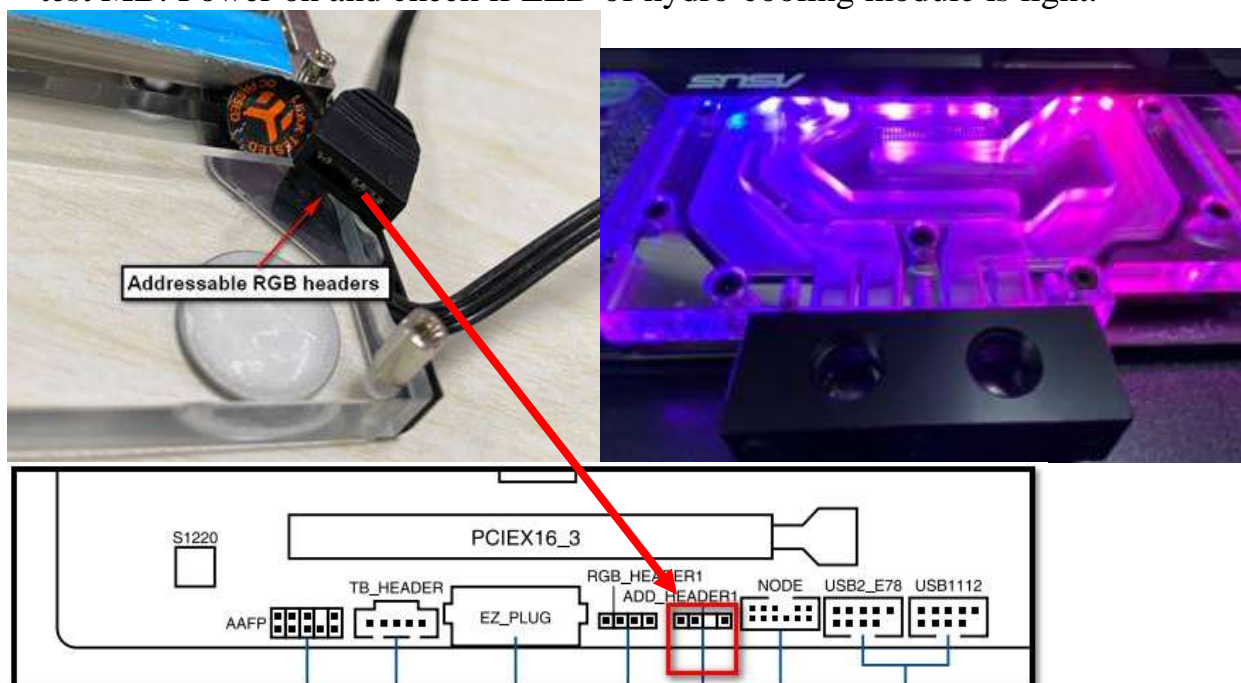
Command: `nvflash xxx.rom -6 -A` or `iromflsh xxx.rom`

**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<br>HDMI/Display Port 4096<br>x 2304 @ 60 Hz |                |  | Local      | Local      | 1        |
| 2   | USB MOUSE  |                |  | Local      | Local      | 1        |
| 3   | KEYBOARD   |                |  | Local      | Local      | 1        |
| 4   | ATX POWER SUPPLY<br>(a minimum power of<br>800W)             |                |  | Local      | Local      | 1        |
| 5   | Intel CPU<br>Intel(R) I5 7500 CPU                            | 01001-01401800 |  | Local      | ASUS       | 1        |
| 6   | Heat sink + FAN  |                |   | Local      | Local      | 1        |
| 7   | DDR4 2400 4G   | 03A08-00011700 |  | Local      | ASUS       | 1        |
| 8   | TEST HDD   | 03B01-00131800 |  | Local      | ASUS       | 1        |



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|    |   |                |   |       |       |   |
|----|---|----------------|---|-------|-------|---|
| 9  | SATA HDD Cable  |                |   | Local | Local | 1 |
| 10 | HDMI cable<br>(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<br>(Buying a local Display port cable by yourself) |                |   | Local | Local | 1 |
| 13 | Thermal Module<br>(air-cooling)                                       | 13070-02272900 |   | ASUS  | ASUS  | 1 |
| 14 | PCIEX16 Extender Card   | 20TT0-000BI000 |  | ASUS  | ASUS  | 1 |