0Rev.	Modified Chapters	Modification Description	Issued Dept.	Issued by	Revised Date
1.00		First release	GRTD	Maico_Zhang	Oct.24.2019

1. Objectives

Create test procedure.

2. Scope

Model:GTX1660TI

PN: PD02X0

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 Tinylinux18.07 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 test environment by yourself).
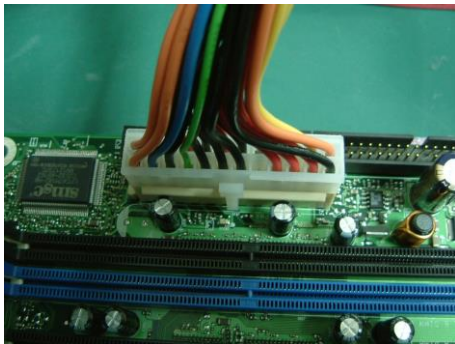
6.2 Fixture connect

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 GTX1660TI into PCIEX16.
6.2.5 Connect power con of VGA card & Power supply via bundled power cable.
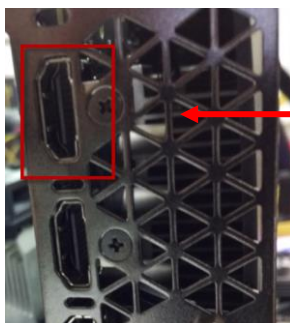6.2.6 Connect SATA HDD with SATA CON.

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 Tiny Linux.

6.3.1 Please connect LCD monitor & card's first HDMI CON via a HDMI cable.

HDMI 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.

6.3.4 System will reboot, select Linux to run test program.
   Path:GTX1660TI-6GD6\ pd02x0sh

   Run the test program refer to the prompt.

6.3.5 BIOS flash
   If you want to check Vbios info, Please run biosinfo
   Please use the following command to flash bios and notice the size of character.
   Path: Path:GTX1660TI-6GD6\
   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.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 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:

Check_SN   RMA_Config   RMAInfo

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.

6.4.3 Run **Check_SN** and type in your VGA SN which need to be testing. The SN must be in repair status.
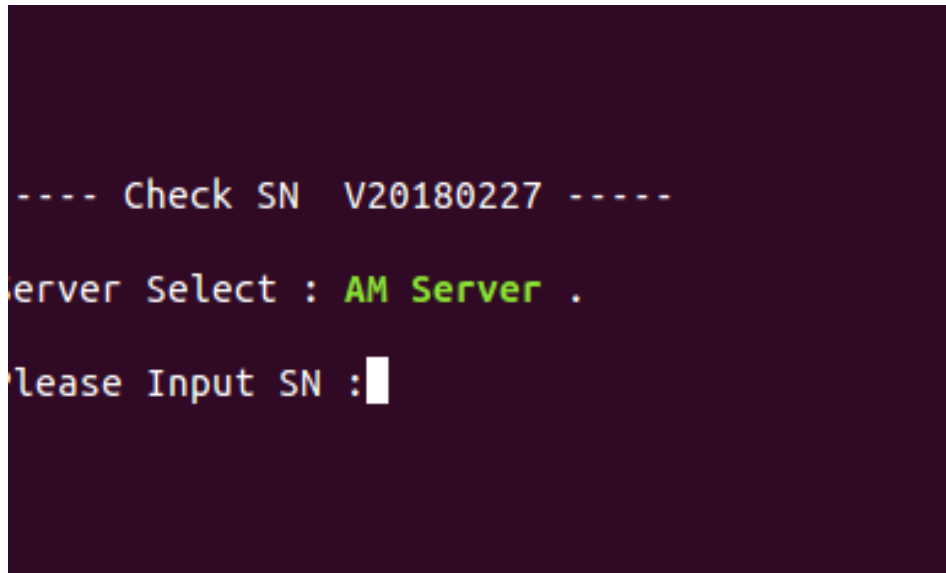
6.4.4 Run **Diag test** and the diag name is same as the PN of your VGA card.
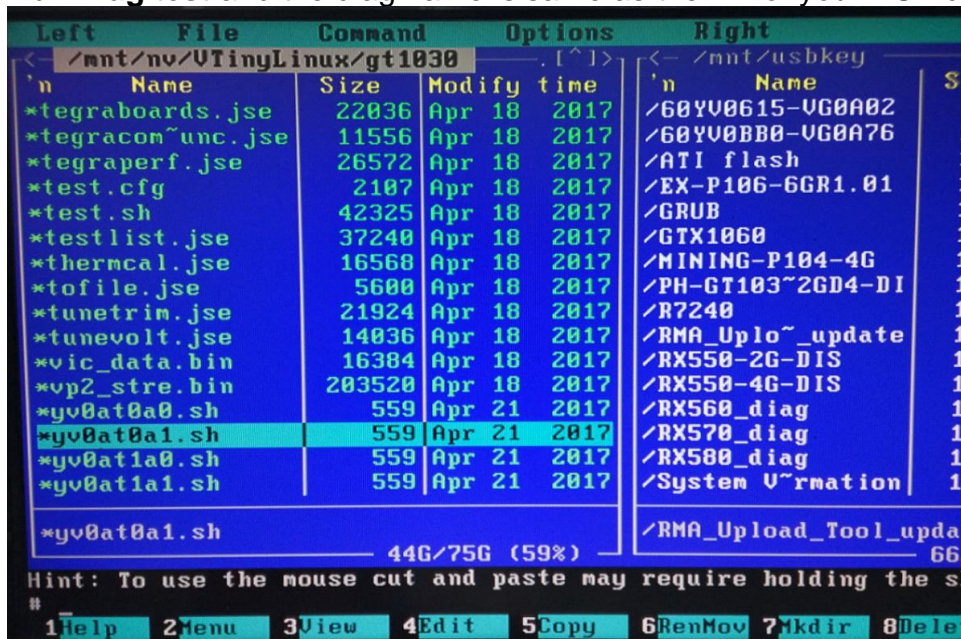
6.4.5 After Diag test is finished, run **RMAInfo** and the test result will be sent to server.

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 600W)**		**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		
11	HDMI 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		