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: RTX3090-24G-WB-I3S//R1.00X
PN: 90YV0F80

Authorize by		**Review by**		**Originator By**	Maico

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 RTX3090 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.

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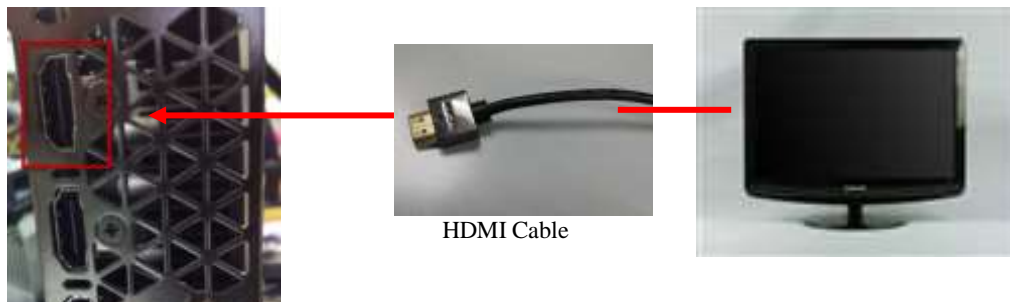

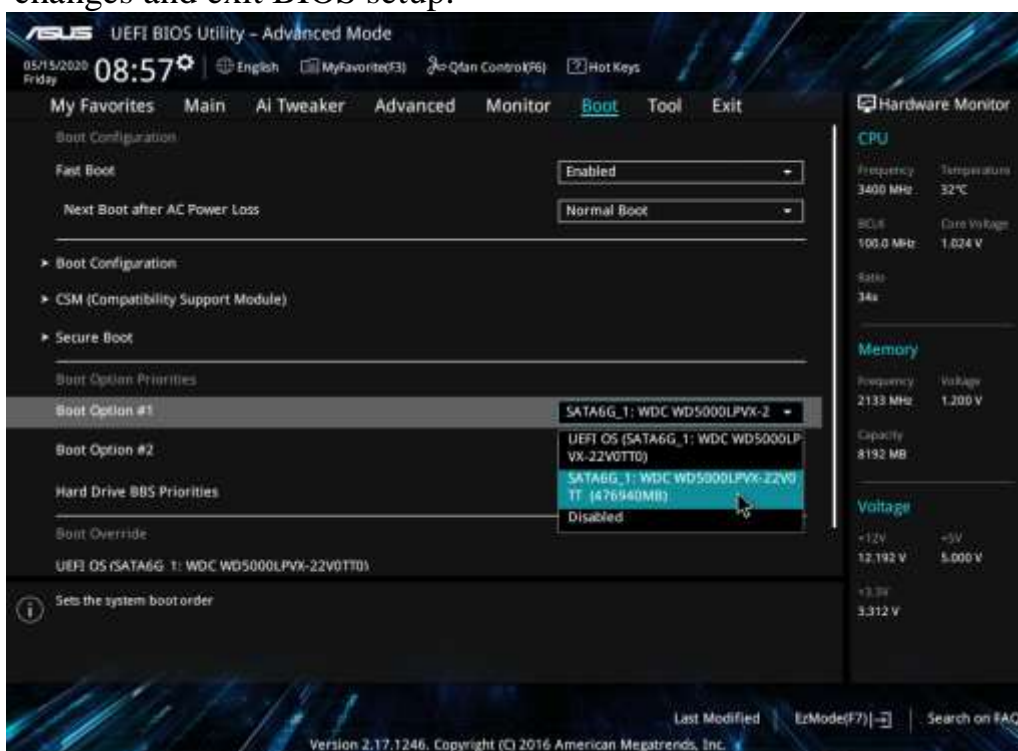**6.2.10 Plug PCIEX16 Extender Card to VGA golden finger.**

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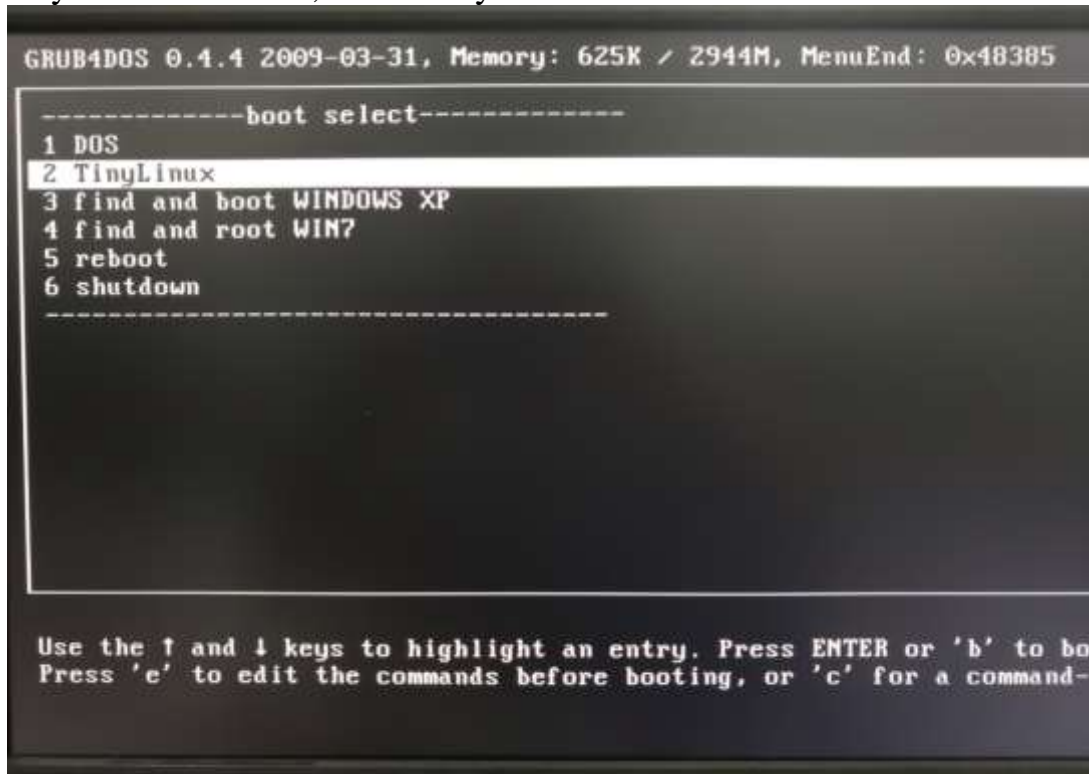

HDMI Cable

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.
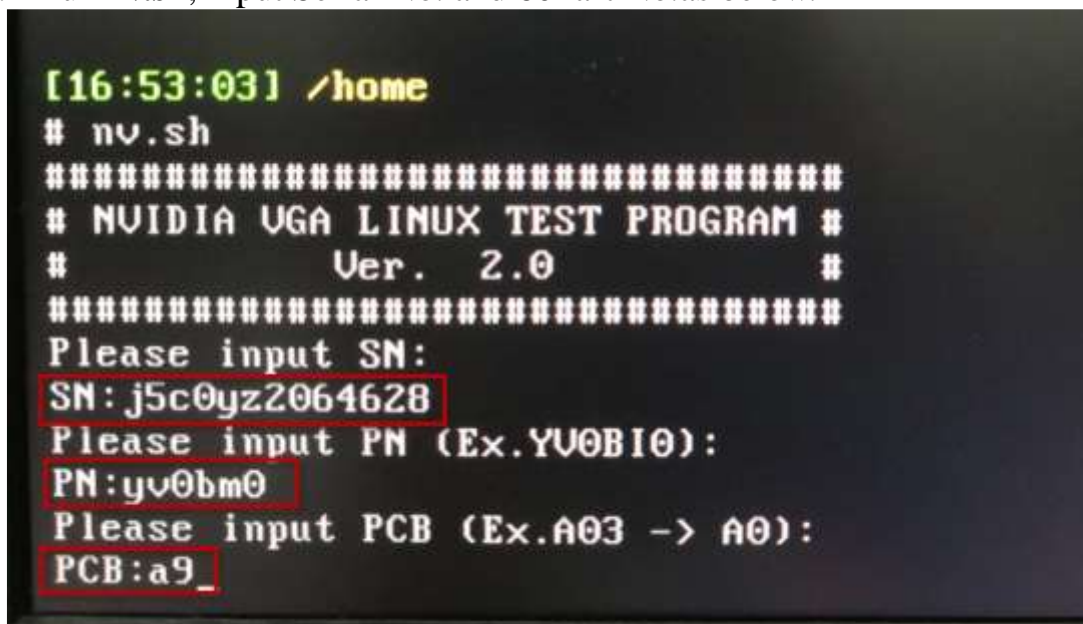
6.3.3 System will reboot, select TinyLinux into OS.

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

6.3.5 Select 5 to run final test.

6.3.6 Flash VBIOS
    a. Single BIOS
    -- Select 2, auto update VBIOS.

    b. Dual-VBIOS
    -- Please use the following command to flash VBIOS in DIAG folder.
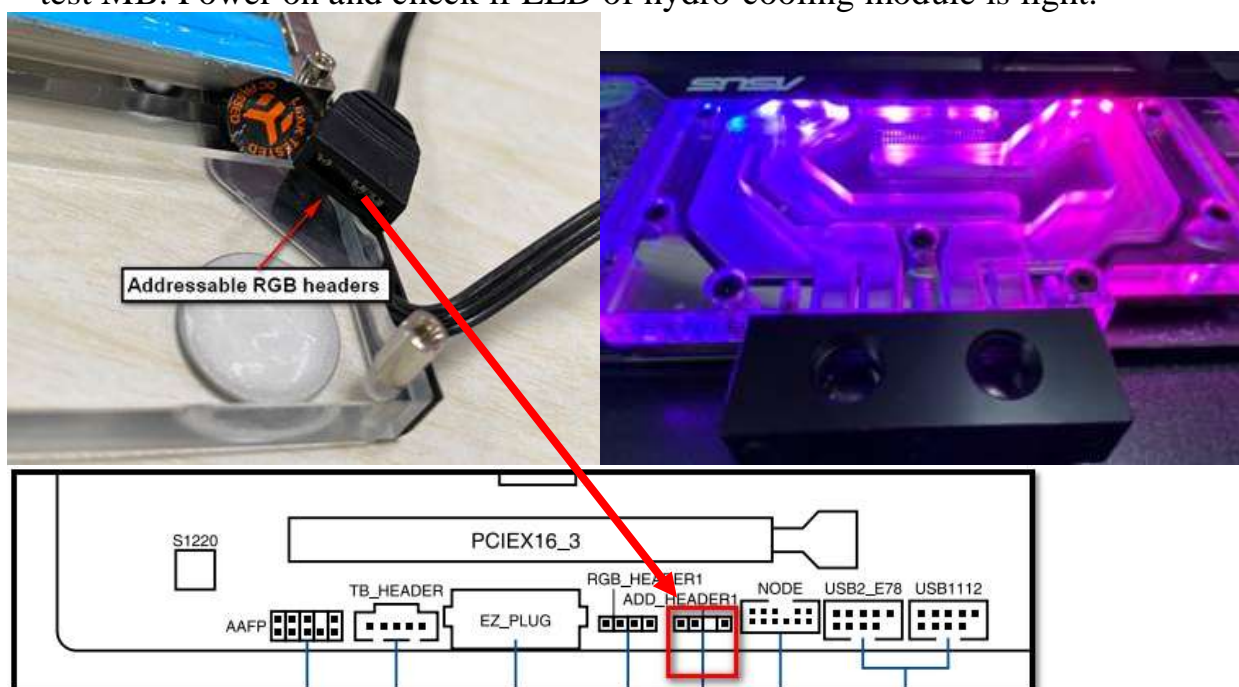   Path: refer to Diag Ver. as below.
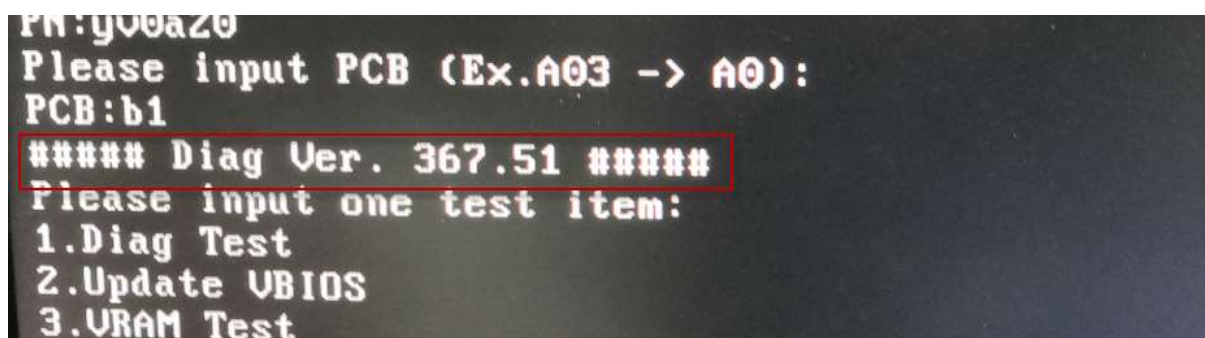
Command: nvflash xxx.rom -6 -A or iromflsh xxx.rom

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 original hydro-cooling module to card.

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 1000W)**			**Local**	**Local**	**1**
5	**Intel(R) I5 7500 CPU 3.4G/6M**	**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**

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)**	**13070-02272900**		**ASUS**	**ASUS**	**1**
14	**PCIEX16 Extender Card**	**20TT0-000BI000**		**ASUS**	**ASUS**	**1**